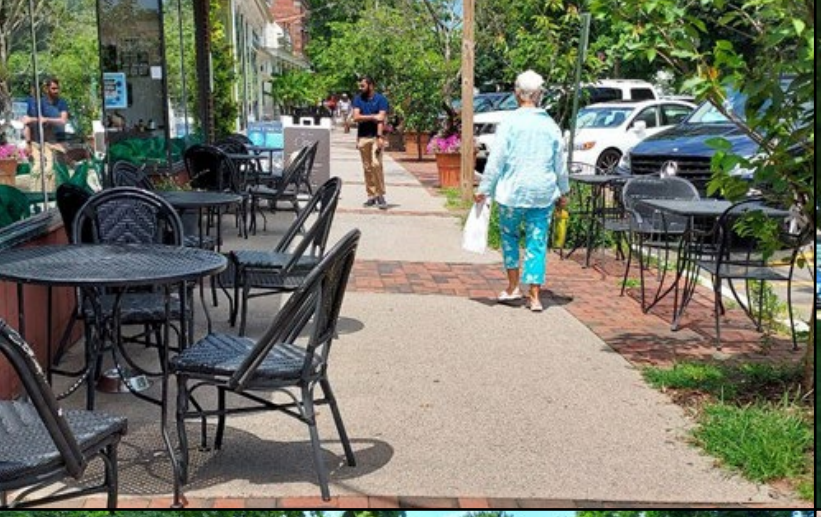

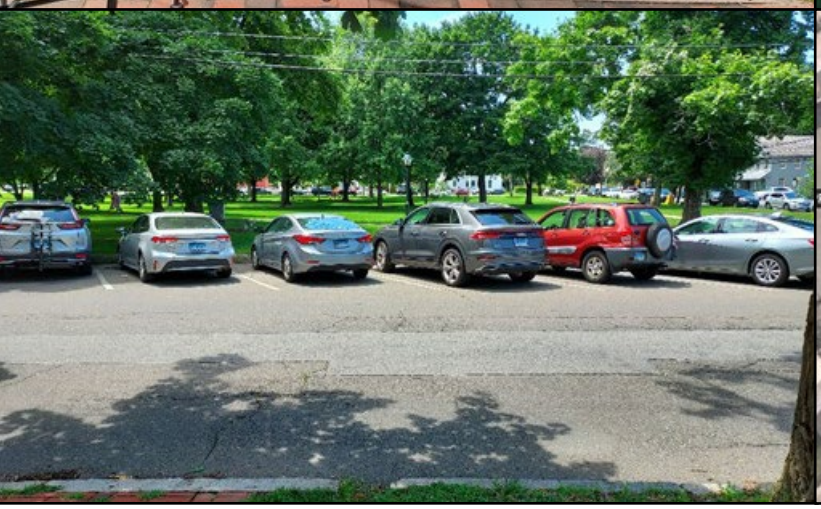

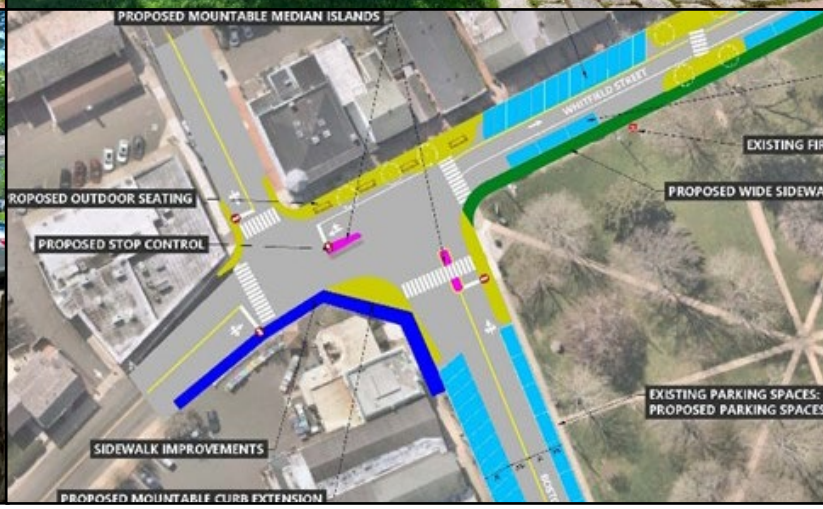

Final Report

Guilford Green Transportation Study

The Town of Guilford
Connecticut, USA Founded 1639

PREPARED FOR

SCRCOG
SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS

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JUNE 2025

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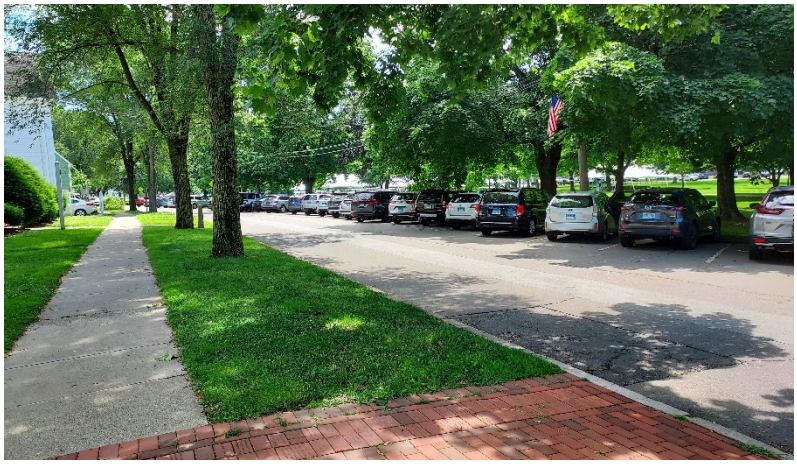


Executive Summary

Introduction

The Guilford Green Transportation Study, commissioned by the South Central Regional Council of Governments (SCRCOG) and the Town of Guilford, aims to evaluate and improve the transportation infrastructure surrounding the historic Guilford Town Green. This area, which includes State Routes 146 and 77, serves as a vital commercial, civic, and cultural hub for the town. The study's primary objectives are to assess existing traffic, circulation, parking, and safety conditions and to propose improvement alternatives that can be developed into future projects.

Existing Conditions

The study area encompasses the Guilford Town Green and its surrounding roads, including Whitfield Street/Route 77, Broad Street, Park Street, and Boston Street/Route 146. The analysis of existing conditions involved collecting data on traffic volumes, speeds, vehicle classifications, and intersection sight distances. Safety data revealed that the Whitfield Street at Boston Street/Water Street intersection has the most crash activity around the Guilford Green. Public transportation options are limited, with one local bus route. Parking data indicated that while there is a perception of insufficient parking, many spaces remain underutilized.

Public Involvement and Previous Studies

Public engagement was a critical component of the study, involving outreach during fieldwork, stakeholder interviews, and public meetings. Previous plans and studies, such as the Guilford Transportation Plan (2003) and the Guilford Safe Streets Report (2022), provided valuable insights into the area's transportation challenges and opportunities. These documents highlighted the need for improved pedestrian and bicycle facilities, traffic calming measures, and enhanced public transportation options.

Future Conditions and Alternatives

The study projected future traffic conditions for 2029, considering both "No-Build" and "Build" scenarios. The "No-Build" scenario anticipates limited traffic volume increases similar to historic trends, while the "Build" scenario evaluated the impact of proposed transportation improvements. Potential changes included converting Whitfield Street and Park Street to one-way operation, intersection control enhancements, curb extensions, and the development of wide sidewalks or multi-use paths. Demonstration projects were conducted to evaluate these concepts and gather feedback.

Preferred Alternative

The study's preferred alternative focuses on enhancing multi-modal access, improving pedestrian safety, and optimizing traffic flow around the Guilford Green. Key elements include reconfiguring intersections, implementing traffic calming measures, and expanding pedestrian and bicycle infrastructure. The plan also identifies potential funding sources, such as federal and state grants, to support these initiatives.

Conclusion

The Guilford Green Transportation Study provides a comprehensive framework for addressing the transportation needs of the Guilford Town Green area. By implementing the recommended improvements, the Town of Guilford can enhance safety, accessibility, and connectivity for all users, while preserving the area's historic and cultural character. The study's findings and recommendations will serve as a guide for future transportation planning and development efforts around the Guilford Green.

1

Introduction

The South Central Regional Council of Governments (SCRCOG) and the Town of Guilford have commissioned this study, which reviews transportation infrastructure needs in the area of the Town Green of Guilford, which includes State Routes 146 and 77. The Guilford Town Green is the historic town center of Guilford, and is a place of important commercial, civic, and cultural focus for the Town.

1.1 Project Purpose and Study Area

The Guilford Green Transportation Study supports the Town of Guilford's efforts to provide roads that are safe and accessible for all users, including pedestrians, bicyclists, motorists, and transit users of all ages and abilities. The Study goals include evaluating existing traffic, circulation, parking, and safety conditions for all users of the roads surrounding the Guilford Town Green, and to develop improvement concept alternatives for addressing these issues so they can be designed as projects in the future.

The primary study area encompasses the Guilford Town Green and the roads around the Guilford Green. These include:

- Whitfield Street/Route 77 from Boston Street/Route 146 to Broad Street
- Broad Street from River Street to State Street
- Park Street from Broad Street to Boston Street/Route 146
- Boston Street/Route 146 from Park Street to Whitfield Street/Route 77

As noted in the list, two State Routes run along the south and west sides of the Guilford Green, Route 146 and Route 77. In addition to the above road segments, the following intersections in the vicinity of the Guilford Green are also included in the study scope:

- Whitfield Street/Route 77 at Boston Street/Water Street/Route 146 (intersections are offset but function as one intersection)
- Broad Street at Whitfield Street/Route 77
- Broad Street at Church Street/Route 77
- Broad Street at Park Street/State Street (intersections are offset but function as one intersection)
- Park Street at Boston Street/Route 146
- Broad Street at River Street
- River Street at Water Street/Route 146

See Figure 1 for a map of the project study area roadways.

1.2 Report Overview

This Report includes four main sections: Existing Conditions, Future Conditions, Development of Alternatives, and Preferred Alternative. Chapter 2, the Existing Conditions chapter, covers transportation-related data and infrastructure, as well as land use and development information that can impact the demand for transportation services and potentially support alternative modes of transportation.

Chapter 2 includes the following sections:

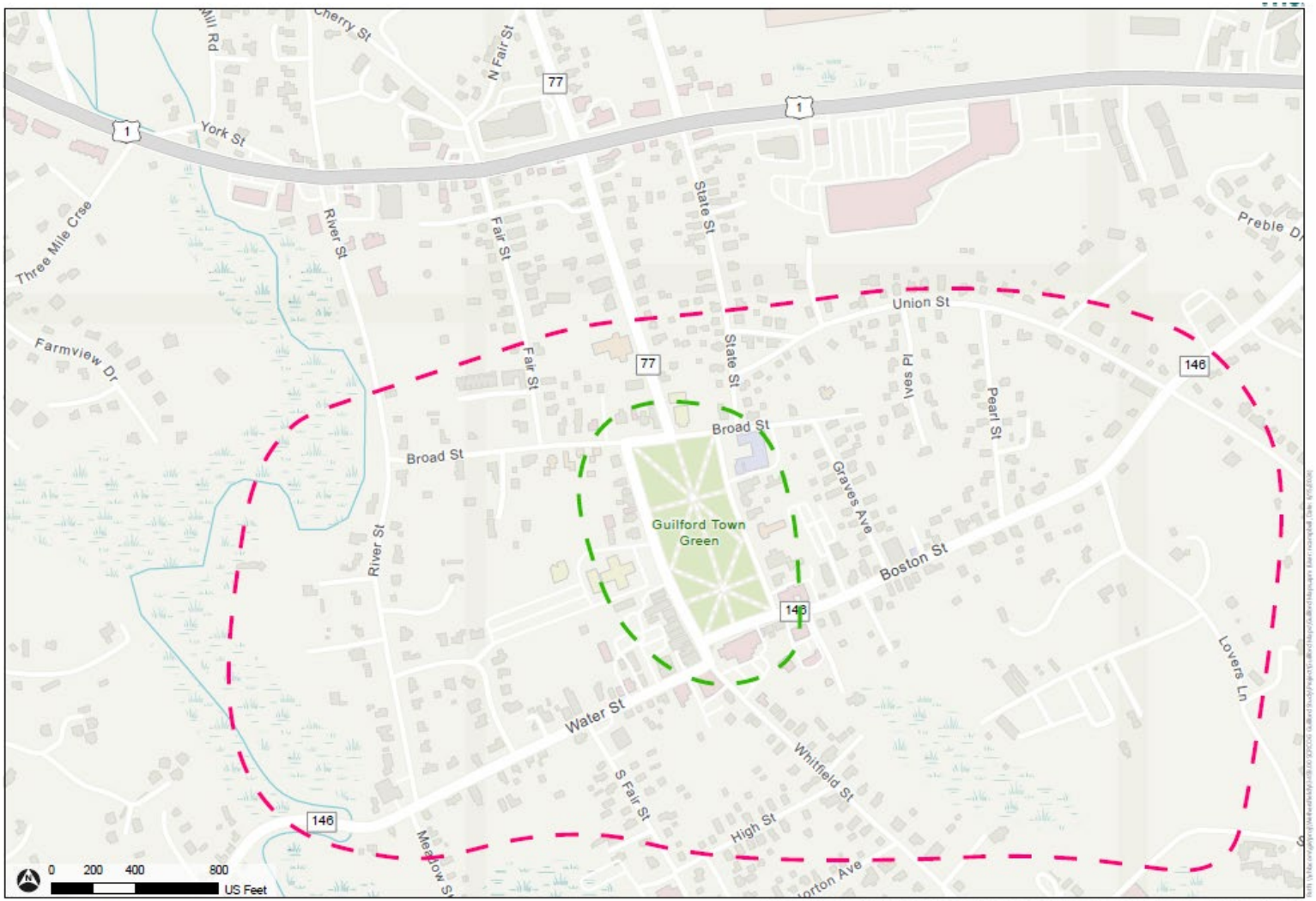
- Location Context
- Transportation Data and Analysis of Traffic Movements
- Crash/Safety Data
- Bicycle, Pedestrian, and Vulnerable Road User conditions
- Public Transportation
- Parking Data Collection
- Public Engagement
- Previous and Current Plans and Studies

Future Conditions are discussed in Chapter 3. This chapter looks at forecasted future traffic volumes in the study area and how this will impact traffic operations at the analyzed intersections. A review of possible impacts to traffic operations from turning Whitfield Street and Park Street one-way around the Guilford Green is also discussed.

Chapter 4 details the development of the improvement concept alternatives for the study area. This included developing concept plans at the sketch level and refining them based on discussions with the Town and stakeholders. Two temporary demonstration projects were also conducted around the Guilford Green to evaluate potential improvements.

Chapter 5 explains the Preferred Alternative for the Guilford Green and discusses the recommended changes to traffic flow, pedestrian safety, intersection control, and multi-modal access. Potential funding sources are also provided.

Figure 1 Map of the Guilford Green Transportation Study Area



2

Existing Conditions

This chapter presents a summary of the existing conditions in the Town Green area of Guilford based upon accumulation of Town data, field observations, collection of traffic and bicycle/pedestrian data, transit data, parking data, previous plans and studies, and public engagement efforts. Field visits to collect intersection sight distances, parking data, and general observation data were conducted.

2.1 Location Context

The Town of Guilford is in New Haven County along the Long Island Sound and was settled in 1639. The town is in the eastern part of SCRCOG, situated approximately twelve miles east of New Haven. It is a suburban/rural town with a population of 22,073 and a population density of about 440 people per square mile (as of the 2020 Census). The study area location is the historic town center, with the 7.7-acre rectangular Guilford Green dominating the geography of the Center and roadways circling it on its north, south, east, and west sides. US Route 1 (Boston Post Road) is approximately one quarter mile north of the Guilford Green, with Interstate 95 a further half mile north. State Route 77 is a north-south route that travels the west side of the Guilford Green along Whitfield Street and continues north partly along Broad Street to Church Street and US 1. Route 146 is an east-west route along Boston Street and Water Street through the study area, with the western segment continuing along the Long

Island Sound to Branford. The Guilford Train Station is situated about a half mile south of the Guilford Green. Most traffic must travel through the area to go south to the train station, the Guilford Marina, Jacob's Beach, and restaurants and residences near these locations.

The topography of the Guilford Green and the surrounding roadways is generally flat. The West River crosses under Water Street west of the Guilford Green, and the Guilford Marina and local beaches are located approximately one mile south on Whitfield Street. Most people must travel past the Guilford Green to access the Marina and the shoreline as Whitfield Street is the only road access to the south due to the many wetlands and tidal flats along the coast and the river. Stone House Lane provides the only other significant alternative route north of the railroad tracks. The Guilford Green includes a considerable amount of tree cover to provide shade for pedestrians and visitors. There are also many street trees along the adjacent roadways.

A diverse mixture of land uses surrounds the Guilford Green, including residences, small retail, the Town Hall, Public Library, churches, professional offices, and banks. It is part of the Guilford Town Center, a National Historic District, as well as the Guilford Town Center Historic District Local Historic District (LHD). There are 257 structures within the district of historic character, according to the Guilford Preservation Alliance, which distinguish the Town Center and its Federal/Colonial roots. The Guilford Green is also close to many key historic structures and sites, including the Henry Whitfield State Museum just to the south. As a result, the Center is a focal point for summer visitors and tourists, as well as Guilford residents. The Guilford Green also plays host to many different special events during the year to keep the Center an active location with much attention paid to it by the Town.

The Town of Guilford began growing steadily in the 1950s due to suburbanization, automobile use, and the construction of I-95, which allowed people to live further away from the main cities and commute farther for work. Between 1950 and 2020, the town grew from about 5,000 people to just over 22,000 year-round residents. According to the 2015 Plan of Conservation and Development (POCD), Guilford's population is expected to age, and its overall population will remain steady through 2025.

2.2 Traffic Volumes, Speeds, and Vehicle Classification

Routes 77 and 146 through the study area are classified by the Connecticut Department of Transportation (CTDOT) as a Major Collectors within the Town of Guilford. Park Street, the section of Broad Street along the Guilford Green (between Church Street and Park Street), and Whitfield Street south of Water Street are also considered Major Collectors, although they are Town-maintained roads. Broad Street and River Street are local/Town Roads, with River Street classified as a Collector by the Guilford POCD. All the other roads in the study area are local roads. See Figure 1 for a map of the study area.

2.2.1 General Traffic Observations

Observations were conducted on Thursday, July 11, 2024, during the late morning and afternoon periods. Typical summertime traffic was observed on this day with typical summertime automobile traffic and pedestrian activity. Several bicyclists were observed on the roadways and riding on sidewalks in and around the Guilford Green.

The intersection of Water Street/Boston Street/Whitfield Street (where Route 77 and Route 146 intersect) was observed to have more frequent traffic conflicts compared to other intersections due to its operation as two offset intersections and it being a key crossing location for pedestrians coming to and from the Guilford Green. Traffic flows through the Whitfield Street southbound approach to the intersection, while there is STOP control at the other three approaches. Drivers often need to stop in the middle of the intersection to yield to crossing pedestrians or to other drivers attempting to turn through the intersection and looking for a gap in traffic. Adjacent buildings create sightline challenges that require drivers to pull out into the intersection to see oncoming traffic. Vehicle queues were sometimes observed at the westbound (Boston Street) approach, and impatient drivers would pass vehicles on the right to make a right turn onto Whitfield Street.

Vehicle queues were also observed at the intersection of Broad Street and Whitfield Street. Like Whitfield Street at Boston Street, two approaches have STOP control while one approach, westbound Broad Street, has no traffic control. As a result, there are times when there is a platoon of vehicles traveling through the intersection from westbound Broad, requiring northbound Whitfield and eastbound Broad traffic to wait an unusually extended period to cross through the intersection.

River Street and its intersections with Broad Street and Water Street were also observed. River Street is noted as a busy roadway carrying traffic between US 1 and Route 146, as a way for drivers to avoid traffic around the Guilford Green.

2.2.2 Traffic Volumes

To identify current traffic flow characteristics along the study corridor, traffic data was collected in May 2024 in the form of Turning Movement Counts (TMCs) at the seven project study intersections and one Automated Traffic Recorder count (ATRs) collected at a location around the study area. This was supplemented with CTDOT Traffic Monitoring Station data in the area that was collected in 2022. Three additional traffic counts were collected in August 2024 to verify and adjust the CTDOT count data for summertime traffic, as the 2022 data was collected in September. The TMCs were counted on May 1, 2 and 4, 2024 and the ATRs recorded traffic data from April 30 through May 7, 2024, and August 5 through 12, 2024.

The traffic data reviewed in this study includes daily traffic volumes, vehicle speeds and classification. The following section summarizes this traffic data collection process and documents the results.

2.2.2.1 Daily Traffic

As noted in the previous section, most of the roadway traffic data was sourced from the CTDOT Traffic Monitoring Stations in the area, while Automatic Traffic Recorders (ATRs) were installed at four locations in and around the Guilford Green study area to collect data on traffic volumes and traffic speeds by direction over a minimum 48-hour period. Table 1 identifies the approximate ATR count locations, the month and year they were collected, the data source, and the average daily traffic that would be expected for that segment.

Table 1 Existing Weekday Average Daily Traffic Volume Summary

Location	Month/Year Collected	Source	Average Daily Traffic (ADT)
Broad Street, east of Church Street/Route 77	Sept. 2022	CTDOT	4,200
Whitfield Street/Route 77, south of Broad Street	Sept. 2022	CTDOT	5,200
Route 146/Water Street, west of Whitfield Street/Route 77	Sept. 2022	CTDOT	5,100
Whitfield Street, south of Water Street/Route 146	Sept. 2022	CTDOT	4,200
Boston Street/Route 146, east of Park Street	Sept. 2022	CTDOT	5,000
Park Street, north of Boston Street/Route 146	Sept. 2022	CTDOT	2,500
Water Street/Route 146, west of Meadow Street	Sept. 2022	CTDOT	5,500
Union Street, west of Pearl Street	May 2024	VHB	900
Boston Street/Route 146, east of Park Street	August 2024	VHB	4,900
Whitfield Street/Route 77, north of Boston Street/Route 146	August 2024	VHB	5,600
Broad Street, west of Whitfield Street/Route 77	August 2024	VHB	3,200

As shown in Table 1, the state roadways around the Guilford Green carry between 4,000-6,000 vehicles per day, on average. This is a low amount of traffic for state roadways. For comparison, US Route 1, which is just north of the Guilford Green, carries around 10,000 – 14,000 vehicles per day, based on state traffic count data. Therefore, while the roadways around the Guilford Green can be busy at times, it is not to the level of a higher-capacity roadway.

Along the state roadways around the Guilford Green, the summer 2024 counts reveal that the traffic volume has limited variation over the course of the week, with volumes being stable except for Whitfield Street which had more than 6,000 vehicles on a Friday. The September 2022 counts collected by CTDOT consistently show increased traffic on Fridays around the Guilford Green, typically 800-1,000 more vehicles than on other weekdays and the weekend.

The local roadways around and near the Guilford Green have less traffic compared to the roadways on state routes. Park Street, on the east side of the Guilford Green, has only about 2,500 vehicles per day, and Broad Street west of Whitfield Street/Route 77 has about 3,200 vehicles per day. Union Street, which is north and east of the Guilford Green and provides an alternative to using Boston Street, has only nine hundred vehicles per day.

The Friday traffic spikes are consistent with the Guilford Green being a destination for restaurants and retail during the warmer months, as well as special events, and especially during the lunchtime hours. Traffic volume during the end of the week tends to peak late in the morning and around lunch, and earlier in the afternoon than typical commuting hours. Weekend traffic tends to follow a similar

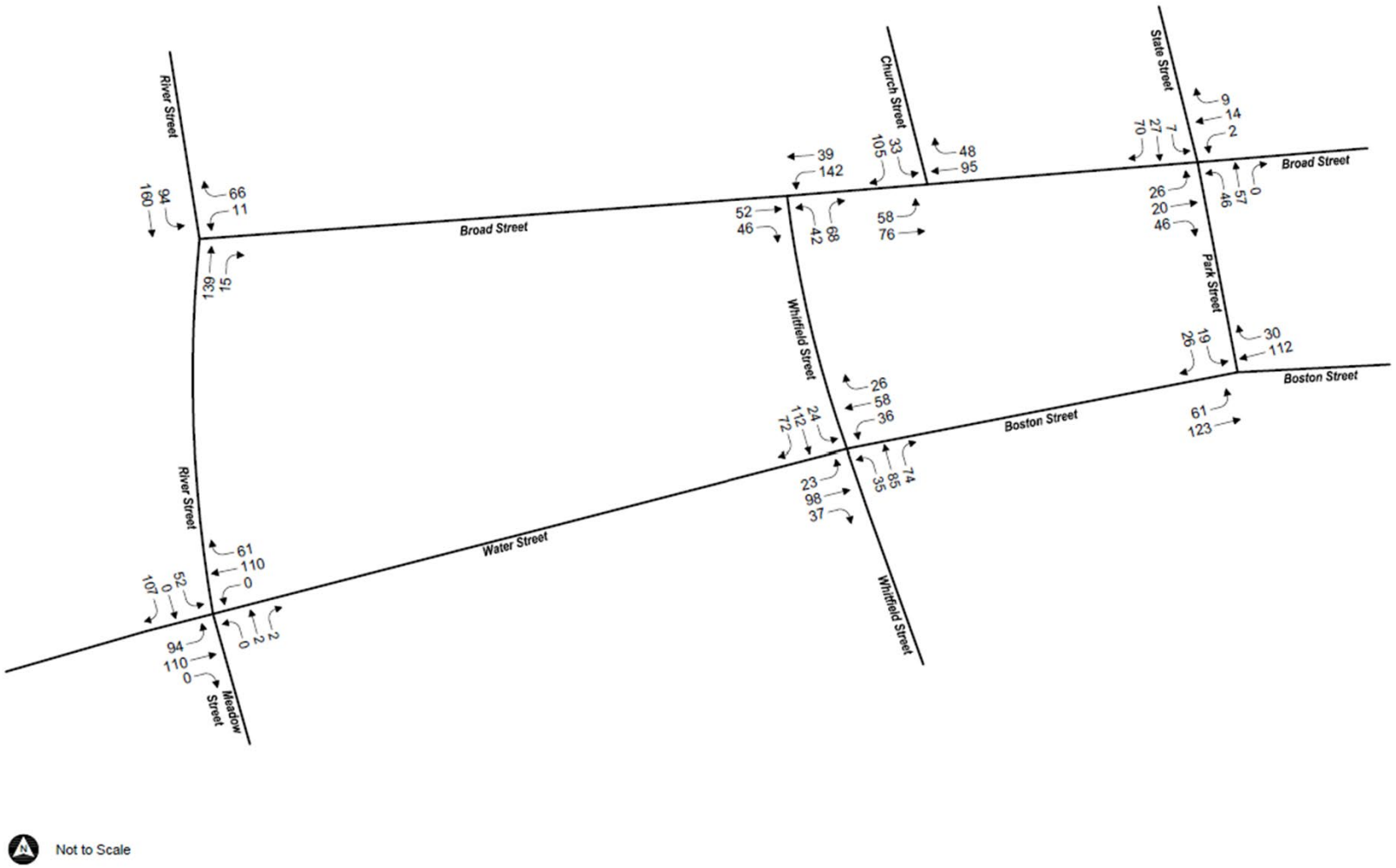
pattern with traffic peaking around noon but also peaks on Saturdays in the evening when people are going out for dinner.

Comparing the traffic data collected in 2024 to the CTDOT traffic volumes from 2022 reveals that the Guilford Green has maintained its traffic volumes over the last two years, indicating the post-COVID-19 pandemic era traffic volumes appear to have stabilized. The counts taken in early fall 2022 and summer 2024 are also similar, showing that fall traffic does not appear to drop off significantly at the end of summer. For example, counts taken on Boston Street/Route 146 east of Park Street show almost the same numbers, with August 2024 counts showing 4,900 ADT and September 2022 counts showing 5,000 ADT, although there is slightly more variability during the week of the 2022 counts.

Historical CTDOT traffic data also revealed that daily volumes on roadways around the Guilford Green have either stayed consistent or declined modestly over the last 15 years. At some of the count stations CTDOT has data going back to 2007, providing the ability to review historic traffic trends. Boston Street/Route 146 east of Park Street had peak daily traffic volumes of 5,200 in 2007, a high of 5,600 in 2016, and a low of 4,200 in 2019. However, the lower traffic volumes were taken off-season in late fall or early spring, skewing traffic volumes lower. More significantly, Whitfield Street/Route 77 has seen traffic volume decrease from a high of 7,900 in 2007 to a low of 5,200 in 2022, 35% lower. These counts were also taken around the same time in late fall. However, CTDOT notes the 5,200 number is lower than expected for this count.

The peak hour traffic volumes are presented in Figures 2, 3, and 4 for all seven study intersections for the weekday morning, weekday evening and Saturday midday peak hours, respectively. These traffic volumes are shown as recorded by movement for each intersection.

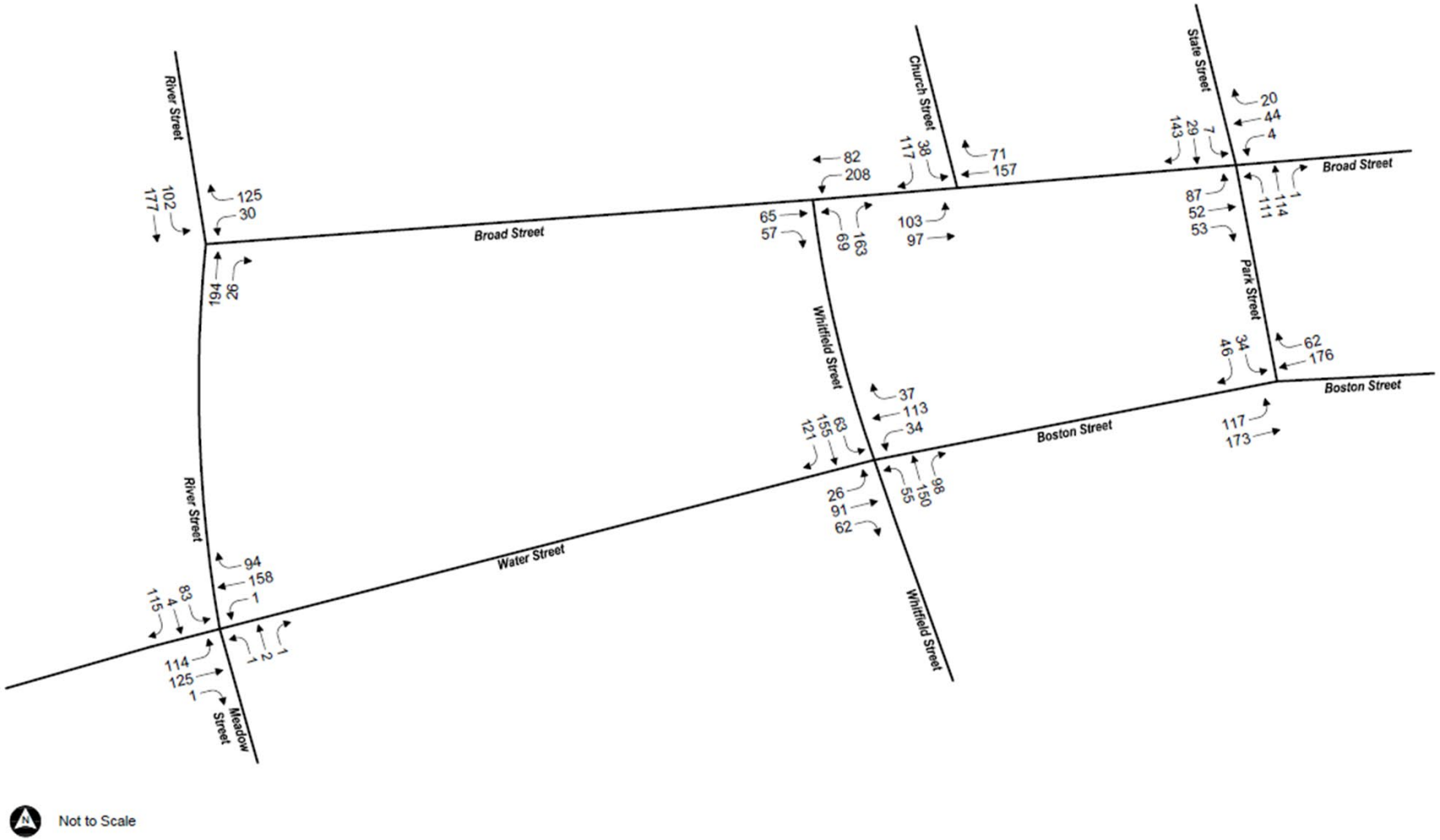
Figure 2 Existing Weekday AM Peak Traffic Volumes – Primary Study Area



Not to Scale

Source: VHB

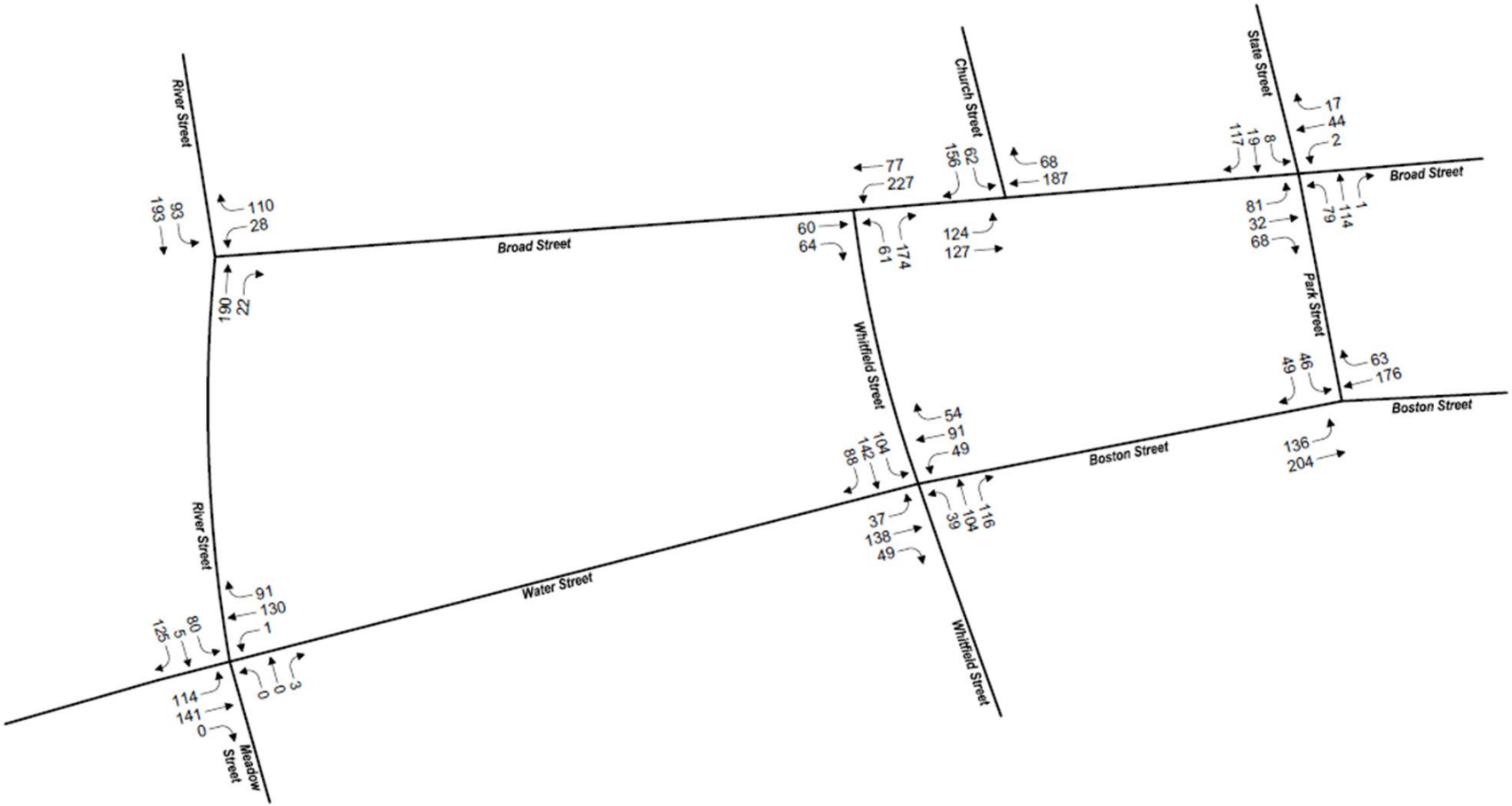
Figure 3 Existing Weekday PM Peak Traffic Volumes– Primary Study Area



Not to Scale

Source: VHB

Figure 4 Existing Saturday Peak Traffic Volumes– Primary Study Area



Not to Scale

Source: VHB

2.2.3 Vehicle Speeds

The vehicle speed data was reviewed to determine the average speed and 85th percentile speed at each location where data was collected. The 85th percentile speed is the speed at which 85-percent of vehicles travel at or below and is typically an indication of the overall speed of traffic. CTDOT uses the 85th percentile speed to determine the operating speed of a roadway, and in some cases, the Manual on Uniform Traffic Control Devices (MUTCD) recommend setting the road speed limit 5 mph below or above this number. Since the 85th percentile is considered the operating speed of the road, this data was compared to the posted speed limit to understand whether there is speeding in the project area and beyond the posted speed limit.

In addition to the 85th percentile speeds, another measure of traffic speeds is the 50th percentile speed. This indicates the median speed of the vehicles on the roadway, with 50% traveling at or below. It is reviewed in combination with the 85th percentile to provide a more holistic understanding of the corridor speeds. The Federal Highway Administration (FHWA) notes that "the median or 50th percentile speed is used in recommending a speed limit when the crash risk on a particular road is significantly higher than the average for similar roads, or when other risk factors such as significant pedestrian activity are present."[1] Knowing that there is a large amount of pedestrian activity around the Guilford Green, the 50th percentile traffic speeds show a different dynamic than the 85th percentile speeds and reveal if more than 50th of drivers are frequently going over the speed limit, creating more dangerous conditions for pedestrians.

A review of the 2022 CTDOT speed data for the corridor shows the 85th percentile speeds were found to be lower than the posted speed limit for the locations directly around the Guilford Green. Park Street, Broad Street, and Whitfield Street all had 85th percentile speeds at 18-19 mph. This is consistent with these roadways having heavy on-street parking, high pedestrian activity, and narrow lanes that require drivers to slow down and be more careful. Boston Street/Route 146, which runs along the south side of the Guilford Green, had slightly higher speeds at 23 mph, and Water Street west of Whitfield Street had 85th percentile speeds at 25 mph. The most significant speeding issue from the CTDOT data was observed on Whitfield Street south of Water Street, with speeds around 33 mph, 8 mph over the posted speed limit. Data collected in 2024 during the summer period showed higher speeds on roadways, with Boston Street having 85th percentile speeds at 30 mph, 22 mph on Whitfield Street next to the Guilford Green, and 29 mph on Broad Street west of Whitfield Street. Union Street also showed speeds approximately 7 mph above the posted speed limit, at 32 mph.

The data on the 50th percentile speeds are similar to the 85th, as most speeds are below the posted speed limit, except for Whitfield Street south of Water Street and Union Street west of Pearl Street.

Note that the speed data collected covers 24-hour periods over several days and is not aggregated to just peak hours, as it includes peak and off-peak travel speeds. The ATR data provided traffic speeds for each of the count locations for each vehicle recorded over the course of each day of recording.

In summary, speeding in the primary study area is not an issue. Speed data collected for the study is shown on Table 2. Speed data shown is for the entire data collection period for each roadway and includes traffic in both directions.

[1] See: https://highways.dot.gov/public-roads/septemberoctober-2013/setting-speed-limits-safety

Table 2 Speed Data Collected in Guilford Green Study Area

Location	Month/Year Collected	Source	Posted Speed	85th%	50th%
Broad Street, east of Church Street/Route 77	Sept. 2022	CTDOT	25	19	15
Whitfield Street/Route 77, south of Broad Street	Sept. 2022	CTDOT	25	19	16
Water Street/Route 146, west of Whitfield Street/Route 77	Sept. 2022	CTDOT	30	25	21
Whitfield Street, south of Water Street/Route 146	Sept. 2022	CTDOT	25	33	29
Boston Street/Route 146, east of Park Street	Sept. 2022	CTDOT	30	23	19
Park Street, north of Boston Street/Route 146	Sept. 2022	CTDOT	25	18	15
Water Street/Route 146, west of Meadow Street	Sept. 2022	CTDOT	30	23	20
Union Street, west of Pearl Street	May 2024	VHB	25	32	26
Boston Street/Route 146, east of Park Street	August 2024	VHB	30	30	26
Whitfield Street/Route 77, north of Boston Street/Route 146	August 2024	VHB	25	22	17
Broad Street, west of Whitfield Street/Route 77	August 2024	VHB	25	29	24

Since the speed data includes all traffic at on- and off-peak hours, the data was reviewed to identify if the peak period traffic hours had higher speeds than the off-peak hours. Overall, there is a minimal variation between speeds at off-peak hours and hours with peak hour traffic. Some roadways see slightly higher traffic at the peak hours, but the difference is negligible. The one exception to this is southbound traffic on Whitfield Street north of Water Street, where there is a bump in faster-moving traffic during the morning peak period especially, in the 26-30 mph range. There are about 15-20 more vehicles per hour that are in this speed range during the peak period. Although this is greater than the 25-mph speed limit on this road, it is still a small number of vehicles in this speed range.

Speeds on Whitfield Street south of Water Street were noted above as being the highest in the study area. During the peak period, 85th percentile speeds were in the same range as the 85th percentile for the entire day, between 31-35 mph. However, about 7-11% of traffic in these periods was traveling 10 mph or greater over the speed limit.

2.2.4 Vehicle Classification

In addition to the traffic volume and speed data collected, vehicle classifications were also recorded by the CTDOT traffic monitoring stations and Turning Movement Counts (TMCs) collected by VHB. The

recorded vehicle classifications include motorcycles, passenger cars, single unit box trucks, and semi-trailer trucks across a total of fourteen classification categories. The TMCs also included data on buses and pedestrians.

Overall truck traffic volume around the Guilford Green is low, with no more than 4% of vehicle traffic being single-unit or combination trucks on any road around the Guilford Green, according to CTDOT data. The data show that most roads in the study area have truck traffic in the range of 1%-3%. Most traffic is passenger vehicles, as shown in Table 3. This is true even at Whitfield Street and Water Street/Boston Street, where increased truck traffic or vehicles with boat trailers would be expected for drivers accessing Guilford Public Works and the Guilford Marina further south on Whitfield Street.

Table 3 Vehicle Classification in Guilford Green Study Area

Location	Month/Year Collected	Source	Passenger Cars %	Single-Unit Trucks %	Combination Trucks %
Broad Street, east of Church Street/Route 77	Sept. 2022	CTDOT	96.38%	2.26%	0.06%
Whitfield Street/Route 77, south of Broad Street	Sept. 2022	CTDOT	96%	2.4%	0.09%
Water Street/Route 146, west of Whitfield Street/Route 77	Sept. 2022	CTDOT	97.11%	1.52%	0.13%
Whitfield Street, south of Water Street/Route 146	Sept. 2022	CTDOT	96.41%	2.9%	0.1%
Boston Street/Route 146, east of Park Street	Sept. 2022	CTDOT	97.04%	2.84%	0.12%
Park Street, north of Boston Street/Route 146	Sept. 2022	CTDOT	97.6%	0.9%	0.08%
Water Street/Route 146, west of Meadow Street	Sept. 2022	CTDOT	97.32%	1.9%	0.02%

2.2.5 Intersection Sight Distances

As part of the field observations, each study intersection was reviewed for intersection sight distances. Intersection sight distance is the distance that drivers have of an unobstructed view of approaching traffic. Adequate intersection sight distance is critical to allow drivers to be able to see oncoming traffic to determine acceptable gaps before entering the intersection. Intersection sight distance was checked only on the Stop-controlled approaches to the intersection to determine if a stopped driver could see opposing traffic approaching the other legs of the intersection. The required intersection sight distances were calculated using the daily traffic volume and speed data collected for the project.

The field observations indicate that most of the Stop approaches to the intersections have insufficient intersection sight distance. The following intersections and directions had insufficient intersection sight distances in accordance with the CTDOT Highway Design manual, based on 85th percentile speeds:

- River Street SB at Water Street/Meadow Street
- Broad Street WB at River Street
- All Stop-controlled approaches to Whitfield Street at Water Street/Boston Street
- Whitfield Street NB at Broad Street and Broad Street EB at Whitfield Street
- Church Street SB at Broad Street
- Park Street SB at Boston Street
- State Street SB at Broad Street WB and Park Street

Table 4 shows the intersection sight distances calculated for all the intersections and has approaches with insufficient approaches highlighted. The sight distances were calculated based on the 85th percentile speeds.

Table 4 Intersections in Guilford Green Study Area with Insufficient Intersection Sight Distances

Intersection	Required Intersection Sight Distance	Actual Intersection Sight Distances
Route 146/Water Street at River Street/Meadow Street	280 feet	NB (Meadow): 370 feet SB (River): 161 feet
Broad Street at River Street	280 feet	WB (Broad): 120 feet
Whitfield Street/Route 77 at Water Street/Boston Street/Route 146	390 feet	NB (Whitfield): 173 feet EB (Water): 140 feet WB (Boston): 137 feet
Church Street/Route 77 at Broad Street	225 feet	SB (Church): 126 feet
Whitfield Street/Route 77 at Broad Street	225 feet	NB (Whitfield): 115 feet EB (Broad): 188 feet
Park Street at Boston Street/Route 146	280 feet	SB (Park): 113 feet
Park Street at State Street/Broad Street	225 feet	NB (Park): 230 feet SB (State): 82 feet WB (Broad): 140 feet

*Based upon 85th% design speeds.

Inadequate intersection sight distance at these intersections is a safety issue for roadway users. In many cases, drivers will edge out past the Stop bar into the intersection to get a better view of approaching traffic before deciding to enter. Inadequate intersection sight distance also creates a higher risk of crashes because drivers may enter the intersection with less than required gaps. This information helps designers to understand the contextual issues that are affecting crash prevalence and poor operations at the intersections.

2.2.6 Intersection Capacity Analysis

A traffic model was developed in Synchro traffic modeling software for the three peak traffic periods using the data from Turning Movement Counts (TMCs) at the main study area intersections. The traffic model has been developed using study area base mapping and modeling unsignalized intersections. There are no signalized intersections in the study area. The traffic models were modified as needed from observations of the existing traffic operations.

The traffic models were developed for the Existing Condition weekday morning, afternoon, and Saturday midday peak hours.

The evaluation criteria used to analyze area intersections in this traffic study are based on the 2000 Highway Capacity Manual (HCM). The term "Level of service" (LOS) is used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure that considers several factors including roadway geometry, speed, travel delay and freedom to maneuver. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

In addition to LOS, two other measures of effectiveness (MOEs) are typically used to quantify the traffic operations at intersections; volume-to-capacity ratio (v/c) and delay (expressed in seconds per vehicle). For example, an existing v/c ratio of 0.9 for an intersection indicates that the intersection is operating at 90 percent of its available capacity. A delay of 15 seconds for a particular vehicular movement or approach indicates that vehicles on the movement or approach will experience an average additional travel time of 15 seconds. It should be noted that v/c and delay could have a range of values for a given LOS letter designation. Comparison of intersection capacity results therefore requires that, in addition to the LOS, the other MOEs should also be considered.

The criteria for determining Levels of Service are presented in Table 5 and based upon the 2000 Highway Capacity Manual.

Table 5 Intersection Level of Service Criteria

Level of Service	Signalized Intersection	Unsignalized Intersection
A	0 to 10 seconds	0 to 10 seconds
B	10 to 20 seconds	10 to 15 seconds
C	20 to 35 seconds	15 to 25 seconds
D	35 to 55 seconds	25 to 35 seconds
E	55 to 80 seconds	35 to 50 seconds
F	Greater than 80 seconds	Greater than 50 seconds

The results of the intersection capacity analyses are presented in Table 6 utilizing the above criteria for all project intersections and all three peak hours presenting the Levels of Service, delays, volume-to-capacity ratios for each movement at each intersection as well as overall intersection operations.

In addition, the traffic models provide the resultant vehicle queueing for each movement for the critical 95th percentile queues (design queue) and the 50th percentile queueing which is typically the average queueing at any point in the peak hour.

2.2.6.1 Capacity Analysis Results

The intersections in the study area have unsignalized traffic control and were modeled as unsignalized intersections. Using HCM methodologies, LOS grades for different movements can be developed, but overall intersection LOS grades cannot be produced. As shown in Table 6, all the movements at the intersections operate at LOS C or better during the peak periods. Vehicle delays and queues are minimal, and traffic moves through the intersections without major congestion.

The exception to this is the intersection of Whitfield Street (Route 77) at Water Street/Boston Street (Route 146), which experiences more delays and queuing than any other intersections, particularly in the PM and Saturday peaks. Westbound, northbound, and eastbound traffic often must wait for 15-20 seconds to pass through the intersection, and queues of four or five vehicles can occur while drivers are waiting. Even the southbound approach can have some delay, even though it is technically a free movement, because of drivers needing to yield to pedestrians or other vehicles already in the intersection.

All the approaches are single lanes, but drivers sometimes treat them as more than one lane. During observations of the Whitfield at Boston Street/Water Street intersection, drivers were observed passing on the right to make right turns past waiting vehicles (shown in Figure 5), which can put pedestrians in dangerous situations and may not be expected by other road users. This is due to the wide width of the approach lanes and delays at the intersection which may lead drivers to make unsafe movements.

Figure 5 Drivers Passing on the Right at Boston Street/Water Street/Whitfield Street

Source: VHB

Table 6 Unsignalized Intersection Capacity Analysis Summary – Existing Conditions

Location	Peak Hour	Mov't	Existing Conditions		
			v/c[1]	LOS[2]	Q95[3]
Boston St & Park St	AM	EB T/L	0.06	A	5
		WB T/R	0.14	A	0
		SB L/R	0.10	B	8
	PM	EB T/L	0.11	A	9
		WB T/R	0.18	A	0
		SB L/R	0.20	B	18
	Sat	EB T/L	0.13	A	12
		WB T/R	0.15	A	0
		SB L/R	0.32	C	34
Whitfield St & Boston St/ Water St*	AM	EB L/T/R	-	A	70
		WB L/T/R	-	A	61
		NB L/T/R	-	A	53
		SB L/T/R	-	A	2
	PM	EB L	-	C	85
		EB T/R	-	B	85
		WB L	-	C	95
		WB T/R	-	B	95
		NB L/T	-	C	126
		NB R	-	B	126
		SB L/T/R	-	A	4
	Sat	EB L/R	-	B	96
		EB T	-	C	96
		WB L/T	-	B	87
		WB R	-	A	87
		NB L/T	-	B	54
		NB R	-	A	54
		SB L/T/R	-	C	116
Broad St & Church St	AM	EB L/T	0.04	A	3
		WB T/R	0.10	A	0
		SB L/R	0.21	B	20
	PM	EB L/T	0.10	A	8
		WB T/R	0.16	A	0
		SB L/R	0.34	B	37

Location	Peak Hour	Mov't	Existing Conditions		
			v/c[1]	LOS[2]	Q95[3]
	Sat	EB L/T	0.11	A	9
		WB T/R	0.17	A	0
		SB L/R	0.45	C	57
Broad St & Park	AM	EB L/T/R	-	A	4
		WB L/T/R	-	A	39
		NB L/T/R	-	A	57
		SB L/T/R	-	A	63
	PM	EB L/T/R	-	A	3
		WB L/R	-	A	56
		WB T	-	B	56
		NB L/T	-	B	85
		NB R	-	A	85
		SB L	-	B	94
		SB T/R	-	A	94
	Sat	EB L/T/R	-	A	35
		WB L/T/R	-	A	50
		NB L/T/R	-	A	64
		SB L/T/R	-	A	70
River St & Broad	AM	WB L/R	0.21	B	19
		NB T/R	0.10	A	0
		SB L/T	0.08	A	6
	PM	WB L/R	0.32	B	35
		NB T/R	0.14	A	0
		SB L/T	0.09	A	8
	Sat	WB L/R	0.27	B	27
		NB T/R	0.14	A	0
		SB L/T	0.09	A	8
Broad St &	AM	EB T/R	-	A	56
		WB L/T	-	A	7
		NB L/R	-	A	56
	PM	EB T/R	-	A	65
		WB L/T	-	A	14
		NB L	-	B	94
		NB R	-	A	94

Location	Peak Hour	Mov't	Existing Conditions		
			v/c[1]	LOS[2]	Q95[3]
	Sat	EB T	-	A	72
		EB R	-	A	62
		WB L/T	-	A	20
		NB L/R	-	B	83
Water St &	AM	EB L/T	0.07	A	6
River St		EB R	-	-	-
		WB L	-	-	-
		WB T/R	0.00	A	0
		NB L	-	-	-
		NB T/R	0.01	B	1
		SB L/R	0.29	B	31
		SB T	-	-	-
	PM	EB L/T/R	0.12	A	10
		WB L/T/R	0.00	A	0
		NB L/T/R	0.02	C	2
		SB L/T/R	0.51	C	72
	Sat	EB L/T	0.10	A	8
		EB R	-	-	-
		WB L/T/R	0.00	A	0
		NB L/T	-	-	-
		NB R	0.00	A	0
		SB L/T/R	0.44	C	56

Source: VHB, Inc. using Synchro 11 software
1 volume-to-capacity ratio for the critical movement
2 level of service
3 95th percentile queue length, in feet
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; R = right; T = through, L= left
Shaded cells indicate LOS E or F conditions* Traffic operations analyzed using SimTraffic simulation due to non-standard intersection traffic control, V/C ratio not available.

2.3 Safety Data and Crash Analysis

To assess traffic safety conditions within the study area, crash data was collected from the University of Connecticut, Connecticut Crash Data Repository (CTCDR) from 2019 through 2023 (January 1, 2019, through December 31, 2023), the most recent period of five full years of data at the time of the analysis. It should be noted that only collisions that result in death, injury, or property damage more than $1,000 are required to be reported. In addition, the period for the data reviewed includes the COVID-19 pandemic, which changed travel patterns significantly. The collision data were reviewed for Guilford Green study area, with particular focus given to the study area intersections.

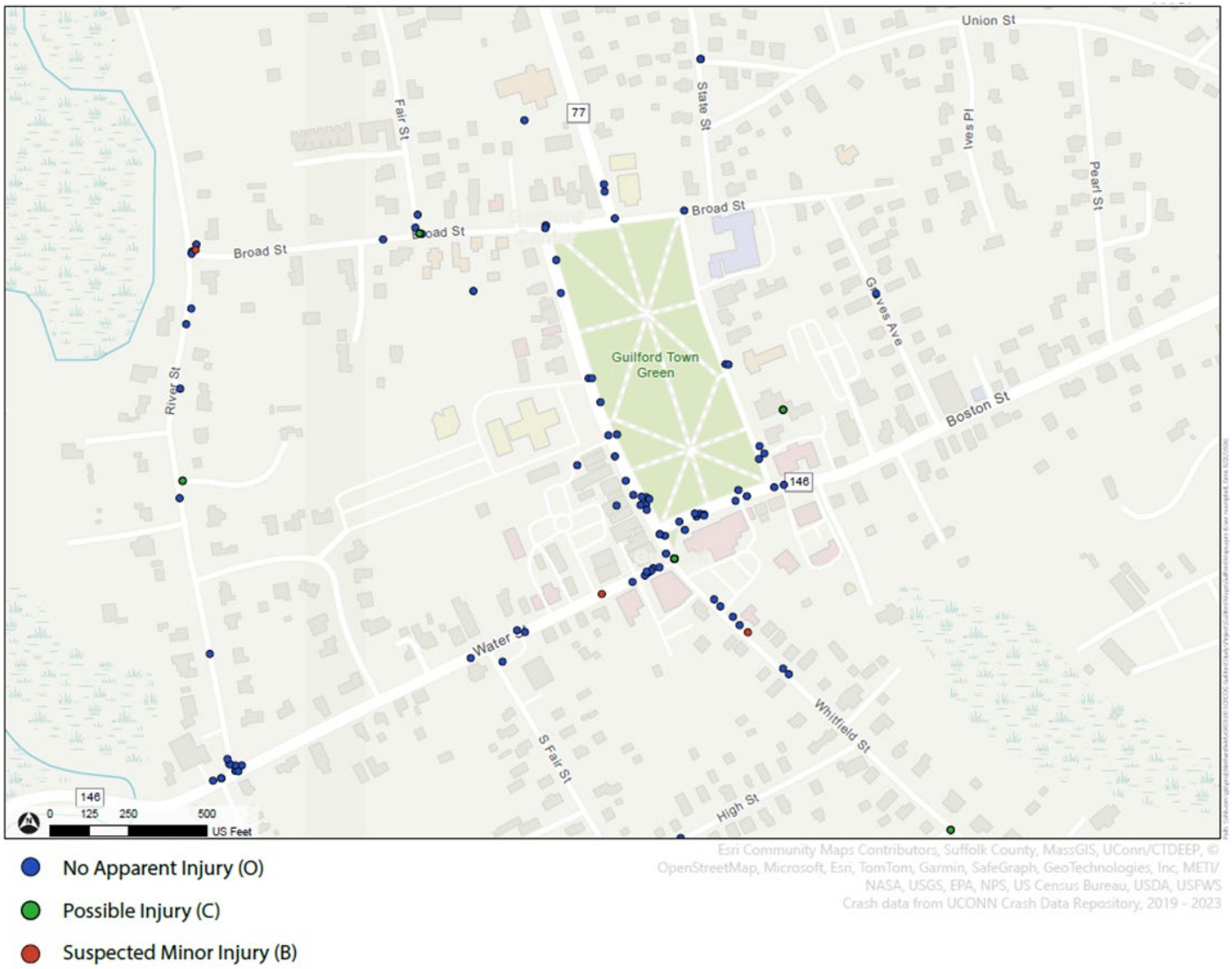
For this period, there were ninety-one crashes total in the study area. Five crashes, or 5.5 percent, resulted in injuries. No fatal injuries were recorded. The most common crash types were angle crashes at 28.6%, front to rear (rear-end) crashes at 27.5%, and rear to side crashes at 12%. January accounted for the highest proportion of crashes by month (12%) as well as two of the three more severe injury crashes (66%). There were also two pedestrian crashes and two bicycle crashes. One of the pedestrian crashes occurred at the intersection of Broad Street and Whitfield Street, while the other occurred at Water Street and Whitfield Street. Both bicycle crashes occurred on Whitfield Street south of Water Street, and one of the bicycle crashes resulted in an injury.

The crash data does not show any apparent differences in crashes between the years of the COVID-19 pandemic (primarily 2020 and 2021) and the non-pandemic years (pre-pandemic in 2019, and post-pandemic in 2022 and 2023). The years of 2021, 2022, and 2023 have fewer total crashes and injuries than 2019 and 2020, but these are small numbers for comparison. See Table 7.

A map of the study area with total crashes by severity is shown in Figure 6.

Crash data from 2024 was also reviewed to determine if there was difference in crash trends around the Guilford Green compared to the analysis conducted for the preceding five years. Twenty crashes were reported around the Guilford Green in 2024, with three injury crashes. Two of the injury crashes were also pedestrian crashes and occurred in the south crosswalk at Whitfield Street and Broad Street, and at the 63 Whitfield Street crosswalk. No bicycle crashes were reported. All other crashes were mainly parking-related or rear-end crashes.

Figure 6 Location of Crashes and Severity in the Study Area



Source: VHB, Connecticut Crash Data Repository

2.3.1 Overall Guilford Green Crash Summary

Table 7 below shows an overall breakdown of all the crashes analyzed in the study area. It includes 5 years' worth of crash data, from 2019 through 2023, separated by year, and describes the manner of the collision, the time of day it occurred, the lighting conditions of the crash, the weather and surface conditions, and the crash severity.

Table 7 Crash Summary

	Manner of Collision										Time of Day			Lighting			Weather					Surface					Injury Severity					
Year	Front to Rear	Sideswipe, Same Direction	Angle	Sideswipe, Opposite Direction	Other	Front to Front	Rear to Side	Rear to Rear	Unknown	Not Applicable	AM Peak (7am – 10am)	PM Peak (4pm – 7pm)	Off-Peak	Daylight	Dawn/ Dusk	Darkness	Cloudy/Clear	Fog/Mist	Rain	Snow	Other	Dry	Wet	Snowy	Icy	Other	K: Fatal	A: Suspected Serious Injury	B: Suspected Minor Injury	C: Possible Injury	O: No Apparent Injury	Total
2019	7	3	7				2			2	1	4	16	17		4	18		2	1		17	3	1					1	1	19	**21**
2020	9		6	1			1			4	3	6	12	19		2	20			1		19	2						2		19	**21**
2021	5	2	3	1			1		1	4	2	4	11	13		4	14		2		1	14	3							1	16	**17**
2022		1	6	2	2		3			2	2	4	10	14		2	13			2	1	13	3								16	**16**
2023	4	2	4	1			4			1	2	4	10	16			15		1			15	1								16	**16**
Total	**25**	**8**	**26**	**5**	**2**	**0**	**11**	**0**	**1**	**13**	**10**	**22**	**59**	**79**	**0**	**12**	**80**	**0**	**5**	**4**	**2**	**78**	**12**	**1**	**0**	**0**	**0**	**0**	**3**	**2**	**86**	**91**

As shown in this table, the years with the greatest number of crashes were 2019 and 2020 (21 crashes each). Fewer crashes occurred in 2021, with seventeen crashes, and 2022 and 2023, with sixteen crashes each year. This reduction is likely due to lower overall traffic volumes that have been trending downward over time, and from changes to traffic volumes and distribution post-COVID-19 pandemic. Around 13% of crashes occurred in darkness or low-light conditions. Approximately 12% of crashes occurred during precipitation or other weather. Finally, about 11% of crashes occurred during the AM peak period while 24% occurred during the PM peak period. The remaining 65% of crashes occurred during off-peak hours

2.3.2 Collision Summary

Table 8 shows a summary of the manner of collision for the crashes from 2019-2023 that were studied for this project. As noted earlier, the most common crash types were angle crashes at 28.6%, front to rear (rear-end) crashes at 27.5%, and rear to side crashes at 12%, for a total of 68% of crashes being these types. All other collisions (which include sideswipe same direction, sideswipe opposite direction, other, front to front, rear to rear, unknown, and not applicable) accounted for about 32% of crashes. Five crashes (5.5%) resulted in injuries, three of these crashes were suspected minor injuries (injury type B). The three B crashes were from a rear-end collision, angle collision, and one of the bicyclist crashes (coded as Not Applicable).

Table 8 Collision Summary

Crash Severity	Number of Crashes	*Percent of Total*
Fatal Injury(K)	0	*0.00%*
Suspected Serious Injury (A)	0	*0.00%*
Suspected Minor Injury (B)	3	*3.30%*
Possible Injury (C)	2	*2.20%*
No Apparent Injury (O)	86	*94.51%*
Total	**91**	***100%***
KAB Crashes	***3***	***3.30%***

				K	A	B	C	O	Total
Manner of Collision	Front to Rear	25	*27.47%*			1	2	22	**25**
	Sideswipe, Same Direction	8	*8.79%*					8	**8**
	Angle	26	*28.57%*			1		25	**26**
	Sideswipe, Opposite Direction	5	*5.49%*					5	**5**
	Other	2	*2.20%*					2	**2**
	Front to Front	0	*0.00%*					0	**0**
	Rear to Side	11	*12.09%*					11	**11**
	Rear to Rear	0	*0.00%*					0	**0**
	Unknown	1	*1.10%*					1	**1**
	Not Applicable	13	*14.29%*			1		12	**13**

Source: UConn Connecticut Crash Data Repository

2.3.3 Crashes by Time of Day

During the 2019-2023 period, the hours of 3:00 PM to 4:00 PM, 12:00 PM to 1:00 PM, 1:00 PM to 2:00 PM, and 4:00 PM to 5:00 PM accounted for the highest proportion of crashes at 17.58%, 15.38%, and 13.19% (both hours) respectively. Table 9 shows all crashes by hour of day for the five-year period.

Table 9 Crashes by Time of Day

Crash Hour	Number of Crashes	Percent of Total
12:00 AM to 1:00 AM	2	*2.20%*
1:00 AM to 2:00 AM	1	*1.10%*
2:00 AM to 3:00 AM	0	*0.00%*
3:00 AM to 4:00 AM	0	*0.00%*
4:00 AM to 5:00 AM	0	*0.00%*
5:00 AM to 6:00 AM	0	*0.00%*
6:00 AM to 7:00 AM	0	*0.00%*
7:00AM to 8:00 AM	1	*1.10%*
8:00 AM to 9:00 AM	4	*4.40%*
9:00 AM to 10:00 AM	5	*5.49%*
10:00 AM to 11:00 AM	4	*4.40%*
11:00 AM to 12:00 PM	5	*5.49%*
12:00 PM to 1:00 PM	14	*15.38%*
1:00 PM to 2:00 PM	12	*13.19%*
2:00 PM to 3:00 PM	2	*2.20%*
3:00 PM to 4:00 PM	16	*17.58%*
4:00 PM to 5:00 PM	12	*13.19%*
5:00 PM to 6:00 PM	5	*5.49%*
6:00 PM to 7:00 PM	5	*5.49%*
7:00 PM to 8:00 PM	1	*1.10%*
8:00 PM to 9:00 PM	0	*0.00%*
9:00 PM to 10:00 PM	1	*1.10%*
10:00 PM to 11:00 PM	0	*0.00%*
11:00 PM to 12:00 AM	1	*1.10%*
Total	**91**	***100%***

2.3.4 Crashes by Month

Table 10 show crashes by month of the year. January accounts for the highest proportion of crashes by month (12.09%). The greatest number of KAB crashes also occurred in January with 66% of KAB crashes, with other minor injury crash occurring in November.

Table 10 Crashes by Month

Crash Month	Number of KAB Crashes	Percent of Total KAB Crashes	Number of Crashes	Percent of Total
January	2	66.66%	11	12.09%
February	0	0.00%	7	7.69%
March	0	0.00%	7	7.69%
April	0	0.00%	6	6.59%
May	0	0.00%	9	9.89%
June	0	0.00%	5	5.49%
July	0	0.00%	9	9.89%
August	0	0.00%	8	8.79%
September	0	0.00%	9	9.89%
October	0	0.00%	7	7.69%
November	1	33.33%	7	7.69%
December	0	0.00%	6	6.59%
Total	**3**	**100%**	**91**	***100%***

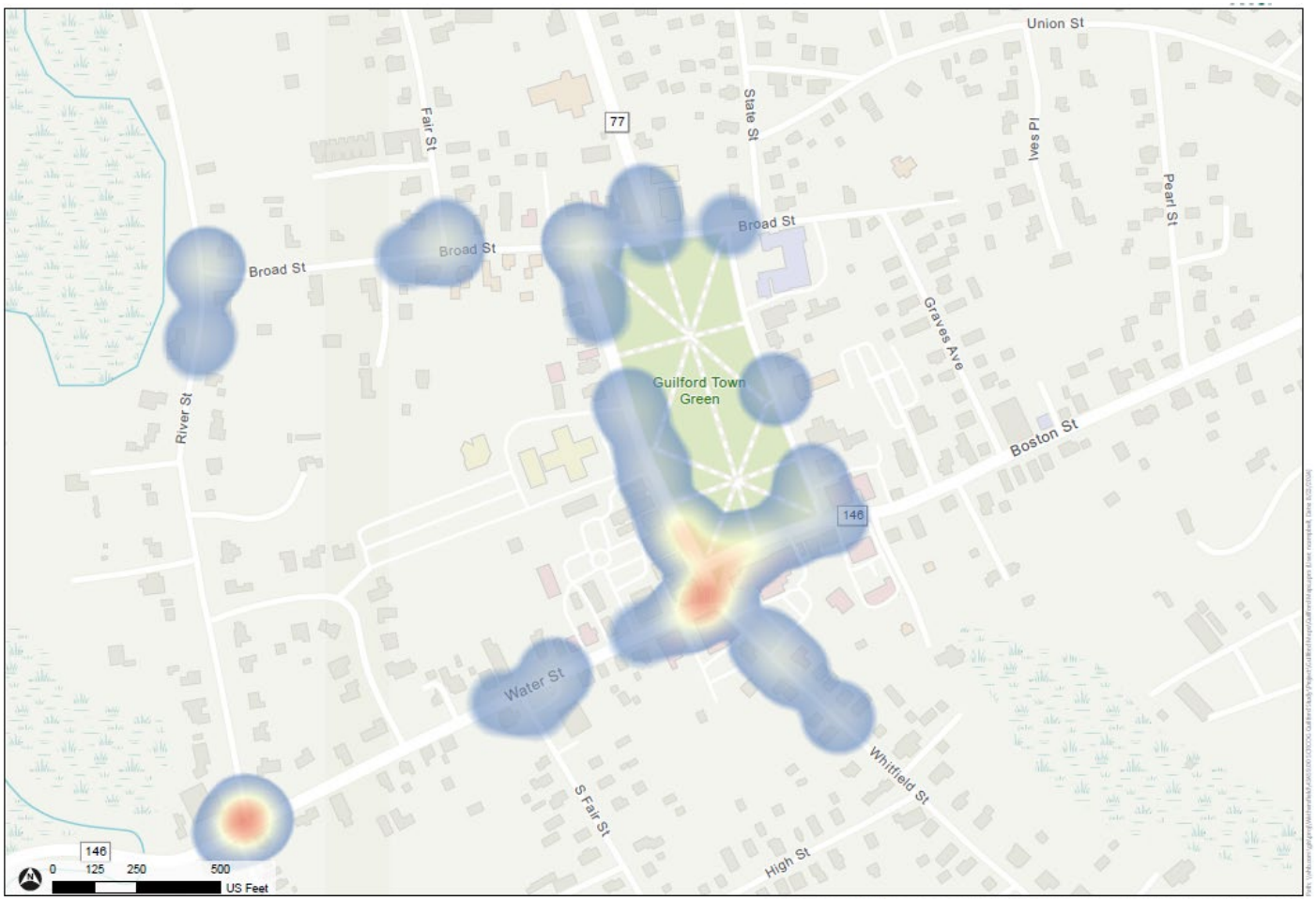
2.3.5 Intersection Crashes

Sixty crashes occurred at the seven key intersections around the Guilford Green in the primary study area listed in Table 11. In terms of the total number of crashes, the location with the highest number of crashes was Whitfield Street at Boston Street/Water Street with twenty-seven crashes in total. One of the minor injury crashes occurred at Broad Street and River Street, while a possible injury crash occurred at Whitfield Street and Boston Street/Water Street. See Figure 7 which shows the density of all crashes in the study area from 2018-2023.

Table 11 Intersection Crashes

Intersection	Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury (B)	Possible Injury (C)	No Apparent Injury (O)	Total
Broad St & Park St	0	0	0	0	1	***1***
Broad St & River St	0	0	1	0	3	***4***
River St & Boston St	0	0	0	0	12	***12***
Rte 77 (Whitfield St) at Rte 146 (Boston St/Water St)	0	0	0	1	26	***27***
Rte 77 (Church St) at Broad St	0	0	0	0	3	***3***
Rte 77 (Whitfield St) at Broad St	0	0	0	0	5	***5***
Rte 146 (Boston St) at Park St	0	0	0	0	8	***8***
Total	***0***	***0***	**1**	**1**	**58**	***60***

Figure 7 Density of Crash Activity in the Study Area



Source: VHB

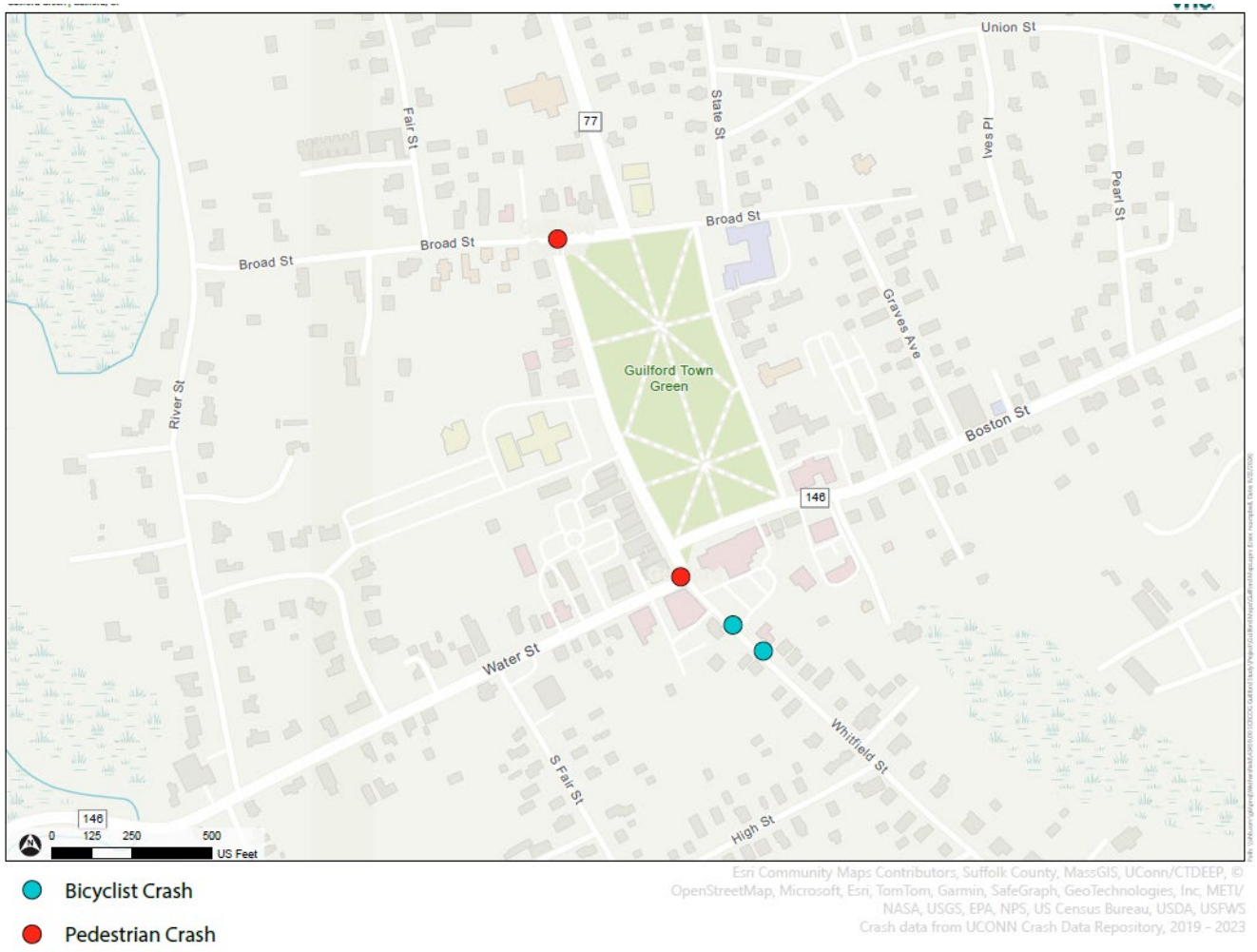
2.3.6 Pedestrian and Bicycle Involved Crashes

There were two pedestrian crashes, and two bicycle crashes reported during the 2019-2023 period. One of the bicyclist crashes resulted in an injury; the other crashes did not have injuries associated with them. Figure 8 shows the locations of pedestrian and bicycle crashes in the study area.

The pedestrian crashes occurred at Broad Street and Whitfield Street and at Whitfield Street and Boston Street/Water Street. Both pedestrian crashes occurred in winter (December and January) in the evening and did not result in an injury.

Both bicyclist crashes occurred on Whitfield Street south of Water Street. The injury crash occurred on a Sunday in November 2020 under dry conditions. According to the crash data and diagrams from the UConn crash database, both bicycle crashes were driveway-related, where a driver entered the roadway into the bicyclist.

Figure 8 Pedestrian & Bicycle Crash Location Map



Source: VHB

2.4 Bicyclists, Pedestrians, and Vulnerable Users

The following sections describe the existing conditions for people bicycling and walking in the study area. Users who walk and bicycle along roadways may be referred to as "Vulnerable Users," indicating that they are more likely to be injured or killed if struck by a motor vehicle in a traffic crash, and thus their exposure to high-speed and high-volume traffic within the transportation system must be minimized. This is especially important at intersections and road crossings where people biking and walking must cross into the road to access the opposite side of the road.

As noted in the Location Context (Section 2.1), the area around the Guilford Town Green has a dense mix of land uses and stores that allow for a greater degree of walking and biking trips than other parts of the town. The presence of frequent visitors and tourists also increases the number of people walking and biking through the Town Center, who wish to experience a traditional New England small town center with closely spaced colonial homes and buildings. Making a safe and inviting Town Center area is an important goal for the Town and supports the Safe Streets Report that was released in 2022. Improving conditions for people biking and walking around the Guilford Green will be important to complement the Town's efforts in other areas of Guilford.

Additionally, the Safe Streets Task Force is a standing Town Committee whose mission is to "improve safety, mobility equity, and connectivity for Guilford Residents while preserving and enhancing scenic, historic, and environmental resources." The Task Force was formed in 2018 and spearheaded the development of a Complete Streets Resolution that was adopted by the Guilford Board of Selectmen in 2020, and further guided the development of the Guilford Safe Streets Report in 2022. They have regular meetings, promote biking and walking in Guilford, help with Safe Routes to Schools, and advocate for engineering, education, and enforcement strategies to reduce traffic crashes and deaths for all road users.

2.4.1 Pedestrians

The pedestrian environment is particularly important to the Town of Guilford, to have a safe and walkable town center where people will make fewer trips by car and "park once" to visit the businesses in the area. The historic town center was constructed as a compact and walkable built environment before the advent of the automobile, when walking was the primary travel mode for daily trips. Overall, the town center and Guilford Green area retains its walkable character and is an asset to the town as a destination for residents and visitors. The VHB Team visited the Guilford Green area to review pedestrian infrastructure and conduct observations on sidewalk conditions, connectivity, ADA accessibility, and comfort.

2.4.1.1 Curb Ramps and Crosswalks

As part of the field work conducted, visual observations of curb ramps around the study area were documented. Prior to this Study, data on curb ramps was collected in 2021 as part of the development of the Guilford Safe Streets Report and was mapped for that project. Figure 10 shows a map of curb ramps and sidewalk conditions for the Guilford Green area from the Safe Streets Report.

The data from the Safe Streets Report shows that most sidewalks and curb ramps around the Guilford Green are in fair or better condition. One curb ramp on the Park Street side of the Guilford Green was identified as being in poor condition. During the Guilford Green Transportation Study field review, some crosswalks around the Guilford Green were also observed to have significant drainage issues as well. See Figure 9 for an example.

Figure 9 Flooded Curb Ramp – Whitfield Street at Boston Street

Source: VHB

The curb ramp and sidewalk analysis for the Safe Streets Report also indicated where there is the potential for new curb ramps. These include two ramps in front of the Post Office on Water Street, two on the east side of Park Street across from existing ramps leading to the Guilford Green, and one on the south side of Broad Street at State Street. Recent aerial mapping shows the curb ramps at the Post Office and at Broad Street have been installed in the past one or two years.

Designated crosswalks are located at each corner of the Guilford Green and there are several mid-block crossings as well on Whitfield Street and Park Street. Crosswalk density is high, given the high pedestrian activity at the Guilford Green and in the Town Center. Whitfield Street has the greatest number of crosswalks, with five between Boston Street and Broad Street, three of them at mid-block locations. Many of the crosswalks are uncontrolled, requiring drivers to yield to pedestrians if they are in the crosswalk or waiting at the curb to cross.

Crosswalk types varied between continental-style crosswalks with perpendicular bars and crosswalks with concrete pavers laid out in a herringbone pattern. The concrete pavers are colored gray and have two longitudinal white pavement stripes on either side to indicate the crosswalk. The Town noted some concern that the lack of color in the crosswalk makes them less visible and indicated interest in developing a different design for the enhanced crosswalks.

Figure 10 Curb Ramp and Sidewalks Conditions Around Guilford Green

Source: Guilford Safe Streets Report, 2022

2.4.1.2 Sidewalks

The sidewalk network in the Guilford Green area is substantially complete, with very few gaps in the network. The exception is the south side of Broad Street between River Street and Whitfield Street and the west side of River Street, as can be seen on Figure 10. There are also no sidewalks on the east and west sides of the Guilford Green, while they are on the north and south sides. Also shown in Figure 10 from the Guilford Safe Streets Report, most sections of the sidewalk are in fair or better condition. The report showed sections of sidewalk near the Guilford Green on Broad Street and Water Street that are in poor condition. However, field review and aerial mapping show that these sidewalk sections have recently been replaced.

The Guilford Green itself has an internal sidewalk network traversing the Guilford Green horizontally and diagonally to create walking routes that are mostly in line with desire paths for pedestrians to go from one side of the Guilford Green to the other, or simply to recreate. Sidewalks on the west/Whitfield side of the Guilford Green lead to crosswalks across Whitfield Street. On the east/Park Street side, one set of sidewalks leads to a crosswalk, to cross Park Street to the Town Hall. The sidewalks that end north and south of this crossing of Park Street have curb ramps but no crosswalks, although this appears to have been suggested by the Safe Streets Report (as indicated by the suggestion of new curb ramps on the east side of Park Street).

2.4.1.3 Streetscaping and Street Furniture

The Guilford Green has a large number of shade trees within the interior of the Guilford Green and along its edges. There are also frequent benches, several monuments, internal pedestrian lighting, and trash receptacles.

The streetscape of the sidewalks and built environment opposite the Guilford Green vary in intensity depending on the number of businesses and their type. The mixed use, walkable urban form and presence of retail and restaurants on Whitfield Street south of the St. George Catholic Church includes many street trees, benches, outdoor dining, business signage, and other street furniture, some temporary in nature. This is partly a factor of the wider sidewalks along this section of Whitfield Street. Boston Street and Water Street also have a mix of businesses along the road frontage, but the use of the sidewalk is more limited. Areas further north on Whitfield and along Park Street and Broad Street are more limited in their usage as well.

Outdoor dining was observed at certain locations around the Guilford Green. When placing outdoor dining, a minimum of 4’ clear walking space must be provided for ADA access along the sidewalk. However, a functional width for a more active sidewalk environment is greater than the minimum for pedestrian passage, as at least 6’ is preferable to provide enough space for pedestrians to pass each other. There were some locations where sidewalk dining tables and chairs were observed that narrowed the effective width of the sidewalk area, specifically on Water Street.

2.4.1.4 Pedestrian Count Data

Pedestrian data was collected during the Turning Movement Counts that were conducted by VHB in May 2024. Table 12 displays the total number of pedestrians that were identified crossing at each intersection location. Note that counts were completed at peak hours at each

intersection and represent pedestrian traffic over the course of two or three hours during each count period. The counts also do not include other pedestrians within the area that were not crossing.

The data shows that the greatest number of pedestrians crossing are at Whitfield Street at Water Street/Boston Street, Boston Street at Park Street, and Broad Street at Park Street/State Street. Saturday counts during the middle of the day had the greatest number of pedestrians at most intersections. This count data is useful to help understand that a sizable number of pedestrians are utilizing the intersections around the Guilford Green, at all times of the day.

Table 12 Pedestrian Counts, May 2024

Location	Day of the Week	Peak Period	Total Pedestrians
Boston Street at Park Street	Thursday	AM (6-9)	57
	Thursday	PM (4-6)	65
	Saturday	11 AM – 1 PM	85
Broad Street at Church Street	Wednesday	AM (6-9)	33
	Wednesday	PM (4-6)	57
	Saturday	11 AM – 1 PM	103
Broad Street at Park Street/State Street	Thursday	AM (6-9)	60
	Thursday	PM (4-6)	47
	Saturday	11 AM – 1 PM	58
Broad Street at River Street	Thursday	AM (6-9)	40
	Thursday	PM (4-6)	11
	Saturday	11 AM – 1 PM	14
Broad Street at Whitfield Street	Thursday	AM (6-9)	18
	Thursday	PM (4-6)	29
	Saturday	11 AM – 1 PM	67
Water Street at River/Meadow Street	Thursday	AM (6-9)	9
	Thursday	PM (4-6)	12
	Saturday	11 AM – 1 PM	22
Whitfield Street at Boston/Water Street	Thursday	AM (6-9)	77
	Thursday	PM (4-6)	134
	Saturday	11 AM – 1 PM	255

2.4.2 Bicycling

The goal of the Town's Safe Streets Report is to improve safety and access for bicycling in Guilford. There are no dedicated on-street bicycle facilities within the study area. While most of the roads are low-speed and bicyclists can ride with traffic, there is a higher amount of traffic and on-street parking on the state roadways that decrease the comfort of less-experienced bicyclists. Shared-lane markings were observed on Whitfield Street south of Water Street, which are pavement markings indicating a shared-street environment but do not provide separated space for bicycling.

Bicyclists, both children and adults, were observed riding on sidewalks opposite the Guilford Green and on the sidewalks within the Guilford Green itself. Although riding on sidewalks is not unlawful in Guilford, the sidewalks on the Guilford Green are not conducive to bicycling because of the high number of pedestrians which can lead to frequent conflicts, and the sidewalks are only 5-6' wide. Sidewalks around the Guilford Green next to local businesses and residents are also not conducive for sharing between pedestrians and bicyclists as they are also narrow, and street furniture creates obstacles for bicyclists and less space to maneuver. Some bicyclists were observed riding on the road, and Route 146 is known to be a popular bicycling route for the area.

Bicycle parking was not observed in the study area, and there is no mapping of bicycle parking available for this study.

Figure 11 Bicyclist on Sidewalk at Boston Street and Park Street

Source: VHB

2.4.2.1 CTDOT Active Transportation Plan

The 2018 CTDOT Active Transportation Plan was reviewed for its applicability to the study area. Route 77, along Whitfield Street, Broad Street, and Church Street, is considered part of the "On Road Bicycle Planning Network" of State Maintained Roads as noted in the Active Transportation Plan. Park Street and State Street are also part of the network as Municipal Maintained Roads. The Plan also included an analysis of suitability of state roads for bicycling, as well as priority implementation tiers for the bicycle planning network on state routes. Route 146 and Route 77 were both reviewed in this analysis, including Boston Street, Water Street, Whitfield Street, and Church Street. Within the study area, Boston Street east of the Guilford Green and Water Street are considered "more suitable" for bicycling, while Boston Street and Whitfield Street directly around the Guilford Green are considered "most suitable." This is due to the lower traffic speeds and lower traffic, combined with wide shoulder areas/parking. Church Street going north out of the study area is considered "least suitable" for bicycling, due to higher speeds and traffic volumes, and limited shoulder area for bicyclists to move out of the main travel lane.

The roadways included in the "On Road Bicycle Planning Network" have planned Bicycle Facility Implementation Tiers in the mid- to low-range (Tier II-6 to Tier II-8 for Whitfield and Church Street, and Tier III-1 to Tier III-2 for Boston and Water Street Streets) as shown on Figure 13. According to the Active Transportation Plan, Tier 2 segments are those that CTDOT could consider incorporating bicycle improvements as part of maintenance and other road projects, and Tier 3 segments are those that generally meet criteria and should not be a DOT priority, however, they should maintain existing level of service for bicyclists on these routes in future road projects. See Figures 12 and 13 which are taken from the CTDOT Active Transportation Plan map and show the bicycle suitability ratings and the implementation tiers, respectively.

Figure 12 CTDOT Active Transportation Plan Bicycle Suitability Map – Guilford Green

Source: CTDOT Active Transportation Plan

Figure 13 CTDOT Active Transportation Plan Bicycle Facility Implementation Tiers – Guilford Green

Source: CTDOT Active Transportation Plan

2.5 Public Transportation

Public transportation consists of one local bus route that is part of the CT Transit system and connects to downtown New Haven, and the Greater New Haven Transit District, which provides ADA paratransit service in the Greater New Haven area where CT Transit's New Haven Division operates. The Guilford Senior Center also provides transportation for seniors on Monday, Tuesday, Thursdays, and Fridays within Guilford for errands, food shopping medical appointments, and other travel. South of the study area is the Guilford train station off Old Whitfield Street which provides CT Rail Shore Line East train service to New Haven and New London.

Guilford is also participating in a Microtransit Pilot Program called XtraMile with River Valley Transit (RVT). This program, which started on May 28, 2024, is funded for two years by CTDOT. The program serves all of Guilford and customers can book on-demand rides and pay $1.75 for a one-way trip.

2.5.1 Bus Routes and Stops

Local service is provided by CT Transit Route 201 New Haven/Madison, which runs along Route 1 starting in New Haven and ending in Madison. It passes by the north side of the Guilford Green along both directions of its route. Bus frequency varies from 30-60 minutes depending on the time of day, with more frequent service in the morning towards New Haven and the afternoon towards Madison. Weekend service is provided only on Saturdays on an approximately hourly basis.

See Figure 15 for the map of Bus Route 201 from CT Transit.

Route 201 has four stops near the Guilford Green, two outbound to Madison and two inbound to New Haven. These stops are:

- Broad Street at Church Street (Inbound)
- Broad Street at Fair Street (Inbound)
- Broad Street at Whitfield Street (Outbound)
- State Street at Market Place (Outbound)

See Figure 16 for a map of the bus route and stops in the study area.

There were no bus stop shelters for riders observed in the Guilford Green area. All bus stops have adjacent or nearby sidewalks, although the sidewalk for the outbound Broad Street/Whitfield Street stop, which is on the Guilford Green, is about 25' from the stop itself. The Broad Street/Whitfield Street stop is also the only stop with a bench nearby. However, there is no accessible path to this stop. This and the other bus stops do not have landing areas to provide ADA access to Route 201 buses.

Figure 14 CT Transit Bus Route 201 Map – New Haven/Madison

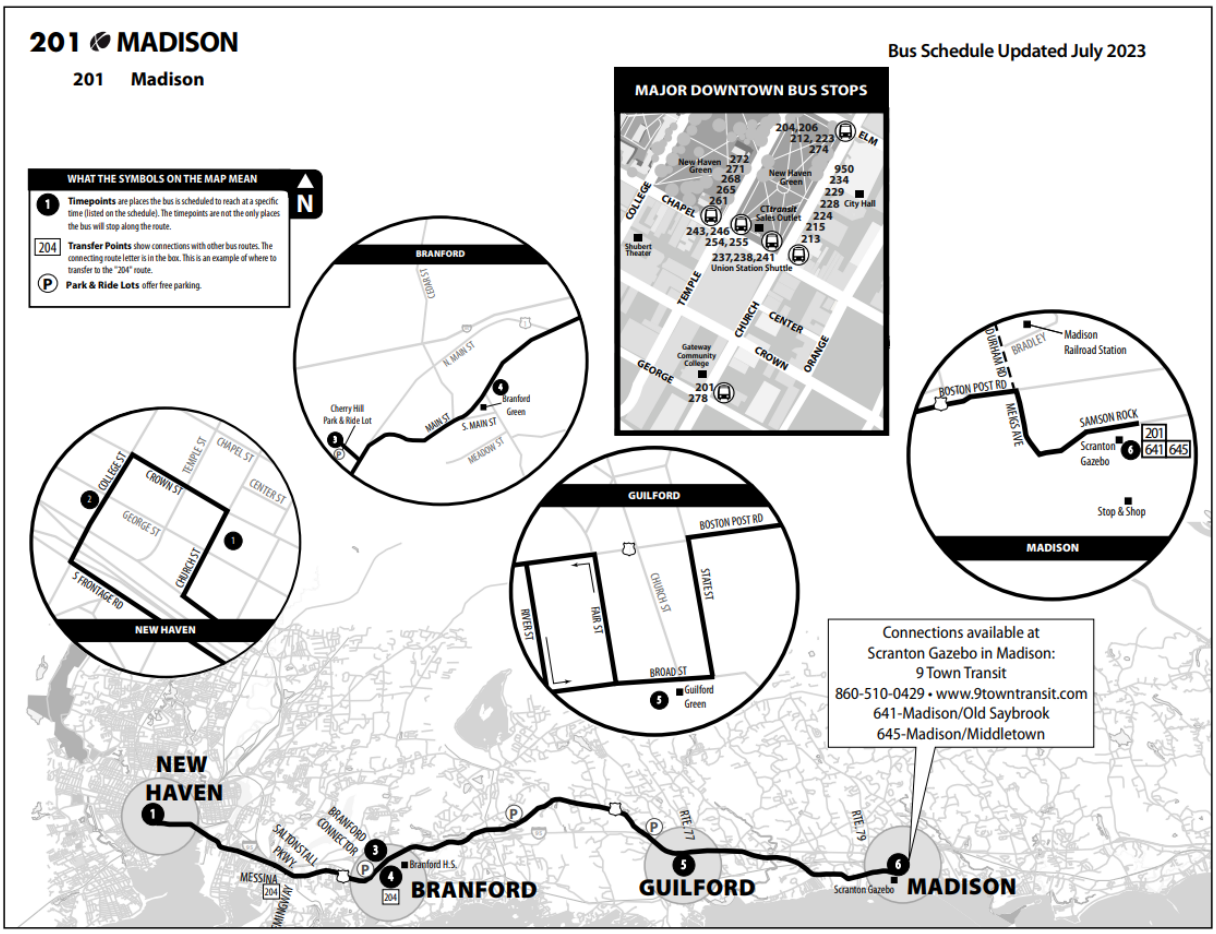
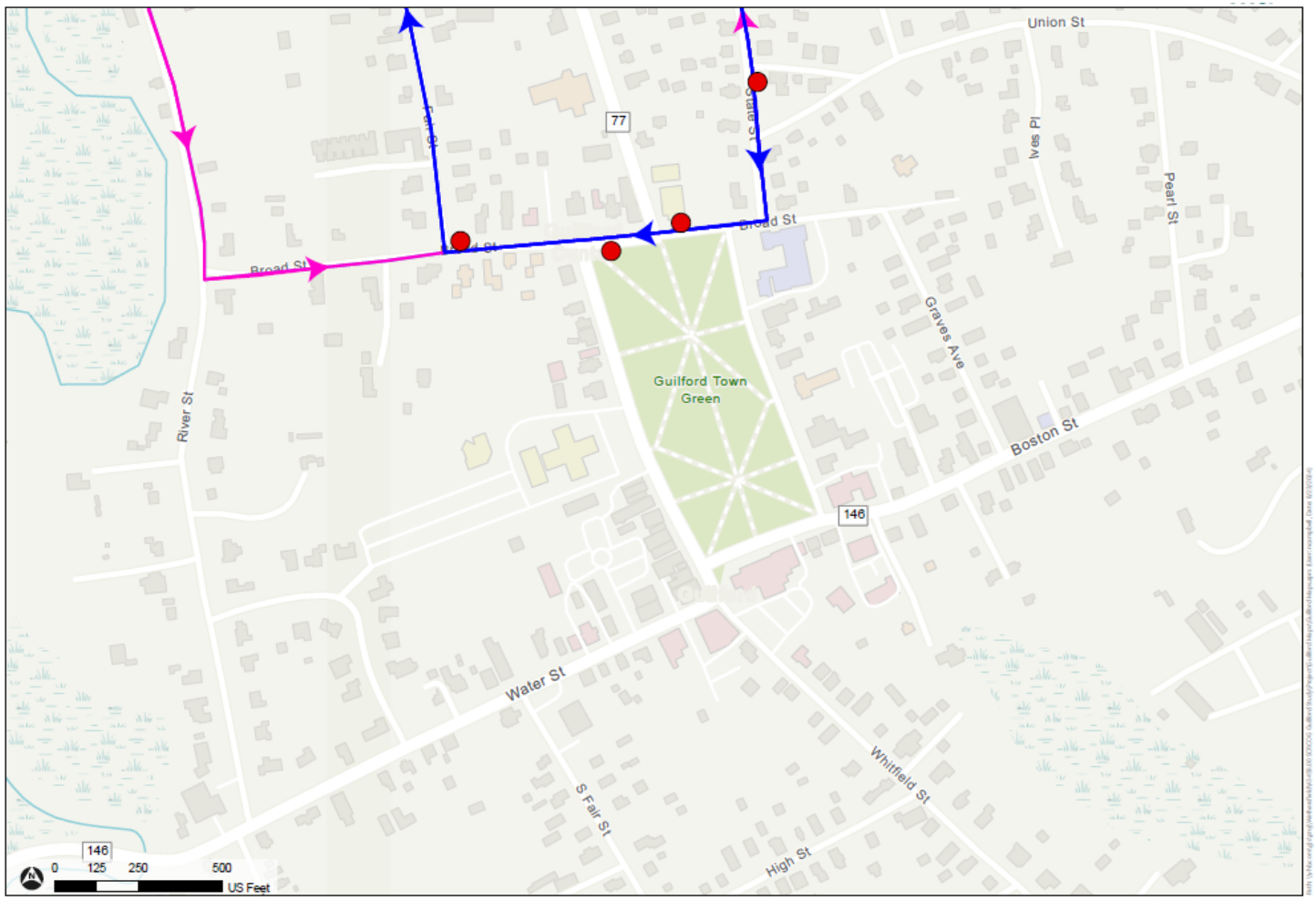


Figure 15 Public Transportation Around Guilford Green



Source: VHB

2.6 Parking Data Collection

Parking data around the Guilford Green area was collected on Thursday, July 11, 2024. On-street parking and specific public and private off-street parking lots within approximately one quarter mile of the Guilford Green were surveyed to determine parking utilization over a period of six hours, from noon to 6 PM. The parking areas were surveyed once an hour to get a baseline of overall demand and utilization of parking facilities around the Guilford Green. In total, 923 parking spaces were surveyed around the Guilford Green.

On-street parking surveyed included:

- Water Street from S. Fair Street to Whitfield Street (both sides)
- Whitfield Street from Water Street to High Street (both sides)
- Whitfield Street from Broad Street to Water Street (both sides)
- Broad Street from Fair Street to Whitfield Street (both sides)
- Broad Street from Whitfield Street to Park Street/State Street (both sides)
- State Street from Broad Street to Market Place (west side)
- Park Street from Broad Street to Boston Street (west side)
- Boston Street from Whitfield Street to Park Street (both sides)
- Boston Street from Park Street to Graves Ave (both sides)
- Graves Street from Broad Street to Boston Street (both sides)

Off-street parking surveyed included the following public and private lots:

- Whitfield & Water Shoppes Parking Lot
- Town Hall Parking Lot
- Guilford Free Library Parking Lot
- St. George Catholic Church Parking Lot and private street parking directly around the church

After review of the data and field observations, the following locations were discounted because it was found that they were signed to prohibit on-street parking: the east side of Graves Avenue, the north side of Boston Street between Park Street and Graves Avenue, and the east side of Whitfield Street between Water Street and High Street. It was also noted that there were only three parking spaces on the west side of Whitfield Street between Water Street and High Street, all closest to the Water Street intersection.

The St. George Catholic Church parking lot is a privately owned lot that is informally available for public parking during the week, according to staff from the Town of Guilford. There are also 76 spaces within the parking lot demarcated with green pavement lines that are for the use of employees of businesses around the Guilford Green. There is a formal agreement for the use of these spaces, with a goal to shift employee parking away from the on- and off-street parking meant for customers and visitors. However, observations showed these spaces were typically not being used.

2.6.1 Parking Data Findings

Parking usage of various on- and off-street parking areas was determined by dividing the number of parking spaces occupied by the number available parking spaces in the segment or lot to get a percentage of occupied spaces. This data is graphically depicted in the series of maps shown in Figures 17 – 22.

Table 13 shows the raw parking data collected from the parking lots with the utilization totals for the whole area studied. Table 14 shows the data collected by utilization percentage per hour.

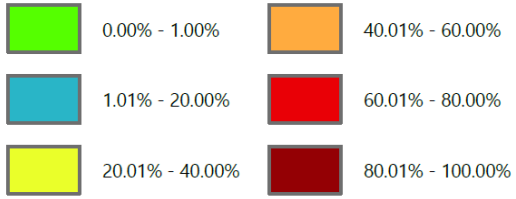
Table 13 Parking Data for the Guilford Green, July 2024

	Available Spaces				Occupancy by Time of Day					
On-Street/Off-Street Location	**Regular**	**Handicap**	**Other**	**Total**	**12 - 1 PM**	**1 – 2 PM**	**2 – 3 PM**	**3 – 4 PM**	**4 – 5 PM**	**5 – 6 PM**
Whitfield St South of Water St (West Side)	3	0	0	3	1	0	0	0	0	2
Water St Btwn S. Fair & Whitfield St (South Side)	14	0	0	14	9	11	8	7	10	9
Water St Btwn S. Fair & Whitfield St (North Side)	18	0	0	18	6	6	12	10	5	10
Whitfield & Water Shoppes Parking Lot	146	7	0	153	117	124	116	99	103	103
St. George Church Parking Lot	224	5	0	229	22	5	4	7	7	12
St. George Church - Side and Front Parking	11	14	0	25	0	1	1	3	1	2
Whitfield St Btwn Broad & Water - Building Side	41	2	0	43	42	40	29	33	22	39
Whitfield St Btwn Broad & Water - Green Side	33	6	0	39	24	27	20	17	10	19
Broad St Btwn Fair St & Whitfield St (South Side)	13	0	0	13	0	2	1	0	0	0
Broad St Btwn Fair St & Whitfield St (North Side)	12	0	0	12	1	2	4	0	1	1
Broad St Btwn Whitfield St & State St (North Side)	11	0	0	11	6	8	7	5	6	2
Broad St Btwn Whitfield St & Park St (South Side)	12	0	0	12	11	10	10	11	10	8
State St Btwn Broad St & Market Pl (West Side)	15	0		15	2	1	4	2	0	0
Library Parking Lot	41	3		44	38	39	39	28	23	26
Park St (West Side)	70	3	0	73	55	55	39	39	36	18
Town Hall Parking Lot	117	9	34	160	102	88	97	89	80	43
Graves Ave (West Side)	23	0	0	23	2	5	4	4	4	1
Boston St Btwn Park St & Graves Ave (South Side)	7	0	0	7	0	0	0	0	0	0
Boston St Btwn Whitfield & Park St (North Side)	10	0	0	10	5	3	4	5	5	8
Boston St Btwn Whitfield & Park St (South Side)	18	1	0	19	11	8	7	11	4	10
TOTALS	**839**	**50**	**34**	**923**	**454**	**435**	**406**	**370**	**327**	**313**
TOTAL UTILIZATION					**49.2%**	**47.1%**	**44.0%**	**40.1%**	**35.4%**	**33.9%**

Table 14 Parking Data by Utilization Rate, July 2024

	Percentage Occupancy by Time of Day					
On-Street/Off-Street Location	**12 - 1 PM**	**1 – 2 PM**	**2 – 3 PM**	**3 – 4 PM**	**4 – 5 PM**	**5 – 6 PM**
Whitfield St South of Water St (West Side)	33%	0%	0%	0%	0%	67%
Water St Btwn S. Fair & Whitfield St (South Side)	64%	79%	57%	50%	71%	64%
Water St Btwn S. Fair & Whitfield St (North Side)	33%	33%	67%	56%	28%	56%
Whitfield & Water Shoppes Parking Lot	76%	81%	76%	65%	67%	67%
St. George Church Parking Lot	10%	2%	2%	3%	3%	5%
St. George Church - Side and Front Parking	0%	4%	4%	12%	4%	8%
Whitfield St Btwn Broad & Water - Building Side	98%	93%	67%	77%	51%	91%
Whitfield St Btwn Broad & Water - Green Side	62%	69%	51%	44%	26%	49%
Broad St Btwn Fair St & Whitfield St (South Side)	0%	15%	8%	0%	0%	0%
Broad St Btwn Fair St & Whitfield St (North Side)	8%	17%	33%	0%	8%	8%
Broad St Btwn Whitfield St & State St (North Side)	55%	73%	64%	45%	55%	18%
Broad St Btwn Whitfield St & Park St (South Side)	92%	83%	83%	92%	83%	67%
State St Btwn Broad St & Market Pl (West Side)	13%	7%	27%	13%	0%	0%
Library Parking Lot	86%	89%	89%	64%	52%	59%
Park St (West Side)	75%	75%	53%	53%	49%	25%
Town Hall Parking Lot	64%	55%	61%	56%	50%	27%
Graves Ave (West Side)	9%	22%	17%	17%	17%	4%
Boston St Btwn Park St & Graves Ave (South Side)	0%	0%	0%	0%	0%	0%
Boston St Btwn Whitfield & Park St (North Side)	50%	30%	40%	50%	50%	80%
Boston St Btwn Whitfield & Park St (South Side)	58%	42%	37%	58%	21%	53%

Legend:



On the day of the survey, parking was most utilized at the lunchtime hour from noon to 1 PM, when almost half of all parking spaces (49.2%) were occupied. Over the next several hours, parking utilization gradually dropped approaching the evening, to the lowest parking utilization level of 33.9% between 5-6 PM.

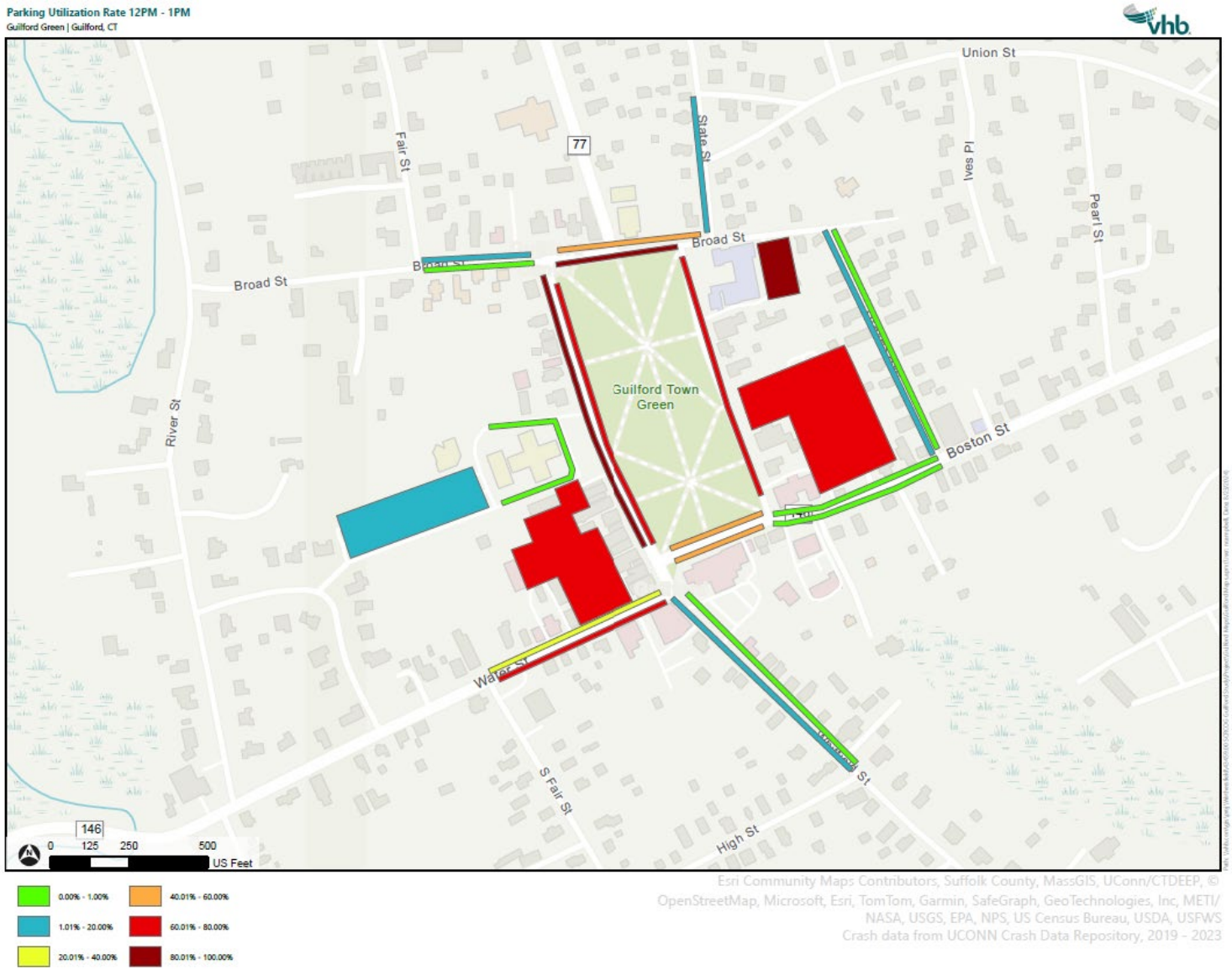
The parking areas with the highest parking occupancy were:

1. Broad St Between Whitfield St & Park St (South Side) (83% average occupancy)
2. Whitfield St Between Broad & Water - Building Side (79% average occupancy)
3. Library Parking Lot (73% average occupancy)
4. Whitfield & Water Shoppes Parking Lot (72% average occupancy)
5. Water St West of Whitfield St (South Side) (64% average occupancy)

The Whitfield & Water Shoppes Parking Lot had the greatest number of parking spaces occupied at the time of the survey, with an average of 110 out of 153 spaces occupied.

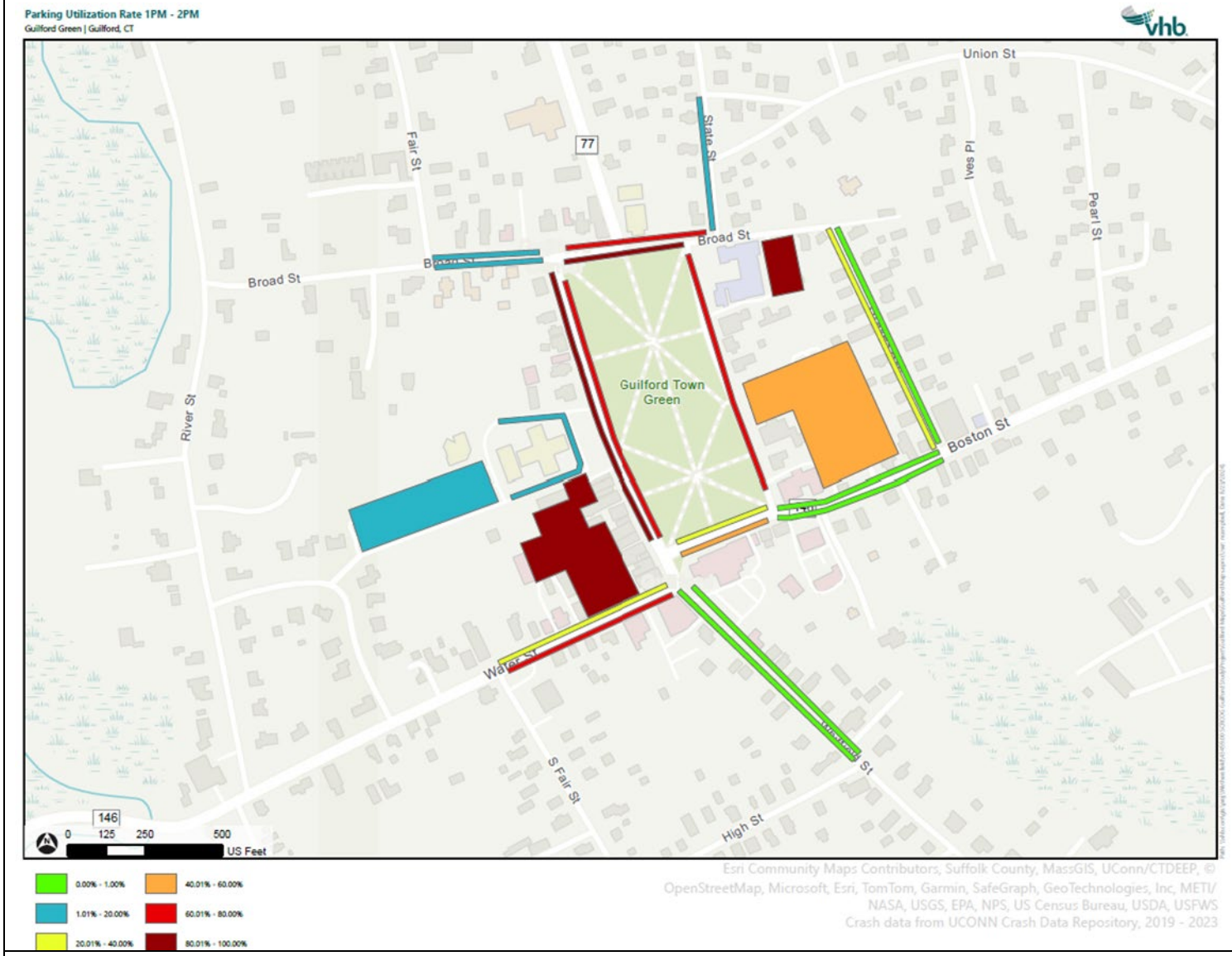
The St. George Parking Lot, behind the church, had the largest number of spaces in an individual lot at 229, and the greatest number of spaces available of any parking lot. As noted in the previous section, seventy-six of these parking spaces are marked off for employees of businesses around the Guilford Green to free up more valuable parking spaces for visitors and customers. However, virtually none of these parking spaces were being used at the time of the parking data collection. Overall, the parking lot had some of the lowest parking utilization of all the parking areas surveyed.

Figure 16 Parking Survey Around Guilford Green, July 11, 2024, 12 PM – 1 PM



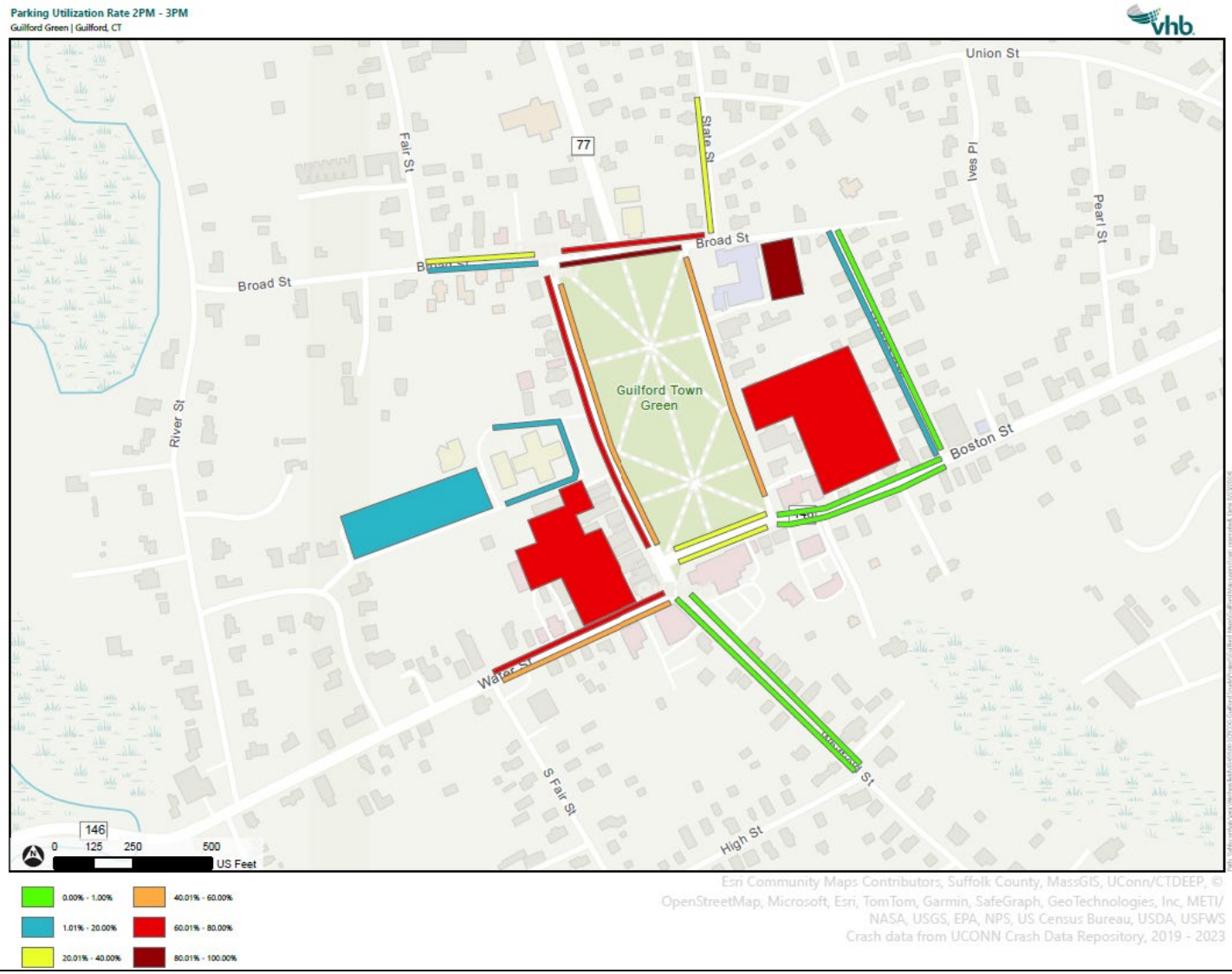
Source: VHB

Figure 17 Parking Survey Around Guilford Green, July 11, 2024, 1 PM – 2 PM



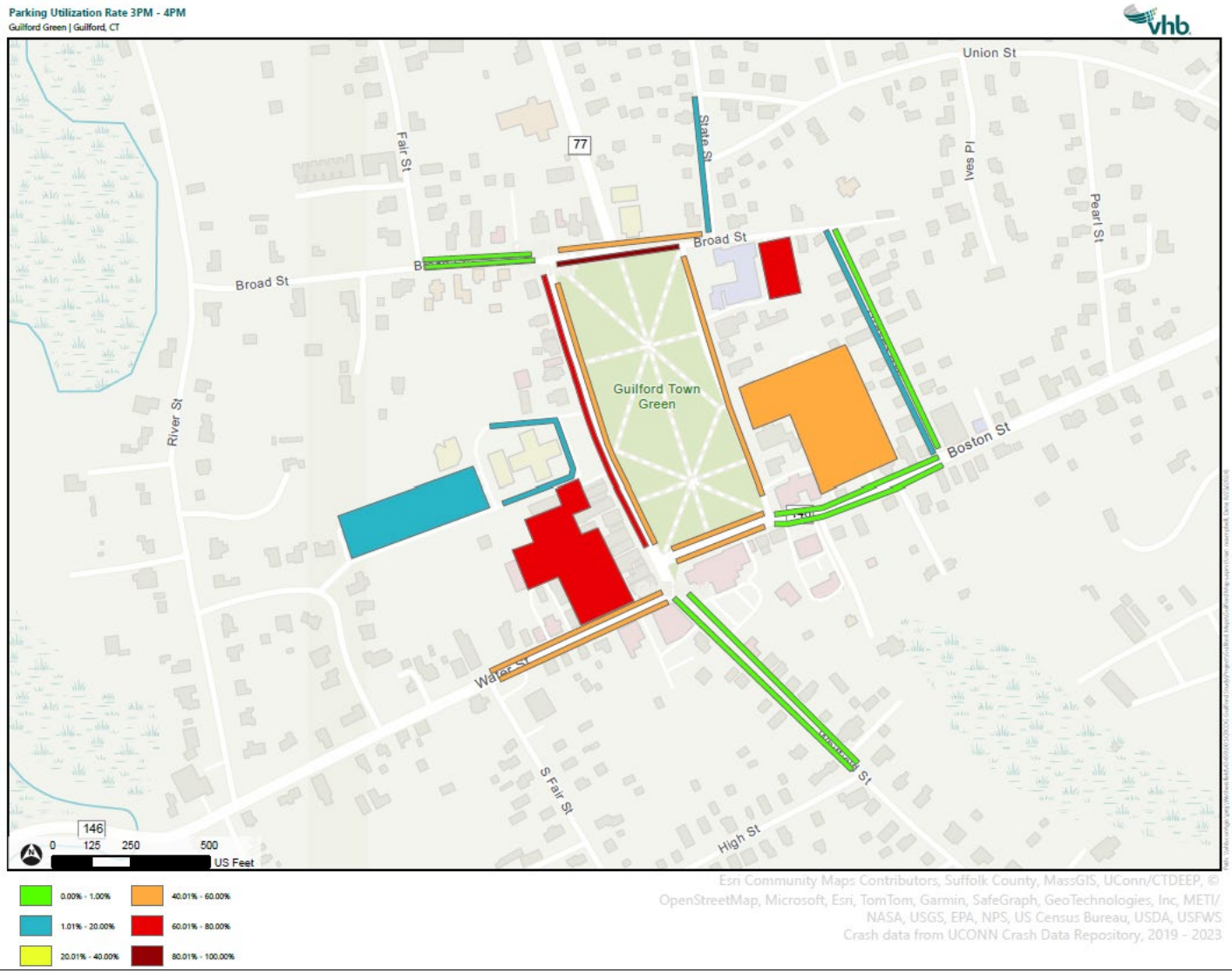
Source: VHB

Figure 18 Parking Survey Around Guilford Green, July 11, 2024, 2 PM – 3 PM



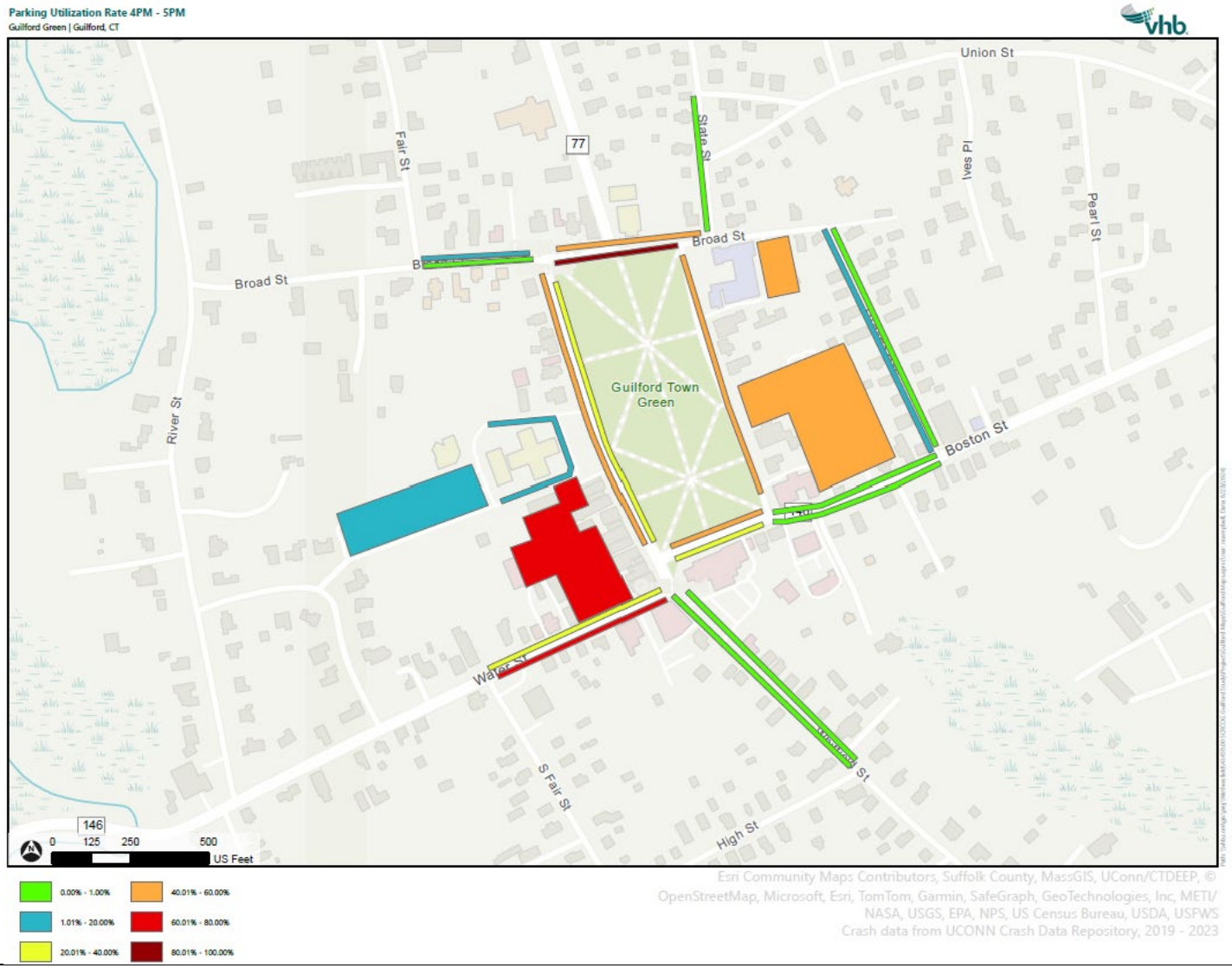
Source: VHB

Figure 19 Parking Survey Around Guilford Green, July 11, 2024, 3 PM – 4 PM



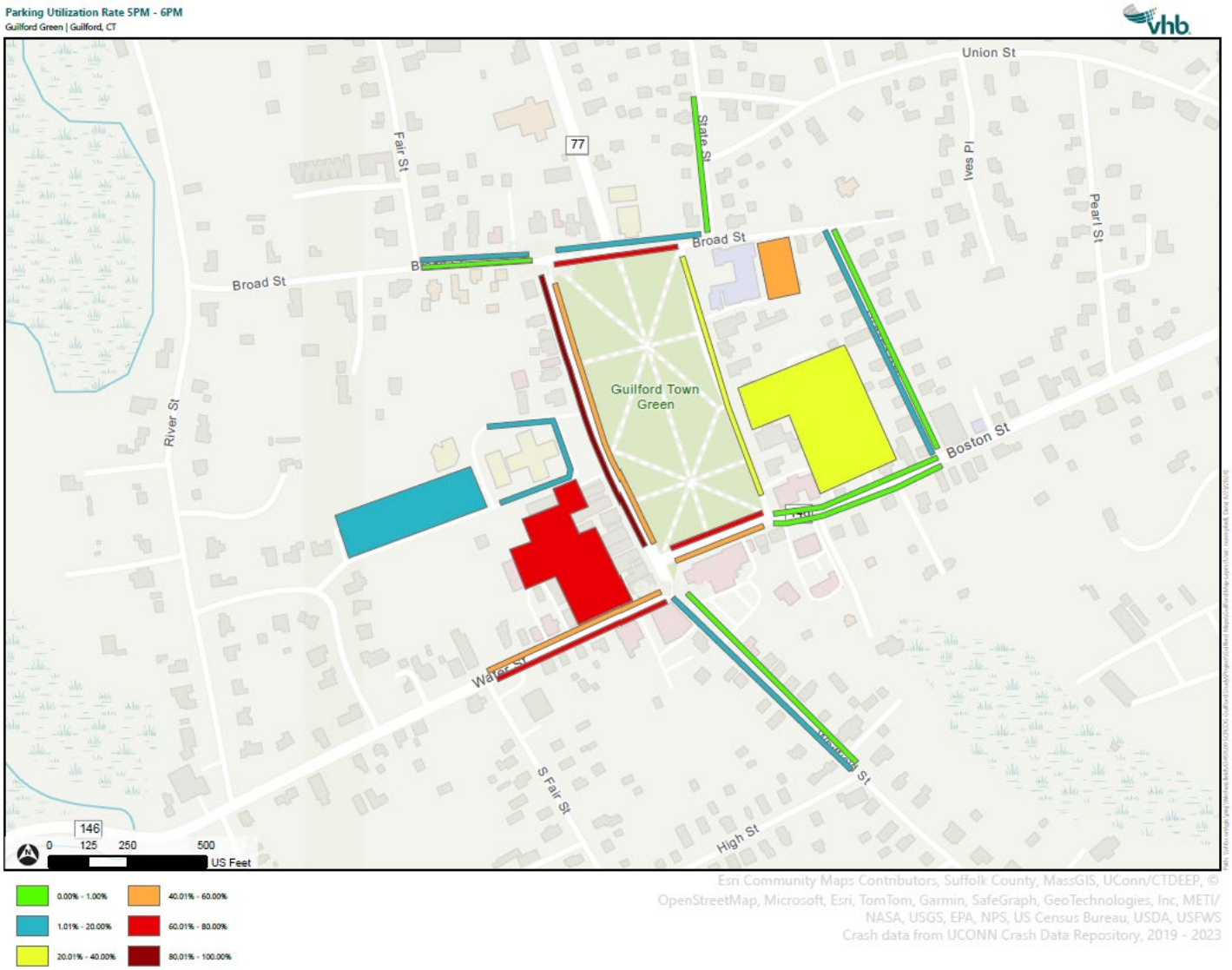
Source: VHB

Figure 20 Parking Survey Around Guilford Green, July 11, 2024, 4 PM – 5 PM



Source: VHB

Figure 21 Parking Survey Around Guilford Green, July 11, 2024, 5 PM – 6 PM



Source: VHB

2.6.2 Parking Data Analysis

Review of the collected parking data shows that the areas near the highest concentration of retail businesses and restaurants consistently had the highest parking demand. On-street parking, which is only a block away had much lower demand for parking than parking spaces directly adjacent to businesses or to the Guilford Green. At the same time, only a few locations were close to full occupancy over the course of the day. The industry target for on-street retail parking occupancy is 85% on any given block, including downtown areas. This percentage of occupancy leaves enough parking spaces open so that drivers do not need to excessively search for parking, while having the appearance of being full. The Whitfield Street Building side, Broad Street south side (next to the Guilford Green), and Library Parking Lot reached or exceeded this threshold during the parking survey. The survey results show that many on- and off-street parking spaces were found to be available even during the highest demand times of the survey, though these were usually the spaces farthest away.

Understanding that some of the lower-demand parking locations with frequently available spaces lower the utilization average, they may not be appropriate to include in the analysis. A revised analysis was conducted to exclude certain parking areas. These excluded areas were on-street parking on Graves Ave, Boston Street east of Park Street, and Whitfield Street south of Water Street, as well as the St. George Catholic Church parking lot. Focusing the analysis on the other high-demand locations around the Guilford Green for parking results in an overall utilization rate of 67.5% for the highest-demand period of 12 PM – 1 PM. Utilization and occupancy declines to less than 50% by 5-6 PM in this analysis. Parking spaces are still available most of the time in the most in-demand areas around the Guilford Green, with about 200 spaces vacant in the highest-demand period.

This analysis shows that parking is available in the vicinity of the Guilford Green even at the busiest times of the day, within one quarter to one third of a mile from the most in-demand commercial areas near the Guilford Green. This is true even when discounting parking areas that have less demand and are farther away than the most valuable parking spaces.

2.7 Public Involvement

Public outreach for the Guilford Green Transportation Study is key to understanding how people travel and use the roads around the Guilford Green, and what their concerns are for traveling in the area. To collect public input on the Guilford Green and its existing conditions, the Study Team conducted a public information meeting, public outreach during the field visit, and held two meetings with stakeholders representing key organizations, businesses, and individuals. SCRCOG also developed an ArcGIS Storymap to share information and promote several projects and studies taking place in their region, which can be found at https://tinyurl.com/SCRCOG-Planning-Studies. The following sections go over the public engagement conducted for this stage of the Guilford Green Transportation Study.

2.7.1 Project Outreach During Field Work

During the July 11, 2024, existing conditions field review and data collection, staff from the Study subconsultant Team Member, VN Engineers, engaged with businesses and members of the

public to promote the study and gather general feedback on transportation issues around the Guilford Green. This engagement included walking to businesses around the Guilford Green to meet and speak with them, as well as talking with the public visiting the Guilford Green area. A flyer was also circulated with the Study purpose and goals and contact information for the Town of Guilford for additional questions. Table 15 shows the businesses that were visited during the field work.

Table 15 Businesses Around Guilford Green Visited During Field Visit, July 11th 2024

Businesses Visited		
Echo Salon	Lille Shoppe	Green Nail & Spa
The Village Barber Shop	Law Offices of Jeffrey Beatty, LLC	Quattro's Italian Restaurant
S.S. Bottle Shoppe	Amarone Restaurant	Page Taft Compass Real Estate
Cilantro Specialty Foods	Breakwater Books	The Marketplace Guilford Food Center
The Spice & Tea Exchange of Guilford	The Village Chocolatier	Lulu's Chichi Boutique
Prime on Whitfield	Swish	Chapter One Food and Drink
Marijane Boutique	Guilford Coin Exchange	Flutterby
Tracy Brent Collections	Page Hardware & Appliance	Frank's Package Store
Unique Cleaners	Evergreen Fine Crafts	Guilford Savings Bank
William Pitt Sotheby's International Realty	Outdoor Design & Living	

Various comments were received during the field outreach. The intersection of Water Street/Whitfield Street/Boston Street elicited the most comments. Comments are summarized below:

Route 146 and Whitfield Street

- Concerns about crashes, near misses
- General frustration about the intersection
- The intersection is confusing, especially for out-of-town drivers
- Summertime has the most issues due to higher volumes of traffic and visitors
- Sight distance issues were raised
- Driver conflicts with pedestrians in the intersection
- Comments that this intersection needs a traffic signal or other additional traffic control

Boston Street

- Vehicles speeding on Boston Street in both directions
- Dangerous crossing for pedestrians on Boston Street at Park Street

Pedestrians

- The crosswalks are not safe for pedestrians crossing
- It is hard to for drivers to see pedestrians

- Business owners stated they almost get hit every day at various intersections/crosswalks
- Travel speeds are too high for pedestrians

Parking

- Various store owners said that parking for customers during events is impossible, and stated that they lose business due to events
- Business owner concerns about removing any parking

Speeding

- Comments received about drivers travelling too fast – mostly visitors who are unfamiliar with the Town Green's configuration and the number of pedestrians in the area
- Overall, businesses that were visited were very receptive to the Study and said they were happy that the Town of Guilford is addressing transportation issues around the Guilford Green.

2.7.2 Stakeholder Interviews

Two rounds of stakeholder interviews were conducted with one group being primarily Town of Guilford staff and other made up of representatives of Guilford Green businesses, Town committees, and interested local residents. The groups met virtually for one hour, with one meeting on September 26th and the other on September 30th, 2024. An overview of the study was provided along with a discussion of the tactical demonstration project that was to occur in October.

The interviews touched on various transportation concerns around the Guilford Green related to driving, walking, bicycling, and parking. Concerns raised included confusing intersections due to limited sight lines and unexpected Stop-control layouts, pedestrian safety and yielding issues at the same intersections, and lack of parking management. Angled parking spaces are not long enough to fit large vehicles, and narrowed roadways can make it difficult for these vehicles and emergency vehicles to navigate around the Guilford Green. In terms of parking, there is a perception that there is not enough parking, but many available parking spaces are not utilized, particularly in the St. George parking lot.

The interviewees also discussed the demonstration project and possible improvements to the Guilford Green area. The full interview notes can be found in the Appendix.

2.7.3 Public Information Meeting #1

The first public meeting of the study took place on Tuesday, December 3, 2024, at 7:00 pm at the Nathanael B. Greene Community Center in Guilford. Approximately 20 people attended the meeting in person and online, including business owners surrounding the Guilford Guilford Green, nearby residents, and walkability advocates. A presentation was given to go over the study area, goals of the study, and existing conditions. There was also an overview of public outreach, including the outreach during the fieldwork, the stakeholder interviews, and during the demonstration project (to be discussed in a later chapter).

During the question-and-answer session at the end, comments and questions included were:

- Overall gratitude for the demonstration project conducted in October 2024.
- Concern about the safety of bicyclists and pedestrians on River Street.
- Requests for traffic calming around the Guilford Green and the roads near the Guilford Green, such as Broad Street. Suggestions included speed humps, raised crosswalks, and raised intersections.
- Questions about sight distance at intersections and a note that this is an issue at many intersections in the study area.
- Concerns about potential loss of parking from changes around the Guilford Green.
- Request to investigate the use of flashing beacons at crosswalks, include Rectangular Rapid Flashing Beacons (RRFBs).

2.8 Previous and Current Plans and Studies

Previous and current plans and studies were reviewed as part of the existing conditions scan for this project.

2.8.1 Guilford Transportation Plan (2003)

The 2003 Transportation Plan was the first transportation plan for the Town of Guilford. It was undertaken by the Town of Guilford's Planning and Zoning Commission Transportation Planning Committee. It covered all areas of transportation except boat and aircraft. The plan was developed to address the changes Guilford experienced in the 1980s and 1990s, as the town transitioned from a quiet rural community to a bustling suburban environment. Faced with significant development pressures and increasing transportation demands, the plan aimed to establish a sustainable foundation for future transportation policies while integrating with regional and state-level planning efforts. It noted Guilford's strategic location along I-95 and the Amtrak rail system has positioned it to be significantly influenced by broader transportation policies and changes.

The plan extensively covered various sectors, highlighting congestion issues in the central business district, and suggesting both short-term and long-term alleviation strategies. It outlined plans for new cross-town roads to improve connectivity and accessibility for public safety and general traffic. Enhancing road quality is prioritized, triggered by community feedback. Scenic road preservation, development of pathways for pedestrians and bicyclists, and land use policies are also focal points. Public transit, both inter and intra-town, is discussed in Sections 7 and 8, emphasizing the potential for expanded services despite current limitations due to low population density. The plan suggests ongoing monitoring to leverage state and regional opportunities. Finally, law enforcement and transportation compliance are reviewed, indicating that while not a major issue presently, it warrants continued attention to maintain safe traffic practices.

Specific to the Town Green area, the plan made a recommendation for Water Street approaching Whitfield Street to remove three parking spaces to create a right turn lane from Water Street onto Whitfield Street, to reduce congestion. However, based on historic aerial imagery it does not appear that this recommendation was completed. It also suggests that a couple of parking spaces on west side of Whitfield Street just north of Water Street should be eliminated for better sightlines, which appears to have been completed in 2019. There is a desire to put in a Stop sign on Boston Street westbound at Park Street but notes that the State Traffic Commission has consistently declined this. The plan notes concerns about congestion and parking around the Guilford Green.

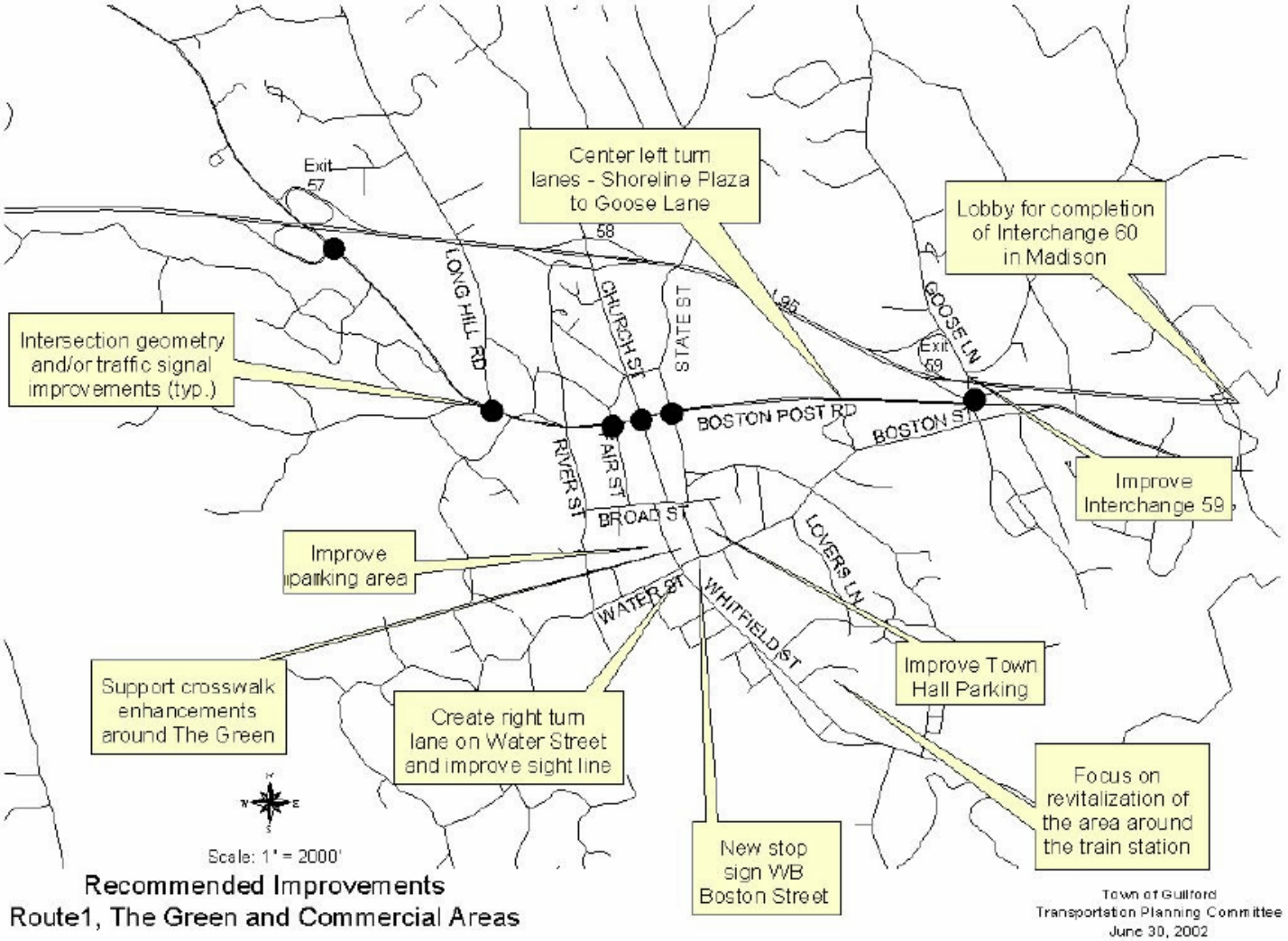
Additional Guilford Transportation Plan recommendations and observations relevant to the Guilford Green include:

› A traffic signal was considered at Water Street/Whitfield Street/Boston Street, but the plan comments that this would not work or be appropriate for the area.

- One-way traffic flow around the Guilford Green is suggested and was reviewed. However, the plan concluded that the Town should stay with the current configuration, partly because merchants believe a one-way flow would be "disruptive to businesses".
- The plan suggests that the parking issue around the Guilford Green is a matter of perception, not substance, since when one side of the Guilford Green is fully parked, the other side has space available, and it's more a matter of people not wanting to walk a farther distance from these parking spaces.

See Figure 22 for a map of recommended improvements for Route 1, the Guilford Green, and Commercial Areas from the 2003 Guilford Transportation Plan.

Figure 22 Town of Guilford Transportation Plan (2003), Map 1: Recommended Improvements



Source: Town of Guilford Transportation Plan - 2003

2.8.2 Economic Development Action Plan for Guilford (2004)

This document is a supplement to the previous Plan of Conservation and Development (POCD) from 2002. It outlines a strategic marketing plan for economic development in Guilford and how to position itself for future growth.

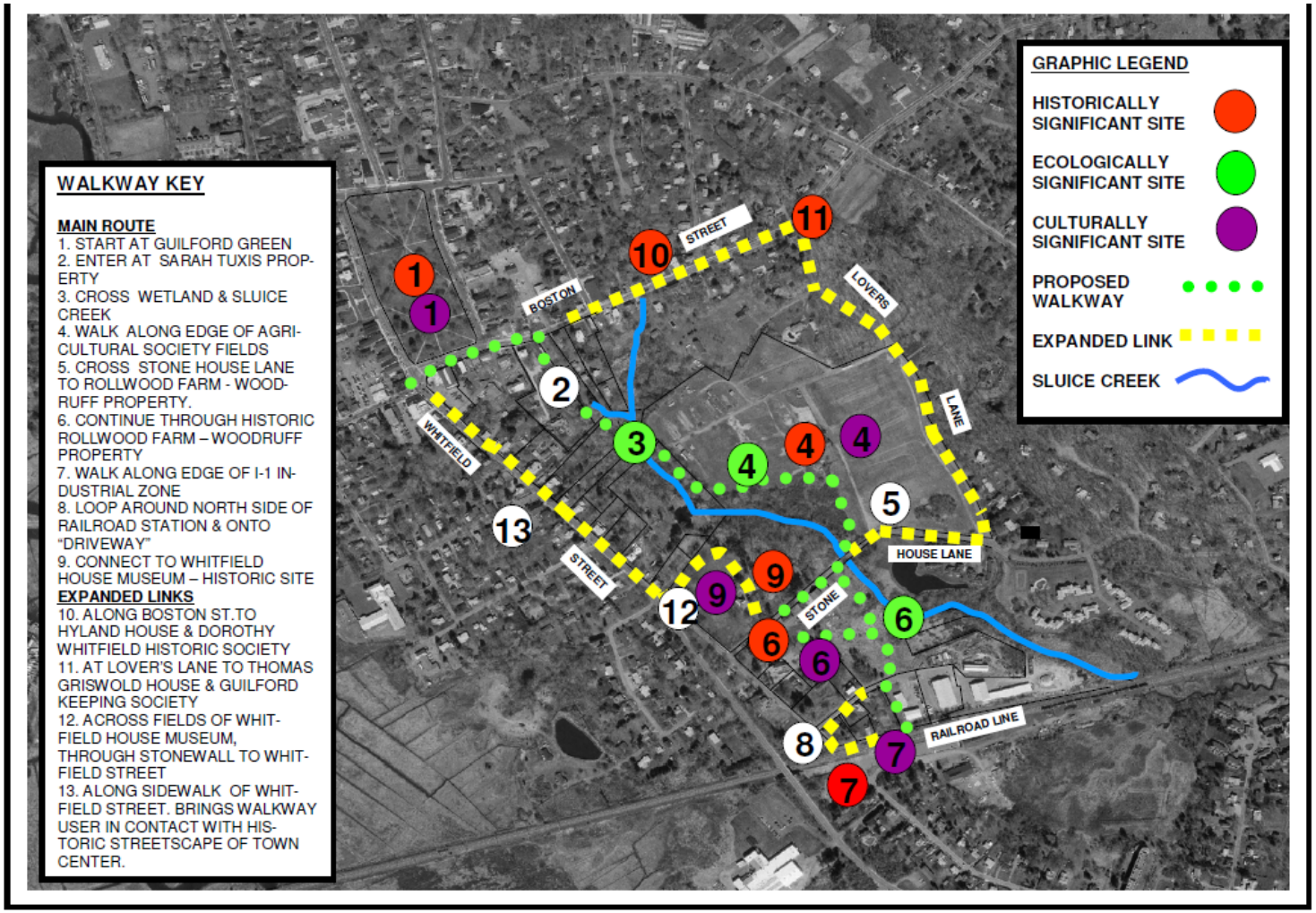
For the Town Green area, the plan notes it is fully developed, and is "a critical area for both the character and economic development of Guilford because of its visibility and high use". Recommendations focus on beautification, repair of sidewalks and buildings, parking improvements, and vegetation control. Action items for the Town Green area are primarily around maintenance of infrastructure.

2.8.3 Guilford Walkway Feasibility Study (2006)

This feasibility study is to investigate a proposal to create a "village walkway" to connect the Guilford Green with the Amtrak/Shoreline East train station south of the Guilford Green. The goal was to create a pedestrian walkway that would also highlight local environmental and historic features, including flora and fauna, key buildings and landscapes, etc., along the route. The route would go from south side of Guilford Green through private properties onto the Guilford fairgrounds, then continue through other public/private properties to the train station. It does not appear that this trail was ever fully developed.

See Figure 23 for a map of the proposed walkway route.

Figure 23 Guilford Walkway Feasibility Study (2006) – Proposed Walkway Route



Source: Town of Guilford

2.8.4 Town Center South Plan & Town Center South Transportation Study (2007 & 2008)

This section includes two different plans focusing on the same area. They review properties in the area south of the Guilford Green around the train station to support public transit, pedestrian facilities, and access. The first plan from 2007 was developed by the Town Center South (TCS) Committee, appointed by the Planning & Zoning Commission. The primary recommendations address specific properties north and south of the rail line to suggest concepts for several types of private and public redevelopment of the parcels.

The 2008 Study was commissioned by the South Central Regional Council of Governments (SCRCOG) and evaluated potential future traffic impacts associated with the planned TCS developments and increased ridership from the Guilford train station. The study area included the Guilford Green and Town Center up to Broad Street and focused on the intersection of Water Street, Whitfield Street and Boston Street. This intersection was shown to be the most impacted by future development in the TCS area since it is the most direct route to Route 1 and I-95 from the train station. In the study traffic analysis, this intersection would see much greater delay and congestion in the weekday afternoon peak period due to the redevelopment around the train station.

To mitigate the projected new congestion around the Water Street/Whitfield Street/Boston Street intersection, the 2008 Study recommended encouraging use of Stone House Lane and Lovers Lane as secondary access and making improvements to the roads to widen them for better bicycle and pedestrian access and realigning the intersection of Stone House Lane and Lovers Lane. The Study recommended other improvements to local intersections and traffic calming to encourage slower travel speeds. However, based on aerial imagery over time, it does not appear that any changes were made to these roads or intersections as a result of this study.

2.8.5 Guilford Plan of Conservation and Development Update (2015)

The 2015 Guilford (POCD) is a strategic framework intended to guide the Town of Guilford in its long-term growth and development. The POCD articulates the town's vision, underscores its goals, and recommends strategic actions to achieve these goals over the next decade. Its primary purpose is to ensure cohesive, sustainable, and well-planned development aligning with community values and future needs.

The POCD has eight overarching goals:

1. **Preserve Character:** Maintain Guilford's unique character, cultural heritage, and scenic values.
2. **Conservation:** Protect the town's lands, waters, and natural areas.
3. **Economic Development:** Promote commerce and livelihood in a way that is compatible with the town's character.
4. **Housing:** Facilitate diverse housing options catering to varied income levels, family sizes, and age groups.
5. **Community Facilities:** Develop facilities for education, recreation, and emergency services.
6. **Transportation:** Create efficient, safe, and compatible transportation infrastructure.

7. **Utilities:** Ensure appropriate and compatible utilities and infrastructure to support the population.
8. **Regional Cooperation:** Foster cooperative efforts to promote health and welfare across the South Central Connecticut region.

The POCD recognizes a need to have people less dependent on the automobile and encourage alternate modes of transportation.

Roadways around the Guilford Green are classified as Collectors based on this POCD, as well as Boston Street, Water Street, and River Street.

Transportation Action items are:

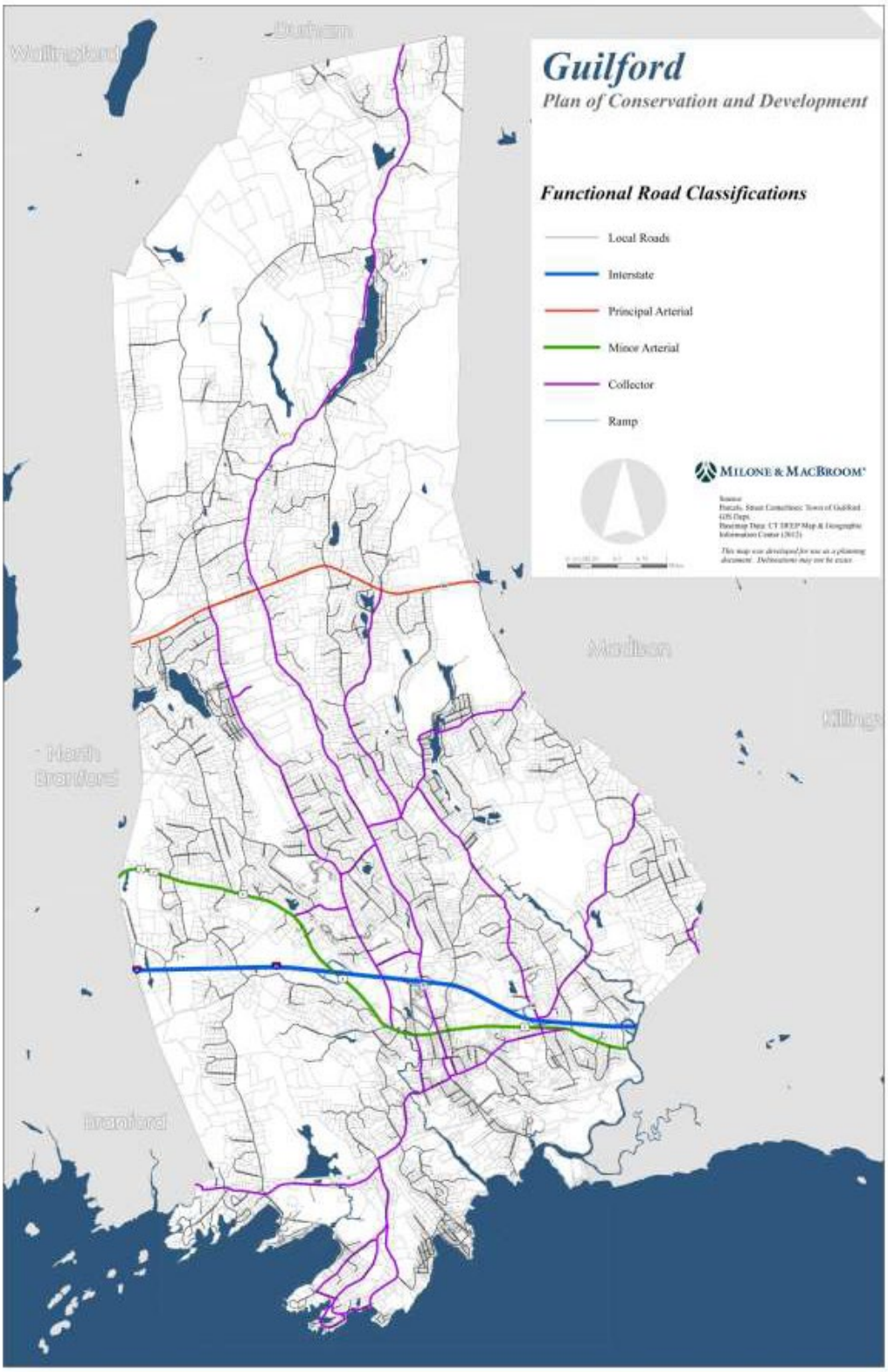
1. **Action item 1:** provide new roads and road improvements.
2. **Action item 2:** encourage alternate modes, including bikeways and bus travel. Under this action item are several sub-actions:
   - Long Hill Road bikeway plan to the Town Center.
   - Development of multi-use trails in Complete Streets planning and in a Circulation & Mobility Plan.
   - Encourage more taxis, rental & shared vehicles.
   - Development of a municipal trolley system.
3. **Action item 3:** expand sidewalks and pedestrian facilities.
4. **Action item 4:** maintain a safe and efficient network of town roads.

The plan suggests development of a Circulation and Mobility Plan to examine additional parking around the Guilford Green; bicycle and pedestrian trails, a "seasonal jitney" between the rail station and the Guilford Green; and directional signage to the Guilford Green (within the Commerce section).

Under Goal 5 (Provide Community Services) is an action to "Consider providing support for family caregivers, create walkable neighborhoods less dependent on automobiles, expand shuttle service, and provide postsecondary education classes in order to support an aging population."

See Figure 24 for a map of the Functional Road Classification Map from the POCD.

Figure 24 Guilford POCD Update – Functional Road Classification Map



Source: Town of Guilford

2.8.6 SCRCOG Regional Bicycle and Pedestrian Plan (2017)

The SCRCOG Regional Bicycle and Pedestrian Plan from 2017 discusses the importance of biking and walking to health, access and choice, strong communities, its cost effectiveness, and sustainability. The plan's vision is to encourage, promote, and continue to improve conditions for bicycling, walking, and other forms of active transportation. The plan goals are to improve safety of walking and biking, promote transportation choice, increase connectivity, and provide access to community facilities, businesses, and neighborhoods. It was an update to the 2007 Regional Bike and Pedestrian Plan. The plan assesses existing conditions, provides performance metrics for staying on track to create a more balanced transportation network, reviews progress over the region, and has a prioritized list of areas in need of improvement.

For Guilford, the plan notes connections to the Town Center are important for the high school. It also refers to the pedestrian walkway study from 2006 between Town Center and the train station, the 2003 Transportation Plan, and the 2015 POCD. In general, high priority recommendation in Guilford are not near the Town Center.

Figure 25 Guilford Section of 2017 SCRCOG Bicycle and Pedestrian Plan

GUILFORD

The Town of Guilford is located on the shoreline, on the eastern side of the SCRCOG region. The land use in Guilford consists mostly of rural, wooded conservation areas with small suburban communities located towards the shoreline. The Town Center is centered around the Town Hall, Town Green, and the commercial development along Whitfield Street and Broad Street. Some of the unique attractions in Guilford include the Hyland House Museum, Falkner Island Lighthouse, and Jacobs Beach.

In 2015, the population Guilford was 22,392 and less than one percent of the workers over the age of 16 did not have access to a motor vehicle. The population density of Guilford was relatively low, approximately 450 persons per square mile. Guilford has a rail station that provides service to the Shoreline East Commuter train.

Recent Accomplishments

The planned Shoreline Greenway Trail will traverse along the entire length of the shoreline in Guilford. The Shoreline Greenway Trail advocacy group is working in partnership with the Town of Guilford to facilitate the the installation of shared lane markings on Whitfield Street between the Town Center and the harbor. These markings, also known as sharrows, are funded with a grant from The Guilford Foundation.

A bikeway has been planned by the Town to extend along Long Hill Road from the Guilford High School to the Town Center. This bikeway is expected to be completed in the near future.

The *Draft 2017 Statewide Plan Update* identifies an on-road north-south bicycle network route along local roads that runs through the Guilford along State Street, Little Meadow Road, South Hoop Pole Road, Hoop Pole Road, and Lake Drive. This route, and its future promotion will encourage more bicycle travel through the Town.

Streetscape along Whitfield Street *(Image credit: Only In Your State)*

The Connecticut Shoreline Bike & Boat Tour in Guilford *(Image credit: Trip Advisore)*

38 South Central Regional Bicycle & Pedestrian Plan Update

Source: South Central Regional Council of Governments

2.8.7 CT Active Transportation Plan (2019)

The Connecticut Active Transportation Plan is an "action-oriented blueprint for meeting the needs of pedestrians and bicyclists in CT" and includes a vision and goals for CTDOT to encourage, promote, and improve active transportation. The plan also describes CTDOT programs and funds put towards active transportation and provides a statewide crash data review, showing high crash areas for pedestrians and bicyclists.

The Active Transportation Plan also includes maps of priority roads for priority implementation of bicycle facilities. As noted in Section 2.4.2, around the Guilford Green these roadways include Whitfield Street, Broad Street, and Church Street along Route 77, and along the municipally maintained roads of Park Street and State Street. These roadways have planned Bicycle Facility Implementation Tiers in the mid- to low-range (Tier II-6 to Tier II-8 for Whitfield and Church Street).

2.8.8 Guilford Complete Streets Resolution (adopted March 2020)

The Board of Selectmen of the Town of Guilford unanimously adopted the Complete Streets Resolution on March 16, 2020, in line with Connecticut's General Statutes (Public Act 09-154 of 2009). This policy aims to address the needs of all users—pedestrians, bicyclists, transit users, and vehicle operators of all ages and abilities—by creating a safe, efficient, and integrated transportation network. The Complete Streets approach promotes a multi-modal transport system that enhances safety, mobility, and connectivity while preserving the town's scenic and historic character.

The policy's vision is to ensure that all town roadways are accessible and welcoming to every user, regardless of age, race, income, or physical ability. Complete Streets improvements are to be incorporated from the outset of all transportation and roadway projects. The policy encourages making accommodations for cyclists and pedestrians to access public transit easily. Exceptions will be permitted under the policy when constraints like geography or funding make improvements impracticable; these exceptions must be approved through a public process.

The policy applies to all town-owned roads and public rights-of-way, with private road owners encouraged to follow suit. It notes that Guilford's Safe Streets Task Force will collaborate with town departments to develop a Complete Streets Plan (which became the Safe Streets Report in 2022) for Guilford, and design guidelines will be regularly reviewed and updated. Consideration will be given to historical, cultural, and environmental contexts, with input from the community.

Success will be measured through continuous evaluation, and the Safe Streets Task Force will provide annual updates to the town and maintain a public forum. Criteria for project selection include improving safety, ensuring equal access, preserving the town's character, and supporting economic development.

2.8.9 Guilford Safe Streets Report (2022)

This Report is the result of the Guilford Safe Streets project, which is an ongoing initiative seeking to produce a set of recommendations to improve safety on Guilford's roads. The Report serves as a blueprint for future "Safe Streets" projects and programs that can be implemented by the community. The Report discusses the origin of the project, past plans and initiatives, a mapping

analysis, a discussion of complete streets and public engagement, a sidewalk and ramp inventory, and a list of recommendations through the town.

The mapping analysis noted that schools, parks, the train station, and the Guilford Green are prime destinations for people walking and biking. The CT Active Transportation Plan notes that Broad Street, Whitfield Street, Park Street, are priority bike corridors.

There are six goal categories that are primary concerns of residents:

- Slower drivers
- Safe walking facilities
- Safe biking facilities
- Safe routes to schools
- Historic & rural character
- Connections to destinations

The Report suggests a need for a new study for the Guilford Green. From the public engagement conducted for the Report, the highest concentration of issue locations is around the Guilford Green.

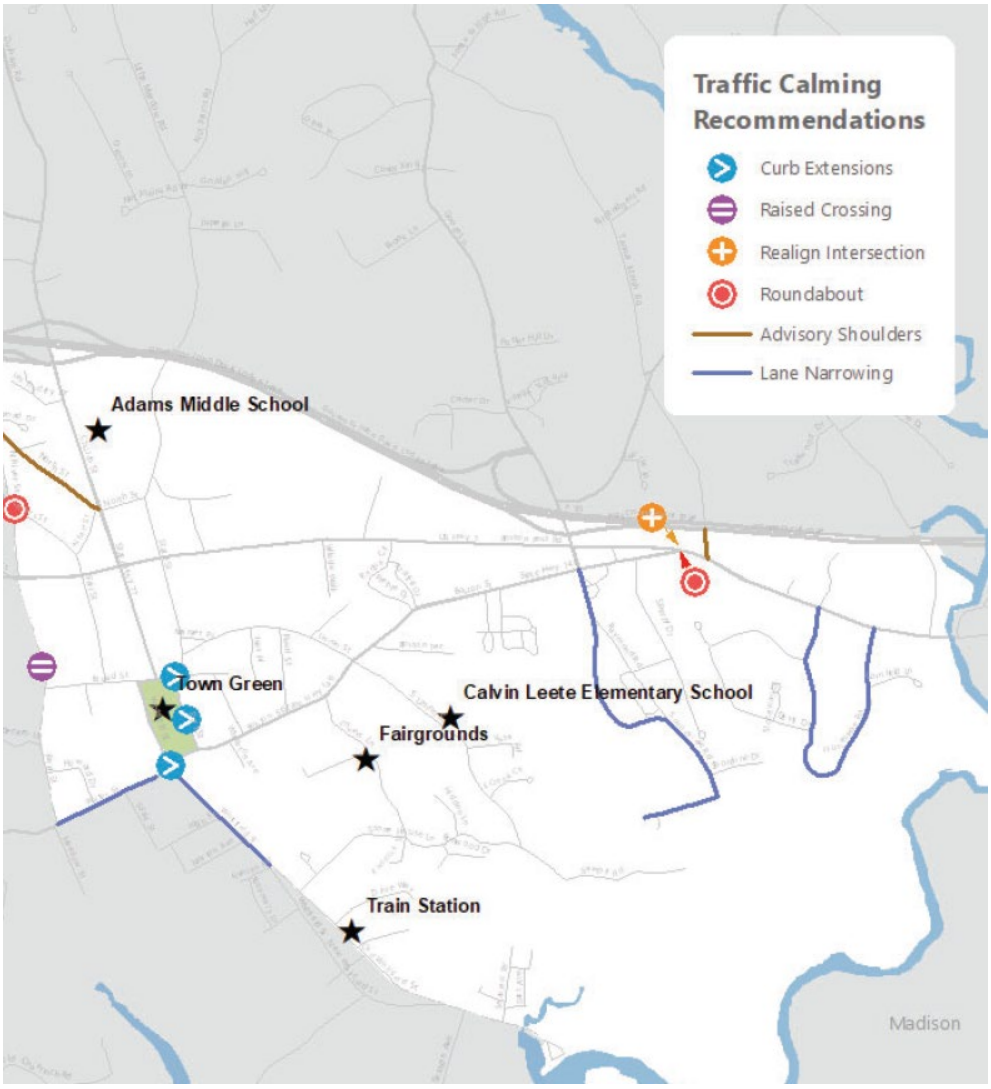
Two quick build projects were done around the Guilford Green in June and July 2021. They were in place for two days (morning June 11 to afternoon of June 12).

- The first quick build done at the Park Street/Broad Street intersection to shorten the crosswalks across Park and across Broad; traffic cones were used for this.
- The second quick build was done at the crosswalks between Town Hall and the Guilford Green across Park Street. Similarly, they used traffic cones, some temporary paint, and tape for these demonstrations.

Specific recommendations for downtown Guilford/the Guilford Green include:

- Curb extensions at Broad Street and Park Street, and at the crosswalk across Park Street at the Town Hall.
- Build new sidewalks within one-half mile of the Town Green where needed.
- Provide accessible boarding and alighting at bus stops.
- Install sharrow markings on Park Street, Broad Street, Whitfield Street, and State Street.
- Install curb extensions at Water Street/Whitfield Street/Boston Street.
- Narrow lanes on Whitfield Street and Water Street (south/SW of the Guilford Green).
- Install bike racks around the Town Green within public right-of-way.

Figure 26 Guilford Safe Streets Report Traffic Calming Recommendations, Including Town Green Area



Source: Town of Guilford

2.8.10 SCRCOG Metropolitan Transportation Plan (2023)

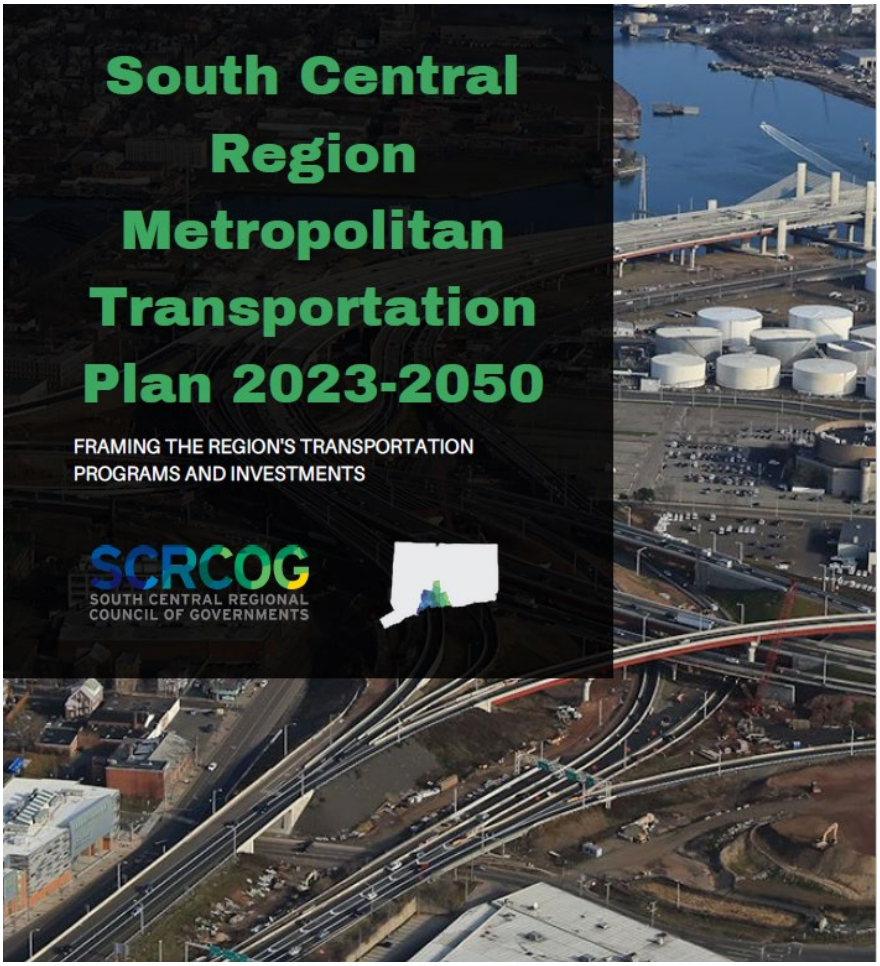
This most recent update to SCRCOG's Metropolitan Transportation Plan addresses broad goals for the transportation needs of the region and investments through 2050. The plan provides direction on major policy issues and has a performance-based approach to planning. The goals of the plan are:

- Increase travel options.
- Maximize access to funding through the Bipartisan Infrastructure Law (BIL).
- Connect policy and planning decisions to strategies of the approved POCD for the region.
- Strengthen partnerships throughout the region.
- Coordinate and communicate with land use agencies within the region.

The policy directions of the plan are:

- Accessibility and mobility
- Complete streets
- Modal integration
- Support economic vitality
- System preservation, efficiencies
- Protect the Environment
- Link land use and transportation

Figure 27 SCRCOG Metropolitan Transportation Plan 2023-2050



Source: South Central Regional Council of Governments

2.8.11 CTDOT Complete Streets Design Criteria to Improve Roadway Safety and Enhance Mobility (August 24, 2023)

The Connecticut Department of Transportation (CTDOT) has implemented new Complete Streets design criteria to be incorporated into all projects. The Complete Streets design criteria is an expansion of CTDOT's Complete Street Policy, ensuring that every project includes a focus on pedestrian and bicyclist facilities and public transportation operations to create stronger intermodal transportation networks and improve safety.[2]

The Complete Streets Design Criteria focuses on three areas to improve safety and mobility:

- **Pedestrian facilities** – includes sidewalks, shared use paths, or side paths on both sides of the roadway.
- **Bicycle facilities** – includes paved outside shoulders, bike lanes, separated bike paths, or shared use paths on both sides of the roadway.
- **Transit provisions** – includes crosswalks, shelters, benches, and other ways to make existing or proposed transit stops more accessible.

These new provisions should be kept in mind as part of the review of potential recommendations for the Guilford Green area.

[2] The Complete Streets Engineering & Construction Directive can be found at: https://portal.ct.gov/dot/-/media/dot/aec/ecd-2023-8_complete_streets_controlling_design_criteria_final_sah.pdf?rev=a2ecafeed32e4bb884505a3bb3dd024b&hash=F06E6D1CE9A421F590765700BEF6D547

3

Future Conditions

This section of the Guilford Green Transportation Study summarizes the tasks associated with the assessment of future conditions within the study area. The assessment of future conditions includes an analysis of traffic operations in the study area to identify future operational issues. Improvement alternatives and concepts will be reviewed to see how they may address the future operational issues and to verify that improvement alternatives will be viable based on the future traffic conditions.

3.1 Methodology

To estimate future conditions and determine the impacts of potential changes to traffic circulation or improvements in the study area, a five-year traffic projection was developed – out to 2029. This time period was chosen based on the expectation that improvements will be made in a short amount of time and also knowing that most transportation improvements are not likely to have negative impacts on the capacity of traffic around the Guilford Green. The 2029 No-Build Condition incorporates any other known programmed projects and expected traffic growth for the area. Proposed transportation improvement alternatives are not included in the 2029 No-Build Condition. The resulting comparison of Existing Conditions to the 2029 No-Build Condition is a measure of the ability of the existing transportation system to handle future travel demands.

The 2029 Build Condition with the improvement alternatives, discussed in the next chapter of this Study, includes the future transportation characteristics described in the No-Build Condition as well as the transportation improvement alternatives reviewed in this study. The transportation improvement alternatives provide conceptual solutions at locations around the Guilford Green with existing safety or operational deficiencies as noted by the Town of Guilford, SCRCOG, the public, and the traffic operations analyses herein. Subsequent sections describe the transportation improvement alternatives in detail. The resulting comparison of the future conditions is a measure of the effectiveness of transportation improvements if implemented.

3.2 2029 No-Build Condition

The No-Build Condition was developed using information provided by CTDOT to estimate the growth in traffic volumes over the next five years. This information was used to model traffic operations around the Guilford Green in 2029 without any transportation improvement alternatives to be proposed for this study.

3.2.1 2029 Traffic Volumes

Future traffic volumes are typically estimated by growing existing traffic volume data by a percentage reflecting historical, area-specific traffic trends compounded over the length of the planning horizon. The Connecticut Department of Transportation (CTDOT) calculated and provided 2029 peak hour traffic volumes in the study area by growing the 2024 traffic volumes included the Existing Conditions Report. The 2029 traffic volumes reflect an approximately 5% percent increase from 2024 volumes, or an increase of about 1% per year, representing a conservative estimate of future traffic volumes. In other words, this percentage is the largest amount of traffic growth that should be expected based on current information on regional trends and background growth. The 2029 peak hour traffic volume networks are shown in Figures 28, 29, and 30.

3.2.2 Future Roadway Projects

Based on discussions with CTDOT, CRCOG, and the Town of Guilford, there are no significant transportation improvements currently planned around the Guilford Green in the near future. Recent changes have included repaving of Route 146 (Water Street/Boston Street) in 2023 and water/sewer work on Whitfield Street south of Water Street in 2024 that required road closures and repaving of the disturbed area. No other major projects are known at this time that would affect the No-Build Conditions. Therefore, the 2029 No-Build condition was assumed to maintain existing roadway conditions without significant changes to traffic conditions.

3.2.3 2029 No-Build Traffic Operations

Capacity analyses were performed to evaluate traffic operations at the study intersections during the weekday morning, weekday evening, and Saturday midday peak traffic periods under the 2029 No-Build scenario. These analyses were performed by inputting the 2029 peak hour traffic volumes provided by CTDOT into the existing conditions Synchro model (discussed in the Existing Conditions

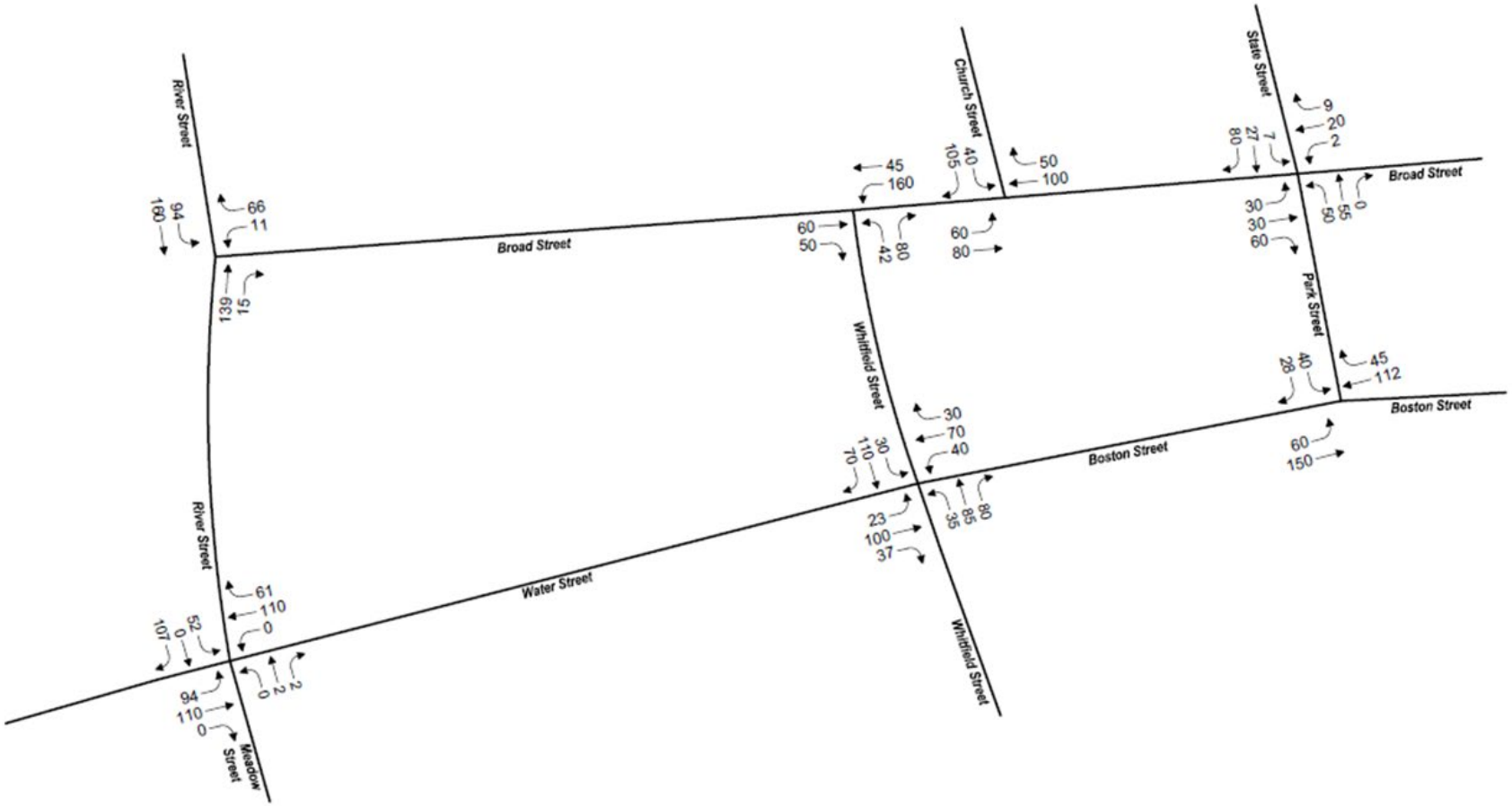
Report) to forecast future traffic operating conditions in 2029 if no transportation improvements are implemented.

The capacity analysis documented in the Existing Conditions did not identify any intersection within the study area that has intersection approaches operating at less than LOS C. However, it was noted that the Whitfield Street (Route 77) at Water Street/Boston Street intersection operates with the most delays and queuing of all the intersections. This intersection has also been mentioned in public comments as being the most significant location of concern for traffic safety and operations.

The approximately 5% traffic growth forecast under the 2029 No-Build condition is expected to have only minor impacts to intersection capacity around the Guilford Green. Delays and vehicle queues are not expected to change significantly at most study intersections. The Whitfield Street/Boston Street/Water Street intersection will see slightly longer queues and delays by this time, with the Saturday peak period having the largest increase in these factors for the eastbound and northbound approaches. The LOS for these approaches at the Saturday peak period will drop from an A or B to a C or D under forecasted conditions. As a result, the intersection will continue to function within capacity at an acceptable level.

Figures 28, 29, and 30 show traffic diagrams of the traffic distribution around the Guilford Green in the 2029 No-Build condition. Intersection capacity analyses for the No-Build condition can be found in Table 16.

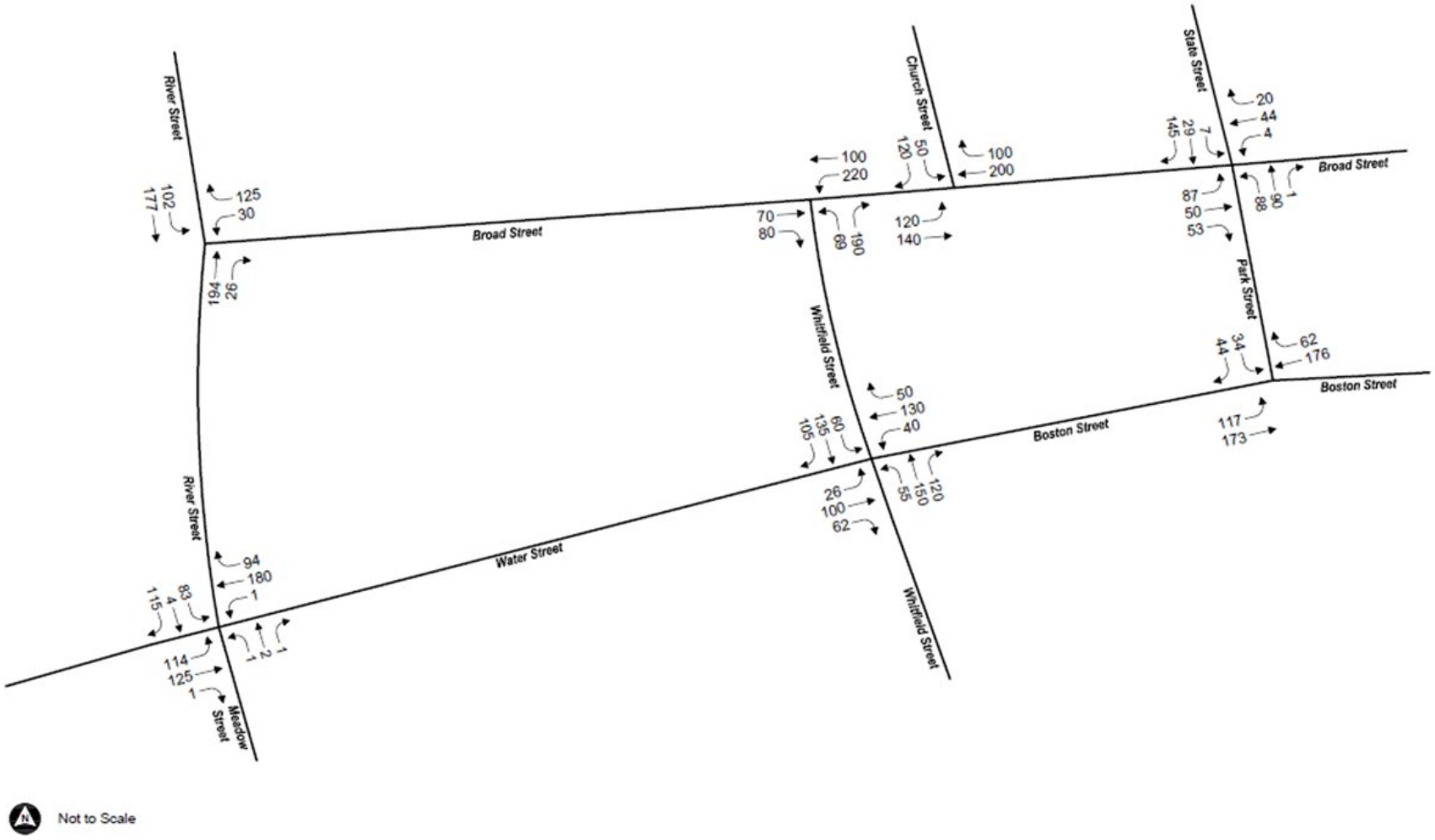
Figure 28 2029 No-Build AM Peak Traffic Volumes



Not to Scale

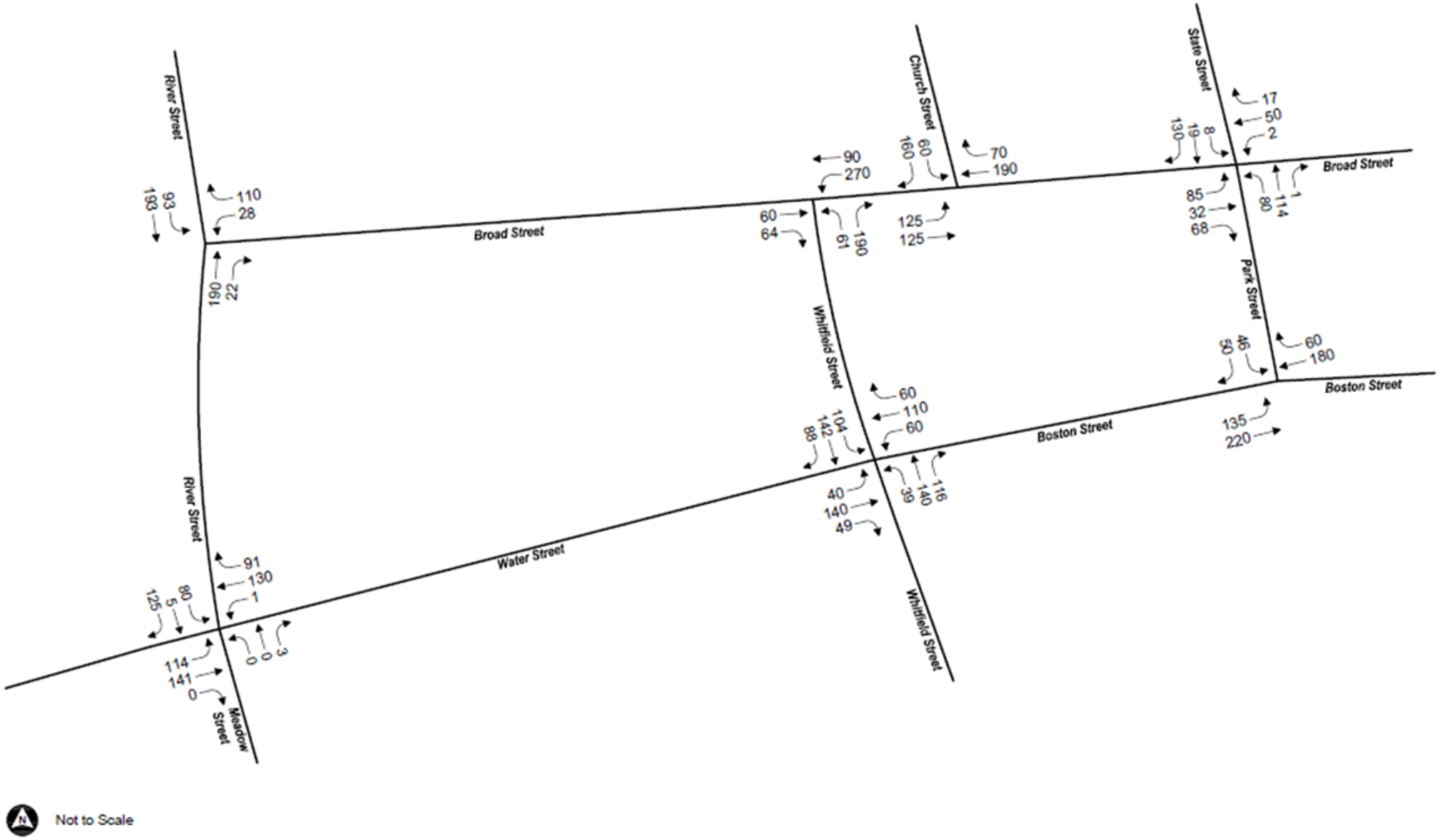
Source: VHB

Figure 29 2029 No-Build PM Peak Traffic Volumes



Source: VHB

Figure 30 2029 No-Build Saturday Midday Peak Traffic Volumes



Source: VHB

3.3 Future & Proposed Conditions Operations Assessment

The Operations Assessment included a review of 1) the impact of projected traffic volume increases on intersection operations around the Guilford Green, and 2) a review of potential impacts to traffic operations if traffic flow changes are proposed for the roads around the Guilford Green, specifically for changing some roads to one-way operation. Understanding the flows and traffic distribution is critical to developing improvement concepts that are feasible for the Guilford Green area.

As discussed in Section 3.2.3, the data analyzed for the projected traffic volumes shows that traffic volumes over the next several years around the Guilford Green area will grow only minimally, similar to past trends. Traffic operations at the intersections around the Guilford Green will be about the same as they are today. There will be only minor capacity issues at the intersections, particularly at Whitfield Street and Boston Street/Water Street. A table comparing existing and future No Build traffic operations can be found in Table 1.

3.3.1 Potential for One-Way Operation Around the Guilford Green

Part of the assessment of future traffic conditions was to determine if circulation changes would negatively impact traffic flow around the Guilford Green, specifically if one-way operation was introduced on Whitfield Street and Park Street. This has been proposed in the past and implemented temporarily at times during special events. The purpose of introducing one-way operation around the Guilford Green is to reduce conflict points at specific intersections and free up road space for other uses, such as additional pedestrian amenity space, street landscaping, outdoor dining, and separated space for pedestrian/bicycle travel. During stakeholder meetings and public outreach, it was also noted that Park Street is too narrow for two-way travel in its current configuration. Similarly, cars parked in the angled parking on Whitfield Street tend to encroach into the southbound travel lane, creating safety concerns. These factors were taken into consideration when developing conceptual improvements to meet the goals of the study.

One-way operation was considered only for Whitfield Street and Park Street in this study, as requested by the Town of Guilford. Changing Broad Street and Boston Street to one-way operation was not considered in this assessment. Requiring eastbound and westbound traffic to circulate around the Guilford Green would be inefficient and counterproductive to traffic operations. Additionally, since Boston Street is part of state route 146, CTDOT would likely oppose shifting traffic in this manner from a state route to a town road to detour around the Guilford Green.

VHB reviewed whether Whitfield Street should be one-way southbound, and Park Street should be one-way northbound, or the other way around. A crucial factor in considering these two operational directions was the impact one-way flow would have on the intersection of Whitfield Street at Boston Street/Water Street. One-way flow southbound on Whitfield Street would bring additional traffic into this intersection, because traffic that used to go south on Park Street would now be using Whitfield Street and would need to go through the Boston Street/Water Street intersection. However, one-way northbound operation on Whitfield Street would eliminate 40% of the intersection conflict points at the Boston Street/Water Street intersection by removing traffic coming from the north. This operation also makes it possible to create a more structured and safe intersection by allowing separation of movements at Whitfield Street/Boston Street and Whitfield Street/Water Street.

Therefore, all conceptual improvements developed had Whitfield as one-way northbound and Park Street as one-way southbound.

Traffic analysis was conducted to understand the distribution of traffic under the 2029 traffic volumes in a scenario where Whitfield Street and Park Street were made one-way pairs. The operations at the study intersections were compared to the Existing and No Build conditions to review the change in volume to capacity, delays, and vehicle queues. This information is presented in Table 16.

Table 16 Intersection Capacity Analysis Summary – Existing, No-Build, and Build Comparison

Location	Peak Hour	Mov't	Existing Conditions				No-Build Conditions				Build Conditions			
			v/c[1]	Del[2]	LOS[3]	Q95[5]	v/c	Del	LOS	Q95	v/c	Del	LOS	Q95
Boston St & Park St	AM	EB L	0.06	1	A	5	0.06	1	A	5	-	-	-	-
		EB T	0.06	3	A	5	0.06	3	A	5	0.25	10	A	25
		WB T	0.14	0	A	0	0.16	0	A	0	0.15	9	A	13
		WB R	0.14	0	A	0	0.16	0	A	0	-	-	-	-
		SB L	0.10	12	B	8	0.17	14	B	15	0.29	10	A	30
		SB R	0.10	12	B	8	0.17	14	B	15	0.29	10	A	30
	PM	EB L	0.11	1	A	9	0.11	1	A	9	-	-	-	-
		EB T	0.11	4	A	9	0.11	4	A	9	0.27	10	A	28
		WB T	0.18	0	A	0	0.18	0	A	0	0.30	11	B	30
		WB R	0.18	0	A	0	0.18	0	A	0	-	-	-	-
		SB L	0.20	15	B	18	0.20	15	B	18	0.40	11	B	48
		SB R	0.20	15	B	18	0.20	15	B	18	0.40	11	B	48
	Sat	EB L	0.13	2	A	12	0.14	2	A	12	-	-	-	-
		EB T	0.13	5	A	12	0.14	5	A	12	0.21	10	A	20
		WB T	0.15	0	A	0	0.16	0	A	0	0.28	11	B	28
		WB R	0.15	0	A	0	0.16	0	A	0	-	-	-	-
		SB L	0.32	18	C	34	0.34	19	C	37	0.56	14	B	88
		SB R	0.32	18	C	34	0.34	19	C	37	0.56	14	B	88
Whitfield St & Boston St/Water St*	AM	EB L	-	9	A	70	-	17	C	98	-	10	A	28
		EB R	-	9	A	70	-	9	A	98	-	10	A	28
		WB L	-	7	A	61	-	11	B	97	-	13	B	42
		WB R	-	7	A	61	-	6	A	97	-	13	B	42
		NB L	-	7	A	53	-	13	B	77	-	10	A	30
		NB T1**	-	-	-	-	-	-	-	-	-	10	A	30
		NB T2~	-	7	A	53	-	13	B	77	-	0	A	0
		NB R	-	7	A	53	-	8	A	77	-	0	A	0
		SB T	-	1	A	2	-	1	A	2	-	10	A	28
		SB R	-	1	A	2	-	1	A	2	-	10	A	28
	PM	EB L	-	15	C	85	-	15	B	127	-	12	B	38
		EB R	-	13	B	85	-	17	C	127	-	12	B	38
		WB L	-	18	C	95	-	17	C	107	-	19	C	92
		WB R	-	12	B	95	-	12	B	107	-	19	C	92
		NB L	-	22	C	126	-	21	C	148	-	13	B	68
		NB T1**	-	-	-	-	-	-	-	-	-	13	B	68
		NB T2~	-	20	C	126	-	19	C	148	-	0	A	0
		NB R	-	14	B	126	-	14	B	148	-	0	A	0
		SB T	-	2	A	4	-	1	A	2	-	12	B	50
		SB R	-	1	A	4	-	1	A	2	-	12	B	50

Location	Peak Hour	Mov't	Existing Conditions				No-Build Conditions				Build Conditions			
			v/c[1]	Del[2]	LOS[3]	Q95[5]	v/c	Del	LOS	Q95	v/c	Del	LOS	Q95
	Sat	EB L	-	14	B	96	-	28	D	164	-	12	B	48
		EB R	-	13	B	96	-	26	D	164	-	12	B	48
		WB L	-	12	B	87	-	24	C	123	-	19	C	88
		WB R	-	9	A	87	-	17	C	123	-	19	C	88
		NB L	-	13	B	54	-	26	D	136	-	13	B	58
		NB T1**	-	-	-	-	-	-	-	-	-	13	B	58
		NB T2~	-	12	B	54	-	28	D	136	-	0	A	0
		NB R	-	9	A	54	-	22	C	136	-	0	A	0
		SB T	-	17	C	116	-	2	A	19	-	11	B	35
		SB R	-	18	C	116	-	1	A	19	-	11	B	35
Broad St & Church St	AM	EB L	0.04	1	A	3	0.05	1	A	4	0.04	1	A	3
		EB T	0.04	4	A	3	0.05	4	A	4	0.04	3	A	3
		WB T	0.10	0	A	0	0.11	0	A	0	0.07	0	A	0
		WB R	0.10	0	A	0	0.11	0	A	0	0.07	0	A	0
		SB L	0.21	11	B	20	0.23	11	B	22	0.26	12	B	26
		SB R	0.21	11	B	20	0.23	11	B	22	0.26	12	B	26
	PM	EB L	0.10	1	A	8	0.12	2	A	10	0.11	2	A	10
		EB T	0.10	5	A	8	0.12	5	A	10	0.11	4	A	10
		WB T	0.16	0	A	0	0.22	0	A	0	0.17	0	A	0
		WB R	0.16	0	A	0	0.22	0	A	0	0.17	0	A	0
		SB L	0.34	14	B	37	0.45	18	C	58	0.62	30	D	101
		SB R	0.34	14	B	37	0.45	18	C	58	0.62	30	D	101
	Sat	EB L	0.11	1	A	9	0.11	1	A	10	0.10	1	A	9
		EB T	0.11	5	A	9	0.11	5	A	10	0.10	4	A	9
		WB T	0.17	0	A	0	0.17	0	A	0	0.11	0	A	0
		WB R	0.17	0	A	0	0.17	0	A	0	0.11	0	A	0
		SB L	0.45	17	C	57	0.45	17	C	58	0.60	26	D	93
		SB R	0.45	17	C	57	0.45	17	C	58	0.60	26	D	93
Broad St & Park St/State St*	AM	EB L	-	1	A	4	-	1	A	9	-	2	A	13
		EB T	-	1	A	4	-	1	A	9	-	2	A	13
		EB R	-	1	A	4	-	1	A	9	-	1	A	13
		WB L	-	-	A	39	-	-	A	47	-	-	A	41
		WB T	-	6	A	39	-	8	A	47	-	6	A	41
		WB R	-	3	A	39	-	4	A	47	-	4	A	41
		NB L	-	6	A	57	-	7	A	52	-	-	-	-
		NB T	-	7	A	57	-	6	A	52	-	-	-	-
		NB R	-	-	A	57	-	-	A	52	-	-	-	-
		SB L	-	6	A	63	-	5	A	66	-	4	A	51
		SB T	-	7	A	63	-	6	A	66	-	7	A	51
		SB R	-	5	A	63	-	4	A	66	-	4	A	51
	PM	EB L	-	1	A	3	-	1	A	9	-	1	A	18
		EB T	-	1	A	3	-	1	A	9	-	1	A	18
		EB R	-	1	A	3	-	1	A	9	-	1	A	18

Location	Peak Hour	Mov't	Existing Conditions				No-Build Conditions				Build Conditions			
			v/c[1]	Del[2]	LOS[3]	Q95[5]	v/c	Del	LOS	Q95	v/c	Del	LOS	Q95
		WB L	-	6	A	56	-	10	A	57	-	6	A	64
		WB T	-	11	B	56	-	9	A	57	-	11	B	64
		WB R	-	7	A	56	-	7	A	57	-	7	A	64
		NB L	-	12	B	85	-	11	B	84	-	-	-	-
		NB T	-	10	B	85	-	9	A	84	-	-	-	-
		NB R	-	-	A	85	-	-	A	84	-	-	-	-
		SB L	-	12	B	94	-	9	A	78	-	13	B	91
		SB T	-	9	A	94	-	9	A	78	-	11	B	91
		SB R	-	7	A	94	-	7	A	78	-	7	A	91
	Sat	EB L	-	6	A	35	-	1	A	3	-	1	A	-
		EB T	-	5	A	35	-	1	A	3	-	1	A	-
		EB R	-	6	A	35	-	1	A	3	-	1	A	-
		WB L	-	-	A	50	-	5	A	56	-	-	-	-
		WB T	-	8	A	50	-	8	A	56	-	10	A	51
		WB R	-	5	A	50	-	5	A	56	-	5	A	51
		NB L	-	9	A	64	-	10	A	64	-	-	-	-
		NB T	-	8	A	64	-	8	A	64	-	-	-	-
		NB R	-	-	A	64	-	8	A	64	-	-	-	-
		SB L	-	8	A	70	-	5	A	80	-	11	B	87
		SB T	-	5	A	70	-	8	A	80	-	13	B	87
		SB R	-	5	A	70	-	6	A	80	-	8	A	87
River St & Broad St	AM	WB L	0.21	12	B	19	0.21	12	B	19	0.54	20	C	81
		WB R	0.21	12	B	19	0.21	12	B	19	0.54	20	C	81
		NB T	0.10	0	A	0	0.10	0	A	0	0.10	0	A	0
		NB R	0.10	0	A	0	0.10	0	A	0	0.10	0	A	0
		SB L	0.08	1	A	6	0.08	1	A	6	0.08	1	A	6
		SB T	0.08	4	A	6	0.08	4	A	6	0.08	4	A	6
	PM	WB L	0.32	13	B	35	0.32	13	B	35	0.72	29	D	145
		WB R	0.32	13	B	35	0.32	13	B	35	0.72	29	D	145
		NB T	0.14	0	A	0	0.14	0	A	0	0.14	0	A	0
		NB R	0.14	0	A	0	0.14	0	A	0	0.14	0	A	0
		SB L	0.09	1	A	8	0.09	1	A	8	0.09	1	A	8
		SB T	0.09	4	A	8	0.09	4	A	8	0.09	4	A	8
	Sat	WB L	0.27	13	B	27	0.27	13	B	27	0.59	24	C	94
		WB R	0.27	13	B	27	0.27	13	B	27	0.59	24	C	94
		NB T	0.14	0	A	0	0.14	0	A	0	0.14	0	A	0
		NB R	0.14	0	A	0	0.14	0	A	0	0.14	0	A	0
		SB L	0.09	1	A	8	0.09	1	A	8	0.09	1	A	8
		SB T	0.09	4	A	8	0.09	4	A	8	0.09	3	A	8
Broad St & Whitfield St*	AM	EB T	-	5	A	56	-	7	A	69	-	9	A	13
		EB R	-	4	A	56	-	5	A	69	-	-	-	-

Location	Peak Hour	Mov't	Existing Conditions				No-Build Conditions				Build Conditions			
			v/c[1]	Del[2]	LOS[3]	Q95[5]	v/c	Del	LOS	Q95	v/c	Del	LOS	Q95
		WB L	-	1	A	7	-	1	A	-	-	-	-	-
		WB T	-	1	A	7	-	1	A	-	-	9	A	15
		NB L	-	2	A	56	-	7	A	62	-	9	A	18
		NB R	-	5	A	56	-	5	A	62	-	9	A	18
	PM	EB T	-	7	A	65	-	8	A	74	-	10	A	20
		EB R	-	5	A	65	-	6	A	74	-	-	-	-
		WB L	-	1	A	14	-	1	A	9	-	-	-	-
		WB T	-	1	A	14	-	1	A	9	-	11	B	35
		NB L	-	11	B	94	-	9	A	84	-	11	B	50
		NB R	-	7	A	94	-	6	A	84	-	11	B	50
	Sat	EB T	-	9	A	72	-	8	A	62	-	9	A	13
		EB R	-	6	A	62	-	6	A	62	-	-	-	-
		WB L	-	1	A	20	-	1	A	24	-	-	-	-
		WB T	-	1	A	20	-	1	A	24	-	10	A	30
		NB L	-	11	B	83	-	11	B	99	-	11	B	55
		NB R	-	7	A	83	-	7	A	99	-	11	B	55
Water St & Meadow St/River St	AM	EB L	0.07	1	A	6	0.07	1	A	6	0.07	1	A	6
		EB T	0.07	4	A	6	0.07	4	A	6	0.07	4	A	6
		EB R	-	-	-	-	-	-	-	-	-	-	-	-
		WB L	-	-	-	-	-	-	-	-	-	-	-	-
		WB T	0.00	0	A	0	0.00	0	A	0	0.00	0	A	0
		WB R	0.00	0	A	0	0.00	0	A	0	0.00	0	A	0
		NB L	-	-	-	-	-	-	-	-	-	-	-	-
		NB T	0.01	12	B	1	0.01	12	B	1	0.01	12	B	1
		NB R	0.01	12	B	1	0.01	12	B	1	0.01	12	B	1
		SB L	0.29	13	B	31	0.29	13	B	31	0.37	13	B	44
		SB T	-	-	-	-	-	-	-	-	-	-	-	-
		SB R	0.29	13	B	31	0.29	13	B	31	0.37	13	B	44
	PM	EB L	0.12	2	A	10	0.13	2	A	11	0.11	1	A	9
		EB T	0.12	5	A	10	0.13	5	A	11	0.11	5	A	9
		EB R	0.12	5	A	10	0.13	5	A	11	0.11	5	A	9
		WB L	0.00	0	A	0	0.00	0	A	0	0.00	0	A	0
		WB T	0.00	0	A	0	0.00	0	A	0	0.00	0	A	0
		WB R	0.00	0	A	0	0.00	0	A	0	0.00	0	A	0
		NB L	0.02	18	C	2	0.02	18	C	2	0.02	19	C	2
		NB T	0.02	18	C	2	0.02	18	C	2	0.02	19	C	2
		NB R	0.02	18	C	2	0.02	18	C	2	0.02	19	C	2
		SB L	0.51	21	C	72	0.53	22	C	76	0.59	19	C	98
		SB T	0.51	21	C	72	0.53	22	C	76	0.59	19	C	98
		SB R	0.51	21	C	72	0.53	22	C	76	0.59	19	C	98
	Sat	EB L	0.10	1	A	8	0.10	1	A	8	0.09	1	A	8
		EB T	0.10	5	A	8	0.10	5	A	8	0.09	4	A	8

Location	Peak Hour	Mov't	Existing Conditions				No-Build Conditions				Build Conditions			
			v/c[1]	Del[2]	LOS[3]	Q95[5]	v/c	Del	LOS	Q95	v/c	Del	LOS	Q95
		EB R	-	-	-	-	-	-	-	-	-	-	-	-
		WB L	0.00	0	A	0	0.00	0	A	0	0.00	0	A	0
		WB T	0.00	0	A	0	0.00	0	A	0	0.00	1	A	0
		WB R	0.00	0	A	0	0.00	0	A	0	0.00	1	A	0
		NB L	-	-	-	-	-	-	-	-	-	-	-	-
		NB T	-	-	-	-	-	-	-	-	-	-	-	-
		NB R	0.00	10	A	0	0.00	10	A	0	0.00	9	A	0
		SB L	0.44	18	C	56	0.44	18	C	56	0.53	17	C	78
		SB T	0.44	18	C	56	0.44	18	C	56	0.53	17	C	78
		SB R	0.44	18	C	56	0.44	18	C	56	0.53	17	C	78

Source: VHB, Inc. using Synchro 11 software
1 volume-to-capacity ratio for the critical movement
2 delay of critical approach only, in seconds
3 level of service
4 95th percentile queue length, in feet
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound; R = right; T = through, L= left
Shaded cells indicate LOS E or F conditions
* Traffic operations analyzed using SimTraffic simulation due to non-standard intersection traffic control, V/C ratio not available
** Northbound thru movement at Water Street
~ Northbound thru movement at Boston Street

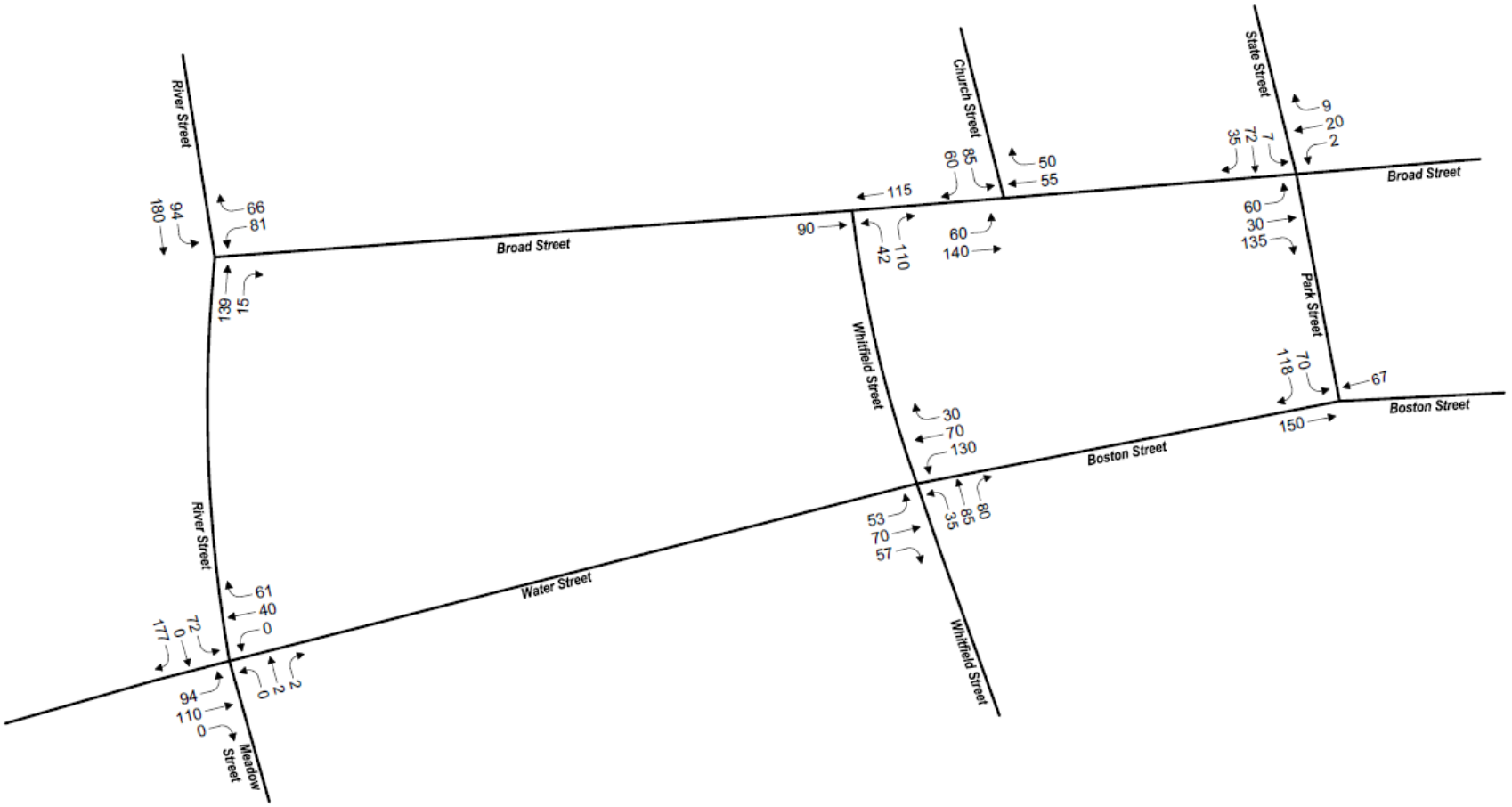
The analysis shows that some additional congestion is expected at three of the study intersections with the one-way operation on Whitfield Street at Park Street, compared to the No Build condition:

- Park Street southbound at Boston Street
- Church Street southbound at Broad Street
- Broad Street westbound at River Street.

However, the additional delay and queuing that would occur at these intersections is well within acceptable levels. The intersection of Whitfield Street at Boston Street/Water Street is expected to work better in the one-way scenario than the Existing or No Build condition. Therefore, it is feasible to proceed with conceptual improvements that include the one-way scenario for Whitfield Street and Park Street.

The distribution of traffic volumes in the one-way scenario is shown in Figures 31, 32, and 33.

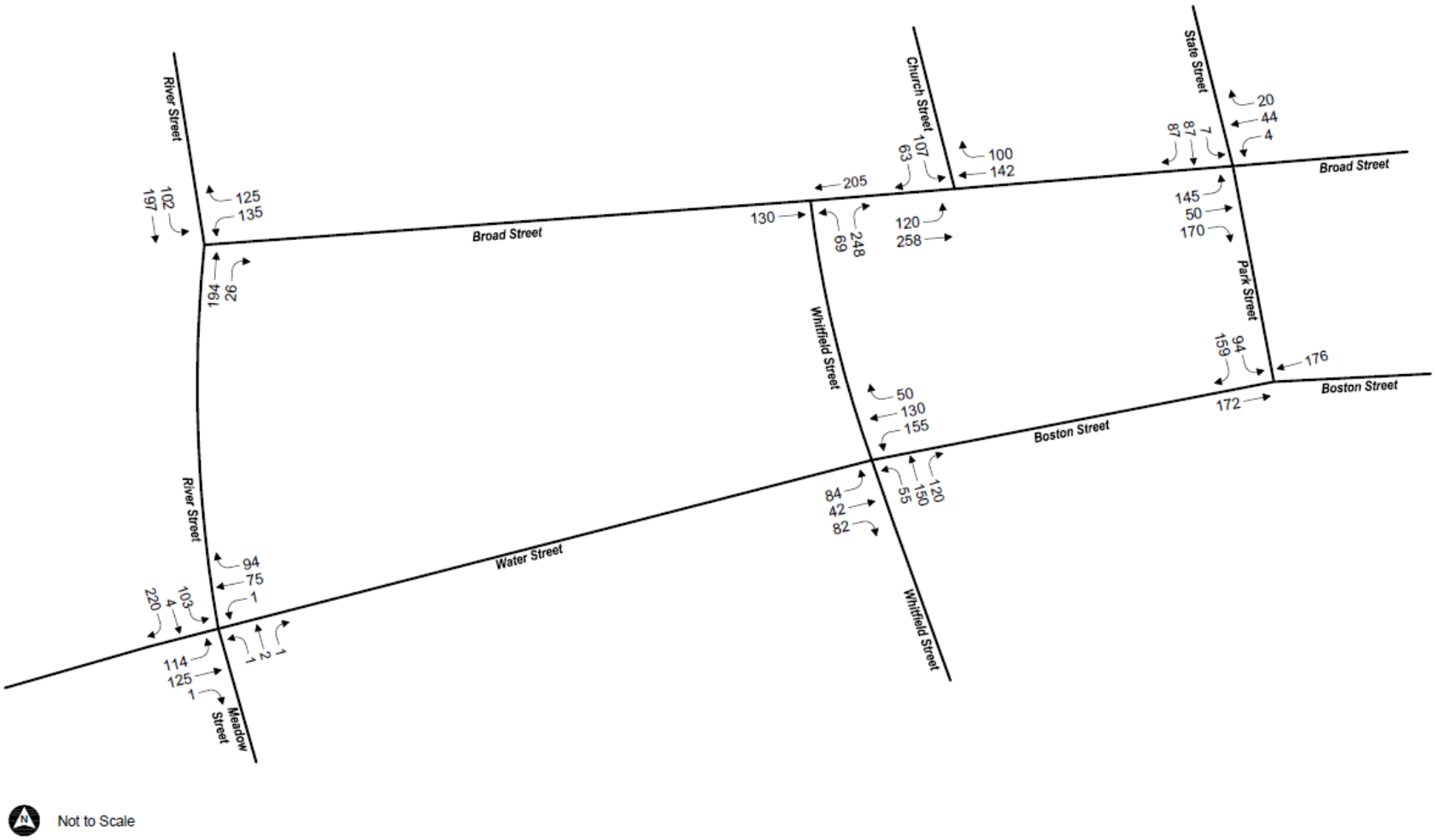
Figure 31 2029 Build (One-Way) AM Peak Traffic Volumes



Not to Scale

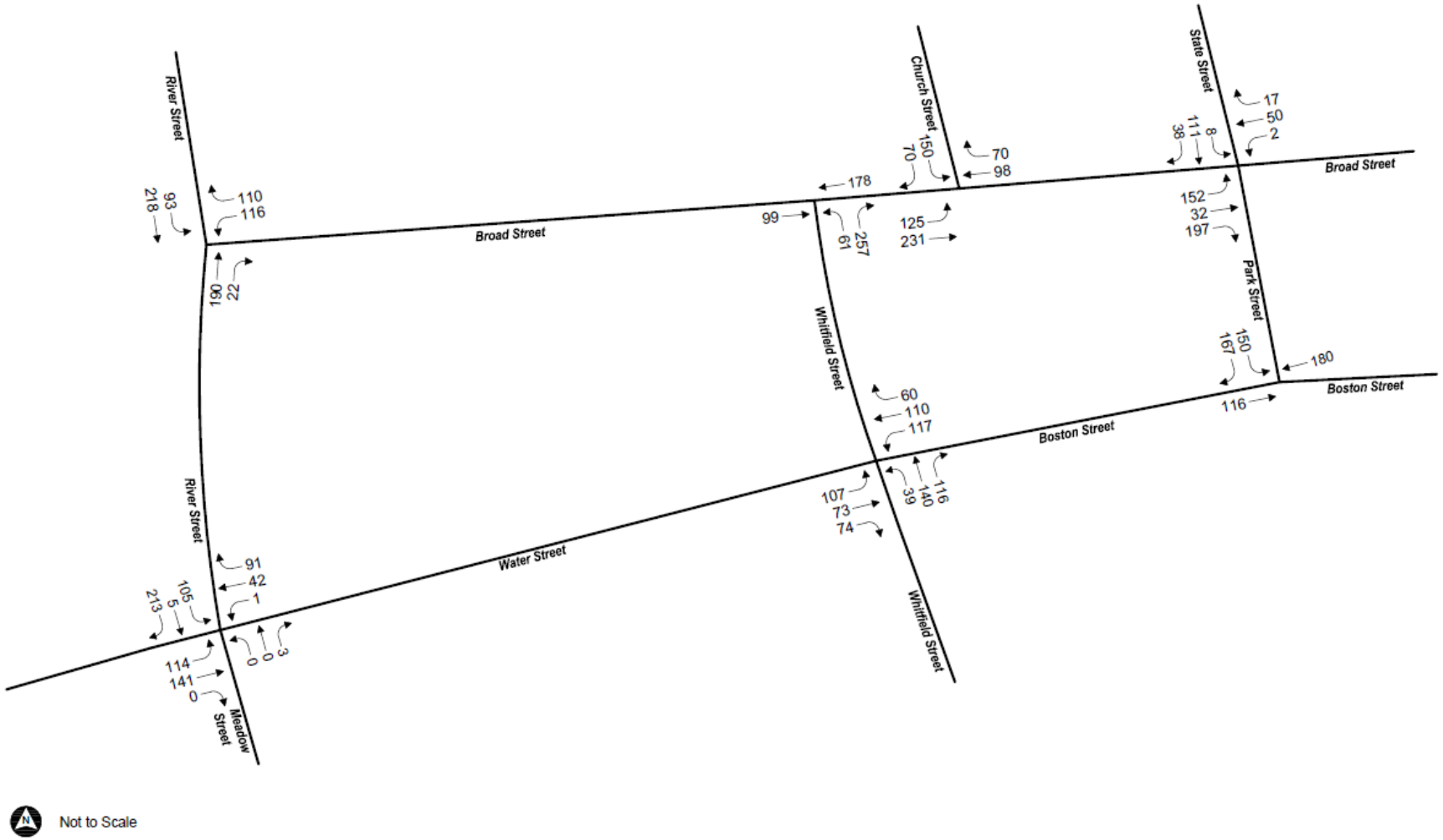
Source: VHB

Figure 32 2029 Build (One-Way) PM Peak Traffic Volumes



Source: VHB

Figure 33 2029 Build (One-Way) Saturday Peak Traffic Volumes



Source: VHB

In addition, as Whitfield Street is part of State Route 77, two possible changes would need to be made: 1) Park Street would need to be made part of Route 77; or 2) the Town of Guilford would need to take over maintenance of Whitfield Street between Broad Street and Boston Street. In the second option, the Town may need to also take control of Church Street from Broad Street to Route 1, so that Route 77 ends at Route 1 instead of the Guilford Green. Either of these options would require CTDOT approval.

4

Development of Improvement Concept Alternatives

This section of the Guilford Green Transportation Study discusses the development of the Improvement Concept Alternatives for the Guilford Green area and concepts for what the improvements could consist of. Developing the improvement concepts included collecting feedback and ideas from the Town, SCRCOG, stakeholders, and public feedback; identifying feasible alternatives based on the context and character of the Guilford Green; conducting a demonstration project to trial potential improvements around the Guilford Green; and vetting the potential alternatives to determine public and municipal support for different options. The improvement concepts were developed to support the goals of the study to address traffic, circulation, parking, and safety conditions for all users around the Guilford Green.

4.1 Potential Countermeasures Identified

Based on feedback from the public, stakeholders, and Town, as described in the Existing Conditions section, the following transportation countermeasures were reviewed for their applicability to the study:

- Circulation changes around the Guilford Green
- Curb extensions
- Crosswalk enhancements (better signage, flashing beacons)
- Traffic calming (such as speed humps or raised crosswalks)
- Bicycle facilities
- Parking location and design of on-street parking
- Updates to intersection control

These countermeasures were chosen for their feasibility to implement around the Guilford Green and appropriateness for the Guilford Green context. For example, traffic signals were not considered for the intersections around the Guilford Green, as they would not meet Manual on Uniform Traffic Control (MUTCD) warrants for their installation. Roundabouts were reviewed but not considered beyond initial stages, as crash data does not support their installation.

4.2 Demonstration Projects

Two demonstration projects were conducted in fall 2024 to test out potential pedestrian improvements around the Guilford Green. Temporary curb extensions were set up for the crosswalk at Broad Street and Church Street and for the mid-block crosswalk at 63 Whitfield Street. The goals of the project were to explore the feasibility of making the changes to the area; gather public feedback about the potential improvements; and collect observations on future design considerations.

Curb extensions were chosen because of concerns raised by the public and the Town about visibility of pedestrians in crosswalks and observed sightline issues from vehicles parked adjacent to the crosswalks. A curb extension expands the sidewalk or curb line out into the roadway, which reduces the effective road width. Curb extensions improve pedestrian crossings by reducing the pedestrian crossing distance, improving the visibility of pedestrians and motorists to see each other, and reducing the time that pedestrians are exposed to traffic.

Similar demonstration projects (referred to as “quick build” projects) were conducted around the Guilford Green in 2021 as part of the Safe Streets Report development. As noted in the Existing Conditions Report, these were done at Park Street and Broad Street and at Park Street at Town Hall.

Unlike the previous demonstrations, the 2024 demonstration projects were done on the sections of Broad Street and Whitfield Street that are part of CT-77, which required CTDOT approval, and they were in place for approximately two weeks, from October 18 to October 31. Permission from the CTDOT District office was granted through the 2024 CTDOT Quick Build Directive, which

created a process for communities to request permission to conduct quick build projects on state roads and highways.[3] A sketch drawing of the curb extensions was sent to CTDOT for review and comment. Afterwards, an encroachment permit was submitted to CTDOT by the Town to get formal approval to set up the demonstration.

Figure 34 shows a diagram of the temporary curb extension at 63 Whitfield Street. Figure 35 shows pictures of the temporary curb extension at 63 Whitfield Street (left) and Broad Street and Church Street (right).

Figure 34 63 Whitfield Street Temporary Curb Extension Diagram

Source: VHB

Figure 35 63 Whitfield Street and Broad & Church Street Curb Extensions

Source: VHB

[3] See CTDOT Quick Build Directive: https://portal.ct.gov/dot/-/media/dot/policy/quick-build---complete-streets-june-2024.pdf?rev=8bdf2defaede402e921b3154951157af&hash=BC750792080082225D96EF6FDDF26E72

Public comments on the demonstration projects were collected through in-person outreach and an online survey. 118 comments were received on the 63 Whitfield Street crosswalk, while 47 comments were received on the Broad and Church Street crosswalk. Overall support was shown for the curb extensions, with a majority of responses in agreement that the curb extensions enhance safety, make pedestrians more visible, and that they should be made permanent. However, various concerns were raised about the curb extensions, including:

- Snowplowing around the curb extensions
- Loss of parking spaces around the Guilford Green
- Aesthetics
- Cost

General concerns raised in the in-person outreach noted concerns about the location of the food truck, large parked vehicles blocking sight lines, pedestrian safety, limited visibility around the Guilford Green for all road users, and intersection safety.

The full results of the public outreach can be found in the appendix.

4.3 Review of Concepts

Building on the success of the demonstration projects and comments from the public and stakeholders, improvement concept alternatives were developed. The concepts incorporated various elements noted in Section 4.1. In all draft concepts, changing the circulation to have Whitfield one-way northbound and Park Street one-way southbound was included, as discussed in Section 3.3.1. Curb extensions at all the crosswalks were put into the concepts, as well as modifying parking where needed. Accommodating bicycle traffic was considered either with a multi-use path/wide sidewalk or on-street bicycle lanes. Updating traffic control to include new Stop control at three of the intersections was also a key factor in creating safer and more predictable intersections. Examples of parts of these draft concepts discussed are shown in Figure 36.

Traffic calming was considered as well, primarily through the use of horizontal deflection (i.e., curb extensions and median islands). Vertical traffic calming measures – speed humps and raised crosswalks – were generally not incorporated, except in one case. It was noted that Guilford emergency services had concerns about vertical elements affecting emergency response times and was not in favor of having them. While these elements are not included in the preferred alternative for the Guilford Green, they would not be precluded from being added to a project during future design.

Concepts were shared with the Town of Guilford and SCRCOG on February 13, 2025. After discussion of the concepts, they were narrowed down and revised in advance of the second set of meetings with the stakeholders on March 17, 2025. From the comments at these meetings, the concept was further refined to a Preferred Concept to bring to the April 2025 Public Information meeting, discussed in Chapter 5.

Figure 36 Draft Concept Examples for Whitfield Street

Source: VHB

4.3.1 Stakeholder Comments

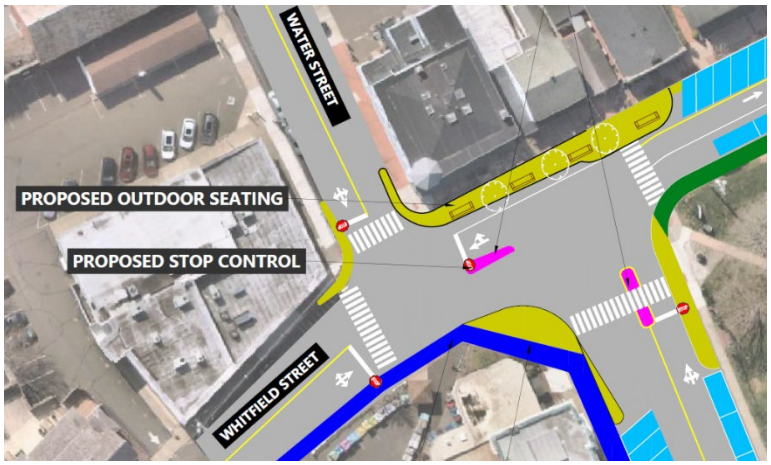
Two Stakeholder meetings were held on March 17 – one that included mainly representatives from Town departments and staff, and one that included Guilford Green merchants, representatives of Town committees and commissions, and church representatives.

Comments from the first stakeholder meeting included concerns about loss of parking, access to businesses by delivery trucks, special events traffic and parking, need for public buy-in for the concept, proposed width of traffic lanes, and support for changes to the decorative crosswalks around the Guilford Green. The Guilford Fire Department also raised concerns about their fire access route needing to change, as they currently use Whitfield Street to go southbound towards Sachem Head.

Three stakeholders attended the second meeting. To allow more stakeholders to review the concepts and give them additional time to consider and comment on the concept drawings, the concepts were sent to the second stakeholder group and requested to respond within a week. Comments received during the meeting and emailed afterwards focused on minimizing loss of on-street parking, adjusting the potential street furniture to be simply outdoor seating, support for additional traffic control around the Guilford Green, support for the curb extensions, concerns about unintended consequences of the one-way travel, and support for more visible crosswalks.

4.3.2 Concept Refinement

Based on the feedback from the Town and stakeholders, the Guilford Green Improvement Concept was revised and refined into a Preferred Alternative. Key elements that were removed from the previous concept options included the potential for parallel parking on the west side of Whitfield Street and on-street bicycle lanes on Whitfield Street. On-street parking impacts were also minimized from the initial concepts. However, most of the original ideas continued into the Preferred Alternative, which is discussed in Chapter 5.



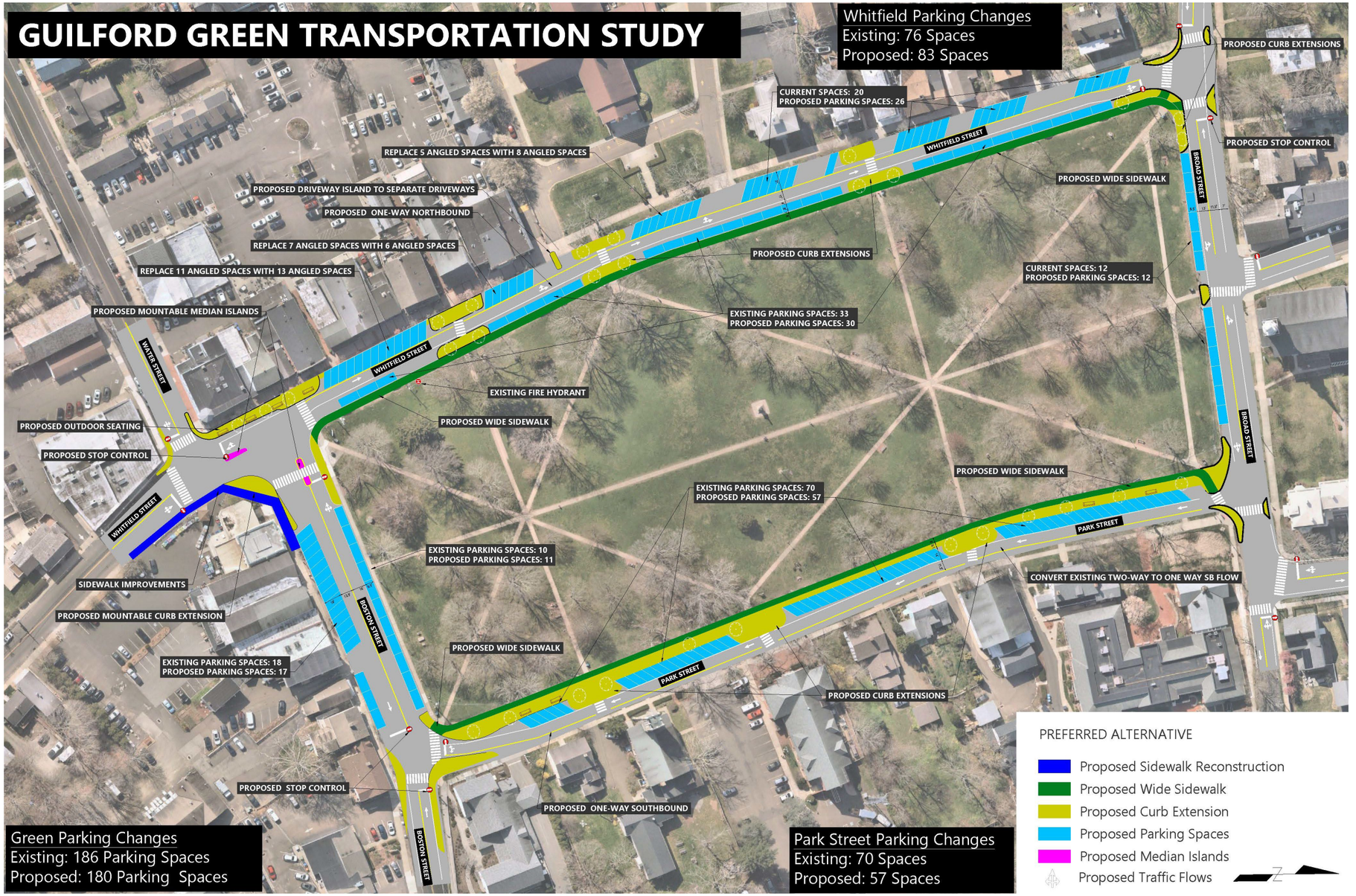
5

Preferred Alternative

This chapter overviews the Preferred Alternative for the Guilford Green to improve safety and multi-modal transportation. In the first section, the key concept elements are discussed, which include changes to circulation (one-way Whitfield Street and Park Street), changes to the intersection of Whitfield Street/Boston Street/Water Street, updates to existing intersection control, the and wide sidewalk/multi-use path. An alternative is also provided if the one-way recommendation is not able to be implemented. Finally, the second public meeting and potential funding sources are discussed.

The Preferred Alternative Concept Plan is shown in Figure 37. A larger version of the entire concept plan can be found in the Appendix.

Figure 37 Guilford Green Preferred Alternative Concept Plan



Source: VHB

5.1 Key Concept Elements

The Preferred Alternative includes a number of changes that are discussed in the following sections. One of the main elements is the conversion of Whitfield Street to one-way northbound (towards Broad Street) and Park Street to one-way southbound (towards Boston Street). As noted in Section 3.3, these one-way conversions are feasible and are expected to have a limited impact on traffic flows. By converting these roads to one-way, other elements of the concept are possible, particularly the changes to Whitfield Street/Water Street/Boston Street and the addition of wide sidewalks/multi-use paths along the Guilford Green.

Another key concept element was updating three of the intersections around the Guilford Green to all-way stop control. All-way stop control warrants from the MUTCD, 11th Edition (2023) (Section 2B.12 through Section 2B.17) were reviewed to determine if the intersections met warrants. The intersections reviewed were Whitfield Street at Boston Street/Water Street; Whitfield Street at Broad Street; Boston Street at Park Street; and Broad Street at River Street.

5.1.1 Whitfield Street/Water Street/Boston Street Intersection

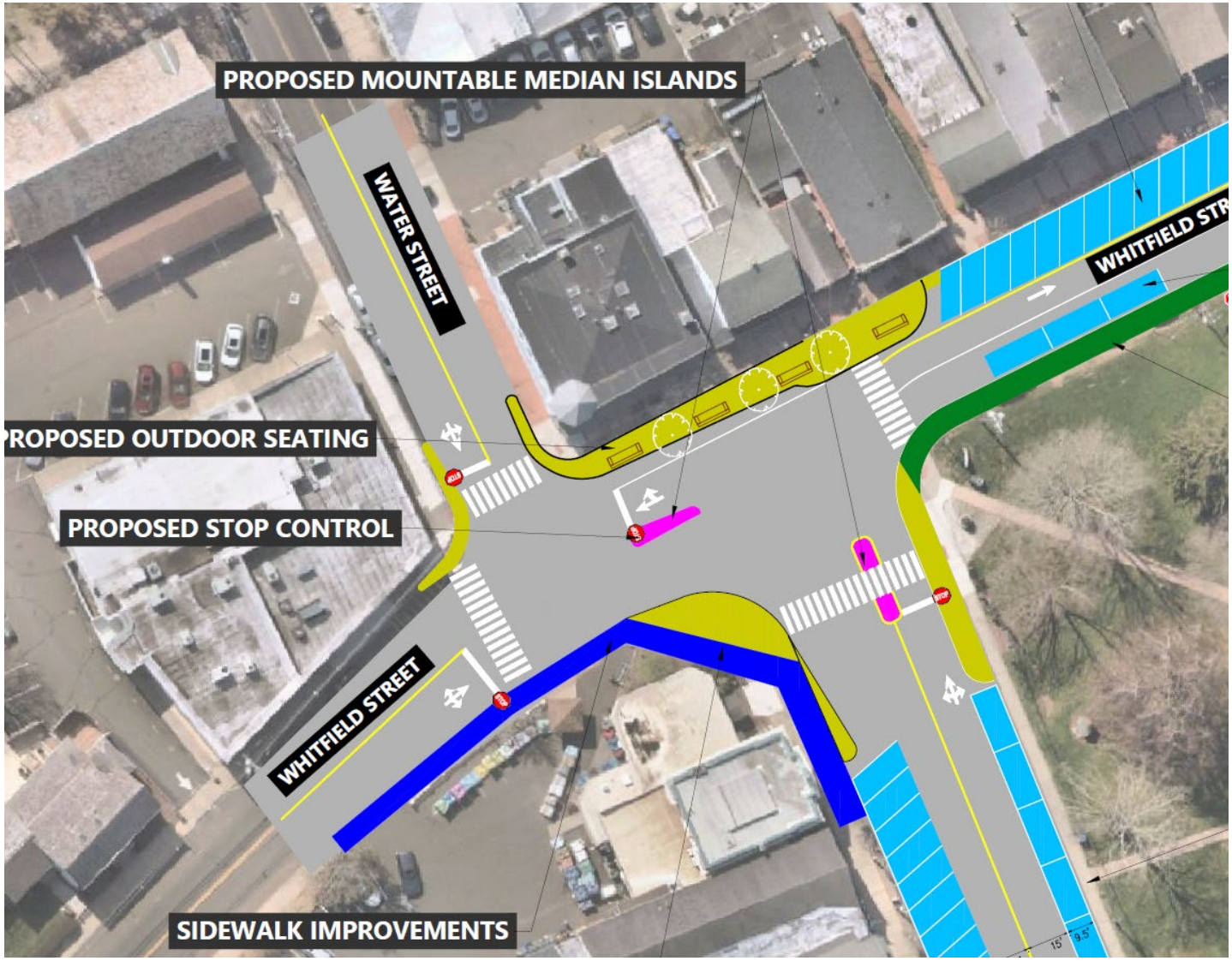
This intersection was noted by the public as a major point of concern and has the most congestion and crashes of all the intersections studied. The lack of intersection control on the southbound (Whitfield Street) approach and the offset nature of Water Street and Boston Street creates an intersection where drivers do not always know what to expect or how to proceed safely. Crashes at this intersection are usually not serious, however.

With Whitfield Street running northbound one-way between Boston Street and Broad Street, there would be no conflicting traffic coming southbound. This immediately helps create a safer intersection by eliminating 40% of the conflicting movements. However, the offset roadways still create sightline challenges. To address this, the proposed change is to introduce intersection control (Stop sign) for the southbound movement, but in the middle of the offset between Water Street and Boston Street. A median island would be constructed in the intersection to delineate this area and place the Stop sign. This would create a more traditional three-way intersection at Water Street and Whitfield Street and bring the Stop for southbound traffic closer to the other movements, improving sightlines and making the intersection more predictable.

As noted in Table 11 of Section 2.3.5, this intersection had 27 crashes over the five-year period studied, or about five per year. Although many crashes are read-end, sideswipes, and rear-to-front (vehicles backing up), from 2019-2022 there were four angle crashes, which are the type that are correctable with the installation of all-way stop control. Table 4 of Section 2.2.5 shows that all Stop-controlled approaches at this intersection have inadequate intersection sight distance. Additionally, the significant pedestrian activity at this intersection, noted on Table 12 in Section 2.4.1.4, is another factor that must be considered. Therefore, all-way stop control is recommended for this intersection based on MUTCD Warrants B: Sight Distance and E: Other Factors (pedestrian and/or bicyclist movements).

Figure 38 illustrates the proposed changes to the intersection.

Figure 38 Whitfield Street/Water Street/Boston Street Intersection Concept



Source: VHB

Traffic coming northbound from the Water Street or Whitfield Street approaches would stop at the intersection, then proceed either north on Whitfield or east on Boston Street. Westbound Boston Street traffic would still have a Stop control at the Guilford Green, and would need to watch for traffic from the south. If going to south to Water Street or Whitfield Street, Boston Street traffic would proceed to the second Stop sign at the median, making this a two-phased intersection for Boston Street traffic only. This will create a safer, more predictable flow of traffic through the intersection. Traffic analysis in Table 16 of Chapter 3 shows that this provides better operations than currently.

This new intersection operation allows additional sidewalk space to be constructed next to the intersection in front of 81-89 Whitfield Street (Breakwater Books, Cilantro Specialty Foods, and Page Taft Compass Real Estate). A swath of roadway space approximately 18' wide is hatched out in pavement markings in front of these businesses to indicate that it needs to be clear of parked vehicles to provide necessary sightlines from traffic on Water Street to see traffic coming southbound. With the changes to the intersection, this extended clear space is no longer needed. A curb extension can be constructed in this space to provide additional street vegetation, seating, or other sidewalk amenities.

Finally, this concept recommends making sidewalk improvements to the southeast corner of the intersection, to repair damaged sidewalk and close redundant or unnecessary curb cuts. The concept recommends closing the northern driveway entrance to the Page's Hardware parking lot, which will improve safety at the intersection and consolidate driveway entrances and exits. This would need to be coordinated closely with Page's Hardware to ensure they still have adequate delivery access.

5.1.2 Intersection Control

The concept proposes to make updates to the intersection control to become all-way stop control at Broad Street at Whitfield Street and Boston Street at Park Street.

Broad Street at Whitfield Street is a three-way intersection with Stop control on the Whitfield Street and eastbound Broad Street approaches, but not the westbound Broad Street approach. Although signage at the Stop signs indicates this condition, the operation of the intersection still confuses drivers and pedestrians, many of whom are visitors to the area who may not be familiar with the intersection.

Crash data shows there is only about one crash per year at this intersection. However, two crashes (one in 2021 and one in 2024) were recorded as involving pedestrians. The one that occurred in 2024 involved a pedestrian that was crossing at the Whitfield Street crosswalk and was struck and injured by a vehicle turning left from Broad Street. As shown in Table 4 of Section 2.2.5, the Stop-controlled approaches at Whitfield Street and Broad Street have inadequate intersection sight distance. Given these factors, all-way stop control is recommended for the Whitfield Street at Broad Street intersection based on MUTCD Warrants B: Sight Distance and E: Other Factors (pedestrian and/or bicyclist movements). This change will improve safety of all users and make the intersection operate in a way that is more predictable.

Figure 39 shows a section from the main concept illustrates the proposed changes at this intersection.

Figure 39 Broad Street at Whitfield Street Concept Area

Source: VHB

Boston Street at Park Street is a three-way intersection with Stop control on the Park Street approach while Boston Street runs free. While this is not atypical of this kind of intersection where the main road runs free while the side street is Stop-controlled, there are challenging sight lines at the intersection on the southeast corner. Boston Street westbound travels along a horizontal curve as it turns towards Park Street, and the Guilford Savings Bank building is located almost at the sidewalk line, blocking sight lines on the approach. The Park Street approach sightline is also heavily constrained by the Bank building to see Boston Street traffic. As noted in Table 4 in Section 2.2.5, the sight distance is only 113' when it should be 280'. While the Park Street Stop bar will be moved up in the concept for this location, sight lines will still be constrained.

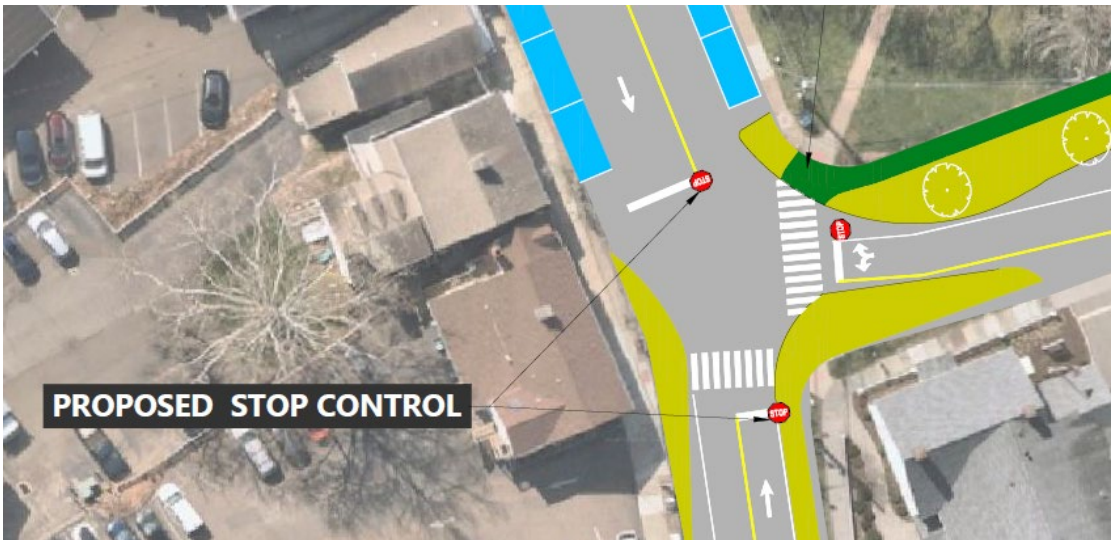
Crash data collected shows one crash per year from 2020 to 2022, then four crashes in 2023. However, these crashes are not types that would be correctable by an all-way stop control.

While more traffic will be flowing southbound through this intersection in the one-way condition, additional volume data would need to be collected to review all-way stop control Warrant D: 8-Hour Volume.

For Boston Street at Park Street it is recommended to make this intersection an all-way Stop based on MUTCD Warrants B: Sight Distance and E: Other Factors (pedestrian and/or bicyclist movements).

Figure 40 shows a section from the main concept illustrates the proposed changes at this intersection.

Figure 40 Park Street at Boston Street Concept Area



Source: VHB

5.1.3 Wide Sidewalk/Multi-use Path

The Preferred Alternative recommends adding a wide sidewalk or multi-use path on the Guilford Green sides of Whitfield Street and Park Street. There is currently no north-south sidewalk on the west and east sides of the Guilford Green; pedestrians must go to the middle of the Guilford Green if they do not or cannot walk in the grass or in the road. This wide sidewalk is recommended to be at least 8' wide to provide a shared space for pedestrians and bicyclists. A loop around the Guilford Green would be created through these additional paths.

The addition of this wide sidewalk in this concept is only possible with Whitfield Street and Park Street operating as one-way pairs. No property is removed from the Guilford Green. It would in fact add space to the Guilford Green because the space for the facility would come from the road instead.

5.1.4 Curb Extensions

Curb extensions are proposed all around the Guilford Green at every crosswalk and intersection to narrow the roadway and shorten crossings for pedestrians. This will also assist with slowing traffic around the Guilford Green and make pedestrian more visible to drivers. As noted in Section 4.2 about the demonstration projects, the temporary curb extensions were well-received by the public and showed that they could be successfully implemented around the Guilford Green.

5.1.5 On-Street Parking Impacts

Throughout the study process, Town staff, stakeholders, and the public raised concerns about the impacts of transportation changes to on-street parking. Whitfield Street and Boston Street in particular have high utilization of on-street parking as this is where retail and restaurants are concentrated. As a result, the concept had to consider on-street parking impacts with care.

Overall, the concept proposes the removal of six on-street parking spaces, from 186 shown in the concept down to a total of 180. This is due to the proposed changes on Whitfield Street and Park Street. On Whitfield Street, seven spaces are added in the concept, increasing the total number of spaces from 76 to 83. This is mainly from redesigning the parking stalls and adding angled parking on the north end of Whitfield Street by Broad Street, where there is currently parallel parking on the west side. Although three parallel parking spaces on the east side of the road are removed due to the curb extensions, this is more than made up by additional angled parking on the west side.

On Park Street, because of the curb extensions, 13 parking spaces are removed, down to 57 from 70 on-street spaces. These spaces were less utilized in the parking data collection review, as it is understood that Whitfield Street has greater demand for on-street parking.

The number of parking spaces stays the same on Broad Street and Boston Street.

As noted in Section 2.6 of the Existing Conditions, the St. George Catholic Church parking lot has 76 spaces demarcated for employees of local businesses to use during the week. The Town should continue to encourage business owners and employees to park in these spaces to relieve on-street parking pressure around the Guilford Green and free up spaces for customers and visitors.

5.2 Two-Way Alternatives

The Town of Guilford requested consideration of what improvement options would be available if the one-way flows on Whitfield Street and Park Street in the Preferred Alternative cannot be implemented for various reasons. If Whitfield Street and Park Street cannot be changed to one-way, the following improvements could still be implemented:

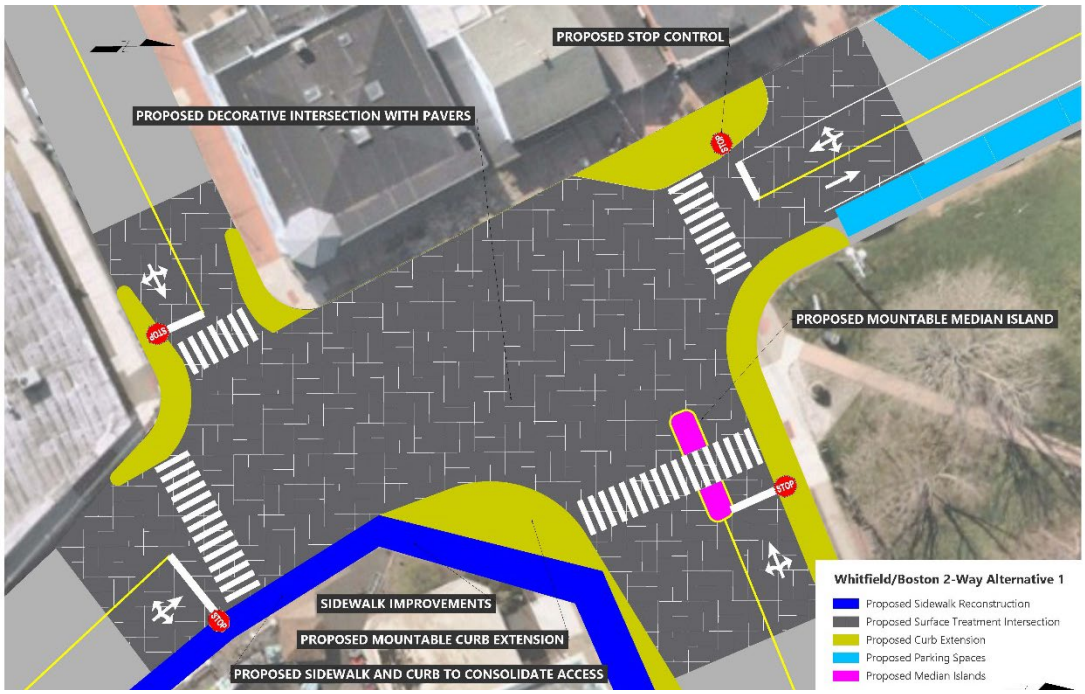
- Curb extensions at all intersections and crosswalks around the Guilford Green, designed for two-way traffic (except in front of 81-89 Whitfield Street)
- Updated intersection control at Broad Street/Whitfield Street and Boston Street/Park Street
- Sidewalk improvements at the southeast corner of Whitfield Street/Water Street/Boston Street

The Whitfield Street/Water Street/Boston Street intersection changes discussed in Section 5.1.1 would not be possible without Whitfield Street being one-way towards Broad Street. The median and Stop control in the middle of the offset requires no conflicting movements coming southbound on Whitfield Street. Two additional concepts were developed for this intersection if it continues to operate as it does today.

1. The first alternative option incorporates most of the curb extensions shown in the Preferred Alternative. It also includes Stop control on the Whitfield southbound approach. The sidewalk improvements on the southeast corner are included. To slow traffic and create a gateway effect, a surface treatment is proposed which would alert drivers they are entering the area by creating additional friction on vehicle tires. The surface could be made of a different material such as pavers or a stamped asphalt that differentiates it from the rest of the roadway.
2. The second alternative incorporates the same overall changes as the first alternative, such as the curb extensions, Stop control, and sidewalk improvements. However, this alternative proposes creating a raised intersection instead, raising vehicles up to the sidewalk level. This will help with visibility of pedestrians and other drivers while slowing traffic as they enter the intersection due to the raised approach. Bollards would be needed around the sidewalks to prevent vehicle entry and protect pedestrians.

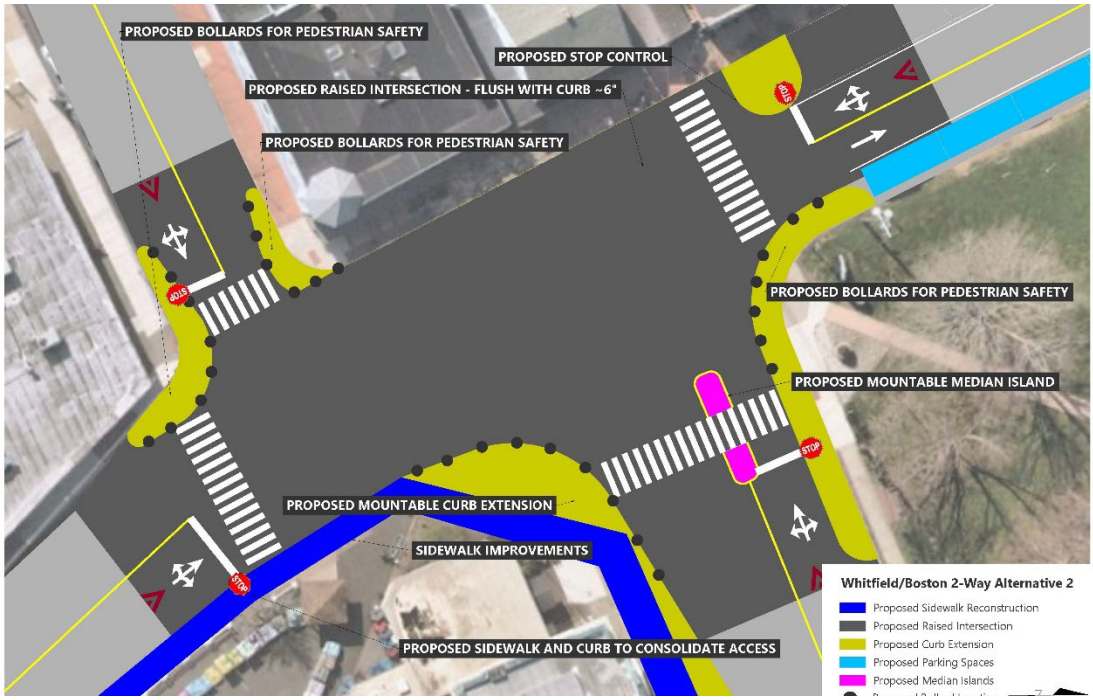
The two-way alternative options for Whitfield Street/Water Street/Boston Street are shown in Figures 41 and 42.

Figure 41 Water Street/Whitfield Street/Boston Street Two-Way Alternative 1



Source: VHB

Figure 42 Water Street/Whitfield Street/Boston Street Two-Way Alternative 2



Source: VHB

5.3 Broad Street at River Street

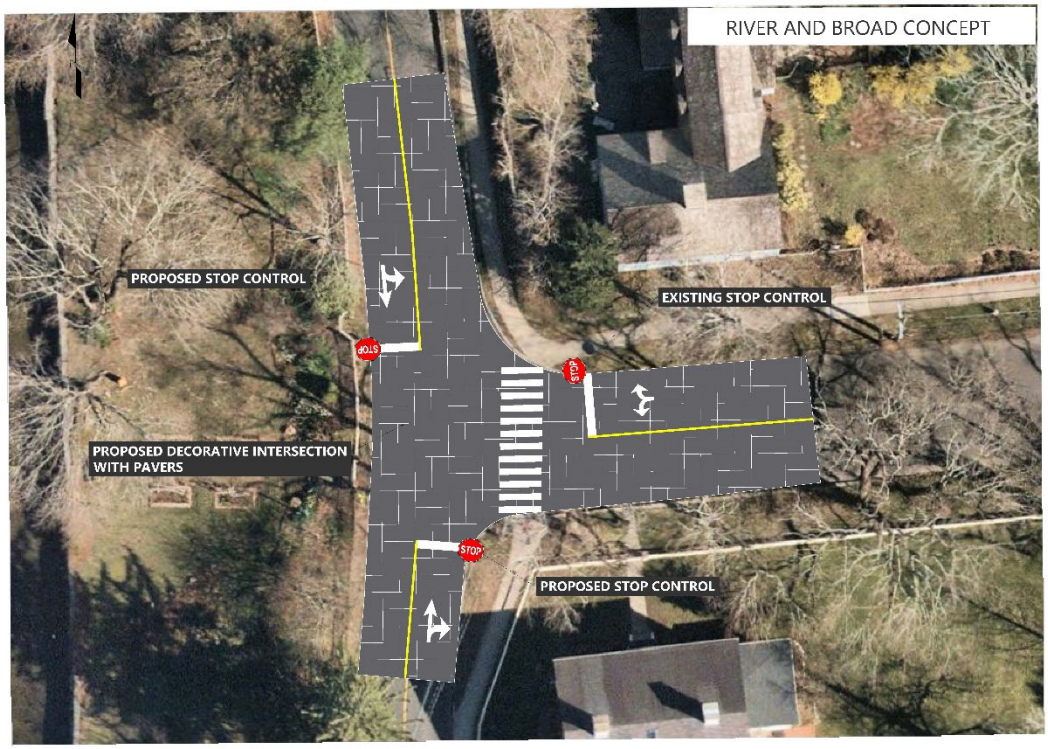
The intersection of Broad Street and River Street was reviewed as part of the Guilford Green study. This intersection is in the secondary study area and is a main entrance/exit point to the Guilford Green and also links to River Street, which is provides a way to avoid going through the Guilford Green. Town staff and the public raised concerns about this intersection and the issue of higher-speed traffic on River Street. Intersection sight distances measured for the study in Section 2.2.5 show that the Broad Street approach to River Street has insufficient sight distance at only 120', less than half of the required 280'. Mature trees, fences, structures, and the horizontal curvature of River Street contribute to constrained sight lines for traffic on River Street and Broad Street.

Crash data was also reviewed for this intersection. From 2019-2024, this intersection experienced about one crash per year, and two in 2024, for a total of six crashes. However, four of the crashes were angle crashes, with one resulting in an injury.

Due to the inadequate intersection sight distance at this intersection, it is recommended that the intersection be converted to an all-way Stop based on MUTCD Warrant B: Sight Distance.

Figure 43 shows a concept of the all-way Stop condition along with a potential surface treatment, similar to the first two-way alternative for Whitfield Street/Water Street/Boston Street. This surface treatment can be used to alert drivers of the intersection and create a gateway treatment into the downtown area.

Figure 43 River Street/Broad Street Concept



Source: VHB

5.4 Public Meeting #2

The second public meeting of the study took place on Tuesday, April 22, 2025, at 7:00 pm at the Nathanael B. Greene Community Center in Guilford. Approximately 25 people attended the meeting in person and online, including town staff, business owners, residents living near the Guilford Green, and others. A presentation was given to go over the development of the transportation alternatives and the Preferred Alternative. There was also a section requesting feedback on the design of decorative crosswalks around the Guilford Green.

During the question-and-answer session at the end, comments and questions included were:

- Overall support for the changes discussed, like demonstration project, bump-outs, parking preservation, and angled parking.
- Some of the issues observed around the Guilford Green are due to a lack of enforcement (speeding, not stopping at stop signs, etc.)
- Lane widths are proposed to be 11' in width with a buffer for parking to account for large vehicles, especially within angled parking.
- One stakeholder was opposed to one-way streets, believing that it will encourage those to drive faster instead of slower. They also expressed concern for the loss of 6 parking spaces.
- Support was expressed for crosswalk design that either reflects the buildings surrounding the Guilford Green or a classic zebra striped pattern.
- A multi-use path was discussed. The wide sidewalks around the Guilford Green are meant to function as a multi-use path and will border the Guilford Green.
- Support for adding a median at the Boston, Whitfield, and Water Street intersection even if one-ways are not approved, like a mini roundabout.
- Can the Boston Street crosswalk at Whitfield Street be moved forward to accommodate drivers inching forward to see around the buildings?
- Changing speed limits on state roads was discussed.
- Raised mid-block crossings were not incorporated due to concern about the response time of the Fire Department and other emergency response vehicles.
- Would it be possible to reangle the Broad, Whitfield, Water Street intersection? Or incorporate a mini roundabout?
- Limited truck loading hours should be discussed among businesses owners around the Guilford Green to reduce traffic conflicts.
- Is it possible to switch the sides of parallel and angled parking to accommodate for changing traffic volumes on Boston Street.

5.5 Transportation Funding Sources

The purpose of this section is to identify funding opportunities for planning and predevelopment activities, focusing on federal and state planning and infrastructure grants. Most of the funding for the recommendations and improvements will come from these sources.

Grant opportunities are summarized with information on the maximum award amount, the match requirement (if any), eligible projects and applicants, and timeline for applications or frequency of solicitation. They are split into two categories, federal grants and state grants.

5.5.1 Category 1: Federal Grants

5.5.1.1 USDOT Better Utilizing Investments to Leverage Development (BUILD)—Planning Grant

- **Award Maximum:** $25 Million
- **Match Requirement:** 20% non-federal match. Match requirement waived for rural communities, Historically Disadvantaged Communities (HDCs), and Areas of Persistent Poverty (APPs).
- **Eligible Projects:** Highway or bridge projects eligible under Title 23, U.S.C; Public Transportation Projects under chapter 53 of Title 49 U.S.C., port infrastructure investments, intermodal projects whose individual components would otherwise be eligible projects, any other surface transportation project that the Secretary considers to be necessary to advance the goals of the program, including public road and non-motorized projects not otherwise eligible under Title 23, U.S.C., and surface transportation components of mobility on-demand projects that expand access and reduce transportation cost burden.
- **Eligible Applicants**: State governments, local governments, tribal governments, public agencies, or publicly chartered authority established by one or more states, a special purpose district with a transportation function (e.g., port authority), multi-jurisdictional group of entities that would otherwise be separately eligible.
- **Timeline:** Applications for Round 2 FY2025 grants were due January 30, 2025. Round 2 selections are expected to be announced no later than June 28, 2025. Additional funding rounds are TBD.

5.5.1.2 USDOT Better Utilizing Investments to Leverage Development (BUILD)--Capital Grant

- **Award Maximum:** $25 Million
- **Match Requirement:** 20% non-federal match. Match requirement waived for rural communities, Historically Disadvantaged Communities (HDCs), and Areas of Persistent Poverty (APPs).
- **Eligible Projects:** Highway or bridge projects eligible under Title 23, U.S.C; Public Transportation Projects under chapter 53 of Title 49 U.S.C., port infrastructure investments, intermodal projects whose individual components would otherwise be eligible projects, any other surface

transportation project that the Secretary considers to be necessary to advance the goals of the program, including public road and non-motorized projects not otherwise eligible under Title 23, U.S.C., and surface transportation components of mobility on-demand projects that expand access and reduce transportation cost burden.

- **Eligible Applicants**: State governments, local governments, tribal governments, public agencies, or publicly chartered authority established by one or more states, a special purpose district with a transportation function (e.g., port authority), multi-jurisdictional group of entities that would otherwise be separately eligible.
- **Timeline:** Applications for Round 2 FY2025 grants are due January 30, 2025. Round 2 selections are expected to be announced no later than June 28, 2025. Additional funding rounds are TBD.

5.5.1.3 Safe Streets and Roads For All (SS4A) Grant Program – Planning Grant

- **Award Maximum:** Minimum $100,000; Maximum $5 Million
- **Match Requirement:** 20% non-federal match.
- **Eligible Projects:** Developing, updating, or completing a Safety Action Plan; conducting supplemental safety planning to complete or enhance an Action Plan; or carrying out demonstration activities to inform Action Plan development or updates.
- **Eligible Applicants**: Local governments, tribal governments, Metropolitan Planning Organizations (MPOs), or multijurisdictional groups of entities from the ones above.
- **Timeline:** Applications for the 2025 NOFO are due June 26, 2025. Future funding rounds are TBD.

5.5.1.4 Safe Streets and Roads For All (SS4A) Grant Program – Implementation Grant

- **Award Maximum:** Minimum $2.5 million; Maximum $25 Million
- **Match Requirement:** 20% non-federal match.
- **Eligible Projects:** Implementation grants must include implementing roadway safety strategies and projects identified in an eligible, complete Action Plan. Projects and strategies must be infrastructural, behavioral, and/or operational activities identified in an Action Plan and must be directly related to addressing the safety problem(s) identified in the Action Plan. Implementation Grants may also include funding requests for supplemental planning and demonstration activities that inform an Action Plan (Activity A). In addition, Implementation Grants may fund project-level planning, design, and development connected to the implementation of projects and strategies (Activity B).
- **Eligible Applicants**: Local governments, tribal governments, Metropolitan Planning Organizations (MPOs), or multijurisdictional groups of entities from the ones above.

- **Timeline:** Applications for the 2025 NOFO are due June 26, 2025. Future funding rounds are TBD.

5.5.1.5 Congestion, Mitigation, and Air Quality Improvement Program (CMAQ)

- **Award Maximum:** $4 Million
- **Match Requirement:** 20% non-federal match, but some projects may qualify for 100% federal funding.
- **Eligible Applicants:** States, local or regional government organizations, including a Metropolitan Planning Organization (MPO), multi-county special districts, multi-state groups of governments, a public agency or publicly chartered authority established by one or more states, Indian Tribes.
- **Eligible Projects:** Funds a wide range of projects that addresses traffic congestion and air quality, including transit facility improvements, bicycle paths, and alternative-fuel vehicle purchases.
- **Timeline:** Solicitation every 3-4 years.

5.5.1.6 Transportation Alternatives (TA) Set-Aside Program

- **Award Maximum:** $4 Million
- **Match Requirement:** 20% non-federal match.
- **Eligible Applicants:** Local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts, and nonprofit entities.
- **Eligible Projects:** Primarily intended for bicycle and pedestrian projects, 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, multi-use trail projects, and Safe Routes to Schools projects.
- **Timeline:** Solicitation every 4-5 years.

5.5.2 Category 2: State Grants

5.5.2.1 Local Transportation Capital Improvement Program (LOTCIP)

- **Award Maximum:** $4 Million+
- **Match Requirement:** None.
- **Eligible Applicants:** Local governments.
- **Eligible Projects:** Provides 100% construction funds to municipalities for transportation capital improvement projects. Eligible projects include roadway and bridge reconstruction, pavement rehabilitation, sidewalks, and multi-use trails. All projects must be located on Federally eligible roadways (except for multi-use trails and stand-alone projects).
- **Timeline:** Solicitation every two years.

5.5.2.2 Community Connectivity Program

- **Award Maximum:** $800,000
- **Match Requirement:** None, but the funding for infrastructure improvements can be used only for construction.
- **Eligible Applicants:** Local municipalities.
- **Eligible Projects:** Provides assistance for conducting Road Safety Audits of priority pedestrian and bicycle corridors and intersections, as well as funding for capital improvements that improve bicycle and pedestrian safety.
- **Timeline:** Solicitation every two years.

5.5.2.3 CT DEEP Recreational Trails Grant Program

- **Award Maximum:** $1 million
- **Match Requirement:** 20% local match.
- **Eligible Applicants:** Private non-profit organizations, local municipalities, state departments and tribal governments in support of trail projects.
- **Eligible Projects:** Trail planning & design, trail corridor acquisition, trail construction and construction administration, trail maintenance and equipment, trail amenities, and publications/outreach related to bikeways, multi-use trails, and water trails.
- **Timeline:** Solicitation every two years.

The above grants have formal application periods to request funding with specific grant guidelines. Other funding sources are also available that can be considered by SCRCOG and the Town of Guilford. They include:

› Local Capital Improvement Program (LoCIP)
› National Highway Performance Program (NHPP)
› Highway Safety Improvement Program (HSIP)
› Local Road Accident Reduction Program (LRARP)
› Special Tax Obligation Bonds
› Surface Transportation Block Grant Program (STBGP)

Note that for any program reliant on public funding, whether from federal or state sources, priorities may change in the future along with available funding for transportation system improvements. New programs and funding sources may arise while others are discontinued. Existing projects that take priority over new projects may also constrain the amount of funding available in the future. However, it is important that projects are made ready so that once funding becomes available, they can take advantage it without further delay.

5.6 Conclusion

The Guilford Green Transportation Study studied the transportation network around the historic Guilford Town Green, providing a comprehensive framework for future improvements. The study's findings underscore the importance of enhancing multi-modal access, improving pedestrian safety, and optimizing traffic flow in this vital area. By implementing the recommended improvements, the Town of Guilford can significantly enhance safety, accessibility, and connectivity for all users, while preserving the area's historic and cultural character.

The study has identified key areas for improvements, including updating intersection control, implementing traffic flow changes, and expanding pedestrian and bicycle infrastructure. These improvements are designed to address existing challenges such as operational issues, safety concerns, multi-modal access. The Preferred Alternative, which includes one-way street conversions and curb extensions, will create a safer and more efficient transportation environment around the Guilford Green.

Public engagement has been a key component of the study, informing the proposed changes and aligning with community needs and preferences. Feedback from stakeholders and residents has been instrumental in refining the improvement concepts and developing a Preferred Alternative that enjoys broad support.

Looking ahead, the study outlines potential funding sources, including federal and state grants, to support the implementation of these initiatives. It is crucial for the Town of Guilford to remain proactive in securing funding and advancing these projects to capitalize on the opportunities presented by the study.

In conclusion, the Guilford Green Transportation Study provides a strategic roadmap for enhancing the transportation infrastructure in the Guilford Town Green area. By following the study's recommendations, the Town of Guilford can foster a more vibrant, accessible, and safe community for residents and visitors alike.