

Newport City Thoroughfare Plan

Summary

This plan is intended to review and make recommendations for Newport City’s thoroughfare network, in consideration of the full range of uses of the city’s streets. Streets form a myriad of functions in a compact, busy downtown, including serving a variety of modes of transportation, but also forming the primary public spaces for social and economic exchange in the central business district. Although much of the attention and investment in the City’s street network supports vehicular traffic, the economic vitality of the downtown depends much more heavily on pedestrians, bicycling, vehicle parking, and creating an attractive public space. While vehicles are certainly required to get customers to and from the downtown, as well as to transport the goods for purchase, a successful downtown will ultimately rely much more heavily on a safe, comfortable, and enjoyable pedestrian environment. Below are key findings revealed in the thoroughfare planning process, followed by recommendations.

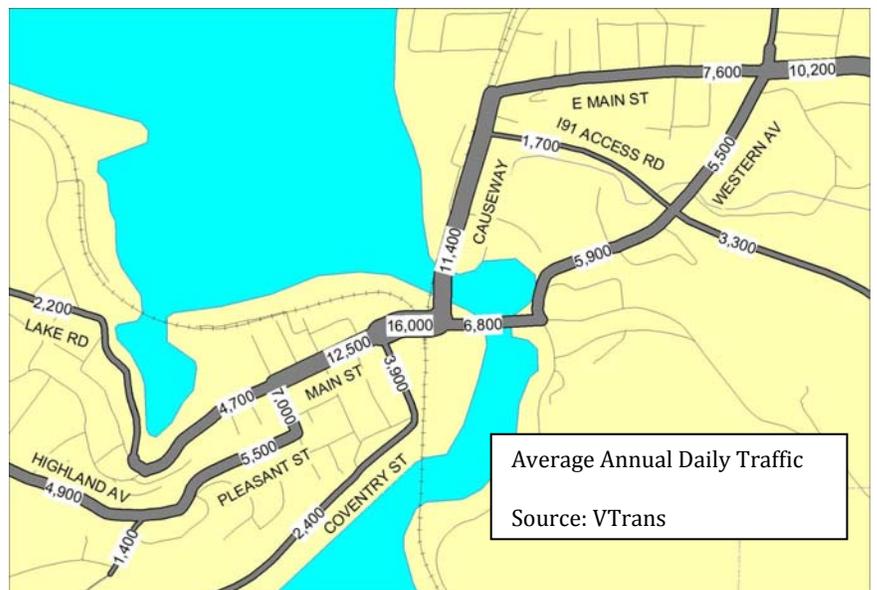
Key Findings

The street network in Newport serves two functions that are both critical to the city's vitality:

- The street network provides mobility, i.e. the movement of people and goods into and out of the city and within it. It supports multiple modes including pedestrians, bicycles, transit, autos for both commuters and other visitors, and trucks hauling freight.
- The street network also has an important community building or "placemaking" role, as it articulates the primary public spaces for social and economic interaction community's downtown business area and residential neighborhoods.

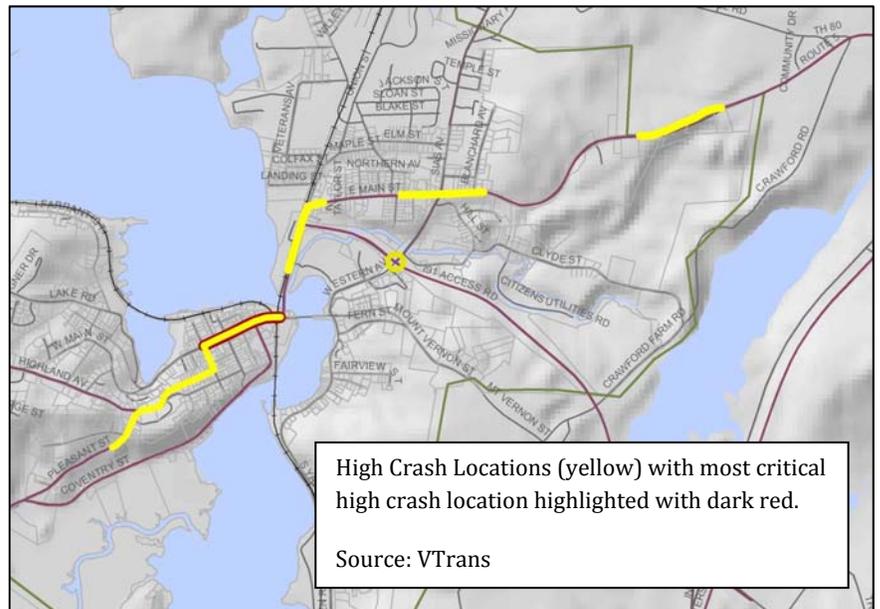
Overall, most streets in the city's core area serve both of these roles relatively well, although there are opportunities for improvement. From a mobility point of view, several assessments may be made:

- The street network functions reasonably well, but it can be congested during peak hours. The most critical location is the portion of Main Street/Route 5/105 between Coventry and Railroad Square, where all traffic crossing the city converges onto a single route. After school hours also results in temporary congestion along Causeway and Union Streets.
- While there is substantial through traffic passing through the downtown, the majority of traffic is local in nature, i.e. it has an origin or destination, sometimes both, in Newport.
- Newport City has high volumes of trucks on Main Street east of



Coventry and on Causeway, among the highest in Vermont for a downtown area. However, the core commercial area of Main Street west of Coventry has significantly reduced truck volumes due to the high proportion of trucks using Alternate Route 5 (Coventry St).

- Traffic accident data from VTrans indicates that several segments of the City’s thoroughfare network are considered high crash locations, while Main Street (from Third Street to Railroad Square) has a particularly elevated crash rate, but with a low incidence of injuries and fatalities, typical for a low speed environment. Causeway and East Main Street have lower crash rates but higher injury rates, likely due to the higher speeds on these thoroughfares.



- Overall, Newport’s has good links to the regional transportation network. The direct connector between Causeway and I-91 link the city with markets and resources on the eastern side of Vermont and Canada, as well as to the south.
- The major east-west through route, VT Route 105, follows a fairly tortuous route to the west. Although this has been the subject of several alternative routing studies, passenger cars may navigate it fairly easily. The alternative routing of trucks via Route 5A (Coventry St) results in a near absence of trucking on Main Street that is a real plus for street life and pedestrian activity.

From a placemaking and economic vitality perspective, Newport City has many outstanding features, contributing to its potential as a destination. This analysis makes a number of findings:

- Newport City has a great pedestrian environment, which has been helped significantly by the revitalization work already completed on Main Street.



- At least for the current levels of commercial and civic activity, there is good on-street parking availability. On-street parking is especially valued by patrons and businesses alike for its convenience

and immediately recognizable availability. In addition, it provides an effective buffer between the pedestrian zone on the sidewalk and moving traffic in the street.

- The city supports a world-class bicycle and walking network, and there are opportunities to extend this network to the wider region. Linkage potential to Jay, the South Bay Wildlife Management Area, the west shore of Lake Memphremagog, and to Canada, among many others, offers a major untapped potential to reinforce Newport as a bicycling destination.



- The Form Based Code is an ideal tool to reconfigure some of the City’s streets over time, as development occurs, to better serve the mix of functions of transportation and “placemaking.”

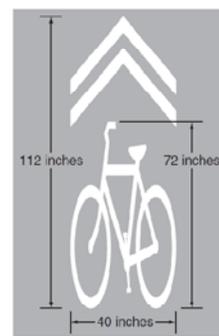
In keeping with this analysis, a number of specific improvements and upgrades to the city's thoroughfare system have been identified that will further support the City’s overall community vision. These include:

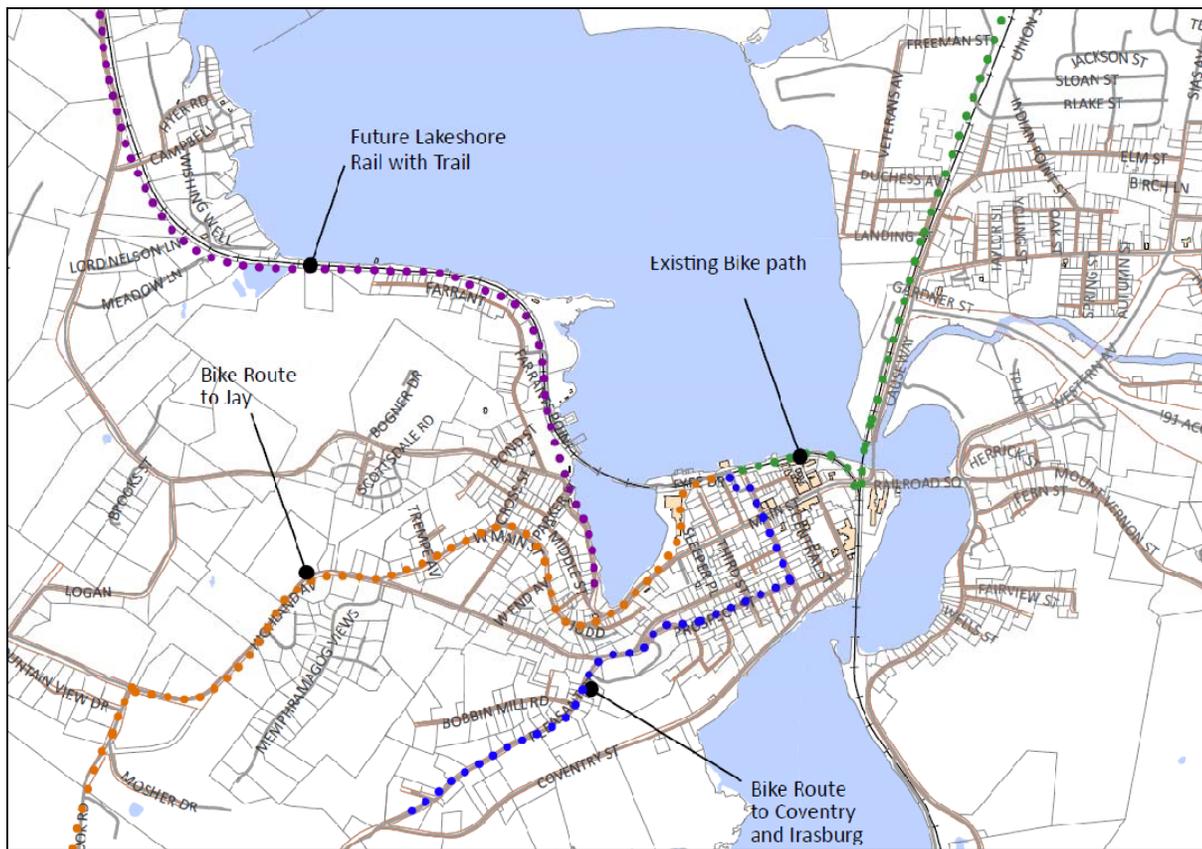
Pedestrian Network Improvements: Close the few remaining gaps in the sidewalk system such as Railroad Square and East Main Street. Maximize pedestrian space and buffers on key downtown streets including Main and Coventry. Enhance crossings, including on Main and Causeway. Enforce restrictions that prohibit parking vehicles on sidewalks.



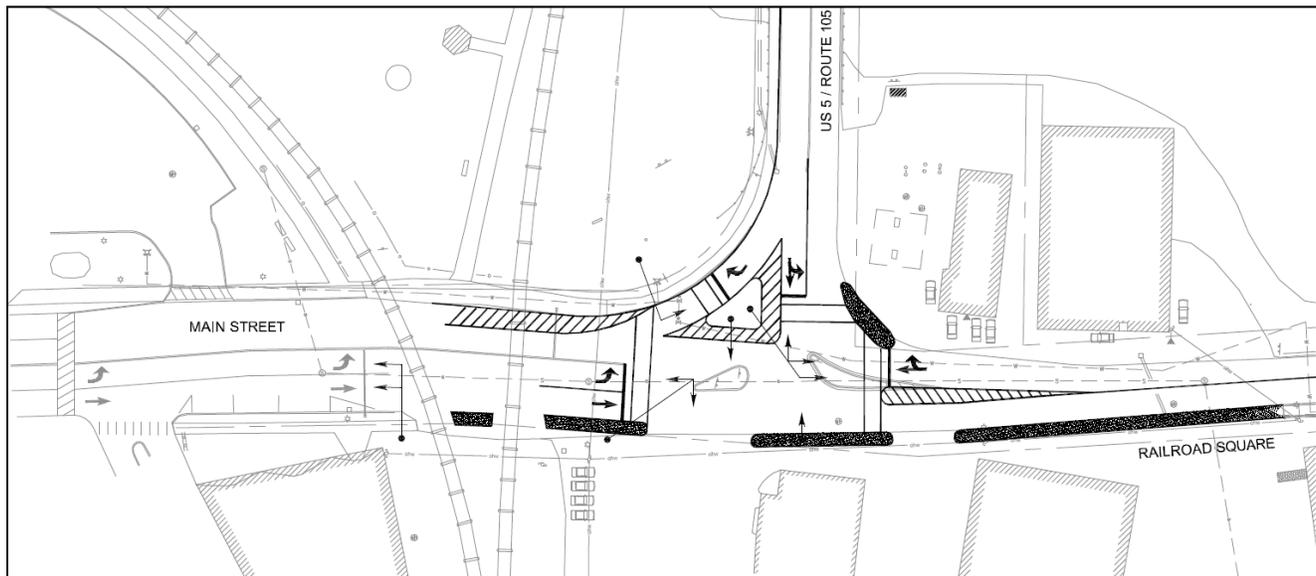
Bicycle Network Improvements: Extend the bicycle network beyond the existing path system, utilizing signed bicycle routes on shared lanes on secondary streets. Establish a bicycle route network that can extend regionally, especially to Jay.

Sharrow Markings on a street



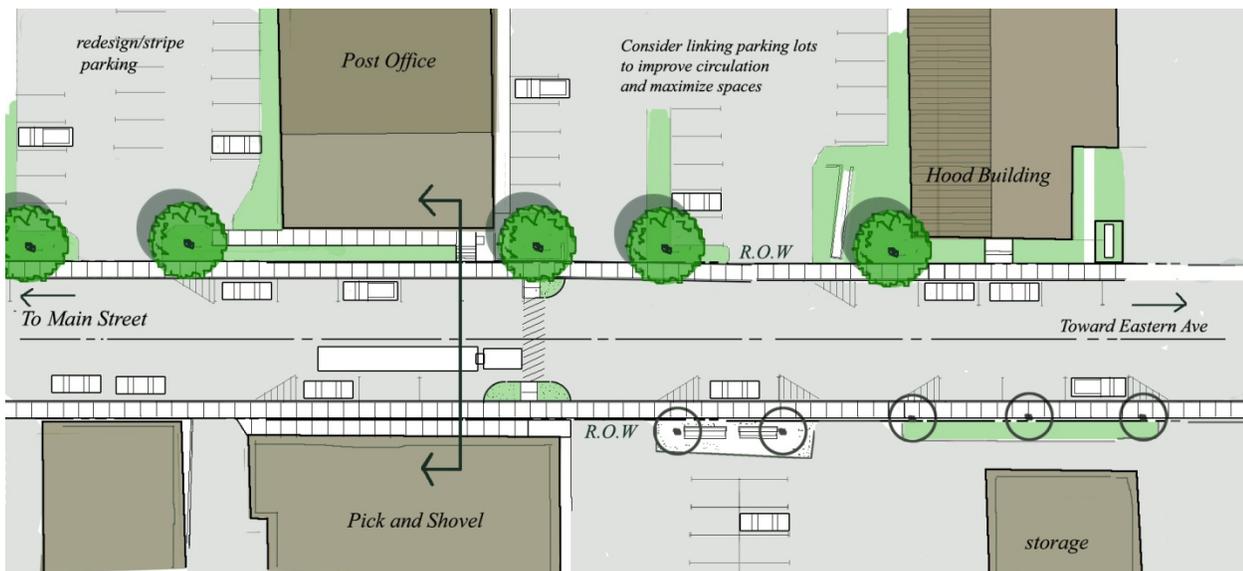
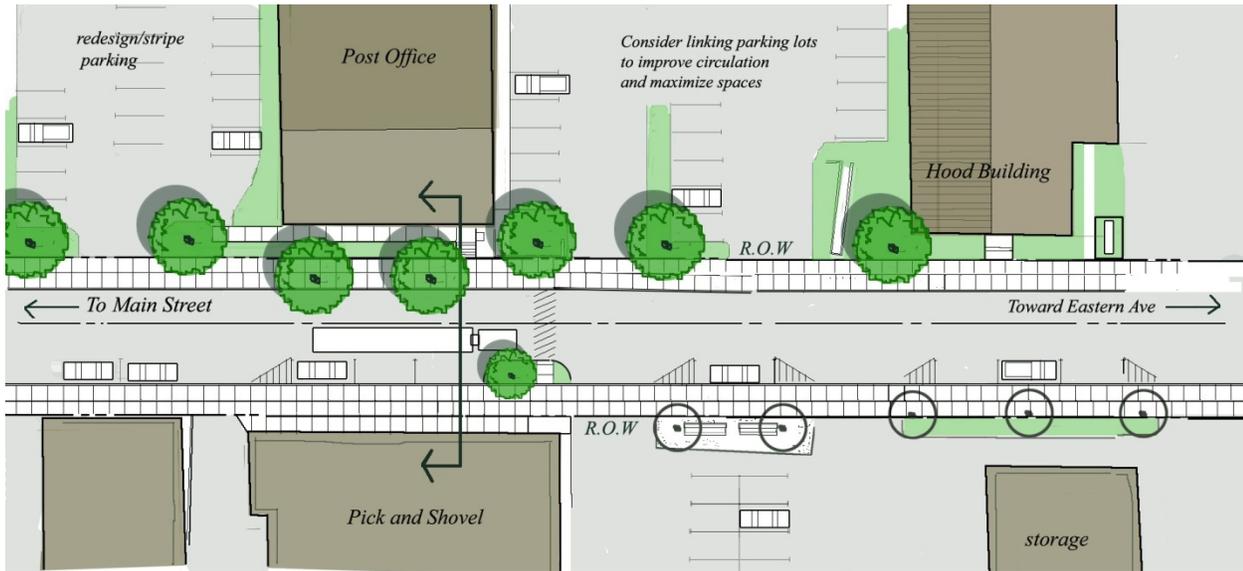


Railroad Square: Modify Railroad Square layout to increase its efficiency and reduce traffic conflicts. The intersection would benefit operationally from signalization, but must be closely coordinated with the signal at Main and Coventry. Pedestrian access should be better defined and enhanced across the northeast corner. The City should seek to accomplish at least some of these improvements in coordination with bridge reconstruction project, as this location is a High Crash Location and regional traffic bottleneck. In order to reduce vehicle crashes and driver confusion, the segment of Main Street between Coventry and Railroad Square should be narrowed to a single through lanes in each direction, with left turn lanes provided both at Coventry and at Railroad Square.



Coventry Street: Reconstruct as downtown commercial street in conformance with the vision described in the proposed Form Based Code. This should include enhanced sidewalks, on-street parking on one or both sides, and adequate travel lanes for the significant number of large trucks using this corridor.

Two options are shown below: one with parking on one side of the street, and the second with parking on both sides. These both differ from the current engineering plans for this street, and there is an opportunity to modify the plans to incorporate one of these cross sections. Essentially, providing parking on both sides will be more favorable to businesses and their patrons, while the plan with parking on one side provides wide sidewalks.

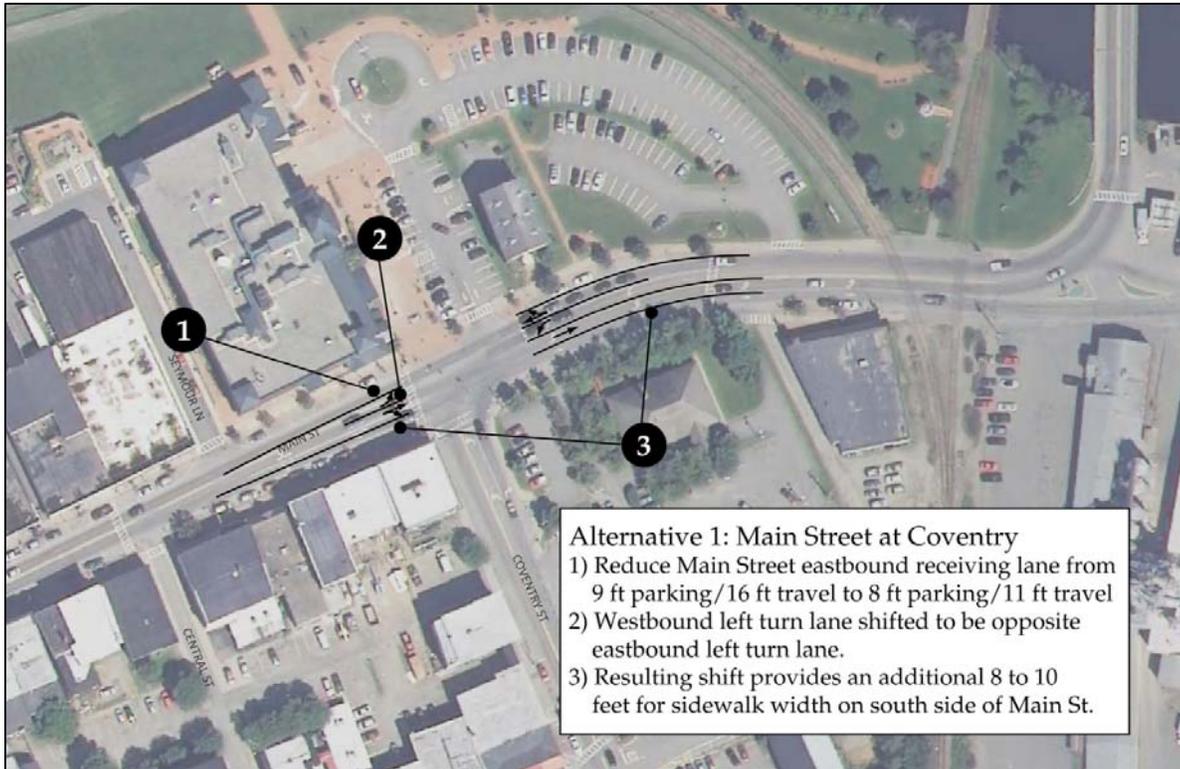


Causeway: The "highway" design features of this corridor can be softened to create a street more consistent with its waterfront gateway role. This includes reducing the lane widths, travel speeds, and removal of right-turn lanes that are designed for high speed traffic. The intersection of Causeway/Union/East Main intersection could incorporate southbound left turn restrictions to alleviate the after-school traffic congestion. As there is potential for redevelopment of some significant waterfront properties along Causeway, it may be possible to implement some of these changes in the development permitting process. The following figures show the potential for the substantial aesthetic improvement that could be attained with a streetscape plan.



One other recommendation along this route is to test the concept of a southbound left turn prohibition at the intersection of Union/Causeway/East Main for southbound turns. Providing an exclusive left turn lane would alleviate traffic congestion here during the after school hours, but is not feasible due to the railroad and grades. However, left turns at this location could be re-routed to turn left at VT Route 191 instead. This can be tested as an experiment to determine its efficacy.

Main Street: While Main Street provides a very attractive pedestrian and business environment, there are additional opportunities that can be implemented over time to enhance pedestrian zone. This would include narrowing the travel lanes and expanding sidewalk area in the course of street reconstruction. An enhanced pedestrian crossing should be provided in the vicinity of Second Street, initially through in-street warning sign(s), and progressing to stand-alone pedestrian signal as appropriate. The intersection with Coventry St intersection can be narrowed to a single eastbound through lane and enhanced signal function.

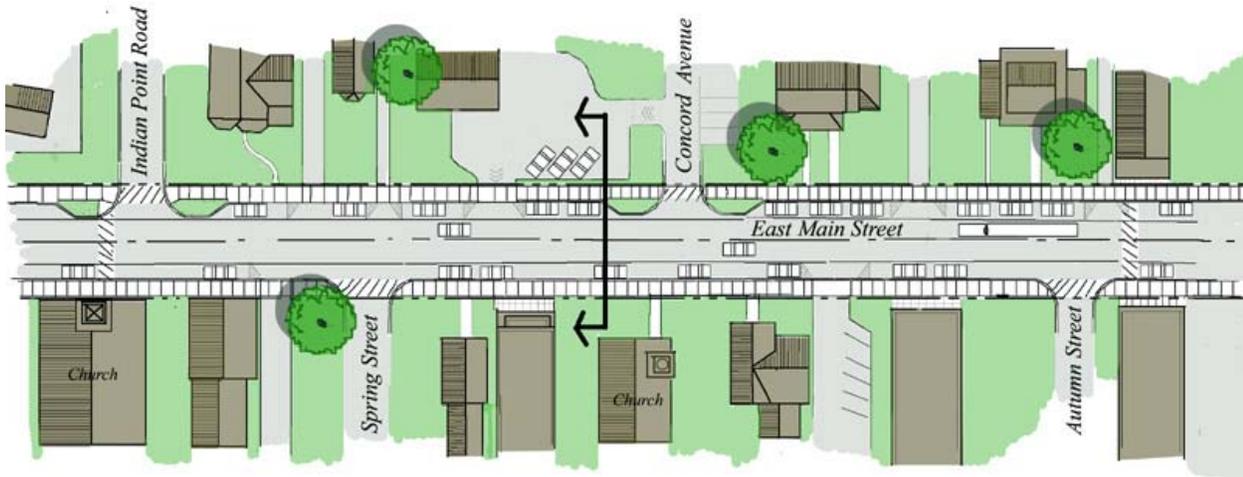


The graphic below shows a possible lane configuration for this section.

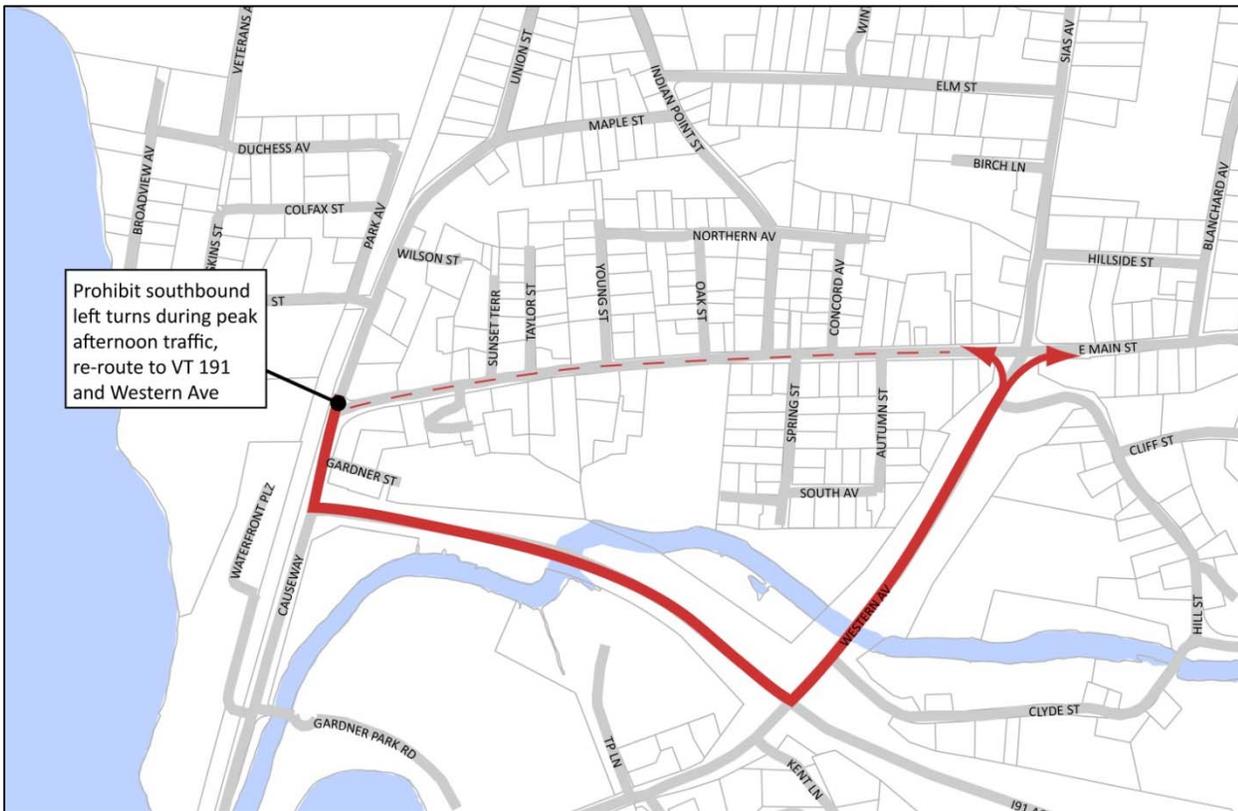


Traffic analysis shows that queues will increase by less than 3 cars on average, and by about 6 carlengths at the most. The intersection would operate with somewhat more average delay, but remain in the acceptable range.

East Main Street: This street's overly wide travel lane and shoulder widths could be narrowed to provide a more attractive and safe pedestrian environment. Slower speeds might also encourage more on-street parking, which further improve the pedestrian environment by providing a buffer and reducing through traffic speeds. The following figure shows a possible plan to consolidate and better define street accesses, narrow lanes, and provide more generous sidewalks.



In addition, the sidewalk gap on south side at Causeway and enhance crosswalk at Union should be closed as funding for pedestrian projects becomes available.



Third/Pleasant Street: Minor modifications are proposed to this intersection to clarify routing and enhance pedestrian access with neckdowns for the Main (west approach), School, and Third (south approach). Along Third and Pleasant Streets, the curb and planting strips should be reinforced during routine maintenance and reconstruction.



Secondary streets and alleys: These streets provide the access to residential properties, as well as on-street parking, and create a pleasant environment for walking. Over time, they should be reconstructed in conformance with the form based code in the normal course of maintenance activities.

As these improvements are undertaken in conjunction with the principles and specific standards of the Form Based Code, they will, over time, significantly enhance the capability of Newport's thoroughfare system to support its community life and downtown vitality.

Implementation Plan

The recommendations in this report could be implemented over time through a variety of measures. While significant funding for major transportation projects is hard to find now, many of the recommendations could be folded into ongoing projects or routine maintenance activities. A variety of possible means for implementation are reviewed below, followed by an estimate of construction and maintenance costs.

Short Term Recommendations

There are a number of actions that Newport City could take in the short term to begin implementing some of these recommendations. The following is a brief listing for consideration.

- **Conduct traffic operations experiments** to provide input and data for longer term decisionmaking.
 - Turn off the westbound left turn actuation at the signal of Main and Coventry. Occasional failure of this actuator may be resulting in formation of very long queues during afternoon peak hours. The trade-off would be that during off peak hours, the left turn phase would be turned on regardless of whether or not any left turning vehicles are present. However, given the relatively high left turn volumes, this should not have a significant impact.
 - Conduct a traffic operations test, along with monitoring, of narrowing the eastbound Main Street approach at Main/Coventry. Our observations and analysis indicate that the two lanes are not operating very efficiently, and really only provide about 1 ½ lanes of capacity. The short additional through lane provides queuing for about 6 vehicles, so queues would be lengthened by no more than 6 vehicles on Main Street. Narrowing to one through lane would have significant safety benefits, and would also allow a broader sidewalk along Main Street that would greatly enhance the economic viability of this row of buildings.
 - Conduct a test of southbound left turn prohibition at Causeway/Union/East Main Street, during after school and hospital shift change periods. This would need to be accompanied by signal timing adjustments at Causeway/Route 191, in order to provide additional southbound left turn

capacity. This may be a cost effective approach to addressing the traffic congestion occurring during after school hours.

- **Establish a bicycle committee.** This group would be able to focus on mapping, marking and signing of a local and regional bicycle network, which would build on the great asset that Newport City has in bicycling infrastructure. Ideally this group would consist of bicyclists of a variety of abilities, business owners who could be affected by increases in bicycle tourism, and city officials in public works, recreation and/or law enforcement.
- **Request Roadway Safety Audit** from VTrans for Main Street between Coventry and Railroad Square. VTrans has a division that will provide a very detailed, multidisciplinary review of accident data, traffic operations, and roadway geometry. The aim is to provide cost effective recommendations. These recommendation can be more readily implemented in upcoming projects.

Ongoing VTrans Projects

One of the most appealing routes to implementation would be to incorporate these recommendations into project designs that are currently in the pipeline for VTrans funding. The following could be considered for implementation as these projects unfold:

- **ARPV(8) Resurface Lake Street:** This project could potentially implement paving markings such as Sharrows, and it may also be possible to recommend changes in the cross section to provide an improved pedestrian environment. The project manager is also the VTrans Bicycle/Pedestrian Coordinator, creating an ideal opportunity for implementation of some of the cost effective improvements in this report.
- **BRO 1449(25) Replace Vernon Street Bridge:** This project is in early stages of design, and therefore may be able to incorporate improvements to the bridge approaches to improve traffic operations and safety. The fact that this bridge currently has a PM Peak hour level of service “F” (documented in Lamoureux & Dickinson Report), and is also a critical high accident location, both indicate that it may be appropriate to expand the scope of the project to assure that the new bridge investment is supported by traffic safety and operations investments as well.
- **STP 2704() Resurface Route 5:** This project appears to be in early stages of project development. While it is designated as a resurfacing project, it may be possible to incorporate pavement markings such as Sharrows, signage, or pedestrian improvements. The current VTrans schedule suggests that preliminary design activity is currently being conducted, making this an ideal time to contact the VTrans project manager about implementation possibilities.
- **STP 2719(1) Resurface Alt US 5 (Coventry Street):** This project is currently in final stages of design, with funding having been delayed. Ideally, the project design could be modified to implement one of the two possible cross sections proposed in this report, which reflect only minor changes from the currently proposed cross section.

Development Funded Mitigation Projects

This plan can form the basis for discussions with developers who may be willing and/or required to provide traffic mitigation improvements for their project. For example, the redevelopment of the Waterfront Plaza as a resort hotel could provide a source of matching funds for some of the aesthetic improvements suggested for Causeway, including tree planning and landscaping. Such an aesthetic improvement would clearly be beneficial to both the City and the new development in creating a more attractive gateway.

Along East Main Street, potential changes or redevelopment of properties could incorporate the recommendations for that corridor, which can be done in stages over time, with minimal cost to the City.

Newport City Implementation and Maintenance

While many of the big ticket projects can be constructed with outside funding sources, either from VTrans, or developers, some of the recommendations would need to be implemented locally by the city. In addition, the City would be responsible for maintenance of any additional improvements. This is particularly important consideration for the City, as the additional costs should only be taken on if they are offset by economic or other (i.e. safety) benefits to the city. These are not always easy to quantify.

The following are activities that would be the responsibility of the City to implement or maintain, and these should be considered as any activities or projects are undertaken.

City Implementation

- Sidewalk construction on East Main Street
- Crosswalk markings and pedestrian signals
- New traffic signal at Railroad Square, accompanied by upgrade as needed to the Main/Coventry signal for optimization and coordination

City Maintenance Activities

- Maintenance of pavement markings, such as sharrows and crosswalks, edge striping on East Main Street and Main Street.
- Maintenance of new traffic signal at Railroad Square
- Enforcement of parking on sidewalks
- Maintenance of trees and other landscaping