

MEMORANDUM

To: Newport Thoroughfare Study Committee and Newport City Council
From: Lucy Gibson, Smart Mobility Inc., and Michael Oman, Rick Bryant and Kathleen Ryan
Re: Initial Findings and Draft Recommendations for the Newport City Thoroughfare Plan
Date: 16 August 2010

This memorandum summarizes our initial draft recommendations for the Newport City Thoroughfare Plan. We are seeking input and guidance from the study committee, as well as the Newport City Council and the public at their August 16 meeting.

Although much of the attention and investment in the City's street network is devoted to street support for vehicular traffic, the vitality of the downtown depends much more heavily on support for pedestrians and other means of getting around. While vehicles are certainly still required to get customers to and from the downtown, as well as to transport the goods for purchase, downtown success will ultimately rely much more heavily on its ability to park the vehicles and move shoppers and others around on foot.



The following sections discuss specific issues for the modes of transportation and major corridors in Newport City.

URBAN DESIGN AND THOROUGHFARES

One of the primary goals of the thoroughfare plan is to develop recommendations to assure that the street designs and future improvements are compatible with the City's land use and urban design goals, as expressed in the Form

Based Code development and the City’s comprehensive plan. The following graphic illustrates the variation of different types of urban environments that the major thoroughfares pass through, based on the definition of transect zones, which are also illustrated below.

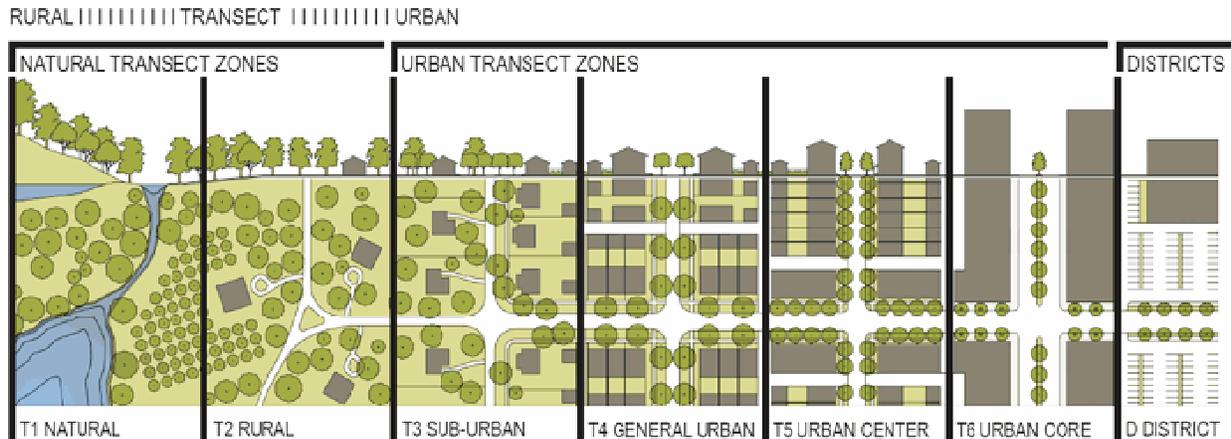


FIGURE 1: URBAN TO RURAL TRANSECT ZONES

Newport City’s proposed Form Based Code is modeled on the Urban-Rural transect, with the urban design, and “look and feel” of development being elevated in importance in the downtown area. A Form Based Code provides a descriptive, graphical vision of how future development or redevelopment can be done in a way where the long term result is more harmony among neighboring land uses, and compatibility in basic design, creating a whole that is more than the sum of its parts. This approach to design and architecture was common before “modern” zoning and subdivision ordinances brought a different focus.

The figure below shows how Newport City’s major thoroughfares (Main, Coventry, Causeway, and East Main) interact with the transect zones. Some interpretation is required in cases where there were two different zones on either side of the street. In addition, we are proposing a “special district” designation for the section of Causeway, which is lined by Gardner Park and the bicycle path, and therefore not a place for development on the street frontage.

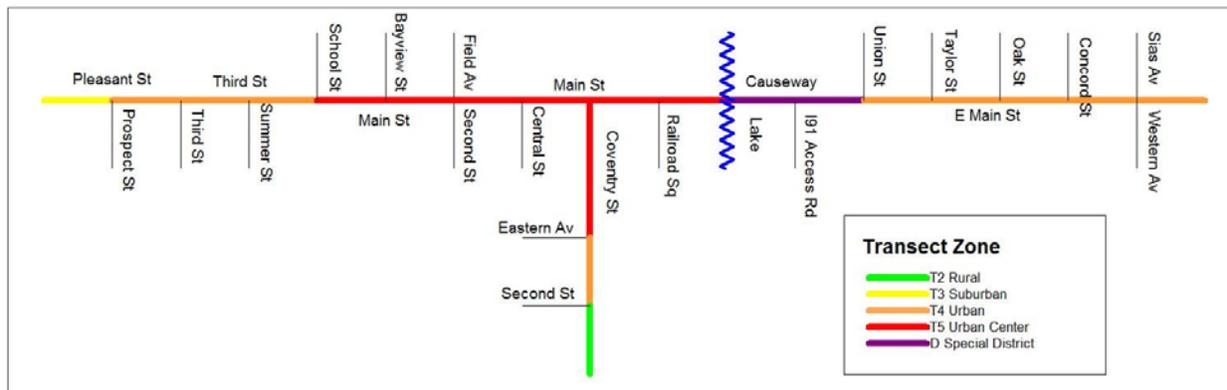


FIGURE 2: ROUTE 105 BY TRANSECT ZONE

The following sections describe findings and draft recommendations for modes of transportation and key thoroughfares in the City. A draft of the proposed Form Based Code regulating map is attached to this report.

PEDESTRIANS

The sidewalk system in a vital downtown provides multiple functions including, not only pedestrian movement, but outdoor activities such as eating and marketing. Nearly every dollar spent in downtown Newport involves a pedestrian trip between the customer's car, home or workplace, and the business they are patronizing. Good pedestrian design is also need to assure safe sharing of the public right-of-way, with consideration to the high volumes of traffic on Newport's thoroughfares and the regional economic needs. The following are a summary of findings and recommendations on the pedestrian network:

- Generally there's a very complete sidewalk system that is well maintained, and serves the city very well.
- There have been concerns expressed about high traffic speeds making the pedestrian environment less ideal. NVDA is currently collecting traffic speed data for Main and East Main Streets.
- Crosswalks are established along Main Street, but traffic doesn't always yield. Consider a pedestrian crossing signal at Second St or Central St.
- Enforce rules regarding no parking on sidewalks.
- Crosswalks at signalized intersections could be provided at:
 - Western Ave/I91 Access Rd (for pedestrian travel from E. Main St to Gardner Park)
 - Causeway/Union/East Main St.



BIKES

Newport City has an outstanding bicycle path along the abandoned Beebe Spur rail line, connecting the downtown with the North County Union School, North Country Hospital, and eventually the Canadian border. With the great popularity of bicycling both in this country and in Quebec, there is an opportunity to improve and extend Newport City's bicycle network, making it a unique asset for economic development as well as a transportation alternative. The following are some key observations about Newport City's bicycle network:



- Great bike network is established, connecting city center, school, hospital, Gardner Park.
- There is an opportunity for bicycle route connections to other key locations in the city and beyond, including:
 - Jay Peak
 - Coventry/Irasburg/US 5 Scenic Byway
 - Western shore of Lake Memphremagog.
- Bike Racks could be provided in more locations in downtown Newport City.

The following map shows the existing bike route (green) and possible future routes for consideration. This network is proposed to be a combination of on-road bike lanes, or shared lanes, and off-road bicycle paths, like the existing Beebe Spur bike path.

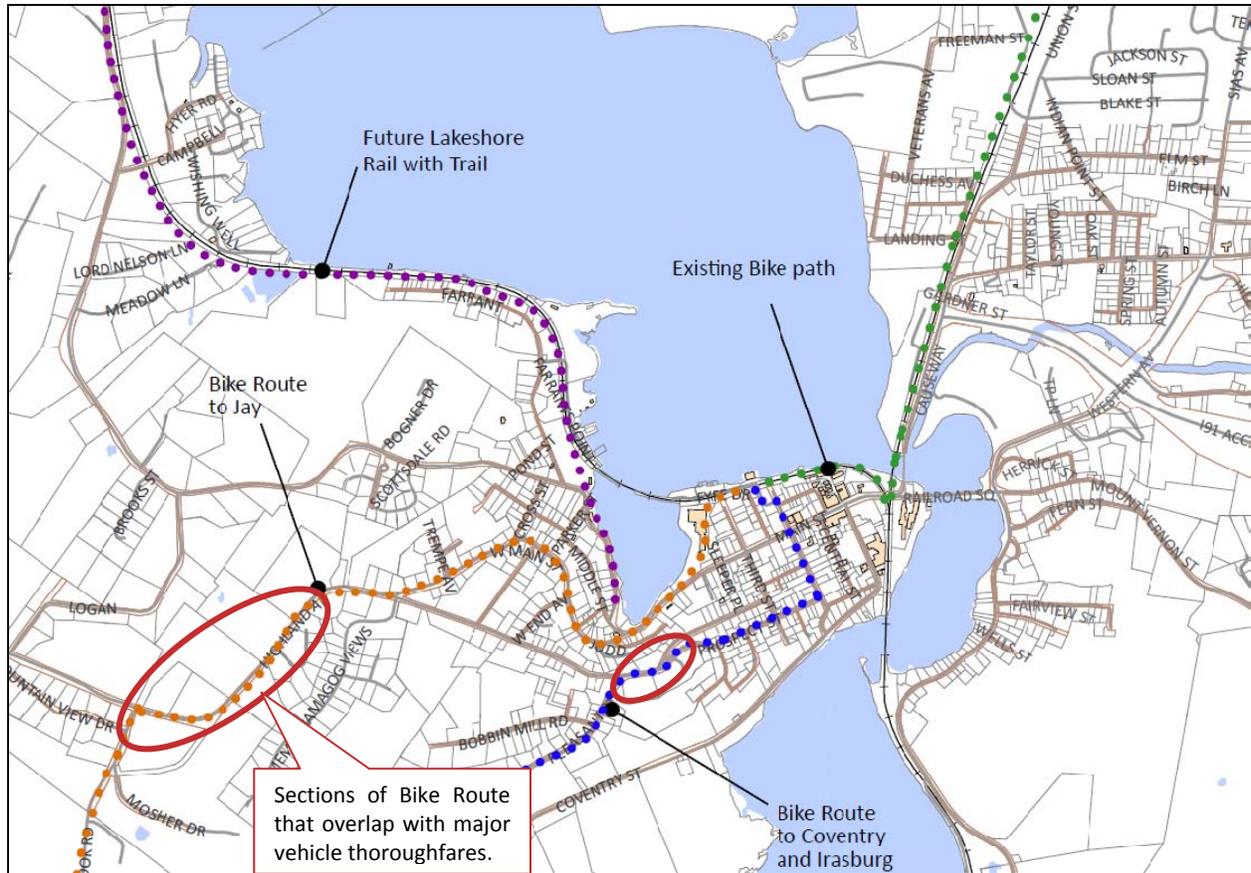
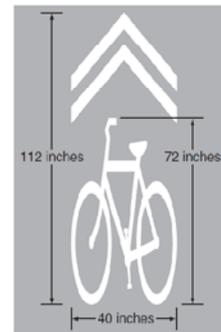


FIGURE 3 EXISTING AND POSSIBLE FUTURE BICYCLE ROUTES IN NEWPORT CITY

Highland Avenue is about to undergo resurfacing, and the concept of marking the section between West Main and Alderbrook with “Sharrows” could be considered to highlight this section as part of a bike route. This should be accompanied by information such as maps and signage. Example is shown to right, along with standard marking.



MAIN STREET FROM COVENTRY TO RAILROAD SQUARE

This is the most heavily traveled road segment in the City, and is a regional bottleneck serving two major routes (US 5 and Vermont 105) as they join routes to skirt around Lake Memphremagog. A previous study looked at the Route 5/105/RR Square intersection, which explored several options but did not result in a consensus on improvements. From our observations, it is apparent that the queues and congestion that sometimes persist at Railroad Square originate at the Main/Coventry intersection for eastbound/southbound traffic. It is important to consider these two intersections as a system.

Traffic analysis of this intersection system indicates that the traffic volumes do not exceed the capacity of the intersections, and that congestion results from occasional complications or maneuvers that may block the street,

or impede efficient traffic flow. In particular, the westbound Main Street left turn detector apparently fails to trigger the green left turn phase of the signal for several consecutive traffic signal cycles. This results in significant back-ups of westbound traffic through Railroad Square, which impede all traffic approaching the intersection from the east. It also results in a safety hazard due to the vehicle waiting to turn left eventually moves through a red light out of frustration.

The other aspect of this system is that there is a great deal of weaving in both directions, as there are many visitors from Canada and elsewhere not familiar with the roads, and need to switch lanes before approaching either intersection. The following figure shows some of the issues with this area.

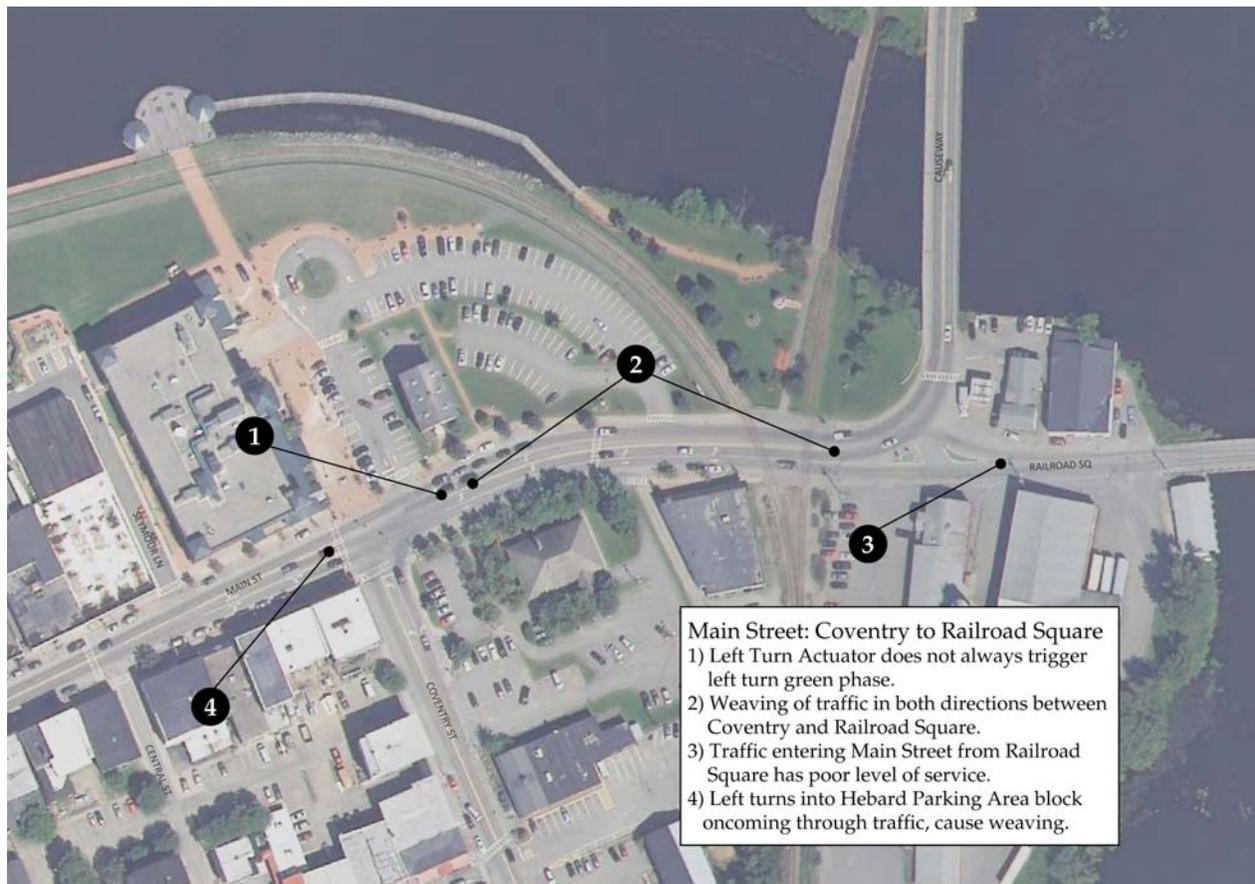


FIGURE 4 EXISTING ISSUES ON MAIN STREET BETWEEN COVENTRY AND RAILROAD SQUARE

The following concept for lane assignments are proposed, with the intention of improving the efficiency and safety of traffic flow through this section, and addressing many of the concerns noted above.

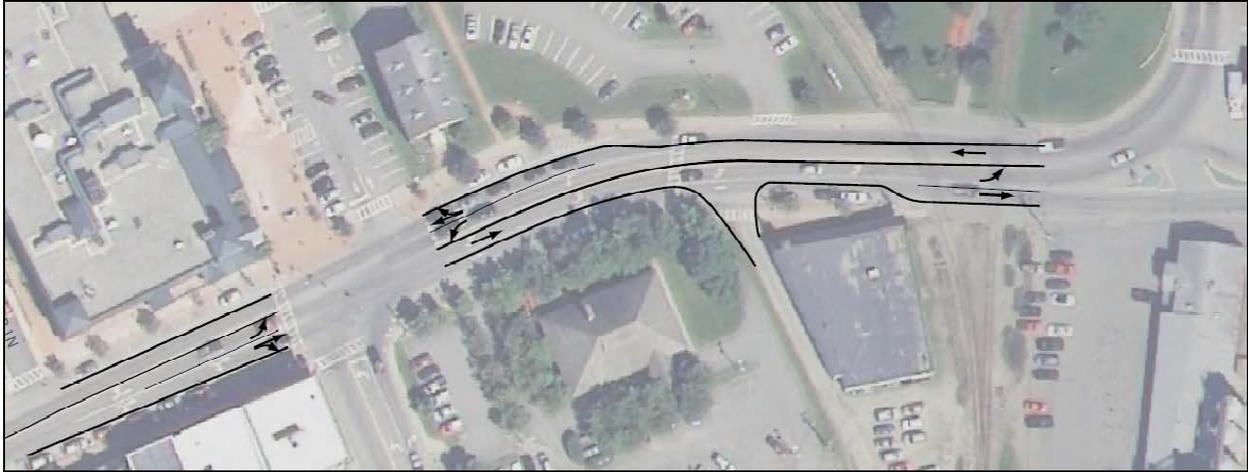


FIGURE 5 POSSIBLE CONCEPTS FOR RE-STRIPING LANES ON MAIN STREET BETWEEN COVENTRY AND RAILROAD SQUARE

CAUSEWAY

Causeway was constructed with many design features that characterize it as a high speed highway. The road signs, widths, auxiliary lanes, and overall layout all reinforce higher speeds.



The setting of this thoroughfare is unique, with the beautiful Gardner Park on one side, and the other side lined by the railroad and bike path, with commercial development beyond, and occasional views of Lake Memphremagog. Despite being located outside of the downtown proper, this roadway is a major feature of downtown Newport. It is the entry to the downtown itself from the east, the arrival point of the I-91 connector, and the setting for the future lakefront development currently being contemplated on the plaza site.

Possibilities for this thoroughfare involve redefining its character as “grand boulevard”, scenic gateway to Newport (i.e. Memorial Drive—insert some photos of parkways). In addition, the need for safe pedestrian crossings is a strong consideration, to serve the uses lining each side of this street. The right-of-way varies considerably throughout the length, and is up to 85 feet in some locations, allowing great flexibility in use of this public space.



FIGURE 6: EXAMPLE OF BOULEVARD ON ROUTE 15, ESSEX, VERMONT (FOUR LANES IN THIS EXAMPLE)

Features of an enhanced Causeway may include:

- Aesthetically enhanced access/entrance to new resort development and more attractive gateway to downtown.
- Maintain one through lane with median cross section
- Highway signage: replace overhead sign with more modest signage consistent with more pedestrian scale
- Eliminate southbound right turn lanes into plaza; this reinforces higher speeds, is less pedestrian friendly
- Define roadway eastern edge, including:
 - sidewalk/curb
 - landscaping
 - access/parking for information booth, park and market
- Reconstruct medians for landscaping
- Crossing of Causeway to Gardner Park

In addition, although significant modifications to this roadway are not indicated to correct capacity or safety deficiencies, reconstruction of the intersections as modern roundabouts could yield significant benefits in the future. Roundabouts foster more moderate speeds and can be an aesthetic enhancement.

E MAIN ST:

Currently the street has a very wide appearance when no one is parked on the street, and accesses and pedestrian ways are not always very well defined. The environment does not encourage walking from store to store as much as it could. The following approaches can enhance the commercial streetscape to encourage the development as outlined in the Form Based Code. Cross sections are provided that conform to the 3 rod right-of-way (49.5 feet):

- Provide a better definition of the pedestrian realm through curbing, striping, and reinforcing existing sidewalks as redevelopment projects occur.
- Generally, existing crosswalks appear located well. Improve definition of crosswalks, with central signage, wide striping, bumpouts, etc.
- Encourage parallel parking, which will in turn encouraged “park once-shop twice” uses, helping businesses.
- Build strategically placed bump-out(s) to better define parallel parking, and make patrons feel safer using it. More on-street parking will help narrow apparent street width, and reduce travel speeds.
- As redevelopment and changes in land use proceed, develop plans to combine access points, and connect properties in rear, allowing shared parking.
 - Bring sidewalk on south side down to meet Causeway sidewalk
- Add (replace) crossing at Union/Causeway/E Main

The following illustrates a typical cross section of East Main Street, which has overly wide travel lanes and parking lanes for an area that is intended to be a walkable business district.

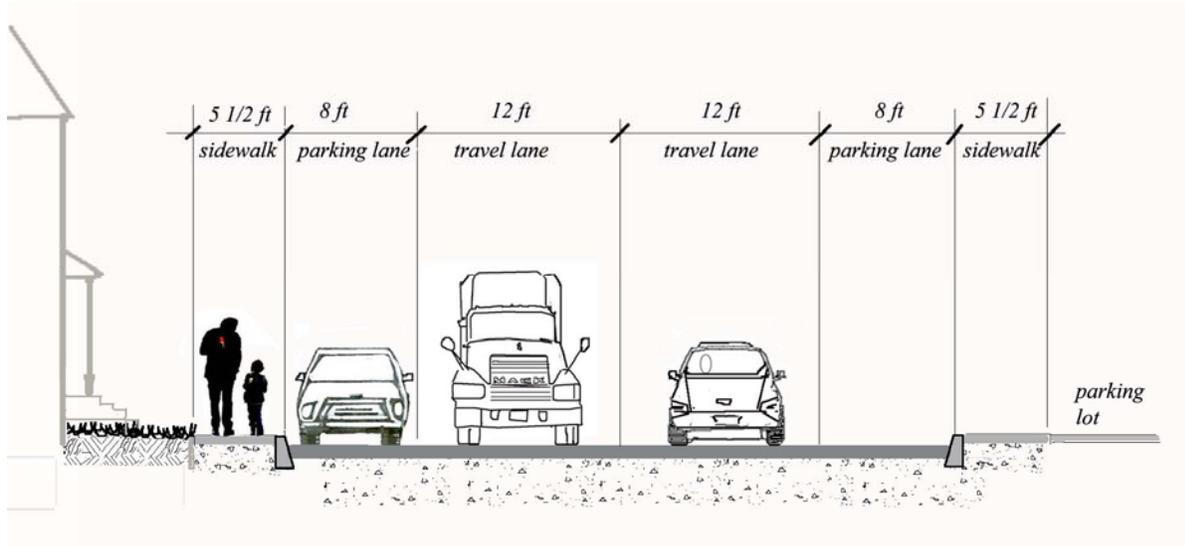


FIGURE 7 EAST MAIN STREET: EXISTING CROSS SECTION

Two possible cross sections for East Main Street are shown below, which provide on-street parking and sidewalks. The first option favors more parking, narrower sidewalks, and the second provides parking on one side, and wider sidewalks with room for landscaping.

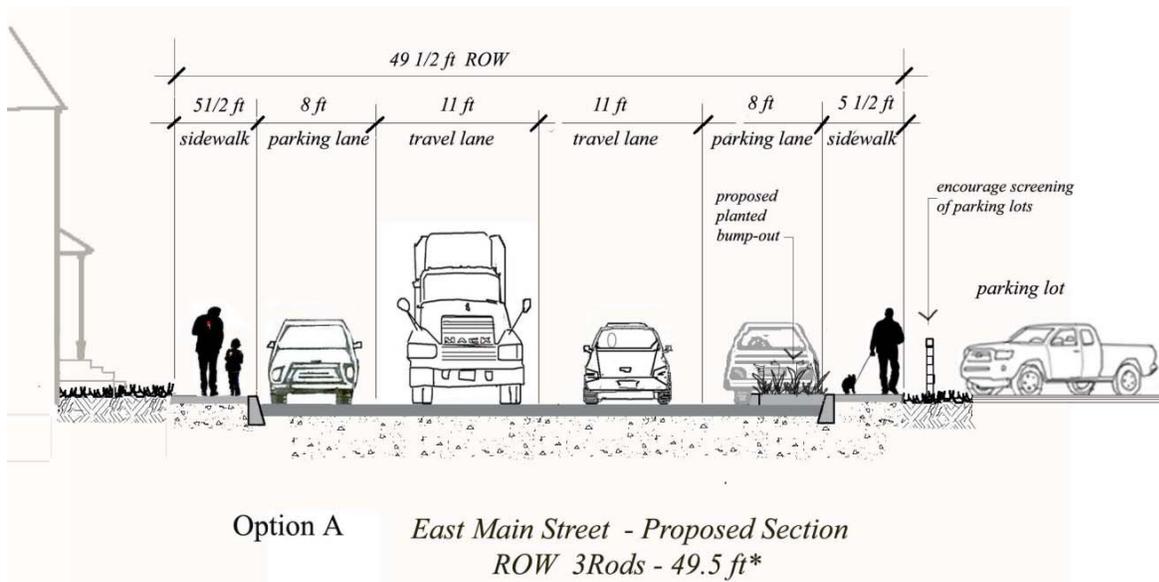


FIGURE 8 EAST MAIN CROSS SECTION OPTION A: PARKING ON BOTH SIDES

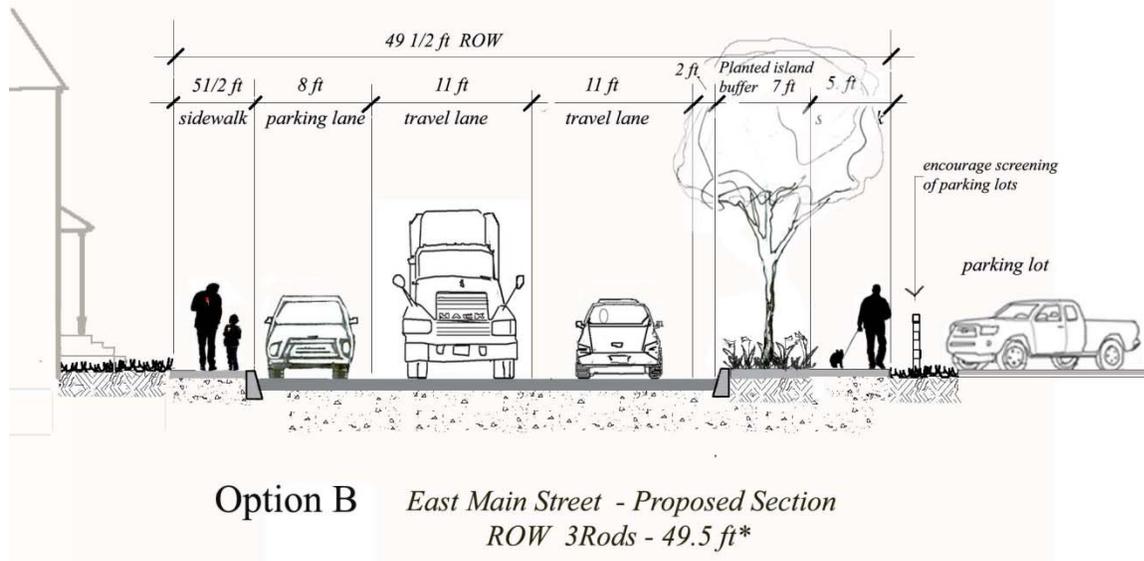


FIGURE 9 EAST MAIN STREET OPTION B: PARKING ON ONE SIDE ONLY, WITH WIDER LANDSCAPED AREA

MAIN ST

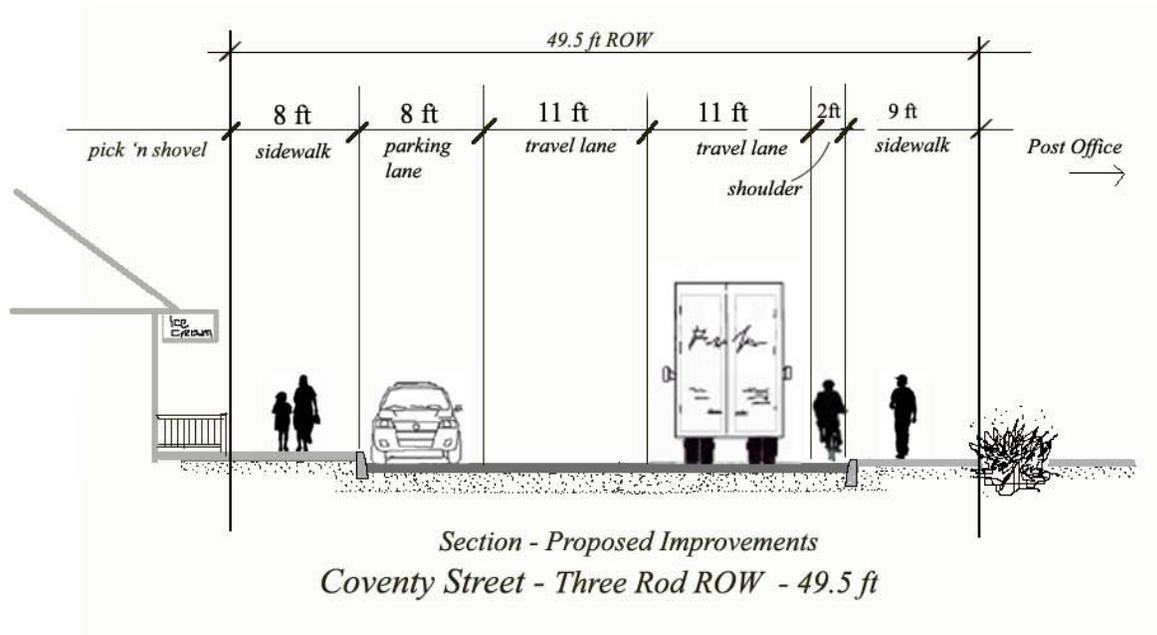
Generally, Main Street between Coventry and Third Street, the core of the central business district, has been significantly reconstructed to support the pedestrian activity so essential to downtown vitality. On-street parallel parking further supports this, and bumpouts and crosswalks further facilitate pedestrianism. The environment is pleasant and well connected. Although, additional sidewalk space could be beneficially put to use for activities such as outdoor eating and marketing, the expense to widen sidewalks at this time is unrealistic. Concern about traffic speeds affecting the pedestrian environment has warranted further consideration, and data on traffic speeds is currently being collected. This will be useful for more specific recommendations for this corridor. The following are offered as preliminary recommendations:

- Provide edge striping of travel lanes to reinforce a narrower street width. Currently, the lane widths on Main Street are wider than needed to support current and future traffic, and lane width reductions would help reduce travel speeds. Reconstruction is not feasible in the near future, so road striping options can be considered.
- One additional pedestrian support in the form of a pedestrian push-button signal in the vicinity of the City Hall would be helpful. Not only would it further facilitate pedestrian movement, but it would act as a further check on vehicular speed in the core of the downtown.

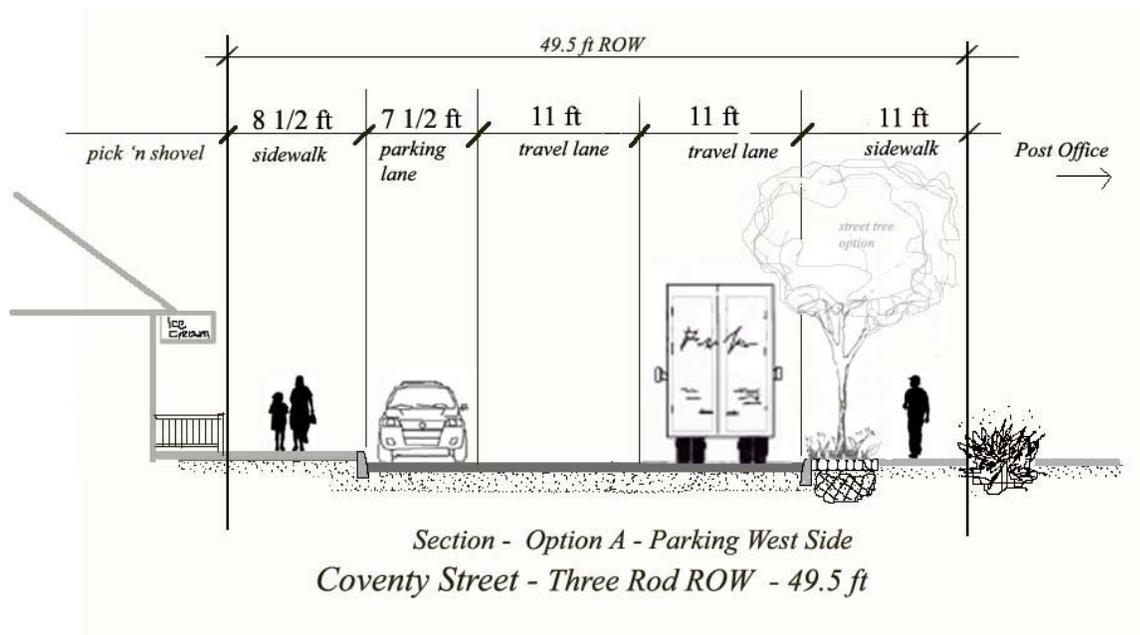
COVENTRY

Coventry Street, especially in the first block south of Main Street, is an important extension of the downtown. This block contains both the Post Office and the Pick and Shovel, one of the premier commercial outlets remaining in the downtown. This block should be configured to support high levels of commercial and other downtown activity. This means that it should support sidewalks and crosswalks for pedestrians, vehicular traffic, and on-street parking especially for commercial uses. Since Coventry Street is also designated a truck route (Alternate US-5) it also carries a disproportionate share of both large trucks and through traffic. The following cross section is currently

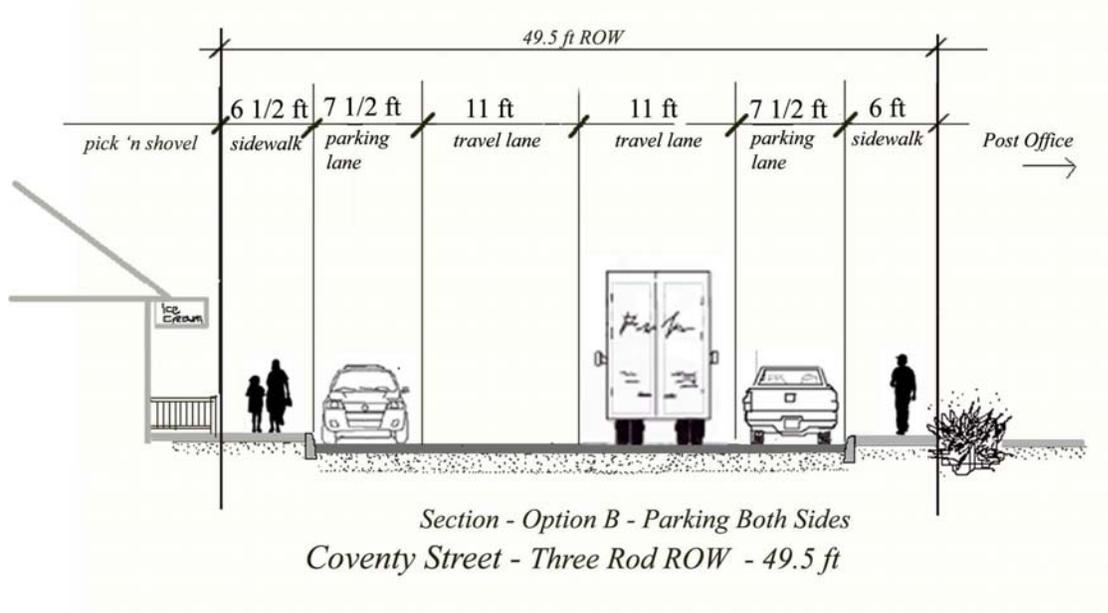
proposed for Coventry Street improvements, being designed by Newport City and awaiting state or federal funding assistance.



With so many activities on one corridor, the small shoulder provided on the edge does not serve a useful function, being too small for bicycle use. There are several possible cross sections that may help achieve a balance between providing for through traffic movement and enhancing a vibrant business district along Coventry Street. One possible alternative cross section consists of the following:



Another option is to using a carefully crafted street cross section designed to maximize utilization of the full right of way. In the vicinity of the Post Office, this should consist of the following:



There are trade-offs between providing ample on-street parking and a wider sidewalk for streetside activities that require further consideration. Below are illustrations of each of these concepts:

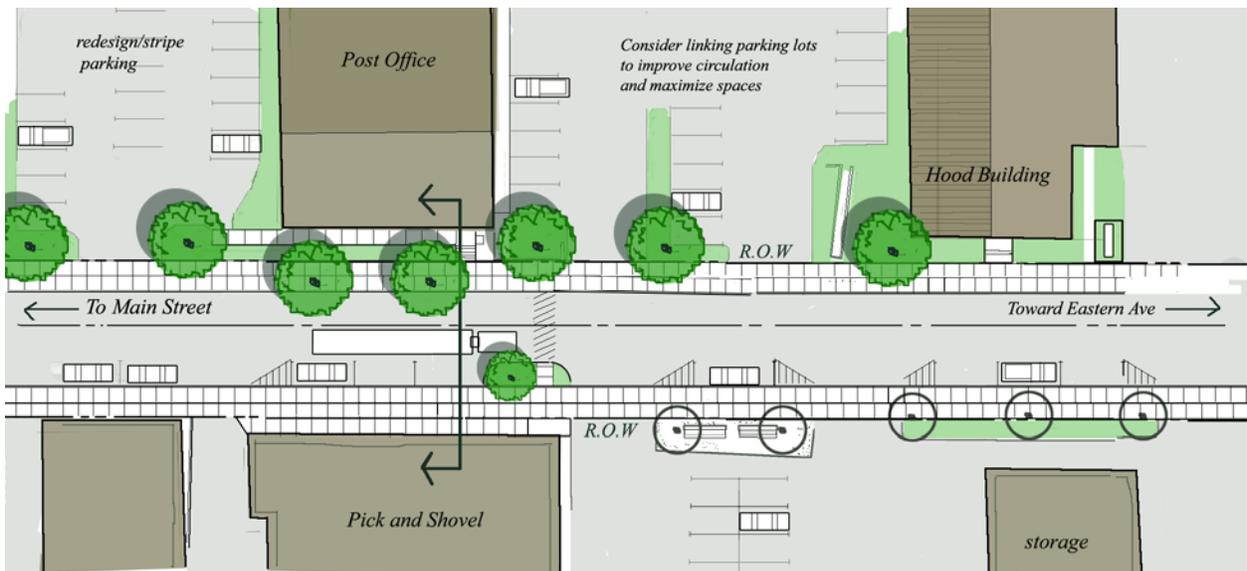


FIGURE 10 COVENTRY PLAN WITH PARKING ON WEST SIDE ONLY

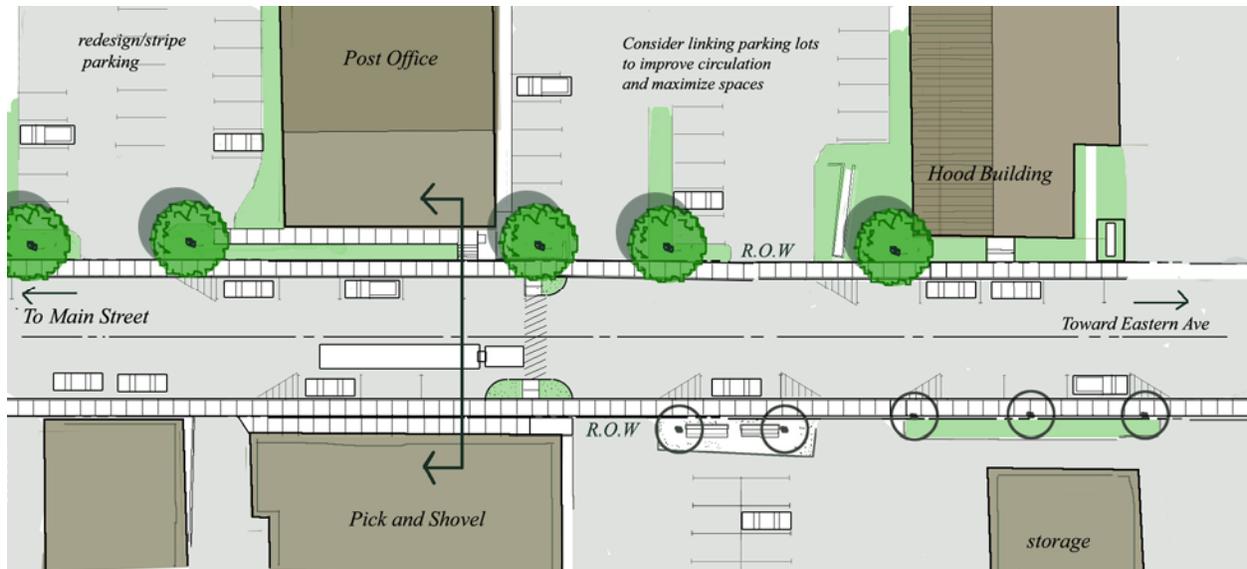


FIGURE 11 COVENTRY PLAN WITH PARKING ON BOTH SIDES

3RD /PLEASANT ST ACCESS:

Third and Pleasant Streets, while not so closely integrated into the downtown, are the major access from the west. Over the years, these roadways have deteriorated somewhat, probably due to temporary parking in the planting areas. Also, following the route out of town to the west can be a bit ambiguous due to the indirect routing. These streets are adequate, but can, over time, be significantly enhanced to support their role as access to the downtown and improve their pedestrian and residential quality.

As these roadways are reconstructed/repaved:

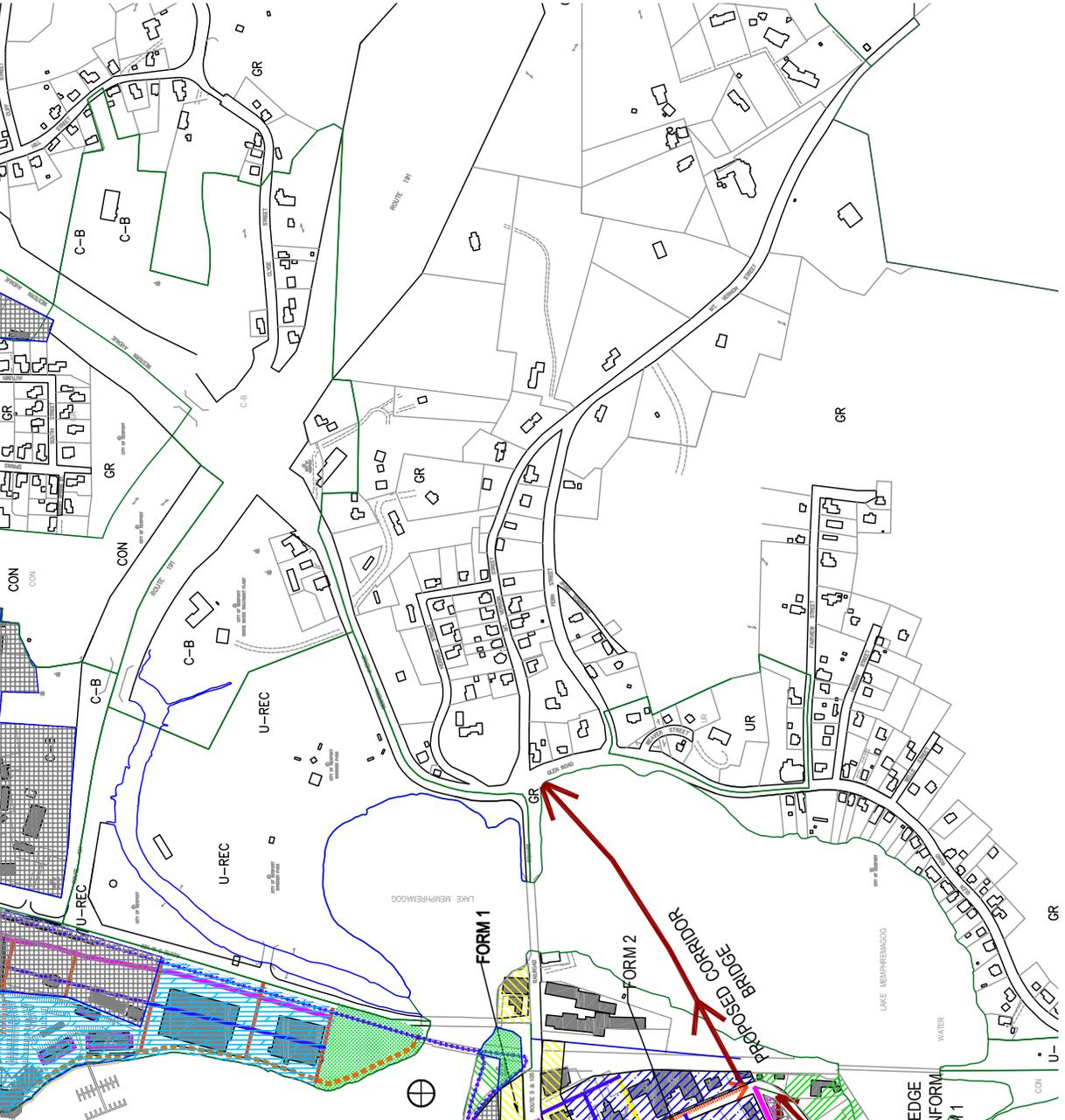
- Improve directional signage
- Rebuild curbs and plant in planting strips
- Restructure intersections with neck downs both for pedestrian support and to clarify main route:
 - School St at Main
 - Main at Third (west approach)
 - Third at Pleasant (south approach)

Also, a bit further in the future, a signal at Main and Third could enhance traffic flow and further support pedestrian access.

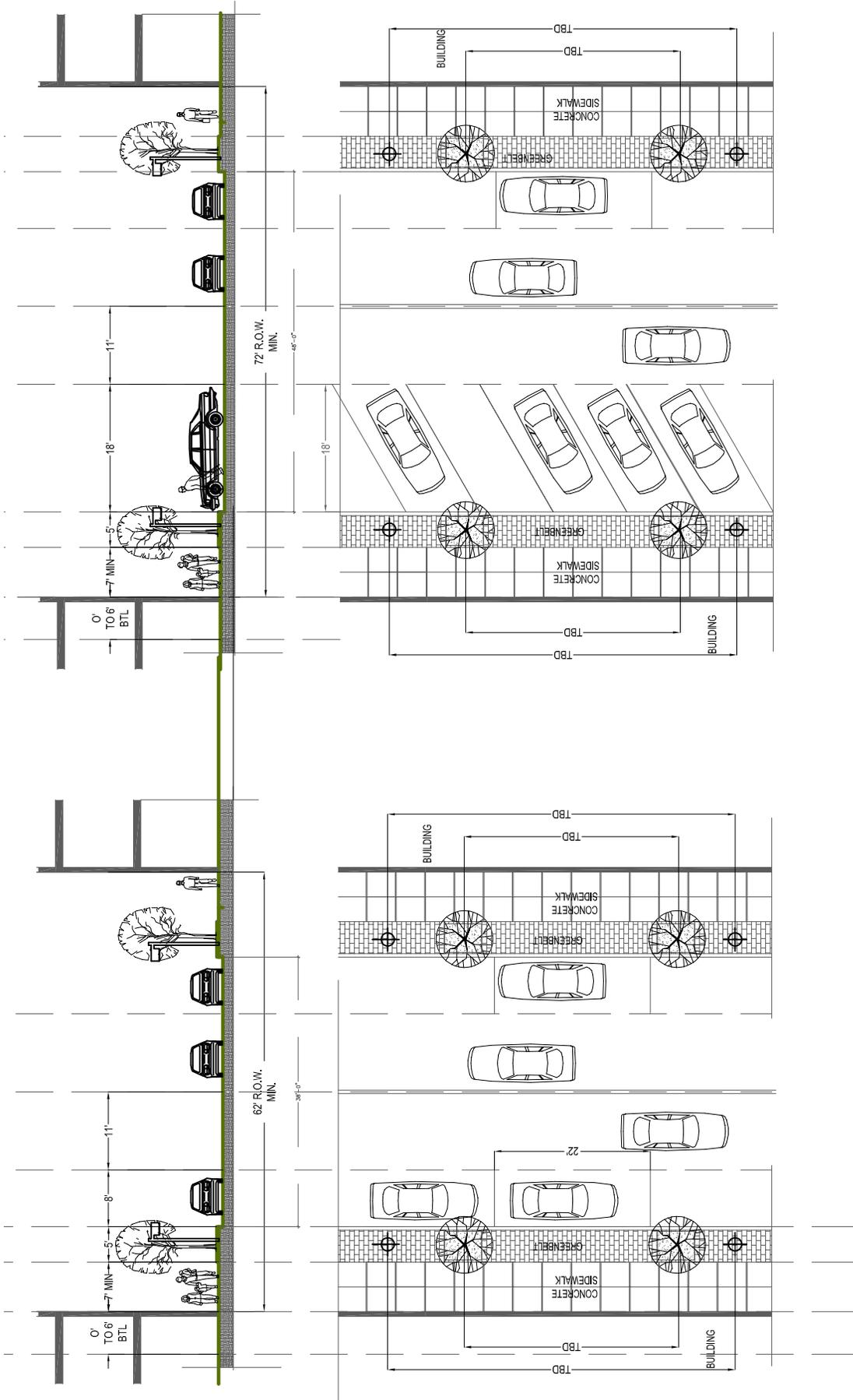
DOWNTOWN REGULATING MAP

NOTE 1: ZONE DESIGNATION & STREET TYPE DETERMINE APPLICABLE BUILDING ENVELOPE STANDARDS
 NOTE 2: PROPOSED NEW ROAD STANDARDS ARE MINIMUM STANDARDS-NOT LIMITED TO THE PROPOSED (e.g. proposed alley is not limited to alley type)

- KEY**
- FORM 1 MAIN STREET
 - FORM 2 DOWNTOWN
 - FORM 3 HIGH DENSITY
 - FORM 4 URBAN WATERFRONT HIGH DENSITY
 - FORM 5 URBAN WATERFRONT MEDIUM DENSITY
 - FORM 6 HIGH DENSITY RESIDENTIAL/MIXED USE
 - DESIGNATED GREEN SPACE
 - PRIMARY STREET TYPE 1
 - PRIMARY STREET-TYPE 2
 - SECONDARY PUBLIC STREETS
 - PRIMARY TRANSIT STREET
 - PROPOSED PUBLIC CORRIDOR-SECONDARY OR TERTIARY
 - PROPOSED PUBLIC ALLEYS/MEWS OR DELIVERY CHANNEL
 - PROPOSED NEW PUBLIC RECREATION PATH
 - EXISTING RECREATION PATH



Street Types & Street Type Standards

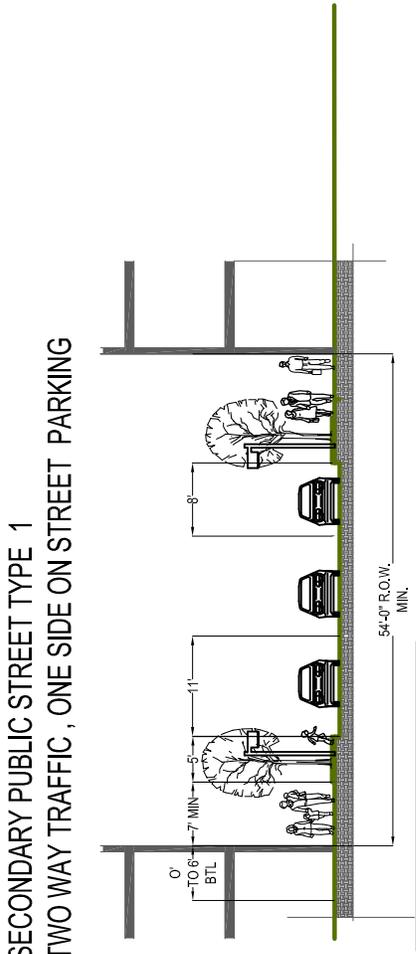
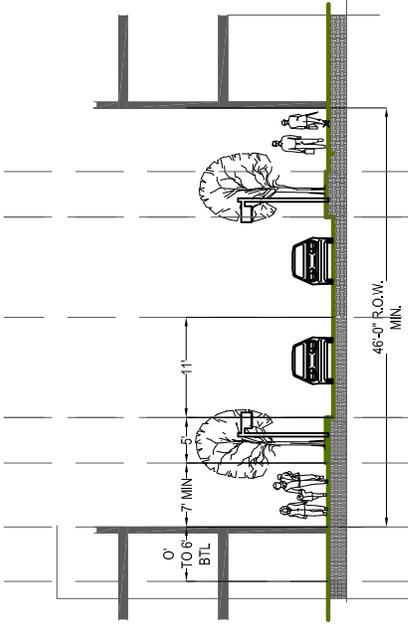


PRIMARY PUBLIC STREET TYPE 2

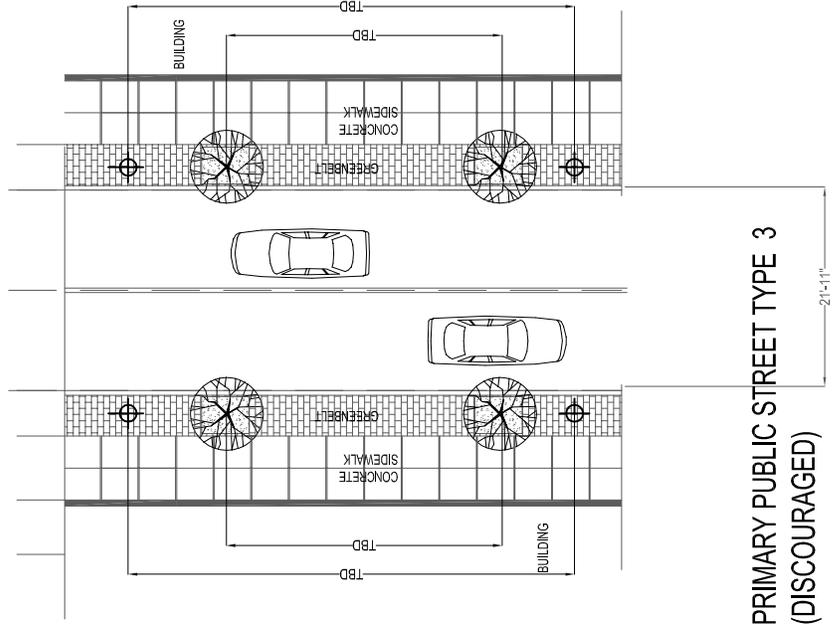
PRIMARY PUBLIC STREET TYPE 1

Secondary Street Types

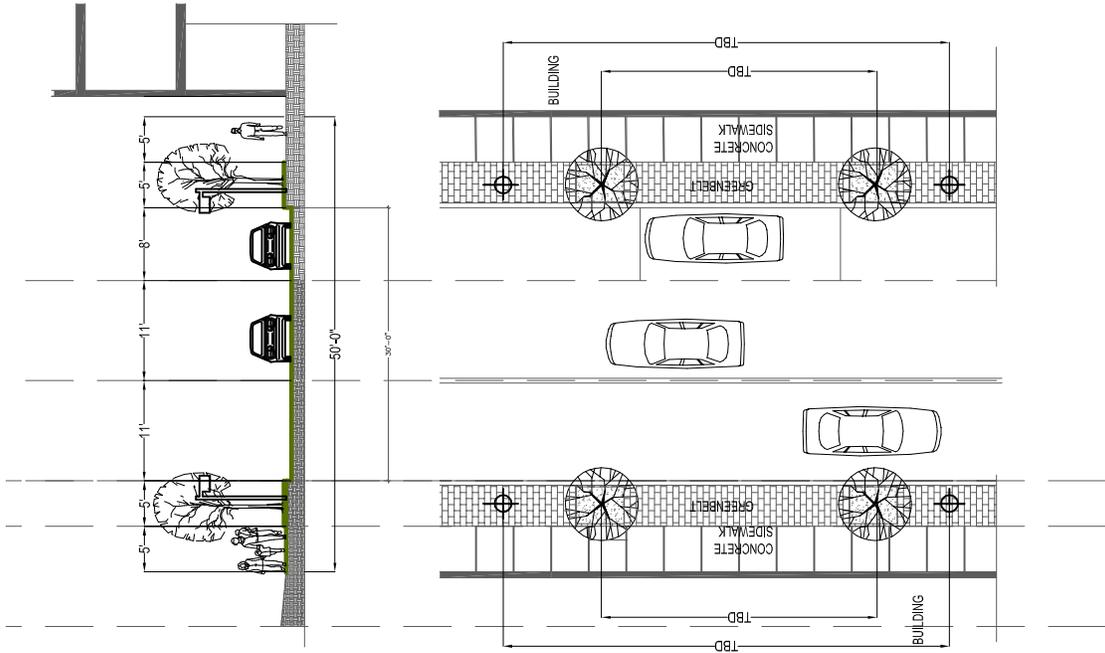
**SECONDARY PUBLIC STREET TYPE 1
TWO WAY TRAFFIC, ONE SIDE ON STREET PARKING**



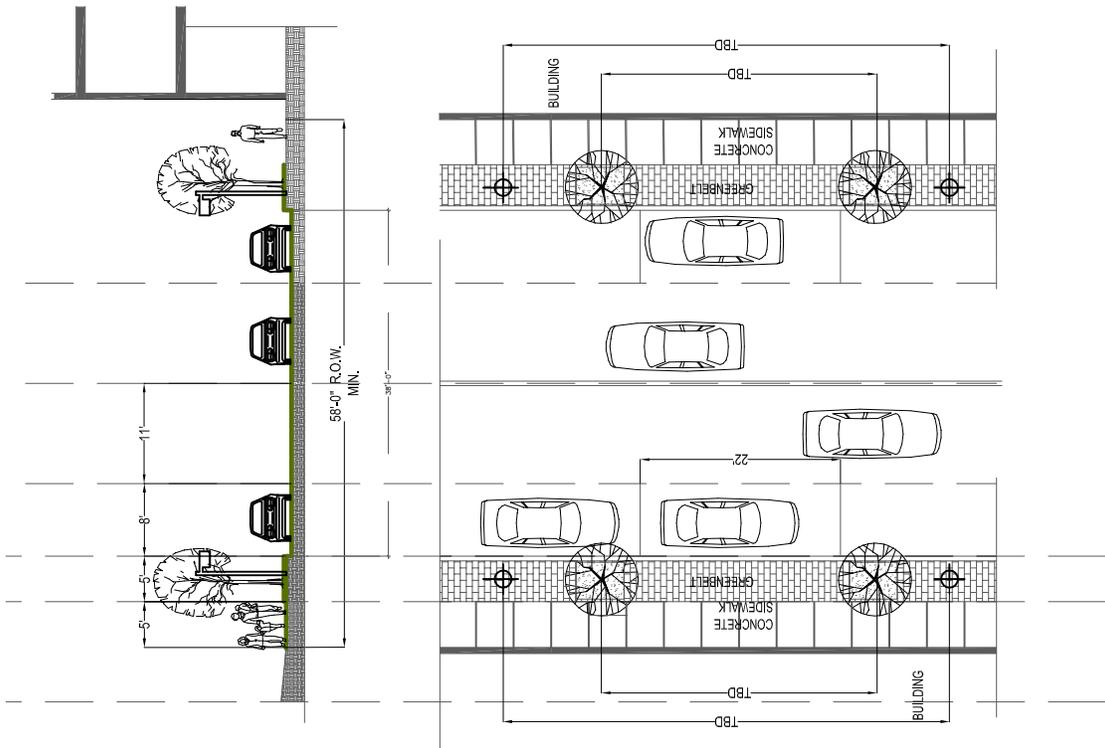
**SECONDARY PUBLIC STREET TYPE 2
ONE WAY TRAFFIC, TWO SIDE ON STREET PARKING
(BACKBAY BOSTON MODEL)**



Primary Transit Street



PRIMARY TRANSIT STREET TYPE 2
TWO TRAVEL LANES ON SIDE ON STREET PARKING



PRIMARY TRANSIT STREET TYPE 1