Prepared for:

Town of Brunswick and
Maine Department of Transportation

FINAL REPORT

PLEASANT STREET CORRIDOR TRANSPORTATION STUDY
(with Two-Way Conversion Technical Memorandum)

May 2022

T·Y·LIN INTERNATIONAL

Contents

***Two-Way Conversion Technical Memorandum Attached**

1.0 EXECUTIVE SUMMARY

The Town of Brunswick in collaboration with the Maine Department of Transportation (MaineDOT) is undertaking a transportation study of Pleasant Street from the I-295/Route 1 area to Maine Street. The study objective is to conduct an analysis of potential improvement strategies to improve congestion and safety along the corridor without significant widening of Pleasant Street. The study will review and make recommendations on access management, frontage roads, changes to lane configuration, additions to the roadway grid, traffic signal modifications, bicycle and pedestrian facilities, and the impacts of the proposed improvements to level of service and safety.

Study Area

The study area, as depicted in **Figure 1.1,** includes Pleasant Street from the I-295/Route 1 area to Maine Street. The Study includes the Church Road, River Road/Webster Street, Mill Street/Stanwood Street, Union Street and Maine Street intersections.

Existing Conditions Summary

An evaluation of existing transportation conditions was performed and determined the following:

There are several High Crash Locations in the study area including:

- The Lombard Street, Mill Street and Cushing Street intersections. And the roadway segments between Church Road and Lavallee Avenue and Webster Street to Summer Street.

Several of the study area intersections have mobility issues including:

- *Pleasant Street/Church Road*
  - Movements on Pleasant Street operate with long delays and are related to lanes that are shared with turn movements. Vehicle queues are very long on the eastbound Pleasant Street approach during the PM Peak Hour.
- *Pleasant Street/River Road/Webster Street*
  - This intersection has movements that operate at failing levels of service. Additionally, the eastbound Pleasant Street vehicle queue is extremely long.
- *Pleasant Street/Mill Street/Stanwood Street*
  - From a SimTraffic modeling perspective, this intersection operates at acceptable levels of service. The Mill Street right-turn movement does have a long queue. The simulation does indicate that the vehicle flow rate is constrained by poor operating conditions at the River Road/Webster Street intersection. Accordingly, greater delay would be expected if that constraint was eliminated.
- *Pleasant Street/Union Street*
  - All movements operate with little delay and vehicle queuing is not problematic.
- *Pleasant Street/Maine Street*
  - Some delay and queueing are modeled on Maine Street, but in general the intersection operates at an acceptable level of service.

Figure 1.1 Study Area

There are no formal bicycle facilities within the study area.

Pleasant Street (Route 1) is classified as Other Principal Arterial with a Highway Priority Classification of 1 and is a highway of statewide significance carrying local, regional and statewide traffic.

Purpose and Need Statement

The purpose of the proposed action is to develop a transportation system that will accommodate both local and regional traffic to improve safety, mobility and accessibility for all modes of transportation. The recommended alternative will most effectively mitigate safety and congestion issues at study area intersections without significant roadway widening. The recommended alternative will improve accessibility to and from Maine Street and adjoining neighborhoods. It will be supported by reasonably available local, state, and federal funding.

Public Outreach

This study included several opportunities for public feedback at three public meetings and directly communicating with Town staff. A brief

summary of these meetings are provided as follows with all public comments noted in the **Appendix**.

Study Team Meetings

There were several Study Team meetings during the conduct of the study. The Study Team comprised of the following:

Martin Rooney	MaineDOT
Ed Hanscom	MaineDOT
Steve Landry	MaineDOT
John Eldridge	Town of Brunswick
Ryan Barnes	Town of Brunswick
Ryan Leighton	Town of Brunswick
Matt Pelletier	Town of Brunswick
Tom Errico	T.Y. Lin International
Shawn Davis	T.Y. Lin International

Public Meeting #1 September 9, 2020

This was a virtual meeting and involved limited attendance. The purpose of the meeting was to present the purpose and scope of the study. It was intended to be an initial meeting to gain feedback on concerns and suggestions for improvements.

Agenda

1. Introductions
2. Draft Study Objective / Purpose
3. Study Scope of Work
4. Performance Measures
5. Existing Conditions Summary
6. Schedule
7. Public Feedback

Public Meeting #2 February 22, 2021

This was a virtual meeting and involved excellent attendance. The purpose of the meeting was to present future base line conditions and present some improvement concepts for feedback.

Agenda

1. Introductions
2. Draft Study Objective / Purpose
3. Study Scope of Work
4. Performance Measures
5. Existing Conditions Summary
6. Alternative Concepts
7. Schedule
8. Public Feedback

Public Meeting #3 July 29, 2021

This was a hybrid meeting with the purposes of obtaining comments on the draft recommendations.

Agenda

1. Introductions
2. Study Objective / Purpose
3. Performance Measures
4. Draft Alternative Improvement Recommendations
5. Schedule
6. Public Feedback

Alternatives Analysis

The following provides a summary of impacts and costs associated with the improvement alternatives presented in **Section 4**. As a corridor study versus an intersection study the recommendations are not mutually exclusive.

Pleasant Street/I-295 Ramps/Route 1

Only one alternative was considered, and it consists of implementing a roundabout.

Roundabout

Traffic Operations / Safety

- Level of service – Capacity and mobility are not issues at this location. The intersection currently operates at good levels of service and would operate well with a roundabout. High vehicle speeds are the greatest problem.
- Reduction in crashes – This location is not a High Crash Location, but construction of a roundabout would be expected to provide safer conditions.

Land Use Impact

- Number of buildings impacted – no impacts are expected.
- Number of lots impacted – no impacts are expected, although access will be impacted to some properties.
- ROW acquisition – no right-of-way acquisition is required.

Environmental Resource Impact

- A review of significant plant, wildlife, water, and historic resources were reviewed. Nothing of significance was identified as a potential concern.

Bicycle and Pedestrian

- Bicycle safety would be improved with the calming effect of a roundabout.

Cost

- The planning-level cost estimate is $5,100,000.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

- The construction of a roundabout is not an immediate need and should be a consideration in future planning efforts and development plans in the intersection area.

Pleasant Street/Church Road

Two alternatives were reviewed and consisted of adding turn lanes on Pleasant Street and a roundabout. The roundabout was eliminated due to impacts and its inability to provide acceptable mobility. Both included constructing a connector road to McDonald's and Amato's as a fourth leg to the traffic signal.

Intersection Safety and Capacity Improvements with Left-Turn Lanes

Traffic Operations / Safety

- Level of service – Acceptable levels of service will be provided.
- Reduction in crashes – Safety would be expected to be improved, particularly with access management improvements and construction of Connector Road 1.

Land Use Impact

- Number of buildings impacted - 0

- Number of lots impacted - 4
- ROW acquisition – 4,200SF +/- (7 feet maximum widening of ROW)

Environmental Resource Impact

- A review of significant plant, wildlife, water, and historic resources were reviewed. Nothing of significance was identified as a potential concern with the exception of the stream behind Cumberland Farms, which is not expected to be significantly impacted.

Bicycle and Pedestrian

- Intersection improvements include replacement of the traffic signal and thus pedestrian conditions will be improved. Little improvement in bicycle conditions is expected.

Cost

- The planning-level cost estimate is $1,100,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the impacts of a roundabout and that it does not fully improve mobility at the intersection, the widening alternative is recommended.

Pleasant Street/River Road/Webster Street

Two alternatives were reviewed and consisted of adding turn lanes on Pleasant Street and a roundabout. The roundabout was eliminated due to impacts and its inability to provide acceptable mobility.

Intersection Safety and Capacity Improvements with Left-Turn Lanes

Traffic Operations / Safety

- Level of service – Acceptable levels of service will be provided.
- Reduction in crashes – Safety would be expected to be improved, with reduced congestion and the provision of turn lanes.

Land Use Impact

- Number of buildings impacted - 0
- Number of lots impacted - 10
- ROW acquisition – 6,000 SF +/- (7 feet maximum widening of ROW)

Environmental Resource Impact

- A review of significant plant, wildlife, water, and historic resources were reviewed. Nothing of significance was identified as a potential concern with the exception of impacts to Riverside Cemetery property.

Bicycle and Pedestrian

- Intersection improvements include replacement of the traffic signal and thus pedestrian conditions will be improved. Little improvement in bicycle conditions is expected.

Cost

- The planning-level cost estimate is $1,300,000.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the impacts of a roundabout and that it does not fully improve mobility the intersection widening alternative is recommended.

Pleasant Street/Stanwood Street/Mill Street

Two alternatives were reviewed and consisted of adding lanes/capacity to the intersection and a roundabout. The roundabout was eliminated due to its inability to provide acceptable mobility.

Intersection Safety and Capacity Improvements with Added Lanes

Traffic Operations / Safety

- Level of service – Acceptable levels of service will be provided. This alternative also assumes traffic from Stanwood Street to River Road will not have to merge with Mill Street southbound traffic (traffic on Mill Street will be stopped).
- Reduction in crashes – Safety would be expected to be improved.

Land Use Impact

- Number of buildings impacted - 0
- Number of lots impacted - 9
- ROW acquisition – 17,000 SF +/-

Environmental Resource Impact

- There are some historic properties in this area that will need review. Additionally, any widening on or near Mill Street will need to consider impacts to the Androscoggin River.

Bicycle and Pedestrian

- A crosswalk will be added to the Mill Street approach and the traffic signal was assumed to stop all conflicting traffic. Accordingly, pedestrian improvements are expected.

Cost

- The planning-level cost estimate is $2,100,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the impacts of a roundabout and that it does not fully improve mobility the intersection widening alternative is recommended.

Pleasant Street/Stanwood Street to Maine Street

Two alternatives were reviewed and consisted of a two-way conversion and maintaining one-way flow and eliminating one travel lane and adding a bike lane.

Two-Way

Traffic Operations / Safety

- Level of service – Minor increases in delay can be expected, but speeds would be expected to be reduced. Intersection capacity can be expected to be reduced at the Stanwood Street/Mill Street and Maine Street intersections.
- Reduction in crashes – Crashes at Cushing Street would be expected to be improved by eliminating lane change opportunities.

Land Use Impact

- Number of buildings impacted – No impact.
- Number of lots impacted - No impact.
- ROW acquisition – No impact.

Environmental Resource Impact

- There are some historic properties in this area that will need review.

Bicycle and Pedestrian

- Improvement would be expected due to lower traffic speeds.

Cost

- A cost was not estimated given this Alternative is recommended for future study.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

One-Way Enhanced

Traffic Operations / Safety

- Level of service – No change in level of service is expected.
- Reduction in crashes – Safety would be expected to be improved due to slower speeds.

Land Use Impact

- Number of buildings impacted – No impacts.
- Number of lots impacted – No impacts.
- ROW acquisition – No impacts.

Environmental Resource Impact

- There are some historic properties in this area that will need review.

Bicycle and Pedestrian

- Significant improvement in bicycle conditions is expected with the introduction of a bicycle lane.

Cost

- The planning-level cost estimate is $250,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the analysis it is recommended that the One-Way Enhanced Alternative be implemented. A detailed Two-way Conversion Study should be considered in the future. If the Stanwood Street/Mill Street intersection is improved, those improvements would not be significantly impacted by a potential two-way conversion and the safety/capacity enhancements would be necessary to ensure the intersection works with the introduction of traffic on westbound Pleasant Street.

New Roadway Connections

Section 4.6 presents the location of connector roadways that may offer relief to congested intersections, provide improved alternatives for access to businesses on Pleasant Street and provide bicycle routing options. A summary of each and associated benefits, impacts and cost are summarized below.

Westminster Street Connector Road "1"

This includes construction of a new roadway from Cumberland Farms to the rear of McDonalds and Amato's.

Traffic Operations / Safety

- This connection would have significant safety benefits and would shift traffic volumes from the two noted restaurants to a newly constructed driveway opposite Church Road.

Land Use Impact

- Number of buildings impacted – 1
- Number of lots impacted - 4
- ROW acquisition – 22,500SF

Environmental Resource Impact

- Impacts to the stream behind the properties will need to be evaluated for impacts and permitting.

Bicycle and Pedestrian

- Little improvement expected.

Cost

- The planning-level cost estimate is $850,000.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Westminster Street Connector Road "2"

Traffic Operations / Safety

- This connection would have some safety and mobility benefits by providing relief to the River Road intersection and provide alternatives to property access.

Land Use Impact

- Number of buildings impacted – none
- Number of lots impacted - 2
- ROW acquisition – 6,500SF

Environmental Resource Impact

- Impacts to the stream behind Westminster Street will need to be evaluated for impacts and permitting.

Bicycle and Pedestrian

- Some bike connectivity improvements would occur.

Cost

- The planning-level cost estimate is $350,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Paul Street Connector Road "3"

Traffic Operations / Safety

- This connection would have safety and mobility benefits for providing connectivity between Church Road Stanwood Street and providing access opportunities to businesses.

Land Use Impact

- Number of buildings impacted – 2
- Number of lots impacted - 6
- ROW acquisition – 20,000SF

Environmental Resource Impact

- Nothing of significance was identified as a potential concern.

Bicycle and Pedestrian

- Bicycle routing options would be improved.

Cost

- The planning-level cost estimate is $1,000,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Turner Street Connector Road "4"

Traffic Operations / Safety

- The new roadway would be expected to reduce traffic volumes turning from Stanwood Street to Pleasant Street southbound and thus would help to relieve congestion. It would particularly provide a direct routing from Stanwood Street to and from River Road and thus minimize problems with merge movements from Stanwood Street to River Road. Land Use Impact
- Number of buildings impacted – 3x
- Number of lots impacted - 4
- ROW acquisition – 14,000SF

Environmental Resource Impact

- Nothing of significance was identified as a potential concern

Bicycle and Pedestrian

- Bike connectivity would be enhanced.

Cost

- The planning-level cost estimate is $750,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

River Road Connector Road "5"

Traffic Operations / Safety

- The short roadway would connect the Dunkin Donuts parking lot and River Road and would improve safety and traffic flow between River Road and Stanwood Street/Mill Street.

Land Use Impact

- Number of buildings impacted – 0
- Number of lots impacted - 1
- ROW acquisition – 4,900SF

Environmental Resource Impact

Nothing of significance was identified as a potential concern with the exception of impacts to Riverside Cemetery property.

Bicycle and Pedestrian

- Little improvement is expected.

Cost

- The planning-level cost estimate is $250,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendations

All of the connector roadways have transportation benefits and should be considered for implementation. We would suggest the following ranking from an implementation perspective.

1. Turner Street Connector Road 4
2. Westminster Street Connector Road 1
3. River Road Connector Road 5
4. Paul Street Connector Road 3
5. Westminster Street Connector Road 2

2.0 EXISTING TRANSPORTATION CONDITIONS

2.1 Existing Transportation Studies

The following studies were reviewed for relevant information.

- Transportation Feasibility Study – Redevelopment of the Naval Air Station Brunswick.
- Master Plan for Downtown Brunswick & Outer Pleasant Street Corridor.
- Brunswick Bicycle & Pedestrian Improvement Plan.
- MaineDOT Preliminary Design Plans WIN 21910.00 – Route 1 (Pleasant Street/Mill Street/Stanwood Street).

2.2 Traffic Volumes

Intersection Turning Movement Traffic Volumes

Intersection turning movement counts were conducted by MaineDOT or T.Y. Lin International (TYLI) at key locations in the study area. MaineDOT has a traffic count policy that restrict the collection of traffic volumes during off-season time periods. In November of 2019, MaineDOT authorized collection of traffic data at the Pleasant Street intersections with Maine Street and Union Street (non-Route 1). However, locations along Route 1 (Mill Street/Stanwood Street, River Road/Webster Street, and Church Road) were not counted. TYLI utilized older intersection turning movement volumes and adjusted those volumes according to automatic traffic recorder counts (ATR) conducted by MaineDOT in 2019. The following summarizes the location and dates of counts.

- Pleasant Street/Maine Street (Tuesday November 12, 2019)
- Pleasant Street/Union Street (Tuesday November 12, 2019)
- Pleasant Street/Mill Street/Stanwood Street (Wednesday August 10, 2016 and adjusted with 2019 ATR)
- Pleasant Street/River Road/Webster Street (Friday July 21, 2006 and adjusted with 2019 ATR)
- Pleasant Street/Church Road (Friday June 21, 2006 and adjusted with 2019 ATR)

The Existing Weekday AM, and PM peak hour volumes are depicted in **Figure 2.1**.

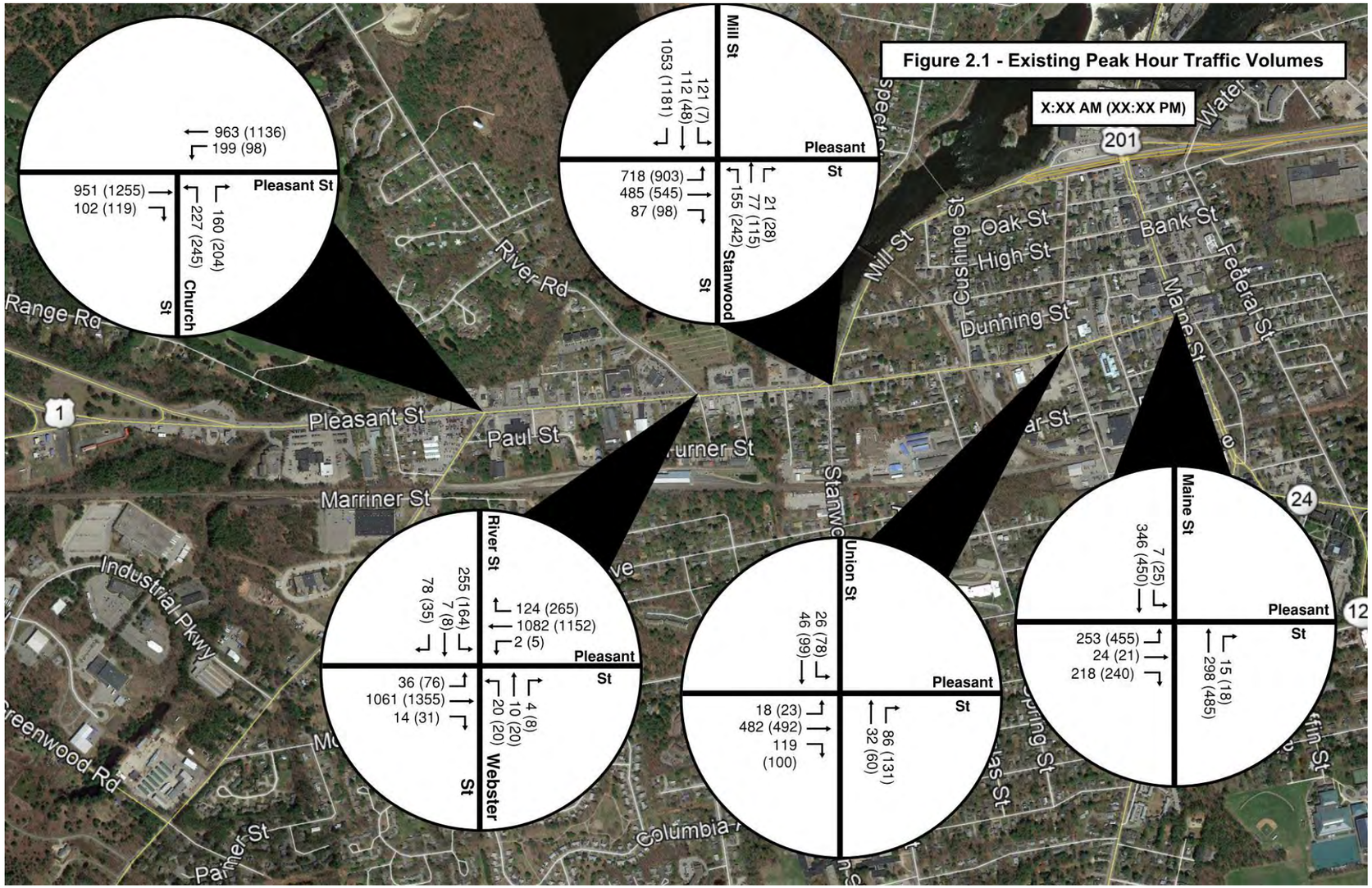
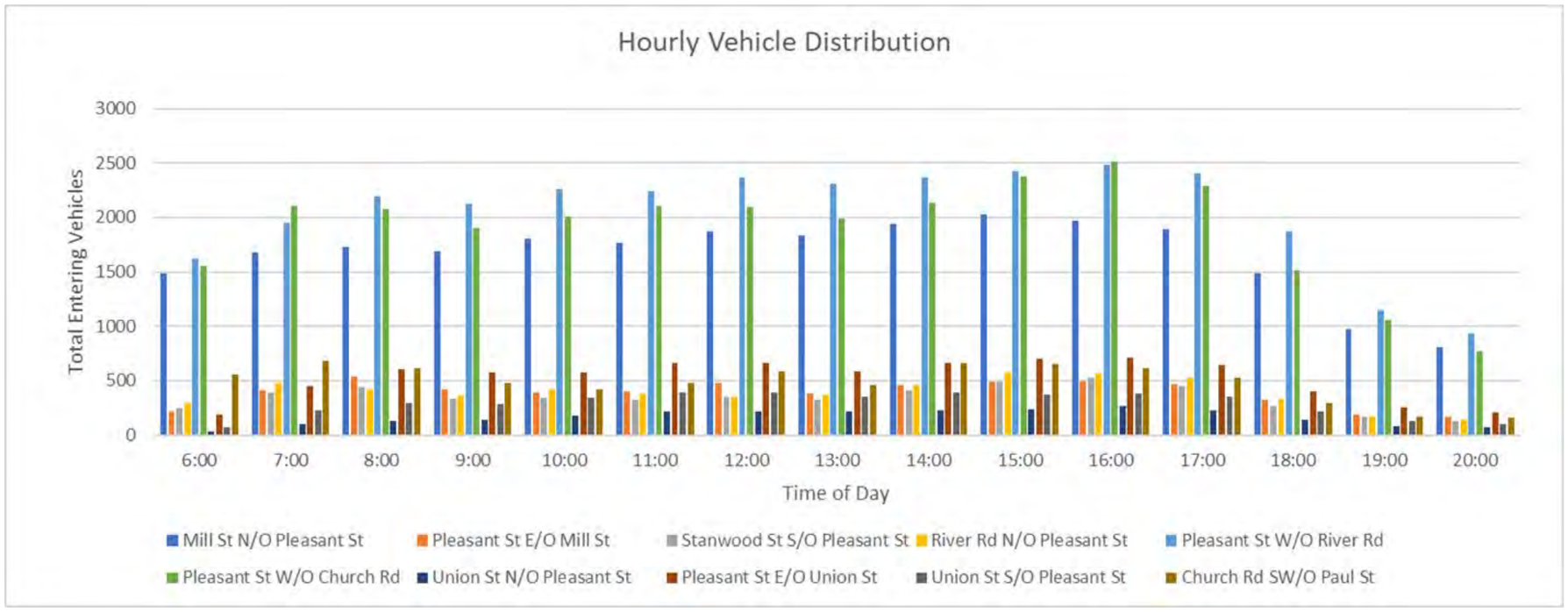


Figure 2.1 Existing Peak Hour Traffic Volumes

Hourly Traffic Volume Variation

The bar chart summarizes peak hour traffic volume variation within the study area from 6AM to 8PM. The data was obtained from the MaineDOT Automatic Traffic Recorder counts conducted in 2019. A few observations include:

- Pleasant Street volumes are consistently high from about 8AM until 6PM. There is very little variation over the day.
- Stanwood Street does exhibit peaking characteristics with a distinct peak at 8-9AM and 4-5PM.
- River Road also exhibits volume peaks. There is a distinct peak at 7-8AM. The afternoon has a steady volume from 3PM to 6PM.
- Union Street south of Pleasant Street has volumes that increase from 8AM and peak around noon and drop off at 6PM.
- Church Road volumes peak from 7-8AM and peak in the afternoon from 2-3PM, although volumes continue to be high until 5pm.



Roadway Federal Functional Classification

Functional classification is the process by which public streets and highways are grouped into classes according to the character of service they are intended to provide based on mobility (arterials provide much mobility) and access to the highway (local roads provide much access, but much less mobility). Classifications include Principal Arterial Interstate, Principal Arterial Other Freeways and Expressways, Other Principal Arterials, Minor Arterials, Major/urban Collectors, Minor Collectors and Local Roads.

Pleasant Street (Route 1) is classified as Other Principal Arterial with a Highway Priority Classification of 1. Church Road, River Road, Union Street and Pleasant Street east of Mill Street are Major Collectors with a Highway Priority Classification of 2. Maine Street is classified as a Minor Arterial. All other study area streets are classified as local roads.

Figure 2.2 shows the Federal Functional Classification of roadways in the study area.

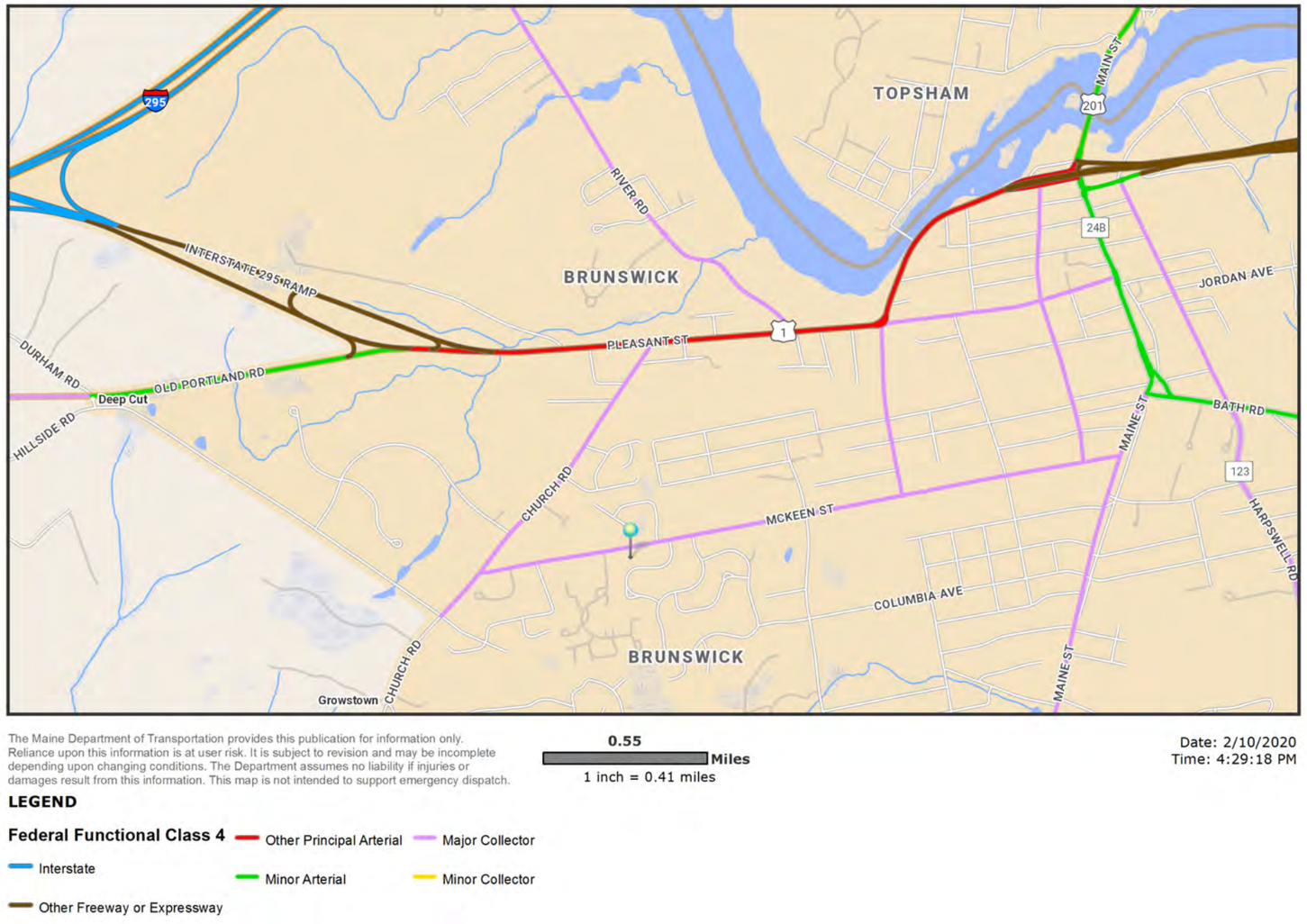


Figure 2.2 Roadway Functional Classification

Annual Average Daily Traffic Volumes

Annual Average Daily Traffic Volumes (AADT) for 2019 were obtained from MaineDOT as depicted on **Figure 2.3**. AADT is the total volume of vehicle traffic on a roadway for a year divided by 365 days. AADT is a useful and simple measurement of how busy a road is. Pleasant Street consistently carries about 26,000 vehicles per day between the I-295/Route 1 ramp area and Mill Street/Stanwood Street. The volume drops off significantly east of Stanwood Street where the 2019 AADT was 5,210 vehicles. In terms of side street traffic (non-Route 1), Church Road has the highest volume with an AADT of 7,600 vehicles followed by River Road (5,580 vehicles), Stanwood Street (5,210 vehicles) and Union Street south of Pleasant Street (4.230 vehicles).

Figure 2.3 2019 Annual Average Daily Traffic Volumes

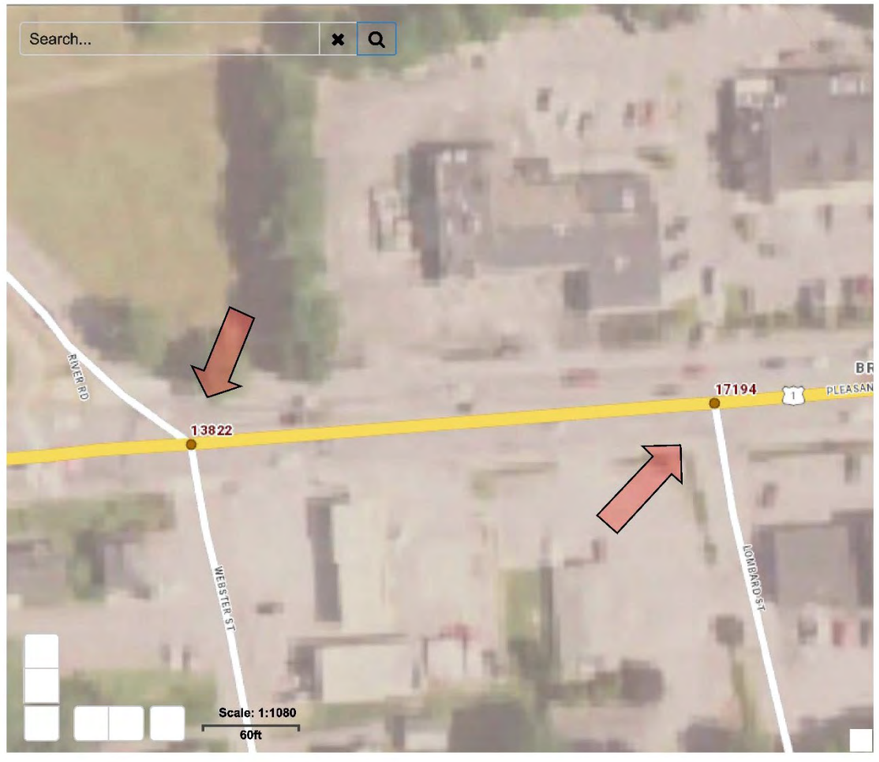
2.2 Safety

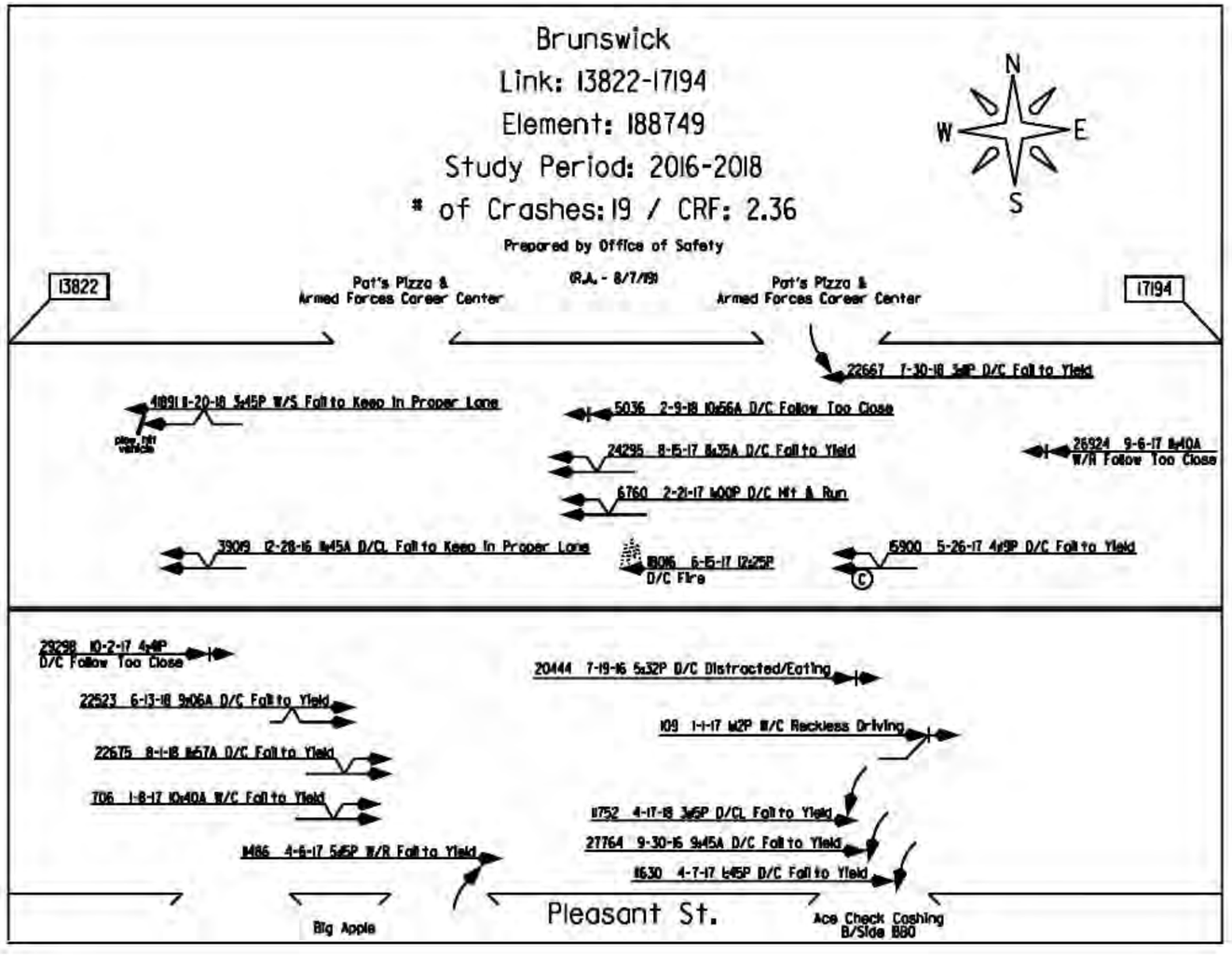
Crash data was obtained from MaineDOT for the most recent three-year period (2017-2019). MaineDOT has established criteria for High Crash Locations (HCL) where an intersection or roadway segment has 8 or more crashes and a Critical Rate Factor (CRF) greater than or equal to 1.0 over a three-year period. The CRF is a comparison of the study locations with other comparable locations in the State. **Figure 2.4** summarizes the High Crash Locations for intersections and roadway segments for the three-year period 2017-2019. A summary of each HCL location is presented as follows (the crash diagrams are based on 2016 to 2018 data).

Figure 2.4 High Crash Locations

Pleasant Street – From River Road/Webster Street to Lombard Street

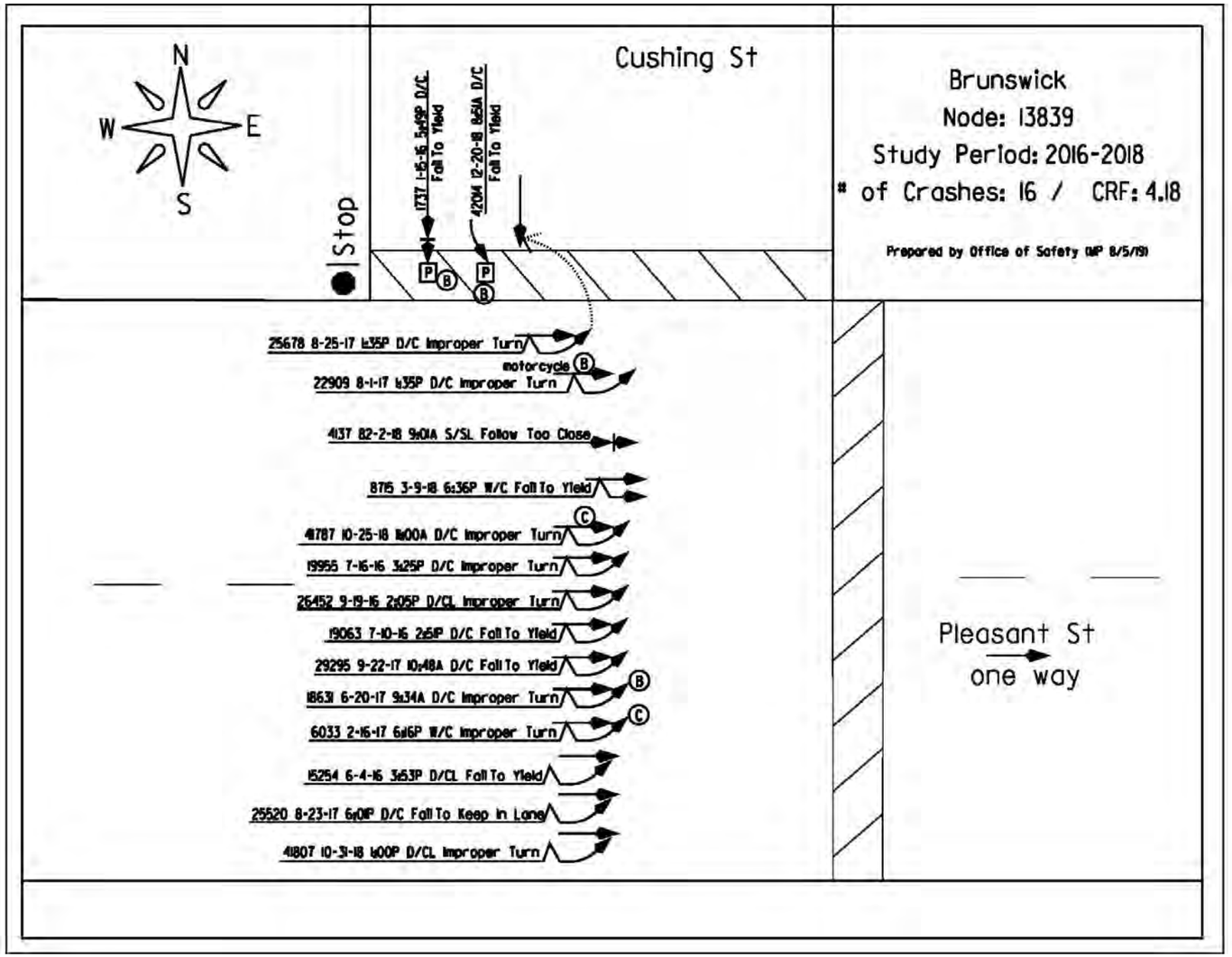
This roadway segment had 19 crashes between 2016 and 2018 with a Critical Rate Factor of 2.36. Most crashes involved turning movements entering and exiting adjacent land uses. The most common pattern is associated with lane change maneuvers likely to avoid a vehicle waiting to turn. Crashes occurred between 8AM and 5PM in daylight. There was no seasonal crash pattern, but 10 of the 19 crashes occurred in 2017.





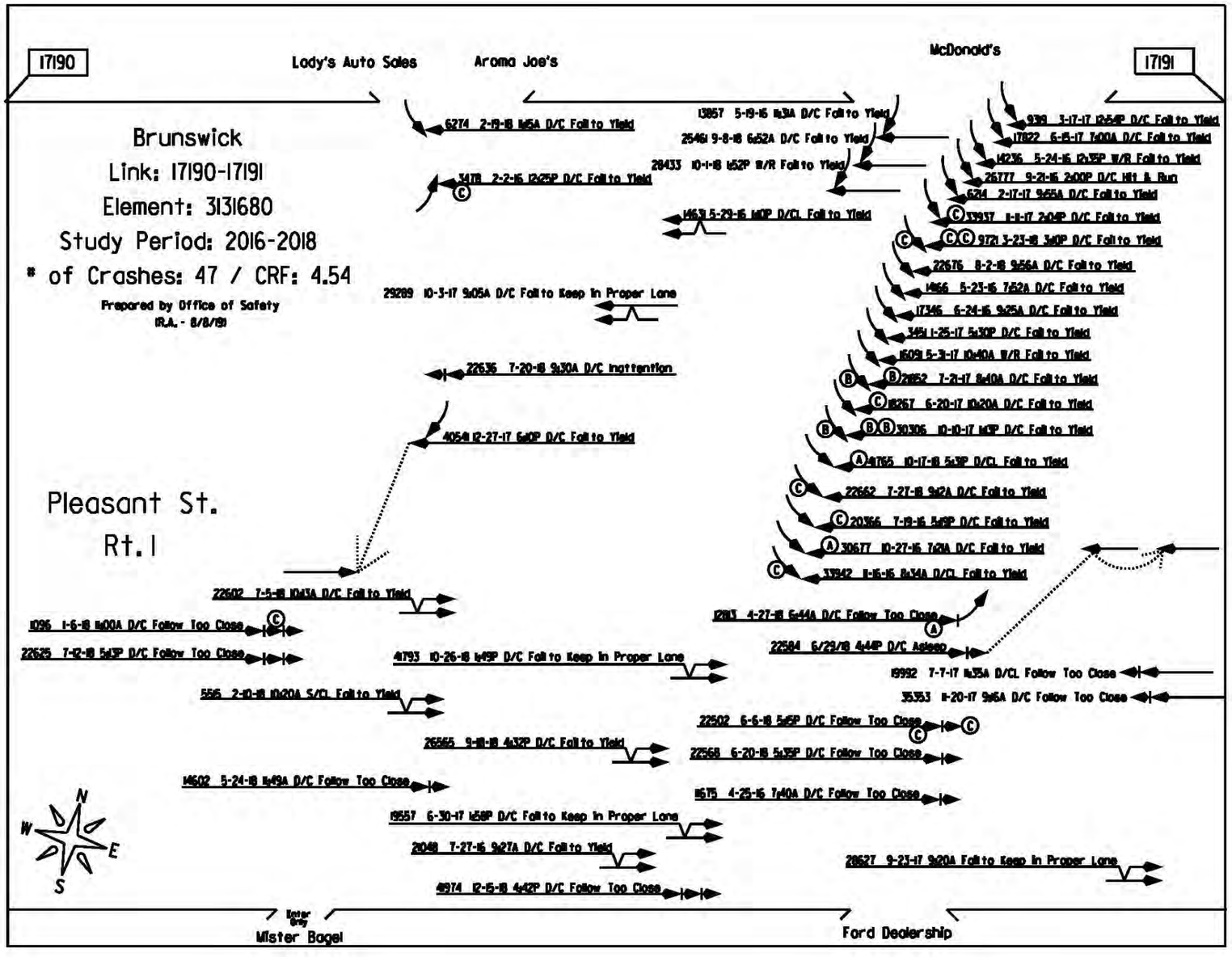
Pleasant Street/Cushing Street

This intersection had 16 crashes between 2016 and 2018 with a Critical Rate Factor of 4.18 (a very high CRF). Most crashes are related to left-turn maneuvers from the far right lane on Pleasant Street attempting to turn onto Cushing Street. There were two crashes involving pedestrians crossing Cushing Street. The crashes occurred between 8AM and 6PM in daylight. There was no seasonal pattern and crash rates were steady over the reported three-year period.



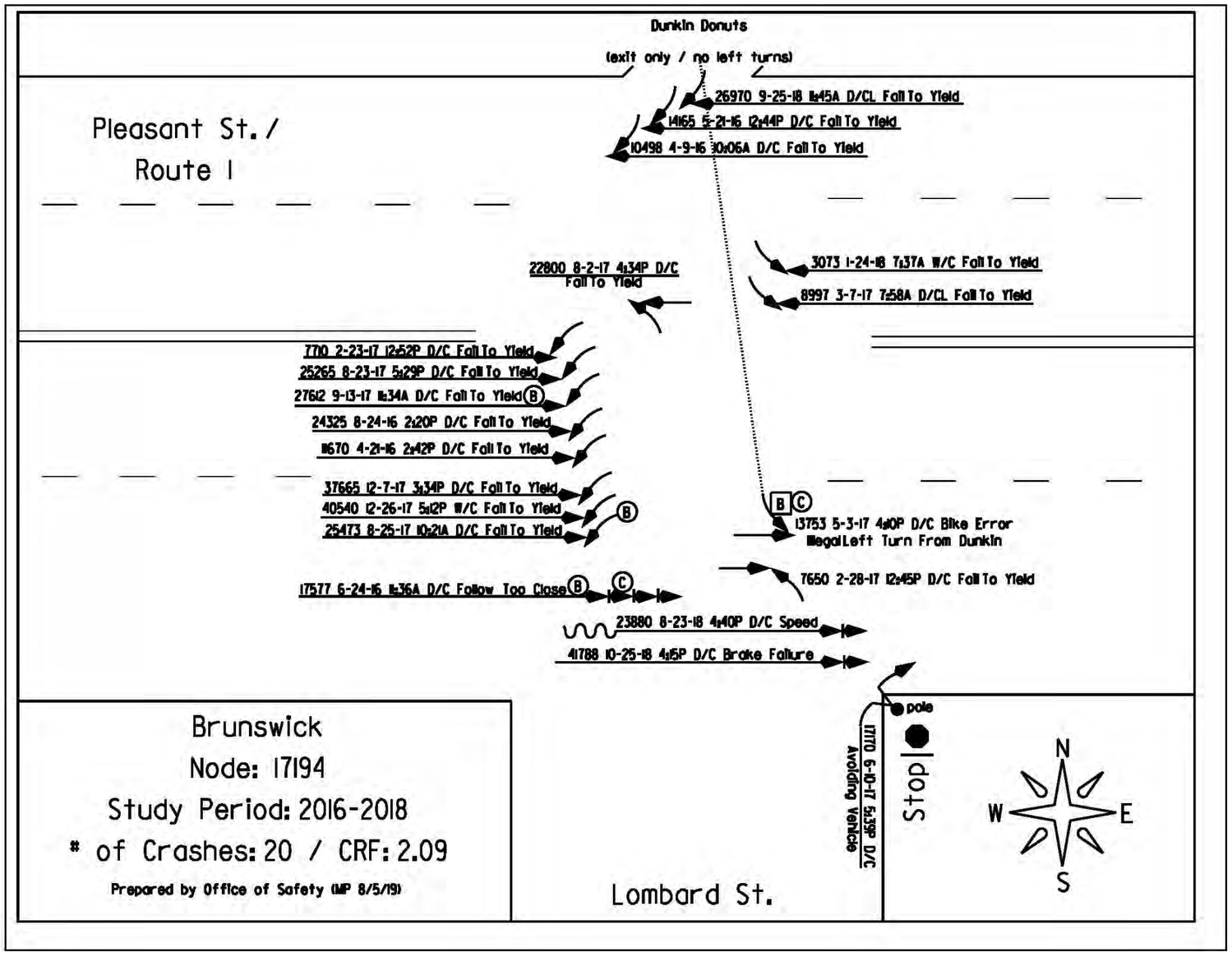
Pleasant Street/Church Road to Lavallee Avenue

This intersection had 47 crashes between 2016 and 2018 with a Critical Rate Factor of 4.54. As noted, most crashes involved left-turning vehicles from the McDonald's restaurant. Crashes occurred from 6AM to 6PM with a higher frequency on a Friday. There is a slight increase in crashes in June and July, but in general crash rates are steady throughout the year.



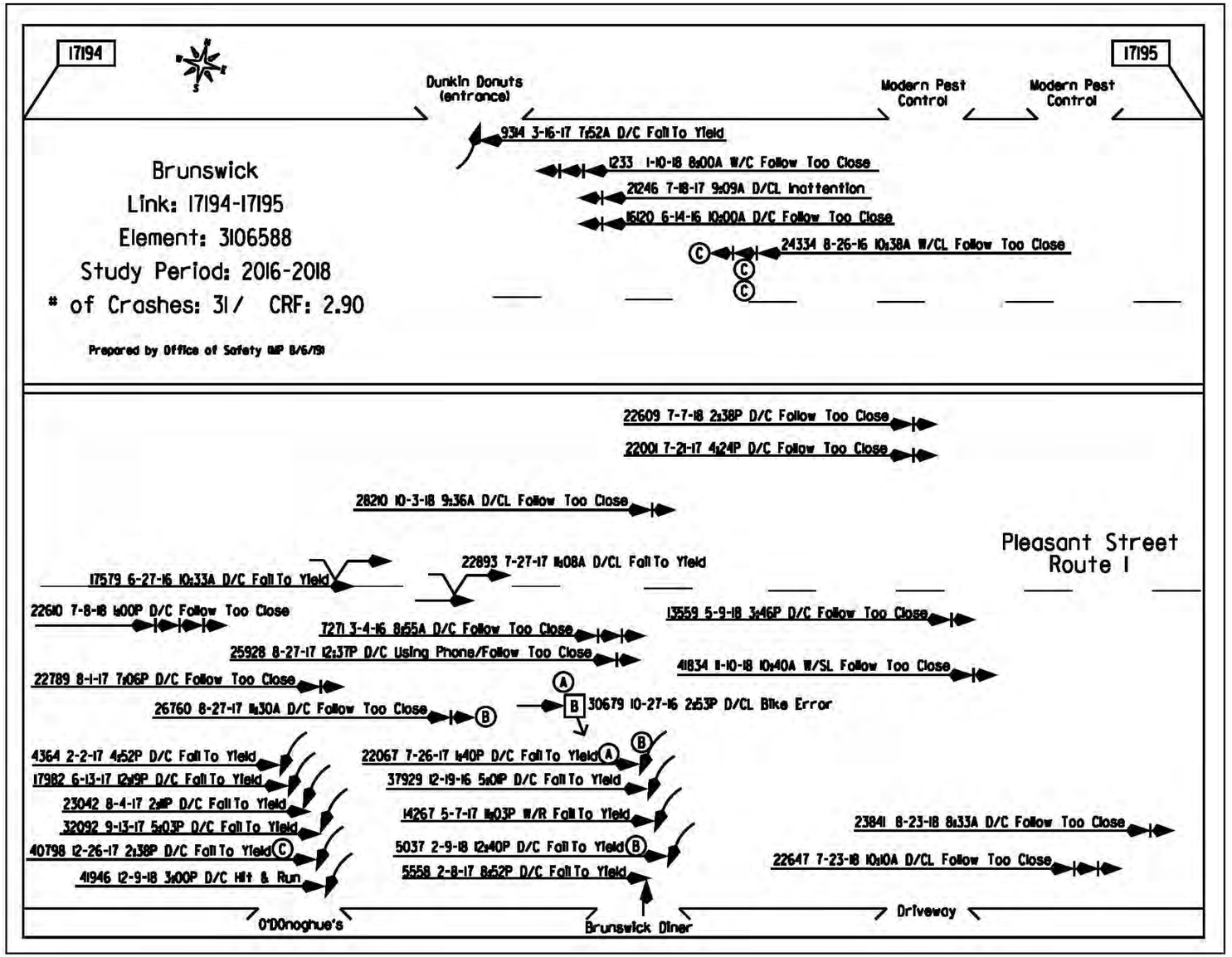
Pleasant Street/Lombard Street

This intersection had 20 crashes between 2016 and 2018 with a Critical Rate Factor of 2.09. Most crashes involved left turns from Pleasant Street onto Lombard Street. Crashes occurred between 7AM and 6PM and almost all occurred in daylight. There was a spike in crashes in 2017 (11 crashes) and had no seasonal pattern.



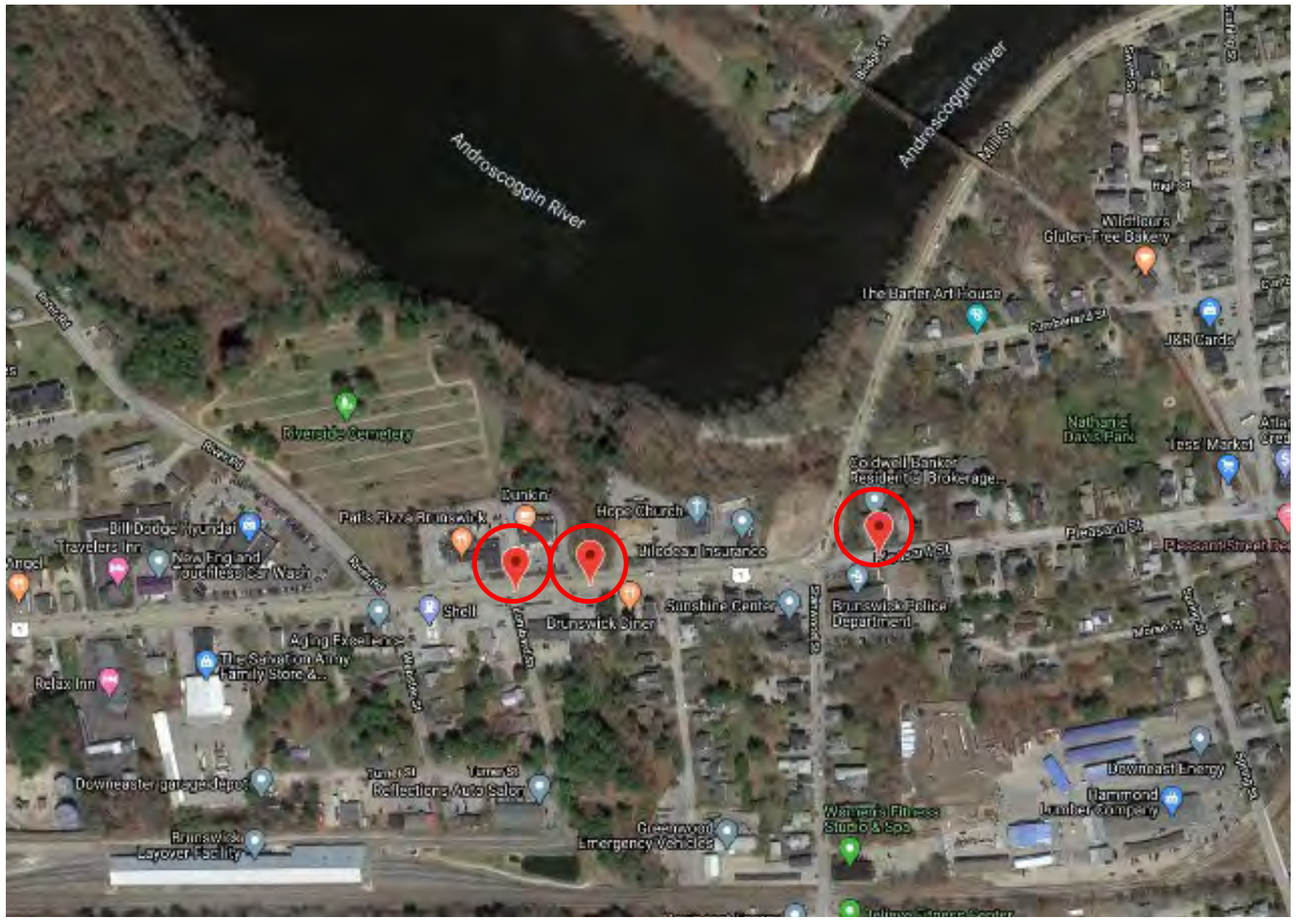
Pleasant Street/Lombard Street to Pleasant Street

This intersection had 31 crashes between 2016 and 2018 with a Critical Rate Factor of 2.90. Many of the crashes involved westbound Pleasant Street left-turns into abutting developments. Crashes occurred over most of the day and evening with most in daylight. Most of the crashes occurred in 2017 (15) and 2018 (10).



Bicycle and Pedestrian Crashes

A review of MaineDOT data indicates there were three pedestrian crashes (graphics directly below). One crash occurred west of River Road and two occurred at the Cushing Street intersection. There were three bicycle crashes reported in the study area (graphic below to the right). Two bicycle crashes occurred between River Road and Mill Street, and one occurred just east of Mill Street.



2.3 Traffic Mobility

Intersection Capacity Analysis

The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). This is a qualitative assessment of the quantitative effect of factors such as speed, volume of traffic, geometric features, traffic interruptions, delays, and freedom to maneuver.

Level of Service provides a measurement of the delay experienced at an intersection because of traffic operations at that intersection. In general, there are six levels of service: Level of Service A to Level of Service F. The highest, Level of Service A, describes a condition of free-flow operations where the effects of incidents are easily absorbed. Level of Service B describes a state in which maneuverability and speed limits are beginning to be restricted by other motorists although level of comfort is still high. In Level of Service C, experienced drivers are still comfortable, but maneuverability is noticeably restricted. Level of Service D brings noticeable congestion and driver comfort levels decrease. In Level of Service E, roadway capacity is reached, and disruptions are much more prevalent – driver comfort has declined. Finally, Level of Service F is the results of volumes greater than roadway capacity with congestion and possible stopped conditions. MaineDOT has determined that Levels of Service A-D are acceptable conditions for intersections.

The measures of delay for each Level of Service rating for unsignalized and signalized intersections are found in **Table 2.1**.

Table 2.1
Level of Service Criteria

LOS	Signalized Intersection	Unsignalized Intersection
A	≤10 sec	≤10 sec
B	10–20 sec	10–15 sec
C	20–35 sec	15–25 sec
D	35–55 sec	25–35 sec
E	55–80 sec	35–50 sec
F	>80 sec	>50 sec

Queue represents the distance of vehicles waiting at the stop bar for the light to change. Most commonly reported is the 95th percentile queue, in other words the queue that will not be exceeded 95% of the time. A vehicle length of 20 feet can be used to visualize the queues. While it does not impact the level of service directly, it is another measure of the effectiveness of the intersection.

SimTraffic computer models were used to analyze the study intersections. For SimTraffic, the Trafficware version 10 standard output was used, based on 5 runs of 60 minutes of simulation. It should be noted that the analysis is based upon an optimized signal timing scenario as intersections are currently being retimed. The results are seen in the **Table 2.2**.

Table 2.2
Existing Intersection Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant Street/Church Road						
Pleasant EB Through	7.8	A	71.5	E	176	1221
Pleasant EB Right	5.0	A	66.5	E	179	1217
Pleasant WB Left	64.6	E	51.8	D	345	292
Pleasant WB Through	15.4	C	16.8	B	326	282
Church Left	29.8	D	29.4	C	167	203
Church Right	6.8	A	22.4	C	60	149
Overall	16.8	B	43.4	D		
Pleasant Street/River Road/Webster Street						
Pleasant EB Left	46.7	D	253.7	F	261	2105
Pleasant EB Through	16.9	B	182.9	F	258	2114
Pleasant EB Right	10.6	B	168.7	F	*	*
Pleasant WB Left	29.8	C	33.4	C	119	134
Pleasant WB Through	10.2	B	9.6	A	246	144
Pleasant WB Right	7.4	A	8.3	A	61	87
River Left	21.0	C	35.2	D	150	164
River Through	15.7	B	28.0	C	78	84
River Right	9.0	A	13.2	B	*	*
Webster Left	18.7	B	31.2	C	*	*
Webster Through	19.1	B	32.8	C	49	72
Webster Right	8.8	A	16.1	B	*	*
Overall	14.2	B	90.0	F		
Pleasant Street/Mill Street/Stanwood Street						
Pleasant EB Left	23.3	C	35.5	D	434	738
Pleasant EB Through	15.3	B	20.1	C	295	533
Pleasant EB Right	12.5	B	16.6	B	*	*
Stanwood Left	18.6	B	28.4	C	155	284
Stanwood Through	20.6	C	31.0	C	*	*
Stanwood Right	13.7	B	24.2	C	*	*
Mill Left	18.5	B	17.4	B	102	206
Mill Through	16.2	B	21.8	C	*	*
Mill Right	10.6	B	18.3	B	238	497
Overall	15.9	B	24.5	C		
Pleasant Street/Union Street						
Pleasant Left	6.7	A	8.7	A	89	117
Pleasant Through	6.3	A	8.9	A	*	*
Pleasant Right	5.2	A	6.6	A	93	104
Union NB Through	8.3	A	7.8	A	68	77
Union NB Right	4.2	A	3.7	A	*	*
Union SB Left	8.0	A	8.7	A	*	*
Union SB Through	8.1	A	7.7	A	58	90
Overall	6.2	A	7.7	A		
Pleasant Street/Maine Street						
Pleasant Left	10.9	B	10.7	B	72	99
Pleasant Through	2.8	A	11.5	B	96	120
Pleasant Right	4.6	A	4.5	A	82	78
Maine NB Through	19.3	B	18.1	B	140	172

Maine NB Right	4.4	A	6.0	A	80	130
Maine SB Left	22.2	C	31.9	C	144	220
Maine SB Through	19.2	B	23.0	C	82	183
Overall	13.1	B	15.6	B		

Pleasant Street/Church Road

Movements on Pleasant Street operate with long delays and are related to lanes that are shared with turn movements. Vehicle queues are very long on the eastbound Pleasant Street approach during the PM Peak Hour.

Pleasant Street/River Road/Webster Street

This intersection has movements that operate at failing levels of service. Additionally, the eastbound Pleasant Street vehicle queue is extremely long.

Pleasant Street/Mill Street/Stanwood Street

From a SimTraffic modeling perspective, this intersection operates at acceptable levels of service. The Mill Street right-turn movement does have a long queue. The simulation does indicate that the vehicle flow rate is constrained by poor operating conditions at the River Road/Webster Street intersection. Accordingly, greater delay would be expected if that constraint was eliminated.

Pleasant Street/Union Street

All movements operate with little delay and vehicle queuing is not problematic.

Pleasant Street/Maine Street

Some delay and queueing are modeled on Maine Street, but in general the intersection operates at an acceptable level of service.

2.4 Bicycle and Pedestrian Facilities

There are no formal bicycle facilities within the study area. **Figure 2.5** depicts pedestrian facilities in the study area including sidewalks and crosswalks.

2.5 Existing Intersection/Roadway Conditions

A field investigation of the study area roadways was performed and the following documents existing conditions. **Figure 2.6** depicts existing roadway widths at key locations.

Figure 2.5 Bicycle and Pedestrian Facilities

Pleasant Street/Church Road

The intersection of Pleasant Street and Church Road is a four-way signalized intersection. Eastbound Pleasant Street has four lanes consisting of one through-left lane, one through-right lane, and two departure lanes. The width of said approach is approximately 63 feet wide. Westbound Pleasant Street is also four lanes: one through/left lane, one through/right lane, and two departure lanes, and is 55 feet wide. Church Road consists of three lanes, one left turning lane, one right turning lane, and one departure lane. The width of all three lanes on this approach is 100 feet. Cumberland Farms has a driveway opposite Church Road. Sidewalks are located on both sides of Pleasant Street, as well as along the eastern edge of Church Road. There is no on-street parking in the area. No crosswalks are present on any of the approaches of this intersection.

Pleasant Street/River Road/Webster Street

This intersection is a four-way signalized intersection. Eastbound Pleasant Street is comprised of four lanes with a through/left lane, a through/right lane, and two departure lanes. The width of this approach is 61 feet. Westbound Pleasant Street has five lanes including a right-turn lane, a through lane, a through/left lane, and two departure lanes. All which accounts for a total width of 60 feet from curb to curb. Southbound River Road consists of three lanes: a through/right lane, a left-turn lane, and a departure lane. The width of the southbound River Road approach is 91 feet. Webster Street has two lanes, and a width of 32 feet. Sidewalks are provided on both sides of Pleasant Street, whereas River Road has one sidewalk at the edge of the through-right lane, and Webster Street has no sidewalks. Crosswalks are present on eastbound Pleasant Street, River Road, and Webster Street. Pedestrian phases are activated by a pushbutton. No on-street parking is permitted.

Pleasant Street/Mill Street/Stanwood Street

This intersection is a four-way signalized intersection. Eastbound Pleasant Street contains four lanes: a through/right lane, a left-turn lane, and two departure lanes. All four lanes account for a width of 60 feet. Southbound Mill Street consists of three lanes including a channelized right-turn lane, a through/left lane, and a departure lane. The approach has a total width of 101 feet. Northbound Stanwood Street has three lanes with a through/right lane, a left lane, and a departure lane. The width of northbound Stanwood Street is 52 feet. Sidewalks are provided on both sides of Pleasant Street, both sides of Stanwood Street, and the western side of Mill Street. One crosswalk is available at this intersection, and it is located across Stanwood Street. Pedestrian phases are activated by a push button. Immediately east of this intersection, Pleasant Street becomes a one-way roadway with sidewalks on both sides and on-street parking is permitted along the northern side of the roadway.

Pleasant Street/Union Street

This intersection is a four-way signalized intersection. Eastbound Pleasant Street has two lanes with a through/right lane, and a through/left lane, and a width of 41 feet. Both northbound and southbound Union Street consist of two lanes, and both are 34 feet wide. The two departure lanes west of the intersection on Pleasant Street have a width of 40 feet from curb to curb. Sidewalks are present on both sides of all four approaches except for southbound Union Street which solely has a sidewalk on its westward edge. Crosswalks are present on all four approaches. The pedestrian phase is exclusive activated by a push button. On-street parking is permitted on the south side of eastbound Pleasant Street approach as well as the northern edge of Pleasant Street directly after the intersection.

Figure 2.6 Existing Roadway Widths

Pleasant Street/Maine Street

This intersection is a four-way signalized intersection. Pleasant Street is comprised of three lanes: a right-turn lane, a through/left lane, and a left-turn lane. The width of all three lanes is 50 feet. Southbound Maine Street has four lanes: a through lane, a through/left lane, and two departure lane. The width of this approach is 90 feet. Northbound Maine Street consists of four lanes including a through/right lane, a through lane, and two departure lanes all adding up to a width of 86 feet. Sidewalks exist on both sides of all three approaches. Crosswalks are present on the Pleasant Street and southbound Maine Street approaches. On-street parking is permitted on both sides of the southbound Maine Street approach.

2.6 Access Management Conditions

Existing access management deficiencies within the study area were generally identified following a review of Brunswick and MaineDOT standards. An assessment of existing driveway conditions was performed and consisted of reviewing: the number of driveways for each property; the width of driveways; the spacing of driveways; and how close driveways are to intersections (corner clearance). The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of a transportation system.

MaineDOT Standards

Entrance Spacing Standards

Table 2.3 defines entrance spacing standards according to speed limits.

Table 2.3: MaineDOT Entrance Spacing Standards

Posted Speed (mph)	Entrance Separation (ft)
25 or less	Not applicable
30	Not applicable
35	Not applicable
40	175
45	265
50	350
55 or more	525

Given that all roadways in the study area have regulatory speed limits of less than 40 mph, this standard does not apply. I would note that maintaining reasonable separation is appropriate. Some driveways on State Road have little separation.

Arterial Corner Clearance

The minimum corner clearance for an entrance onto Arterials must be 125 feet.

Number of Entrances

Except for forestry management and farming activities, lots on Arterials will be limited to one two-way or two one-way entrances. Most lots comply with this standard.

Entrance Width

If 30% or less of the traffic projected to use the proposed entrance will be larger vehicles, the width of a two-way entrance within the highway right of way must be between 22 and 30 feet inclusive. If more than 30% of the traffic projected to use the proposed entrance will be heavy vehicles, the width of a two-way entrance within the highway right of way must be between 30 and 42 feet.

Town of Brunswick Standards

Minimum Distance between Curb Cuts

(1) Except as otherwise provided in this Subsection, curb cuts along a street into a development that will generate over 500 vehicle trips per day, as determined by Institute of Traffic Engineers (ITE) standards, shall be spaced in accordance with the minimum distance shown as follows.

Minimum Distance Between Curb Cuts Speed Limit Along Street Frontage (miles per hour) Minimum Distance (feet)

- 20mph 85 feet
- 25mph 105 feet
- 30mph 125 feet
- 35mph 150 feet
- 40mph 185 feet
- 45mph 230 feet
- 50mph 275 feet

(2) The Review Authority may approve development with curb cuts that do not comply with the minimums in Table 4.8.2.A above on making any of the following findings, provided that the street Level of Service within 200 feet of the proposed curb cut is not reduced: a. It is demonstrated that the development would have an equal or lesser number of vehicle trips per day than any existing use or use that has occurred on the property during the past five (5) years. b. The development would reduce the number of curb cuts that currently exists within the minimum distance. c. The development would consolidate curb cuts for one (1) or more adjacent parcels. B.

Common Driveways

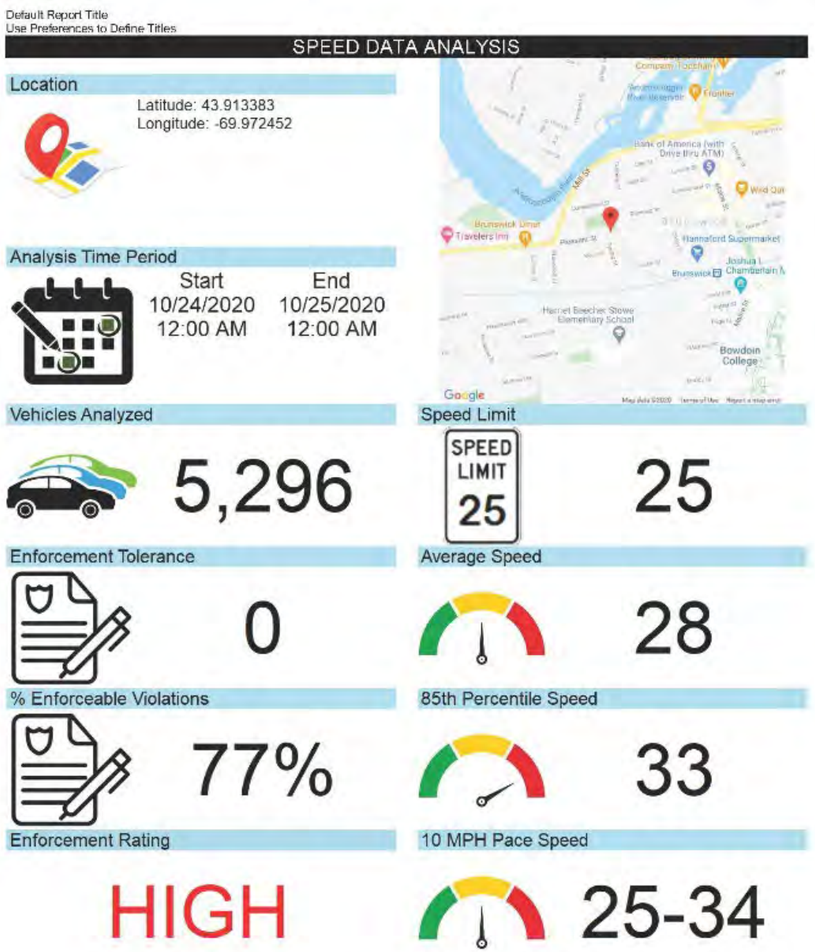
(1) Driveways on adjoining lots may be combined as common driveways where necessary to reduce the number of curb cuts and/or provide safe road access points. (2) Where common driveways serve lots in separate ownership, an access agreement, approved by the Review Authority, shall be executed and recorded in the Cumberland County Registry of Deeds. The access agreement shall provide that the common driveway may not be dedicated to the Town unless the owners bring it into compliance with applicable Town street standards. (3) Common driveways shared by lots in residential developments may be unpaved. (4) Common driveways serving two (2) or more lots in separate ownership shall be named in accordance with Section 14-28 (Streets) of the Brunswick Code of Ordinances, as amended.

Table 2.4 presents existing driveway conditions.

Table 2.4 – Existing Driveway Conditions			
North Edge of Pleasant Street	Lot/Business	Condition	MaineDOT Deficient Standard
	A 2 Z Grow Supplies	Number of Curb Cuts (2),Curb Cut Widths (East to West: 62', 85')	Width and more than 1 driveway
	Pleasant St/ Nana's Attic	Curb Cut Width (48')	Width
	Pleasant St/ Nana's Closet to Enterprise	Distance Between Curb Cuts (7.5')	Spacing of driveways
	Enterprise	Number of Curb Cuts (2)	More than 1 driveway
	Hacienda Pancho Villa	Number of Curb Cuts (3), Curb Cut Width (furthest from establishment, 38')	Width and more than 1 driveway
	Hacienda Pancho Villa to Cumberland Farms	Distance Between Curb Cuts (11')	Spacing of driveways
	Cumberland Farms	Number of Curb Cuts (2), Curb Cut Width (East side curb cut, 40')	Width and more than 1 driveway
	Cumberland Farms to Aroma Joe's	Distance Between Curb Cuts (135')	Spacing of driveways
	Aroma Joe's	Curb Cut Width (43')	Width
	McDonald's	Curb Cut Width (46')	Width
	McDonald's to Amato's	Distance Between Curb Cuts (110')	Spacing of driveways
	Amato's	Curb Cut Width (38')	Width
	Travelers Inn	Curb Cut Width (34')	Width
	Travelers Inn to New England Touchless Car Wash	Distance Between Curb Cuts (66')	Spacing of driveways
	Pat's Pizza, Armed Forces Center, & ABC Antiques to Dunkin' Donuts & Subway	Distance Between Curb Cuts (45')	Spacing of driveways
	Modern Pest Services	Number of Curb Cuts (2), Width of Curb Cut (Western Entrance, 35')	Width and more than 1 driveway
	US Post Office	Curb Cut Width (33')	Width
South Edge of Pleasant Street	Pleasant St/Chevrolet & Mazda	Number of Curb Cuts (3), Curb Cut Widths (East to West: 40', 35', 45')	Width and more than 1 driveway
	Pleasant St/ Mazda to Sherwin Williams	Distance Between Curb Cuts (125’)	Spacing of driveways
	Pleasant St/ Sherwin Williams	Curb Cut Width (35')	Width
	Bodwell Motors	Number of Curb Cuts (2), Curb Cut Widths (50', 90')	Width and more than 1 driveway
	Brunswick Ford	Number of Curb Cuts (4), Curb Cut Widths (three from East to West, 44', 38', 20')	Width and more than 1 driveway
	Relax Inn	Number of Curb Cuts (2), Curb Cut Width (East to West: 33', 64')	Width and more than 1 driveway
	Shell	Number of Curb Cuts (2)	More than 1 driveway
	O'Donoghue's, Primo, & Glass Vaporizers & E-Juice	Curb Cut Width (39')	Width
	Brunswick Diner	Curb Cut Width (40')	Width
	Wash N' Clean	Number of Curb Cuts (2)	More than 1 driveway

2.7 Vehicle Speeds

The Brunswick Police Department collected speed data on Pleasant Street near Cushing Street in October of 2020. The following graphic depicts the results and as noted the 85th% speed is 8mph above the post speed limit and the Police Department categorizes this roadway as a High enforcement rating street.



3.0 Alternatives for Consideration

Alternatives to be evaluated were identified through a collaborative process with Town and MaineDOT staff and discussed at the November 16, 2020 Study Team meeting and introduced at the February 2021 Public Meeting. Alternatives included:

No-Build

This includes no substantial changes to existing conditions.

Pleasant Street/I-295/Route 1 Roundabout

The NASB Feasibility Study recommended the installation of a roundabout, and this was evaluated further in this study. **Figure 4.2** illustrates the concept.

Pleasant Street Roadway Configuration (I-295/Route 1 to Mill Street/Stanwood Street)

To address both safety and mobility deficiencies in the corridor three (3) general lane configures were considered.

- Five lane section with Center Two-way left-turn Lane
- Five lane section with combination of turn lane and raised median
- Four lane section with median and U-turn provisions

Given the substantial impacts to properties the focus of improvements was intersection based and presented at each location.

Pleasant Street/Church Road

For this intersection two general improvement alternatives where evaluated, a roundabout and adding turn lanes on Pleasant Street (see **Figures 4.3 and 4.4**).

Pleasant Street/River Road/Webster Street

For this intersection two general improvement alternatives where evaluated, a roundabout and adding turn lanes on Pleasant Street (see **Figures 4.5 and 4.6**).

Pleasant Street/Mill Street/Stanwood Street

Additional intersection capacity is needed to mitigate severe congestion and accordingly, additional lanes were investigated. This alternative included providing two lanes northbound and southbound to and from Mill Street. **Figure 4.7** depicts this alternative. Roundabout configurations were also evaluated to determine their feasibility.

Connector Roadways

Five connector roads were investigated to improve accessibility to businesses and provide relief to intersections by offering alternative routing options. The Connectors include:

- **Turner Street Connector** is similar to Connector "E" from the NASB Study and includes extending Turner Street from Lombard Street to Stanwood Street.
- **Westminster Street Connector "A"** is similar to Connector "B" to Westminster Street from the NASB study and was included as it may provide access/egress relief for McDonald's and Amato's.
- **Westminster Street Connector "B"** is similar to Connector "C" from the NASB study from Westminster Street to River Road.
- **Paul Street Connector** is similar to Connector "D" from the NASB study and is included because it is expected to have not only traffic benefits but bicycle routing benefits. It should be noted that use of the RR line is no longer an option for a path given the presence of Amtrak and their facility.
- **River Road Connector** consists of a roadway from the rear parking area of Dunkin extending to River Road.

Figure 4.8 illustrates the Connector Roadways.

Pleasant Street (Mill Street/Stanwood Street to Maine Street)

Two improvements alternatives were investigated, converting Pleasant Street to a two-way street and a second alternative maintaining one-way flow and eliminating a travel lane for bicycle facilities and added on-street parking. **Figures 4.10 through 4.16** present the concepts.

Access Management

A review of existing driveways was performed and recommendations on changes, including closing, combining, relocating, sharing were identified.

4.0 Future Traffic Volumes and Analysis

4.1 Future Base Condition (No-Build)

In accordance with MaineDOT guidance 2039 future traffic volumes were estimated by increasing 2019 volumes by 10% which was based upon the State Travel Demand Model. **Figure 4.1** presents the 2039 AM and PM traffic volumes. A SimTraffic analysis was performed for the study area intersections and **Table 4.1** presents the results. As noted, all study area intersections will operate at failing conditions with the exception of the Union Street and Maine Street intersections.

Table 4.1
2039 No-Build Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant Street/Church Road						
Pleasant EB Through	8.3	A	171.0	F	210	1684
Pleasant EB Right	5.7	A	170.9	F	204	1679
Pleasant WB Left	200.1	F	39.5	D	915	256
Pleasant WB Through	43.7	D	14.1	B	873	264
Church Left	43.7	D	50.9	D	226	495
Church Right	8.7	A	60.7	E	117	255
Overall	30.6	C	87.9	F		
Pleasant Street/River Road/Webster Street						
Pleasant EB Left	71.9	E	368.9	F	568	2263
Pleasant EB Through	32.8	C	291.8	F	568	2274
Pleasant EB Right	17.1	B	242.6	F	*	*
Pleasant WB Left	35.3	D	41.9	D	140	142
Pleasant WB Through	12.0	B	11.4	B	147	154
Pleasant WB Right	8.4	A	8.6	A	73	100
River Left	29.0	C	50.9	D	213	230
River Through	16.9	B	36.6	D	128	117
River Right	13.9	B	17.5	B	*	*
Webster Left	20.4	C	37.2	D	*	*
Webster Through	25.5	C	36.9	D	117	75
Webster Right	14.0	B	23.8	C	*	*
Overall	22.7	C	137.1	F		
Pleasant Street/Mill Street/Stanwood Street						
Pleasant EB Left	68.4	E	101.2	F	1023	1279
Pleasant EB Through	32.8	C	52.2	D	789	1181
Pleasant EB Right	31.4	C	49.2	D	*	*
Stanwood Left	77.0	E	264.9	F	194	179
Stanwood Through	23.6	C	179.0	F	264	1060
Stanwood Right	13.7	B	164.9	F	*	*
Mill Left	30.0	C	55.5	E	854	1411
Mill Through	33.2	C	50.6	D	*	*
Mill Right	42.0	D	90.0	F	1190	1210
Overall	47.5	D	105.6	F		
Pleasant Street/Union Street						
Pleasant Left	7.0	A	10.4	B	112	132
Pleasant Through	7.8	A	10.0	B	*	*
Pleasant Right	6.4	A	6.9	A	116	125
Union NB Through	8.6	A	7.3	A	71	81
Union NB Right	3.9	A	3.8	A	*	*
Union SB Left	8.8	A	7.8	A	*	*
Union SB Through	8.9	A	7.2	A	68	87
Overall	7.3	A	8.1	A		
Pleasant Street/Maine Street						
Pleasant Left	10.5	B	12.7	B	80	105
Pleasant Through	2.8	A	14.0	B	106	128
Pleasant Right	5.3	A	5.5	A	88	85
Maine NB Through	6.6	A	7.7	B	92	118
Maine NB Right	1.8	A	3.5	A	38	69
Maine SB Left	10.7	A	15.1	B	101	147
Maine SB Through	7.0	A	9.4	A	51	99
Overall	6.9	A	9.2	A		

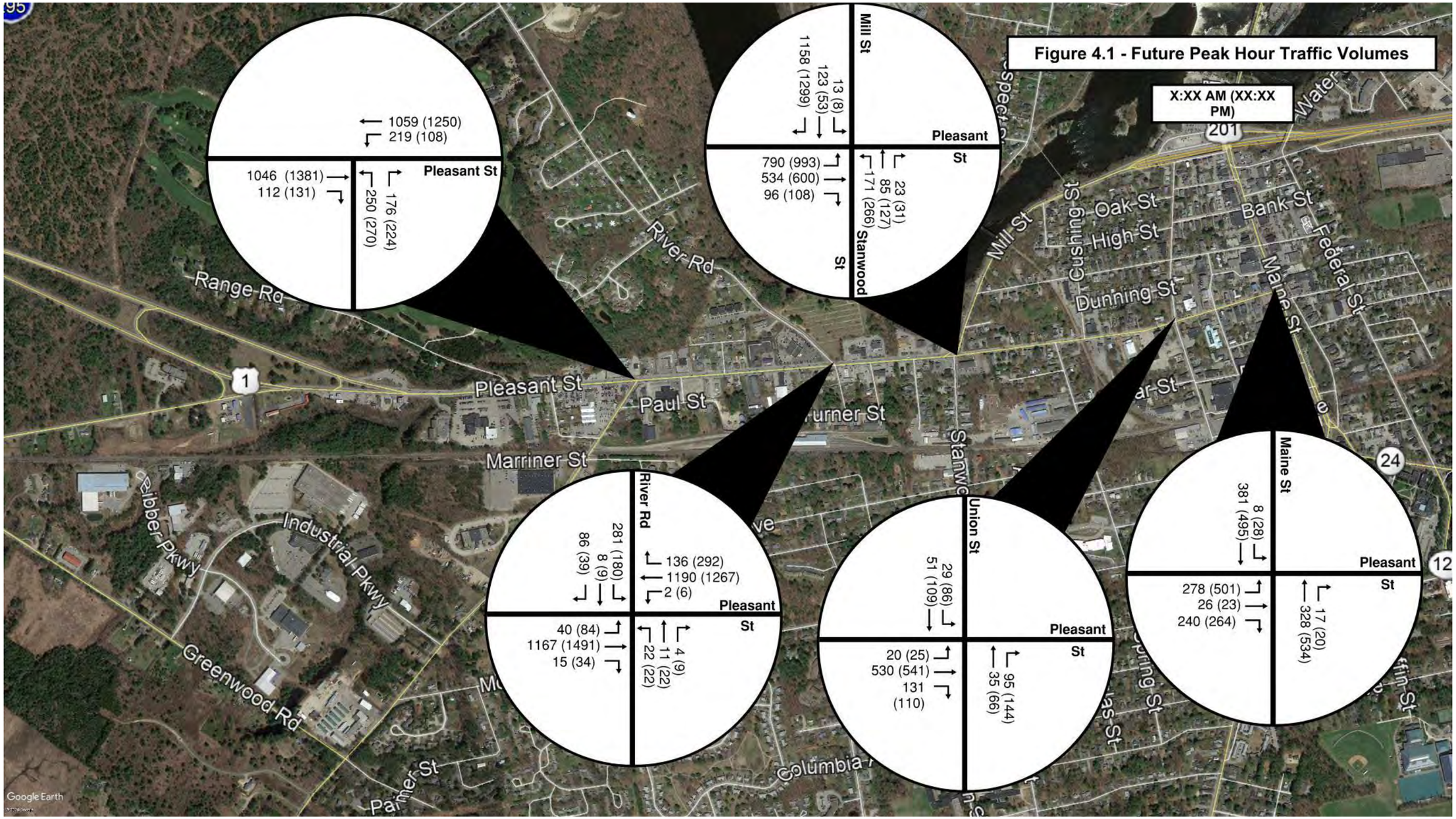


Figure 4.1 2039 Peak Hour Traffic Volumes

4.2 Pleasant Street/I-295 Ramps/Route 1

In an effort to calm traffic and manage turning movement volumes, a roundabout is proposed at this location (**Figure 4.2**). A level of service analysis was performed, and **Table 4.2** presents the results. As indicated the intersection is projected to operate at an acceptable level of service in 2039. It should be noted that moderate delay is estimated for the Route 1 northbound approach.

Table 4.2
Pleasant Street/I-295 Ramps/Route 1
2039 Build Level of Service and 95th Percentile Queue

	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM 95th% Queue (veh)	PM 95th% Queue (veh)
I295 EB	7.6	A	11.5	B	2.8	5.9
I295 WB	0.2	A	0.3	A	0.2	0.3
Route 1 NB	17.5	C	34.0	D	3.2	5.2
Overall	4.9	A	7.9	A		

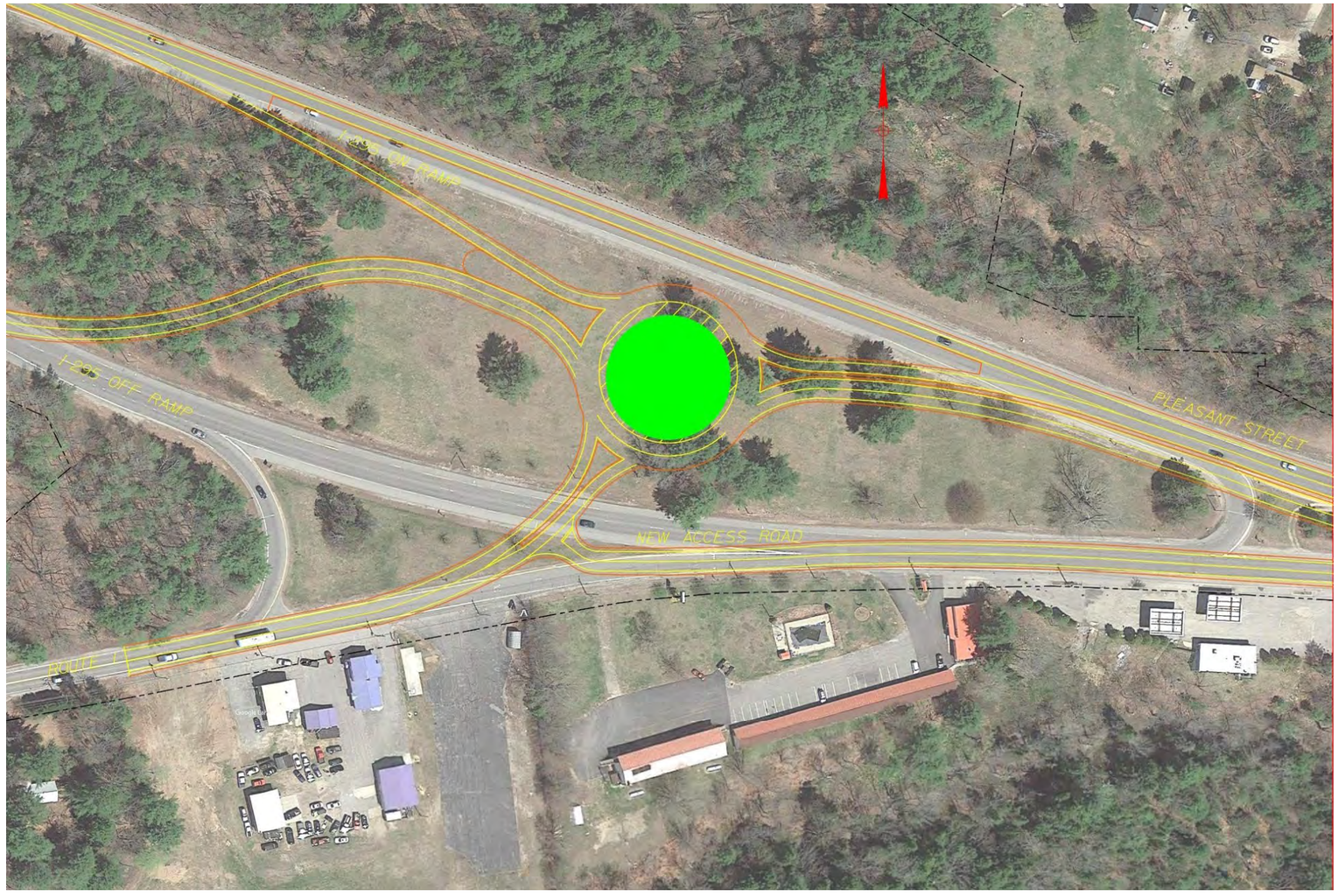


Figure 4.2 Pleasant Street/I-295 Ramps/Route 1 Improvements

4.3 Pleasant Street/Church Road

Two improvement alternatives were investigated and consisted of providing turn lanes on Pleasant Street and a roundabout configuration.

Intersection Safety and Capacity Improvements with Left-Turn Lanes

Figure 4.4 presents the improvement concept and generally consists of providing left-turn lanes on Pleasant Street and formalizing a connection to Cumberland Farms, McDonald's and Amato's. Traffic volumes were modified to account for traffic by the noted businesses. Following this change the intersection would be expected to see reduced congestion (see **Table 4.3**). In conjunction with the improvements, raised islands would be installed on Pleasant Street restricting access and thus mitigating safety problems.

Table 4.4
Pleasant Street/Church Road
Left Lanes on Pleasant and Connector Road
2039 Build Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Left	46.1	D	49.8	D	158	242
Pleasant EB Through	23.6	C	23.9	C	322	417
Pleasant Through/Right	22.5	C	23.6	C	315	404
Pleasant WB Left	43.5	D	49.7	D	221	147
Pleasant WB Through	20.6	C	22.4	C	311	368
Pleasant WB Through/Right	21.8	C	26.2	C	334	390
Church Left/Through	38.3	D	40.8	D	242	277
Church Right	6.9	A	12.8	B	117	146
Connector Left/Through	30.4	D	31.5	C	126	153
Connector Right	7.8	A	8.5	A	46	41
Overall	24.8	C	26.0	D		

Roundabout

A roundabout intersection configuration was investigated and as noted in **Table 4.5**, some movements will operate poorly. **Figure 4.3** was prepared to depict the approximate impact area assuming a two-lane roundabout. Based upon both property impacts and poor operating conditions, a roundabout was eliminated from consideration.

Table 4.5
Pleasant Street/Church Road
Roundabout
2039 Build Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (veh)	PM 95th% Queue (veh)
Pleasant EB Through	9.7	A	10.9	B	3.4	4.9
Pleasant EB Right	11.2	B	13.3	B	4.5	6.9
Pleasant WB Left	11.7	B	13.4	B	4.6	5.7
Pleasant WB Through	14.2	B	17.1	C	6.4	8.3
Church Left	23.5	C	103.4	F	4.4	16.0
Church Right	13.2	A	31.2	D	1.8	5.3
Overall	12.9	B	22.0	C		

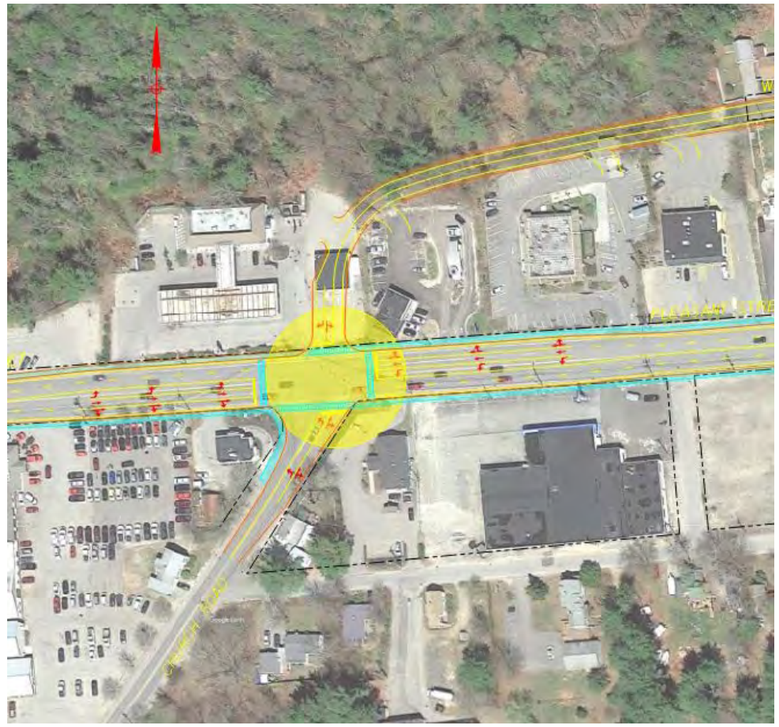


Figure 4.3 Pleasant Street/Church Road Roundabout Coverage Area

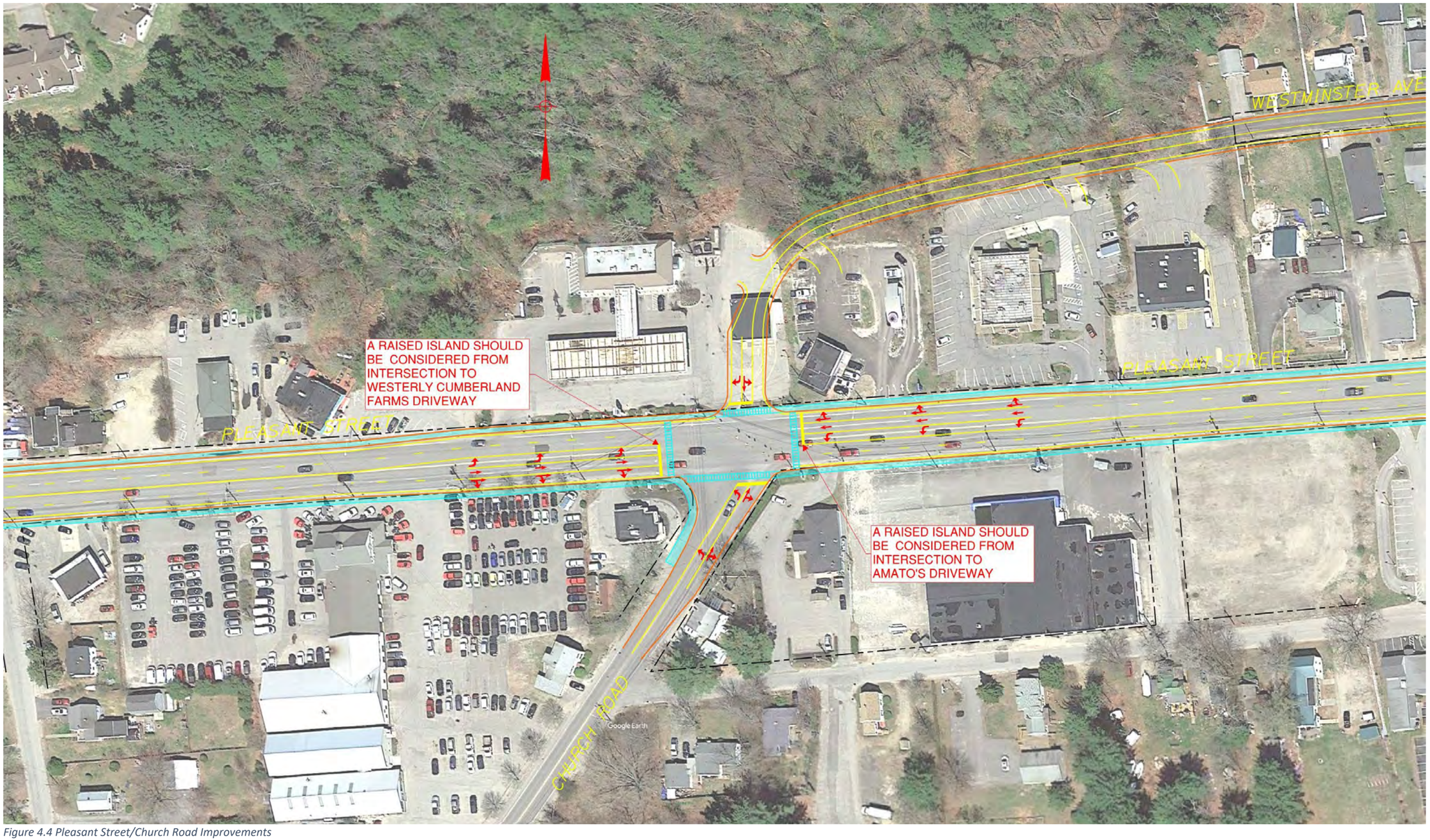


Figure 4.4 Pleasant Street/Church Road Improvements

4.4 Pleasant Street/River Road/Webster Street

Two improvement alternatives were investigated and consisted of providing turn lanes on Pleasant Street and a roundabout configuration.

Intersection Safety and Capacity Improvements with Left-Turn Lanes

Table 4.6 presents the improvements anticipated with adding left-turn lanes on Pleasant Street (see **Figure 4.5**). Traffic analysis assumed Connector Road 4 on Stanwood Street is constructed. As noted, the intersection will operate at acceptable levels of service with the added capacity.

Table 4.6
Pleasant Street/River Road/Webster Street
Left Lanes on Pleasant and Turner Connector Road
2039 Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Left	35.3	C	41.1	D	47	123
Pleasant EB Through	13.5	B	16.8	B	224	264
Pleasant EB Through/Right	14.1	B	17.5	B	221	262
Pleasant WB Left	28.4	C	37.2	D	10	38
Pleasant WB Through	16.1	B	18.0	B	315	488
Pleasant WB Through/Right	17.4	B	22.2	C	255	466
River Left	27.9	C	36.7	D	101	152
River Through/Right	31.9	C	34.5	C	121	159
Webster Left/TH/Right	12.2	B	11.8	B	119	72
Overall	17.4	B	20.7	C		

Roundabout

A roundabout intersection configuration was investigated and as noted in **Table 4.7**, some movements will operate poorly. **Figure 4.6** was prepared to depict the approximate impact area assuming a two-lane roundabout.

Based upon both property impacts and poor operating conditions, a roundabout was eliminated from consideration.

Table 4.7
Pleasant Street/River Road/Webster Street
Roundabout
2039 Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (veh)	PM 95th% Queue (veh)
Pleasant EB Left	13.5	B	18.0	C	5.3	9.2
Pleasant EB Through	*	*	*	*	*	*
Pleasant EB Right	13.9	B	20.1	C	6.0	11.5
Pleasant WB Left	9.5	A	13.7	B	3.7	6.6
Pleasant WB Through	*	*	*	*	*	*
Pleasant WB Right	9.9	A	14.9	B	4.3	8.1
River Left	51.5	F	26.7	D	10.2	3.8
River Through	*	*	*	*	*	*
River Right	12.0	B	11.0	B	0.9	04
Webster Left	15.2	C	22.7	C	0.4	0.9
Webster Through	*	*	*	*	*	*
Webster Right	11.0	B	14.6	B	0.0	0.1
Overall	15.5	C	17.3	C		

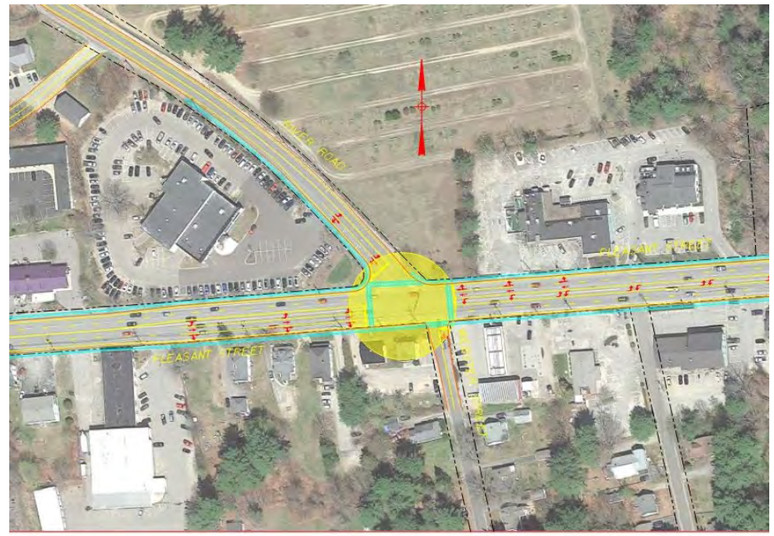


Figure 4.6 Pleasant Street/River Road/Webster Street Roundabout Coverage Area

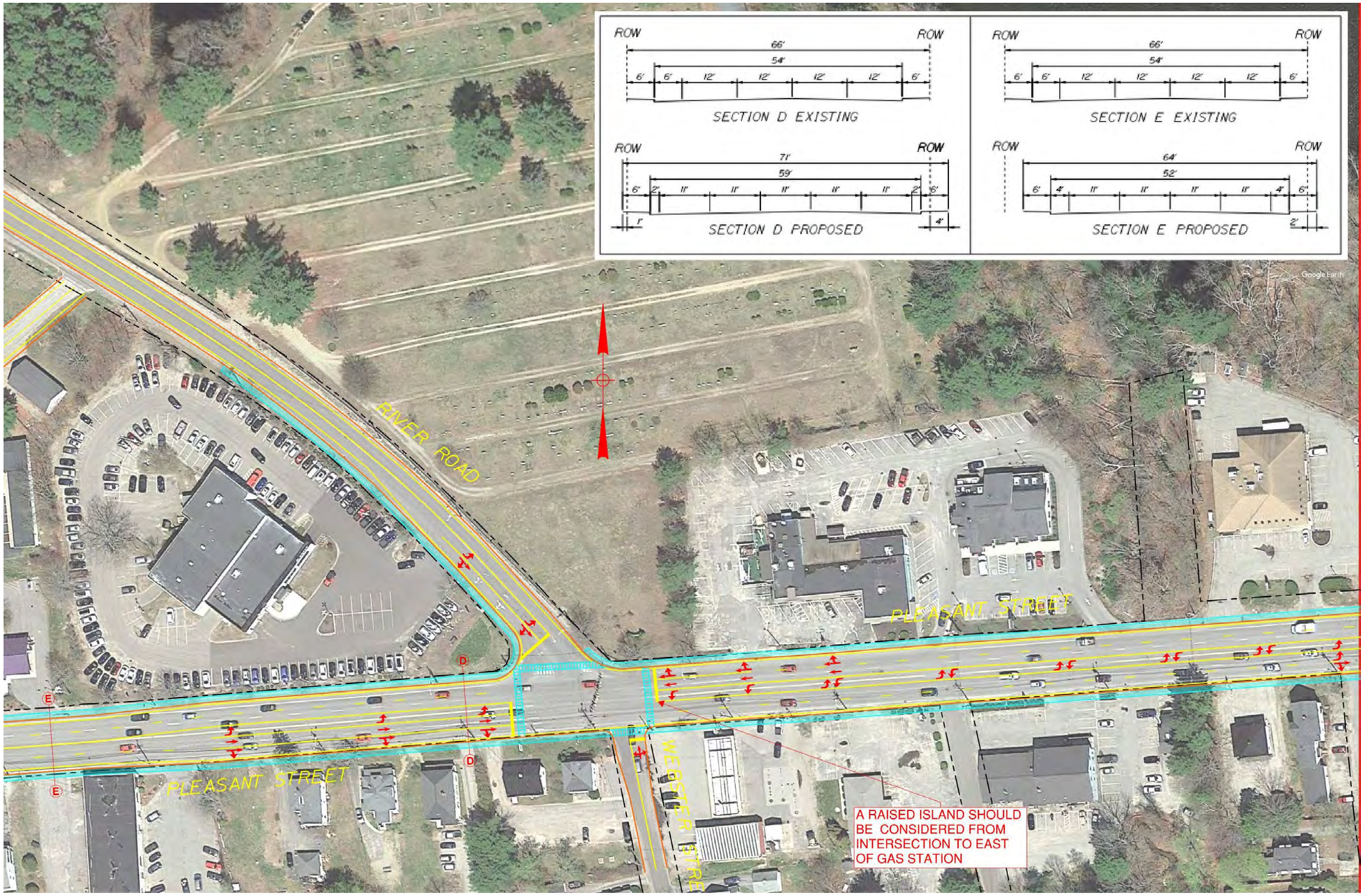


Figure 4.5 Pleasant Street/River Road/Webster Street Improvements

4.5 Pleasant Street/Mill Street/Stanwood Street

Two improvement alternatives were investigated and consisted of providing additional vehicle capacity and a roundabout configuration.

Intersection Safety and Capacity Improvements with Added Lanes

Table 4.8 presents the improvements anticipated with providing two left-turn lanes from Pleasant Street to Mill Street and two right-turn lanes from Mill Street to Pleasant Street (**Figure 4.7**). As noted, the intersection will operate at acceptable level of service with the added capacity.

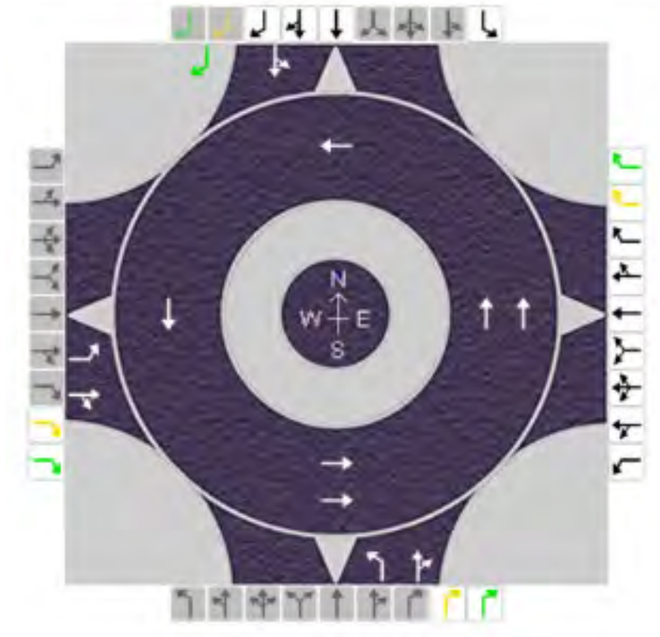
Table 4.8
Pleasant Street/Mill Street/Stanwood Street
Double Left and Right Lanes
2039 Build Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Left	12.7	B	18.3	B	182	260
Pleasant EB Left	19.6	B	26.2	C	215	263
Pleasant EB Through/Right	22.3	C	26.7	C	340	369
Stanwood Left	21.9	C	22.4	C	97	132
Stanwood Through/Right	25.1	C	27.6	C	114	136
Mill Left/Through	17.8	B	20.3	C	109	67
Mill Right	5.0	A	5.0	A	94	124
Mill Right	3.4	A	4.0	A	94	104
Overall	13.5	B	16.5	B		

Roundabout

An evaluation of the roundabout alternative was performed to determine feasibility from a level of service/capacity perspective. The configuration consisted of the following and conceptually depicted on this page.

- Pleasant EB: Left Lane and Through/Right Lane
- Stanwood: Left Lane and Through/Right Lane
- Mill: Right By-Pass Lane and Through/Left Lane



A capacity analysis was conducted for the 2039 PM peak hour condition and as noted in **Table 4.9** movements from Stanwood Street will fail. Accordingly, a roundabout configuration was eliminated.

Table 4.9
Pleasant Street/Mill Street/Stanwood Street
Roundabout
2039 Build Level of Service and 95th Percentile Queue

	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (veh)
Pleasant EB Left	18.9	C	10.7
Pleasant EB Through/Right	9.7	A	4.1
Stanwood Left	145.1	F	13.0
Stanwood Through/Right	29.7	D	3.3
Mill Left/Through	4.2	A	0.2
Mill Right	0	A	0
Mill Right	4.0	A	104
Overall	16.5	B	

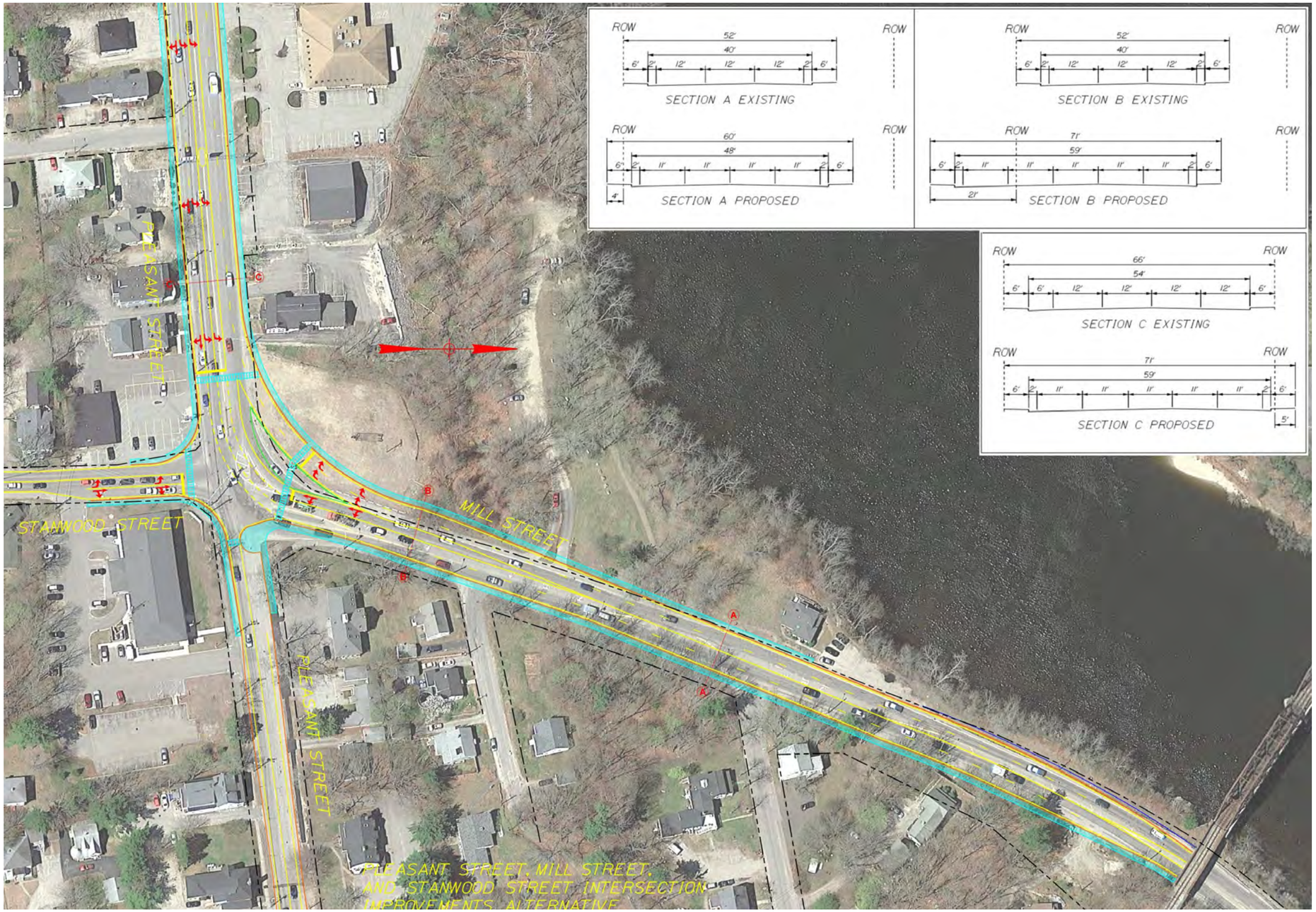


Figure 4.7 Pleasant Street/Stanwood Street/Mill Street Improvements

4.6 New Roadway Connections

Figure 4.8 conceptually illustrates the location of connector roadways that may offer relief to congested intersections, provide improved alternatives for access/egress movements to businesses on Pleasant Street and provide bicycle routing options. A summary of each is provided as follows:

Westminster Street Connector Road "1"

This includes construction of a new roadway from Cumberland Farms to the rear of McDonalds and Amato's. This connection would have significant safety benefits and would shift traffic volumes from the two noted restaurants to a newly constructed driveway opposite Church Road. It should be noted that topography does limit space for the roadway and impacts to parking areas is likely. It is unlikely a full connection to Westminster Street can be constructed. This road will also include land/business acquisition. Assuming only right-in/out movements would be permitted from McDonalds and Amato's traffic volumes would be expected to increase at the Church Road intersection. The analysis included in **Section 4.3** accounts for the increased traffic volume.

Westminster Street Connector Road "2"

This includes connecting Westminster Street to River Road. It would provide additional relief to the Pleasant Street/River Road intersection and allow vehicles to access the River Road traffic signal. This road has challenges in respect to property impacts near River Road.

Paul Street Connector Road "3"

Connector 3 has traffic benefits but also for bicycle routing use. It should be noted that use of the RR line is no longer an option for a path given the presence of Amtrak and their facility.

Turner Street Connector Road "4"

This includes extending Turner Street from Lombard Street to Stanwood Street. The new roadway would be expected to reduce traffic volumes turning from Stanwood Street to Pleasant Street southbound and thus would help to relieve congestion. It would provide a direct routing from Stanwood Street to and from River Road and thus minimize problems with merge movements from Stanwood Street to River Road. Property acquisition would be required to construct this road.

River Road Connector Road "5"

This short roadway would connect the Dunkin Donuts parking lot and River Road and would provide safety and traffic flow benefits between River Road and Stanwood Street/Mill Street. Parking lots would need to be reconfigured with this road.

Figure 4.8 Proposed Connector Roads

4.7 Pleasant Street between Mill/Stanwood and Maine Street

Two improvements alternatives were investigated, converting Pleasant Street to a two-way street and a second alternative that maintains one-way flow and eliminates a travel lane for bicycle facilities and added on-street parking.

4.7.1 Two-Way Conversion

Figure 4.9 presents 2039 traffic volumes during the AM and PM peak hours. Note that these are approximate estimates and detailed travel demand modeling will be needed for future studies. A level of service analysis was performed at the Pleasant Street intersections with Stanwood Street/Mill Street, Union Street and Maine Street. **Table 4.10** notes that significant degradation in level of service is not expected. **Figures 4.10 through 4.12** present the Two-Way concept.

Table 4.10
Pleasant Street Two-Way Conversion
2039 Level of Service Comparison

Scenario	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS
Pleasant Street/Mill Street/Stanwood Street				
2039 No-Build	47.5	D	105.6	F
2039 Build (two lanes to and from North)	14.5	B	18.1	B
2039 Two-Way Pleasant	19.5	B	26.4	C
Pleasant Street/Union Street				
2039 No-Build	7.3	A	8.1	A
2039 Two-Way Pleasant	12.9	B	17.1	B
Pleasant Street/Maine Street				
2039 No-Build	6.9	A	9.2	A
2039 Two-Way Pleasant	13.1	B	23.8	C

Based upon the feasibility analysis detailed study should be programmed to evaluate design level details and impacts with a comprehensive public engagement process.

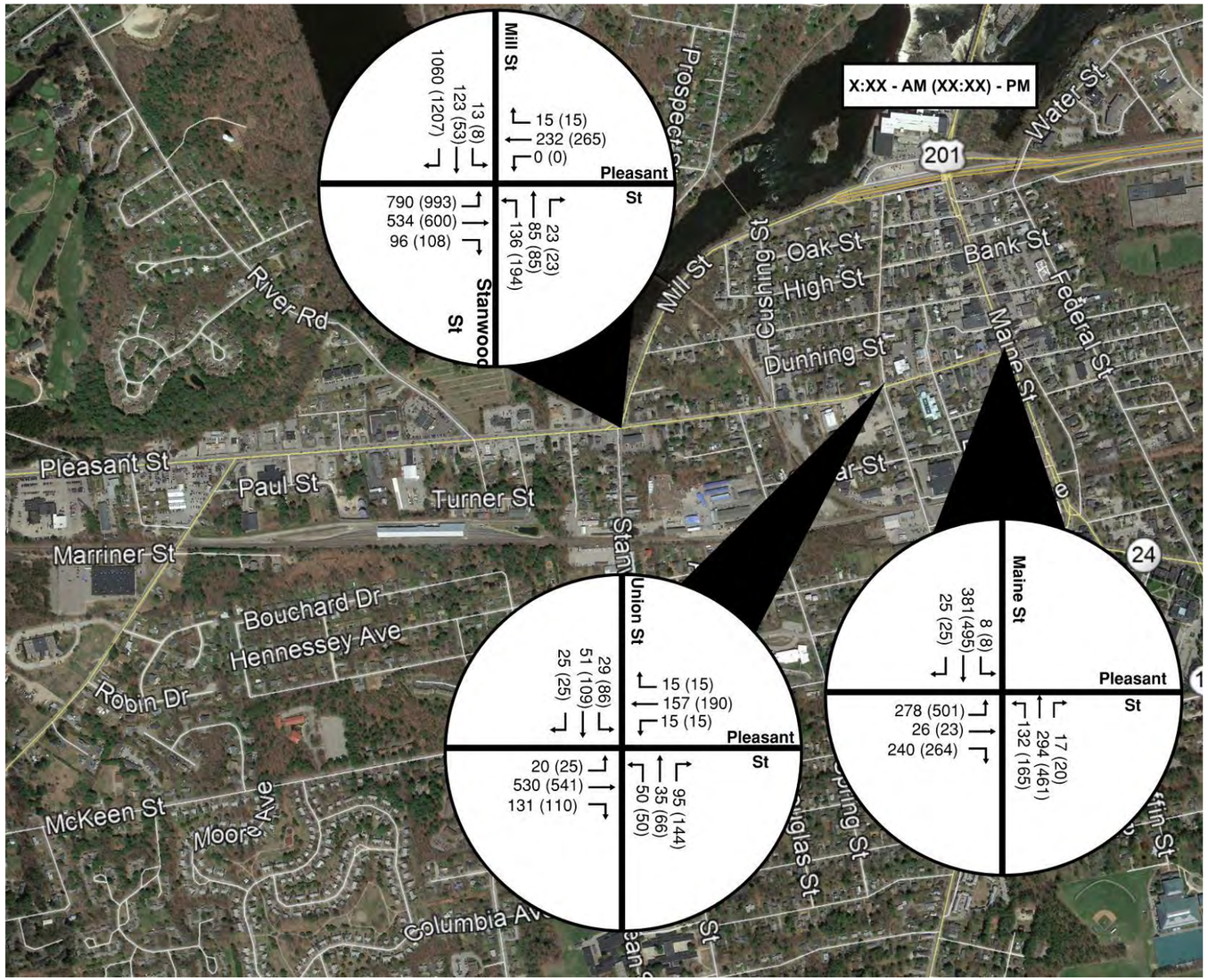


Figure 4.9 2039 Two-Way Peak Hour Traffic Volumes

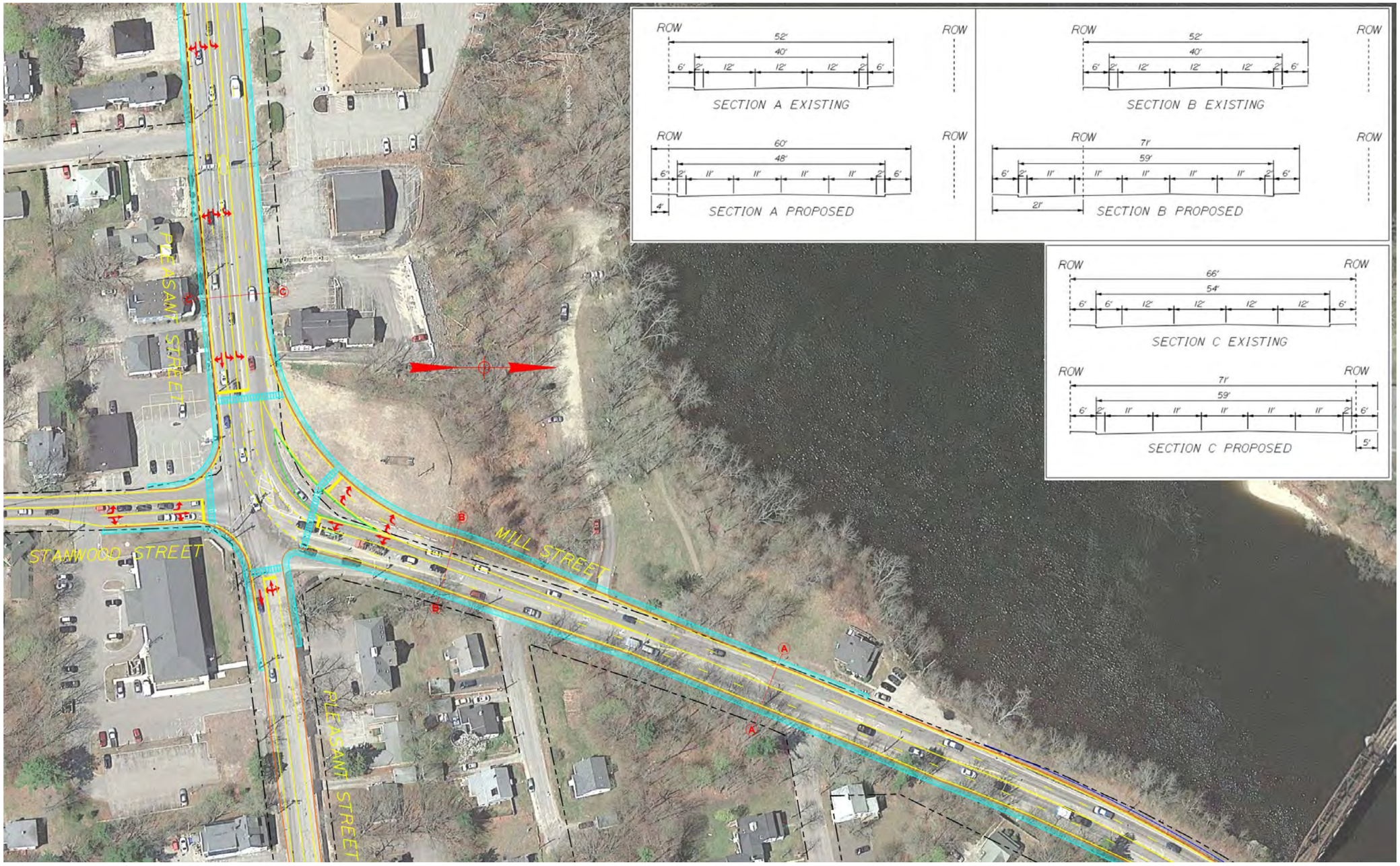


Figure 4.10 Two-Way Alternative Concept

Figure 4.11 Two-Way Alternative Concept

Figure 4.12 Two-Way Alternative Concept

4.7.2 One -Way Street Modification

An evaluation of changing or repurposing the lanes on Pleasant Street to allow for a bicycle lane, calm traffic speeds and increase on-street parking by converting parallel spaces to diagonal was investigated. **Figures 4.13 through 4.16** illustrate the concept. **Tables 4.11 and 4.12** present level of service information at the Union Street and Maine Street intersection. The following describes the details of the concept and pros/cons of the change.

- From a traffic capacity perspective, eliminating one travel lane will have little impact on traffic mobility. Left-turn lanes will be provided at Cushing Street and Union Street and the Maine Street approach will provide a single left/through lane and a dedicated right lane (or the approach can remain unchanged, and the bike lane would be terminated). As noted, the intersections will operate with little delay.
- A buffered bicycle lane will be provided on the east side from the Mill Street/Stanwood Street intersection to Maine Street. Some narrowing of the bike lane/buffer will be required where the left-turn lanes are provided
- The provision of diagonal parking was investigated in the area of the Post Office. **Figure 4.15** depicts a cross-section where Pleasant Street is about 40 feet wide. The concept proposes parallel parking on both sides and changing the parking to diagonal parking on the Post Office side of the street would not add parking supply, as one bank of parallel parking would need to be eliminated. Accordingly, parallel parking is recommended.
- In conjunction with the change curb extensions are proposed at some crosswalk location to improve pedestrian safety and help to calm traffic speeds.

Table 4.11
Pleasant Street/Union Street
One-Way Single Travel Lane
2039 Build Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Left	2.3	A	6.8	A	37	80
Pleasant EB Through/Right	11.2	B	19.1	B	187	273
Union NB Through/Right	9.1	A	7.9	A	90	104
Union Left/Through	13.4	B	11.8	B	66	112
Overall	10.9	B	15.1	B		

Table 4.12
Pleasant Street/Maine Street
One-Way Single Travel Lane
2039 Build Level of Service and 95th Percentile Queue

	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS/ Delay	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Left/Through	9.2	A	14.9	B	126	191
Pleasant EB Right	2.8	A	3.5	A	83	98
Maine NB Through	8.9	A	11.3	B	98	140
Maine NB Through/Right	5.8	A	7.2	A	43	90
Maine SB Left/Through	8.6	A	15.8	B	111	181
Maine SB Through	5.9	A	8.9	A	55	128
Overall	7.6	A	11.7	B		

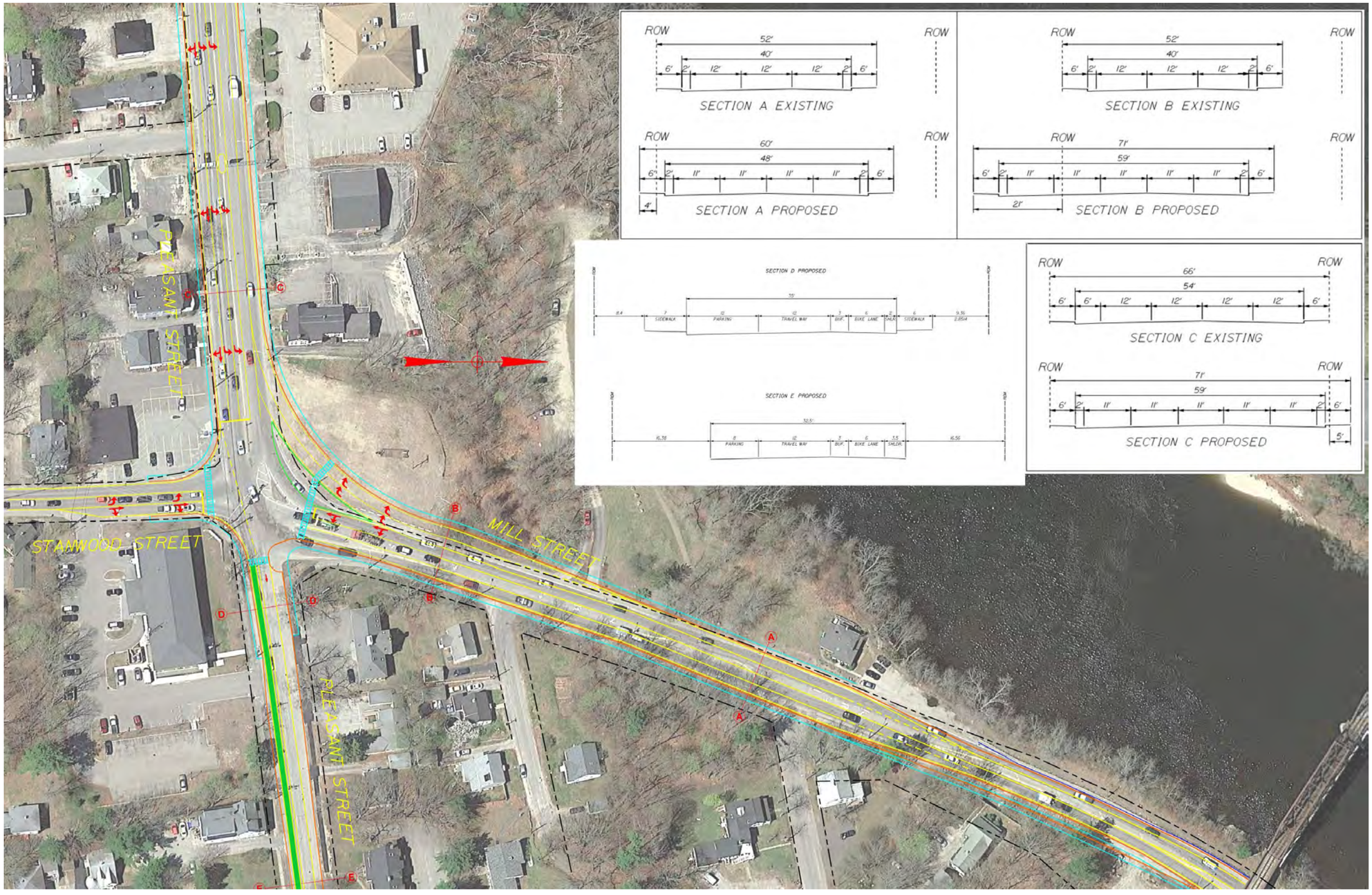


Figure 4.13 One-Way Modification Alternative Concept

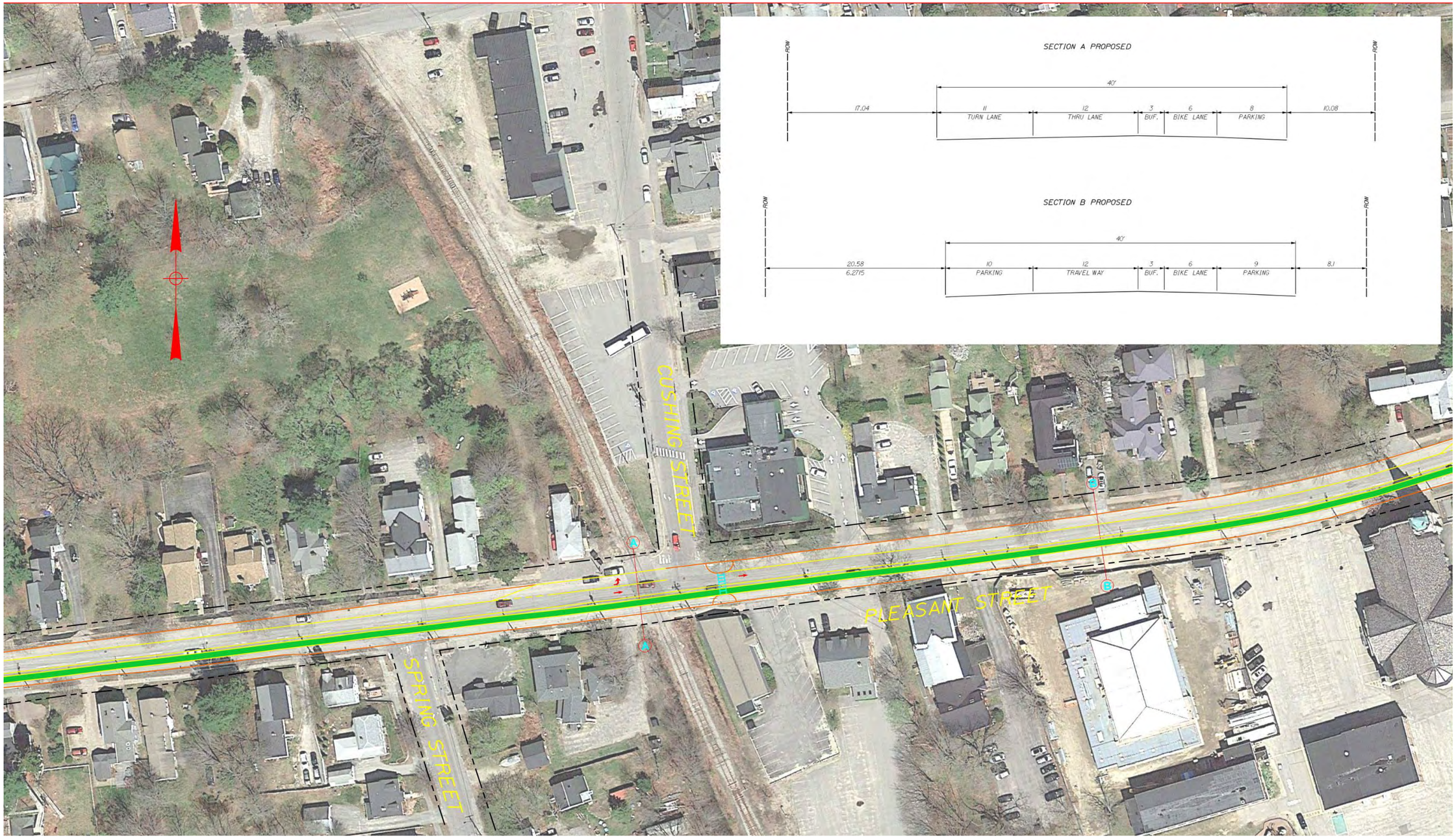


Figure 4.14 One-Way Modification Alternative Concept

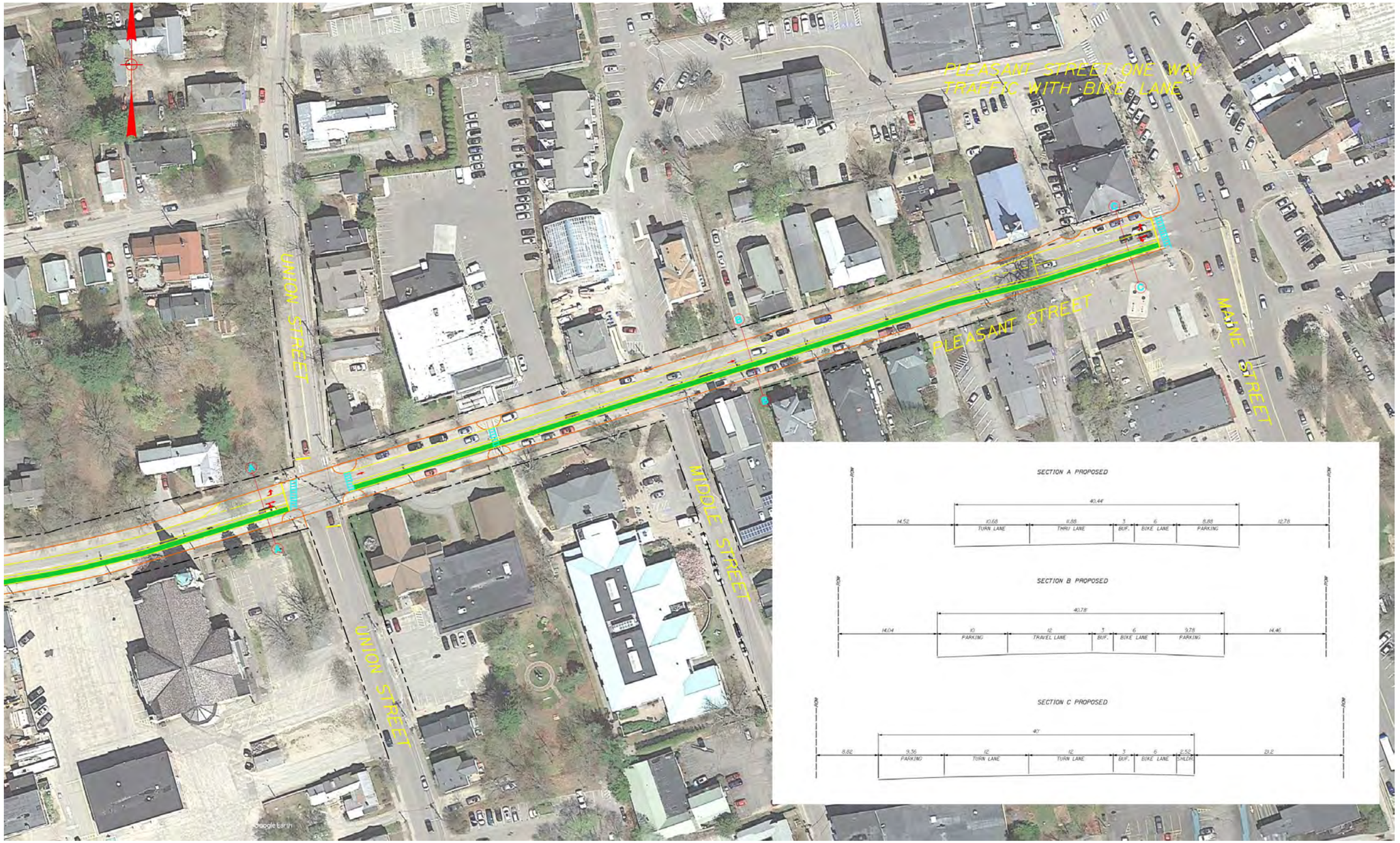


Figure 4.15 One-Way Modification Alternative Concept (Bike Lane Continues to Maine Street

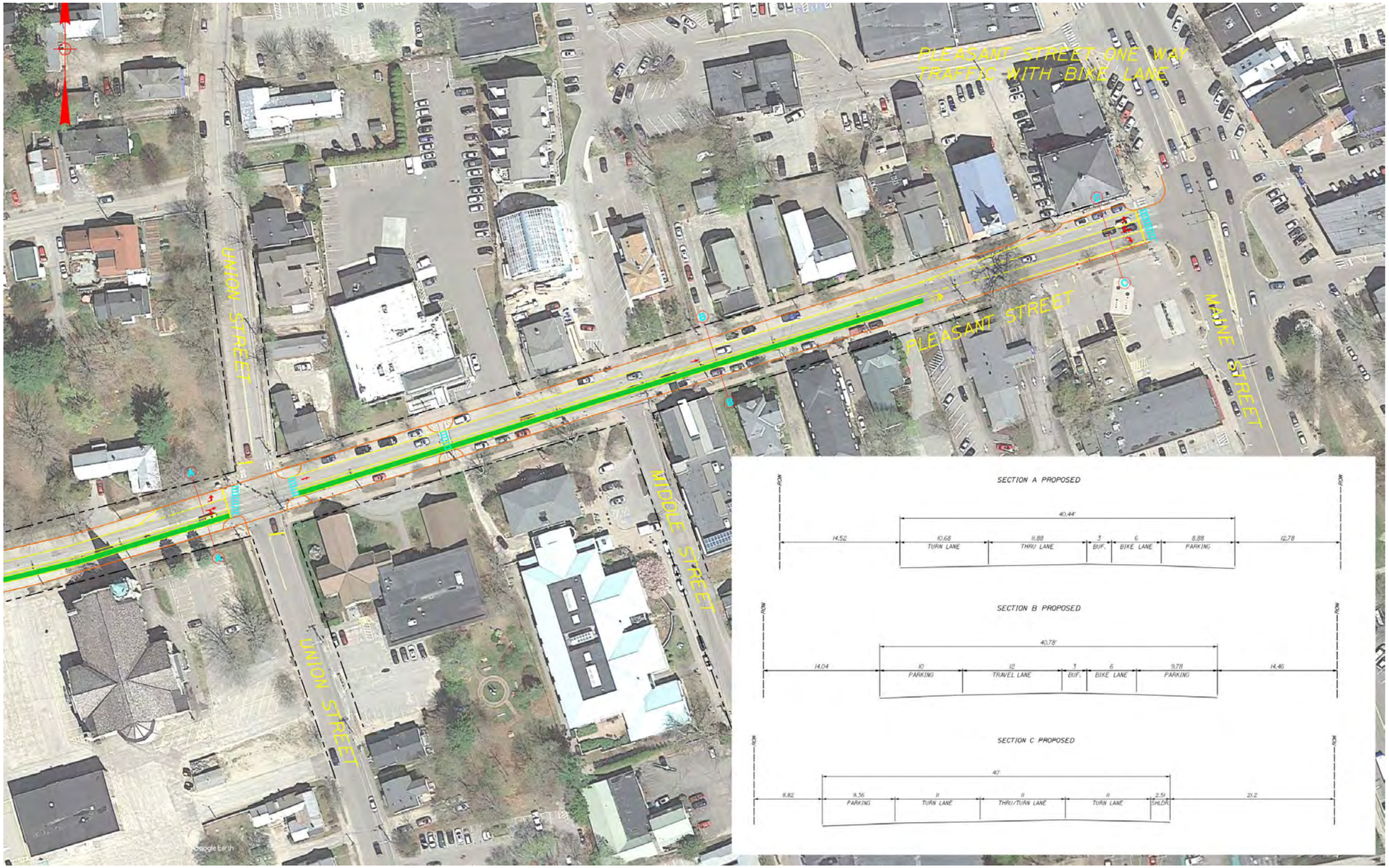


Figure 4.16 One-Way Modification Alternative Concept (Bike Lane Terminates Prior to Maine Street)

4.8 Access Management

In conjunction with improvements at the Church Road and River Road intersections raised medians are suggested to address safety issues and in conjunction with the construction of connector roads that will provide alternative access/egress opportunities. Ideally these raised islands would be constructed with the implementation of the connector roads.

As documented in the existing conditions section there are several driveways within the study area that do not meet design standards as it relates to spacing, width, distance to a major intersection and having too many driveways. Based upon a review of existing conditions it is suggested that the following access management improvements be considered.

- Reduce the number of driveways at #184/Antiques
- Eliminate one of the three driveways at Goodwin's Chevrolet
- Establish driveway entrance and provide defined sidewalk along frontage at SBSIGNS
- Establish driveway entrance and provide defined sidewalk along frontage at Garden Supplies
- Establish driveway entrance and provide defined sidewalk along frontage at Autometrics
- Narrow driveways at Bodwell
- Eliminate/ Establish driveway entrance and provide defined sidewalk along driveways at Pancho Villa
- Eliminate driveways at former Tucker Auto
- Narrow Relax Inn Driveway
- Close the westerly driveway at Salvation Army
- Establish driveway entrance and provide defined sidewalk along frontage at Shell including narrowing driveways
- Close driveway at Barbeque Restaurant
- Establish driveway entrance and provide defined sidewalk along frontage at O 'Donoghue's
- Establish driveway entrance and provide defined sidewalk along frontage at Brunswick Diner
- Close driveway at Modern
- Organize frontage at HOPE
- Close easterly driveway at Bilodeau Insurance
- Organize Sunshine Center Laundry

5.0 Alternatives Analysis /Recommendations

The following provides a summary of impacts and costs associated with the improvement alternatives presented in **Section 4**. As a corridor study versus an intersection study the recommendations are not mutually exclusive. Planning-level cost estimates included design and construction engineering but does not include cost for right-of-way acquisition.

5.1 Pleasant Street/I-295 Ramps/Route 1

Only one alternative was considered, and it consists of implementing a roundabout.

No-Build

Traffic Operations / Safety

- Level of service – The intersection operates at an acceptable level of service.
- Reduction in crashes – this location is not a High Crash Location.

Land Use Impact

- Number of buildings impacted – no impacts.
- Number of lots impacted – no impacts.
- ROW acquisition – no impacts.

Environmental Resource Impact

- No impacts.

Bicycle and Pedestrian

- No change in conditions and therefore pedestrian and bicycle conditions remain less than desirable.

Cost

- N/A

Purpose and Need

- The project would be expected to enhance safety and mobility for all users and the Purpose and Need is met. Although significant safety and congestion are not documented.

Roundabout

Traffic Operations / Safety

- Level of service – Capacity and mobility are not issues at this location. The intersection currently operates at good levels of service and would operate well with a roundabout. High vehicle speeds are the greatest problem.
- Reduction in crashes – This location is not a High Crash Location, but construction of a roundabout would be expected to provide safer conditions.

Land Use Impact

- Number of buildings impacted – no impacts are expected.
- Number of lots impacted – no impacts are expected, although access will be impacted to some properties.
- ROW acquisition – no right-of-way acquisition is required.

Environmental Resource Impact

- A review of significant plant, wildlife, water, and historic resources were reviewed. Nothing of significance was identified as a potential concern.

Bicycle and Pedestrian

- Bicycle safety would be improved with the calming effect of a roundabout.

Cost

- The planning-level cost estimate is $5,100,000.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

- The construction of a roundabout is not an immediate need and should be a consideration in future planning efforts and development plans in the intersection area.

5.2 Pleasant Street/Church Road

Two alternatives were reviewed and consisted of adding turn lanes on Pleasant Street and a roundabout. Both included constructing a connector road to McDonald's and Amato's as a fourth leg to the traffic signal.

No-Build

Traffic Operations / Safety

- Level of service – The intersection operates at an unacceptable level of service and improvements are needed.
- Reduction in crashes – The nearby McDonald's driveway is a High Crash Location and safety improvements are needed.

Land Use Impact

- Number of buildings impacted – N/A
- Number of lots impacted – N/A
- ROW acquisition – N/A

Environmental Resource Impact

- No impact.

Bicycle and Pedestrian

- No improvement.

Cost

- N/A

Purpose and Need

- The alternative would not be expected to improve safety and mobility for all users and the Purpose and Need is not met.

Roundabout

Traffic Operations / Safety

- Level of service – Some movements will continue to operate at an unacceptable level of service.
- Reduction in crashes – Safety would be improved in conjunction with access management improvements and implementing Connector Road 1.

Land Use Impact

- Number of buildings impacted – Not determined.
- Number of lots impacted - Not determined.
- ROW acquisition - Not determined.

Environmental Resource Impact

- No determined.

Bicycle and Pedestrian

- Little improvement in conditions is expected.

Cost

- A cost was not estimated given this intersection does not fully mitigate congestion and has significant property impacts.

Purpose and Need

- This alternative would be expected to improve safety and mobility, although traffic congestion would not be fully mitigated. The Purpose and Need is not met.

Intersection Safety and Capacity Improvements with Left-Turn Lanes

Traffic Operations / Safety

- Level of service – Acceptable levels of service will be provided.
- Reduction in crashes – Safety would be expected to be improved, particularly with access management improvements and construction of Connector Road 1.

Land Use Impact

- Number of buildings impacted - 0
- Number of lots impacted - 4
- ROW acquisition – 4,200SF +/- (7 feet maximum widening of ROW)

Environmental Resource Impact

- A review of significant plant, wildlife, water, and historic resources were reviewed. Nothing of significance was identified as a potential concern with the exception of the stream behind Cumberland Farms, which is not expected to be significantly impacted.

Bicycle and Pedestrian

- Intersection improvements include replacement of the traffic signal and thus pedestrian conditions will be improved. Little improvement in bicycle conditions is expected.

Cost

- The planning-level cost estimate is $1,100,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the impacts of a roundabout and that it does not fully improve mobility at the intersection, the widening alternative is recommended.

5.3 Pleasant Street/River Road/Webster Street

Two alternatives were reviewed and consisted of adding turn lanes on Pleasant Street and a roundabout.

No-Build

Traffic Operations / Safety

- Level of service – The intersection operates at an unacceptable level of service and improvements are needed.
- Reduction in crashes – No improvement in safety at High Crash Locations would occur.

Land Use Impact

- Number of buildings impacted – N/A
- Number of lots impacted – N/A
- ROW acquisition – N/A

Environmental Resource Impact

- No impact.

Bicycle and Pedestrian

- No improvement.

Cost

- N/A

Purpose and Need

- The project would not improve safety and mobility and the Purpose and Need is not met.

Roundabout

Traffic Operations / Safety

- Level of service – Some movements will continue to operate at an unacceptable level of service.
- Reduction in crashes – Safety would be expected to be improved.

Land Use Impact

- Number of buildings impacted – Not determined.
- Number of lots impacted – Not determined.
- ROW acquisition – Not determined.

Environmental Resource Impact

- Not determined.

Bicycle and Pedestrian

- Little to no improvement.

Cost

- A cost was not estimated given this intersection does not fully mitigate congestion and significant property impacts.

Purpose and Need

- This alternative would be expected to improve safety and mobility, although traffic congestion would not be fully mitigated. The Purpose and Need is not met.

Intersection Safety and Capacity Improvements with Left-Turn Lanes

Traffic Operations / Safety

- Level of service – Acceptable levels of service will be provided.
- Reduction in crashes – Safety would be expected to be improved, with reduced congestion and the provision of turn lanes.

Land Use Impact

- Number of buildings impacted - 0
- Number of lots impacted - 10
- ROW acquisition – 6,000 SF +/- (7 feet maximum widening of ROW)

Environmental Resource Impact

- A review of significant plant, wildlife, water, and historic resources were reviewed. Nothing of significance was identified as a potential concern with the exception of impacts to Riverside Cemetery property.

Bicycle and Pedestrian

- Intersection improvements include replacement of the traffic signal and thus pedestrian conditions will be improved. Little improvement in bicycle conditions is expected.

Cost

- The planning-level cost estimate is $1,300,000.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the impacts of a roundabout and that it does not fully improve mobility the intersection widening alternative is recommended.

5.4 Pleasant Street/Stanwood Street/Mill Street

Two alternatives were reviewed and consisted of adding lanes/capacity to the intersection and a roundabout.

No-Build

Traffic Operations / Safety

- Level of service – The intersection operates at an unacceptable level of service and improvements are needed.
- Reduction in crashes – This location is not a High Crash Location, but any safety problems would not be mitigated.

Land Use Impact

- Number of buildings impacted – N/A
- Number of lots impacted – N/A
- ROW acquisition – N/A

Environmental Resource Impact

- No impact.

Bicycle and Pedestrian

- No Improvement.

Cost

- N/A

Purpose and Need

- The project would not improve safety and mobility and the Purpose and Need is not met.

Roundabout

Traffic Operations / Safety

- Level of service – Some movements will continue to operate at an unacceptable level of service.
- Reduction in crashes – Safety would be expected to be improved.

Land Use Impact

- Number of buildings impacted – Not determined.
- Number of lots impacted – Not determined
- ROW acquisition – Not determined.

Environmental Resource Impact

- Not determined.

Bicycle and Pedestrian

- Little to no improvement.

Cost

- A cost was not estimated given this intersection does not fully mitigate congestion and significant property impacts.

Purpose and Need

- This alternative would be expected to improve safety and mobility, although traffic congestion would not be fully mitigated. The Purpose and Need is not met.

Intersection Safety and Capacity Improvements with Added Lanes

Traffic Operations / Safety

- Level of service – Acceptable levels of service will be provided. This alternative also assumes traffic from Stanwood Street to River Road will not have to merge with Mill Street southbound traffic (traffic on Mill Street will be stopped).
- Reduction in crashes – Safety would be expected to be improved.

Land Use Impact

- Number of buildings impacted - 0
- Number of lots impacted - 9
- ROW acquisition – 17,000 SF +/-

Environmental Resource Impact

- There are some historic properties in this area that will need review. Additionally, any widening on or near Mill Street will need to consider impacts to the Androscoggin River.

Bicycle and Pedestrian

- A crosswalk will be added to the Mill Street approach and the traffic signal was assumed to stop all conflicting traffic. Accordingly, pedestrian improvements are expected.

Cost

- The planning-level cost estimate is $2,100,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the impacts of a roundabout and that it does not fully improve mobility the intersection widening alternative is recommended.

5.5 Pleasant Street/Stanwood Street to Maine Street

Two alternatives were reviewed and consisted of a two-way conversion and maintaining one-way flow and eliminating one travel lane and adding a bike lane.

No-Build

Traffic Operations / Safety

- Level of service – Congestion is not a problem in this section, but speeds are high.
- Reduction in crashes – The Cushing Street intersection is a High Crash Location and safety improvements are needed.

Land Use Impact

- Number of buildings impacted – No impact.
- Number of lots impacted – No impact.
- ROW acquisition – No impact.

Environmental Resource Impact

- No impact.

Bicycle and Pedestrian

- No improvement.

Cost

- N/A

Purpose and Need

- The project would not be expected to improve safety and mobility for all users and the Purpose and Need is not met.

Two-Way

Traffic Operations / Safety

- Level of service – Minor increases in delay can be expected, but speeds would be expected to be reduced. Intersection capacity can be expected to be reduced at the Stanwood Street/Mill Street and Maine Street intersections.
- Reduction in crashes – Crashes at Cushing Street would be expected to be improved by eliminating lane change opportunities.

Land Use Impact

- Number of buildings impacted – No impact.
- Number of lots impacted - No impact.
- ROW acquisition – No impact.

Environmental Resource Impact

- There are some historic properties in this area that will need review.

Bicycle and Pedestrian

- Improvement would be expected due to lower traffic speeds.

Cost

- A cost was not estimated given this Alternative is recommended for future study.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

One-Way Enhanced

Traffic Operations / Safety

- Level of service – No change in level of service is expected.
- Reduction in crashes – Safety would be expected to be improved due to slower speeds.

Land Use Impact

- Number of buildings impacted – No impacts.
- Number of lots impacted – No impacts.
- ROW acquisition – No impacts.

Environmental Resource Impact

- There are some historic properties in this area that will need review.

Bicycle and Pedestrian

- Significant improvement in bicycle conditions is expected with the introduction of a bicycle lane.

Cost

- The planning-level cost estimate is $250,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendation

Based upon the analysis it is recommended that the One-Way Enhanced Alternative be implemented. A detailed Two-way Conversion Study should be considered in the future. If the Stanwood Street/Mill Street intersection is improved, those improvements would not be significantly impacted by a potential two-way conversion and the safety/capacity enhancements would be necessary to ensure the intersection works with the introduction of traffic on westbound Pleasant Street.

5.6 New Roadway Connections

Section 4.6 presents the location of connector roadways that may offer relief to congested intersections, provide improved alternatives for access to businesses on Pleasant Street and provide bicycle routing options. A summary of each and associated benefits, impacts and cost are summarized below.

Westminster Street Connector Road "1"

This includes construction of a new roadway from Cumberland Farms to the rear of McDonalds and Amato's.

Traffic Operations / Safety

- This connection would have significant safety benefits and would shift traffic volumes from the two noted restaurants to a newly constructed driveway opposite Church Road.

Land Use Impact

- Number of buildings impacted – 1
- Number of lots impacted - 4
- ROW acquisition – 22,500SF

Environmental Resource Impact

- Impacts to the stream behind the properties will need to be evaluated for impacts and permitting.

Bicycle and Pedestrian

- Little improvement expected.

Cost

- The planning-level cost estimate is $850,000.

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Westminster Street Connector Road "2"

Traffic Operations / Safety

- This connection would have some safety and mobility benefits by providing relief to the River Road intersection and provide alternatives to property access.

Land Use Impact

- Number of buildings impacted – none
- Number of lots impacted - 2
- ROW acquisition – 6,500SF

Environmental Resource Impact

- Impacts to the stream behind Westminster Street will need to be evaluated for impacts and permitting.

Bicycle and Pedestrian

- Some bike connectivity improvements would occur.

Cost

- The planning-level cost estimate is $350,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Paul Street Connector Road "3"

Traffic Operations / Safety

- This connection would have safety and mobility benefits for providing connectivity between Church Road Stanwood Street and providing access opportunities to businesses.

Land Use Impact

- Number of buildings impacted – 2
- Number of lots impacted - 6
- ROW acquisition – 20,000SF

Environmental Resource Impact

- Nothing of significance was identified as a potential concern.

Bicycle and Pedestrian

- Bicycle routing options would be improved.

Cost

- The planning-level cost estimate is $1,000,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Turner Street Connector Road "4"

Traffic Operations / Safety

- The new roadway would be expected to reduce traffic volumes turning from Stanwood Street to Pleasant Street southbound and thus would help to relieve congestion. It would particularly provide a direct routing from Stanwood Street to and from River Road and thus minimize problems with merge movements from Stanwood Street to River Road. Land Use Impact
- Number of buildings impacted – 3x
- Number of lots impacted - 4
- ROW acquisition – 14,000SF

Environmental Resource Impact

- Nothing of significance was identified as a potential concern

Bicycle and Pedestrian

- Bike connectivity would be enhanced.

Cost

- The planning-level cost estimate is $750,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

River Road Connector Road "5"

Traffic Operations / Safety

- The short roadway would connect the Dunkin Donuts parking lot and River Road and would improve safety and traffic flow between River Road and Stanwood Street/Mill Street.

Land Use Impact

- Number of buildings impacted – 0
- Number of lots impacted - 1
- ROW acquisition – 4,900SF

Environmental Resource Impact

Nothing of significance was identified as a potential concern with the exception of impacts to Riverside Cemetery property.

Bicycle and Pedestrian

- Little improvement is expected.

Cost

- The planning-level cost estimate is $250,000

Purpose and Need

- The project would be expected to improve safety and mobility for all users and the Purpose and Need is met.

Recommendations

All of the connector roadways have transportation benefits and should be considered for implementation. We would suggest the following ranking from an implementation perspective.

1. Turner Street Connector Road 4
2. Westminster Street Connector Road 1
3. River Road Connector Road 5
4. Paul Street Connector Road 3
5. Westminster Street Connector Road 2

6.0 Public Involvement

This study included several opportunities for public feedback at three public meetings and directly communicating with Town staff. A brief summary of these meetings is provided as follows with all public comments noted in the **Appendix**.

Study Team Meetings

There were several Study Team meetings during the conduct of the study. The Study Team comprised of the following:

Martin Rooney	MaineDOT
Ed Hanscom	MaineDOT
Steve Landry	MaineDOT
John Eldridge	Town of Brunswick
Ryan Barnes	Town of Brunswick
Ryan Leighton	Town of Brunswick
Matt Pelletier	Town of Brunswick
Tom Errico	T.Y. Lin International
Shawn Davis	T.Y. Lin International

Public Meeting #1 September 9, 2020

This was a virtual meeting and involved limited attendance. The purpose of the meeting was to present the purpose and scope of the study. It was intended to be an initial meeting to gain feedback on concerns and suggestions for improvements.

Agenda

1. Introductions
2. Draft Study Objective / Purpose
3. Study Scope of Work
4. Performance Measures
5. Existing Conditions Summary
6. Schedule
8. Public Feedback

Public Meeting #2 February 22, 2021

This was a virtual meeting and involved excellent attendance. The purpose of the meeting was to present future base line conditions and present some improvement concepts for feedback.

Agenda

9. Introductions
10. Draft Study Objective / Purpose
11. Study Scope of Work
12. Performance Measures
13. Existing Conditions Summary
14. Alternative Concepts
15. Schedule
16. Public Feedback

Public Meeting #3 July 29, 2021

This was a hybrid meeting with the purposes of obtaining comments on the draft recommendations.

Agenda

1. Introductions
2. Study Objective / Purpose
3. Performance Measures
4. Draft Alternative Improvement Recommendations
5. Schedule
6. Public Feedback

APPENDIX

Public Meeting Notes/Comments

EMAIL COMMENTS NOVEMBER 2020 – PUBLIC MEETING #1

I just looked at the video of the meeting on 9/29. Probably you all did as well. Here's what I got from it: TY Lin will be doing a comprehensive, if traditional, study of the options for making the entire Pleasant St corridor (295-Maine St) safer, more accessible and less congested. The whole presentation took about 20 minutes. Comment was invited; but not a single call or email came in. Ryan and Bill Eldridge were both quite disappointed given the turnout for the last public meeting. They both said they'd be reaching out to interested parties. Did they contact you, Jared, for our thoughts? They are looking for initial comment before 10/23 (the day after our next meeting). I don't know what to say, except to share with them the information we received as part of our own public input sessions. I'd highlight it in bullet points, rather than the more complex story map, I think. I didn't take notes at the sessions so I can't report exactly what I heard, except that people expressed a)frustration at not being able to safely cross Pleasant St between Cushing and River Rd.; b)experience that the intersection of Church and Pleasant is unsafe; c)and was there concern about getting across Pleasant St closer in to Maine St? I hope someone has either better records or a better memory than I do. Is there anything we can offer to help the study and establish the Committee as a valuable resource in planning? Thanks. Annee

Hi Ryan,

I recently watched the first meeting for the Pleasant St. Corridor Study and am emailing to provide comment.

The intersection of Mill, Pleasant and Stanwood has weak connections for pedestrians. I'd like to see crosswalks on all four sides of the intersection, especially, on Pleasant St in front of the police station.

Similarly, River Rd, Webster and Pleasant could be enhanced by having crosswalks on all sides. Right now, it's really inconvenient for walkers.

The presenter mentioned the possibility of reducing the number of driveways by encouraging shared driveways. I think that's a great idea and hope it will be further considered.

Regards,

William Steinbock

Hello Ryan,

It was a pleasure speaking with you the other day. As I mentioned, I am the president of the Northwest Brunswick Neighborhood Association. Our members will be following this study closely, but today I am writing as an individual resident of our downtown neighborhood.

Getting to Route 1 S from Maine St. and from our neighborhood is clearly a mess. The left turn from Cushing St. to Mill St. can be a nightmare, and the other routes are incredibly inefficient and send unnecessary traffic through downtown or through other residential neighborhoods.

Making Pleasant St. a 2-way street is no simple matter, however. We are all aware that when the massive volume of vehicles on Rte. 1 North that is turning left onto Mill St. has to wait for a red light at the police station intersection it backs up severely at high volume times. How far will it back up if it has to wait for **another** red light while a newly created southbound lane of Inner Pleasant St. clears? I know that this has been the major impediment to creating 2-way traffic on Pleasant St. in the past.

I think the worst possible approach to a 2-way Pleasant St. would be to have it start at Union St. I am trying to think of any advantage to that. I suppose it would take some volume off Maine St., but it would move that volume to Union St., a *residential* street that would become a major artery. In addition, it would send a great many cars through the residential neighborhoods between Maine St. and Union St. That would be terrible for our neighborhood which extends from Mill St. to the railroad station.

I appreciate your efforts to solve this important problem. A workable solution will require some very creative thinking.

Sincerely,

Courtney Neff

Hello Claudia,

I don't follow your thinking re those one-way side streets. Those streets already receive a lot of traffic heading to and from Maine St., and they are not very wide. Gilman St. is only 22 feet wide, Lincoln are Cumberland Streets are about 27 and 28 feet wide, respectively. With parking allowed on one side as it is, two cars could not pass each other if they were 2-way streets.

My major concern is that if Pleasant St. were a 2-way street from Union St. to the police station, it would send a large number of vehicles from Maine St. to Union St. via Gilman St., Cumberland St., Elm St. and perhaps several other side streets to get to outbound Pleasant St.. All of this traffic would be added to Union St., another residential street.

If the decision is eventually made to make Pleasant St. two-ways, I think that it would be much better to put that traffic burden on the massive intersection at Pleasant St. and Maine St. rather than directing traffic through our neighborhood or any other residential neighborhood. I do not see that Maine St. Intersection as a major obstacle to our traffic engineers.

Having said that, I do not foresee them solving the mess that 2-way traffic on Inner Pleasant St. would create at the Stanwood intersection. As you know, there is a massive volume of northbound vehicles on Outer Pleasant St. trying to turn left onto Mill St. Currently, they have a red light to allow Stanwood St. to empty and for southbound vehicles on Mill St. to go straight onto Stanwood St. and to turn left onto Pleasant St.. With a 2-way Pleasant St., they would have to wait through another red light for outbound Pleasant St. to empty. I think northbound Rte. 1 (Outer Pleasant St.) could back up to the I 295 offramp in the summer. This should be *interesting*.

Courtney

Yes, Courtney, it is beyond complicated.

So...why do you think two ways from Union out is a bad idea?

To me it seems to

1. be consistent with the one way side street pattern downtown between Union or Federal and Maine.

2. to not overburden the T intersection of Pleasant and Maine

3. to offer a means of escape for most of us in NWBNA

I'd be interested to hear.

Claudia

Dear Ryan et al:

I own a 17000 SF congregate care facility on the corner of Union and Cumberland, with 25 seniors, ages 65 to 97. Already this summer we have noticed that Union Street is becoming a pass through with cars and trucks going faster and louder than ever before. Speed is not controlled well at all.

The residents chose the location because of the neighborhood and the ability to walk freely downtown and to feel a sense of community and safety.

I am fearful of increasing or directing traffic towards Union and Cumberland and its effect on safety for pedestrians and the quality of downtown living.

I agree with Courtney that creative and well rounded solutions are needed here to protect the culture of the Brunswick downtown neighborhoods.

My thanks,

Amy McLellan

207-671-9033 (cell)

Thanks Ryan,

Answer # 2 especially clarifying - confirms instinctive but amateur guesses. That's an area I have driving experience with on Pleasant and those stops for turners would be top of my hazard list, with lane changing second. With that in mind, relocating the River Intersection further West could help.

Answer #3 makes sense, but worth some initial consideration. A perpendicular connection of River to Pleasant places that intersection further West - i.e. at a spot with fewer stops, lane changes, etc., which is to say, at the West side of the auto sales property (auto dealer swaps West slice of property for new roadway and acquires East slice of property from abandoned roadway. Yes would need a light. Also likely to be expensive in terms of new pavement, infrastructure, potential drainage issues - who knows? I think it's a reach, iffy for achieving stated goals, but could make sense depending on what traffic engineers conclude and if it marries up with other goals for managing that particular area on that side of Pleasant and for safe commercial development going forward.

Claudia

3. Would the scope of the work include reviewing the possibility of Relocating the River Road intersection to be more perpendicular to Pleasant Street. **Options for parallel connection, interconnections, and relocations will be reviewed. Relocating River Road would be challenging primarily because it would create an additional access point that would likely require a signal and could create additional accident patterns.**

Have a great day

Claudia – I received your voicemail I am working remotely today and tomorrow, and unfortunately your phone does allow calls from my cell which is programmed to have a blocked out going number. I will do my best to summarize your questions below and provide the answers that I can. Please feel free to let me know if you have any additional questions:

1.Where is the new fire station going to be accessed from? **All personnel and fire/ems equipment will be accessed Pleasant Street from Webster Street at the existing signal. There is a small visitor parking lot located on Pleasant street to the west of Webster Street but it will be restricted to right in and right out only.**

2. Is the angle of the River Road intersection causing the high crash location between Webster Street an Lombard Street. **I don't have a copy of the collision diagram for this location but the accident patterns at all HCLs will be analyzed to determine if there are ways to mitigate the crash patterns. Typically links between intersections become HCLs because of: Turning Movements into and out of driveways, Improper/unsafe lane changes, Rear end collisions attributed to traffic stopping to turn into a driveway**

Dear Ryan, Sorry for the last minute submission of my comments.

I want to start by confirming that my comments do not reflect a consensus of MPIC since we haven't met recently, but it does reflect recommendations in the Downtown and **Outer Pleasant Street Corridor** Master Plan adopted in 2011.

- have the Town work with MDOT to change the signs on I-295 to direct traffic to direct traffic going down the coast to Exit 31 and the Coastal Connector and direct traffic to Exit 28 to visit "Historic Downtown Brunswick."

- work with MDOT to design an enhanced gateway with consideration being given to Pleasant Street gateway recommendations included in the NASB Transportation Study completed in 2011.

-evaluate scenarios developed through the NASB traffic study and Gateway One study, such as roundabouts or parallel roads from Church Road to River Road and from River Road to Stanwood Street.

-reduce number of curb cuts.

-improve sidewalks, crossings and signalization.

-increase the number of pedestrian crossings.

-restore inner Pleasant Street to two-way traffic.

I and others brought many of these recommendations up at the public meeting held pre-Covid 19.

And my takeways from the online meeting:

This subject and data sharing for this kind of project does not lend itself to an online meeting unless participants can see the maps, graphs, etc. clearly. Such as having them available online for people to see.

I'm disappointed that Tom or someone didn't mention ideas that were brought up at the public meeting. It may have stirred some people listening to call in.

You need better notice and coverage of this topic. It's very important and I heard you and Tom and John wonder, "Where are the angry mobs we had before?" (Or something to that extent.) I can't remember receiving notice of it. And I was surprised that MPIC received the flyer by email after the meeting. Maybe I missed any advance notice. If so, I'm sorry.

I would suggest an article in the Times Record, which will be shared with the PPH and Coastal Journal, of course.

It is too bad that the Downtown Town Councilor seat is vacant.

Good luck. I'm looking forward to calling a meeting of MPIC to go over this study with you and TYLin.

Thanks,

Margo
Margo Knight 207-798-4600 (h) 207-319-5767 (c)

Hello Ryan,

First I want to thank you for installing the flashing pedestrian crossing lights on Pleasant St. near the Cushing St. intersection. When the town held the bike and pedestrian safety meetings, we reported that for *several* reasons that was a dangerous spot for pedestrians to cross, and the town responded.

When I watched the first public meeting of the Pleasant St. Corridor Study Group, I was not surprised that there are an excessive number of accidents at the corner of Pleasant and Cushing St. I suspect speeding on Pleasant St. is a contributing factor. In addition, the view of approaching cars in the left lane of Pleasant St. is obscured by cars parked In front of Tess' Market. It would be great if that could be improved.

Also on Cushing St.--Please consider adding stop signs on Cushing St. at the corner of Cumberland St. just like we have at Union and Cumberland. Too many drivers treat Cushing St. like a drag strip, and I think that would help to slow traffic. There is a lot of activity near that intersection with the strip mall and cars heading to Pleasant St. and Mill St. Also, many young kids live on the west side of Cushing St. They cross Cushing St. all the time walking to Maine St., and the school bus stops at the corner of High St. and Cushing St. Cushing St. is largely a residential street in a residential neighborhood. It should be made as safe as possible and not treated as a thoroughfare.

Thanks for your consideration,

Courtney Neff

19 High St.

Dear Ryan et. al.

I saw my friend Dan Catlin at the Tontine Friday morning. He has ideas about business access, combined entries, potentials for feeders, on outer Pleasant. Even a few measured steps in those directions here and there will make a big difference in Dan's opinion. I've sent Dan and Mike Lyne your link. I strongly recommend including Jim Howard and Ted Crooker along with others of their colleagues. If you need e-mails I can send addresses to you.

Regardless of whether any among these currently own property on Pleasant, they have - every one of them - thought long and hard about the traffic-related constraints to investing on Pleasant Street. They really know the ground.

I want to stress the reality that Brunswick **needs to expand its tax base** and Pleasant offers some opportunity for that. The goal should be to encourage safe connectivity and business development. Moving vehicles at major speed through and out of town is antithetical to those other goals. Moving traffic AND developing business can be a complimentary project.

A successful approach of Pleasant will require some new thinking - and I do believe that traffic engineers at MDOT are getting there. You must help with advocacy for Brunswick.

Claudia

EMAIL COMMENTS PRIOR TO PUBLIC MEETING #2

gailgross@msn.com

Dear Ryan,

Thank you for the letter you sent regarding the 2nd meeting. This, sadly, is the first that I am learning about the project. I have several comments and concerns which focus on the area near Spring Street. We have some particular issues that have not been mentioned (I watched a recording of the first meeting).

1. Traffic still moves too fast. It was noted in the study that we have a daily average of about 6000 cars a day. While that is comparatively low, we have an inordinately large proportion of trucks and multi-axel vehicles coming in and out of Spring Street making deliveries and purchases at Hammonds. We also expect the completion of the new parking lot on Cedar Street. Traffic speeds up as vehicles begin the descent toward Maine Street. We often hear squealing brakes and air brakes as drivers attempt to make the turn onto Spring. I expect that will be greater when the parking lot opens.

2. We have noticed a change in building vibration. While large trucks have long caused our house to vibrate, we think it has gotten worse since the gas lines have gone in. **In fact, we are requesting that you consider a vibration impact study on buildings as part of the research.** Setting up seismometers are an important aspect of measuring ways to improve safety for traffic and especially for residents. Many homeowners have recently invested in our neighborhood. We have improved and added to the visual appearance of driving into our town. Multi-axel vehicles create vibrations that are, on average, 4 times greater than cars. The cause for these vibrations can be remediated by addressing the roadway along with the traffic. This could potentially save the integrity of the houses on this stretch of Pleasant Street and possibly save lives.

3. The crosswalk added at the intersection of Cushing Street is almost useless. Speeding cars do not even notice it. Better signage may help.

Please feel free to contact me if you would like to learn more. In fact, I'd like to further discuss having the vibration measured in our house.

Sincerely,

Gail Gross

Gail Gross, LEED GA

Gail Gross Design and Interiors

215.990.0243

207.844.3244

Hello Mr Barnes and thank you for sharing the video of the first public meeting on September 29. It was informative and useful, and prompts me to offer some comments.

I've lived in the same house at 58 Pleasant Street for 73 years near where Spring Street and Cushing Street intersect Pleasant. This area of Pleasant is one way traffic, inbound towards Maine Street. I'm writing to strongly ask that you do not convert that section of Pleasant street (from Mill to Maine) to two way traffic.

I remember, and my family remembers, how miserable it was to get out of our driveway onto Pleasant when it was two way. Many times one of my parents had to walk into the street and stop traffic with hand signals so we could proceed on to Pleasant. It was frustrating to say the least. This was resolved many years ago, but please do not convert that section of Pleasant to two way traffic as part of this study.

It was notable in the video you shared that the TYLIN consultant commented on the high number of crashes that occur at the intersection of Cushing and Pleasant and also the crashes from left turns out of McDonalds onto Pleasant. Changing Pleasant to two way traffic would only increase the likelihood of crashes at Cushing and Pleasant as well as increase the time and difficulty of Pleasant Street residents to get onto Pleasant.

Thank you for the opportunity to offer my feedback.

And would you please reply with the links, phone numbers and other info about the upcoming meeting on February 22. That way I won't have to type in all those characters from the letter I received.

Janet McGraves

58 Pleasant Street

Brunswick

Hello,

My name is Linsay Lee. I have lived on the corner of Pleasant Street and Summer Street for almost a year now. I drive up and down Pleasant Street on a daily basis to commute to and from work. When I saw that there was an opportunity to comment on the safety of Pleasant Street I had to contribute because my husband and I have found 2 major safety issues regarding this street.

First, our driveway is along Summer Street. Traffic stopped at the light at the intersection of Pleasant and Stanwood Street builds up and blocks Summer street, despite there being a sign saying not to block the intersection. This wouldn't be that big of a deal except when traffic builds up, if we have to cross traffic, and someone gives us room to pass through, we can't see oncoming traffic and they can't see us. We have to inch into the intersection so that we don't get hit on the front of our vehicles.

Second, I am concerned with the excessive speeds and lane changing occurring on Pleasant Street between the light at Standwood and I-295. During my morning and evening commute, it is not uncommon for me to encounter other commuters traveling 45-55 MPH on Pleasant Street between the lights at Stanwood Street and Church Road. On top of high speeds, people make excessive lane changes to get down Pleasant Street as fast as possible. If someone has to cross traffic to turn into a business, it's very dangerous! On my way home from Bangor yesterday I was extremely close to a collision. I was heading up from I-295 to our home on the corner of Pleasant and Summer Street. Just after the light at Pleasant and Church, someone in the left lane was trying to cross traffic and turn into McDonald's. I was traveling in the right lane. A man in the left lane went to make a lane change to avoid stopping and waiting behind the person turning into McDonald's. I was in his blind spot and he almost hit me. I had to brake and swerve to avoid the collision. The road is so congested, adding high speeds and impatient people making lane changes, getting to and from I-295 safely is a challenge.

I hope that this message is taken into consideration. Thank you so much for taking the time to hear my concerns.

Linsay Lee

I'd like to suggest that the town consider eliminating, or severely restricting left hand turns onto and from Pleasant St. If several safe locations are made for changing direction with lights, this should not present a problem for businesses and will greatly improve the flow of traffic and safety.

Another possibility is changing to one lane in each direction with a wide median containing cutouts for left turns.

Doug Benner

263 Hacker Rd

Brunswick

Hi,

I am writing with a comment on the conditions on Pleasant Street. I have noticed that the lane marker arrows on the street where Pleasant Street intersects with Maine Street are very faded, and it's difficult to tell which lane is which as you approach the intersection. Having lane marker signs on the stoplight would make it much easier to tell in advance what lane you need to be in, and cut down on people drifting or changing lanes at the last minute as they approach the light.

Thank you,
Hilary Martin

More of a point than a question: Pleasant street is one way in the final section leading to Maine Street, this was not always the case. Restoring it to two-way the entire length would do a great deal to alleviate traffic at the turntable between the green bridge and the route 1 overpass.

Secondarily, it would benefit the businesses and organizations now on the one-way section--as people unfamiliar with the area would be more easily able to get to those locations. I believe the advantages would well offset the challenges of modifying the intersection where the one-way now begins at the Police Station.

Art Boulay, MBA, CMC
President / CEO
+1 (207) 373-9301 x1
aboulay@strategictalentmgmt.com
www.strategictalentmgmt.com

To Whom It May Concern:

My husband and I are Brunswick citizens and live over in the Cooks Corner area with our two young sons. We use Pleasant Street on a regular basis and are eager to see an upgrade that would make the street more driver-friendly. Our suggestion is to restrict left-hand turns on the busy section of the street that is shared with Route 1 by replacing multiple intersections with roundabouts/traffic circles and creating a barrier between the two middle lanes, similar to route 1 in Bath. By doing this, it would force people to use the roundabouts to change direction and prevent cross-traffic turns, thereby ensuring two lanes of flowing traffic in both directions.

While on the subject of road safety, we hope one of the next projects will involve the Cooks Corner intersections. Obviously, we also use this area daily and are concerned with the lack of crosswalks and sidewalks/bike paths. Specifically, Old Bath Road (from the Lowe's intersection) is not currently pedestrian-friendly and could greatly benefit from some upgrades. This road is used to access the town bike path and there are frequently people recreating in the area; the bridge over Route 1 on Old Bath Road is especially frightening for both pedestrians and motorists (there is no shoulder).

Please feel free to bring our ideas about Pleasant Street to the meeting on Feb 22nd. I hope you are the right point of contact for this second concern, if not please forward.

Thank you,

Steph and Josh Arkels

110 Storer Road

Brunswick, ME

Greetings Ryan,

My wife and I have recently moved to Brunswick and built a new house on Rugosa Way, off Church Street. I am a landscape architect and regional planner, and have an interest in the Pleasant Street Corridor Study, both as a professional in this field, but also as a local resident. The announcement that appeared in the Midcoast Beacon for the upcoming public meeting scheduled for February 22, 2021 caught my attention. I looked on the Town website for the Preliminary Recommendations but couldn't find them.

Can you send me a PDF of the recommendations, or a website reference to where they are located? Thank you!

I understand that the study has a primary focus on traffic flows and safety, as it should, but as the principal corridor to enter the beautiful downtown area of Brunswick, Pleasant Street merits additional study from a visual aesthetic perspective as well. Hopefully, a portion of the corridor improvements will address those issues too. (I am reluctant to make comments until I am better informed.)

Thanks for the work you are doing during this challenging time of the pandemic.

Best regards,

Brian Houseal

#52 Rugosa Way

Cell: #518-477-0741

Side walk coming in to. Brunswick. From church. Rd For walking is not good for a elder person
Also the new car wash side walk area as. Cars leaving over side walk Ice on side walk from cars leaving the area. Sliperey walk
Thanks. Holland Low. 10 church. Rd

Hello, Pleasant St. is an unsafe road. A long time ago the highway(295) was supposed to go directly to Bath but a few local businesses wanted customers to drive by their businesses so the highway ended at Pleasant St. and resumed after Maine St. With state and federal funding the highway could be built over(pillars/ columns)Pleasant St to make it one with the Portland and Bath highways. Thanks, Jim Coffin

FEBRUARY 22, 2021 PUBLIC MEETING # 2 *Q&A TRANSCRIPT*

- *Anonymous Attendee 06:28 PM*

What will be done to address the blatant disregard for the 25 mph speed limit between Stanwood Street and Union Street?

- *Kristin von Donop 06:30 PM*

Will you conduct a vibration impact study on homes as part of the research, using seismometers to measure the impact on our homes between Stanwood and Cushing St? We notice a difference since the gas line was installed.

- *Anonymous Attendee 06:45 PM*

A roundabout is not a good solution to lowering traffic speed, and may exacerbate the problems, especially with newcomers (e.g., tourists). A less expensive and equally effective solution may be to install a speed detection/driver informing signal, and a camera to photograph speeders' license plates for ticketing them. Have you considered this alternative?

- *Anonymous Attendee 06:48 PM*

Will your team undertake a visual aesthetics assessment in concert with the bike paths and pedestrians? A more beautiful gateway corridor can also slow traffic.

- *Michael Heath 06:51 PM*

How would the new fire station affect these plans at River Rd

- *Anonymous Attendee 06:51 PM*

Would the Church Road option include the ability to turn left from Cumberland Farms, or go directly across Pleasant St to Church Rd?

- *Anonymous Attendee 06:54 PM*

Stanwood Mill/Pleasant St intersection might be a candidate for a traffic roundabout; have you considered one? The intersection option presented will be a huge expanse of pavement and roadway.

- *eric 06:58 PM*

Can you expound on the safety concerns at Cushing and Pleasant? Pedestrian or car collisions? I didn't see any visuals for inner Pleasant. What would the adjustments for traffic look like down to Maine St? It sounds like you mentioned something about two-way traffic on Pleasant. What would the impacts be for this sort of traffic adjustments on inner Pleasant?

- *Peggy Brown 07:03 PM*

I'm really encouraged by seeing this. Can you give some idea of the kinds of obstacles that could be encountered?

- *jay5 07:05 PM*

Any to put in a bypass from mill street to river rd behind dunkin

- *Candace Kanes 07:06 PM*

I live on Sage Hill -- the only acess is off Mill Street. If Mill Street is 4 lanes, it seems like it will be nearly impossible to get in and out of Sage Hill to head either direction on Mill.

- *Catherine Ferdinand 07:07 PM*

How much space would be needed for a roundabout at Stanwood/Mill St. to replace the lights?

- *Kristin Jhamb 07:07 PM*

any thoughts about beuatifying that area as well?

kristin jhamb

- *Margo Knight 07:07 PM*

I'm dissapointed that there isn't a diagram for two-way innter Pleasant Street. I'd like to see that you've actually looked at that option.

- *Anonymous Attendee 07:08 PM*

please discuss potential for roundabout at pleasant/Stanwood/Mill Sts

- *Kristin Jhamb 07:08 PM*

beautifying!! I can spell!

- *Anonymous Attendee 07:10 PM*

Were there any discussions of how this corridor could access or be a feeder from/to the East Coast Greenway coming from Freeport or feeding on/off the Androscoggin Path

- *Anonymous Attendee 07:10 PM*

In the traffic study we saw that 25k motorists per day were turning left onto Mill Street, with only 5k cars heading to Maine Street - as a downtown business owner I'd like to ask why we're not sending more traffic to downtown brunswick with better signage? I understand congestion concerns, but perhaps a 'Business' vs 'Express' designation might help bring more qualified tourists looking to spend money in Brunswick this summer. we need it.

- *Anonymous Attendee 07:11 PM*

Will there still be a way for people to acess businesses that are along pleasant street from pleasant street.

- *Anonymous Attendee 07:11 PM*

One of the best actions to restore UnPleasant Street to a Pleasant Street is to have many more street trees.

- *jfenty 07:15 PM*

It seems to me that if southbound 295 traffic will be directed to use the Mill Street corridor, adding a second direction to Pleasant Street would cannabilize traffic from that route and create turbulence at the Stanwood /Mill intersection.

- *Anonymous Attendee 07:15 PM*

On your suggestion of getting two lanes headed south off of mill street, how would people make left turn off of stanwood street on to pleasant street heading south without creating problem with vehicles going south off of mill street.

- *Greg Farr 07:15 PM*

2questions \comments

1) have you considered the impact of the changes during the high tourism months

2) traffic coming off and on River Road is significant. The Mill Road plan would likely make getting there from Stanwood much worse \ more difficult.

- *Louise Rosen 07:17 PM*

There was a time when 295 had signage directing traffic seeking Rt. 1 N to the Coastal Connector. This signage was taken down and instead it suggests there is a "Coastal Route 1" accessible by taking the exit to Pleasant, falsely directing traffic to Pleasant and Mill Street. Before ANYTHING is done, the Coastal Connector signage on Rt. 1 should be restored and a new traffic analysis done. So much of what is being presented here is based on inaccurate assumptions and misleading data.

- *Anonymous Attendee 07:18 PM*

Why make two lanes from southbound Mill Street to Pleasant Street? Having the added lande makes the pedestrian crossing pretty long. Also, more lanes can resulting in higher speeds entering Pleasant Street.

- *kimbodwell 07:18 PM*

Good Evening Jim Bodwell From Bodwell Motors 169 Pleasant street, we feel that currently numerous motorists use are parking lot as a turn-around after leaving Cumberland farms . They also use are parking lot as a connecter road from Pleasant to Church rd. I think it is very important that the town/state buy the Prompto Quick lube and turn Churh rd into a 4 way intersection allowing the cumberlands farm customers to turn towards town or get on Churc road.

- *Anonymous Attendee 07:19 PM*

I previously heard that there was talk of putting a sign on 295 that takes people north via the Topsham connector rather than bringing them through Brunswick. Would this be an option for lessening impact into downtown?

- *Ellen Maling 07:20 PM*

Has anyone asked about a middle turning lane... for the cluster of businesses around Dunkin Donut.

- *Candace Kanes 07:20 PM*

To be more specific on Sage Hill -- it's a dead-end street. No choice but Mill Street to get in or out. AND, it's very close to Stanwood-Pleasant intersection. FYI

- *Anonymous Attendee 07:20 PM*

You mentioned that inner Pleasant Street could accommodate 2 way traffic. Would this be without any road widening? How would this affect essential parking?

- *Anonymous Attendee 07:20 PM*

What's the price tag for this planning process!

- *Louise Rosen 07:21 PM*

There is no city or town in N. America that has separated itself from their waterfront that hasn't regretted it. The Swinging Bridge and the Walking Path have become real benefits to the community. You are proposing increasing the separation from the river, when the modern, informed, smart approach would be to increase access to the waterfront.

- *Jennifer Daigle 07:21 PM*

For the round-about option, how will the new Access Road and Pleasant street intersect? It appears another intersection will be required for what is now two 2-way streets. Are there any changes being considered for where the I-295 on-ramp currently spilts from Pleasant street in front of the Irving Station?

- *Beth Soma 07:23 PM*

You are speaking of adding turning lanes into McDonald's and Amatos. Does this mean you will be widening Pleasant street?

- *Anonymous Attendee 07:23 PM*

Is there any discussion, on keeping inner Pleasant a one way, but with a bike lane (and a single lane of traffic)?

- *William Steinbock 07:25 PM*

Thanks for making the slides available for review prior to the meeting.

First, i want to voice support for converting Pleasant from Stanwood St. to Maine St. into a two-way street. It's a good idea.

2nd, I'm concerned that the River Rd, Webster St. and Pleasant St and Pleasant/Stanwood/Mill intersections do not feature 4 crosswalks. This creates significant barriers to people using the sidewalks and does not meet the goal of improving safety, mobility and accessibility for all users. I strongly encourage 4 crosswalks rather than 3.

Separately but related, I hope the town will not pursue any decisions that would further widen Pleasant St or Stanwood, including building new turn lanes unless the widening is for a separated multiuse path. Widening Pleasant for expanded car use will likely lock it in a pattern of strip style, auto-oriented development, hostile to other users for years to come.

The proposal for connector roads is interesting but I see it as an opportunity to prioritize the safety of people not

- *William Steinbock 07:26 PM*

not traveling in cars. These connector roads could be spaces dedicated to walkers, joggers, cyclists, etc. If that is not possible, the connectors should feature a wide multi-use path alongside them. Also, if Connector Road 1 can't be connected to Westminster, it seems inappropriate to ask tax payers to fund a road the will primarily benefit McDonalds and Amatos

Finally, I'd like to learn more about the costs of building a roundabout vs. maintaining the current configuration. The reason for constructing this appears to be t that people are speeding as they exit I-295. I wonder whether maintaining the current configuration and requesting the police post an officer in that area to issue speeders tickets wouldn't be a simpler and more cost effective solution.

Thanks!

- *Tom Barter-BDA 07:26 PM*

Great information tonight; comment on the roundabout at the south end where 295 begins/ends: as a resident and frequent traveller of this corridor I would also advocate not only the benefit of traffic calming but it could be a substantial improvement in safety for those having to make the double-loop merge to head south onto route 1-definetely in favor of this concept

- *Joel Smith 07:27 PM*

At Mill, If you allow one one southbound from downtown, could you sync it with the left turns from Stanwood (also one lane) to minimize the impact on the Pleasant /Mill north-south traffic.

- *Louise Rosen 07:29 PM*

You can't change the signage on 295? It was here when I moved to Brunswick 15 years ago. So you want to carry out this process based on inaccurate info?

- *Louise Rosen 07:29 PM*

The Coastal Connector was deisgned to be expanded.

- *Anonymous Attendee 07:31 PM*

Does the fact that inner Pleasant St. is primarily residential impact the planning process?

- *Michael Heath 07:31 PM*

is there any discussion about bike lanes on Pleasant St itself, if connector routes are not implememented? Its very difficult to bike there now.

- *Anonymous Attendee 07:33 PM*

As a resident who lives on Pleasant Street, I am concerned that a two-way street on Pleasant would increase traffic and create congested roadways that would impact pedestrian safety and general peace in the neighborhood.

- *Anonymous Attendee 07:33 PM*

Direct traffic away from Pleasant St in Brunswick to the Coastal Connector and bury Rt 196 at the 201 intersection in Topsham to expedite traffic.

- *Anonymous Attendee 07:33 PM*

Would this proposal for Mill and Pleasant St make assessing Mill St from Cumberland more difficult?

- *Catherine Ferdinand 07:33 PM*

Regarding potential sidewalk improvements - are the locations of existing utility poles a constraint that limits the options or can those be relocated?

- *courtneyc.neff 07:35 PM*

How realistic are connector roads 3 and 4 that go through commercial buildings?

Courtney

- *Louise Rosen 07:39 PM*

What a sad commentary on the attitudes of those in charge that what was historically "Frenchville" is regarded as disposable. Another set of moves to devalue and marginalize District 6. You could create an "emerald necklace" that would include Davis Park and other greenspace in town and be a shining example of informed planning. Instead, you seem to be defaulting to a 1950s mindset.

- *Amy L. Barriault 07:43 PM*

I am in favor of looking at all scenarios that protect the pedestrian and bicycling ways from River Rd to Pleasant and from Cushing across Mill St to the bridge.

- *Louise Rosen 07:43 PM*

It's not about national bike routes, it's about local people who want to commute.

- *Anonymous Attendee 07:44 PM*

comment...I disagree that you should veer cyclists away from a certain road, such as Pleasant. Any update to roads should keep in mind commuter bike traffic, and should ENCOURAGE biking, which could cut down on auto traffic.

- *Anonymous Attendee 07:44 PM*

Where would you enter this new, proposed, two-way section of inner Pleasant street?

- *Anonymous Attendee 07:46 PM*

Would it be possible to encourage exiting the downtown area and Maine Street via route 1 to Mill Street rather than through the residential area of inner Pleasant St.?

- *Louise Rosen 07:46 PM*

What a sad commentary on the attitudes of those in charge that what was historically "Frenchville" is regarded as disposable. Another set of moves to devalue and marginalize District 6. You could create an "emerald necklace" that would include Davis Park and other greenspace in town and be a shining example of informed planning. Instead, you seem to be defaulting to a 1950s mindset.

- *Anonymous Attendee 07:47 PM*

Aggressive violation of speed limits in Brunswick is rampant, especially on Pleasant and Maine Streets and Bath Road. Better traffic calming measures are needed. What other actions can be undertaken short of speed mats?

- *Amy L. Barriault 07:49 PM*

I own property on Pleasant St am not in favor of a two way on lower Pleasant and would encourage you to put a flashing light reminding people of the speed limit. People fly down this street. Adding two ways will further complicate the traffic pattern at Cushing and Pleasant St risking people's safety.

- *Louise Rosen 08:02 PM*

Brunswick always says that - "nothing's been decided". The reality is always something else.

- *Kristin von Donop 08:03 PM*

We are not in favor of two way traffic on Pleasant St

Chat

- *From Kristin Jhamb to All Panelists: 06:45 PM*

No offense-but this is also one of the ugliest stretches in Brunswick.

- *From RLS to All Panelists: 06:59 PM*

Im really impressed so far. I wont be able to stay for the full meeting and don't have a question, but wanted to let you know that i'm so pleased by Tom's presentation and the ideas presented, e.g. the ideas of connector roads, 2-way on Pleasant street, traffic calming at the west entry of Pleasant street, and enabling multi-modality transportation (e.g. bikers and pedestrians also). Very nice, thanks much I hope some of this will be possible

Im missing that connector road I think I saw prototyped once behind Pat's pizza and Dunkin, giving relief to on/of turning on pleasant street there.

- *From Ellen Maling to All Panelists: 07:06 PM*

One question... if it hasn't been asked already. What is the plan for managing traffic from the new fire station?

- *From Sam to All Panelists: 07:07 PM*

please discuss potential for roundabout at pleasant/Stanwood/Mill Sts

- *From Joel Smith to All Panelists: 07:12 PM*

Love these options. Would like to see a return to two-way street on pleasant by downtown. We often see people going the wrong way (southbound) on that stretch.

I've seen great benefits of both back of business connectors and also reducing driveways (which also helps bike and pedestrian interaction).

- *From Bruce Talbot to All Panelists: 07:21 PM*

Bruce Talbot here. My wife is owner of Tess Market and we see cars every day ....every day...every day.. did I say every day...going wrong way every day. Also left turns to Cushing St. every day. Fortunate no one has been killed. Need to think about changing Pleasant St. to two way traffic from Maine St. all the way out . Feel this would slow traffic down coming down Hill on Pleasant St. and alleviate congestion downtown for people headed south.

- *From Kat to All Panelists: 07:22 PM*

would a two way conversion on Pleasant street widen into the properties near spring street. what amount of widening would the 2 way conversion entail?.

- *From jay5 to All Panelists: 07:24 PM*

the corridors are a great plan. roundabout will bottle neck traffic

- *From Bruce Talbot to All Panelists: 07:30 PM*

Also those of us who own businesses on this part of Pleasant Street between Maine and Stanwood/Mill Streets will have better access for our customers. Ultimately two way traffic for the entire length will bring better traffic flow in and out of town as well as emergency vehicles.

- *From Janet to All Panelists: 07:31 PM*

Top of pleasant st to maine st if 2way it will be inpossable for people to get out of their driveways.Standwood/mill sounds better

- *From Louise Rosen to All Panelists: 07:51 PM*

"We have a situation", we sure do. So the plan is to add a mega fire station to the mix and then just open out every bit of access you can?

- *From Mitchell Brown to All Panelists: 07:53 PM*

Louise's comments make a lot of sense.

- *From Ken Lloyd to All Panelists: 07:55 PM*

applause to Louise

- *luann gagne 07:59 PM*

i agree with Kathy 100%

- *From Mitchell Brown to All Panelists: 08:03 PM*

As a property owner on inner Pleasant Street, I strongly disagree with creating a two-way road.

- *From Audra Fenty to All Panelists: 08:04 PM*

I have 2 young kids and live on pleasant street. I appreciate Janet's feedback about being a youth on Pleasant St. when it was two-way. This is my concern for the safety of my children.

- *From Daniel Ankeles to Mitchell Brown, All Panelists: 08:06 PM*

Thank you everyone for your thoughtful feedback.

EMAIL COMMENTS DURING OR AFTER PUBLIC MEETING #2

Hi Ryan,

Thanks for facilitating the meeting earlier this week. I appreciated all the ideas and information. I was thinking more about the "signage" discussion with the idea of diverting drivers from going through our notorious "Unpleasant Street".

Not knowing the history and the obstacles that seem to be present, could one option/scenario for the planners could consider would be a simple addition to northbound signage to say, "For Bath and points North, use exit 31" or for "Freeport and southbound traffic use Exit 31B."

If we can get more cars diverted, everyone wins. Google maps automatically defaults the traffic through Pleasant street, so we could organize a guerilla campaign to report road construction in the area to move folks to the 4-minute detour to avoid the traffic!

Thanks,

Ellen

207 319 3704

Good evening Ryan

Shaun Hogan here, town resident at 53 Safari Drive in the southwest corner of town. I just finished watching the recording of the Pleasant Street Corridor Public Forum from the other night and had a few thoughts I wanted to share with Mr. Errico…

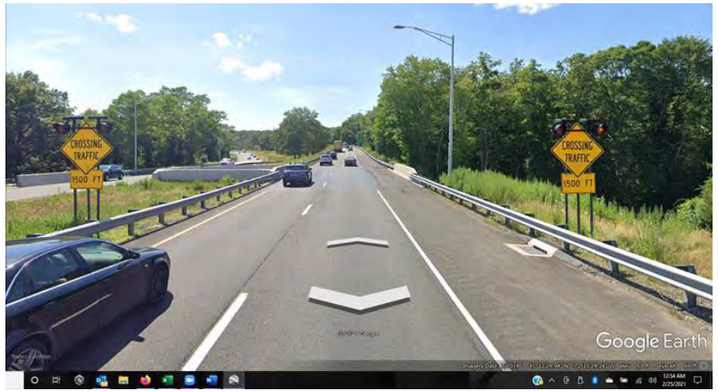
- I-295 Access via River Road: I heard Counselor Wilson mention a few times that at one time access to I-295 via exits onto and off of River Road had been considered but I didn't hear much elaboration beyond that. I'm curious to know if it is beyond the scope of this feasibility study to reexamine that possibility and if not, is that something that can be looked into as a potential traffic volume solution? Hard to say how River Road residents would react to such a proposal but if they desire easier access to the highway, that may be a better option than navigating outer Pleasant Street. Also, it seems a lot of the traffic utilizing outer Pleasant Street is BIW related. A 3rd way to access the highway for BIW folks may relieve a lot of congestion on outer Pleasant Street. Again, how would that impact traffic on River Road? Just a thought I'd be interested in learning more about.

- Signalizing Southbound Traffic Off Mill St. to outer Pleasant Street: We tried that a year or so ago and the volume of traffic that backed up down Mill St. and US-1 was super bad; particularly when BIW let out in the early evening hours. Maybe the extra turning lane on Mill St. combined with reduced left turn traffic off of Stanwood would help but I'd sure hate to see us revert to that daily traffic jam down US-1.

- Connector Roads: Major support for all 4 proposed connector roads; excellent idea – would love to see it happen. I have no objection to tax dollars being used to give rear access to Mickey D's and Amatos if it helps reduce accidents and congestion on outer Pleasant St.

- No Left Turn Off Of Stanwood If Connector 4 Built: Someone mentioned eliminating left turns off Stanwood onto Pleasant if a connector road to Webster was built. I think that's a fantastic idea.

- Traffic Circle At Jug Handle/End Of Outer Pleasant St.: I strongly support the idea of a traffic circle as envisioned. Having lived around the world while in the military, traffic circles are very common everywhere but in the US. Americans seem to have an allergy to them. As a driver ed teacher, I see a lot of unnecessary apprehension in my students that has probably been instilled in the kids via their parents. That said, I'd rather instruct my students through a traffic circle any day over navigating that deadly jug handle. As a resident who almost daily navigates the movement from outer Pleasant onto US-1 south, it can be brutal there, particularly during the tourist season with people flying off the highway at 50 mph all the way up until the abandoned gas station (where everyone knows the police regularly post up). A couple ideas for calming measures at this stretch of road even if the traffic circle doesn't get implemented. I think signs placed somewhere along the approach to the jug handle like the "CROSSING TRAFFIC" flashing warning signs below could be beneficial:



(I-95 South Prior to Merge w/ I-395 in Waterford, CT)

Another idea could be to create an extended shoulder outcropping prior to the jug handle so police officers could safely post up in a location prior to the 35 MPH signs. One of the things we used to do back when I was a police officer was simply park an unmanned marked unit on the side of the road at various times during a shift. Just seeing the cruiser slows people down. Just a couple ideas anyway. Right now, posting up by the gas station doesn't discourage speeders early enough.

- Bicycles On Outer Pleasant Street: I'm not a fan, keep 'em on the connector roads.

- Cushing and Inner Pleasant Street Intersection: I take my students to this intersection every day multiple times a day. The road test examiners take kids there all the time and a whole lot of them fail at this exact location. The below picture doesn't do this intersection justice – it's worse than it appears because the Google camera rides up high. A major problem is a lack of visibility. There are dumpsters, vegetation, guard rail, various signs, and parked cars all blocking a motorists view. By law, drivers turning left must turn into the nearest lane closer to the bank (even though most do not and go closer to the dentist office). However, with Pleasant St. drivers changing lanes towards Cushing as they come down the hill in a poor visibility location, it's a soup sandwich. Some suggestions to consider: work with the property owner to get the dumpsters moved back, cut down some of the vegetation if possible, make the railroad crossing back to the 2nd telephone pole on the right a no parking zone, see what can be done about the other obstructions that create blind spots, and consider making the dashed line in the middle of the road solid from the railroad crossing back to the second telephone pole (won't discourage all from making a lane change at that location but may discourage some).

- Inner Pleasant Street One-Way/Two-Way Conversion: Tough one here. Pros and cons for sure. I agree that a two-way conversion will calm traffic and provide another way to get out of downtown. From a safety perspective, I see people turning onto Pleasant St. off Maine St. routinely only to see them panic once they realize three lanes of incoming traffic are heading right at 'em and peel off into the 7-11 parking lot. Not sure if this is because people have poor maps, bad GPS, are idiots, or a combination of all 3. I do know however it happens with alarming frequency. If two-way traffic relieves some of the Mill St. traffic, that would be good as well. I think less traffic on Mill St. would be ideal. If you keep it one-way, I'd like to suggest short dashed white lines be used to guide motorists making the left turn onto Maine St. and help keep motorists in the proper lane. Every multi-lane turn should use these dashed white lines and why Brunswick stopped using them a few years back is beyond me but motorists benefit from that visual cue. Hell, if Topsham can do it (and they do), so can Brunswick. This conversion decision may be the toughest of them all – if it works you're a hero, if not well… not so good.

Thanks for a terrific presentation Mr. Errico. Very informative and some terrific ideas. I look forward to seeing what comes of this at the next meeting.

V/r

Shaun Hogan

Ryan,

I understand you are heading up the effort related to fixing up outer Pleasant Street. I have a comment, having entered Brunswick via this route since about 1956.

This has developed over the years into an ugly and (if I can believe the newspaper article) unsafe road, and it's a shame that it's the entrance to Brunwick which is, generally, an attractive and welcoming town.

I suggest on the very outer portion of the highway leading into Pleasant Street that sculpture installations and a gateway be added.

If you ride Amtrak near Hamilton, NJ you can see a wide range of modern and traditional sculptures that are, I think, put there by the Grounds For Sculpture, which is located nearby. It's a long, linear installation, and the physical space of it reminds me very much of that long drive in from the highway exit until you begin to hit gas stations and a hotel and the Thai restaurant (possibly the former Thai restaurant at this point) at the entrance to Pleasant Street. Such an installation would have to be developed over time for sure. Is there percentage for art money available in Maine?

A gateway — maybe in conjunction with a roundabout or maybe in some other format is also needed. You don't really have the sense at any point that you've arrived in Brunswick… it's hard to know when you've arrived. You just kind of eventually meld into the strip mall melee, and somehow it dawns on you that you've made it to town. A gateway would be good, and it would distinguish Brunswick positively from many Maine towns and cities (think of Augusta, for example) that also greet all people arriving with a strip mall ambience.

Regarding the traffic situations: Obviously critical, and obviously need attention. I am not a traffic engineer so I'm not going to try to second guess this but I applaud the effort. I am a bicycle rider, and surely I'd never dare attempt that road, so if there are provisions that can be made to make it safe for all users — so much the better. I think we do have sidewalks everywhere along Pleasant Street, so that's a step in the right direction.

Best wishes,

Jeanette MacNeille

2 Brookside Drive, Topsham, ME 04086

207-751-0425

John:

Would you please send this along to the appropriate party.

I owned 113-115 Pleasant Street from the mid 1980's until 2020 and operated my business from that location. In the 80's truckers would park on Route 1 and meander over to the Miss Brunswick Diner for breakfast. Those days are gone.

A few thoughts-

The Pleasant, Stanwood and Mill intersection- historically I have been supportive of the roundabout design for this intersection. I understand from more recent conversations that due to the high Route #1 volume and relatively low Stanwood volume that this design is not feasible. I trust that this is true. There have been several attempts to mitigate issues at this intersection. The current approach and signage works the best.

Lombard should be one way in off Pleasant with traffic being directed from Lombard to Turner to Webster and the traffic light.

Turner Street west of Webster along property for the station should be improved or made allowances for the former Grossmans and other buildings; so as in the future all businesses in this section will have access to the traffic light at Pleasant and Webster.

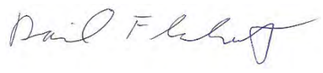
The Pleasant and Webster Street intersection, the site of the new fire station; I'm sure the FD plan for controlling the signal will work. It better. Pleasant Street Inbound there should be a third lane created from a portion of the land on the southwesterly corner {site of the new station]. The newly created land will be a dedicated turning lane. The middle lane dedicated inbound. The left lane for left onto River Road as well as continue inbound.

Outer Pleasant Street- I support a roundabout. This will help with traffic calming and a start to improving the visuals.

The Town needs to enforce it's Design Standards. When Tim Horton was built as per the design it was impossible to access heading outbound; an impossible left hand turn. When the existing Dunkin had the same standard the buildout was lacking.

I appreciate your attention to this information.

Very truly yours,



Flaherty Realty

Thanks for this evenings meeting.
It may be beyond tonight's discussion , but is there consideration of the increase of spring st across to Cushing st on to rt 1 to bath from the park and ride being built on cedar? Weaving traffic now is problematic .
Thanks for adding this to your pile.

Michael

Hello Ryan,

I thought that was an excellent meeting, but I don't think my question was answered. Like John Perreault, I think the connector road from Stanwood to Webster would be a big help, but is it **realistic**? Can you just take several existing businesses right in the path of the proposed connector by eminent domain? I thought that was reserved for major projects essential to the general welfare (highways, airports, etc.)

Thanks,

Courtney

Hi Ryan,

Sorry, I tried calling in but had to try a few times and then it seemed to be winding up so I hung up. (I haven't had to call in to a zoom meeting before and first try put the passcode in too early and then was confused...my own damn fault.) I did hear you make a comment on the TV3 website stream that there was one more and that nope, there wasn't...so I'm guessing that was me. Sorry about that. Sending my main comment and a link to my stream-of-conscious thoughts on the presentation itself in case there's anything else worth passing along and trust you'll take care of what needs to be communicated further.

My main comment (really a question but I don't need a specific answer, just a situation to consider) is to ask if Pleasant Street can be made 2 way but to *not* allow left turn traffic from Maine Street and how that might impact traffic flows. So basically, heading towards Topsham, traffic could still only go straight, but if you were heading towards Harpswell you could turn right (and obviously side streets between Maine Street and Mill/Stanwood could turn either direction) - how would that impact the traffic flow and the decision for whether there should be 2-way traffic or not?

Since I wasn't on the zoom, I was posting real time commentary onto Facebook (should be public so feel free to push along if you think it'd be helpful for folks) - first post was 6:45pm so a bit after the start, though if you hover over the "Xtime ago" stamps you can see what time it was I was making a specific comment and how it relates to what was being presented. You can find that here: https://www.facebook.com/RunToWin/posts/10159400035873832

Thanks for coordinating tonight's public meeting, I found it really informative. I'll look for a public replay link tomorrow to share around to relevant folks. Copying Dan and Kathy on this email (thanks to you two as well; I found both your comments and questions helpful and appreciate them.)

Regards,

- Blaine

Signature Pines Condominium Owners Association, Inc.

9 Signature Drive
Brunswick, Maine 04011

March 8th, 2021

Town Council and Town Staff
Maine DOT and TY Lin International c/o of Town of Brunswick
85 Union Street
Brunswick, ME 04011

Subject: Pleasant Street Corridor Transportation Study Public Meeting February 22nd, 2021

This letter is a response from the Signature Pines Condo Association and its board of directors on the topics discussed during the Pleasant Street Corridor Transportation Study public meeting held February 22nd.

Signature Pines Condo Association

First some background on the Signature Pines Condo Association:

- The association is located 0.4 miles up River Road from Pleasant Street (Route 1) and 1.3 miles from Maine Street.
- The association represents 84 homeowners who are mostly in their 60's, 70's and 80's.
- As you would understand, our only way into town, or out of town via I-295, is the River Road/Pleasant Street intersection and the Pleasant Street corridor, which was the focus of the public meeting.

Topics Discussed That We Support

Outlined below are the topics discussed at the public meeting that we support and the reasons why.

1) Coastal Route 1 Signage on I-295 North for Brunswick Exit – We support the removal of Coastal Route 1 signage leading to the Brunswick exit that lists coastal towns (i.e. Bath, Boothbay and Rockland) so that I-295 traffic heading north takes exit 30 - the "Brunswick Topsham Bypass" (Route 196) that was designed for traffic exiting from an interstate route.

2) Roundabout on Outer Pleasant Street – We agree a roundabout on outer Pleasant Street (slide 16 of 24 of the presentation) will serve to calm the high-speed traffic exiting I-295.

3) Connector Roads – We support the connector road to Turner/Stanwood. We do not support the connector road to McDonald's and Amato's unless those businesses pay for the connector road since they would be the direct beneficiary. If it were possible to connect River Road to the Pleasant Street/Church Road intersection via Westminster Ave, then we would support that connector road.

4) Turn Lanes – We are in agreement that turn lanes should be created on Pleasant Street (Route 1) at the three major traffic light intersections: Church Road, River Road and Stanwood/Mill Street.

5) Sidewalks and Crosswalks – We support the upgrading of sidewalks to ADA standards and improving and adding crosswalks.

Of all the topics discussed at the public meeting, clearly topic #1 listed above, changing Coastal Route 1 signage on I-295 North for the Brunswick exit and directing north bound traffic to exit 30 - the "Brunswick Topsham Bypass" (Route 196) - can be done the most quickly, least expensively and have the most impact on reducing the overwhelming number of vehicles in the Pleasant Street corridor.

On February 24th, just two days after the public meeting, town officials celebrated the ground breaking for the new firehouse at the southwest corner of Pleasant Street (Route 1) and River Road intersection. A major reduction in the volume of vehicle traffic is ever more urgent for the fire department to respond unimpeded to a house fire or accident on I-295.

Our biggest overall concerns are reducing traffic volume and speed, and safety at intersections. Thank you for developing projects which mitigate these issues.

Respectfully Submitted,

Signature Pines Condominium Association
Board of Directors
Kathleen A. Ryan, President

Hi there, I was finally able to watch the meeting that took place on 2/22, I hope I'm not too late. Regarding some of the options discussed -

1. Roundabout @ 1-295 & Route 1 - I think this is a great idea to help slow down traffic, also, a great spot for it as well.
2. Church Road suggestion - good
3. River Road suggestion - good
4. Stanwood/Mill - I don't love the 2 lanes, but I think that Kathy Wilson kind of covered this, and I agreed with her.
5. Connector Road 1 - good
6. Connector Road 2 - no
7. Connector Road 3 - good
8. Connector Road 4 - good

I also wanted to comment on making it more pedestrian friendly. My family and I live on Androscoggin Street, off of River Road, and I will never be walking down Rt. 1 to Pleasant Street. There are too many risky drivers, and I definitely don't want there to be a Beth Condon situation. I know that there are a lot of rules regarding graveyards, but is there any way to connect the canoe launch to the little road off of River Road, and then have it loop by the river next to the graveyard? It would be great to have the old train track used in a way to transport people over the road as well (but that is a lot to ask). Please see the picture below for the suggested River Walk.

Thank you! I appreciate whatever happens!

--

Maggie Moynihan

207-730-3245

mcsmoynihan@gmail.com

Dear Ryan, Ryan, Margo, Art, Deb, and Catherine,

This is to request the gathering of data from major users of inner Pleasant Street to inform the conversation regarding the one-way or two-ways conundrum.

Here's a draft list of study respondents to which you could add. These institutions and businesses are NOT likely to advocate for a solution out of concern of offense. In one instance they don't want to annoy customers, in another they don't want to get sideways with Town Management or the Town Council.
Even so, the traffic pattern on inner Pleasant Street impacts their work multiple times every day as they negotiate our traffic system in and out of Brunswick in their varied size (some rather large) vehicles. I'll bet dollars to donuts they would respond to a call asking for input on a few questions - (following the list are proposed questions to which you could add, but keep it short).

RESPONDENTS:

Hannaford deliveries

Restaurant deliveries including beers

Ambulance services

Fire department

Police department

Postal Service

UPS

Concord Trailways

School bus routes

Snow removal vehicles

Trash collections

Hotels and hospitality (deliveries and out of town customers)

etc.

SURVEY QUESTIONS:

What is the impact of the one-way portion of Pleasant Street upon your work or delivery of services?

If you use Pleasant Street to enter downtown, how do you leave downtown?

What would be the impact to your work or service of changing the one-way portion of Pleasant Street to two-ways?

Would such a change be beneficial? please be specific. Would such a change be deleterious? please be specific.

I think it's important to get the debate beyond the 'it'll be noisy near my house' and 'I can't back out of my driveway' issues, however important those may be, and to get a focus on how the system works. Householder worries are often not in proportion to the actual impact of a change and many can be managed with driveway or other improvements. Pleasant Street is overdue for traffic calming features in any event.

Claudia Knox

721-0141

PUBLIC COMMENTS REGARDING DRAFT RECOMMENDATIONS AND AT THE JULY 29, 2021 PUBLIC MEETING

Good afternoon to you all,

My comments for the 3rd and final Draft Public Meeting to be discussed on July 29th

I would like to voice my preference for the Turner Street Connecter Road #4 option (connecter road from Stanwood Street to Turner Street, to Webster Street) for safe access to River Road. This is the most logical and safest route to get from Stanwood Street to River Road and many I have talked to agree with me wholeheartedly.

Also, Pleasant Street needs to remain one way from Stanwood Street to Maine Street as it is the safest, because if it were to go two way, businesses would not be able to receive their deliveries and there would be too many accidents for both cars and people trying to get across the street. It is a very bad idea so please leave it the way it is. It was bad enough years ago when it was two way, and then it was just a fraction of traffic way back in the 50's until the new section of I#295 was opened in the early 60's. That was the best decision the state ever made to be inbound one way. I just wish they had done the River Road Connector to Topsham back then, but Nancy and Patricia were against it at the time, but not any longer. If that had been done then, we might not have the problem that we have today.

There is so much traffic on Pleasant Street that if it were to go two way from Stanwood to Maine Street, traffic would be backed up inbound more than likely at least a mile inbound. Not a good idea.

Thank you for listening and please consider the Turner Street Connection option # 4.

Jean Powers

40 Redwood Lane

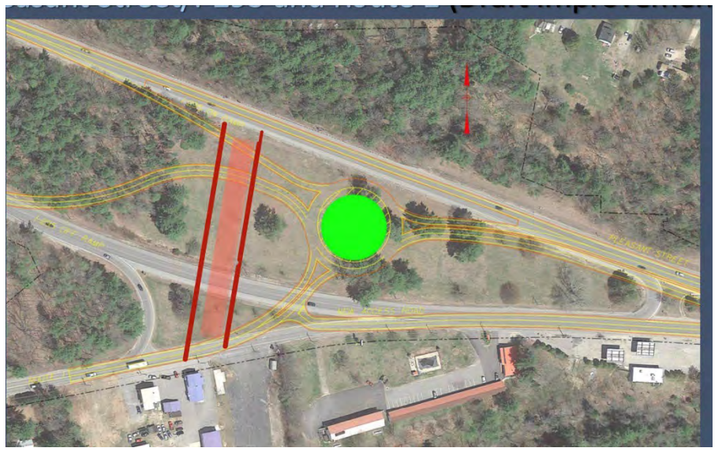
Voice of the Taxpayers

As another commenter at the meeting suggested: going west/south on Route 1/Pleasant past Church road is a nerve wracking adventure.
It's also dangerous going north/east to catch 295: bad going south to Portland, but worse to go north to Topsham via 295.

Going either way, cars have to cross two lanes of high speed traffic…using just their outside left mirror or a painful neck contortion…at an angle that causes very poor visibility.

Since the roundabout seems to be priced out of feasibility at $5M, can I propose another option?

Make a two way, right angle intersection across the open field. (In red on the attached pic.)



This way, cars going either way can clearly see the oncoming traffic, can take the shortest route across, and not have to do the awkward double merge.

Thanks for considering!

-Joel

Mr. Barnes:

I personally would like to have the consultant or the town council identify the one or two quickest, easiest and least expensive changes that could be made NOW while continuing to mull over these 'studies.'

Perhaps signage on the interstate to encourage use of Topsham connector?

Thank you.

Dan Meyer

11 Signature Drive

Brunswick, Me 04011

Regarding the Pleasant St meeting on Thursday, I had many comments but I'll keep it to the four that really concern me.

1. The River Rd intersection is very dangerous and someone will get killed if something is not done to stop cars blowing through the light coming from 295.

2. What is going to happen when a call comes in to the fire station and trucks have to rush out. The truck driver can blow the horn all he wants but where are cars supposed to go to get out of the way when it's gridlock from sun up to sun down. This is a disaster waiting to happen.

3. Install a proper light on corner of Mill St so cars can come out of Stanwood St safely again without chance of getting sideswiped trying to get into the right lane to River Rd.

4. Install a speed bump at corner of Mill St to slow traffic down once they get on Pleasant St.

Thanks for passing this on to the committee. If anyone wants more of my concerns, they can call me at 725-6514.

Ann Bonsaint

Hi Ryan,

I'm forwarding you this comment I received last night at the tail end of the meeting for the comment file.

On a related note, one of the things that occurred to me again just now was that, if we want the extended safe bicycle access all the way to the bridge that Lynn is talking about, then we need to make sure that all the people running point on the new bridge project, the Riverwalk project and the Pleasant Street series of projects need to be on the same page design-wise. You're thankfully plugged into to all three projects (and I think TY Lin is the consultant on all three as well?). Anyway, I'd be grateful if you could keep that need for consistency across the projects in mind.

Thank you again for facilitating last night. I felt like some very good things came out of that presentation.

All my best,

Dan

Dan Ankeles

Brunswick Town Council

At-Large Councilor

207-756-3793

I would like to support all changes that increase bike and pedestrian safety. I live on River Road and bike to downtown. As I age, it will become more difficult to do so safely. I support a connection across Pleasant that goes down Webster and then connects, so that bikers do not have to ride on Pleasant Ave.
In addition, I would recommend looking at a bike lane going from Pleasant Ave to the Topsham swinging bridge. Currently bikers have to ride on the sidewalk which is not legal or safe.
There needs to be cross walks that will guide a pedestrian from Pleasant to the bridge without crossing back and forth across the street. There is only sidewalk ½ way on one side of the street.
I also agree that easier access to and from the entrance of the river would be helpful. Right now, there is so much traffic, it is difficult to make a left hand turn in and out.
Thank you for the additional time you have taken to review this project and also for listening to the citizens input. I trust any changes you make will be an improvement for our safety. Thank you to everyone one the committees for their hard work.

Lynn Frank
1 Outlook Ln
Signature Pines Condominiums

Hi, Ryan ~

Generally reiterating my comments at the Public Hearing on July 29th:

- A **roundabout** at the intersection of Route 1 and Exit 28 of I-295 would be great. I know it's expensive, but:
  - The twists, turns, and lane crossings required to follow Route 1 South from Pleasant Street to Old Portland Road are confusing and dangerous. (For confusing, try telling anyone at the Train Station Visitor Center how to get to Fairfield Suites.)
  - A roundabout would calm traffic; it's virtually impossible for even responsible drivers to slow from 65 mph on I-295 to 35 mph on Pleasant Street with the two-lane-highway design of the exit ramp on a downward slope.
- **Church Road and River Road**:
  - Left turn lanes will be a huge improvement.
  - Crosswalks need to be highly visible – flashing lights? – to avoid crashes between pedestrians and left-turning vehicles.
  - The right turn lane from Pleasant Street to River Road needs to be widened.
  - With the Fire Station project, can anything be done to align Webster Street with River Road? Not taking advantage of other disruptions in that area now may haunt us, just as not somehow connecting North Station to South Station haunts the Big Dig in Boston.
- **Access to Outer Pleasant Street businesses:**
  - The new connector roads make sense to me.
  - Reduced number of curb cuts with access to parking lots serving more than one business also sounds good. I'm thinking of Route 1 in Falmouth where you can drive between some businesses without going onto Route 1.
- **Pleasant, Mill and Stanwood Streets**:
  - It appears that the proposal for the intersection will make it much safer for motorists and pedestrians and probably cyclists.
  - I especially like the full stop for traffic from Mill Street to Pleasant Street to facilitate vehicles and cyclists turning left from Stanwood Street onto Pleasant Street. However, I share the concern that there will be negative consequences for vehicles exiting Sage Hill, especially to Route One South.
  - Crosswalks need to be highly visible here, too. I know from experience that vehicles do not stop at the Cumberland Street crosswalk on Mill Street and they're unlikely to notice pedestrians at this busy intersection either.
- **Two-way Pleasant Street:**
  - It would calm traffic in the congested downtown.
  - It would be much more logical – you'd leave downtown by the same route you arrived.
  - It could help relieve congestion at the "Pool Table" by diverting traffic bound for Outer Pleasant Street businesses or Route 1 South.

- It would be important to retain parking on both sides of Pleasant Street – especially between Cushing and Maine Streets – for the churches, library, Post Office and businesses.

- **Outside the scope of this project, perhaps a Brunswick, not a MaineDOT issue:**
  - Improve pedestrian access to the water at the Mill Street Canoe Portage. I am concerned that it could be worsened by traffic back-ups caused by the full stop of Mill Street traffic at Pleasant Street (which is otherwise a good thing).
  - Add a flashing light to the Mill Street crosswalk at Cumberland Street (as at Cushing Street). Vehicles ignore the crosswalk now.
  - Extend the sidewalk on the river side of Mill Street from the Canoe Portage to the Swinging Bridge. With the Black Bridge now closed to vehicular traffic that should be feasible.
  - Improve the sidewalk on the other side Mill Street. When it is icy, one risks sliding into Route 1 North traffic because it is very narrow and pitched toward the street.

Overall, I appreciate MaineDOT's and T.Y. Lin's efforts to implement MDOT's Complete Streets Policy in the course of this project. Given America's love for the automobile and the emphasis on trucking for freight, rather than rail, I understand the instinct to make roadways, especially the Maine-to-Florida Route 1, move faster with less congestion.

However, in this location it is essential to be mindful of the fact that this corridor serves local businesses that rely on cars being able to enter and exit safely, that this is the corridor that residents on the West side of Brunswick use to access downtown businesses and services such as schools, the library, and the Post Office, and that other residents – teens to seniors – use to go play golf. And we certainly want to encourage more pedestrian and bicycle travel to promote a healthy lifestyle and reduce global warming.

Through traffic on I-295 between Freeport and Bath – traffic that is not headed toward downtown Brunswick, Harpswell, or Brunswick businesses on Outer Pleasant Street – needs to be firmly directed to use Exit 31 and the Route 196 connector to avoid deliberately calmed traffic in the Pleasant Street Corridor.

Thank you for the opportunity to comment.

~ Alison

* *

Alison Harris

38 Cumberland Street, Brunswick, ME 04011

alison@harbart.net

207.729.0787 ~ 207.332.3207 *(cell)*

Dear Ryan,

I hope it's not too late to respond to the presentation on the Pleasant Street Corridor from last week. Meant to do it sooner!

First of all, thank you for all the work that is going into this project. I was very happy to see the focus on making Pleasant Street work better and more safely for automobiles, walkers and bicyclists. It was also great to see the concern for connecting the varying parts of town.

As both a private citizen and a member of the Brunswick Bike/Ped committee, I totally support the proposed use of connecting streets behind and parallel to Pleasant in order to allow some alternative routes for drivers, walkers and bicyclists. Extending and connecting River, Turner, Paul, Westminster and any other streets for better off-Pleasant travel is a great idea and one which I think should be prioritized.

The proposals to improve the traffic flow on Pleasant Street by adding left turn lanes also seems to be a very high priority. This would be an important safety measure and improve the quality of life for many of us.

I am not sure how I feel about the proposed roundabout at the south end of Pleasant. This doesn't seem as a high a priority for the relative expense involved. I am also not convinced that making inner Pleasant (between Stanwood and Maine) a two way street would provide much benefit.

I do hope that the importance of bicycling and walking will continue to figure into any of the planning in which the town engages.

Thanks again for your work on this project -

Peggy Brown

Brunswick Bicycle and Pedestrian Advisory Committee

Peggy Brown

brownmartell@gmail.com

207-751-6768

Hi Ryan,

I missed the meeting, but watched the meeting.

-Keep Pleasant Street as is - both lanes being one way.

-Add the turning lanes at the River Road intersection, and at the Church Road intersection.

-Try to keep the right turning lane from Pleasant to River Road.

-Connector to Pat's Pizza/Dunkin Donuts - no, unless they pay for it.

-Signs up at the River Road/Pleasant Street intersection telling people not to block the intersection, people are just sitting in the middle, and not all are out of state.

-Connector behind Mcdonald's/Amatos - good ONLY if Kathy Wilson is okay with it.

-Have Maine DOT make it obvious there is another option to the coastal route to get to Bath (I have no idea how this is done unless we make it a toll road :))

-Dan Ankeles had good points, this is for the people of Brunswick.

Thank you for reading my notes, I know you guys have a lot of people who won't be happy, but hopefully some safe alternatives will work.

Maggie Moynihan

5 Androscoggin St, Brunswick, ME 04011

Hello Mr. Barnes and Town Councillors,

I appreciated the presentation on Thursday. I really like the idea of a series of connector roads to make getting on and off Pleasant street safer. I live very close to Pleasant, and during the summer, avoid almost all of the businesses because of the traffic and the dangerousness of making almost any type of turn. Seems like the idea of the connector roads is efficient and affordable.

Since Brunswick is in urgent, desperate need of new affordable housing stock, I hope that a more manageable flow of traffic on Pleasant Street can be one aspect of opening the door to a conversation about development of mixed use, affordable housing on that corridor.

Lastly, and I'm not sure if this is under your purview, Mr. Barnes, but I have also been following along with the discussion about the bricks on Maine Street (and part of Pleasant, too). As a daily walker of Maine Street -every day of the year,-my #1 issue is around accessibility for people using mobility aids, elderly people, and others who need the surface to be functional to safely and equitably access our downtown. I rank this higher than aesthetic/historical considerations. I know this all has been discussed extensively and of course accessibility is on everyone's minds - just wanted to add my perspective as putting it at the very top of my considerations!

Thank you,

Dana Bateman

13 Franklin Street

1. What options are being put in place regarding the cars blocking the intersection at Pleasant street/river road intersection? I come off River Road, and 75% of the time recently, I've had to wait for 2-3 green lights as people just move right through. Even when it is clearly a red light. This has happened in the morning, mid afternoon, and the evening rush.

2. I know the Maine DOT will be there at the meeting, is there anything that can be done regarding the Brunswick exit and the words "Coastal Route"? Sure, it may be the shorter option, but with traffic, it can be longer. The Topsham exit has that whole bypass that gets people right back on Route 1, and there's not anything coastal they are missing if they skip the drive down Pleasant Street in Brunswick.

Thank you,

Maggie Moynihan

207-730-3245

mcsmoynihan@gmail.com

Hi Ryan,

I don't believe that I will be able to attend the public hearing tonight but I wanted to share some quick comments. I am the executive director of the Maine Coast Fishermen's Association and we recently purchased the property at 93 Pleasant Street which we are using as our headquarters. We have only been in the building for a short time, but it has become clear that there are some simple things that could greatly improve this part of Pleasant Street. First and foremost, we must have better pedestrian access to this part of town. We have a beautiful river park and walk a short way down the road, but for those on the northern side of the street, it is impossible to cross over and get to Mill Street without putting your life in danger.

We fully support the creation of a connector rd(Connector Road 4 and Connector Road 3) that would make taking a left into a side road and back onto Pleasant street much easier and safer. Every day there are numerous close calls with cars going taking left turns into streets and businesses that could be made much simpler by allowing access from Turner Street Extended off of Stanwood.

IF the one-way section of Pleasant Street is going to be turned into one lane with a bike and pedestrian corridor. It would be good to have a two-way bike lane on that street as folks going in and out of town should avoid Mill Street on bikes at all costs, especially if that is going to be expanded with more lanes.

thank you, happy to chat more as this project progresses.

Ben Martens

Executive Director

Maine Coast Fishermen's Association

Phone: 207-619-1755

Fax: (866) 876-3564

Ryan Barnes,

In separate attachments are 2 letters from the Signature Pines Condominium Owners Association in response to the July 29th public forum on the Pleasant Street Corridor Transportation Study.

1st Attachment Letter dated August 12th, 2021 with the subject "Pleasant Street Corridor Transportation Study Public Meeting July 29th, 2021".

2nd Attachment Letter dated August 13th, 2021 with the subjects "(A) I-295 Signage (Heading North on I-295) for Route 1 Access Through Brunswick and Topsham (B) Signage for I-295 on Route 1 Heading South Toward Downtown Brunswick".

Please circulate the letters to the town council and the study advisory committee.

Would appreciate acknowledgement of this email so we know it has been received.

Sincerely,

Kathleen A. Ryan

BOD - SPCOA - President/Treasurer

karirish@aol.com

7042196143 (mobile)

Signature Pines Condominium Owners Association, Inc.
9 Signature Drive
Brunswick, Maine 04011

August 12th, 2021

Town Council and Town Staff
Maine DOT and TY Lin International c/o of Town of Brunswick
85 Union Street
Brunswick, ME 04011

Subject: Pleasant Street Corridor Transportation Study Public Meeting July29th, 2021

This letter is a response from the Signature Pines Condo Association and its board of directors on the topics discussed during the Pleasant Street Corridor Transportation Study public meeting held July 29th.

Signature Pines Condo Association

The association is located 0.4 miles up River Road from Pleasant Street (Route 1) and represents 84 homeowners who are mostly in their 60's, 70's and 80's. Our only way into town, or out of town via I-295, is the River Road/Pleasant Street intersection and the Pleasant Street corridor. We are very pleased that this study has been undertaken and public meetings held since this subject is very important to us!

I-295 Signage (Heading North on I-295) for Route 1 Access Through Brunswick and Topsham
Signage for I-295 on Route 1 Heading South into Brunswick

I-295 signage for Route 1 access through Brunswick and Topsham was not a subject discussed at the July 29th meeting as it was at the last meeting (February 22nd). Nor was signage for I-295 on Route 1 heading south into downtown Brunswick.

We think this signage needs to be evaluated in terms of how much traffic it is sending to Brunswick versus Topsham for those wishing to head north and south on Route 1. We have addressed you on this subject in a separate letter dated August 13th.

Topics Discussed That We Support

Outlined below are the topics discussed at the public meeting that we support, with comments where appropriate.

1) Church Road/Pleasant Street Intersection

LEFT TURN LANES – We agree that left turn lanes should be added at this intersection.
CONNECTOR ROAD – We agree a connector road should be added to service Cumberland Farms, McDonald's and Amato's, and that these businesses share in the cost, since they would be direct beneficiaries.

2) River Road/Pleasant Street Intersection

LEFT TURN LANES - We agree there should be a left turn lane for traffic headed north on Pleasant Street (Route 1) to turn left onto River Road, given it is a major road servicing northwest Brunswick, the town of Durham and points north.

We question the need for a left turn lane for traffic headed south on Pleasant Street (Route 1) to turn left onto Webster Street, given the street is just one block long. Yes, Webster Street will have the new firehouse and possibly a connector road at its terminus connecting Turner Street to Stanwood. Consideration should be given instead for using that extra lane space to having a right turn lane for traffic heading south on Pleasant Street (Route 1) to turn right onto River Road, given the volume of traffic that River Road has, as indicated above, servicing northwest Brunswick, the town of Durham and points north.

3) Mill Street/Stanwood/Pleasant Street Intersection

FULL STOP LIGHT – We agree with a full stop light for traffic heading south on Mill Street (Route 1) before the traffic turns right onto Pleasant Street (Route 1).
LEFT TURN LANES – We agree two (2) left turn lanes should be created at the traffic light on Pleasant Street (Route 1) for traffic heading north on Route 1 and two (2) left turn lanes should be created at the full stop light on Mill Street (Route 1) for traffic heading south on Route 1.
PEDESTRIAN CROSSINGS – We agree that two pedestrian crossings should be created at the Mill Street/Stanwood/Pleasant Street intersection as indicated in the presentation: one crossing Pleasant Street on the west side of the traffic light and one crossing Mill Street.

4) Connector Roads

TURNER STREET CONNECTOR – We agree with the Turner Street connector, connecting Turner Street to Stanwood, which would create an alternate route for traffic to access the downtown via Webster Road, from the Pleasant Street/River Road intersection. The Turner Street connector would also provide an important alternate access to the downtown for the new firehouse being built on Webster Street. And if the connector road proposed connecting Paul Street to Turner Street is built, that would also provide an important alternate access to Church Road for the firehouse.

RIVER ROAD CONNECTOR – We agree that a connector road should be created behind Pat's Pizza and Dunkin' ("Donuts" have been dropped from the name!) that would take traffic to River Road.

5) Left Turn Lanes – Extend from Intersections to Serve as a Middle Lane for Left Turns

We recommend that left turn lanes that would be created at major intersections be extended further away from the intersections where possible, to serve as a middle lane for left turns where there are multiple businesses.

6) Sidewalks Improvement

We agree that improvements to any roads (Route 1 and connector roads) should include improvements to sidewalks to meet ADA standards for pedestrians and improvements to roads should include accommodating bicycles where possible.

Landscaping of Outer Pleasant Street

While landscaping of outer Pleasant Street was not part of the "study purpose and need statement" of this study, we take this opportunity to request that any future plans to improve the safety and mobility for cars, pedestrians and bicyclists should include a landscaping plan that would put the word "pleasant" back into outer Pleasant Street.

The Future

We understand that the Pleasant Street Corridor Transportation Study is a "feasibility" study looking 20 years into the future to help determine what can be done and get in the queue for funding, and that having a "data driven" report like this is good to have to get that funding. As we write this letter of support, the U.S. Congress is on the cusp of passing a $1+ trillion infrastructure bill. According to an August 10th press release from the office of Senator Susan Collins, "The bill authorizes $1.3 billion to Maine for federal-aid highway apportioned programs over five years to construct, rebuild, and maintain its roads and highways."

We hope that the study advisory committee and the town council move forward with this report in a timely manner to access the funds needed to bring about the much needed improvements for the Pleasant Street corridor.

Respectfully Submitted,

Signature Pines Condominium Owners Association, Inc.
Board of Directors
Kathleen A. Ryan, President

Signature Pines Condominium Owners Association, Inc.
9 Signature Drive
Brunswick, Maine 04011

August 13th, 2021

Town Council and Town Staff
Maine DOT and TY Lin International c/o of Town of Brunswick
85 Union Street
Brunswick, ME 04011

Subjects:
(A) I-295 Signage (Heading North on I-295) for Route 1 Access Through Brunswick and Topsham
(B) Signage for I-295 on Route 1 Heading South toward Downtown Brunswick

This letter is a response from the Signature Pines Condo Association and its board of directors regarding the Pleasant Street Corridor Transportation Study public meeting held july 29th.

I-295 signage for Route 1 access through Brunswick and Topsham was not a subject discussed at the July 29th meeting as it was at the last meeting (February 22nd). Nor was signage for I-295 on Route 1 heading south toward downtown Brunswick.

We think this signage needs to be evaluated in terms of how much traffic it is sending to Brunswick versus Topsham for those wishing to head north and south on Route 1.

(A) I-295 Signage (Heading North on I-295) for Route 1 Access Through Brunswick and Topsham

There are 6 signs on I-295 north leading to Brunswick Exit 28.

Signs Wording

1st Sign – To 1 Coastal Route, Via Brunswick Exit 28, Via Topsham Coastal Connector Exit 31

2nd Sign – Exit 28, 1 Coastal Route, Brunswick, Bath 2 Miles, Bus – Rail Station / Amtrak

3rd Sign – Exit 28 or 31, 1 Coastal Route, Boothbay Region, Rockland, Next 2 Exits

4th Sign – Exit 28, 1 Coastal Route, Brunswick, Bath, 1 Mile, Visitor Information Center

5th Sign – Exit 28, 1 Coastal Route, Brunswick, Bath

6th Sign – Exit 28, 1 Coastal Route, Brunswick, Bath, Exit Only

Comments on Sign Wording

1) It should be noted that the words "1 Coastal Route" appears on all 6 signs and is the top line within each large sign. A smaller sign with the words "Exit 28" sits on top of 5 of the 6 large signs (the 2nd through the 6th sign).

2) If you count the number of times "Exit 28" (for Brunswick) appears versus "Exit 31" (for Topsham) in the above sign wording for all 6 signs, it is 6x versus 2x. In fairness, sign #6 above is the actual exit sign (over the exit ramp) for Brunswick with the words "Exit 28". Subtracting sign #6 from the above total leaves a ratio of 5x to 2x; that is, 5x to 2x the signage directing traffic to Brunswick versus Topsham for 1 Coastal Route. Is that fair to Brunswick?

3) First time tourists to Maine travelling north on I-295 seeking 1 Coastal Route do have a choice of taking exit 28 or 31. With a 5x to 2x ratio of "Exit 28" versus "Exit 31", they are more likely to take "Exit 28". And they are also likely to take "Exit 28" since it is "the first opportunity." And that "first opportunity" can or may become a habit in future visits to Maine.

4) It has been mentioned that it is not fair to send more traffic to another municipality by changing the wording on signage. We agree. At some point the signage on I-295 North was changed or updated and the result certainly appears to be more traffic heading north on I-295 taking Exit 28 instead of Exit 31.

(B) Signage for I-295 on Route 1 Heading South toward Downtown Brunswick

There are 3 places with signs with route numbers on Route 1 South toward downtown Brunswick after you pass the exit for Cooks Corner.

Signs Wording

1st Sign – West 196 To 201, North 295, Topsham, Lewiston, 1 Mile, Topsham Fair Mall Road

2nd Signs – Note there are 2 large signs on one overhead listed here as Sign A and B.

Sign A – South 1 to 24, South 295, Maine Street, Brunswick

Sign B – West 196, North 24 To North 295, Topsham. Lewiston

3rd Signs – Note there are 2 large signs on one overhead listed here as Sign A and B.
These 2 signs are just after you pass the exit ramp to Topsham.

Sign A – South 1 to 295, Freeport, Left Lane

Sign B – 24, 201 North, Brunswick, Topsham, ¾ Mile, Exit only

Comments on Sign Wording

The 1st Sign and 2nd Sign B direct traffic to Topsham via the Brunswick-Topsham Bypass (over the Androscoggin River).

The 3rd Signs (A & B) are just past the exit ramp to Topsham.

As you will read above, the 1st sign and 2nd sign B direct traffic to Topsham for North 295.

The 2nd sign A and 3rd sign A directs traffic to Brunswick for South 295.

No signs direct traffic to Topsham for South 295 where there is an entrance next to North 295.

All Route 1 traffic heading south toward downtown Brunswick is directed only to Brunswick (and not Topsham) to access South 295. Is that fair to Brunswick? Is it any surprise that Mill Street (Route 1) from the Pleasant Street/Stanwood intersection gets backed up toward the exit ramp to Topsham.

Brunswick-Topsham Bypass

The Brunswick-Topsham Bypass (Route 196) was designed to carry traffic from an interstate route (I-295) to a state route (Route 1).

The Topsham Fair Mall area of Route 196, while busy, is well accommodated with multiple lanes and turning lanes for traffic from I-295. The balance of the bypass to Route 1, and the largest segment, is woodland where there are no businesses.

It has been mentioned that the shortest distance from I-295 North to Route 1 is Exit 28, versus Exit 31. We measured the distance and did find Exit 28 to be the shortest in distance; approximately 3.9 miles versus 5.4 miles if you take Exit 31 to where you meet Route 1 in Brunswick via Route 196. That's a savings in distance of 1.5 miles. We question what the savings in time is, if any, during high traffic volume.

The Brunswick-Topsham Bypass appears to be under utilized for what it was designed for.

Smart Electronic Signs – Fastest Route in Current Traffic

We request the exploration of smart electronic signs that would self-activate during heavy traffic periods and would read "Fastest Route in Current Traffic". Signs could be placed on I-295 North before Exit 28 and the signs would electronically display either Exit 28 or Exit 31 for the "fastest route in current traffic" to Route 1 North. Signs could also be placed on Route 1 South after the Cooks Corner exit that would electronically display either the exit for the Brunswick-Topsham Bypass (Route 196) to Topsham (and I-295 South) or direct traffic south on Route 1 through Brunswick for the "fastest route in current traffic" to I-295 South.

Comments

At a prior public meeting it was said, in reference to the excessive volume of traffic on outer Pleasant Street, that you can't put 10 lbs. of sand into a 5 lb. bag. We agree.

We request that the wording of the signage be evaluated for a more equitable sharing of the I-295 and Route 1 traffic between Brunswick and Topsham.

Respectfully Submitted,

Signature Pines Condominium Owners Association, Inc.
Board of Directors
Kathleen A. Ryan, President

Dear Mr. Barnes,

I would like to express my concerns about traffic problems on Pleasant Street. I travel into town on River Road. When I get to the stoplight on Pleasant St., there are many times I cannot turn left because traffic on Pleasant St. is blocking the intersection. This occurs no matter what time it is. My suggestions are to lengthen the amount of time for the green light at the Mill St , Stanwood St. and Pleasant St for the for traffic on Pleasant St.to flow. I would also like to see a sigh erected at the River Road and Pleasant St. that says Do Not Block Intersection (in very large letters).

My other concern at this intersection is that when traffic is backed up at this intersection, how are the emergency vehicles from the new fire station going to come into town? They will not be able to use the portion of Pleasant St between the two stoplights. The amount of traffic entering Pleasant St. from Mill St. is constant and at times backs up beyond that point. There is no room for that traffic to make way for these vehicles.

At the intersection of Pleasant St. and Maine St. traffic backs up, although n ot as bad as that at River Road. The amount of time that the light is varies. There are times when I have had to wait for over a minute to change. In my opinion, the amount of traffic. on Maine St does not warrant a long green light.

I have one other concern not related to Pleasant St. It is at the stoplight on Maine Street for turning left to gain access to Mill Street. The amount of traffic coming into Brunswick from Topsham allows only two cars at most to turn left. The light that allows traffic exiting from the highway stays green too long for the amount of traffic that turns onto Maine St. At times traffic on Maine St backs up past Mason St. I would like to see a left turn arrow at that light to allow more cars to turn left.

In closing, I realize that there is no "perfect" solution to these problems. Thank you for taking the time to read thin coming up and I wish you luck in finding a better plan.

Yours truly,

Bill Edman

4 Josephine Lane

Brunswick, ME 04011

I am writing to express opposition to the preferred proposal to "improve" the intersection of Pleasant-Mill-Stanwood streets.

I live on Sage Hill, a dead-end street. Our only access in or out is on Mill Street. At the last public hearing, when I commented that making two turning lanes onto and from Mill at Pleasant would make it nearly impossible to get in or out of our street, the DOT representative commented that "local" residents would just have to go out the other end of their streets. That, of course, is not possible.

Not only would it be exceedingly difficult to turn right or left with two lanes of traffic moving in each direction (It's already quite a challenge); the two lanes heading northeast toward the "highway" Route 1 becomes would start to merge at our street.

Apparently, the only goal for this project is to keep traffic moving, rather than to calm traffic to or move traffic onto the existing Route 196 bypass.

The Maine State Highway Commission, the predecessor to the DOT, helped to create this nightmare in the mid-1950s when lots of federal money helped create limited access highways, and, when I-295 (initially called I-95), was plotted to veer away from Route 1 at Brunswick.

In the 1950s, Brunswick business owners and residents complained about lack of parking downtown and the increasing amount of traffic on Route 1 -- which was then a mostly residential Pleasant Street, connecting to Bath Road.

The solution: a highway exit at Brunswick, a "bypass" and a new -- faster -- Route 1 to Bath.

The State Highway Commission created what it called a "rotary" for Brunswick. First, Mill Street, a fairly narrow, residential street, with small businesses serving a largely Franco-American neighborhood, was "improved" so that it could be one-way, heading southwest part of the rotary. Pleasant Street became one way heading toward downtown. Connecting the "rotary" was Maine Street. Initially, the Highway Commission said the one-way change was temporary and when the Route 1 "highway" was built, there would be an overpass to separate local traffic on Pleasant Street from cars on Route 1/Mill Street.

Within a few days of the change in January 1957, residents and town officials, including the Police chief, begged the Highway Commission to return Pleasant Street to two-way. Traffic backed up from a traffic light at Gilman and Maine all the way to the Pleasant-Maine intersection and beyond. Despite many pleas, the state insisted the one-way street remain.

As the "improvements" for the Route 1 highway continued, many properties -- and the community that existed on Mill Street and nearby streets were destroyed.

Land was taken from the Ricker School property, the Purington home at 1 Sage Hill (Dunning Ext.), their lot on the north side of Sage Hill, and from properties all along the east side of Mill Street. Now more will be taken, apparently, further reducing any buffer from the "speedway."

Sage Hill itself was altered -- for the worse. Workers blasted away ledge -- and created less gradual hills along Mill Street's east side. The change created a steeper hill, with less space to gain speed and traction to get up its slope in the winter. Every resident of the street in 1957 got stuck on the hill (sometimes rescued by construction workers). Even sand trucks and plows couldn't get up the hill that winter (and sometimes still can't).

I believe the intersection as it exists now is probably as good as it will get. The "improvements" planned will make it worse. The access roads behind Pleasant Street would probably relieve some of the pressure and help River Road residents, and people wanting to get to various businesses.

The problem, however, is not the intersection of Mill-Pleasant-Stanwood. It is the amount of traffic and the expectation that has been created by highways at each end of Pleasant-Mill that people passing through are a priority and that they should not have to slow down. As you know, Route 1 goes through many towns in Maine. The speed limit in many places is 25 mph. People still choose to travel on Route 1 and the towns it goes through have not tried to make Route 1 seem like it's a highway -- as has been done in Brunswick.

Use the Route 196 bypass. Get the big trucks and the noise and pollution they create onto the bypass. Put a planted median on Mill Street. Make it look like it's part of a town -- not another highway ramp.

Candace Kanes

5 Sage Hill

Brunswick

I am disappointed (though wholly unsurprised) that this discussion has barely touched upon the enormously dangerous intersection of Cushing Street and Mill Street/U.S. 1. Cushing Street serves as the only two-way corridor connecting Pleasant Street to Mill Street (aside from Maine Street itself) and is regularly utilized as both a "shortcut" for cars attempting to avoid the left turn onto northbound US 1 and a turnaround for those wishing to change direction, despite the very heavy amount of traffic redirected through one of Brunswick's most densely populated neighborhood. The intersection has no traffic light causing waits of 5 minutes or longer when turning left, significant delays when turning right in heavy traffic, and a neighborhood regularly terrorized by vehicles exceeding the speed limit and causing excessive danger for the many pedestrians (some of whom are children) who live in the neighborhood. Any reasonable discussion of how to best alleviate traffic along the Pleasant Street Corridor must account for this reality.

The conditions at the intersection necessitate immediate solutions. It's notable to me that the intersection was not included in the survey of traffic patterns and accident history prepared for the town, while the much lower volume intersection at Cushing and Pleasant was: regardless of whether there are other concerns in addressing this intersection, no solution to Pleasant/Mill Street congestion will function as projected without also addressing this key route within the subject area.

At the minimum, a traffic light should be installed at Cushing and Mill. However, any solution which routes two lanes of highway traffic into one lane (even temporarily, as envisioned for both Northbound and Southbound US 1 approaching Mill Street) will continue to be consistently delayed and stopped by vehicles merging into one lane in both directions. Why do I say this? Because I live on High Street just off of Cushing and, like most residents, I'm perfectly aware that this exact scenario plays out hundreds upon thousands of times every day.

Drive north on Pleasant Street during afternoon rush hour (particularly in summer) and, as you do, count the number of vehicles that use the right (eastbound on Pleasant or turn onto Stanwood) lane up until the intersection with Mill, when they then (illegally) merge (often causing accidents or near-misses) into the Northbound left turn lane. Southbound on Rte 1 from Bath/Cooks Corner, a similar barrage of illegal mergers utilizes the right hand exit only lane, cutting over at the last second and causing excessive delays. The current plan wouldn't eliminate these issues, it would merely shift it into a zone with sharp blind curves directly proximate to a densely populated neighborhood. If we don't either widen Mill Street to allow two lanes of traffic in both directions or place barriers to prevent illegal merges in these zones, our expensive solution to this problem will be no solution at all.

Status quo is not acceptable and a half measure won't address the issues delineated. If we're going to fix these issues, we need to commit ourselves to a course of action which will *actually alleviate* our traffic flow and safety issues in the Corridor. Any such plan must include **1) revamping the intersection at Cushing and Mill and 2) widening Mill Street to four lanes**.

Rook Hine, JD MHRT-CSP
Cell/home: 860-830-1786

Hello Ryan,

I live in Signature Pines, off of River Road, and have been watching the Pleasant Street Corridor study with great interest. When we had the last public meeting in February there was talk about changing signage on I-295 to direct travelers to the Topsham exit to go north on Route 1 and change the signage coming from Bath on Route 1 to direct traffic through Topsham to reach I-295 South. Is that still an option? It seems that just directing traffic away from Pleasant Street is an easy, inexpensive way to relieve some of the traffic.

I didn't get to listen to the whole presentation last night, just caught the question and answers at the end. I did not see the signage issue addressed in the PowerPoint presentation though. What are your thoughts on the possibility of changing the signs? Traffic seems to be especially bad this year, and with the addition of the fire station I think gridlock at the River Road intersection is a real possibility.

Thank you!

Susan Crandall

54 Signature Dr, Brunswick, ME 04011

Good morning Ryan

I attended the Zoom meeting July 29th on subject.

The study was very comprehensive presenting several alternatives plus the group's recommendations. At the end of the meeting you asked for any comments be sent by August 15th.

1) I support the Pleasant Street - Mill Street to Maine Street recommendation for the One-Way Enhanced Alternative. I definitely don't support the two-way alternative.The $250,000 bike lane cost could be reduced if implemented only between Cushing and Maine Streets where mostly needed, versus Mill and Maine Streets.

2) As a High Street resident I want to express my concerns about the ability to make a SAFE left turn from Cumberland to Mill Street South with two lanes merging into one going north from Pleasant onto Mill Street North, and one lane going south on Mill Street to Pleasant and merging into two two lanes leaving very few if any breaks in traffic. With the current rush hour traffic I am able to find a few breaks in the northbound traffic and slow southbound traffic to make a successful left turn. Did the study group address this issue when making your recommendations?

Thanks you for addressing my comments.

Ed Blot

Edward J. Blot

ED BLOT & ASSOCIATES, INC.

12 High Street

Brunswick, ME 04011

Mobile: 330-268-9102

Email: eblot@aol.com

Thank you !

Questions from Mister Bagel owners: located at 161 Pleasant Street here in Brunswick.

Our questions pertain to the project pertaining to Pleasant Street traffic.

1) When will this project kick off if it is approved?

2) In a previous meeting we asked if Pleasant Street will under go widening to make room for turn lanes at McDonald's and Amatos. We were told widening would most likely happen.

If so: when will construction begin? Will our driveway off Pleasant Street remain in tact?

3) If this is to begin anytime relatively soon, the businesses that will be effected will also be the businesses that just barely survived the pandemic, will will be offered any assistance. We moved here from Houston, Texas - we are painfully aware that road construction can be a death sentence to a small business.

Thank you for your time,

Alex & Beth Soma

Mister Bagel

Ryan Barnes,

Subject: Cushing Street Left Turn onto Pleasant Street

Given people turning left from Cushing Street onto Pleasant Street often go directly to the far right lane on Pleasant Street, a natural move one would make out of habit (from doing so on two-way streets), I would recommend a series of white dashes and a couple of big white left turn arrows be painted onto the road bed of Pleasant Street to guide traffic into the left lane on Pleasant Street from Cushing Street. As a driver moves along on Pleasant Street, they can then look to move into the right lane if they choose. Hopefully this will help reduce the crashes that take place in the Cushing Street/Pleasant Street intersection.

Bill Good

5 Outlook Lane

Brunswick, ME

I am writing to express opposition to any widening of Mill Street. The problem that creates congestion at the Mill/Pleasant/Stanwood intersection is the volume of traffic and no road improvements are going to solve that problem. The Rt. 1 by-pass was built to direct cars and trucks to Rt. 1 to help reduce the number of vehicles traveling down Peasant and Mill Streets. We need to encourage motorists to use it. Signage on Rt. 295 should indicate that through traffic needs to use the by-pass. Post "Local Traffic Only" or "Congested Area Ahead" Or "Best Route to Coastal Rt. 1." And do it at both ends of the by-pass. I suspect that many motorist traveling in both directions will be grateful not to get tied up in the traffic.

I live on Sage Hill which is a dead end street. The only way to enter or exit Sage Hill is by way of Mill St. If Mill Street is widened, it will be extremely difficult to get in or out of the street. Pedestrians crossing Mill Street to access either the Waterfront Park/Canoe Landing or the Swinging Bridge will be endangered. Also, turning onto Mill Street in either direction from Cumberland or Union Street will be more hazardous that it is now.

If vehicles are directed to use the by-pass; the noise, exhaust pollution, number of accidents, danger to pedestrians and the number of frustrated drivers will all be reduced. The travelers who are in search of restaurants or lodging will still come through Brunswick and the others will continue up Route 1 via the by-pass.

Thank-you for considering my comments.

Barbara Murphy

5 Sage Hill

Brunswick

207-522-4585

Prepared for:

Town of Brunswick and
Maine Department of Transportation

Two-Way Converision Technical Memorandum

PLEASANT STREET CORRIDOR TRANSPORTATION STUDY

May 5, 2022

T-Y-LIN INTERNATIONAL

Contents

1.0 INTRODUCTION

The Town of Brunswick in collaboration with the Maine Department of Transportation (MaineDOT) conducted a transportation study of Pleasant Street from the I-295/Route 1 area to Maine Street (Study). The study objective was to conduct an analysis of potential improvement strategies to improve congestion and safety along the corridor without significant widening of Pleasant Street. The study reviewed and made recommendations on access management, frontage roads, changes to lane configuration, additions to the roadway grid, traffic signal modifications, bicycle and pedestrian facilities, and the impacts of the proposed improvements to level of service and safety. A recommendation from the Study was to conduct a detailed analysis of converting Pleasant Street to two-way flow between Stanwood Street/Mill Street and Maine Street. This Technical Memorandum serves that purpose. This study evaluated traffic conditions to determine if there would be any fatal flaws at intersections in the study area. This study does not include a preliminary design and should the Town of Brunswick decide to proceed with the two-way conversion a detailed design would follow.

Scope of Work

This Technical Memorandum includes the following scope of work.

- Estimating Traffic Volumes
  - Utilizing update traffic count information and Streetlight data, traffic volumes were developed during the weekday AM and PM peak hours. The volumes were estimated for the year 2039 to be consistent with the Study. Future volumes will be based on the same background growth rate used in the Corridor Study.
- Traffic Analysis
  - Assessment of the impacts of converting the existing one-way section of Pleasant Street to two-way included the following:
    - Subsequent impacts to Level of Service (LOS) on Pleasant Street from Mill Street/Stanwood Street to Maine Street.
    - Subsequent impacts to safety on Pleasant Street from Mill Street/Stanwood Street to Maine Street.
    - Analysis and conclusions on whether the two-way conversion would adversely affect recommendations associated with the Maine Street Bridge Study over Route 1.
    - Analysis and conclusions on whether the two-way conversion would adversely affect recommendations associated with the Pleasant Street Corridor Study.
    - Assessment of impacts to on-street parking and general traffic circulation.
- Estimating planning-level costs of the two-way conversion.
- Estimating costs of ancillary improvements to other Pleasant and Maine Street intersections to avoid unacceptable LOS degradation and safety impacts.

2.0 TRAFFIC VOLUMES

Traffic volumes were estimated following the conversion of Pleasant Street between Stanwood Street/Mill Street and Maine Street. Volumes were estimated for the weekday AM and PM peak hours for the future year 2039. This section describes the methodology employed.

2.1 Streetlight Data Modeling / Trip Pattern Analysis

Founded in 2012, San Francisco-based StreetLight Data works with a company called Cuebiq, which collects anonymized location data from hundreds of apps, including weather and dating apps, installed on millions of smartphones in North America. StreetLight Data applies its machine learning algorithms to this data to figure out things like how people travel through cities, what transportation they use, and which times and days are busiest. Every month, StreetLight Data, index and process ~40 billion anonymized location records from smart phones and navigation devices in connected cars and trucks. Adding context from numerous other sources like parcel data and digital road network data, they develop a view into North America's vast network of roads, bike lanes and sidewalks. Next, their proprietary data processing engine algorithmically transforms trillions of location data points over time into contextualized, aggregated, and normalized travel patterns.

In order to estimate the potential traffic shifts associated with a change to two-way traffic operations on Pleasant Street, it was necessary to understand and quantify current vehicle trip patterns in the corridor. We used StreetLight data to form the basis of our understanding of trip patterns in the area and normalized the raw StreetLight data to conform to current year traffic volume counts at key intersections.

We first examined the StreetLight data patterns for traffic that currently uses eastbound Pleasant Street, Mill Street, and McKeen Street. We determined that the StreetLight data reasonably matched our expectations of current traffic patterns and volumes for both the weekday AM and PM peak hours.

Armed with confidence from our eastbound traffic pattern analysis, we used the StreetLight origin-destination data to help create an estimate of traffic shifts associated with allowing westbound Pleasant Street traffic from Maine Street to Stanwood Street/Mill Street.

Our step-by-step analysis results are presented as follows. Future volumes estimated for traffic modeling were based on the Study, which assumed a growth of 10% to estimate 2039 AM and PM peak hour volumes.

StreetLight Parameters

The StreetLight origin-destination data used in the Pleasant Street analysis was collected during the years 2018 and 2019 (i.e., prior to the COVID-19 pandemic) and represents AM and PM peak period trip patterns on a weekday (Monday through Thursday).

Eastbound Pleasant Street Traffic Patterns

Table 2.1 presents our estimated traffic volume patterns for all eastbound Pleasant Street traffic entering the Mill Street/Stanwood Street intersection for a typical weekday AM and PM peak hour. The volumes listed for continuing straight on Pleasant Street, turning left onto Mill Street, and turning right onto Stanwood Street are the current turn movements at the intersection of Pleasant Street, Mill Street, and Stanwood Street. The values for turns from Pleasant, Mill, and Stanwood Streets represent the StreetLight-derived traffic volumes. The percentages listed are the percent of total traffic making that movement. As an example, for the 362 vehicles on eastbound Pleasant Street during the AM peak hour that pass through the Mill Street/Stanwood Street intersection, 27 percent (or 97 vehicles) turn right onto Maine Street.

Table 2.1
Eastbound Pleasant Street Traffic Patterns

	AM Peak Hour	PM Peak Hour
Continue straight on Pleasant Street	362	455
Turn right onto Spring Street	56 (15%)	41 (9%)
Turn left onto Cushing Street	27 (7%)	16 (4%)
Turn left onto Union Street	11 (3%)	20 (4%)
Turn right onto Union Street	41 (11%)	64 (14%)
Turn left onto Abbey Road	13 (4%)	10 (2%)
Turn right onto Middle Street	12 (3%)	25 (5%)
Turn left onto Maine Street	105 (29%)	128 (28%)
Turn right onto Maine Street	97 (27%)	151 (33%)
Turn left onto Mill Street	673	804

Turn right onto Cumberland Street	11 (2%)	16 (2%)
Turn right onto Swett Street	3 (0%)	4 (0%)
Turn right onto Cushing Street	13 (2%)	13 (2%)
Exit to Maine Street	121 (18%)	88 (11%)
Turn right onto Stanwood Street	99	79
Turn onto Hennessey, Weymouth, or Bodwell	2 (2%)	10 (13%)
Turn right onto McKeen Street	70 (71%)	41 (52%)
Turn left onto McKeen Street	27 (27%)	27 (34%)

Our review of the estimated overall traffic patterns has concluded that the results conform to our expectations for eastbound Pleasant Street traffic patterns. We therefore feel comfortable using the StreetLight data as one basis for our estimation of potential westbound Pleasant Street traffic patterns.

Westbound Pleasant Street Traffic Patterns

Table 2.2 presents the estimated traffic shifts that will occur if Pleasant Street between Maine Street and Mill Street/Stanwood Street is changed to two-way operation. The volumes noted are existing and were increased by 10% to reflect future conditions. Some assumptions include:

- Approximately 85% of the left turns onto Mill Street/Cabot Street from Maine Street will shift to Pleasant Street. We believe this is conservative and thus adds more traffic to the proposed two-way section.
- Traffic turning from Cumberland Street onto Mill Street likely originates from the downtown area and therefore a portion of the traffic will route to Maine Street and turn right onto Pleasant Street.
- Stanwood Street traffic likely originates from downtown and abutting areas. Traffic was shifted to Spring Street, Union Street and Maine Street. Some traffic may continue to use Stanwood Street and the estimate likely shifts more traffic to Pleasant Street.
- Church Road is similar to Stanwood Street and some traffic originates from the downtown area and traffic was shifted to Spring Street, Union Street and Maine Street.

Table 2.2
Westbound Pleasant Street Traffic Patterns

	AM Peak Hour	PM Peak Hour
Initial: turn left from northbound Maine Street to westbound Mill Street/Cabot Street	196	154
Shift to turn right from SB Maine St to WB Pleasant St	65	34
Shift to turn left from NB Maine St to WB Pleasant St	101	80
Initial: turn left from northbound Cushing Street to westbound Mill Street	31	25
Shift to turn right from SB Cushing St to WB Pleasant St	16	13
Shift to turn right from SB Union St to WB Pleasant St	15	12
Initial: turn left from northbound Swett Street to westbound Mill Street	3	3
Shift to turn right from SB Cushing St to WB Pleasant St	3	3
Initial: turn left from westbound Cumberland Street to southbound Mill St	99	110
Shift to turn right from SB Cushing St to WB Pleasant St	42	40
Shift to turn right from SB Union St to WB Pleasant St	42	40
Shift to turn right from SB Maine St to WB Pleasant St	15	30
Initial: turn left from northbound Stanwood Street to westbound Pleasant St	125	196
Shift to turn left from NB Union St to WB Pleasant St	56	65
Shift to turn left from NB Spring St to WB Pleasant St	40	80
Shift to turn left from NB Maine St to WB Pleasant St	29	51
Initial: turn left from NB Church Road to westbound Pleasant St via McKeen Street	58	147
Shift to turn left from NB Union St to WB Pleasant St	28	45
Shift to turn left from NB Spring St to WB Pleasant St	10	30
Shift to turn left from NB Maine St to WB Pleasant St	20	72

Figures 3.1 to 3.6 graphically illustrate the estimated shift in AM and PM peak hour volumes for each of the route changes (e.g., turn left from northbound Maine Street to westbound Mill Street). **Figure 3.7** presents the estimated AM and PM peak hour volumes at the study intersections.

Figure 3.1 Volume Shift from Maine/Mill to Maine/Pleasant

Figure 3.2 Volume Shift from Cumberland to Cushing/Union/Maine

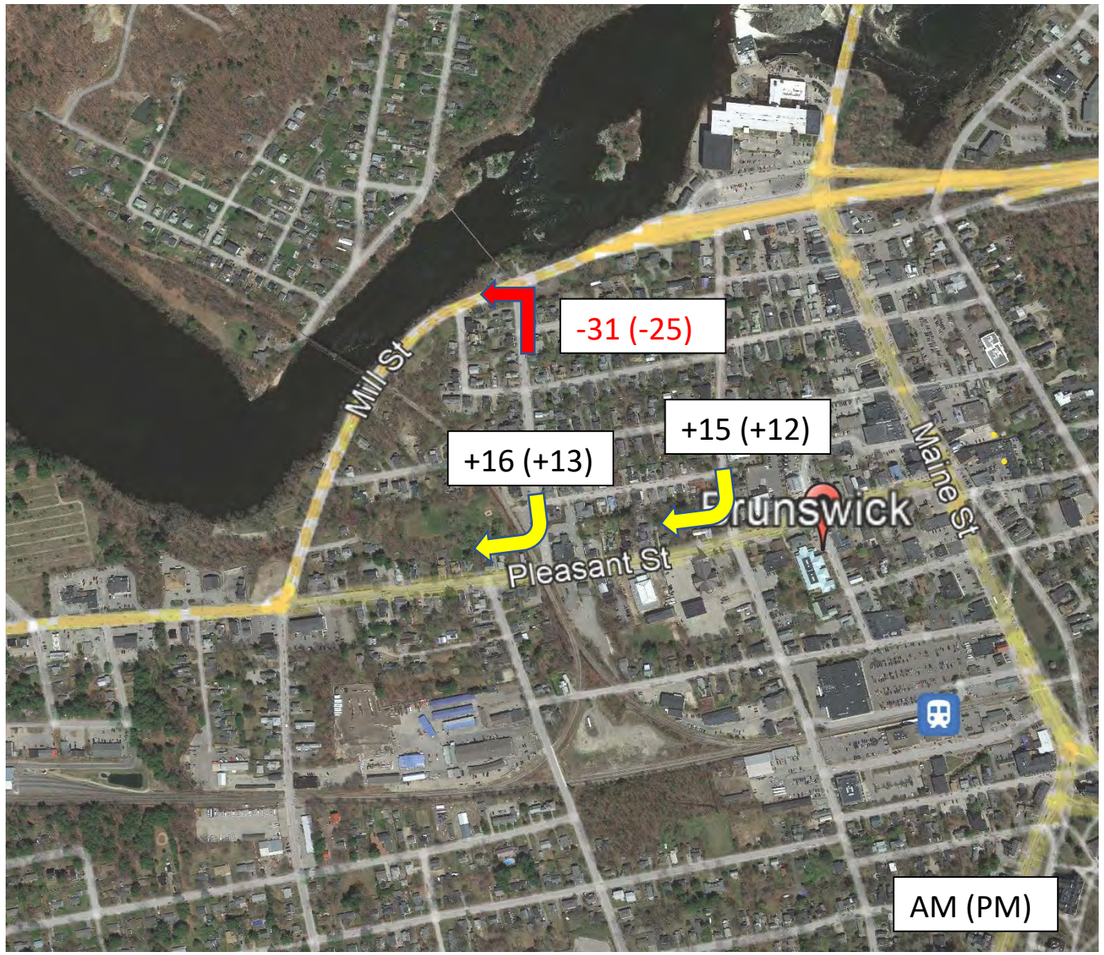


Figure 3.3 Volume Shift from Cushing

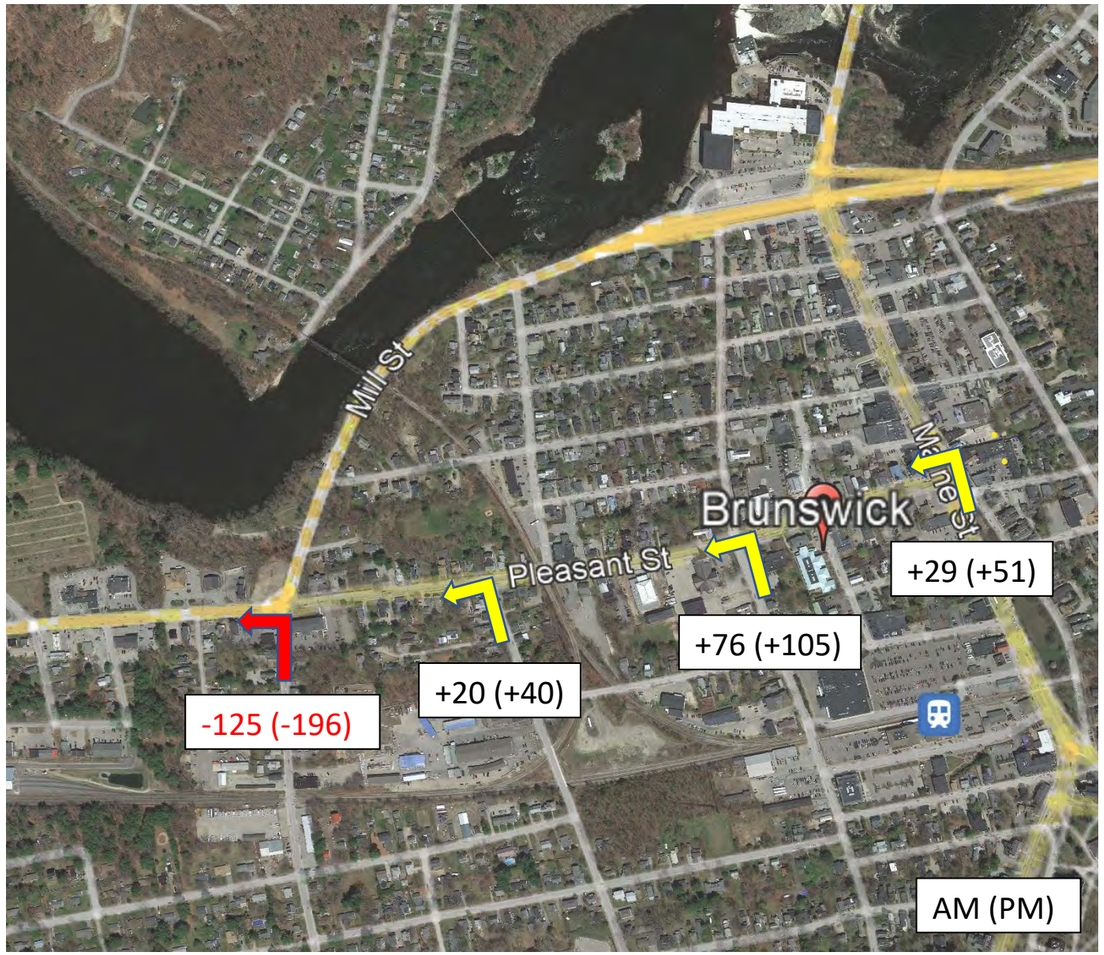


Figure 3.4 Volume Shift from Stanwood to Spring/Union/Maine

Figure 3.5 Volume Shift from Church to Spring/Union/Maine

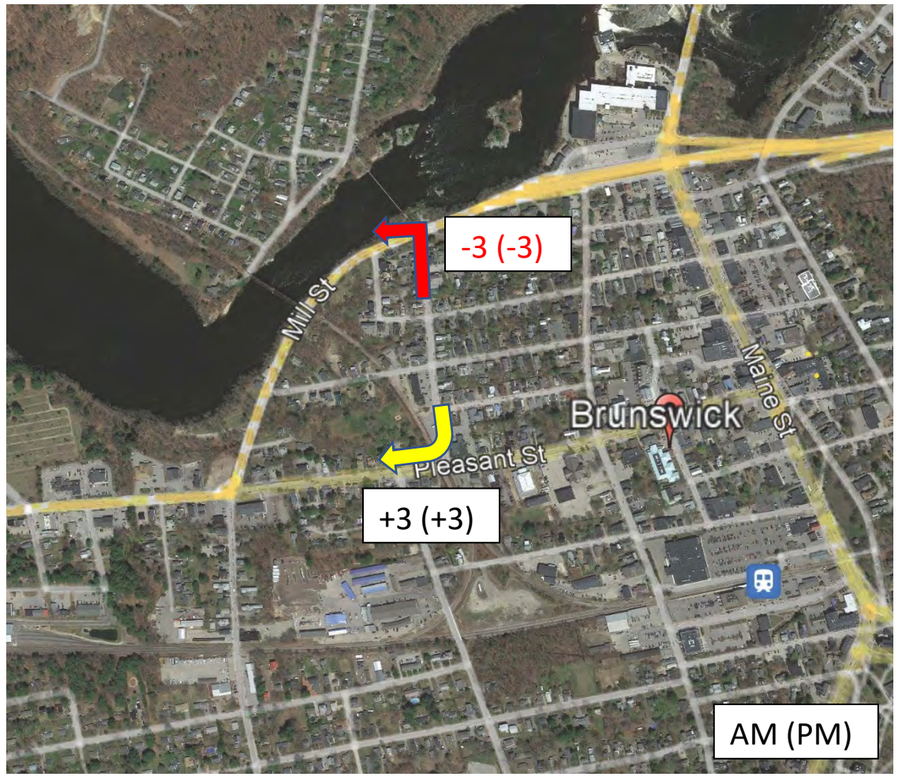


Figure 3.6 Volume Shift from Swett

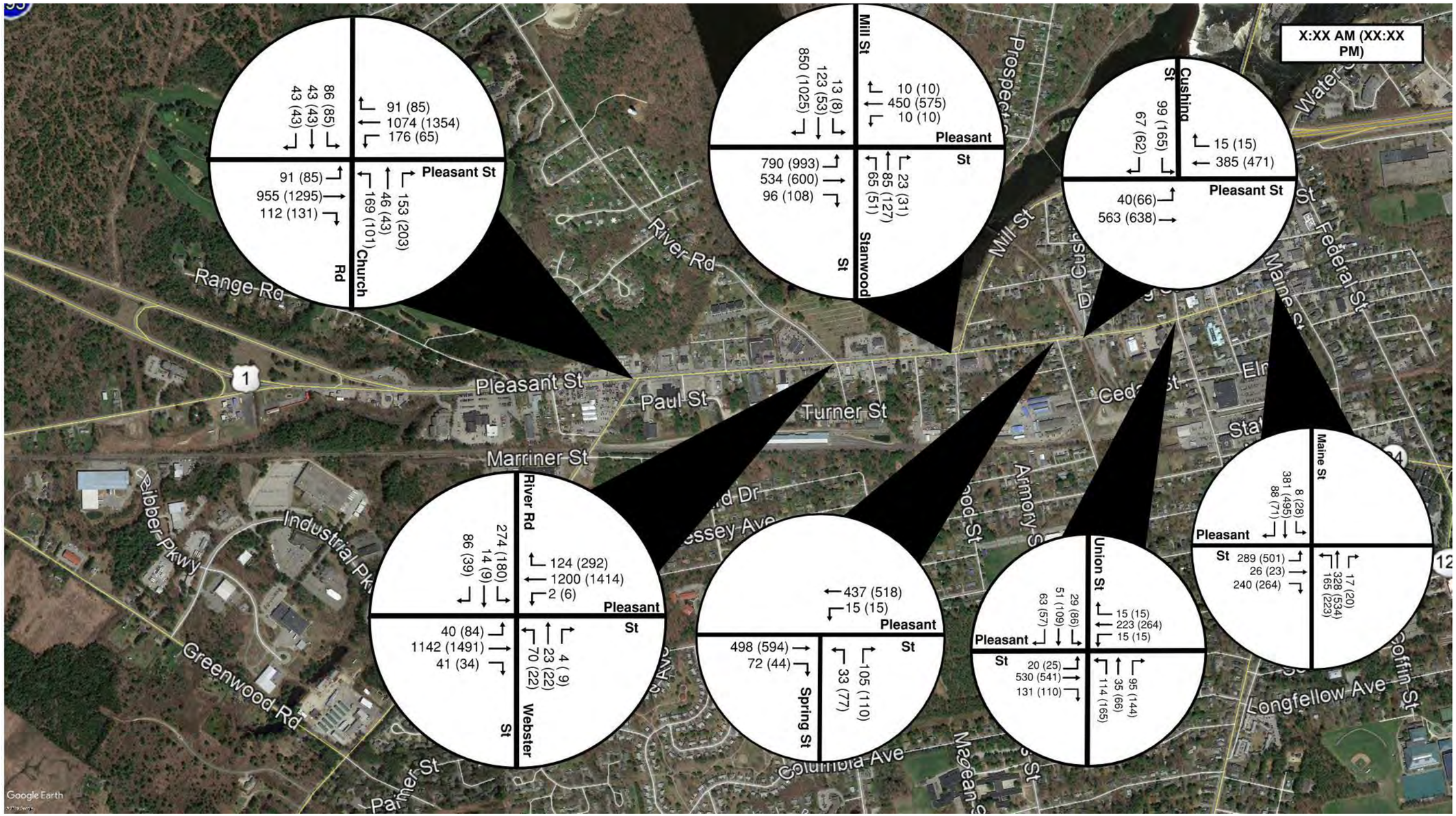


Figure 3.7 2039 Two-way Intersection Traffic Volumes

3.0 TRAFFIC MODELIING

The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). This is a qualitative assessment of the quantitative effect of factors such as speed, volume of traffic, geometric features, traffic interruptions, delays, and freedom to maneuver.

Level of Service provides a measurement of the delay experienced at an intersection because of traffic operations at that intersection. In general, there are six levels of service: Level of Service A to Level of Service F. The highest, Level of Service A, describes a condition of free-flow operations where the effects of incidents are easily absorbed. Level of Service B describes a state in which maneuverability and speed limits are beginning to be restricted by other motorists although level of comfort is still high. In Level of Service C, experienced drivers are still comfortable, but maneuverability is noticeably restricted. Level of Service D brings noticeable congestion and driver comfort levels decrease. In Level of Service E, roadway capacity is reached, and disruptions are much more prevalent – driver comfort has declined. Finally, Level of Service F is the results of volumes greater than roadway capacity with congestion and possible stopped conditions. MaineDOT has determined that Levels of Service A-D are acceptable conditions for intersections.

The measures of delay for each Level of Service rating for unsignalized and signalized intersections are found in **Table 3.1**.

Table 3.1
Level of Service Criteria

LOS	Signalized Intersection	Unsignalized Intersection
A	≤10 sec	≤10 sec
B	10–20 sec	10–15 sec
C	20–35 sec	15–25 sec
D	35–55 sec	25–35 sec
E	55–80 sec	35–50 sec
F	>80 sec	>50 sec

Queue represents the distance of vehicles waiting at the stop bar for the light to change. Most commonly reported is the 95th percentile queue, in other words the queue that will not be exceeded 95% of the time. A vehicle length of 20 feet can be used to visualize the queues. While it does not impact the level of service directly, it is another measure of the effectiveness of the intersection.

SimTraffic computer models were used to analyze the study intersections. For SimTraffic, the Trafficware version 10 standard output was used, based on 5 runs of 60 minutes of simulation. It should be noted that the analysis is based upon an optimized signal timing scenario.

3.1 Pleasant Street/Church Road

The improvement concept recommended in the Study generally consists of providing left-turn lanes on Pleasant Street and formalizing a connection to Cumberland Farms, McDonald's, and Amato's. Traffic volumes were modified to account for traffic by the noted businesses. Following this change the intersection would be expected to see reduced congestion (see **Table 3.2**). In conjunction with the improvements, raised islands would be installed on Pleasant Street restricting access and thus mitigating safety problems.

Table 3.2
Pleasant Street/Church Road
Left Lanes on Pleasant and Connector Road
2039 Build Level of Service and 95th Percentile Queue

Movement	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Lt	46.1	D	49.8	D	158	242
Pleasant EB Thru	23.6	C	23.9	C	322	417
Pleasant Thru/Rt	22.5	C	23.6	C	315	404
Pleasant WB Lt	43.5	D	49.7	D	221	147
Pleasant WB Thru	20.6	C	22.4	C	311	368
Pleasant WB Thru/Rt	21.8	C	26.2	C	334	390
Church Lt/Thru	38.3	D	40.8	D	242	277
Church Rt	6.9	A	12.8	B	117	146
Connector Lt/Thru	30.4	D	31.5	C	126	153
Connector Rt	7.8	A	8.5	A	46	41
Overall	24.8	C	26.0	D		

Two Alternatives were evaluated for the two-way conversion. Alternative 1 represents a condition where a single approach lane is provided on westbound Pleasant Street at Stanwood Street/Mill Street. Alternative 2 assumes two approach lanes are provided (it should be noted that only a PM evaluation was conducted as it represents the worst-case volume scenario). **Tables 3.3** and **3.4** present LOS, delay and queue results following the two-way conversion.

As noted, a slight improvement in delay is expected following the two-way conversion due to a shift in traffic from Church Road (left-turns) to westbound Pleasant Street.

Table 3.3
Pleasant Street/Church Road
Left Lanes on Pleasant and Connector Road
2039 Build Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volume AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM/PM 95th% Queue (feet)
Pleasant EB Lt	91/85	34.6	C	39.8	D	138/117
Pleasant EB Thru	955/1295	19.3	B	13.3	B	83/272
Pleasant Thru/Rt	112/131 (Rt)	17.4	B	12.4	B	287/263
Pleasant WB Lt	176/65	38.4	D	45.2	D	210/145
Pleasant WB Thru	1074/1354	18.2	B	18.6	B	303/355
Pleasant WB Thru/Rt	91/85 (Rt)	19.8	B	22.3	C	326/389
Church Lt/Thru	215/144	27.8	C	28.7	C	160/107
Church Rt	153/203	6.0	A	10.9	B	64/97
Connector Lt/Thru	129/128	23.8	C	25.8	C	115/114
Connector Rt	43/43	7.4	A	8.0	A	47/44
Overall		20.4	C	18.1	B	

Table 3.4
Pleasant Street/Church Road
Left Lanes on Pleasant and Connector Road
2039 Build Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volume AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Lt	91/85			42.7	D	119
Pleasant EB Thru	955/1295			13.8	B	283
Pleasant Thru/Rt	112/131 (Rt)			12.8	B	285
Pleasant WB Lt	176/65			40.7	D	129
Pleasant WB Thru	1074/1354			16.7	B	336
Pleasant WB Thru/Rt	91/85 (Rt)			18.9	B	359
Church Lt/Thru	215/144			29.2	C	108
Church Rt	153/203			10.6	B	96
Connector Lt/Thru	129/128			26.3	C	108
Connector Rt	43/43			10.1	B	53
Overall				17.2	B	

Table 3.5
Pleasant Street/Church Road
PM Level of Service Comparison

Movement	Existing	2039 No-Build	2039 Build	2039 Two-Way Alternative 2
Pleasant EB Lt	N/A	N/A	D	D
Pleasant EB Thru	E	F	C	C
Pleasant Thru/Rt	E	F	C	C
Pleasant WB Lt	D	D	D	D
Pleasant WB Thru	B	B	C	C
Pleasant WB Thru/Rt	B	D	C	C
Church Lt/Thru	C	E	D	D
Church Rt	C	F	B	B
Connector Lt/Thru	N/A	N/A	C	C
Connector Rt	N/A	N/A	A	A
Overall	D	F	D	D

Table 3.5 presents a comparison of overall levels of service for Existing, 2039 No-Build, Build and Alternative 2 conditions.

3.2 Pleasant Street/River Road/Webster Street

Table 3.6 presents the improvements anticipated with adding left-turn lanes on Pleasant Street as recommended in the Study. As noted, the intersection will operate at acceptable levels of service with the added capacity.

Table 3.6
Pleasant Street/River Road/Webster Street
Left Lanes on Pleasant and Turner Connector Road
2039 Level of Service and 95th Percentile Queue

Movement	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Lt	35.3	C	41.1	D	47	123
Pleasant EB Thru	13.5	B	16.8	B	224	264
Pleasant EB Thru/Rt	14.1	B	17.5	B	221	262
Pleasant WB Lt	28.4	C	37.2	D	10	38
Pleasant WB Thru	16.1	B	18.0	B	315	488
Pleasant WB Thru/Rt	17.4	B	22.2	C	255	466
River Lt	27.9	C	36.7	D	101	152
River Thru/Rt	31.9	C	34.5	C	121	159
Webster Lt/Thru/Rt	12.2	B	11.8	B	119	72
Overall	17.4	B	20.7	C		

.

Two Alternatives were evaluated for the two-way conversion. Alternative represents a condition where a single approach lane is provided on westbound Pleasant Street at Stanwood Street/Mill Street. Alternative 2 assumes two approach lanes are provided. **Tables 3.7** and **3.8** present LOS, delay and queue results following the two-way conversion.

As noted, a minor degradation in delay is expected following the two-way conversion, although acceptable conditions will be provided.

Table 3.7
Pleasant Street/River Road/Webster Street
Left Lanes on Pleasant and Turner Connector Road
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM/PM 95th% Queue (feet)
Pleasant EB Lt	40/84	40.5	D	62.4	E	48/135
Pleasant EB Thru	1142/1491	14.8	B	13.5	B	255/297
Pleasant EB Thru/Rt	41/34 (Rt)	15.2	B	13.8	B	257/277
Pleasant WB Lt	2/6	39.0	D	60.5	E	9/64
Pleasant WB Thru	1200/1414	22.2	C	22.7	C	280/420
Pleasant WB Thru/Rt	124/292 (Rt)	23.8	C	28.6	C	309/474
River Lt	274/180	31.0	C	59.6	D	113/97
River Thru/Rt	100/48	34.3	C	63.1	E	236/239
Webster Lt/Thru/Rt	97/53	13.0	B	19.6	B	148/125
Overall		21.1	C	23.7	C	

Table 3.8
Pleasant Street/River Road/Webster Street
Left Lanes on Pleasant and Turner Connector Road
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Lt	40/84			47.8	D	92
Pleasant EB Thru	1142/1491			13.7	B	271
Pleasant EB Thru/Rt	41/34 (Rt)			14.1	B	259
Pleasant WB Lt	2/6			49.7	D	55
Pleasant WB Thru	1200/1414			22.1	C	378
Pleasant WB Thru/Rt	124/292 (Rt)			27.3	C	406
River Lt	274/180			35.3	D	75
River Thru/Rt	100/48			41.6	D	155
Webster Lt/Thru/Rt	97/53			15.1	B	73
Overall				21.5	C	

Table 3.9 presents a comparison of overall levels of service for Existing, 2039 No-Build, Build and Alternative 2 conditions.

Table 3.9
Pleasant Street/River Road/Webster Street
PM Level of Service Comparison

Movement	Existing	2039 No-Build	2039 Build	2039 Two-Way Alternative 2
Pleasant EB Lt	F	F	D	D
Pleasant EB Thru	F	F	B	B
Pleasant EB Thru/Rt	F	F	B	B
Pleasant WB Lt	C	D	D	D
Pleasant WB Thru	A	B	B	C
Pleasant WB Thru/Rt	A	B	C	C
River Lt	D	D	D	D
River Thru/Rt	C	D	C	D
Webster Lt/Thru/Rt	B	D	B	B
Overall	F	F	C	C

3.3 Pleasant Street/Mill Street/Stanwood Street

Table 3.10 presents the improvements anticipated with providing two left-turn lanes from Pleasant Street to Mill Street and two right-turn lanes from Mill Street to Pleasant Street as recommended in the Study. As noted, the intersection will operate at acceptable level of service with the added capacity.

Table 3.10
Pleasant Street/Mill Street/Stanwood Street
Double Left and Right Lanes
2039 Build Level of Service and 95th Percentile Queue

Movement	AM Delay (sec/ veh)	AM LOS	PM Delay (sec/ veh)	PM LOS	AM 95th% Queue (feet)	PM 95th% Queue (feet)
Pleasant EB Lt	12.7	B	18.3	B	182	260
Pleasant EB Lt	19.6	B	26.2	C	215	263
Pleasant EB Thru/Rt	22.3	C	26.7	C	340	369
Stanwood Lt	21.9	C	22.4	C	97	132
Stanwood Thru/Rt	25.1	C	27.6	C	114	136
Mill Lt/Thru	17.8	B	20.3	C	109	67
Mill Rt	5.0	A	5.0	A	94	124
Mill Rt	3.4	A	4.0	A	94	104
Overall	13.5	B	16.5	B		

Two Alternatives were evaluated for the two-way conversion. Alternative represents a condition where a single approach lane is provided on westbound Pleasant Street at Stanwood Street/Mill Street. Alternative 2 assumes two approach lanes are provided. **Tables 3.11** and **3.12** present LOS, delay and queue results following the two-way conversion.

As noted, degradation in delay is expected following the two-way conversion under Alternative 1. Some movements will operate at unacceptable levels of service. Under Alternative 2, delay does increase, but acceptable operating conditions are predicted.

Table 3.11
Pleasant Street/Mill Street/Stanwood Street
Double Left and Right Lanes
2039 Build Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM/PM 95th% Queue (feet)
Pleasant EB Lt	790/993	25.5	C	32.9	C	256/379
Pleasant EB Lt		34.2	C	43.2	D	268/395
Pleasant EB Thru/Rt	630/708	10.2	B	9.9	A	225/262
Pleasant WB	470/695	81.7	F	90.3	F	669/858
Stanwood Lt	65/51	28.5	C	53.1	E	75/124
Stanwood Thru/Rt	108	23.7	C	49.8	D	116/214
Mill Lt/Thru	13/8	36.4	D	68.4	E	154/180
Mill Rt	850/1025	9.9	A	21.5	C	200/337
Mill Rt		6.5	A	19.0	B	185/331
Overall		27.9	C	37.8	D	

Table 3.12
Pleasant Street/Mill Street/Stanwood Street
Double Left and Right Lanes
2039 Build Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Lt	790/993			18.8	B	257
Pleasant EB Lt				26.8	C	267
Pleasant EB Thru/Rt	630/708			9.1	A	215
Pleasant WB	470/695			42.2	D	259
Stanwood Lt	65/51			32.4	C	88
Stanwood Thru/Rt	108			33.1	C	167
Mill Lt/Thru	13/8			41.7	D	101
Mill Rt	850/1025			9.6	A	198
Mill Rt				6.7	A	190
Overall				20.1	C	

Table 3.13 presents a comparison of overall levels of service for Existing, 2039 No-Build, Build and Alternative 2 conditions.

Table 3.13
Pleasant Street/Mill Street/Stanwood Street
PM Level of Service Comparison

Movement	Existing[1]	2039 No-Build	2029 Build	2039 Two-Way Alternative 2
Pleasant EB Lt	D	F	B	B
Pleasant EB Lt			C	C
Pleasant EB Thru/Rt	C	D	C	A
Pleasant WB	N/A	N/A	C	D
Stanwood Lt	C	F	C	C
Stanwood Thru/Rt	C	F	C	C
Mill Lt/Thru	C	E	A	D
Mill Rt	B	F	A	A
Mill Rt			B	A
Overall	C	F	B	C

1. In the SimTraffic Model vehicles were blocked at the River Road intersection and thus the flow rate at this location was reduced. Conditions are worse than noted.

3.4 Pleasant Street/Spring Street

Traffic operating conditions were modeled following the two-way conversion. The analysis assumed STOP control from Spring Street. As noted, acceptable levels of service will be provided although long queues can be expected under Alternative 1 (approximately 10 vehicles). **Tables 3.14 and 3.15**

Table 3.14
Pleasant Street/Spring Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Thru/Rt	570/638	3.3	A	3.1	A	5/3
Pleasant WB Lt/Thru	452/533	1.5	A	3.5	A	98/147
Spring Lt/Rt	138/187	10.6	B	46.4	D	85/277
Overall		3.5	A	9.3	A	

Table 3.15
Pleasant Street/Spring Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Thru/Rt	570/638			3.0	A	6
Pleasant WB Lt/Thru	452/533			1.2	A	87
Spring Lt/Rt	138/187			20.4	C	148
Overall				4.7	A	

3.5 Pleasant Street/Cushing Street

Traffic operating conditions were modeled following the two-way conversion. The analysis assumed STOP control from Spring Street. As noted, poor levels of service will be provided with long queues under both Alternatives. Traffic volume levels likely warrant the need for a traffic signal at this location and cost is included.

Table 3.16
Pleasant Street/Cushing Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM/PM 95th% Queue (feet)
Pleasant EB Lt	40/66	2.7	A	3.4	A	36/48
Pleasant EB Thru	563/638	0.9	A	1.1	A	
Pleasant WB Thru/Rt	400/486	1.7	A	2.2	A	
Cushing Lt/Rt	166/227	14.5	B	40.7	E	110/231
Overall		3.3	A	8.1	A	

Table 3.17
Pleasant Street/Cushing Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Lt	40/66			3.5	A	48
Pleasant EB Thru	563/638			1.1	A	
Pleasant WB Thru/Rt	400/486			2.0	A	
Cushing Lt/Rt	166/227			48.6	D	281
Overall				8.8	A	

3.6 Pleasant Street/Union Street

Traffic conditions were modeled under a two-way conversion and as noted acceptable levels of service are expected. It should be noted that the analysis assumed left-turn lanes on Pleasant Street.

Table 3.18
Pleasant Street/Union Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM/PM 95th% Queue (feet)
Pleasant EB Lt	20/25	7.5	A	11.8	B	57/68
Pleasant EB Thru/Rt	661/651	10.0	A	18.0	C	231/337
Pleasant WB Lt	15/15	22.2	C	47.6	D	44/49
Pleasant WB Thru/Rt	238/294	7.4	A	10.0	A	118/163
Union NB	244/375	15.7	B	32.7	C	151/326
Union SB	252/143	11.4	B	18.6	C	84/158
Overall		10.9	B	20.2	C	

Table 3.19
Pleasant Street/Union Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant EB Lt	20/25			12.1	B	80
Pleasant EB Thru/Rt	661/651			21.9	C	423
Pleasant WB Lt	15/15			61.1	E	62
Pleasant WB Thru/Rt	238/294			10.2	B	173
Union NB	244/375			29.9	C	283
Union SB	252/143			20.0	B	160
Overall				21.5	C	

Table 3.20
Pleasant Street/Union Street
PM Level of Service Comparison

Movement	Existing	2039 No-Build	2029 Build	2039 Two-Way Alternative 2
Pleasant EB Lt	A	A	A	B
Pleasant EB Thru/Rt	A	A	A	C
Pleasant WB Lt	A	A	A	E
Pleasant WB Thru/Rt	A	A	A	B
Union NB	A	A	A	C
Union SB	A	A	A	B
Overall	A	A	A	C

3.7 Pleasant Street/Maine Street

Traffic conditions were modeled under a two-way conversion and as noted acceptable levels of service are expected. It should be noted that the analysis assumed northbound Maine Street will consist of a left lane and a through/right lane. The Pleasant Street approach will consist of a left/through lane and a right lane.

Table 3.21
Pleasant Street/Maine Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 1

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	AM/PM 95th% Queue (feet)
Pleasant Lt/Thru	215/524	14.1	B	25.6	C	163/313
Pleasant Rt	240/264	3.8	A	5.2	A	97/238
Maine NB Lt	165/223	22.2	C	36.9	D	126/183
Maine NB Thru/Rt	345/554	7.3	A	14.6	B	99/222
Maine SB Lt/Thru	389/523	18.2	B	33.0	C	162/251
Maine SB Thru/Rt	469/566	9.9	A	18.7	B	121/218
Overall		12.8	B	22.4	C	

Table 3.22
Pleasant Street/Maine Street
2039 Level of Service and 95th Percentile Queue
Two-Way Pleasant Street Alternative 2

Movement	2039 Volumes AM/PM	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM 95th% Queue (feet)
Pleasant Lt/Thru	215/524			27.5	C	337
Pleasant Rt	240/264			5.1	A	256
Maine NB Lt	165/223			41.4	D	192
Maine NB Thru/Rt	345/554			15.5	B	218
Maine SB Lt/Thru	389/523			38.8	D	248
Maine SB Thru/Rt	469/566			19.3	B	214
Overall				24.5	C	

Table 3.23
Pleasant Street/Maine Street
PM Level of Service Comparison

Movement	Existing	2039 No-Build[1]	2029 Build	2039 Two-Way Alternative 2
Pleasant Lt/Thru	B	B	B	C
Pleasant Rt	A	A	A	A
Maine NB Lt	N/A	N/A	N/A	D
Maine NB Thru/Rt	B	B	B	B
Maine SB Lt/Thru	B	A	A	D
Maine SB Thru/Rt	B	A	A	B
Overall	B	A	A	C

1 – improvements expected over existing conditions due to signal optimization

4.0 Feasibility Analysis

The following presents a summary of impacts and analysis associated with the two-way conversion.

4.1 Impacts on Level of Service

A detailed SimTraffic simulation model analysis was performed and in general reasonable traffic operating conditions are expected. A few conclusions at key locations in the one-way section of Pleasant Street are noted as follows.:

Pleasant Street/Mill Street/Stanwood Street: Two Alternatives were evaluated for the two-way conversion. Alternative 1 represents a condition where a single approach lane is provided on westbound Pleasant Street at Stanwood Street/Mill Street. Alternative 2 assumes two approach lanes are provided. As noted, degradation in delay is expected following the two-way conversion under Alternative 1. Under Alternative 2, delay does increase, but acceptable operating conditions are predicted. Accordingly, two approach lanes must be provided if a two-way conversion is implemented

Pleasant Street/Spring Street: Acceptable levels of service will be provided during the weekday AM and PM peak hours under STOP sign control.

Pleasant Street/Cushing Street: Although acceptable levels of service conditions are predicted for this intersection long delays and queues are expected from Cushing Street. A review of the Peak Hour Warrant contained in the Manual on Uniform Traffic Control Devices; Federal Highway Administration indicates a traffic signal may be required. We have assumed the cost of a traffic signal.

Pleasant Street/Union Street: Acceptable levels of service will be provided during the weekday AM and PM peak hours with the exception of westbound Union Street left-turn movement which is a low volume movement. It should be noted that it is assumed left-turn lanes would be provided on Pleasant Street.

Pleasant Street/Maine Street: Acceptable levels of service will be provided during the weekday AM and PM peak hours following the two-way conversion. Queues on Maine Street are not expected to be problematic with northbound and southbound vehicle queues extending about 250 feet (approximately 10 vehicles).

4.2 Impacts on Safety

The Study identified two High Crash Location is the area where the conversion would take place. The intersection of Mill Street/Stanwood Street and at Cushing Street. The recommended improvements at the Mill Street/Stanwood Street intersection would be expected to improve safety at that location. With the introduction of additional vehicle movements from westbound Pleasant Street, increases in crashes may occur, although the majority of vehicles will be through movements and will not have other vehicle conflicts. It is likely that the Cushing Street intersection will see improvement in safety as vehicle speeds would be expected to decrease. Also, lane change crashes would be eliminated as only a single through lane will be provided. Additionally, it is likely a traffic signal will be required, and this condition would be expected to reduce severe collisions but may increase minor crashes (rear-end collisions).

There is limited national research on the safety improvement expected following a one-way to two-way conversion. As noted previously, vehicle speeds would likely decline, and lane change collisions would be eliminated. Some type of crashes my increase, including turning movement collisions at intersections, where new vehicle conflicts are introduced.

Lastly, I would note that it is assumed that space for bicycle lanes would only be possible with the removal of parking on at least one side of the street. If bicycle lanes are not provided, bike safety may be reduced, although current conditions are challenging particularly given vehicle speeds.

4.3 Affect on the Maine Street Bridge Study over Route 1

The two-way conversion would be expected to reduce the left-turn volume for Maine Street to Route 1 Southbound On-Ramp /Cabot Street. As noted in Section 2, the left turn volume would decrease by 166 vehicles during the AM peak hour and 114 vehicles during the PM peak hour. This change would have a positive impact on traffic operating conditions on Maine Street at Mason Street, Route 1, and Cabot Street. Given that the study recommendations included a single left-turn lane from Maine Street onto Route 1 Southbound On-Ramp/Cabot Street, the reduced volume does not offer the opportunity to reduce intersection capacity. Accordingly, the two-way conversion will reduce volumes, but does not offer opportunities to reduce the scope of the proposed improvements.

4.4 Impacts on Study Recommendations

The two-way conversion will have impacts at the Pleasant Street/Mill Street/Stanwood Street and Pleasant Street/Church Road intersections only. Conditions are expected to improve slightly at Church Road. At Mill Street/Stanwood Street, the recommended concept would be unchanged with the exception of the westbound Pleasant Street approach and the design modification of the traffic signal system to accommodate westbound movements.

4.5 General Impact to On-Street Parking and Traffic Circulation

On-Street Parking Impacts

In respect to impacts to on-street parking two conditions were evaluated, one with site specific parking space impacts at intersections due to turning movements or lane modifications. The second condition is if parking is removed from one side of Pleasant Street for provision of bike lanes (it should be noted that continuous bike lanes are not likely due to turn lane needs at intersections).

Without Bike Lanes

- Pleasant Street westbound approach to Mill Street/Stanwood Street – 10 spaces +/- (due to two approach lanes)
- Between Spring Street and Cushing Street – 5 spaces +/- (due to turn lanes onto Spring and Cushing)
- At the Pleasant Street/Union Street intersection – 12 parking spaces +/- (due to turn lanes on Union)
- Pleasant Street approach to Maine Street – 3 parking spaces +/- (due to turning movements onto Pleasant from Maine)
- **Total Parking Spaces Lost – 30 Parking Spaces +/-**

With Bike Lanes

- Assuming parking is prohibited on the south side from Mill Street/Stanwood Street to Maine Street – 58 parking spaces +/-
- Parking removal at intersections due to turn lane needs – 24 parking spaces +/-
- **Total Parking Spaces Lost – 82 Parking Spaces +/-**

Traffic Circulation

The two-way conversions will have significant traffic circulation benefits including:

- Direct routing from downtown to Route 1 south and I-295 would be established with the two-way conversion. Currently, leaving the downtown is confusing and not well understood particularly for visitors.
- Local neighborhood circulation will be enhanced by the two-way conversion as traffic between Maine Street and Spring Street will have direct travel in the southerly direction. An example would be a motorist on Maine Street with destination like the post office,

would not have to circulate through local streets, but utilize Pleasant Street.

4.6 Planning-Level Cost Estimate

A planning level cost estimate was prepared for the project. A summary is provided below.

- Pleasant Street/Mill Street/Stanwood Street Traffic Signal Modification - $50,000.00
- Pleasant Street/Cushing Street New Traffic Signal - $350,000.00
- Pleasant Street/Union Street Traffic Signal Replacement - $350,000.00
- Pleasant Street/Maine Street Traffic Signal Modification - $150,000.00
- Pavement Markings/Signs/Minor Geometric Modifications - $20,000.00

Total $920,000.00

Section 5.0 Public Outreach

In conjunction with the Study there were two public meetings held on September 9, 2020 (virtual) and February 22, 2021 (virtual) and a Town Council meeting held on July 29, 2021 (virtual or in-person). Those meetings included an initial investigation into a two-way conversion and the public noted concerns but there was general consensus that it was worth learning more.

Additional feedback was gathered at a public meeting on March 31, 2022, and written comments were accepted until April 15, 2022. A summary of comments are provided below and meeting notes are attached.

- Concerns with regard to loss of on-street parking supply.
- Vehicle speeds is a concern now and with the two-way conversion. Although some believe the conversion will slow people down.
- Bicyclists will have to share traffic lanes which is a safety concern.
- The two-way conversion was recommended in the Downtown Brunswick and Outer Pleasant Street Corridor Master Plan.
- A two-way conversion study is and is not consistent with the historic character of the area.
- It improves ways for people to get out of Town.
- Increased traffic volumes on Pleasant Street and side streets.
- Increased noise is a concern.
- A concern regarding driveway movements.
- Pedestrian movements will be less safe.

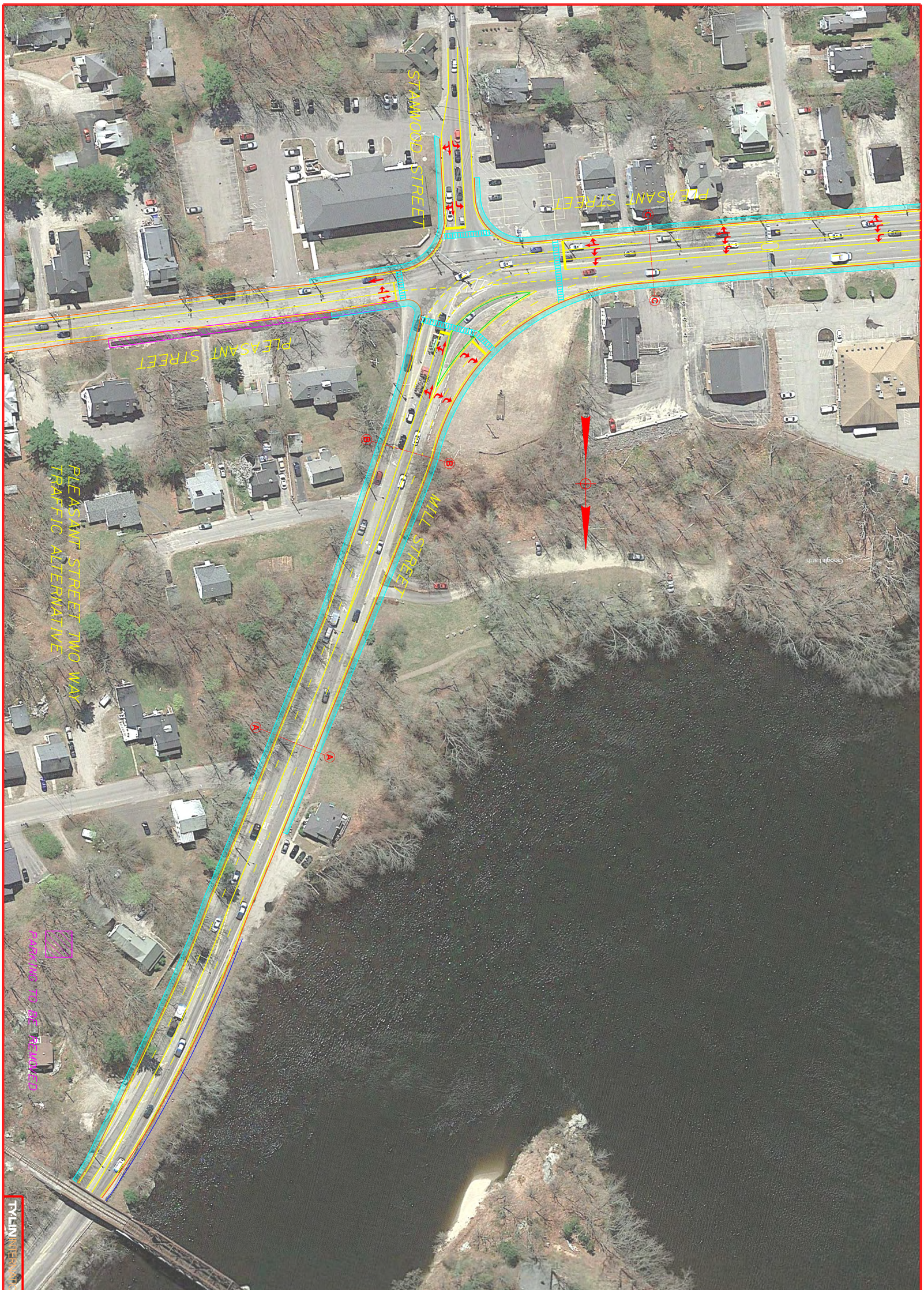
Section 6.0 Concluding Summary

- Different local planning efforts in Brunswick have recommended an analysis of a two-way conversion of Pleasant Street between Mill Street/ Stanwood Street and Maine Street for years. This Technical Memorandum reviews in detail the feasibility of a two-way conversion. Some key findings of the analysis include:
  - From a traffic mobility perspective, the conversion is not expected to create unreasonable congestion. This does assume significant capacity improvements at the Mill Street/Stanwood Street intersection as identified in the original Study.
  - Traffic signal improvements will be required at Cushing Street (new installation), Union Street and Maine Street.
  - There will be a loss of approximately 30 on-street parking spaces following the conversion. Additional on-street parking spaces will be lost if bike lanes are provided.
  - The two-way conversion will improve traffic circulation both into and out of the downtown but also for local neighborhood circulation.
  - The change would be expected to improve safety particularly at the Cushing Street intersection which is a High Crash Location.
- MaineDOT is generally receptive to these types of efforts that promote safety, livability and economic development providing they improve safety and maintain acceptable levels of service.
- Two-way conversion of Pleasant Street will have impacts on both the entire Maine and Pleasant Street Corridors including parking, accessibility, travel time, etc. but could work providing significant capital investments.
- MaineDOT will need a clear resolution of support and ultimately a likely financial partnership before continuing to move forward.
- Given the corresponding needs and costs of two-way conversion, it would be at least 5 but up to 10 years or more before these and other improvements in the Pleasant Street Corridor Study could be implemented.

APPENDIX

Concept Layout Plans

Filename: ...\xx_HDPlan alt1_05_2Way.dgn Division: HIGHWAY Username: Date:2/11/2022



TYLIN INTERNATIONAL

SHEET NUMBER 1 OF 3

PLEASANT STREET
CONCEPTUAL PLANS

		BY	DATE
PROJ. MANAGER	T. ERRICO		
DESIGN-DETAILED	J. ROLLINS	J. ROLLINS	01/2021
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

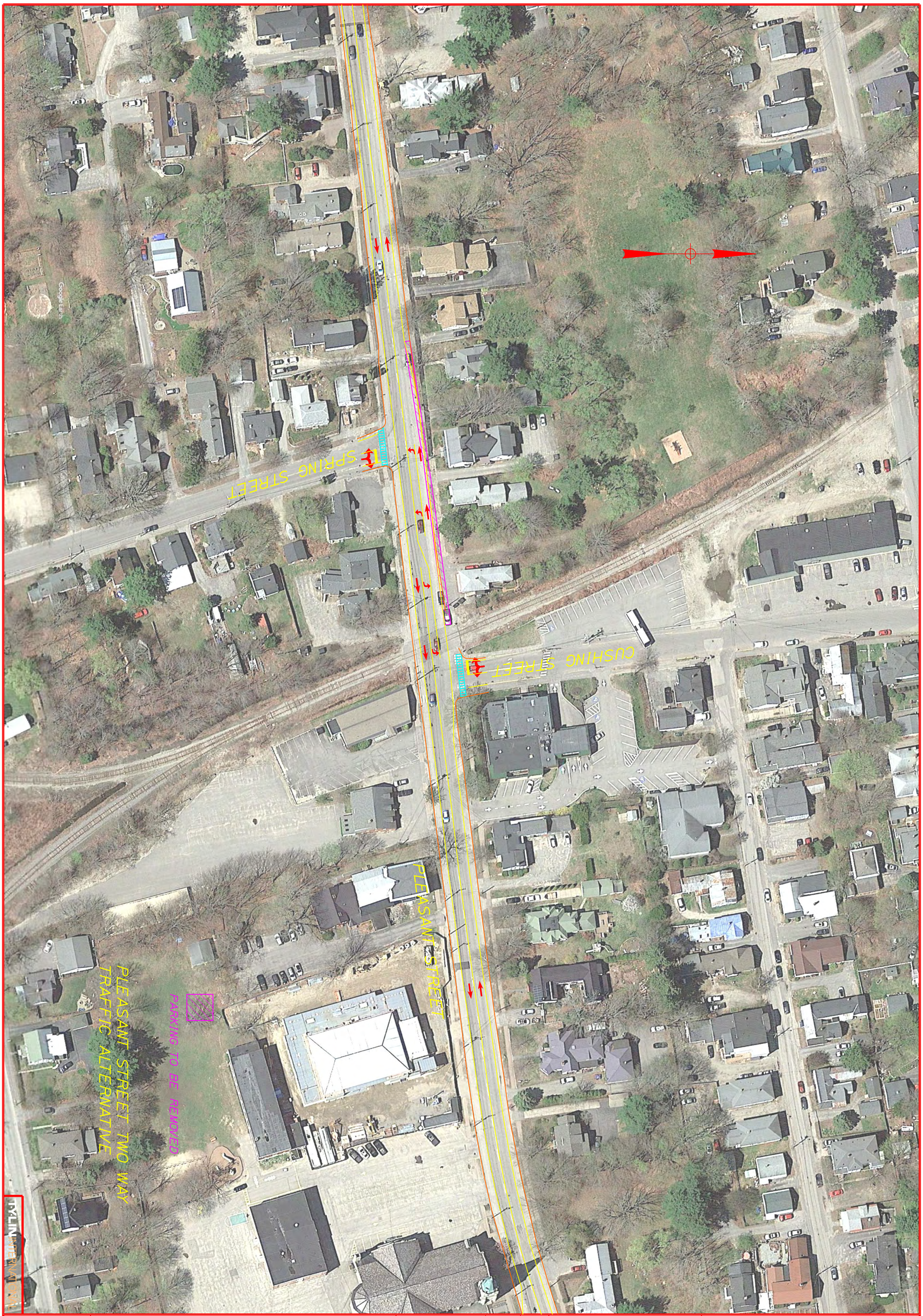
SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STUDY
MULTIMODAL PROGRAM

Filename: ...\xx_HDPlan alt1_06_2Way.dgn Division: HIGHWAY Username: Date:2/11/2022



PROJ. MANAGER	T. ERRICO	BY	DATE
DESIGN-DETAILED	J. ROLLINS	J. ROLLINS	01/2021
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT STREET

CONCEPTUAL PLANS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION STUDY

MULTIMODAL PROGRAM

SHEET NUMBER 2 OF 3

DYLAN WATERMAN

Filename: ...\xx_HDPlan alt1_07_2Way.dgn Division: HIGHWAY Username: Date:2/11/2022

NTS

PROJ. MANAGER	T. ERRICO	BY	DATE
DESIGN-DETAILED	J. ROLLINS	J. ROLLINS	01/2021
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SHEET NUMBER 3 OF 3

PLEASANT STREET

CONCEPTUAL PLANS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION STUDY

MULTIMODAL PROGRAM

March 31, 2022 Public Meeting Notes

MAINE DEPARTMENT OF TRANSPORTATION
PUBLIC COMMENTS
Pleasant Street Two-Way Conversion Public Forum
March 31, 2022
Meeting – 6:30 P.M.
Council Chambers Town Hall
85 Union Street
SUMMARY OF PUBLIC COMMENTS

"Are we going to create a Wiscasset-type situation on lower Pleasant with people waiting all the time for crossing pedestrians and lose the benefit of going two-way?"

"Will this reduce traffic on McKeen Street?"

"Glad to see the study echoes what was in the Downtown Brunswick and Outer Pleasant Street Corridor Master Plan, which was put together with tremendous public input and recommended reverting Pleasant Street back to two-ways to keep the neighborhood feel of that area."

"Concerned about the lack of parking spaces, especially around long-term businesses on that street that don't have shared parking available."

"Makes it safer for people driving and people crossing the street"

"Biggest concern is speed, speed, speed. 25 mph without speed bumps will continue the speed. There's no guarantee that this double, two-way plan will reduce the speed. Cushing should be made a right turn only because of wait times."

"Creating safe places for pedestrians and bicycles. Kids ride their bikes every day to school at St. John's School. Adding a light at Cushing is not the right idea because it will probably back things up to Mill St./Pleasant St. Having a way for speed bumps to be put in like we have on Maine Street – it's a really dangerous street."

"The lack of parking in a walking neighborhood – even Maine Street, we know we're at capacity for the businesses there – is an issue. I'm very concerned about bicycles We have people that ride their bikes on sidewalks because it's so dangerous on Pleasant."

"I don't see how it preserves the historic nature of our neighborhood. It's so wonderful that we can walk everywhere. This is a pedestrian neighborhood. Are you going to be able to have that with this high volume of traffic – doubling the volume of traffic on Pleasant Street is concerning to me."

"I am also quite concerned about the cars and that kind of movement, taking away parking spots. We have the park and there are often cars of people using the park I think it would be a real problem to take that away. We also promote the walking part of our neighborhood and like the idea of a bike lane. I've come up with 3 or 4 ideas of how we can slow traffic in the condition that it's in now – the one way – and the Town of Brunswick hasn't seemed to try any of them. If this is what's referred to as the "Gateway" to downtown historic Brunswick, I'm very concerned that we will lose that character. I'm not sure you've planned for the trucks that exit Spring Street – they generally swing out over into two lanes as they turn. We're reliant on parking on that street and we can't change our driveways If traffic is heading in both directions and a line of cars is leaving Spring Street, we cannot turn around in the driveway – we have to back out."

"I've long wanted for Pleasant Street to be two-ways. It's so inconvenient and frequently dangerous to try to get out of town. I think that since the one-way situation was put into place, it warped all the driver choices that people made, and it's moved tons of traffic onto Maine Street and the pool table, and then folks running up Cumberland Street to try to sneak out of Cushing or the end of Cumberland is extremely unsafe. I share the concerns of my neighbors on Pleasant who are worried about getting back out of their driveways. For folks on Pleasant Street, if this is implemented, I wonder if the town could offer a modest property tax deduction over 2 or 3 years so that folks could put some investment into engineering their driveways and turnaround spaces a little different. I know I don't want to back out now – I'm 80 – it's hard to turn my neck far enough. Pleasant Street historically was the conduit in and out of town and I think it should be that again. My neighbors are worried about the numbers, and I just want to highlight the numbers are 20 years in the future, for 2039, and they are peak hours evening and morning, so they're not all day, and I think pedestrians will be fine. I do think the traffic would move at a more prudent speed if Pleasant wasn't so empty."

"I walk on Pleasant Street five days a week. I actually live on Paul Street, so I walk down that nice part of Pleasant Street before I take my life in my hands until I get to the one-way street, and I walk through the neighborhoods. I like the fact that it's a one-way street, and the traffic doesn't go 25 mph. They come over that hill and they are moving. I think at every intersection there should be a speed bump and a crosswalk to keep the traffic slowed down. I also drive into Brunswick and I like the fact that I have 5 or 6 different ways to get back to Paul Street, and depending on the time of day I will go up and over to Church Road, then go down and take a right onto Paul. Making Pleasant Street as a two-way when you come out there at Stanwood and Mill Street – that is a nightmare. What I think would be nice is why not take the Pleasant Street traffic and take them underneath and out the other side."

"I live next to Amatos on Pleasant Street and I grew up in that house, so I've been in Brunswick for 76 years, and Pleasant Street was two-way. I really believe that making it two-way again will actually slow the traffic down. If they have to stay behind some old dog groomer like me, they're not going to go so fast. The speed bumps on Maine Street have been awful, and everyone wants us to get rid of them. As far as historic value, Pleasant Street was two-way – it was always two-way. I believe a bridge over the town would solve the problem, but I don't believe that's going to happen. The traffic on Maine Street because the only way out of town is Mill Street basically, is doubled from what it would be. I like the study. I initially wondered if it was a smart thing to do, but as I've looked at it and watched the traffic, I think in the long run it is going to be the best answer, and I think historically it's going to look well. I'm also a biker, and we are allowed to and I do ride the sidewalks on Pleasant Street. There's no way in the world I'd ride on the street until I get off of Pleasant Street. I'm very much in favor of this and think it's the long-term answer."

"I've lived on lower Pleasant Street and I remember when it was two-way. When it was '53 or '54, my parents had to come out by the Twin Sister and stop the traffic to let us cross the street. If you did that today when it was two-way, they would run you over because the speed is unbelievable going down Pleasant Street. To have all that traffic coming back and forth every day, and right now they're going 50-60 miles an hour. It's a nightmare when you're trying to get out even now. People got so upset on Pleasant

Street – we couldn't get out. If you go up Pleasant Street on the right-hand side, you had to wait for Spring Street and Cushing Street. If you're going to have lights, you're going to have to learn to slow these people down, and I don't think that's going to happen because it's a different world today than it was in the '50's. Outer Pleasant Street is different – it's a commercial area. We're a residential. I hope you will take that into consideration. I don't think that's going to solve the problem – I think it's going to increase the problem. We can't change our driveway – we're locked in. Would you want to buy my house if it was two-way? Of course you wouldn't. It drops the property value.

"I live on lower Pleasant Street also. My concern is that it's going to increase the noise so much. Right now, people go down, we don't have acceleration noise, but when those trucks start to go up that hill I think it's really going to change the noise level in our neighborhood."

"I live on Sage Hill, a forgotten dead-end street that comes off of Mill Street that's nearly impossible to get out of now, and it's going to be even more impossible with 4 lanes, and 2 lanes facing our street that are going to merge about at our street. I've never heard anybody talk about traffic calming on Mill Street, which would also be a good idea because the same thing happens, even from Pleasant Street turning onto Mill Street – people accelerate through that light like you wouldn't believe. People live here. Our concern is not for people to go faster from one highway to the next, because they view outer Pleasant and Mill Street as part of the highway. Pleasant Street became one-way in 1957 when what was then known as the State Highway Commission decided to create a rotary in Brunswick, partly in preparation for Route 1 being built. People in Brunswick complained about having too much traffic downtown and not enough parking. It was too congested with Route 1 going downtown, so let's move Route 1 off Pleasant Street. Mill Street, which was a nothing street and used to be very residential, became part of a traffic circle, where you came into town one way on Pleasant Street and went down Maine Street, and you went the other way on Mill Street. It was supposed to be temporary. There was a plan to build a ramp system, which would have taken away a lot of the street I now live on, and it would have taken away the old Ricker Pleasant Street School building. There was going to be a big overpass that came up and around to Mill Street, and one going the other way to get people in and out of town. I'm concerned that if there are 5 lanes on Mill Street, there's going to be more land taken, and already our street goes up a steep hill, which wasn't that steep when the street was built, but once Mill Street was widened, our hill became very steep. I think we're going to become homebound on Sage Hill."

"I live on Lincoln Street. I live in a neighborhood that would be very much impacted by these changes. All of the feeder streets that you're showing on your map that are getting additional traffic – Cushing, Union and Spring Street already – all of those streets are barely two-way traffic. If people are parked on those streets – there are businesses on Union Street and Cushing Street – those businesses rely on parking. If now we're going to feed another thousand cars an hour in the morning and in the afternoon down that street, those businesses will have no parking. Now we've lost more parking than you've even considered because you haven't considered those extra thousand cars going through a neighborhood. It's a neighborhood that includes some one-way streets, so you're bottlenecking places that really can't afford to be bottlenecked. Even turning from Union Street to onto Lincoln can be very dangerous because of parked cars and the stop sign at Cumberland. You have places where you can't get 2 cars going in opposite directions at the same time, much less is someone's turning right. That's one of my concerns – the lack of consideration of those feeder streets and the lack of budget to account for those intersections beyond the immediate intersections. If Pleasant becomes two-way, it will back up even more. My second point is about the pedestrian crossing, specifically between Union and Maine Street. There's a library, a church and a post office. You've now gotten rid of all of the parking in front of the post office except for 2 spaces. That's going to force people to park across the street, and they're going to have to cross the street to get to the post office. My third concern is with the A-F rating. The changes that have been proposed previously would make that intersection at Mill, Stanwood and Pleasant a "B" intersection, possibly dropping to a "C". Now you're talking about spending a million dollars so we can have some "D" and "E" intersections? That fiscally makes no sense to me. The million dollars doesn't include traffic calming, any kind of landscaping to keep the character of the neighborhood, anything other than the bare minimum, to get a worse quality intersection. All we're doing is helping people get out of town faster. What about the businesses, the library and the churches. And what about St. John's, who is going to lose a lot of parking in front? School times have not been factored into this. You're certainly not going to be able to ride a bike on any of these side streets with the extra traffic. I am not willing to give up on inner Pleasant Street for pedestrians."

"I live at 15 Justamere Road and my concern is – is that the only places we're going to lose parking on street, and you've said that would be subject of future studies. I'm concerned that I often go to the library and wind up parking on Pleasant Street because there isn't any parking on Middle Street."

"I live on Cumberland Street between Union and Cushing. I really want to see this study plugged into the overall traffic scheme for Brunswick because I absolutely dread the pool table, and trying to make the left hand turn from Maine Street onto Mill Street to get to Route 1 South. I go through other neighborhoods. My husband dares to go out on Cumberland Street. I've done the McKeen to Church, and I know that there's been an extra stop sign put in because of traffic. We're just pushing traffic around. I look for relief for that Cabot/Mill awful intersection. As somebody who lives in the neighborhood and who endures high speed traffic down Cumberland Street at rush hour to get out to Mill Street, I happen to feel that the wide, one-way Pleasant Street is out of character for our neighborhood. Every other street there is two-way except for the funky little, one block, one-way streets off of both sides of Maine Street. It's a neighborhood of two-way streets, whether it's Oak or High or Cumberland. Pleasant Street being one-way, and I agree – a speedway – people just don't appreciate that it's a neighborhood street the way it's constructed now and the way it's used now. I do think that two-way traffic would make it feel more like a neighborhood street. I am concerned about the loss of parking, particularly for the businesses that have no parking. The post office has a parking lot; the library has a parking lot. There are some alternatives to those convenient parking spots right on Pleasant Street for them, but there are other businesses on the street that don't have that luxury, and I think that's a concern. I also would like to see further study taken of people who currently live on Pleasant Street and what the implications are for them backing out of their driveways into Pleasant Street traffic – whether that's made better or worse by having two-way traffic. As for the mid-block crossings, I'm not fond of crossing from the library over toward the post office myself now with the traffic, and it's true I only have to look in one direction, but I'm looking at cars that are racing down because it's the way it's used. I share a lot of concerns that have been expressed tonight, but I think that a two-way Pleasant Street would be more in character with the neighborhood than the one-way, high speed street that we now have. I'm really interested in seeing what it means for these other bad intersections in town. It's really complicated to explain how to get out of town or to Bath, and this would help those conversations."

"My concern is you have these stop lines fairly close to the intersection for eastbound Pleasant Street. For traffic coming out of Union Street and taking a left onto Pleasant Street to travel west or south, I don't see enough turn radial for a tractor trailer or a coach." I find not having any lane separation between lanes going east over the hill dangerous. There are other drivers that will come up that hill even though it's one-way."

"I have a business on Pleasant Street, up closer to Maine Street. I don't live on Pleasant Street, but I understand the concerns of the residents with coming out of driveways, and I have the same concern as a business on Pleasant Street. I don't know if that's been taken into account with the study, but aside from the turns onto Mill Street and Union Street, has it been taken into consideration the left hand and right hand turns into the small businesses that do have parking lots on Pleasant Street and how that will add to the congestion. My concern is also the parking up near Maine Street. As a business where people are unloading out boats and bikes onto that street, it's going to be even more dangerous with a two-way street than it is now. Someone had mentioned delivery trucks. If delivery trucks parked in front of the businesses, that would also take up a lot of the road space. It would be nice to get the additional visibility with the two-way traffic, but the lack of spaces could be a severe loss for small businesses, especially with the lack of town parking in our area. I think if we want less congestion, we need to look at alternatives other than cars.

"It seems like with no left turn off Union Street, particularly northbound, the left turn people are going to create a tremendous backup. That left turn will be blocked by anybody southbound going straight, and everybody behind them on Union Street going northbound from Hannaford's is going to be backed up The numbers for left turning are huge. It doesn't seem like that intersection can work without left turn lanes.

Additional Comment via Email to the Town

Good morning Tyler,

I am writing to share my thoughts about the proposed Pleasant St 2 Way project. As I was unable to attend the March 31 meeting, I thought it best to email you directly. If there is a better, more preferred way to relay my thoughts, please do point me in the correct direction.

We live in the condos sitting directly on the corner of Pleasant and Union. Currently my office window looks out over the intersection. I am writing to let you know that I am very much opposed to Pleasant being made into a 2-way street. Attached are a of couple videos of daytime traffic, and below are my observations:

Safety

Throughout the day the intersection is heavily trafficked by pedestrians, dog walkers, kids on their way to school, cyclists, etc. An additional traffic direction would impose a potential safety hazard to what is already a challenging intersection.

Pleasant, as is, is heavily trafficked by vehicles of all sizes, including large work trucks and busses. As you can see in the attached video (Pleasant at Union 1), the school bus making a righthand turn from Pleasant to Union is unable to complete the turn until NE bound traffic on Union clears, resulting in the SE traffic being blocked. If Pleasant were to change to a 2-way, each day WHEN the turn issue happens with a large vehicle, there will be a back up on SE bound traffic which would lead to impeded traffic flow, delays, and folks, looking for other options, traveling through currently quieter residential streets.

Noise pollution

On the daily, impatient drivers honk at one another at this intersection. Added turns across oncoming traffic has the potential to cause an increase in this behavior.

Aesthetics

The aesthetic value of having Pleasant St as a one-way thoroughfare is tremendous

I do appreciate your time and consideration of my input.

Kind regards,

Wendy Anderson-Orms

48 Union Street, Unit 203