

Village of Greenwich

MAIN STREET STREETScape PLAN





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INTRODUCTION

The Village of Greenwich is located on the border between the Town of Greenwich and the Town of Easton in Washington County, New York. Main Street has historically been, and remains, the north-south axis of the Village, while the Battenkill River bisects the community on an east-west axis. Most of the businesses within the Village are located along Main Street, which is designated as New York State Routes 29 and 372. These state roads provide a link from Greenwich to Saratoga County to the west and Vermont to the east. As the primary thoroughfare of the Village, Main Street is often the first point of access for both residents and tourists.

The Village expressed concerns about a shortage of parking, the inconsistency of streetscape features, a lack of wayfinding signage, and the limitations of waterfront access. These factors are perceived as inhibiting Main Street from maximizing its potential to be a desirable, walkable commercial destination for residents and visitors alike. To address these issues, the Village of Greenwich requested that the Adirondack/Glens Falls Transportation Council (A/GFTC), the Metropolitan Planning Organization (MPO) for Warren, Washington, and a portion of

northern Saratoga Counties, direct transportation planning resources towards helping the Village formulate a conceptual streetscape plan designed to achieve the following goals:

- Formalize and enhance multi-modal access, pedestrian amenities, and connections between nearby destinations;
- Maximize available vehicular parking through parking management strategies;
- Provide for waterfront access opportunities that connect the downtown to the Battenkill waterfront; and
- Anticipate the impact of localized land use changes on the adjacent transportation network.

This Plan is the culmination of one year of collaboration with the Village of Greenwich, A/GFTC, the New York State Department of Transportation (NYSDOT), Washington County, and select downtown merchants, residents, and local organizations. The intent is to provide a future vision for the downtown and a corresponding implementation strategy.

PLANNING PROCESS

The Village of Greenwich Main Street planning process began in the summer of 2018. Recognizing the need to improve Main Street, the Village appointed an Advisory Committee representing a broad spectrum of the community, including local residents, business owners, Village officials, and



Historic slate sidewalks are present on portions of Main Street

representatives from NYSDOT, Washington County, and A/GFTC. The task of the Advisory Committee was to draft a plan to formalize and enhance pedestrian amenities and connections between nearby destinations, maximize available vehicular parking through parking management strategies, provide for waterfront access opportunities to connect the downtown to the Battenkill waterfront, and anticipate and coordinate future land use changes on the adjacent transportation network.

The Advisory Committee met regularly while developing this plan, gathering and examining information from many sources. In addition to holding a public meeting, the Committee coordinated with local businesses and relevant stakeholders, including the Battenkill Conservancy.

INVENTORY AND ANALYSIS

The first step in the planning process was to conduct an inventory and analysis of existing conditions, including field observations of the existing streetscape, traffic conditions, American Disabilities Act (ADA) accessibility, parking utilization, and the use of information and data from such sources as ArcGIS (digital mapping software), NYSDOT, and local business owners and residents.

PUBLIC PARTICIPATION

Providing an opportunity for Greenwich community members to take part in the planning process was a high priority for the Advisory Committee. In November and December 2018, to supplement field work, owners and employees from approximately 75% of occupied Main Street businesses were surveyed in-person or by phone to garner their thoughts on existing streetscape and parking conditions and potential methods for improvement. In April and May, property owners with land along the Battenkill waterfront were contacted to discuss their interest in potentially providing public access to the waterfront. Once preliminary Concept Plans were prepared, a public open house was held on May 8, 2019 to collect public input. The meeting was well-attended and participation was lively. The preliminary plans were briefly presented to the public at the open house, with the majority of the meeting devoted to collaborative discussions; written comment forms were also collected. A summary of the comments received during the May 8th public open house is included in **Appendix C**.

CONCEPT PLAN

After the Advisory Committee reviewed Main Street's existing conditions, it examined preliminary streetscape and parking, wayfinding, and waterfront access improvements and shared them with the public. After receiving public input and feedback,

the preliminary Concept Plans were refined and finalized. The Concept Plan presented herein represents the culmination of the year-long planning process.



Planners from Chazen presenting draft plans to the public. The public was given the opportunity to review and provide input on the preliminary plans.

STUDY AREA

The study area is located in the downtown core of the Village, centered along Main Street and extending from Academy and Church Streets to the northwest to Washington Street to the southeast, for a total distance of approximately 0.4 miles. Nearby land uses and resources, including the Battenkill River, have also been taken into consideration. The goal was to identify ways to improve connectivity between these resources and to improve the pedestrian experience along the entire Main Street corridor. A map of the study area and its key landmarks is provided in **Figure 1**. A full summary of the existing conditions is included in **Appendix A**.

LAND USE

As presented in **Figure 2**, Main Street land uses are primarily commercial, with approximately 84,000 square feet (SF) of occupied commercial businesses and 30,000 SF of unoccupied space within the Main Street study area. The majority (approximately two-thirds) of active businesses are retail, with about one-quarter of the commercial space occupied by professional offices, and less than ten percent occupied by restaurants. About half of the commercial uses along the corridor provide off-street accessory parking, with all other commercial uses relying on on-street parking to meet their parking needs (refer to “Parking Conditions” section, below).



Active businesses on Main Street, southeast of Washington Square

In addition to commercial uses, many of the Main Street buildings have residential apartments on the upper floors. There are also six residential buildings within the study area. Other land uses present along Main Street include Mowry Park at the northwestern terminus of the study area, as well as several public facilities, including the Greenwich Free Library, the U.S. Post Office, a church and associated parish hall, and the Rough & Ready Firehouse Museum.

STREETSCAPE

The existing Main Street streetscape design elements and condition vary throughout the study area. Along the less commercial sections of Main Street, there are narrow sidewalks with no planted verge¹, wider sidewalks with a variety of plantings and amenities, and less pedestrian-oriented sections with surface parking lots and large curb cuts that interrupt the pedestrian flow. Cracked and uneven sidewalks, a mix of sidewalk materials (including concrete and slate), and low curb profiles are present intermittently throughout.

¹ A “verge” is a strip of grass or plants located between the roadway and sidewalk.



Existing barriers to pedestrian accessibility include the lack of ADA access to existing businesses and large curb cuts.



Existing pedestrian push button at the intersection of Main and Hill Streets

One unique streetscape condition is the elevation change near the intersection of Hill Street and Washington Square. The grade change has resulted in a system of two-tiered sidewalks on the east side of the corridor (see photo on previous page), which requires ramps and/or stairs for entry to the adjacent buildings. As a result, many of the buildings along this section of Main Street are not handicap accessible.

The prevalence and variety of streetscape elements is inconsistent throughout the corridor; the only consistent elements are “cobrahead” light fixtures and utility poles. Some of the utility poles along Main Street feature “Welcome to Greenwich” banners. A greater variety of streetscape elements are found near the intersection of Washington Square and Hill Street, with sandwich boards and benches set out by individual business owners.

TRANSPORTATION CONDITIONS

Within the study area, Main Street consists of two travel lanes with parking on both sides. The roadway generally has a curb-to-curb width of approximately 35 feet.

There is one traffic signal at the intersection of Main Street, Hill Street, and Washington Square. The signal is an actuated vehicle detection system, and consists of a three-phase operation, with Hill Street and Washington Square operating independently due to the intersection offset. Despite the offset, right turns on red are permitted on Main Street in both

the northwest-bound and southeast-bound approaches, posing potential safety concerns. In addition, while the system includes pedestrian pushbuttons, there are no Walk/Don't Walk indicators.

The remaining intersections are two-way stop-controlled, allowing freeflow traffic along Main Street to the north and south of the signalized intersection. At the northern end of the study area, this freeflow condition results in vehicle delays at the intersection of Church Street, Academy Street, and Cottage Street, particularly for vehicles entering Main Street from Cottage Street during the school arrival/departure hours.

WATERFRONT ACCESS

The Battenkill River runs behind the businesses on the east side of Main Street, south of Washington Square. At the southern terminus of the study area, Main Street becomes Bridge Street, crossing the Battenkill before turning southward. Despite the proximity of the river, the casual observer would be unlikely to note its presence; views of the river are blocked by intervening buildings and the higher elevation of Main Street. The most prominent views can be seen from Bridge Street, which is scenic in either direction.

Signage indicating the presence of the river is limited to a recently installed Battenkill Conservancy sign at the western end of Bridge Street; there is no signage along Main Street regarding the river or waterfront access points.

It should be noted that the Battenkill Conservancy, in partnership with the Village, is developing a new waterfront access point at the southwestern terminus of Cross Street, south of the study area. The proposed access point would provide a boat launch at the base of the dam, allowing paddlers to travel on the Battenkill until the next dam location, approximately 0.5 miles to the west.



View of the Battenkill River from Bridge Street south

PARKING CONDITIONS

EXISTING PARKING SUPPLY

As presented in **Figure 3**, public on-street parking is provided on most streets within the Village of Greenwich. Parking spaces are striped on Main Street from just north of Hill Street to Washington Street; the remainder of on-street parking spaces within the Village are unmarked. Two-hour parking regulations are also posted within the study area, including:

- Both sides of Main Street from just north of Hill Street to John Street
- Portions of the south side of Washington Square and Salem Street
- North sides of John and Washington Streets



Existing parking signage posted on portions of Main Street

In total, there are approximately 109 on-street parking spaces, including 44 spaces northwest of Hill Street and 65 spaces to the southeast. It should be noted, however, that most of these spaces are unstriped. While 109 represents the potential capacity, without striping, vehicles often park inefficiently, effectively reducing the capacity as a result. There are over 200 additional on-street parking spaces located on intersecting side streets within a five-minute walk of the intersection of Hill and Main Streets. Lastly, in addition to several private parking lots located adjacent to Main Street businesses, there are two public surface parking lots with no posted parking restrictions: the 16-space lot west of Village Hall and the eight-space lot behind the Greenwich Free Library (refer to **Figure 3**).

PARKING UTILIZATION

Parking utilization surveys were conducted along Main Street and adjacent roadways during the weekday and Saturday midday periods in November and December 2018. The results can be seen in **Figure 3a**. A summary of the weekday midday parking utilization of each roadway segment for the 11:00 AM to 1:30 PM period is provided in **Table 1**. As shown in the table, in total, the average parking utilization was approximately 31%. As shown in **Table 2**, compared to the weekday midday period, the average overall Saturday midday parking utilization was

slightly lower, with an average utilization of approximately 27%. It should be noted, however, that during both the weekday midday and Saturday midday periods, spaces were not equally occupied along the entirety of each roadway segment. In addition, there was a notable shift in parking utilization for some blocks when comparing weekday to Saturday. For example, the weekday average utilization for the northeast side of Main, between Church and Hill Streets, was about 18%; on Saturday, that rose to over 42%. Conversely, on the other side of the street, the parking utilization was much higher on the weekday than on Saturday. (See **Figure 3a.**) In general, demand was highest adjacent to occupied businesses that do not have off-site parking.

PROJECTED FUTURE PARKING DEMAND

Although it is useful to measure current parking utilization, projections of potential future parking demand were also generated to determine whether additional business development will outpace the available parking resources. Demand was projected based on reasonable assumptions of the mix of future uses (e.g., retail, restaurant, and office) and conservatively assuming a zero percent commercial vacancy rate.

Based on these projections, and assuming that demand would increase proportionately with the increased occupied floor area, average weekday midday parking utilization is estimated to increase to approximately 42%, with average Saturday

TABLE 1: WEEKDAY MIDDAY PARKING UTILIZATION
(Over 30% noted in bold, less than 20% noted in italic)

Street	Between	Side	Utilization (%) ¹						
			11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	Average
Main Street	Church/ Academy Sts. & Hill St.	SW	34.8	17.4	26.1	26.1	21.7	30.4	26.1
		NE	19.0	14.3	14.3	19.0	14.3	28.6	18.3
	Hill St. & Washington St.	W	36.7	40.0	36.7	40.0	40.0	30.0	37.2
		E	34.3	31.4	48.6	34.3	37.1	31.4	36.2
Totals			32.1	27.5	33.9	31.2	30.3	30.3	30.9

Note:

¹ The utilization levels shown in the table assume that the unstriped parking spaces are utilized to maximize efficiency; in reality, there could be less parking availability due to inefficient parking.

TABLE 2: SATURDAY MIDDAY PARKING UTILIZATION
(Over 30% noted in bold, less than 20% noted in italic)

Street	Between	Side	Utilization (%) ¹						
			11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	Average
Main Street	Church/ Academy Sts. & Hill St.	SW	21.7	13.0	13.0	13.0	13.0	8.7	13.8
		NE	38.1	33.3	28.6	19.0	23.8	38.1	42.2
	Hill St. & Washington St.	W	36.7	46.7	40.0	53.3	36.7	46.7	43.3
		E	17.1	14.3	14.3	25.7	22.9	22.9	19.5
Totals			27.5	26.6	23.9	29.4	24.8	29.4	26.9

Note:

¹ The utilization levels shown in the table assume that the unstriped parking spaces are utilized to maximize efficiency; in reality, there could be less parking availability due to inefficient parking.

TABLE 3: WEEKDAY MIDDAY PARKING DURATION

Street	Between	Side	Duration (% of Total Parked Vehicles) ¹					
			0.5 Hours	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours
Main Street	Church/ Academy Sts. to Hill St.	SW	68.8	6.3	0.0	0.0	6.3	18.8
		NE	76.9	7.7	0.0	7.7	7.7	0.0
	Hill St. to Washington St.	W	56.3	18.8	6.3	6.3	3.1	9.4
		E	56.8	18.9	8.1	5.4	0.0	10.8
Totals			64.7	12.9	3.6	4.9	4.3	9.8

Note:

¹ Reflects total consecutive duration observed between 11 AM and 1:30 PM and does not reflect if a vehicle was parked for a longer duration before or after the 2.5-hour data collection period. For vehicles that were parked for more than one consecutive period, each parking period was counted separately.

TABLE 4: SATURDAY MIDDAY PARKING DURATION

Street	Between	Side	Duration (% of Total Parked Vehicles) ¹					
			0.5 Hours	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours
Main Street	Church/ Academy Sts. to Hill St.	SW	50.0	0.0	0.0	16.7	0.0	33.3
		NE	58.8	17.6	0.0	5.9	0.0	17.6
	Hill St. to Washington St.	W	63.6	11.4	9.1	9.1	0.0	6.8
		E	61.5	26.9	3.8	7.7	0.0	0.0
Totals			61.3	16.1	5.4	8.6	0.0	8.6

Note:

¹ Reflects total consecutive duration observed between 11 AM and 1:30 PM and does not reflect if a vehicle was parked for a longer duration before or after the 2.5-hour data collection period. For vehicles that were parked for more than one consecutive period, each parking period was counted separately.

midday parking utilization projected to increase to approximately 37%. However, based on the locations where demand is projected to increase, this future parking demand would likely be concentrated in the section of Main Street between Hill and Washington Streets; the utilization level of this road segment could increase to a peak of 63%.

EXISTING PARKING DURATION

As part of the November and December 2018 parking utilization surveys, parked vehicles' license plate numbers were noted to determine parking duration. A summary of the weekday and Saturday midday data is provided in **Tables 3 and 4**, respectively. This data indicates that between 50-75% of vehicles were parked for about half an hour regardless of location or day.

During both the weekday and Saturday midday periods, the highest percentage of vehicles which exceeded the two-hour maximum parking duration were along the southwest side of Main Street between Church/Academy Streets and Hill Streets. As this roadway segment is also the most highly utilized during the weekday midday period, the extended parking durations at this location may exacerbate the perceptions regarding lack of on-street parking.

BUSINESS OWNER SURVEYS

In addition to on-site field surveys, 34 existing businesses were contacted by phone; of these, representatives from 26 businesses responded. Many respondents provided input on how parking could be improved. Specifically, despite the low on-street parking utilization levels that were observed (summarized in **Tables 1** and **2**), many respondents cited the lack of available parking, noting that parking is “minimal”; parking is “congested” and “terrible”; and the lack of on-street parking in front of businesses is inhibiting people from patronizing local businesses. Several respondents anecdotally suggested that employees of a select business occupied a significant portion of on-street spaces and that they were often parked in a specific area for long periods of time, either disregarding the posted restriction or moving their vehicles every two hours, suggesting that employees should park in alternate areas to open up prime on-street parking spaces for potential business patrons.²

² It should be noted that subsequent to the parking utilization and business surveys being conducted, the subject business ceased operations.

PROPOSED IMPROVEMENTS & CONCEPT PLAN



As noted previously, the goals of the streetscape plan are: to formalize and enhance pedestrian amenities and connections between nearby destinations; to maximize available vehicular parking through parking management strategies; to provide for waterfront access opportunities to connect the downtown to the Battenkill waterfront; and anticipate the impact of localized land use changes on the adjacent transportation network.

To address these goals, the recommendations of the Concept Plan include:

1. Sidewalk Enhancements: Recommendations for consistent, adaptable sidewalk improvements and streetscape elements to improve the pedestrian experience and address ADA concerns
2. Parking Management: A series of measures to address the perceived lack of parking and encourage a more evenly distributed demand.
3. Traffic Improvements: Recommendations to address traffic issues at targeted locations and allow for multi-modal transportation along the corridor.
4. Waterfront Access: A new waterfront access point and concept park plan to showcase this Village asset and anchor the Main Street corridor.

5. Wayfinding: A signage scheme to highlight Village assets located within and near Main Street and draw new visitors to the heart of downtown.

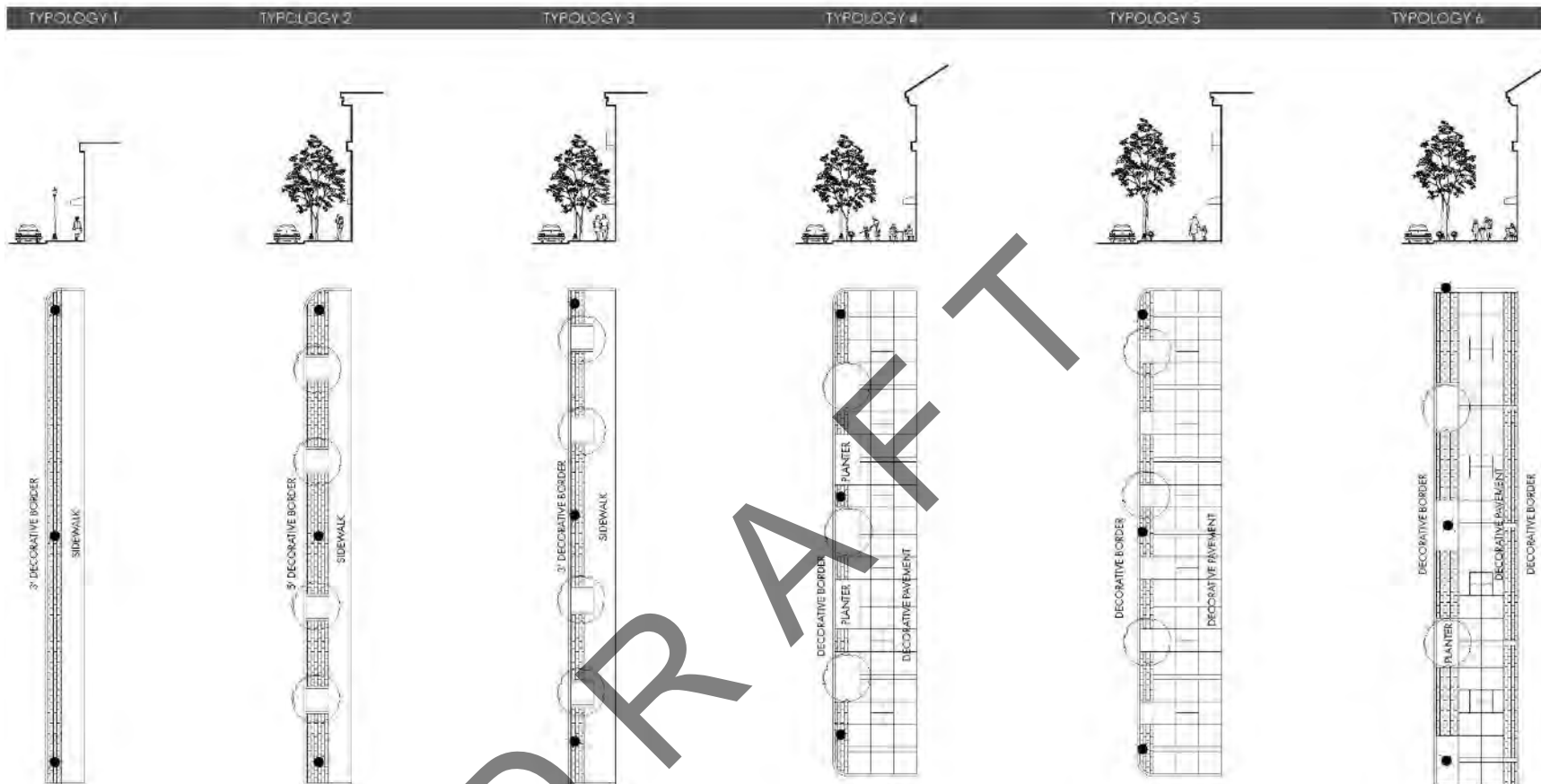
SIDEWALK ENHANCEMENTS

STREETSCAPE TYPOLOGIES

To reflect the diversity of conditions on Main Street, six streetscape typologies were developed, as shown on the following page and in **Appendix B**. The streetscapes range from a five-foot sidewalk with a three-foot decorative border and streetlights (“Typology 1,”) recommended for the northwesternmost portion of Main Street that has the most restricted width, to a “civic space” concept with a wider sidewalk, trees, planters, decorative slate pavement accents, and a decorative border (“Typology 6”). A plan view of the recommended streetscape improvements along the Main Street corridor is provided in **Appendix B**.

MATERIALS

To incorporate the input received from the Advisory Committee and the public, this plan proposes eliminating the planted verges to address maintenance concerns, while adding historical elements, such as decorative slate pavement and lighting styles. Future installation of the recommended slate features should consider safety and maintenance, including coordination with the Village’s Public Works Department.



Photos showing potential materials for the sidewalk and streetscape elements are provided in **Appendix B**.

STREET FURNITURE & STREETSCAPE ELEMENTS

This Concept Plan includes recommendations for elements such as streetlights, bicycle racks, benches, trees, and plantings. It is also recommended that the existing cobra head streetlights be replaced with pedestrian scale, dark sky compliant,

dimable lights that have a more historic aesthetic, such as those recently installed on the new Route 372 Bridge. Bicycle racks should also be installed at appropriate locations. A number of benches were recently installed in the Village, so additional benches and related amenities should complement that style. Street tree selection should favor low-maintenance, non-invasive species which are cold-hardy, adapted for an urban environment, and will grow to an appropriate size. Lastly,

it should be noted that the streetscape plans assume that the utility lines will be buried in coordination with the planned Main Street water main work. If this proves unfeasible and the utilities must remain overhead, any future street trees must have a maximum height that will not interfere with the utility lines.

ACCESS MANAGEMENT & CONTROL

As shown in the image to the right, there are several large curb cuts along Main Street leading to off-street parking areas and driveways. The excessive width of these curb cuts results in a vehicle-oriented environment that can be unsafe for both pedestrians and vehicles. As such, the Concept Plan recommends reducing the number and width of curb cuts where possible. Any curb cut reduction should be coordinated with the property owner to ensure that the change would not affect the operation of the business. In conjunction with this improvement, landscaping buffers and screens are recommended, most notably at locations where off-street parking lots currently abut the sidewalk (see graphics to the left). These buffers should be designed to accommodate an adequate line of sight by limiting the height of plantings to a maximum of three feet.



Examples of recommended access management and control recommendations to address large curb cuts (refer to Appendix B for full streetscape concept plan)



*Recommended Washington Square improvements
(refer to Appendix B for full streetscape concept plan)*

WASHINGTON SQUARE IMPROVEMENTS

The Washington Square intersection, as the confluence of NYS Route 29 and NYS Route 372, is the core of the Main Street corridor. Washington Square itself is also a very wide roadway for a pedestrian to cross, extending over 75 feet from curb-to-curb. In keeping with the goal of improving the pedestrian experience along Main Street, a road diet is proposed for this key intersection. This could be achieved by increasing the green space along the northwestern side of Washington Square, as shown in the images to the left. The reduction in roadway width would not impede truck turning radii. To ensure adequate line of sight for vehicles, all plantings at this location should be low-height varieties (three feet or less).

RE-GRADING

The two-tiered sidewalk on the northeast side of Main Street, directly south of Washington Square should be replaced or removed. Minor re-grading of the adjacent Main Street roadway, which may be feasible during the water line improvement project, will ensure that the single-level sidewalk is no more than eight inches above the roadway. This will allow for a continuous, wide pedestrian space and eliminate an existing tripping hazard.

ADA CONSIDERATIONS

In addition to striping ADA parking spaces (discussed in the “Parking Management” section to follow), there are several Main Street buildings with ground floor entrances above the sidewalk level, most of which are located near Washington Square and Hill Street. As described earlier, access is currently provided with a variety of ramps and stairs. As part of any future streetscape improvement, access ramps must be formalized to ensure compliance with applicable ADA standards regarding width, slope, handrails, and landing areas. ADA accessibility requirements also apply to all sidewalks, including the provision of adequate maintenance during winter months.

SAFETY CONSIDERATIONS

Improved crosswalks and new crossing opportunities should be provided throughout the corridor. At a minimum, it is recommended that all existing crosswalks should be restriped.

In addition, enhanced pedestrian signage should be used to alert drivers, including crossing signage at all non-signalized crosswalks. Traffic calming and warning signage should be installed leading to the intersection of Main Street with Washington, Depot, and Bridge Streets, to address sightline issues for vehicles making these turns.

Lastly, pedestrian Walk/Don’t Walk signals and countdown timers should be installed at the intersection of Main Street and Washington Square/Hill Street.

PARKING MANAGEMENT



As described above, the parking conditions analysis suggests that rather than parking supply being an issue, the perceived lack of parking is due to demand clustered in select locations and the user preference to park directly adjacent to shopping destinations. As such, while no new parking facilities are recommended, several of the following measures could be implemented to better distribute parking demand along the corridor:

STRIPE PARKING

As shown in **Figure 3**, despite on-street parking being allowed along the entirety of the Main Street corridor, parking spaces are not striped in the northwestern section adjacent to Mowry Park and the Greenwich Free Library, which gives the impression that parking is not permitted along this section of the roadway. To address this issue, parking spaces should be striped along the entirety of the Main Street corridor. New curb space made available as a result of the recommended curb cut reductions should also be striped for parking, further increasing the number of striped spaces along the corridor. In conjunction

with this improvement, designated ADA parking spaces should be striped at key locations throughout the corridor.

IMPLEMENT NEW PARKING REGULATIONS

As shown in **Figure 3**, there is a two hour on-street parking restriction from approximately 125 feet northwest of Washington Square to John Street; the remainder of the corridor does not have posted parking regulations. With observed vehicles parking for an average of one-hour, reduced parking duration regulations should be implemented in the highest demand locations, and the existing two-hour parking regulations should be expanded to encompass the remainder of the corridor. In conjunction with this recommendation, parking enforcement will need to be improved to ensure compliance.

ENCOURAGE EMPLOYEES TO PARK IN LOWER DEMAND LOCATIONS

Several of the Main Street businesses that were surveyed noted that parking spaces in high demand locations are often occupied by business employees, who either disregard the two-hour parking limit or move their car every two hours. The Village should work with local businesses and the Chamber of Commerce to encourage employees to park on side streets or in other lower demand Main Street parking locations. As recommended previously, increased enforcement of parking restrictions will help to ensure compliance. However, the benefit of redistributing employee parking to open up high

demand spaces for potential business customers should be emphasized. By also improving the streetscape experience for pedestrians, business owners and employees will have further incentives to park a bit further to free up in-demand spaces.

OFF-STREET PARKING

As noted above, parking demand does not currently and is not projected to exceed capacity on a typical weekday or weekend. However, it is recommended that the Village continue to explore potential partnerships with private property owners to use off-street parking lots for parking during high demand periods (e.g., the Tractor Parade, Whipple City Days), or off-peak hours. The latter would allow businesses with a traditional 9-5 schedule to allow evening parking for patrons of area restaurants, for example.

TRAFFIC IMPROVEMENTS



During the planning process, several traffic concerns were identified within the Main Street corridor that warrant improvements. These include safety concerns related to vehicle speed, some of which could be addressed with some of the measures including the “Safety Considerations” section, above. In addition, specific recommendations for select intersections are provided below.

MAIN STREET AT WASHINGTON SQUARE AND HILL STREET

The offset of Washington Square and Hill Street at Main Street poses specific issues that should be addressed in conjunction with any future streetscape improvement project. Notably, the existing street trees on Main Street partially shield the signal heads on both approaches and should be trimmed as necessary to improve visibility. In addition, given the offset of Washington Square and Hill Street and the presence of pedestrian crosswalks at this intersection, it is recommended that “No Turn on Red” restrictions be implemented on both the northwest-bound and southeast-bound Main Street approaches.

MAIN STREET AT CHURCH STREET AND ACADEMY STREET

Input from residents and business owners received during the Public Workshop indicated a strong desire address a possible issue near the intersection of Main Street at Church, Academy, and Cottage Streets. Based on this input, and because of the scope of this project, it is recommended that a more detailed traffic study be conducted at the intersections to address potential delay issues at this offset, five-way intersection. The focus of this analysis should be during peak periods and school hours. As part of any future traffic study of this intersection, it is recommended that changes in traffic control or traffic flow be implemented on Cottage Street, rather than Church or Main Streets, which are more heavily trafficked.

BICYCLE NETWORK

In addition to the above recommendations, the Concept Plan envisions “sharrows” being provided along Main Street to raise awareness to vehicles travelling along the corridor that they must share the roadway with bicycles. Encouraging bicycles to use the Main Street corridor also has the benefit of reducing vehicle speeds and encouraging a modal shift, which could potentially reduce parking demand. The placement and appropriateness of sharrows along Main Street will need to comply with the NYSDOT’s 2013 “Shared Lane Marking (SLM) Policy.” NYSDOT’s SLM policy generally indicates that sharrows may be used where the lane of travel is constricted and that there is a potential for conflict between bikes and motor vehicles.

WATERFRONT ACCESS

As noted above, visual and physical access to the Battenkill River along Main Street is minimal; the casual observer traveling along Main Street from the west would be unaware of the proximity to the river until exiting the corridor via NYS Routes 29 or 372. Improving waterfront connections within the corridor would serve to enhance Main Street and anchor the area with a destination to serve both residents and visitors.



*The potential future waterfront access site
near Mill and Cabel Streets*

Opportunities to create public access points to the Battenkill River from Main Street are limited by existing property ownership. Each of the lots on the northeast side of Main Street extend to the river. Therefore, the Concept Plan recommends a near-term waterfront access point directly south of Main Street, which would anchor the southeastern end of the corridor, drawing pedestrians south from the district core at Washington Square and Hill Street.

This location would also serve as a connection to the planned waterfront access point at Cross Street, approximately 250 feet to the west, and would, in combination with the Cross Street boat launch, create Battenkill River portage points above and below the dam.

As shown in the graphic on the following page, the preliminary park concept plan includes passive recreation features such as a great lawn, picnic areas, and an overlook plaza, in addition to a canoe/kayak take-out. Taking inspiration from other parks in the Village, a monument plaza has been envisioned marking the intersection of Mill and Cabel Streets, which would also serve as a visual focal point to draw pedestrians down Mill Street from Main Street. In conjunction with the park (and improved wayfinding signage, discussed below), it is recommended that streetscape improvements be implemented along both Mill and Cabel Streets, to further reinforce the connection to Main Street to the north and the Cross Street boat launch to the west.

The park is proposed to be located on existing Village-owned land, underutilized roadways, and two privately owned parcels along the waterfront. As discussed in greater detail in the “Implementation Strategy” section, it is recommended that the

Village continue conversations with these property owners to explore public access, as well as engaging neighboring property owners and residents along Mill and Cross Streets to build support.

DRAFT



WAYFINDING



Wayfinding is a key component of the Concept Plan, intended to highlight Village assets located within and near Main Street and draw new visitors to the heart of downtown. Such signage should be attractive, include uniform and complementary design elements, be appropriately scaled for the intended user (e.g., vehicular traffic versus pedestrians), and highlight landmarks, points of interest and access, and local businesses. To that effect, the conceptual signage program envisions a combination of directional, orientation, directory, bulletin, and historical signs.

The conceptual signage program was developed to provide visual continuity and reflect Village history, taking inspiration from the rooflines of the historic buildings on Main Street and the old hitching posts found throughout Greenwich. The recommended signage program is intended to supplement and replace the multiple signage typologies currently found throughout the Village, while complementing the recent waterfront signage efforts implemented by the Battenkill Conservancy.

The signage program includes a range of signage sizes, each intended to serve a different purpose (refer to Appendix B for the full wayfinding signage program). The largest of the signs would be visible from passing vehicles and should be located at key

locations at the entry to the Main Street core (e.g., at the intersection of Main and Washington Streets, at the intersection of Main Street and Washington Square, and in Mowry Park). Smaller directional signage should be located throughout the corridor to direct pedestrians walking to specific locations, such as the Rough & Ready Firehouse Museum and the former White Swan hotel.



Pole directional sign (refer to Appendix B for the full wayfinding signage program)

PRELIMINARY COST ESTIMATE & IMPLEMENTATION STRATEGY

There are several potential funding sources that may be used to implement the Main Street Streetscape Plan. However, it is unlikely that one source will fund the project in its entirety. As such, all funding opportunities should be explored and leveraged. Given the variety of funding sources and strategies, it is important to periodically examine priorities, possible alternatives, and implementation options to champion the projects that are identified with this plan.

Preliminary cost estimates for the Main Street Streetscape Plan have been prepared, corresponding with the various concept plans provided in the previous section. The estimates include design, administration, permitting, materials, and labor (assuming local wages); the use of prevailing wages will increase costs, while the use of donated materials and labor will reduce the overall costs. Because these estimates are conceptual, a large contingency (20%) is included. It is also important to note that certain funding sources may increase the cost of these projects due to administration and programmatic requirements. As such, when certain grant funding is being considered, these additional costs should be taken into account and budgeted for accordingly. Finally, these estimates will likely increase year-to-year due to inflation.

As shown in **Table 6**, the estimated 2019 planning level cost estimates for the Main Street Streetscape Plan is approximately

\$3.7 to \$3.8 million, including \$2.7 to \$2.8 million for the recommended streetscape enhancements and \$1 million for the new waterfront access park. The range in costs for the recommended streetscape improvements reflects costs with and without the recommended re-grading of a portion of Main Street; that could potentially be folded into the planned water main replacement work. The cost estimates are included in **Appendix D**.

IMPLEMENTATION STRATEGY

Main Street (NYS-29/372) is a Federal Aid-eligible roadway. NYSDOT is responsible for roadway repairs and/or improvements; however, many projects (particularly improvements that fall outside the limits of the right-of-way or along adjoining properties) are the responsibility of the Village and will require local commitment and leadership. The recommended waterfront access park will also require collaboration with the two directly affected property owners and strong support from neighboring property owners. Because of this, the Village will need to partner with NYSDOT and adjoining landowners to implement the Main Street Streetscape Plan.

TABLE 6: MAIN STREET STREETScape PLAN PRELIMINARY COST ESTIMATE¹

Streetscape Improvements	\$2,658,150 - \$2,781,050²
General Demolition & Removals	\$80,000 - \$90,000 ²
Erosion & Sediment Control	\$15,000
Asphalt Pavement, Concrete Curb & Sidewalk, Subbase	\$869,500 - \$945,700 ²
Striping & Markings	\$21,200
Decorative, Slate, & Brick Papers	\$257,900
Street Lights	\$270,000
Street Furnishings	\$30,000
Signage	\$19,500
Trees & Miscellaneous Plantings	\$52,500
Traffic Signals	\$200,000
Maintenance & Protection of Traffic, Mobilization, Legal/Technical/Administrative Allowance, & Project Contingency	\$842,550 - \$879,250 ²
Waterfront Access Park	\$1,018,050
General Demolition & Removals	\$50,000
Clearing & Grubbing, Earth Moving, Fill, Topsoil, & Fine Grading	\$60,250
Asphalt Pavement, Concrete Sidewalk & Stairs, Decorative Pavers, Subbase	\$347,300
Boat Launch	\$50,000
Site Furnishings	\$30,000
Striping & Marking	\$7,700
Trees & Miscellaneous Plantings	\$75,000
Erosion & Sediment Control	\$7,500
Stormwater & Utility Pole Relocation Allowances	\$70,000
Maintenance & Protection of Traffic, Mobilization, Legal/Technical/Administrative Allowance, & Project Contingency	\$320,300
Total	\$3,676,200 - \$3,799,100²

Notes:

¹ This opinion of probable cost is intended to be used for order of magnitude pricing for budget purposes only and is not intended to give final pricing information.

Estimate is based on approximate dimensions, as gathered from the concept plan, preliminary mapping, and site visits. Allowances are included as placeholders, and all numbers are rounded. Material and labor unit costs are approximated as percentage of total unit costs, and it is assumed that the majority of work will be self-performed (not prevailing wage). Prevailing wage would result in an approximately 20% increase in labor costs. A more detailed estimate can be prepared following land survey services and advancement of design.

² Cost range reflects costs with and without the recommended re-grading of a portion of Main Street

Given the scale of the project and the nature of the improvements, it is recommended that the project be divided into phases to make it more attractive to select funding programs. Phasing is recommended as follows: (1) roadway improvements; (2) sidewalk improvements; (3) wayfinding and gateway signage; and (4) waterfront access.

- **Roadway improvements:** There are no current improvements to NYS 29/372 listed on the A/GFTC Transportation Improvement Program (TIP). Because the Village is contemplating water system improvements that may affect the roadway, NYSDOT should be contacted and coordination should be initiated. It may be feasible to request that certain elements of the Streetscape Plan be funded by NYSDOT and/or as betterments to the water system project. As such, the Village should initiate discussions regarding project scheduling with AGFTC, NYSDOT, and elected officials to establish a clearer/more predictable timeframe.
- **Sidewalk & Pedestrian Improvements:** Sidewalks (as well as pedestrian crossings) could be completed as standalone improvements or as a component of the aforementioned roadway improvements. One component that will require coordination in conjunction with the roadway improvements would be the re-grading of the two-tiered sidewalk at Main Street and Washington Square/Hill Street.

- **Lighting, wayfinding, and gateway signage:** Wayfinding signage could be designed and installed as a complement to site specific improvements. The timing and layout of future improvements must be considered to avoid subsequent impact, removal, or replacement when making other physical improvements.
- **Waterfront Park:** Design and development of the recommended waterfront park could be implemented as a stand-alone project. This task would also require coordination with existing affected property owners and additional outreach and planning.

POTENTIAL FUNDING SOURCES

Given the overall cost of the Main Street improvements, project costs cannot solely be borne by the Village. Funding assistance and material support is essential for the project to be successful. Some potential funding sources are identified below and in Table 7, including a matrix identifying the funding sources that could apply to each of the project phases identified above.

A/GFTC MAKE THE CONNECTION PROGRAM

Public input throughout the course of the project indicated a desire for a better understanding of traffic patterns at Main, Church and Academy Streets. The A/GFTC Make the Connection Program is intended for small- to medium-size projects that improve the region's bicycle and pedestrian travel

network. The Make the Connection Program requires a 20 percent local match and can be used for a variety of project types, including new facilities or improvements to existing pedestrian infrastructure and ADA compliance. It is important to note that funding is limited, and project administration can be technically difficult in relation to award amount due to administrative guidelines and/or requirements. Nevertheless, the program may help implement a critical piece of the Main

TABLE 7: POTENTIAL FUNDING SOURCES BY PROJECT PHASING/COMPONENT

Roadway Improvements
<ul style="list-style-type: none"> • Transportation Alternatives Program (NYSDOT) • Transportation Improvement Program (A/GFTC)
Wayfinding & Gateway Signage
<ul style="list-style-type: none"> • OPRHP funding
Sidewalk Improvements
<ul style="list-style-type: none"> • NYSEDEC Urban & Community Forestry Grants Funding • Glens Falls Hospital's Creating Healthy Places to Live, Work & Play • OPRHP funding • NYSDOT TAP • A/GFTC Make the Connection Program
Waterfront Access
<ul style="list-style-type: none"> • NYSEFC Green Infrastructure Grant Program • OPRHP funding • NYSDOS LWRP

Street Streetscape Plan. The next solicitation for this program is slated for 2022.

NYSDOT TRANSPORTATION ALTERNATIVE PROGRAM (TAP)

The federal TAP provides funding for transportation alternatives, including “on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation.” Because the proposed improvements are primarily focused on transportation alternatives (pedestrians), several aspects of the plan may be eligible for funding through TAP program. Candidate projects for this program are solicited for approximately every other year by NYSDOT; the next call for projects is likely to be announced in 2020. TAP projects require a 20 percent match.

NEW YORK STATE DEPARTMENT OF STATE (NYSDOS) LOCAL WATERFRONT REVITALIZATION PROGRAM (LWRP)

The NYSDOS LWRP funds are available through the New York State Consolidated Funding Application process. As a Battenkill River community, monies from the State's Environmental Protection Fund (EPF) may be used to prepare a wide variety of community planning initiatives and project components. Because much of the planning work has been completed as part of this Main Street Streetscape Plan, there is a greater likelihood of being awarded funding support. When pursuing

LWRP funding for the Main Street Streetscape Plan, the Village should focus on Battenkill River access and waterfront revitalization, which could be used to develop a LWRP component plan and subsequently implement a project identified in the component plan. LWRP grant requirements include a 50 percent local match.

NEW YORK STATE OFFICE OF PARKS, RECREATION, AND HISTORIC PRESERVATION PARKS (OPRHP)

Also available through the State's CFA process are OPRHP-funded programs. This includes its Parks and Historic Preservation programs, which could be used to advance several Concept Plan recommendations, such as the waterfront access park and select pedestrian improvements (if pitched as a transportation alternative or historic trail experience). If the Village does choose to pursue OPRHP funding, it should leverage the Village's historic district designations.

THE NYS ENVIRONMENTAL FACILITY CORPORATION (EFC) GREEN INNOVATION GRANT PROGRAM

The highly competitive NYS EFC Green Innovation Grant Program distributes funding from the US Environmental Protection Agency (EPA) and is administered under the Clean Water State Revolving Fund. The Green Innovation Grant Program will provide seed money for projects that spur green innovation, build green capacity, and facilitate technology transfer throughout the State. Eligible projects should be

designed to improve water quality and demonstrate sustainable wastewater infrastructure in communities across the State. The Village could use this funding source to design and construct stormwater management features that would improve Battenkill River water quality.

NYSDEC URBAN AND COMMUNITY FORESTRY GRANTS FUNDING

NYSDEC Urban and Community Forestry grants seek to encourage and assist municipalities as they develop and implement sustainable local urban forestry programs. Grants are designed to encourage communities to actively enhance tree cover along their streets and in their parks, to properly care for and maintain their community trees, to develop tree inventories and management plans, and to inform their residents of the value and benefits of urban trees. The Village should consider pursuing this funding for street trees along Main Street.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

The Transportation Improvement Program (TIP) is a five-year capital improvement program that allocates federal highway and transit funds to surface transportation projects that have been selected through A/GFTC's planning process. The most recent TIP was adopted in 2019 and will remain in effect, pending amendments, through 2024. Comprehensive updates to the TIP occur on a two-to three-year interval.

In general, within the A/GFTC area, solicitations for new TIP projects are focused solely on locally-owned infrastructure. These solicitations are also dependent on the specific sub-allocation of federal funds, whether the funding is to be used for bridges, pavement preservation, safety, or towards specific classes of roadways (such as Interstates).

Given that Main Street is owned by NYS, the responsibility for advancing desired capital projects would typically reside with NYSDOT, rather than the local municipality. However, the Village is encouraged to continue discussions with NYSDOT Region 1, as it is possible that projects proposed in this plan could be included in future NYSDOT capital improvement programs independently of the A/GFTC TIP solicitation

schedule. In addition, it is also recommended that the Village pursue the inclusion of the transportation-related components of this plan in the TIP's Illustrative Project List. This includes projects have been identified through ongoing discussions at A/GFTC as desired improvements to the transportation system. Although there is no funding allocated to the Illustrative Projects, including a project on the list signals to other agencies that the proposed improvement is supported by A/GFTC and would be a candidate for funding at such time as it becomes available.

DRAFT

DRAFT

APPENDIX A: EXISTING CONDITIONS REPORTS

MEMORANDUM

VILLAGE OF GREENWICH – EXISTING STREETScape CONDITIONS

The existing Main Street streetscape design elements and condition vary throughout the study area. Beginning at the northwestern end of the study area, the sidewalks are narrow (approximately five feet in width), with no planted verge¹ or trees separating the sidewalks from the roadway. The sidewalk and curbs along this segment vary in condition, with cracked and uneven concrete and low curb profiles observed throughout. Streetscape elements in this section of Main Street are limited to utility poles with attached standard “cobrahead” streetlights on the southwestern side of the roadway, fire hydrants, and standard roadway, pedestrian crossing, and parking signage. Some of the utility poles along this segment of Main Street feature “Welcome to Greenwich” banners. Buildings along this segment of Main Street are generally set back from the street which, in combination with the presence of Mowry Park, give the northwestern section of the study area an open feel. This section of Main Street (unlike areas to the southeast) is also differentiated by its non-commercial land uses.



¹ A verge is a narrow strip of grass or plants (and sometimes also trees) located between the roadway and sidewalk.

Approximately midblock between Church/Academy Streets and Hill Street/Washington Square, heading eastward the streetscape begins to transition, as buildings are located closer to/on the lot line, land uses become increasingly commercial, street trees and other streetscape elements are increasingly present, and the sidewalks are wider. The streetscape treatments are not uniform. For example, two of the six street trees featuring concrete planter boxes at their base, and the pavement in varying states of repair. The sidewalk is also occasionally flush with the roadway, and there are large curb cuts associated with two banks along this section. Also notable along the western side of Main Street as it approaches Hill Street is the change of elevation, with the building entrances at a higher elevation than the sidewalk, requiring ramps and/or stairs for public entry. This change in elevation also creates a unique sidewalk condition at the northwest corner of Hill and Main Streets, where concrete bollards and chains are used to prevent pedestrians from harm at the steep sidewalk drop.



Heading southwest from Hill Street and Washington Square, Main Street's northeastern sidewalk is lined with a series of historic brick buildings built to the lot line, with sidewalks, sandwich boards, and benches set out by individual business owners. The sidewalk along this segment, while wider, is two-tiered, with a lower segment stepping up from the roadway via a secondary curb, and all streetscape elements (including trees, signage, trash receptacles, and business wares) limited to the upper segment of the sidewalk. Trees along this segment of Main Street are generally treated with concrete or brick planter boxes, in various states of repair. There are minimal curbcuts along this segment of Main Street, adding to its walkable, pedestrian-oriented feel. As Main Street continues southeast, the sidewalk returns to a single level, often sloping flush to the roadway, with stairs stepping up to business entries.

Opposite this section of Main Street, the sidewalks are relatively narrow, with a grassy verge separating the sidewalk from the roadway and trees planted within the grassy verge. The changing elevation as Main Street slopes down heading southward is addressed in varying manners on this side of the street, including concrete steps, wooden platforms, and wooden stairs with railings. As a result, many of the buildings along this section of Main Street are not handicap accessible. Heading further south along the southwestern side of the street, the grassy verge is eliminated and replaced with a wide, sidewalk that slopes down to meet the roadway; this section of Main Street is lacking in trees compared to the surrounding street sections.

Beginning approximately 250 feet southeast of Hill Street, both sides of Main Street feature grassy verges that separate the narrow sidewalks from the roadway, with a range of tree species, street signage, and trash receptacles all located within the grassy verge. The buildings along this

section of Main Street are also set back from the lot line, with additional plantings and lawns adding to the greenery.



As Main Street continues southeast, its streetscape becomes more varied and less pedestrian-oriented, with multiple auto-oriented uses, surface parking lots, and large curb cuts, and a greater variety of building typologies, including fewer historic structures and many buildings set back from the lot line. Trees are found intermittently throughout this section of Main Street, with large gaps often due to curb cuts. One of the widest sidewalks in the study area is present along this section of Main Street, adjacent to the one-story U.S. Post Office building.



Towards the southeastern border of the Main Street study area, there are several historic buildings with ground floor retail built to the lot line, creating a more pedestrian-oriented feel. However, these uses are abutted to the northwest and southeast by auto-

oriented uses, setback buildings, surface parking lots, and large curb cuts. In addition, the retail uses are intermittent in this area, with some ground floor office space and vacant storefronts. This southern section of the roadway has varying streetscape treatments, including wider sidewalks with trees, narrower sidewalks with grassy verges, and a small segment of slate sidewalk.

DRAFT

MEMORANDUM

VILLAGE OF GREENWICH – EXISTING PARKING CONDITIONS

February 12, 2019

INTRODUCTION

The purpose of this memorandum is to summarize existing parking conditions in the Village of Greenwich's Main Street parking Study Area. As presented in **Figure 1**, the Study Area is generally bounded by Academy and Church Streets (to the northwest) and Washington Street (to the southeast). This memorandum includes a summary of both quantitative field data and qualitative business owner survey data collected in November 2018.

As outlined below, while many business owners cited the lack of parking along Main Street (from Church and Academy Streets to Washington Street; the "Study Area"), based on field data, midday parking utilization is relatively low in the aggregate (less than one-third utilized) on both weekdays and weekends. However, based on field observations and information from the community, the available spaces are typically not in close proximity to the existing Main Street businesses that do not have off-street parking. In addition, while a portion of the observed vehicles were parked for longer than the permitted two hours during the weekday midday period, this only represented approximately 13 percent of all vehicles parked within the study area. Therefore, it appears that, while many area residents and business owners perceive that there is a parking issue on Main Street, based on the findings, there does not appear to be an actual parking shortage issue. Rather, the issue that needs to be addressed is the disproportionate distribution of demand, including strategies to encourage a more even distribution of demand along the entirety of the Main Street Study Area.

PARKING SUPPLY

As presented in **Figure 1**, public on-street parking is provided on both sides of most streets within the Village of Greenwich. Within the study area, parking spaces are striped on Main Street from just north of Hill Street (to the northwest) to Washington Street (to the southeast), with the remainder of on-street parking spaces within the Village informal and unmarked. Two-hour parking regulations are also posted along both sides of Main Street from just north of Hill Street (to the northwest) to John Street (to the southeast), as well as portions of the south side of Washington Square and Salem Street, east of Main Street; multiple parking restrictions are also present along the north sides of John and Washington Streets.

In total, there are approximately 109 on-street parking spaces in the study area, including 44 spaces northwest of Hill Street and 65 spaces to the southeast. It should be noted, however, that most of these spaces are unstriped and that, while 109 represents the potential capacity, without striping, vehicles are often parked inefficiently, effectively reducing the capacity as a result. There are over 200 additional on-street parking spaces located on intersecting side streets within a five-minute walk of the intersection of Hill and Main Streets. Lastly, in addition to several private parking lots located adjacent to Main Street businesses, there are three surface parking lots with a combined 24 spaces on public lots have no posted



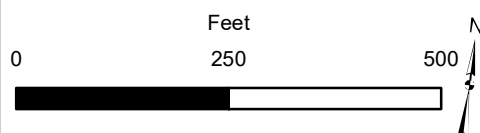
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Greenwich Parking

Figure 1 - Parking Study Area

Village of Greenwich, NY

parking restrictions: the 16-space lot located to the west of Village Hall, the eight-space lot located to the rear of the Greenwich Free Library (refer to **Figure 1**).

PARKING UTILIZATION

Parking utilization surveys were conducted in the study area and along adjacent roadways during the weekday and Saturday midday periods in November and December 2018. The findings are discussed below.

Parking Demand

A summary of the weekday midday parking utilization of each study area roadway segment for the 11:00 AM to 1:30 PM period is provided in **Table 1**. As shown in the table, in total, the study area parking utilization ranged from a high of 33.9 percent (at 12:00 PM) to a low of 27.5 percent (at 11:30 AM), for an average utilization of 30.9 percent. With respect to individual segments, parking along Main Street was more utilized between Hill and Washington Streets, with average utilizations of 36.2 and 37.2 percent, respectively, than the segments north of Hill Street (26.1 and 18.8 percent utilizations).

TABLE 1: STUDY AREA WEEKDAY MIDDAY PARKING UTILIZATION

Street	Between	Side	Utilization (%) ¹						
			11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	Average
Main Street	Church/Academy Sts. & Hill St.	SW	34.8	17.4	26.1	26.1	21.7	30.4	26.1
		NE	19.0	14.3	14.3	19.0	14.3	28.6	18.3
	Hill St. & Washington St.	W	36.7	40.0	36.7	40.0	40.0	30.0	37.2
		E	34.3	31.4	48.6	34.3	37.1	31.4	36.2
Study Area Totals			32.1	27.5	33.9	31.2	30.3	30.3	30.9

Note:

¹ The utilization levels shown in the table assume that the unstriped parking spaces are utilized to maximize efficiency and, in reality, there could be less parking availability due to inefficient parking.

Table 2 provides a summary of the Saturday midday parking utilization of each study area roadway segment for the 11:00 AM to 1:30 PM period. As shown in the table, compared to the weekday midday period, the average overall Saturday midday parking utilization was slightly lower, with an average utilization of 26.9 percent, a high of 29.4 percent (as 12:30 and 1:30 PM), and a low of 23.9 percent (at 12:00 PM). The roadway segment that was the most highly utilized was the west side of Main Street between Hill and Washington Streets, with an average utilization of 43.3 percent and a peak of 53.3 percent at 12:30 PM. Interestingly, the east side of the same street segment exhibited an average utilization of approximately half that of the west side (19.5 percent) and had a low utilization rate of only 14.3 percent at 11:30 AM and 12:00 PM.

TABLE 2: STUDY AREA SATURDAY MIDDAY PARKING UTILIZATION

Street	Between	Side	Utilization (%) ¹						
			11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	Average
Main Street	Church/Academy Sts. & Hill St.	SW	21.7	13.0	13.0	13.0	13.0	8.7	13.8
		NE	38.1	33.3	28.6	19.0	23.8	38.1	42.2
	Hill St. & Washington St.	W	36.7	46.7	40.0	53.3	36.7	46.7	43.3
		E	17.1	14.3	14.3	25.7	22.9	22.9	19.5
Study Area Totals			27.5	26.6	23.9	29.4	24.8	29.4	26.9

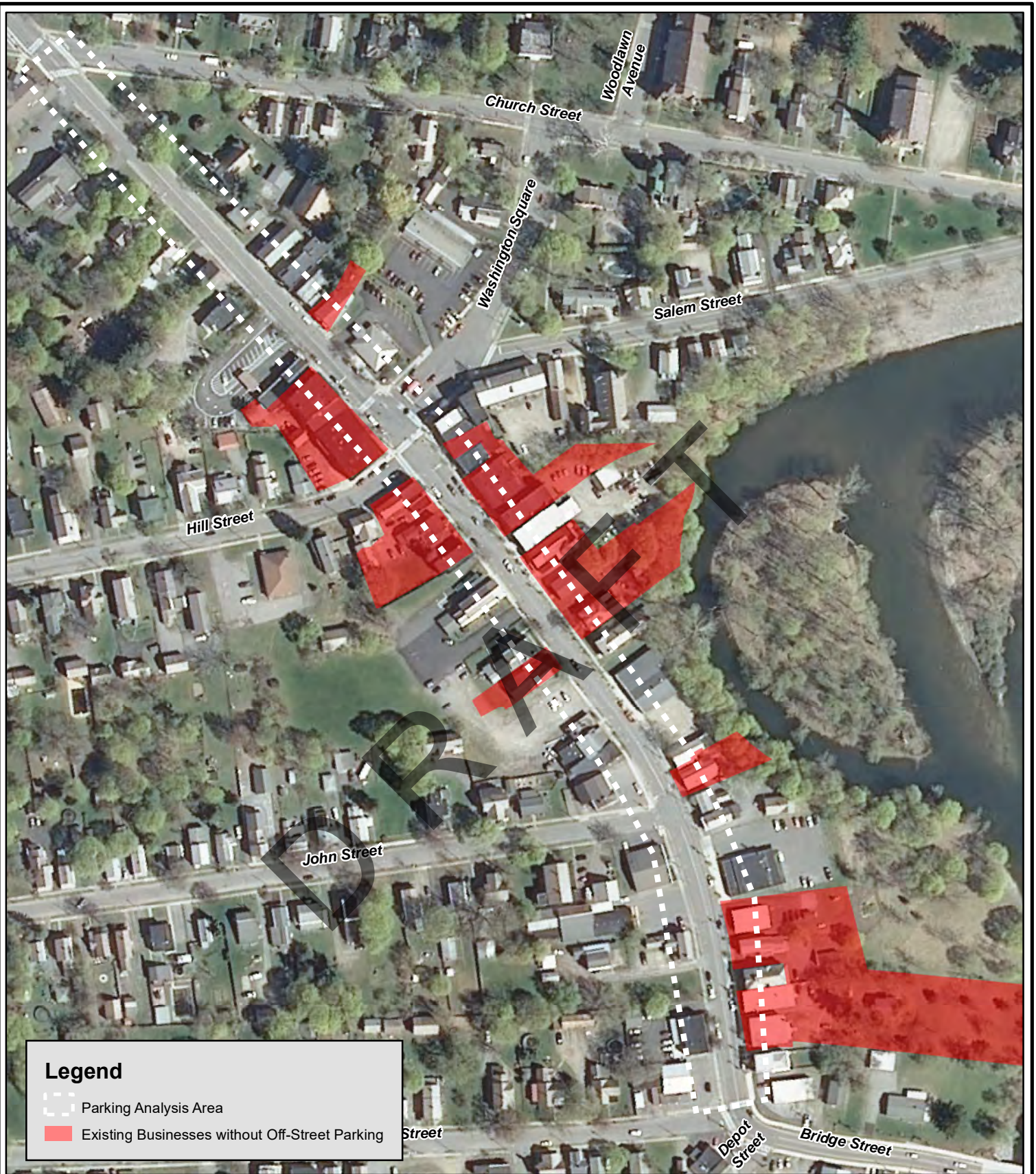
Note:

¹ The utilization levels shown in the table assume that the unstriped parking spaces are utilized to maximize efficiency and, in reality, there could be less parking availability due to inefficient parking.

It should be noted, however, that during both the weekday midday and Saturday midday periods, spaces were not equally occupied along the entirety of each above-listed roadway segment. In general, demand was highest adjacent to occupied businesses that do not have off-site parking. As shown in **Figure 2**, these businesses are generally clustered in two locations: (1) at the intersection of Hill Street; and (2) along the east side of Main Street between John and Washington Streets. West of Hill Street (toward Church and Academy Streets), while on-street parking is permitted, as there are minimal businesses, parking is unstriped, and there are no posted parking regulations, few vehicles are parked along this segment.

Projected Future Parking Demand

As several Main Street storefronts are currently vacant, potential future weekday midday and Saturday midday parking demand was projected based on reasonable assumptions of the mix of future uses (e.g., retail, restaurant, and office). Conservatively assuming a zero percent commercial vacancy rate in the study area, these projections estimate a 36 percent increase in the overall occupied commercial floor area in the Main Street study area, including over 6,000 sf of office space, over 13,000 sf of retail space, and over 10,000 sf of restaurant space. Based on these conservative no-vacancy projections and assuming that demand would increase proportionately with the increased occupied floor area, peak and average weekday midday parking utilizations are estimated to increase by 12 and 13 spaces to 46.3 percent and 42.1 percent, respectively, with peak and average Saturday midday parking utilizations projected to increase by 12 and 11 spaces to 40.1 percent and 36.7 percent, respectively. However, as none of the projected increase in demand is expected to occur in the area without parking regulations west of Hill Street, this future parking demand would likely be concentrated in the section of Main Street between Hill and Washington Streets. Conservatively assuming that the maximum additional parking demand of 13 vehicles were concentrated between Hill and Washington Streets, the utilization level of this road segment would increase to a peak of 63%. It should again be reiterated that this utilization level assumes that the unstriped parking spaces are utilized to maximize efficiency and, in reality, there could be less parking availability due to inefficient parking. In addition to parking management strategies, other



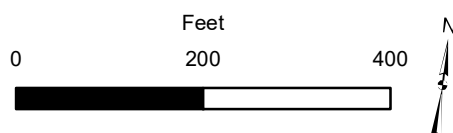
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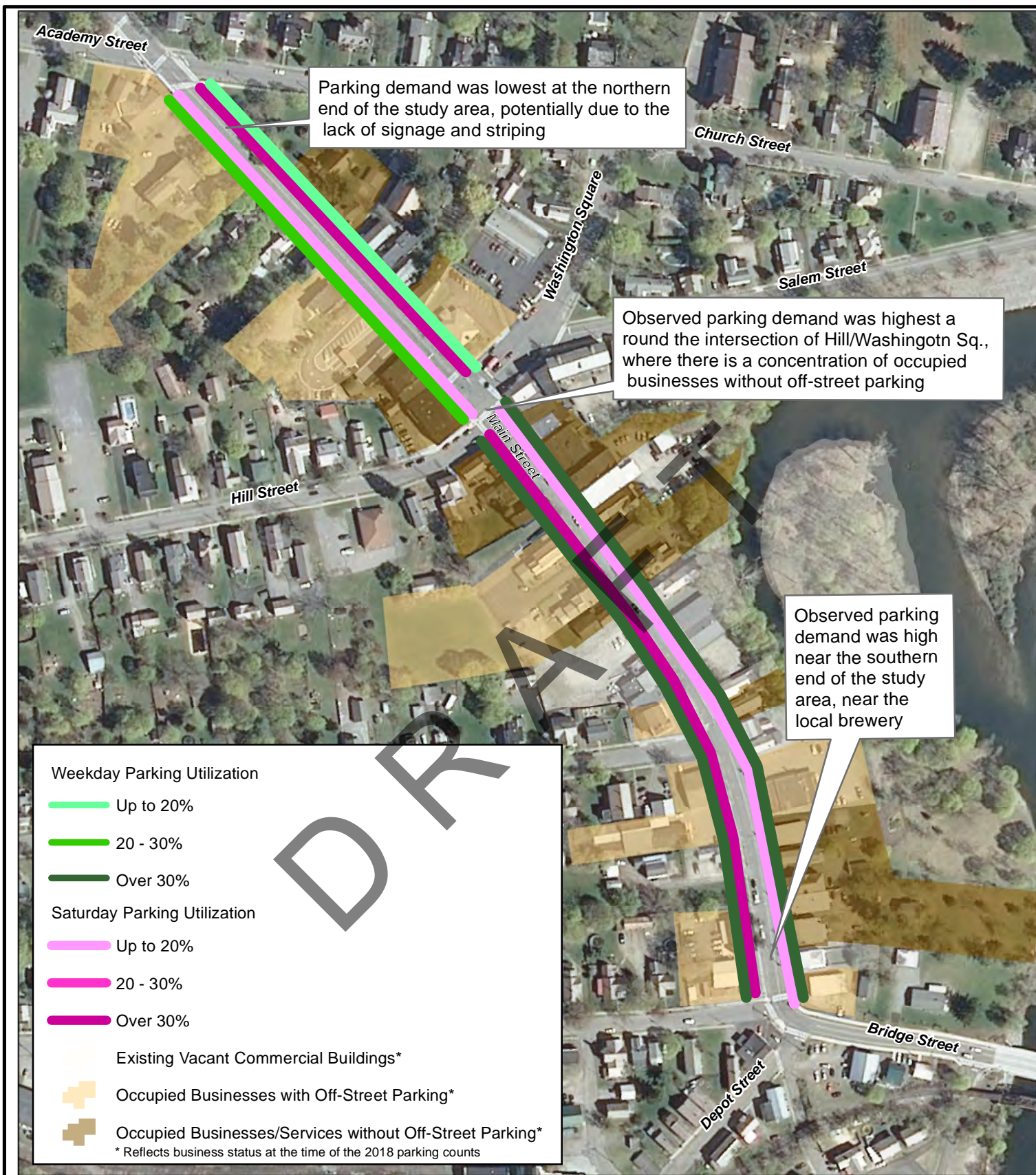
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solutions, including an improved streetscape, would help to encourage vehicles to park further from their destination.

Parking Duration

As part of the November and December 2018 parking utilization surveys, parked vehicles' license plate numbers were noted to determine parking duration. A summary of the weekday and Saturday midday data is provided in **Tables 3** and **4**, respectively.

As presented in **Table 3**, the average parking duration during the weekday 11:00 AM-1:30 PM period was just over one hour (1.02 hours), with the majority of observed vehicles (61.2 percent) parked for less than one hour, and only 13.3 percent of vehicles parked for more than two hours consecutively. However, the highest percentage of vehicles observed exceeding the two-hour maximum parking duration were along the southwest side of Main Street between Church/Academy Streets and Hill Streets (25 percent). As this roadway segment is also the most highly utilized during the weekday midday period (refer to **Table 1**), the extended parking durations at this location may exacerbate area businesses' perceived lack of on-street parking. However, similar to the condition outlined above and presented in **Table 1**, parking durations are markedly different along the northeast side of this roadway segment, with only 7.7 percent of vehicles parked for durations exceeding two hours during the 11:00 AM – 1:30 PM period.

TABLE 3: STUDY AREA WEEKDAY MIDDAY PARKING DURATION

Street	Between	Side	Duration (% of Total Parked Vehicles) ¹						
			0.5 Hours	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours	Average (Hrs)
Main Street	Church/Academy Sts. & Hill St.	SW	68.8	6.3	0.0	0.0	6.3	18.8	1.13
		NE	76.9	7.7	0.0	7.7	7.7	0.0	0.81
	Hill St. & Washington St.	W	56.3	18.8	6.3	6.3	3.1	9.4	1.05
		E	56.8	18.9	8.1	5.4	0.0	10.8	1.03
Study Area Totals			61.2	15.3	5.1	5.1	3.1	10.2	1.02

Notes:

¹ Reflects total consecutive duration observed between 11 AM and 1:30 PM and does not reflect if a vehicle was parked for a longer duration before or after the 2.5-hour data collection period. For vehicles that were parked for more than one consecutive period, each parking period was counted separately.

During the Saturday midday period, average parking duration was less than an hour (0.98 hours), with the majority of vehicles (61.3 percent) parked for less than one hour, and only 8.6 percent of vehicles parked for more than two hours (refer to **Table 4**). Similar to the weekday midday period, the highest percentage of vehicles observed exceeding the two-hour maximum parking duration were along the southwest side of Main Street between Church/Academy Streets and Hill Streets (33.3 percent).

TABLE 4: STUDY AREA SATURDAY MIDDAY PARKING DURATION

Street	Between	Side	Duration (% of Total Parked Vehicles) ¹						
			0.5 Hours	1 Hour	1.5 Hours	2 Hours	2.5 Hours	3 Hours	Average (Hrs)
Main Street	Church/Academy Sts. & Hill St.	SW	50.0	0.0	0.0	16.7	0.0	33.3	1.58
		NE	58.8	17.6	0.0	5.9	0.0	17.6	1.12
	Hill St. & Washington St.	W	63.6	11.4	9.1	9.1	0.0	6.8	0.95
		E	61.5	26.9	3.8	7.7	0.0	0.0	0.79
Study Area Totals			61.3	16.1	5.4	8.6	0.0	8.6	0.98

Notes:

¹ Reflects total consecutive duration observed between 11 AM and 1:30 PM and does not reflect if a vehicle was parked for a longer duration before or after the 2.5-hour data collection period. For vehicles that were parked for more than one consecutive period, each parking period was counted separately.

BUSINESS OWNER SURVEYS

In addition to the on-site field surveys, study area business owners and employees were surveyed by phone; many respondents provided input on how study area parking could be improved. Specifically, despite the low on-street parking utilization levels that were observed (summarized in **Tables 1 and 2**), many respondents cited the lack of available parking, noting that parking is “minimal”; parking is “congested” and “terrible”; and the lack of on-street parking in front of businesses inhibiting people from patronizing local businesses. Several respondents anecdotally suggested that employees of a local pharmacy occupied a significant portion of on-street spaces and that they were often parked in the area for long periods of time, either disregarding the posted restriction or moving their vehicles every two hours, suggesting that employees should park in alternate areas to open up prime study area on-street parking spaces for potential business patrons.¹

¹ It should be noted that subsequent to the parking utilization and business surveys being conducted, the subject pharmacy ceased operations.

MEMORANDUM

To: Files

From: Tom Johnson

Date: August 28, 2018

Re: Ped/Parking/Signal Field Review

Job #: 91840.00

Summary of field observations on Thursday, August 23 from 3:30 – 5:30 p.m. Weather: sunny, dry, 78°.

A. Traffic signal at Main/Salem/Hill

1. Actuated vehicle detection system, 3-phase operation with side streets operating independently due to intersection offset. Includes pedestrian pushbuttons but no Walk/Don't Walk indications.
2. Traffic during this period traffic was generally light to very light, except around 4:15 – Main Street southbound traffic had long vehicle queues that required several cycle lengths for vehicles to clear intersection. This occurred over a short duration.
3. Side street traffic very light; predominant movement was southbound traffic. Minimal left-turns southbound, perhaps due to opportunity to left at prior intersection, Church Street.
4. Noticeable level of heavy truck traffic northbound and southbound Main Street.

B. Parking

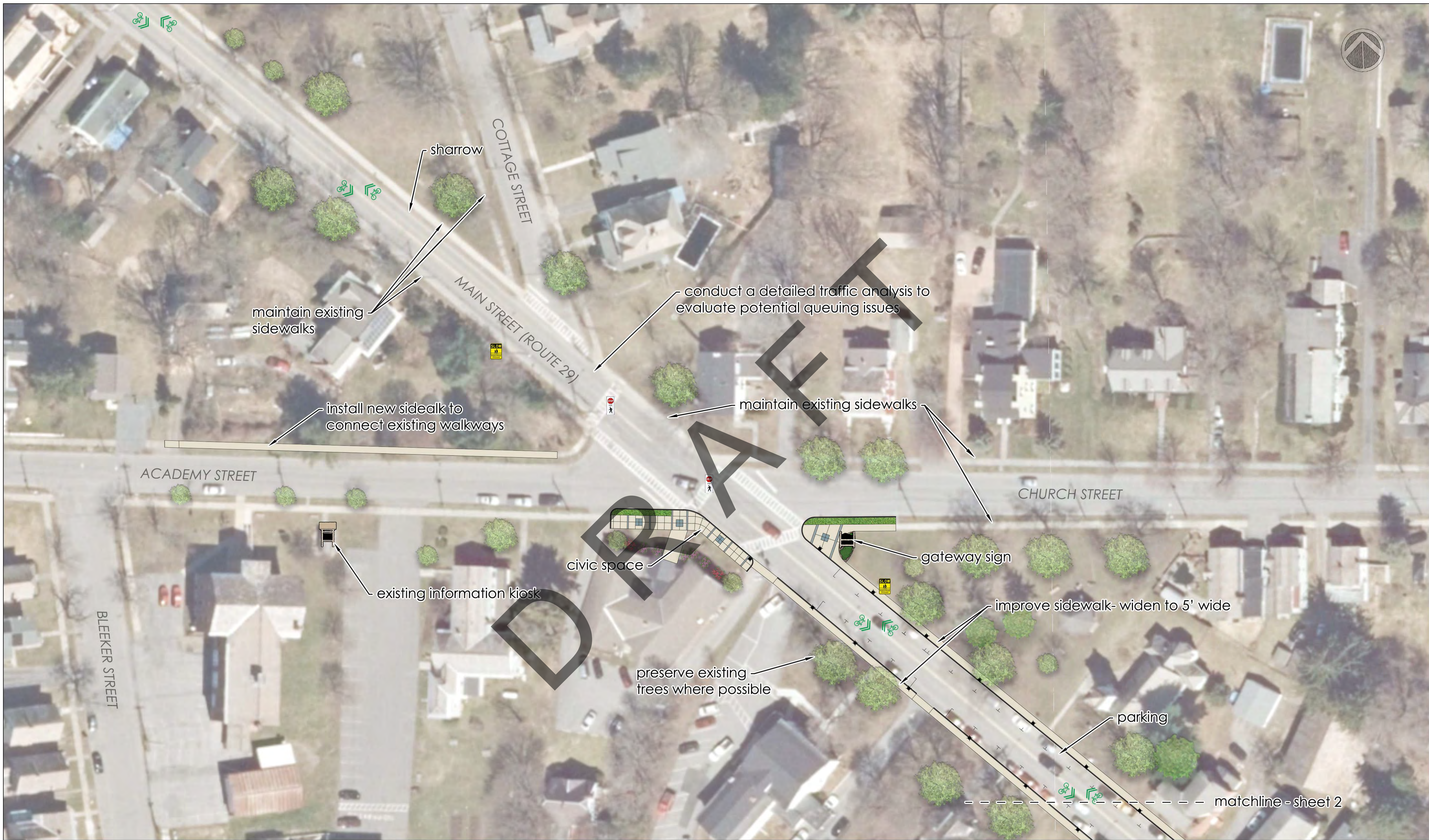
1. Many spaces available throughout project area, except a) west side of Main Street for ½-block from Bank/Insurance Company to Salem Street intersection, b) north side of Hill Street from Main Street to Verizon (about a dozen parked cars here.)
2. Parking restricted to 2-hour limit, but many vehicles were there longer than 2 hours.
3. A good number of empty/closed storefronts likely contribute to the many open spaces.

C. Pedestrians

1. Very little pedestrian traffic throughout the project area.

DRAFT











DIRECTIONAL SIGN



ORIENTATION SIGN



POLE DIRECTIONAL SIGN



DIRECTORY SIGN

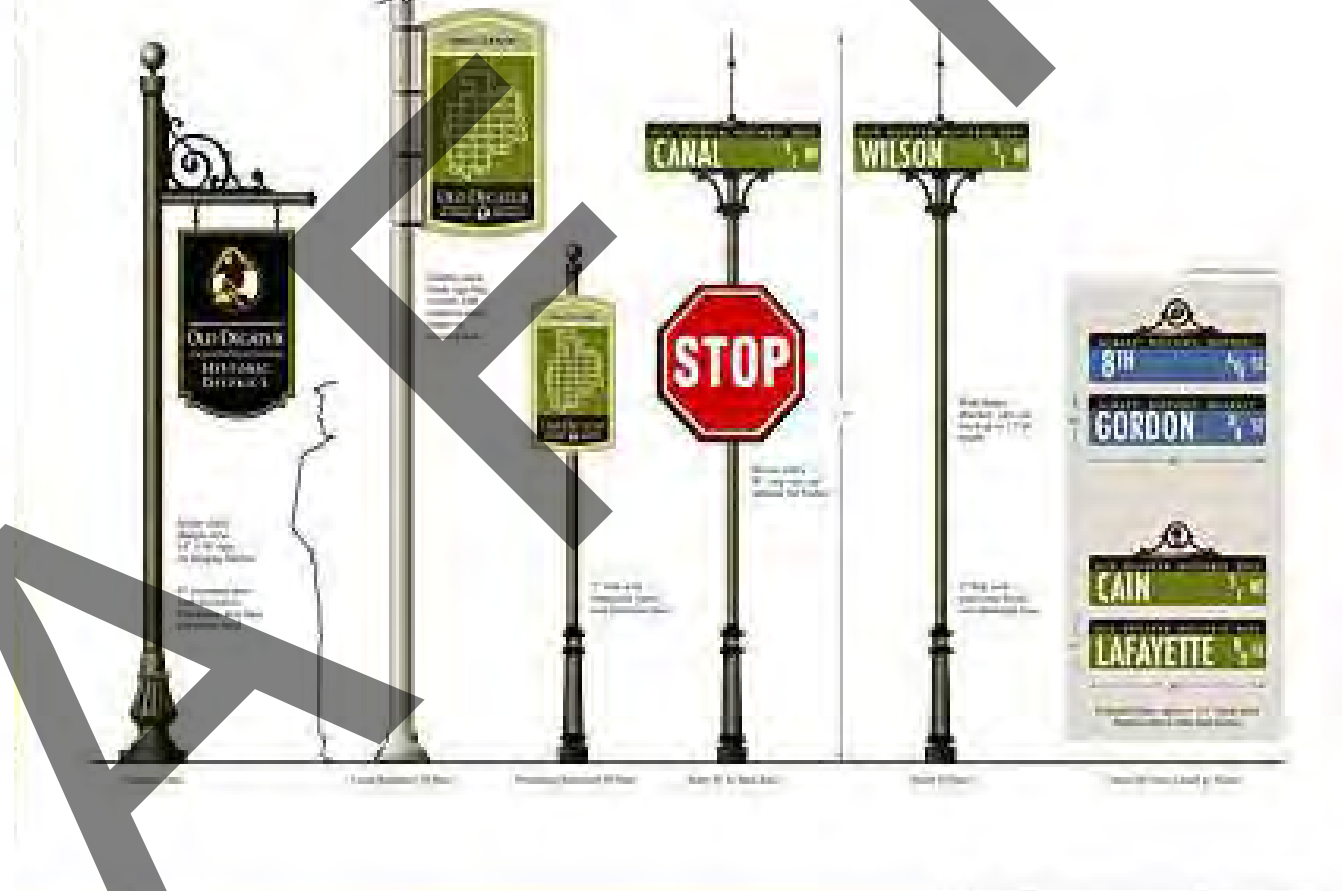
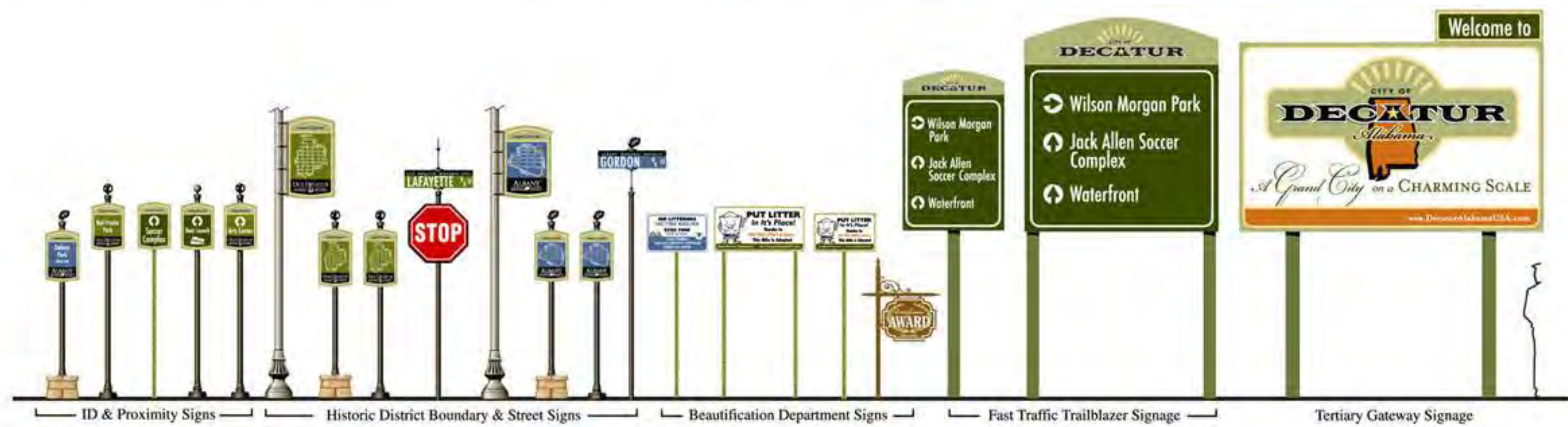
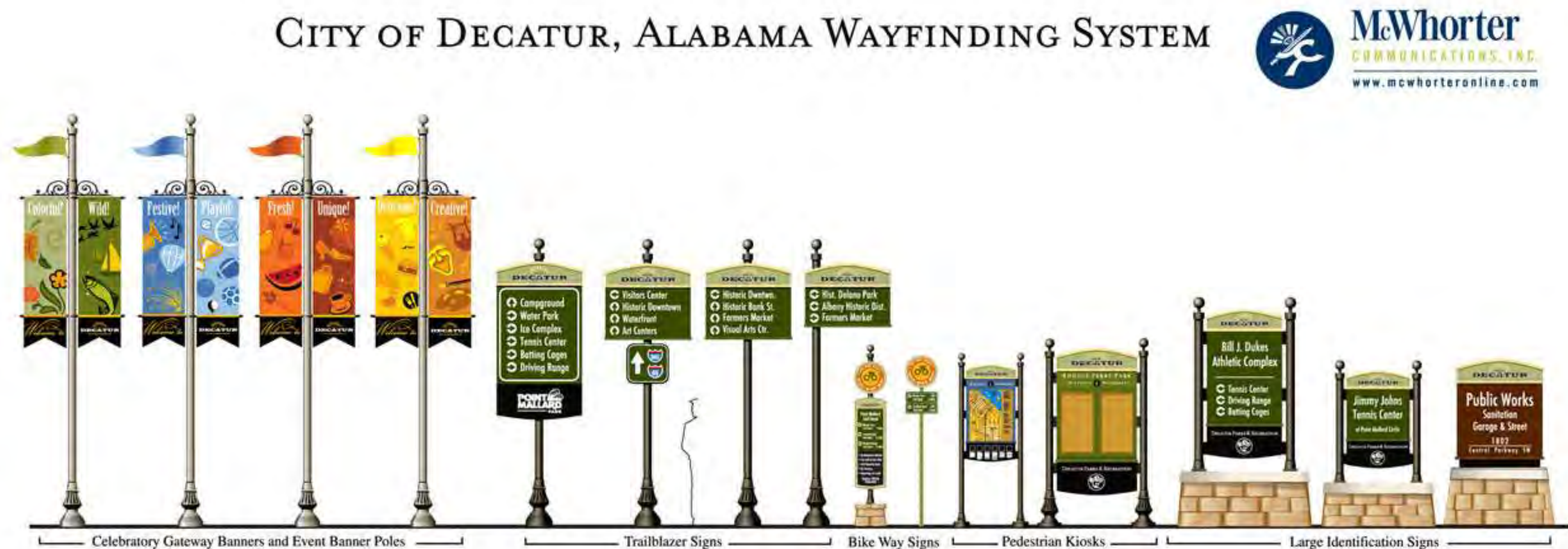


BULLETIN SIGN



HISTORICAL SIGN





TYPOLOGY 1

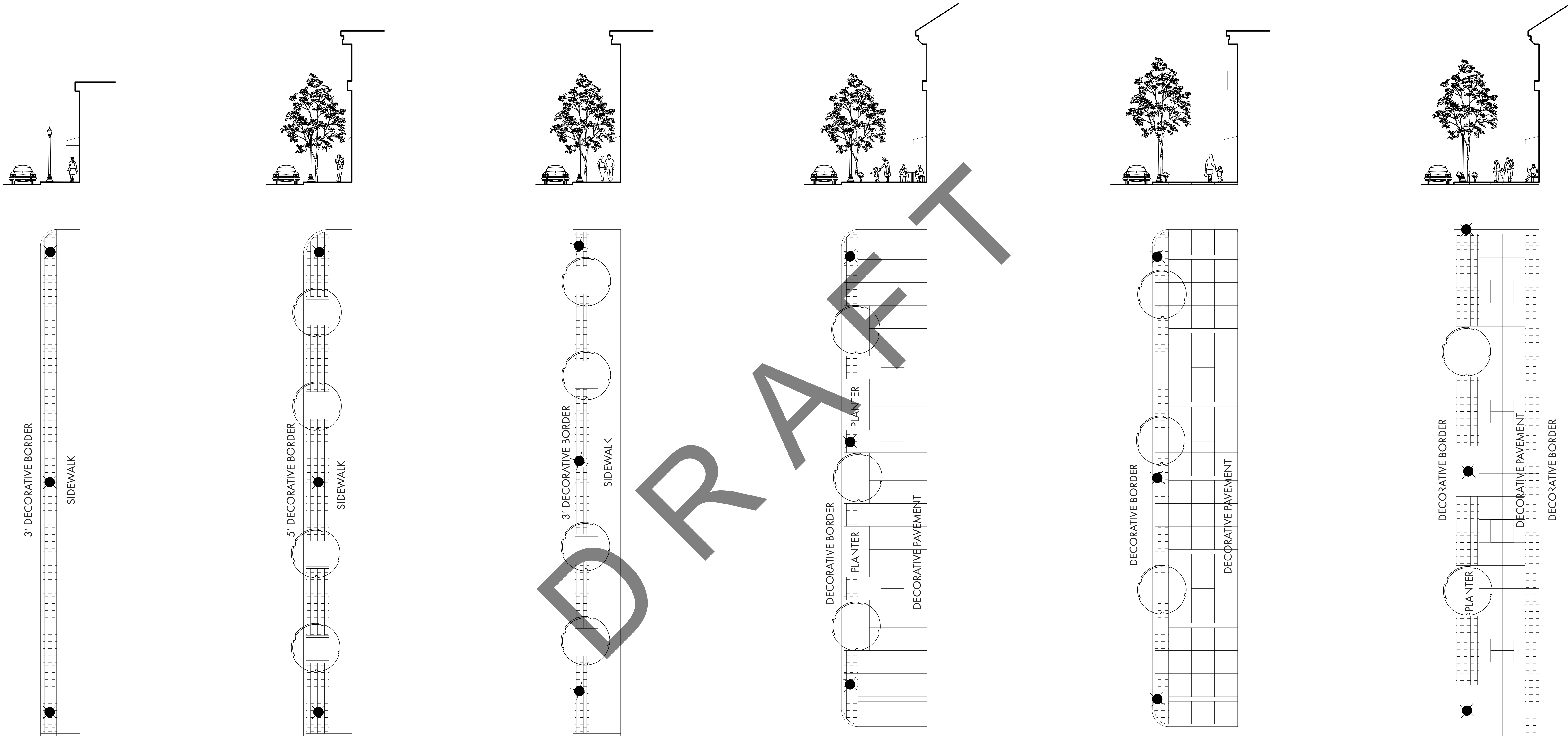
TYPOLOGY 2

TYPOLOGY 3

TYPOLOGY 4

TYPOLOGY 5

TYPOLOGY 6



PLANTERS



PAVING



BIKE RACKS AND BOLLARDS



BENCHES & TRASHCAN



LIGHTING



DRAFT

APPENDIX C: PUBLIC INPUT SUMMARIES & NOTES

**Village of Greenwich
Parking & Streetscape Enhancements
Meeting Summary
October 12, 2018**

Attendees introduced themselves (attendee list attached), Aaron provided an overview of the project scope and goals.

Chazen provided an overview of work completed which included:

- ADA Assessment of sidewalks, curb ramps and street crossings. A GIS map of the results was provided. This information is key to development of an ADA Transition Plan. ADA Transition Plans are required by the ADA. NYS has conducted this assessment for Main Street (NYS Route 29).
- Parking Inventory. A draft map of the inventory was provided showing Main Street and the side streets where parking is allowed. The map depicts any time restrictions as posted. Limited off street public parking is provided. There were several questions about time restrictions.
- Traffic operations and pedestrian movement observations were conducted Thursday August 23rd (during the County Fair). Traffic was generally light, very little pedestrian traffic was observed, and many parking spaces were available. This is consistent with Committee Members' observations; the Fair generally draws people away from Main Street. A summary of the observations is provided as an attachment.

Discussion regarding on street parking ensued and included the following:

- Parking on Hill Street is restricted due to presence of the Fire House.
- Cottage Street has limited parking because of the narrow width.
- Several apartments and multi-family homes do not provide adequate off street parking.
- Parking on Main Street, north of Academy, is underutilized. It may benefit from striping.
- Parking during garage sale weekend and Whipple city days is heavy and creates congestion.
- Parking occupancy increases during some key business events-, such as an open house by a local business or Quilt Shop workshop. When this occurs, much of the parking on Main Street can be occupied.
- Certain businesses need high turnover and short-term parking proximate to their entry-. (i.e. Just Meats as an example to serve patron needs).
- Many businesses close Monday and/or Tuesday.
- Cutie Pharmacare- employs 45. Employees park on street and move vehicles at 2-hour intervals to avoid penalty. Approximately 1/3 of employees have mobility issues, 1/3 have some personal limitations. Therefore, nearby parking is preferred.
- The Library lacks adequate parking.
- Parking management concepts were loosely discussed which could include permit parking, assigned parking, metering, etc. The Mayor indicated a need for a municipal lot.
- Possible off-street opportunities include St Josephs, the lands behind Flynn Brothers (Main St.) and Verizon (Hill Street). The lot adjacent to the old diner and laundry mat was also noted.
- Parking Counts should target a weekday and a weekend period. There were no definitive peak hours defined and the study should explore a Thursday midday and a Saturday subject to verification with business owners and observations.

Business Owner Survey

A draft copy of the survey was distributed. It was suggested that the survey be conducted door to door- given the small scale of the downtown and the ability to explore questions with the business owners. Several revisions to the survey were suggested including exploring second or third story occupancy status as an example.

Committee members discussed the potential to reconnect with the Battenkill River. The Battenkill Conservancy has been promoting a signage/wayfinding program to let travelers know the location of waterfront access. There is potential for a riverfront path on the Battenkill between Bridge Street and the Post Office or beyond

Follow Up

1. Obtain the Village's official regulation pertaining to on street parking.
2. Conduct parking occupancy/license plate survey.
3. Conduct the business owner survey.

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Meeting Attendee Sheet

Jack Mance, A/GFTC	jmance@agftc.org
Aaron Frankenfeld, A/GFTC	afrankenfeld@agftc.org
Rani Kronick, Cutie Pharma-Care	rani.kronick@cutiepharma.com
Maureen Edsforth, Trustee	medsforth@gmail.com
Valerie Deane, NYSDOT	Valerie.Deane@dot.ny.gov
Lorraine Merghert Ballard	bkc@battenkillconservancy.org
Jane Dowling, Clerk V/O Greenwich	clerk@villageofgreenwich.org
Kyle Vandewater V/O Greenwich	kvandewater@gmail.com
Pam Fuller, Mayor V/O Greenwich	mayor@villageofgreenwich.org
Chris Round, Chazen	cround@chazencompanies.com
Paul Cummings, Chazen	pcummings@chazencompanies.com
Laura Oswald, Washington County	loswald@co.washingtonny.us

MEMORANDUM

To: Files

From: Tom Johnson

Date: August 28, 2018

Re: Ped/Parking/Signal Field Review

Job #: 91840.00

Summary of field observations on Thursday, August 23 from 3:30 – 5:30 p.m. Weather: sunny, dry, 78°.

A. Traffic signal at Main/Salem/Hill

1. Actuated vehicle detection system, 3-phase operation with side streets operating independently due to intersection offset. Includes pedestrian pushbuttons but no Walk/Don't Walk indications.
2. Traffic during this period traffic was generally light to very light, except around 4:15 – Main Street southbound traffic had long vehicle queues that required several cycle lengths for vehicles to clear intersection. This occurred over a short duration.
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4. Noticeable level of heavy truck traffic northbound and southbound Main Street.

B. Parking

1. Many spaces available throughout project area, except a) west side of Main Street for ½-block from Bank/Insurance Company to Salem Street intersection, b) north side of Hill Street from Main Street to Verizon (about a dozen parked cars here.)
2. Parking restricted to 2-hour limit, but many vehicles were there longer than 2 hours.
3. A good number of empty/closed storefronts likely contribute to the many open spaces.

C. Pedestrians

1. Very little pedestrian traffic throughout the project area.

**Village of Greenwich
Parking & Streetscape Enhancements
Meeting Summary
February 5, 2019**

Attendees:

- Jack Mance, A/GFTC jmance@agftc.org
- Aaron Frankenfeld, A/GFTC afrankenfeld@agftc.org
- Pam Fuller, Mayor V/O Greenwich major@villageofgreenwich.org
- Kyle Vandewater, V/O Greenwich kvandewater@gmail.com
- Laura Oswald, Washington County loswald@co.washingtonny.us
- Chris Round, Chazen round@chazencompanies.com
- Paul Cummings, Chazen pcummings@chazencompanies.com
- Norabelle Greenberger, Chazen ngreenberger@chazencompanies.com

Chazen provided an overview of (1) the parking utilization and business survey data; and (2) parking management strategies:

- Parking Utilization and Business Survey Data. A draft parking analysis memorandum was circulated, along with a summary of the main takeaways (both attached). Items discussed included the disconnect between the perceived parking problem and the observed availability of parking.
- Village of Greenwich representatives noted the issue of concentrated demand, citing the example of a local events space creating parking demand, affecting the neighboring businesses.
- Village of Greenwich suggested adding striping on Washington and John Streets to help address the concentrated demand from businesses at the south end of Main Street.
- Parking management strategies were discussed, which were also listed in the draft parking analysis memorandum.
- Village of Greenwich described the existing limited parking enforcement: there are just two officers in the Village, and enforcement has been sporadic and sometimes incorrect. The Village is open to ideas and suggested the possibility of hiring a crossing guard or similar person specifically hired to enforce parking.
- Village of Greenwich does not want to pursue metered parking.

Discussion regarding potential off-street parking areas ensued and included the following:

- Village of Greenwich does not think that the Post Office lot is a viable option.
- Multiple privately-owned lots were discussed, all of which would require further discussions and coordination with land owners. These properties included:
 - An underutilized parking lot that could serve as a temporary solution until the adjacent storefronts are reoccupied;
 - A large parcel of midblock land to the west of Main Street, although the Village representatives expressed a potential concern from adjacent

- businesses/building owners about any new/additional parking being created accessing the lot from Main Street; and
- An underutilized building on Hill Street, which is on a relatively large lot and could also provide access to the large midblock parcel.
- Village of Greenwich noted the need for spaces for tenants of apartments that don't have dedicated parking
- Discussed whether on-site bank parking lots were already being used by others outside of the banks' business hours.

Chazen presented the preliminary streetscape improvement ideas and precedents (attached), and AGFTC and the Village of Greenwich provided feedback:

- Village of Greenwich feedback included:
 - Noted the varying widths of the Main Street sidewalks and questioned whether there would be sufficient space for a verge, or whether it would instead be advantageous to reduce the width of sidewalk in certain locations to increase parking capacity and provide more space for moving trucks.
 - Liked the idea of slate inserts in the sidewalk, which could be a compromise to satisfy residents' attachment to the material while addressing safety and ADA issues.
 - Does not want grass/plantings in the verge because of maintenance and winter salt issues.
 - Described new signage that was recently installed by the Battenkill Conservancy sign and their interest in having signs at all Greenwich entries that point to where the public can access water/kayak entrance point, etc. Noted that Lakes to Locks is funding kiosks, and one will be installed at Village Hall. Within the Study Area, the corner of Hill Street/Washington Street/Main Street was noted as a core/hub point that should have a kiosk with information for the public.
 - Expressed interest in having historic information about existing of former buildings made available to the public, and Chazen suggested that this could also be handled in a different manner than the water access wayfinding.
 - Noted that the sidewalks on Bridge Street were redone as part of the bridge replacement project.
 - Noted that many pedestrians cross Main Street from Washington Street, which can be dangerous due to incoming traffic and minimal sight lines when approaching the intersection from the bridge. Chazen suggested that more warning signage leading from the bridge to the intersection could be helpful.
- Chazen noted that National Grid will pay for replacing trees with shorter trees that do not interfere with power lines and also noted options to address the prevalence of utility poles, including replacing with taller, longer span poles and moving to the rear of lots.
- AGFTC noted that there could be residential pushback to striping on side streets.
- Chazen noted beautification and the provision of new on street spaces as benefits of reducing curb cut widths and associated potential business pushback.

Potential waterfront access points were discussed:

- Chazen described a potential long-term plan of extending the waterfront access north, from the bridge with a connection to Main Street via the Post Office, but noted the difficulties of such a plan, giving the multiple owners. Village of Greenwich noted that this area used to have a causeway connecting to the island to the east.
- Village of Greenwich owns parcel of land at the end of Gross Street, which is a canoe launch, and in preliminary stages of redevelopment plans for the former Mill site to the west of Main Street. Expressed interest in looking at the railroad property that connects the two sites.
- Chazen suggested that the focus area for this plan should be the area between the Village property at Gross Street and the bridge. Village of Greenwich noted the property owner's interest in putting in a whitewater park.

Follow Up

1. Chazen to update streetscape improvement plans to address comments and begin initial costing.
2. Chazen to progress with waterfront park planning and wayfinding.
3. Chazen to draft preliminary parking management recommendations.
4. Chazen to send preliminary plans discussed at meeting to B & L to discuss their interplay with the water main improvement work.
5. Village of Greenwich to reach out to property owners along the waterfront. Chazen to provide framework for calls.

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Village of Greenwich Main Street Streetscape Plan

Open House

Date: May 8, 2019

Location: Argyle Brewing Company

A public open house was held at Argyle Brewing Company on Wednesday, May 8th from 5 pm to 7 pm to solicit public input on the draft Main Street Streetscape Plan. Planners from The Chazen Companies gave a brief presentation on the plan, including the goals and objectives of the plan, and outlined the project progress to date. After the brief presentation, attendees were given the opportunity to more closely view the draft plans for the study area and discuss the project with planners from The Chazen Companies, as well as representatives of the Village and the A/GFTC. The intent of this effort was to introduce the plan to the public, inform them about the various plan components, and gather public input to inform subsequent plan refinements.

The event was well attended, and several members of the Advisory Committee participated, as well. Comments received from attendees are summarized, by topic area, below.

Streetscape Design:

- **Utility Lines:** Several attendees expressed an interest in burying the utility lines. It was noted that the Village has discussed this idea with National Grid, in addition to other relocation options.
- **Slate:** Several attendees noted that they liked the incorporation of slate into the “civic space” sidewalk design, with one attendee suggesting that larger slate sidewalks should also be considered (rather than smaller inlays). One attendee noted that safety concerns should be addressed if slate is to be included. Another attendee recommended speaking with the DPW about whether there would be any maintenance concerns with the proposed slate inlays. It was noted that safety and maintenance concerns would be evaluated with the appropriate agencies prior to any future implementation.
- **Lighting:** An attendee expressed a preference for single lampposts, rather than double lampposts, as found in Lake George. An attendee expressed a preference for lighting to be not too elaborate, not too bright, and fully shielded. An attendee suggested that lighting should be consistent with the recently installed lighting on the bridge and should be less Victorian.



Representatives of The Chazen Companies presented the draft plan



Members of the public at the open house



This plan is made possible through funding support from the A/GFTC.

- **Street Furniture:** An attendee noted that the provision of benches was a good idea. Another attendee noted that benches were purchased a few years ago as part of a streetscape grant, but that consistency between the various benches should be prioritized. Other suggested streetscape elements included dog waste bag dispensers and trash cans, noting that trash cans should be out year-round.
- **Plantings:** An attendee asked about who would be responsible for maintaining any trees along Main Street and suggested a tree program similar to that implemented in Troy where building owners would be responsible for the trees' maintenance. Another attendee noted that asking building owners to maintain trees might not be ideal, and suggested that tall, disease-resistant elm trees or small, decorative fruit trees would be better tree options than maples, given the existing power lines. An attendee expressed a preference to not close the second vehicle entrance/exit to Livery Square. Another attendee noted that line-of-sight/visibility issues should be considered with any increased green space and plantings along the west side of Washington Square. It was noted that any changes to the Washington Square right-of-way would be further evaluated prior to implementation to ensure that adequate line-of-sight is maintained.
- **Curb Cut Reductions:** An attendee liked the recommendations for access management at the northwest corner of Main Street and Washington Street. An attendee recommended checking with the proposed landscape buffer at the auto repair business at John and Main Street would work for their on-site parking. Another attendee noted that line-of-sight/visibility issues should be considered with any recommended curb cut reductions and planting screenings. It was noted that any site-specific curb cut reduction would be closely coordinated with the affected property owner to ensure that operational needs and safety would not be negatively impacted.
- **ADA:** An attendee noted that few ramps in the Village are ADA accessible. It was noted that, as part of the streetscape plan, ADA ratings for study area ramps, sidewalks, and crosswalks were prepared.
- **Other:** An attendee suggested that the plan should incorporate artistic displays. This way may include the commissioning of local artists. The attendee noted that painted cow public art/statues could be a potential example. An attendee asked whether there was sufficient space for a traffic circle at the Main Street/Washington Square/Hill Street intersection.



Members of the public were given the opportunity to circulate, discuss the plan with planners from Chazen, and provide comments.



This plan is made possible through funding support from the A/GFTC.

Parking:

- *ADA Parking:* An attendee questioned the location of the ADA parking spaces shown to the west of the Washington Square/Hill Street/Main Street intersection. An attendee noted the need for designated ADA spaces near the southern end of the study area/Argyle Brewing Company. An attendee noted that the Glens Falls National Bank parking lot includes designated handicap spaces. It was noted that the ADA spaces indicated in the plan are illustrative.
- *On-Street Parking Supply:* An attendee who works at the Greenwich Free Library noted that she had never known that parking was permitted on Main Street by the library. It was noted that, as part of the streetscape plan, it is recommended that these spaces be striped. Another attendee noted that the turning radius for vehicles turning onto Main Street from Academy and Church Streets and roadway width for through traffic should be considered before striping parking on both sides of Main Street at the northwest end of the study area.
- *Off-Street Parking:* Several attendees noted the need for additional parking and to identify public parking location(s) and initiate discussions with landowners. An attendee noted that there are several underutilized parcels on the south side of Bridge Street that could be a prime location for parking and an information kiosk. Another attendee suggested looking into the existing parking lot in the rear of the 87-89 Main Street lot.
- *Parking Demand:* An attendee noted that parking demand is significantly higher on weekday evenings than during the weekday or Saturday midday periods. A 95 Main Street property owner noted that their businesses need more parking, particularly during the Saturday peak period.
- *Future Changes:* An attendee asked about the planned parking for the future Wallie's and the associated improvements and reoccupation of the building across the street, and where demand from these businesses would be accommodated.

Safety:

- Several attendees expressed an interest in having pedestrian crossing signals at the intersection of Main Street and Washington Square/Hill Street. An attendee also noted that the timing for crossing needs to be increased.
- Several attendees recommended that pedestrian activated crossing signals be installed at the intersection of Main Street and Washington Street.
- Several attendees noted the need to improve awareness of pedestrians crossing at Bridge Street/Main Street, with advanced warnings on Bridge Street.

Bicycles:

- *Bike Racks:* Several attendees expressed a need for bicycle parking, one particularly noting the high bike use with the Tour de Battenkill event. It was noted that bike racks were proposed as part of the concept plan. An attendee suggested that the bike racks be designed by local artists or be artistic. An attendee recommended that bike racks provided by the Wally's parking lot.
- *Bike Lanes:* An attendee asked whether bike lanes were considered. Several attendees recommended that sharrows be incorporated into the plan.



This plan is made possible through
funding support from the A/GFTC.

Traffic:

- Several attendees noted traffic problems at the intersection of Main Street with Academy, Church, and Cottage Streets, noting that school traffic on Church, Academy, and Main can make turning from Church Street extremely difficult. An attendee suggested that “no left turn” restrictions could be implemented at certain times of day to address the problem. Another attendee suggested making Church Street a one-way street or restricting the roadway to local traffic only.
- Several attendees expressed confusion about the intersection of Main Street, Washington Square, and Hill Street, related to visibility and signal phasing and whether westbound vehicles on Main Street could make right on red, given that the stop bar is significantly set back from Washington Square.
- Several attendees noted that vehicles travel at too high of speed along Main Street. An attendee noted the high speeds observed at the southern end of the study area (by Washington Street). An attendee noted the need for improved speed limit signage. Another attendee questioned whether additional speed limit signage would do anything other than lead to additional traffic tickets, and asked whether speed bumps or raised crosswalks would be more effective, if they weren’t a plowing issues for the DPW.

Signage:

- Several attendees expressed a preference for using paving/tactical warnings, such as raised brick crosswalks or repainted crosswalks, to reduce speed, rather than more signs, expressing concern that additional signage could create visual confusion for drivers.
- Several attendees noted that they liked the idea of gateway signage at the key entry points into the study area (Washington Street, Washington Square, and Mowry Park).
- An attendee noted that the “Orientation Sign” was too “strong” for the scale of Greenwich buildings, and suggested looking at the Village of Greenwich welcome signage by Warren Tire for a sample signage scale that would be more appropriate.
- An attendee noted a preference for the smaller scale (pedestrian) signage over the larger scale signage.
- An attendee suggested that any signage should be in line with existing buildings/materials.

Park/Waterfront Access:

- Several attendees like the idea of the park, including the monument and picnic area components.
- An attendee who lives on Mill Street expressed concerns about the park plan, particularly related to the loss of parking and potential drunk driving. The attendee expressed a preference to not have non-residents incentivized to frequent the area. The attendee noted that the last Village attempt to improve the circle with a community garden was not well-maintained. The attendee noted that they believed the plan would not work with all of the fuel trucks that travel down Mill Street and that are in that area.
- An attendee suggested that the number of parking spaces along Cross Street (at the park) could be increased by sacrificing a small portion of the park and changing from perpendicular to parallel parking.



A/GFTC
Adirondack Glens Falls Transportation Council

This plan is made possible through
funding support from the A/GFTC.

- While liking the idea of waterfront access, an attendee noted that any boat use on the section of the Battenkill running through the Village is inhibited by multiple dams. It was noted that one of the goals of the selected park location is to create a connection to circumvent the dams.

Other

- An attendee noted that implementation of the streetscape improvements should consider the timing of the waterline project, as well as the natural gas line project, which is being preliminarily discussed. Another attendee suggested tackling the low hanging fruit (like striping) first, and noted that this is a low-cost improvement that should not need to wait for the waterline project for implementation.
- An attendee suggested that there should be regulations for cladding materials, window shapes, etc. for Main Street buildings.

DRAFT



This plan is made possible through funding support from the A/GFTC.

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APPENDIX D: PRELIMINARY COST ESTIMATES

CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., P.C.

Dutchess County Office
Phone: (845) 454-3980

375 Bay Road, Queensbury NY
Phone: (518) 812-0513

Capital District Office
Phone: (518) 273-0055

Concept Level - Option 1

Web: www.chazencompanies.com

Draft Opinion of Probable Cost for Village of Greenwich Streetscape & Waterfront Park Enhancements

Date: June 27, 2019

Chazen Project No. 91840.00

Description	QTY	Unit	Unit Price	Total Cost
Streetscape Enhancements - Option 1				
General Demolition & Removals	1	LS	\$80,000.00	\$80,000.00
Erosion & Sediment Control	1	LS	\$15,000.00	\$15,000.00
Concrete Curb	6,700	LF	\$50.00	\$335,000.00
Sawcut Asphalt Pavement	2,000	LF	\$2.50	\$5,000.00
Asphalt Pavement (1.5" Top & 2.5" Binder)	13,400	SF	\$5.50	\$73,700.00
Subbase Type 2 (12")	500	CY	\$60.00	\$30,000.00
Pavement Striping - 4" Line	1,200	LF	\$7.50	\$9,000.00
Crosswalk Markings - 12" Bars	400	LF	\$22.00	\$8,800.00
Stop Bars - 18" Wide Striping	100	LF	\$34.00	\$3,400.00
"Pedestrian Crosswalk" Sign	18	EA	\$250.00	\$4,500.00
Slate Pavers	920	SF	\$40.00	\$36,800.00
Decorative Paver Bands	330	SF	\$30.00	\$9,900.00
Brick Pavers	9,600	SF	\$22.00	\$211,200.00
Concrete Sidewalk & Subbase - Includes excavation & fabric	53,225	SF	\$8.00	\$425,800.00
Street Lights & Base	90	EA	\$3,000.00	\$270,000.00
Site Furnishing Allowance (Bike Racks, Benches, Trash Receptacles)	1	LS	\$30,000.00	\$30,000.00
Gateway Signage	3	EA	\$5,000.00	\$15,000.00
Trees	50	EA	\$650.00	\$32,500.00
Decorative Traffic Signals (Removal of old system, Controller & Bases)	1	LS	\$200,000.00	\$200,000.00
Misc Planting Allowance (Shrubs, Perennials & Sod)	1	LS	\$20,000.00	\$20,000.00
Total Streetscape Enhancements				\$1,815,600.00
Construction Estimate Subtotal				\$1,815,600.00
Maintenance & Protection of Traffic				\$60,000.00
Mobilization (4%)				\$72,650.00
Project Contingency (20%)				\$363,150.00
Construction Total				\$2,311,400.00
Legal, Technical, and Administrative Allowance (15%)				\$346,750.00
Total				\$2,658,150.00

Waterfront Park				
General Demolition Removals	1	LS	\$50,000.00	\$50,000.00
Clearing & Grubbing	1	LS	\$5,000.00	\$5,000.00
Earth Moving	1,000	CY	\$20.00	\$20,000.00
Fill - Import, spread & compact	400	CY	\$40.00	\$16,000.00
Topsoil	185	CY	\$50.00	\$9,250.00
Asphalt Pavement (1.5" Top & 2.5" Binder)	20,000	SF	\$5.50	\$110,000.00
Subbase Type 2 (12")	740	CY	\$60.00	\$44,400.00
Concrete Sidewalk & Subbase - Includes excavation & fabric	15,050	SF	\$8.00	\$120,400.00
Concrete Stairs	400	SF	\$150.00	\$60,000.00
Kayak / Kanoe Launch	2	EA	\$25,000.00	\$50,000.00
Decorative Paver Bands	500	SF	\$25.00	\$12,500.00
Crosswalk Markings - 12" Bars	350	LF	\$22.00	\$7,700.00
Fine Grading	1	LS	\$10,000.00	\$10,000.00
Site Furnishings (Benches, Trash Receptacles, Bike Racks, Tables)	1	LS	\$20,000.00	\$20,000.00
Kiosk	1	EA	\$10,000.00	\$10,000.00
Trees	90	EA	\$500.00	\$45,000.00
Misc Planting Allowance (Shrubs & Perennials)	1	LS	\$30,000.00	\$30,000.00
Erosion & Sediment Control	1	LS	\$7,500.00	\$7,500.00
Utility Pole Relocation Allowance (2 Poles)	1	LS	\$20,000.00	\$20,000.00
Storm Water Allowance (Pipe, Structures & Connections Frame Adjust)	1	LS	\$50,000.00	\$50,000.00
Total Waterfront Park				\$697,750.00
Construction Estimate Subtotal				\$697,750.00
Maintenance & Protection of Traffic				\$20,000.00
Mobilization (4%)				\$27,950.00
Project Contingency (20%)				\$139,550.00
Construction Total				\$885,250.00
Legal, Technical, and Administrative Allowance (15%)				\$132,800.00
Total				\$1,018,050.00

¹ This Opinion of Probable Cost is intended to be used for order of magnitude pricing for budget purposes only. Estimate is based on approximate dimensions measured from aerial imagery. A more detailed estimate can be prepared following land survey services and advancement of design.

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Concept Level - Option 2

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Draft Opinion of Probable Cost for Village of Greenwich Streetscape & Waterfront Park Enhancements

Date: June 27, 2019

Chazen Project No. 91840.00

Description	QTY	Unit	Unit Price	Total Cost
Streetscape Enhancements - Option 2 (Grade Alterations at Main & Washington)				
General Demolition & Removals	1	LS	\$90,000.00	\$90,000.00
Erosion & Sediment Control	1	LS	\$15,000.00	\$15,000.00
Concrete Curb	6,700	LF	\$50.00	\$335,000.00
Sawcut Asphalt Pavement	2,000	LF	\$2.50	\$5,000.00
Asphalt Pavement (1.5" Top & 2.5" Binder)	13,400	SF	\$5.50	\$73,700.00
Subbase Type 2 (12")	500	CY	\$60.00	\$30,000.00
Road Reconstruction at Main & Washington (1.5" Top & 2.5" Binder)	9,000	SF	\$5.50	\$49,500.00
Subbase for Road Reconstruction - Type 2 (12")	445	CY	\$60.00	\$26,700.00
Pavement Striping - 4" Line	1,200	LF	\$7.50	\$9,000.00
Crosswalk Markings - 12" Bars	400	LF	\$22.00	\$8,800.00
Stop Bars - 18" Wide Striping	100	LF	\$34.00	\$3,400.00
"Pedestrian Crosswalk" Sign	18	EA	\$250.00	\$4,500.00
Slate Pavers	920	SF	\$40.00	\$36,800.00
Decorative Paver Bands	330	SF	\$30.00	\$9,900.00
Brick Pavers	9,600	SF	\$22.00	\$211,200.00
Concrete Sidewalk & Subbase - Includes excavation & fabric	53,225	SF	\$8.00	\$425,800.00
Street Lights & Base	90	EA	\$3,000.00	\$270,000.00
Site Furnishing Allowance (Bike Racks, Benches, Trash Receptacles)	1	LS	\$30,000.00	\$30,000.00
Gateway Signage	3	EA	\$5,000.00	\$15,000.00
Decorative Traffic Signals (Removal of old system, Controller & Bases)	1	LS	\$200,000.00	\$200,000.00
Trees	50	EA	\$650.00	\$32,500.00
Misc Planting Allowance (Shrubs, Perennials & Sod)	1	LS	\$20,000.00	\$20,000.00
Total Streetscape Enhancements				\$1,901,800.00
Construction Estimate Subtotal				\$1,901,800.00
Maintenance & Protection of Traffic				\$60,000.00
Mobilization (4%)				\$76,100.00
Project Contingency (20%)				\$380,400.00
Construction Total				\$2,418,300.00
Legal, Technical, and Administrative Allowance (15%)				\$362,750.00
Total				\$2,781,050.00

Waterfront Park				
General Demolition Removals	1	LS	\$50,000.00	\$50,000.00
Clearing & Grubbing	1	LS	\$5,000.00	\$5,000.00
Earth Moving	1,000	CY	\$20.00	\$20,000.00
Fill - Import, spread & compact	400	CY	\$40.00	\$16,000.00
Topsoil	185	CY	\$50.00	\$9,250.00
Asphalt Pavement (1.5" Top & 2.5" Binder)	20,000	SF	\$5.50	\$110,000.00
Subbase Type 2 (12")	740	CY	\$60.00	\$44,400.00
Concrete Sidewalk & Subbase - Includes excavation & fabric	15,050	SF	\$8.00	\$120,400.00
Concrete Stairs	400	SF	\$150.00	\$60,000.00
Kayak / Canoe Launch	2	EA	\$25,000.00	\$50,000.00
Decorative Paver Bands	500	SF	\$25.00	\$12,500.00
Crosswalk Markings - 12" Bars	350	LF	\$22.00	\$7,700.00
Fine Grading	1	LS	\$10,000.00	\$10,000.00
Site Furnishings (Benches, Trash Receptacles, Bike Racks, Tables)	1	LS	\$20,000.00	\$20,000.00
Kiosk	1	EA	\$10,000.00	\$10,000.00
Trees	90	EA	\$500.00	\$45,000.00
Misc Planting Allowance (Shrubs & Perennials)	1	LS	\$30,000.00	\$30,000.00
Erosion & Sediment Control	1	LS	\$7,500.00	\$7,500.00
Utility Pole Relocation Allowance (2 Poles)	1	LS	\$20,000.00	\$20,000.00
Storm Water Allowance (Pipe, Structures & Connections Frame Adjust)	1	LS	\$50,000.00	\$50,000.00
Total Waterfront Park				\$697,750.00
Construction Estimate Subtotal				\$697,750.00
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Mobilization (4%)				\$27,950.00
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APPENDIX E: ADA PEDESTRIAN INVENTORY

AMERICANS WITH DISABILITIES ACT (ADA) Pedestrian Inventory

The Americans with Disabilities Act (ADA), enacted in 1990, provides comprehensive civil rights protections to persons with disabilities, including requirements to mitigate or eliminate structural barriers associated with public facilities. Title II, Article 8 of the ADA requires municipalities with over 50 employees to develop an ADA Transition Plan, which outlines a method to schedule and implement ADA improvements to public facilities, including existing streets and sidewalks within the public right-of-way. The first step towards developing a Transition Plan is to complete an inventory of existing pedestrian conditions.

As part of ongoing regional efforts to promote the development of Transition Plans, A/GFTC developed a digital map of pedestrian facilities in the Village of Greenwich, including sidewalks, curb ramps, and crosswalks. In conjunction with the existing conditions data collection for this plan, A/GFTC requested that ADA accessibility be documented along Village-owned roadways.

Pedestrian infrastructure was assessed utilizing the NYSDOT-based rating scale for the accessibility of pedestrian facilities, a summary of which is provided on the following page. The full NYSDOT rating guide is [available online \(click for link\)](#). Each pedestrian element was given a rating of “Not Accessible,” “Less Accessible,” “More Accessible,” or “Fully Accessible.”

In total, approximately 6.5 miles of sidewalk, 70 curb ramps, and 15 crosswalks were assessed. The analysis was limited to pedestrian facilities that are under the Village’s jurisdiction; therefore, Main Street (NYS Route 29/Route 372) was not included in the assessment. The results of the assessment are provided in Figure 4.

NYS DOT RATING SCALE FOR ACCESSIBILITY OF PEDESTRIAN FACILITY SEGMENTS OR POINTS

"Not Accessible" – Accessibility for persons with disabilities is impossible or very difficult.

- Sidewalks:
 - More than 50' of unpaved walkway,
 - Significant heaving or vertical displacement,
 - Significant flooding,
 - Vegetation growing over walkway,
 - Steps within walkway, and/or
 - Less than 3' of width around obstacles (5' generally overall)
- Curb Ramps and Crosswalks:
 - No curb ramps,
 - Street crown very steep, and/or
 - Crosswalk pavement severely cracked or distressed

"Partially Accessible" – Not to current standards. Accessibility is possible, but there are problems.

- Sidewalks:
 - Small heaving or vertical displacement,
 - No handrails on walkway ramps, etc. and/or
 - Major maintenance issues (gravel accumulation)
- Curb Ramps and Crosswalks:
 - Problems with geometry,
 - Generally less than 5' width,
 - No detectable warnings,
 - Curb ramps not compliant as per Standard Sheets, and/or
 - Major maintenance issues (gravel accumulation)

"Accessible" – May need additional improvements.

- Sidewalks:
 - Generally minor maintenance problems, and/or
 - Minor insufficient width
- Curb Ramps and Crosswalks:
 - Generally minor maintenance problems, and/or
- Minor insufficient width

"Fully Accessible" – Fully accessible to current standards

- Sidewalks:
 - No deficiencies or needs for improvement
- Curb Ramps and Crosswalks:
 - No deficiencies or needs for improvement