# John M. Burke, PE, CAPP

Independent Consulting
Parking, Transit & Downtown Development

December 31, 2021

Jeffrey Callahan, Warden Borough of Stonington 26 Church Street Stonington, CT 06378

SUBJECT: Stonington Borough Parking & Access Evaluation

Dear Mr. Callahan:

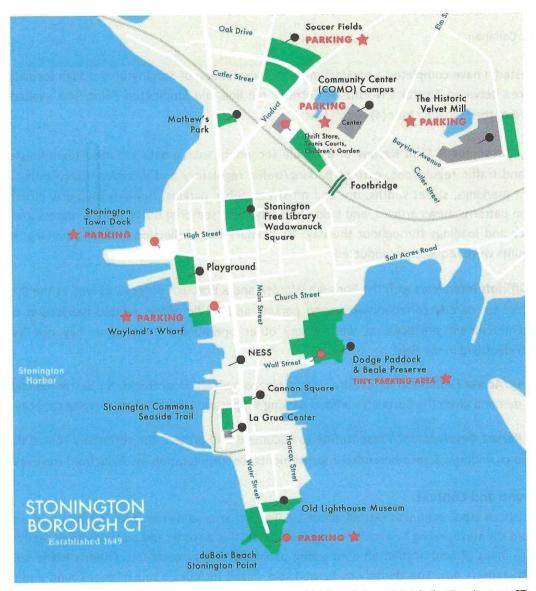
As requested, I have completed a parking and access evaluation of Stonington Borough focusing on the village area between Amtrak's Northeast Corridor rail line and Stonington Point. The evaluation was comprised of the following four (4) basic tasks:

- (1) Data, Document & Field Review of available secondary source data including town master plans, parking and traffic regulations, current parking/traffic regulatory and directional/wayfinding signage, pavement markings, street widths, on- and off-street public parking, one-way/two-way streets/traffic circulation patterns, news articles, and field observations of seasonal traffic ingress, egress and parking occupancy and loadings throughout the day. No primary data collection including parking, traffic or speed counts were requested/conducted.
- (2) Key Officials Interviews with the Borough Warden and a Borough Burgess, as well as the Stonington Police Chief to identify community-reported parking and traffic access related issues and concerns, parking enforcement practices, as well as any other operational issues that may not be readily observed/identified in the field.
- (3) *Parking/Access Evaluation* to identify reasonable, cost-effective strategies for better managing peak seasonal demand given the Borough's limited parking supply and street system carrying capacity.
- (4) Final Report Development/Presentation to document and present the secondary source data, field observations, findings, & recommended improvements for consideration resulting from the evaluation.

#### **Background and Context**

The Borough of Stonington was settled about 1750 and chartered by the state legislature as a separate entity from the surrounding Town of Stonington in 1801. It is a scenic and historic village occupying just 0.3 square miles of land nestled on a mile-long peninsula that projects into Fisher's Island Sound and Little Narragansett Bay. This densely built, walkable village includes a mix of year-round and seasonal homes with less than one thousand residents. It includes a commercial district with shops, restaurants, and art galleries lining Water Street and some of its side streets. An active commercial fishing fleet still operates from the Town Dock. Stonington Point, located at the southern tip of the peninsula, provides panoramic bay views. This is where you will find duBois Beach and the nearby Lighthouse Museum.

Historically, Stonington Borough has been spared the levels of heavy seasonal tourist traffic experienced by other seaside New England communities located in closer proximity to I-95 and U.S. Route 1. The Borough has been described in travel guides as a destination for "...a quintessential New England getaway without the crowds..."; and "...not like other coastal destinations. The pace is slower. It's a bit quieter. There's less traffic." However, according to Borough officials, there has been an increase in traffic and parking-related complaints in recent years. Many of these complaints are reportedly related to vehicle conflicts and back-ups on Water Street between Alpha Avenue and Stonington Point exacerbated by the narrow one- and two-way street system, the heavy use of on-street parking, and increased summer traffic demand from tourists and returning part-time seasonal residents.



A Visitor & Travel Guide for Stonington, CT

<sup>&</sup>lt;sup>1</sup> A Visitor & Travel Guide for Stonington, Connecticut, Stonington Borough Merchants Association

### **Parking Supply**

The Borough does not charge for the use of its public parking supply. In its commercial/retail district, it has a mix of free 2-hour restricted (8:30 am to 5:30 pm) parking from High St. to Union St. with a limited number of 15-minute spaces (7:00 am to 5:00 pm), handicapped parking, and commercial loading zones. It also has a significant supply of unregulated, all-day parking on its residential streets. The Borough's off-street public parking supply, which is also free of charge, consists of three primary parking lots at:

- (1) Stonington Town Dock Lot (57 paved/striped spaces not including parking on the piers),
- (2) Wayland's Wharf Lot (approx. 35 gravel spaces close to retail district), and
- (3) duBois Beach Lot (approx. 50 gravel spaces).

The Borough offers resident overnight permit (decal) parking at the Wayland Wharf Parking Lot. The Visitor & Travel Guide for Stonington also advertises remote public parking lots on the north side of the Northeast Corridor rail line that include lots at the soccer field and the Historic Velvet Mill, which can be used by visitors to park and walk into the Borough proper via a connecting footbridge.



**Stonington Town Dock Parking Lot** 



**Wayland Wharf Parking Lot** 

There are several private parking lots on the peninsula, most of which were observed to be underutilized on the days observed. Two of the larger private lots are shown below. St. Mary's Church parking lot (34 spaces) is located just north of Broad Street with full driveway access from Main Street and controlled access from Water Street close to its intersection with Alpha Avenue. The Stonington Commons residential parking lot (68 spaces) is located just west of Cannon Square and Water Street.



St. Mary's Church Parking Lot



**Stonington Commons Parking Lot** 

#### **Vehicle Access/Circulation**

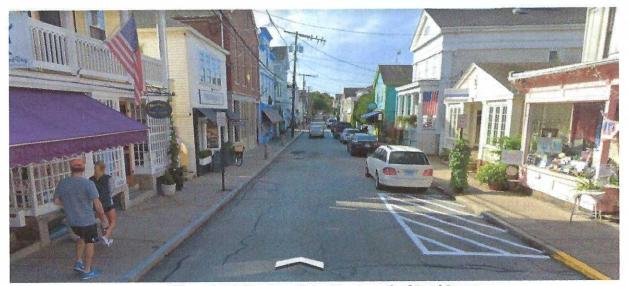
Vehicle access to and from the peninsula is provided exclusively via Alpha Avenue/Route 1A, which connects U.S. Route 1 to the north with Water Street to the south. Alpha Avenue runs over the Northeast Corridor railroad viaduct and Main Street and connects to Water Street at a skewed, geometrically substandard, 3-way intersection.

<u>Water Street</u> is the primary north-south thoroughfare for access into and out of the Borough. It is the Borough's business/retail corridor and provides a direct



Water Street/Alpha Avenue Intersection

route to Stonington Point and duBois Beach. It is a 2-way street from Alpha Avenue past the U.S. Post Office and Stonington Free Library to High Street; a 1-way street from High Street through the retail district to Cannon Square; and then a two-way again from Cannon Square through a residential district to Stonington Point. North of Alpha Avenue, Water Street runs past the Dodson Boatyard and connects to Mathews St. before ending at the Northeast Corridor railroad tracks. On northbound Water St. there are stop signs at Omega St. and Alpha Ave. There are no stop signs on southbound Water Street.



Village Retail District - Water Street south of Pearl Street

On-street parking is provided along the inbound westerly side of Water Street over almost it's entire section - running from Mathews Street to Alpha Avenue, and then from Broad Street through the village retail district to Cannon Square, and finally from Cannon Square to a point north of Omega Street. After that point, Water Street narrows and is posted "no parking either side" for its remaining section to Stonington Point. Between Cannon Square and Omega Street, approximately 20 on-street parking spaces have been staggered using signs and pavement markings (see photos below) to provide areas where southbound traffic can pull to the curb (painted as no parking areas) to allow northbound traffic

to pass. This action was taken because the street is too narrow on this section to accommodate opposing (2-way) traffic next to a parked car.



Water Street between Cannon Square and Omega Street

Main Street is a north-south, residential 2-way collector street running just east of, and parallel to Water Street between Alpha Avenue and Diving Street where it ends. As such, it provides northbound circulation for traffic exiting the southern portions of the Borough since Water Street is one-way southbound through the Borough's retail district. Traffic exiting Stonington Point would typically travel northbound on Water Street; take a right at Cannon Square where Water Street becomes 1-way; and then left onto northbound Main Street before reconnecting to Water Street. Main Street also provides re-circulation back to Water Street's one-way section in the retail district via numerous side streets connecting Main Street to Water Street. There is a 4-way stop controlled intersection at Main Street and Church Street. Main Street north of Broad Street serves St. Mary's Church Parking Lot as well as the Stonington Borough Fire Station before connecting to Mathews Street via the Alpha Avenue underpass. Main Street, which is significantly wider than Water Street, is a 2-way street with all-day parking allowed on both sides between the viaduct and Cannon Square.



Main Street looking north from Church Street



Main Street looking north from Broad Street

# Side streets connecting Water Street to Main Street

All east-west side streets from Broad Street to Cannon Square between Water and Main are short, 2-way streets – only two of which prohibit parking on both sides - Wall Street, which is no more than 15 feet wide; and Cannon Square South – the southerly street bordering Cannon Square. Three of the east-west side streets allow parking on both sides – High Street, Broad Street and Cannon Square North (15-

minute spaces only on both sides). The remaining side streets allow parking on only one side. The streets that allow parking on one side range in width from 19 feet to 24 feet and are therefore of insufficient width to allow opposing vehicular traffic to pass one another adjacent to any parked cars. This results in vehicles having to occasionally stop to allow an oncoming vehicle to pass. The photo below (left) shows Church Street, which is a 2-way, 23-foot street with parking (and outside dining) on the south side.

The narrow 2-way side streets with parking on one side also create "pinch points" at certain intersections for trucks turning onto Water Street or Main Street. The photo below (right) shows an example of this at the Union Street intersection with one-way Water Street. Vehicles parked on the west side of one-way Water Street across from 2-way Union Street can reportedly create a "pinch point" for larger vehicles turning from Union onto Water Street, particularly when vehicles are parked all the way up to the intersection on the south side of Union Street.



Church Street between Water & Main Street 2-way traffic w/parking on south side



Union Street at Water Street

2-way traffic w/parking on north side

Street access to Stonington Town Dock and the seafood businesses located there that include Sea Well Seafood, Gambardella's Wholesale Fish, and Empire Fisheries, is provided by several east-west side streets from Water Street that include Broad, High, Pearl, Grand and Church. However, directional signage to the Town Dock public parking is only posted on Water Street for access via High, Pearl and Church Streets. These 2-way side streets all allow parking on one side except the wider Broad Street, which allows parking on both sides. Like the side streets between Water and Main, High, Pearl, Grand and Church Street are of insufficient width to allow opposing vehicular traffic to pass one another adjacent to cars parked on-street. High Street provides the most direct access to Town Dock for motorists coming into the Borough via the north driveway to the Town Dock parking lot.

Northwest Street and Gold Street are north-south, 2-way residential streets running just west of, and parallel to Water Street between Broad Street and Church Street. Gold Street allows parking on the west side only. Northwest Street allows parking on the east side only from Broad Street to Pearl Street and then on the west side only past the Stonington Borough Playground between Pearl Street and Church Street. On-street parking is well used on both streets. Unlike Main Street that runs parallel to Water Street to the east, these two streets have relatively low traffic volumes because they do not provide a

northerly exit from the Borough for through traffic like Main Street. These two streets provide street access and parking to the residential neighborhood and playground. They also provide re-circulation back to Water Street's one-way section within the retail district via the side streets listed above.

# Field Observations and Interviews with Borough Officials

Field observations and interviews were conducted on Tuesday, July 13, 2021, with Borough Warden Jeffrey Callahan and Borough Burgess Kevin Rogers to discuss community-reported parking and traffic access related issues and concerns. Additional field investigations and interviews were conducted with the Borough Warden on Tuesday, October 5, 2021, and the Stonington Police Chief Darren Stewart on November 22, 2021, respectively. The interview with the Police Chief was conducted to discuss parking enforcement and any other parking and traffic operational issues or concerns.

Reported parking & traffic issues/concerns focused primarily on issues related to narrow street widths in the village business/retail district and on Water Street that result in driver conflicts, traffic congestion, and frequent complaints to town officials — primarily during the summer. Many of the complaints resulted from the summer back-ups on lower Water Street associated with vehicles headed for and leaving the beach — the bottleneck being at Stonington Commons where on-street parking is allowed on one-side with 2-way traffic. Some complaints were related to vehicles having to stop on the short, narrow side streets in the village to allow opposing vehicles to pass.

A secondary concern, again related to narrow streets, was the *impact of truck traffic* on the village. There have been reported instances of trucks having to back-up or make multi-point turns to navigate tight intersections — or even sideswiping parked cars. There has also been reported instances of large 18-wheeler trucks traveling down Water Street through the village and getting stuck because of the difficulty turning vehicles of that size back onto Main Street. The Police Chief confirmed that this occurs very infrequently and when it does, Stonington PD is typically called in for traffic control to assist the truck's exit from town.

To alleviate the *impacts of seasonal beach traffic*, the Borough recently explored the idea of making Water Street one-way south of Cannon Square to address back-ups and ongoing driver confrontations. Making the street one-way again would require northbound exiting traffic from the beach to use Omega St. and then wind their way through a residential neighborhood onto narrow Hancox St. and Diving St. to reach the 2-way Main St. However, the neighborhood quickly opposed the idea, and it was dropped.

Speeding in the Borough was also a reported issue – particularly on the thru streets including Water and Main Street. This 20-mph speed limit is well marked upon entry to the village area. It is posted on Alpha Avenue and Water Street entering the village area. There is also a fixed, solar-powered, LED radar speed sign on the southbound side of Alpha Ave. on the viaduct that displays vehicle speeds to approaching motorists – followed by a fixed sign that cautions "SLOW DOWN NARROW STREETS". There is both a posted 20 MPH speed limit sign and painted speed limit in large white letters on the inbound lane. There were no additional speed limit signs observed on southbound Water Street through the village to Stonington Point. There are multiple 20 mph signs posted on Main Street, however.

A significant speeding issue was not observed during the onsite reviews, perhaps because the field investigations were conducted during afternoon peak periods of the day when speeds may be lower due to higher traffic volumes and on-street parking use. As for accidents, the Police Chief advised that there are relatively very few reported traffic accidents in the Borough.

Parking Occupancy/Use — On both days observed, 2-hour and 15-minute time-restricted on-street parking on Water Street was very well used but there appeared to be plenty of available spaces on Main Street and the side streets between Main and Water. Northwest Street and Gold Street were also well used but again, there appeared to be plenty of side street availability. During the lunch-time peak period on Tuesday, July 13<sup>th</sup>, the Town Dock lot still had plenty of available parking, the duBois Beach Lot was about 3/4 full, and the Wayland Wharf Lot off Church Street was nearly full. The St. Mary's Church Lot off Main Street was about 2/3 full, and the Stonington Commons Lot off Water Street was about ½ full.

<u>Parking Enforcement</u> in the Borough is conducted by Community Service Officers (CSOs) deployed by the Stonington Police Department. One CSO is typically assigned to enforcing parking regulations 3 to 4 days per week during the summer. In addition to enforcing the parking ordinance, the CSOs respond to resident and business parking complaints, which include on-street overtime parking and complaints of on-street parking impacting traffic flow.

# Discussion, Analysis & Recommended Improvements for Consideration

Summer seasonal parking and traffic-related issues are not new problems in the Borough. As far back as 1960, a newspaper article in the *New London*, titled "One-way Cross Street Rule Seen Easing Borough's Traffic Ills, Parking Woes" described suggested changes in street ordinances made by the Borough's Street Ordinance Subcommittee that included making the Omega-Hancox-Diving Street loop, which was at the time a one-way traffic loop from Memorial Day to Labor Day, one-way year-round, as it is today. They also recommended making the narrow side streets between Water Street and Main Street alternating one-way streets to improve traffic flow and parking. Although their second recommendation is not in practice today, it has been raised as a potential improvement strategy in recent years.

Street width is the primary controlling factor to nearly all the seasonal issues and concerns raised — whether it be traffic bottlenecks, back-ups, or truck impacts. Heavy use of on-street parking is a contributing factor. Consideration of appropriate street widths often centers around two considerations — accessibility and safety. In a non-urban, neighborhood street context, accessibility is a measure of how efficiently you can drive through a neighborhood, while safety is often defined as the point when travel speed poses a safety risk to motorists, bicyclists, and pedestrians or when emergency vehicle access is hindered. Accessibility and safety are sometimes presented as tradeoffs, but safety should be of primary importance.

Municipal ordinances vary widely with respect to required neighborhood street width and design, but 20-feet is commonly referenced as a minimum width for 2-way traffic in consideration of emergency

access needs<sup>2</sup>. For on-street parking, 8-feet is commonly referenced as a minimum parking lane width. Therefore, a minimum width for a neighborhood street accommodating residential and at least some "through" traffic of 28 feet could be considered minimally acceptable for 2-way traffic with parking on one side. As previously noted, none of the Borough's 2-way residential connecting side streets with parking on one side from Pearl Street to Cannon Square exceed even 24 feet in width, and some are as narrow as 19 feet. On these streets, motorists in opposing lanes are often unable to pass one another next to parked vehicles. The same is true on Water Street between Cannon Square and Omega Street.

This "pull-over-and-yield-to-pass" or "one-way reversible" street condition is not uncommon in towns and cities throughout the U.S. but is typically reserved for narrow residential streets with very low traffic volumes<sup>3</sup> carrying little to no "thru" traffic. These low volume/low speed residential streets can function quite well under this condition, especially if there are a lot of side streets, driveways and other no parking areas that allows a motorist to pull over so opposing traffic can pass. However, as traffic volumes increase, so do the number of conflicts, and back-ups can occur, which is sometimes the case on lower Water Street. Vehicle conflicts can also occur on certain side streets between Main and Water Street and between Water Street and Town Dock.

Converting narrow 2-way streets with parking on one side to a one-way street with parking on one side has some definite advantages and disadvantages. One-way streets tend to reduce the opposing vehicle conflict points described above while simplifying street crossings for pedestrians, who must look for traffic in only one direction. One-way streets can make the street more accessible to emergency response vehicles. While conversion of 2-way streets to one-way can reduce pedestrian conflicts/accidents, and improve traffic flow, one-way streets tend to have higher speeds than 2-way streets. For this reason, traffic calming measures are sometimes introduced with 2-way-to-one-way street conversions — particularly on longer street segments. One-way conversions can also increase travel distances of motorists including residents of the new one-way street.

One-way streets work best in downtown commercial centers or heavily congested areas. They operate best in "pairs", separated by a block that is no more than a ¼ mile in length. Before converting to a one-way pair system, traffic circulation in the broader area must be carefully considered and vetted with Town/emergency response officials and the community at large.

#### Improvements Strategies for Consideration

The improvement strategies for consideration were developed to address the stated traffic issues and concerns on lower Water Street and its side streets within the commercial district. They include the recommended short-term and potential longer-term strategies that will require community input/discussion, further study, and refinement.

<sup>&</sup>lt;sup>2</sup> May be wider for commercial district streets with significant truck deliveries/volume.

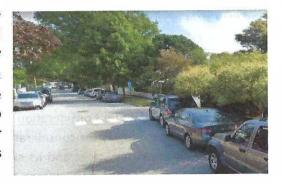
<sup>&</sup>lt;sup>3</sup> Typically under 1,000 vehicle per day.

- recommended short-term strategies. These relatively low-cost strategies to improve parking, traffic circulation, and safety have little to no impact on current on-street directional flows and minimal impact to the on-street parking supply. It is recommended these strategies be implemented and monitored for effectiveness, while potential longer-term strategies are being considered/discussed, further studied, and refined.
- potential longer-term strategies for community input/discussion, further study & refinement. These potential improvements would modify current on-street directional flow while maintaining current on-street parking with few exceptions. They include alternative solutions for the lower Water Street "bottleneck" as well as the potential conversion of 2-way side streets from Pearl Street to Cannon Square to alternating one-ways for the purpose of improving traffic flow/congestion while reducing car/truck, and pedestrian conflicts. These potential strategies will require significant community discussion, input, further analysis, and refinement.

#### Recommended short-term strategies

1) Sign, stripe and enforce per Town Ordinance required parking clearances to street corners/
stop signs, crosswalks, and fire hydrants — Town Ordinance requires no parking within 25 feet
of an intersection marked crosswalk or stop sign and within 10 feet of any fire hydrant. These
parking clearances are critical to ensuring pedestrian visibility and safety, emergency fire access,
and proper vehicle turning radii/safety at intersections. The Borough has done an excellent job
signing/striping these clearance requirements on the one-way sections of Water Street where
crosswalks are located on the far (south) side of each intersection and fire hydrants on the east
side of the street where no parking is allowed. However, there are many locations on Main,
Gold, and Northwest Street, and the side streets in between, where vehicles are allowed to park
all the way up to intersections (see photo below) and crosswalks, and some locations where
vehicles park within the 10-foot setbacks from fire hydrants.

Providing the required 25-foot setback to stop signs on the many short, 2-way side streets in and near the commercial district will significantly improve traffic operations and safety. With a wider throat width at intersecting streets, large vehicles will have improved maneuverability to make tight turns onto "thru" streets like Water and Main. It will also provide refuge for vehicles to pull over to allow oncoming traffic to pass.



2. Paint stop bars a minimum of 4-feet in advance of intersecting sidewalks and crosswalks - There are locations where the 12-inch, painted white stop bars are located immediately at the rear of, or in some cases even encroaching into the sidewalk path of the intersecting street (see photo at right). It is recommended that the Borough paint stop bars and post stop signs a minimum of 4-feet in advance of intersecting sidewalks or crosswalks<sup>4</sup>, which will provide an appropriate vehicle buffer for pedestrians on the main street crossing the side street.



- 3. Demarcate the parking lanes on Water Street and its side streets between Main and Northwest Street to better indicate where on-street parking is allowed and not allowed, and to guide drivers in parking as close to the curb as possible. Marking on-street parking stalls typically increases adherence to town parking regulations independent of enforcement and results in vehicles parking closer to the curb, which is most important on very narrow streets.
- 4. Demarcate poorly used parking spaces on Main Street north of Broad Street and Church Street east of Main Street. There is a significant amount of unregulated, all-day on-street parking on each of these streets that provide an important supply of parking to churches on weekends. During the weekday field investigation in July, when most of the public parking supply was in use, the parking spaces on Main Street and Church Street (particularly from the Calvary Church east) were almost empty. Both streets are located a short walk from the commercial district and demarcation may increase visibility and use of these spaces during peak seasonal visitation.
- 5. Reconfigure the Town Dock parking lot to add 15 +/- parking spaces The center aisle of the first 2-way row of 90-degree head-in parking in this lot is approximately 50 feet wide. However, only 24 feet is required for by Stonington Site Design Requirements to accommodate car and truck parking and turning. An additional bay of parking can be added to the lot by simply restriping it without sacrificing truck parking, access, or maneuverability. Implementation of this item would require agreement by the Town of Stonington, which owns the Dock and associated parking area.
- 6. Improve directional signage to Town Dock and its public parking lot via High Street. Like Pearl, Grand or Church Street, High Street provides vehicle entry and egress to and from the Town Dock Parking Lot. High Street, however, is the most direct route to Town Dock while providing car and truck access without impacting pedestrian traffic within the Borough's busy, planned

<sup>&</sup>lt;sup>4</sup> 2009 Edition of the Manual of Uniform Traffic Control Devices (MUTCD), FHWA, Sect. 3B.16 Stop and Yield Lines

commercial district, which begins just south of High Street. Peeling off car and truck traffic prior to entering the pedestrian-heavy commercial district is a reasonable objective and therefore, should be appropriately signed. The existing basic parking directional sign (see photo below) is partially obstructed by a tree.

It is recommended that at least two Town Dock/ Parking directional/wayfinding signs be installed on the west side of Water Street – one at the midpoint between Broad Street and High Street and one at an appropriate location within the commercial district. More aesthetically pleasing and observable wayfinding signs that could provide directional arrows to the Town Dock/Waterfront Lot, the Village commercial



district, the Wayland Wharf Lot, Stonington Point/Dubois Beach Lot, Old Lighthouse Museum, and other attractions/destinations is recommended. The advance wayfinding/directional sign could also be useful for special event, or infrequent event parking such as farmer's markets, historic walking tours, etc. Additionally, the undersized parking directional sign at the Pearl Street/Water Street intersection should be replaced with a standard MUTCD public parking directional sign like the one at Church Street/Water Street.

- 7. Install public parking lot entry signage there are no public parking lot entry signs with stated parking regulations at either the Town Dock or Wayland Wharf Lots. For the infrequent visitor, it may be unclear if portions of the Town Dock are for public use given the amount of commercial box trucks parking there, and they might not even find the Wayland Wharf Lot at all given there is no entry sign on the long driveway from Church Street.
- 8. Seek shared lot parking opportunities with private lot owners some private parking lots, like the St. Mary's Church lot and the Stonington Commons lot were observed to be underutilized while use of the public on-street parking system was approaching capacity. There may be an opportunity for the Borough to enter into shared lot parking agreements with private lot owners to allow public use of their lots during certain times of the day or week. These types of agreements are common in coastal New England communities. Often, the municipality will provide maintenance to the private lot (ex. plowing, mowing, sweeping, sealing, etc.) in exchange for its public parking use which is often provided and controlled through the municipal issuance of employee and resident parking permits.

- Install supplemental 20 MPH signs on Water Street between High Street and Stonington Point. No speed limit signs were observed on this section. At 20 MPH, speed limit signs are typically posted every 1/3 mile.<sup>5</sup>
- 10. Conduct an engineering study of installing a stop sign on Water Street within the retail district Pedestrian crossings of Water Street and its side streets were observed to be relatively high in the retail district from Pearl Street to Church Street. Installing a stop sign for southbound traffic on Water Street at Pearl, Grand or Church Street may be warranted to better control vehicle/pedestrian conflicts. The intersection of Church Street and Main Street is already a 4-way stop controlled intersection. The Manual of Uniform Traffic Control Devices (MUTCD) states that any decision to install multi-way stop control should be based on an engineering study<sup>6</sup> one that evaluates 8-hours of vehicle, bicycle & pedestrian volumes, 12-months of reported vehicle/pedestrian accident data, and speed data at the intersection. This level of engineering analysis is beyond the scope of this parking and access evaluation.
- 11. Consider making Cannon Square North one-way from Water St. to Main St.
  Cannon Square North is currently a very short, 24-foot wide, 2-way street with 15-minute parking on both sides. Vehicles currently park all the way up to the stop bars on either side of the street. When cars are parked across from each other, the shared, 2-way



travel lane that results can be less than 10-feet wide. There is also a fair number of pedestrian crossings on the street given the 15-minute time-restricted parking spaces, who must be aware of traffic in both directions. Eliminating opposing westbound traffic will reduce vehicle and pedestrian conflict points while maintaining parking on both sides (although cars on both sides would now be parked in the eastbound direction). This action may be preferable to an alternative that maintains 2-way traffic but eliminates parking on one side. Cannon Square South already provides 2-way traffic circulation between Water and Main Street making 2-way traffic on Cannon Square North somewhat redundant.

<sup>&</sup>lt;sup>5</sup> Guidelines on Establishing Speed Limits in the State of Connecticut, Connecticut DOT, Revised 10/21 - Advises that a motorist should see a speed limit sign every minute of travel. For 20 mph, that would be every 1/3 mile.

<sup>&</sup>lt;sup>6</sup> 2009 Edition of the Manual of Uniform Traffic Control Devices (MUTCD), FHWA, Sect. 3B.07 Multi-Way Stop Applications.

## Potential longer-term strategies for consideration

Address the "bottleneck" on lower Water Street between Cannon Square and Omega Street.
 As previously discussed, the Borough has already vetted and decided against extending the one-way section of southbound Water St. to Omega St. and creating a northbound Water-Omega-Hancox-Diving-Main Street route. However, there appears to be at least four options for improving traffic operations on lower Water Street.

Alt #1: Eliminate the 20 +/- parking spaces on this section while maintaining 2-way traffic — This alternative would certainly eliminate the bottleneck on this section, but it would also eliminate on-street parking spaces that are in very high demand by nearby residents who reportedly have no off-street parking. There are no public parking lots nearby and on-street parking on adjacent side streets is already at a premium.

Alt #2: Extend the Water Street one-way from Cannon Square to Diving Street and create a northbound one-way route (from Water Street) to Diving Street to Main Street. Creating this one-way pair would eliminate the worst "bottleneck" section of 2-way Water Street between Cannon Square and Stonington Point. On this section of Water St., there are approximately 12 parking spaces, and no intersecting streets and only one driveway for southbound cars to pull over to allow northbound cars to pass.

Alt #3: Maintain 2-way traffic on Water Street from Cannon Square to Diving Street and relocate the 12 +/- parking spaces on this section. On both field observation days, there appeared to be plenty of available parking in the nearby private Stonington Commons Lot (permit only) and on the Stonington Commons private streets. The Borough could pursue a shared lot parking agreement with Stonington Commons to replace these spaces with leased or permit parking (see recommended short-term strategy #8 above).

Alt #4: Maintain current conditions but increase the number of Water Street pull-over locations by demarcating additional no parking areas on the southbound side. The Borough could introduce a few additional pull-over locations as an incremental improvement. Of course, there would be a proportional loss of additional parking spaces from the 20 +/- that exist today.

2. Consider implementing one-way pairs on side streets from Pearl Street to Cannon Square to improve traffic operations, reduce pedestrian/vehicle conflicts and maintain on-street parking. As previously discussed, there are trade-offs to consider when converting two-way streets to one-way, which include potential increased travel speeds and longer travel patterns versus fewer pedestrian/vehicle conflicts and more on-street parking provided. Increased travel speeds may be less of a concern on these short, stop-controlled side streets than they would be on longer "thru" streets. Maximizing the supply of on-street parking is clearly a benefit of a one-way pair strategy as is simplifying crossings for pedestrians.

A concept-level approach to a one-way pair side street system to improve traffic operations and maintain on-street parking is provided below. This approach should be viewed simply as a starting point to generate discussions at the community level should a potential one-way pair system of these village side streets be considered. The gray directional arrows in the map below represent existing street traffic flows. The red directional arrows show potential 2-way to one-way street conversions that maintain existing on-street parking.

For this concept approach, it was assumed 2-way traffic on High Street would be maintained to provide the most direct route for truck traffic to enter and exit the Town Dock area without impacting the village commercial district. 2-way traffic on Church Street west of Water Street was also maintained to provide direct 2-way access to Water Street from the Wayland Wharf Public Parking Lot and a residential parking lot at the Church/Gold Street intersection. 2-way traffic on Wall Street was maintained since no parking is allowed on this street currently. However, these streets could also be considered for conversion and inclusion into the one-way pair street system.

The potential one-way extension of Water Street from Cannon Square to Diving Street and resulting one-way pair of Water Street and Diving Street (Alt. #2, Page 13) is also depicted.

