

Traffic Assessment Report

Singleton Bypass - Concept Design and Environmental Assessment

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Client: Roads and Maritime Services

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Prepared by

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Glossary of Abbreviations

| | |
|-----------|--|
| Ave. Del. | Average Delay |
| Do Min | Do Minimum – measures that may be implemented before the bypass is constructed |
| DMNR | Do Minimum + No Putty Rd south facing ramps to the bypass |
| DMWR | Do Minimum + With Putty Rd south facing ramps to the bypass |
| HCV | Heavy Commercial Vehicle |
| Hrs | Hours |
| Km/h | Kilometres per hour |
| LCV | Light Commercial Vehicle |
| LoS | Level of Service |
| Mins. | Minutes |
| p.a. | Per annum |
| SCATS | Sydney Coordinated Adaptive Traffic System (signal control system) |
| Secs | Seconds |
| Secs/veh | Seconds per vehicle |
| Vehs | Vehicles |
| Veh/hr | Vehicles per hour |
| VHT | Vehicle Hours Travelled |
| VKT | Vehicle Kilometres Travelled |

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Executive Summary

Roads and Maritime Services (Roads and Maritime) is planning for a future New England Highway bypass at Singleton.

The New England Highway passes through Singleton and forms the main road access through the town and to the town centre. More than 25,000 vehicles use the highway through Singleton and across the Hunter River, with around 15% of these being heavy vehicles. (*source AECOM 2018*)

Traffic volumes are predicted to increase as a result of population growth, future land developments in Singleton, and regional freight movement traffic growth.

A preferred option was announced in December 2016, which involves building a new section of highway to the west of Singleton starting near Newington Lane and re-joining the New England Highway north of McDougalls Hill.

The NSW Government has announced \$92 million towards the upgrade under Rebuilding NSW, with \$3 million allocated in 2017-18 to progress planning. Timing for construction of the bypass has not been confirmed and would be subject to approval of a final business case and funding availability.

This project phase is the Concept Design and Environmental Assessment of the preferred option. This study will refine the strategic concept design of the preferred route in sufficient detail to fully describe the project and its impacts, thereby reducing the risk of modifications during detailed design and construction.

A final business case will be developed as part of this project to seek funding for future detailed design and construction.

The key objectives of the project are to:

- Improve journey time and reliability on the New England Highway through Singleton, particularly for road freight supporting the Upper Hunter and the North West New England region
- Improve the town centre by removing freight traffic
- Improve road safety for through and local traffic in Singleton
- Provide best value for money
- Provide clarity for Singleton Council by including the corridor in the LEP
- Potentially provide improved flood amenity and/or evacuation routes for Singleton.

Following on from previous studies new surveys were undertaken in February / March 2018 from which an updated traffic model was developed. The extents of this model were reduced, when compared to the earlier work, but more focused in respect to Singleton and the anticipated impact of the bypass on the town.

The development, calibration and validation of the Base model were reported in *60558931_DOC_TR_001 Aimsun Hybrid Base Model Calibration & Validation Report, 8th Nov 2018*.

Considerable work was undertaken to review historic data and forecast development information. Following on from the research, AECOM prepared Technical Note *60558931_DOC_TW_001 Future Traffic Growth Assumption, June 2018* with the proposed growth data which was the subject of detailed discussion with Roads and Maritime.

Consideration of the preferred scheme was taken against the background that, prior to the construction of the bypass, some modification may be possible to the current road network which may help traffic flow. This report summarises the findings of the Aimsun modelling that was undertaken to assess the 'in-town' options and the subsequent assessment of the bypass line against the preferred 'in-town', or Do Minimum, option.

The 'in-town' or Do Minimum options were initially identified to modify the existing network in an effort to improve conditions prior to completion of the bypass. These were:

1. A ban of right turn movements from the New England Highway to side roads through Singleton
2. The removal of the pedestrian crossing south of the New England Highway / Elizabeth Street intersection
3. The removal of on-street parking to provide and increase in the traffic signal storage lane for southbound traffic from the New England Highway / Boundary Street intersection to the Market Street intersection
4. The removal of all on-street parking on the New England Highway through Singleton to provide two lanes in each direction through the town.

These options were reflected in the Aimsun models and the morning and evening peak periods assessed for the years 2022, 2026 and 2036.

The outcomes from the option testing can be summarised as follows:

1. The right turn ban resulted in major queues at the New England Highway off ramp to Queen Street, the John Street / Newtown Street roundabout and at the New England Highway / York Street signals;
2. No significant network benefits achieved;
3. Major improvement southbound but no change northbound; and
4. Improvements in travel times but significant infrastructure demands in Singleton.

In each case the New England Highway / Bridgman Road intersection displayed major queueing on the Bridgman Road approach.

Following on from the initial assessment of these options an additional option was developed which adopted the measures detailed in Option 3 and added a revision to the New England Highway / Bridgman Road intersection. This revision provided two right turn lanes from Bridgman Road to help resolve the severe congestion seen on this approach during the morning peak period.

The latter option was subsequently taken forward as the Do Minimum network which the bypass would be assessed against.

The proposed bypass infrastructure was added to the model network and assessed for 2026, 2036 and 2046. An additional option, which included for south facing ramps at the bypass / Putty Road intersection, was also considered although it was found that this only served a very limited amount of traffic between the New England Highway (south) and the Ryan Avenue retail precinct, with little benefit in travel time (-30secs).

The model results indicated that the addition of the bypass may reduce the traffic flow through Singleton by up to 1200 veh/hr during the morning and evening peak periods and travel time between the north and south extents of the network by over 5mins. The Level of Service at major intersections was seen to improve and more vehicles were able to enter the network when compared to the Do Minimum.

Overall, it was considered that the bypass provided significant relief to the town of Singleton in terms of traffic reduction while improving journey times for New England Highway traffic.

For consistency purposes, and to determine the impacts of the bypass, signal plans were maintained across the various tests and years. It is acknowledged that the signal plans would be subject to changing traffic conditions and revised on site but to do this in the model may confuse the impacts produced by the bypass. It is considered that optimisation of the signals would ultimately improve the network further.

1.0 Introduction

1.1 Project background

Roads and Maritime Services (Roads and Maritime) is planning for a future New England Highway bypass at Singleton.

The New England Highway passes through Singleton and forms the main road access through the town and to the town centre. More than 25,000 vehicles use the highway through Singleton and across the Hunter River, with around 15% of these being heavy vehicles. (*source AECOM 2018*)

Traffic volumes are predicted to increase as a result of population growth, future land developments in Singleton, and regional freight movement traffic growth.

A preferred option was announced in December 2016, which involves building a new section of highway west of Singleton starting near Newington Lane and re-joining the New England Highway north of McDougalls Hill.

The NSW Government has announced \$92 million towards the upgrade under Rebuilding NSW, with \$3 million allocated in 2017-18 to progress planning. Timing for construction of the bypass has not been confirmed and would be subject to approval of a final business case and funding availability.

This project phase is the Concept Design and Environmental Assessment of the preferred option. This study will refine the strategic concept design of the preferred route in sufficient detail to fully describe the project and its impacts, thereby reducing the risk of modifications during detailed design and construction.

A final business case will be developed as part of this project to seek funding for future detailed design and construction.

1.2 Project objectives

The objective of this project is the concept design and preparation of a Review of Environmental Factors (REF). This study will complete the concept design of the preferred route in sufficient detail to fully describe the project and its impacts, thereby reducing the risk of modifications during detailed design and construction.

1.2.1 Project specific objectives

The key objectives of the project are to:

- Improve journey time and reliability on the New England Highway through Singleton, particularly for road freight supporting the Upper Hunter and the North West New England region
- Improve the town centre by removing freight traffic
- Improve road safety for through and local traffic in Singleton
- Provide best value for money
- Provide clarity for Singleton Council by including the corridor in the LEP
- Potentially provide improved flood amenity and/or evacuation routes for Singleton.

1.2.2 Fundamental project objectives

The fundamental project objectives, in addition to those identified in Section 1.2.1 are to upgrade the New England Highway, between Newington Lane and Rix's Creek Lane in a way that:

- i. Eases traffic congestion.
- ii. Is considerate of road function, local land use activity and access needs.
- iii. Is considerate of potential environmental impacts.
- iv. Improves connectivity to the wider road network for all road users and improves amenity.

- v. Fit for purpose design to meet the required design life for the identified need.
- vi. Design that meets WHS legislation and in particular is safe, efficient and practical for workers and those in the vicinity during temporary traffic arrangements.
- vii. Manages risk.

The design and environmental assessment must support the project objectives listed above by:

- i. Designing the project works to meet the environmental requirements, in addition to avoiding and minimising adverse impacts to the environment, while maximising the environmental benefits.
- ii. Satisfying the technical and procedural requirements of the Roads and Maritime with respect to the design of the project works.
- iii. Optimising the design to ensure that the project can be practically and efficiently constructed, maintained and decommissioned while meeting all other project objectives.
- iv. Achieving a positive urban design outcome through the development and application of appropriate urban design, objectives and principles.
- v. Designing all connections, modifications and improvements necessary to link the project works to the existing road system.
- vi. Planning temporary arrangements that minimise disruption to local and through traffic and maintain access to adjacent properties during construction.
- vii. Developing, implementing and maintaining effective Quality Management Systems.

The overall project goal is to achieve the best possible result for each of the above objectives, both in isolation, and when considered together.

1.3 Methodology

Previous studies have identified the preferred route of the bypass is to the west of the town, as shown in Figure 1-1.

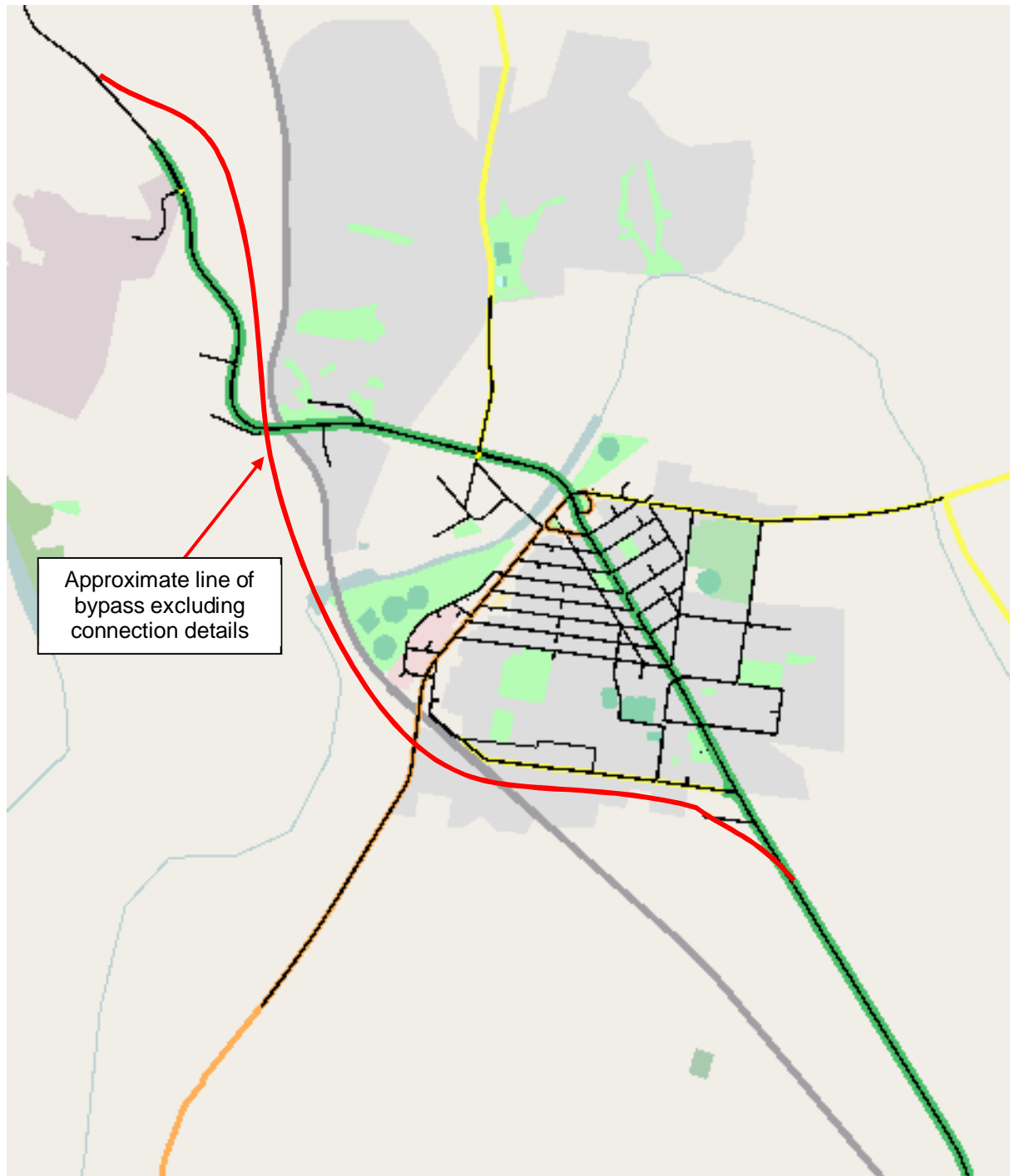


Figure 1-1 Preferred bypass alignment

Following on from this work new surveys were undertaken in February / March 2018 from which an updated traffic model was developed. The extents of this model were reduced, when compared to the earlier work, but more focused in respect to Singleton and the anticipated impact of the bypass on the town. This can be seen below where the red oval indicates the coverage of the current model as compared to the wider coverage used in the earlier studies.



Figure 1-2 AIMSUN study area

The development, calibration and validation of the Base model were reported in *60558931_DOC_TR_001 Aimsun Hybrid Base Model Calibration & Validation Report, 8th Nov 2018*.

Consideration of the preferred scheme was taken against the background that, prior to the construction of the bypass, some modification may be possible to the current road network which may help traffic flow. This report summarises the findings of the Aimsun modelling that was undertaken to assess the 'in-town' options and the subsequent assessment of the bypass against the preferred 'in-town', or Do Minimum, option.

1.3.1 Traffic growth

Determining appropriate traffic growth for the assessment period of the scheme was a critical element of the modelling process. Considerable work was undertaken to review historic data and forecast development information. Following on from the research, AECOM prepared Technical Note *60558931_DOC_TW_001 Future Traffic Growth Assumption, June 2018* with the proposed growth data which was the subject of detailed discussion with Roads and Maritime. This resulted in detailed growth rates being accepted for different trip and vehicle types in the network as detailed in Section 2.1 of this report.

1.4 Base model development

The development of the Base model has been reported separately and approved by Roads and Maritime. A number of 'in-town' or Do Minimum options were initially identified to modify the existing network in an effort to improve conditions prior to completion of the bypass. These were:

1. A ban of right turn movements from the New England Highway to side roads through Singleton
2. The removal of the pedestrian crossing south of the New England Highway / Elizabeth Street intersection
3. The removal of on-street parking to provide and increase in the traffic signal storage lane for southbound traffic from the New England Highway / Boundary Street intersection to the Market Street intersection
4. The removal of all on-street parking on the New England Highway through Singleton to provide two lanes in each direction through the town.

These options were reflected in the Aimsun models and the morning and evening peak periods assessed for the years 2022, 2026 and 2036. The results of the modelling are reported in Chapter 5 of this document.

1.4.1 Additional do minimum testing

A further option was considered, as a variation of the third scenario, which revised the operation of the Bridgman Road intersection. Again, the results are described in Chapter 5.

1.5 Singleton bypass

Having completed the Base model assessment to produce a preferred Do Minimum network, the layout for the bypass was incorporated in to the model. The figure below indicates the layout that was adopted in the modelling.



Figure 1-3 AIMSUN traffic model with Singleton bypass

For the purposes of the assessment the following years were modelled; 2026, 2036 and 2046.

1.6 Report structure

This report has been set out in accordance with the Options Assessment Report of the Roads and Maritime Technical Direction note: *TTD 2017/001 – Operational modelling Reporting Structure*. As such the structure takes the following form:

- Chapter 2 Future Year Demand
- Chapter 3 Do Minimum Option Details
- Chapter 4 Base Model (Do Nothing) Operational Results
- Chapter 5 Do Minimum Operational Results
- Chapter 6 Bypass Option Operational Results
- Chapter 7 Conclusions and Recommendations

2.0 Future year demand

2.1 Traffic growth

Development of the adopted growth rates involved research into historic data, review of development data and discussions with Roads and Maritime staff. It was eventually agreed that the linear growth rates should be:

- Bypass traffic 1.7% p.a.
- In-town traffic 0.4% p.a.

This resulted in the following linear growth rates being applied:

Table 2-1 Traffic growth rate per annum in AIMSUN model

| Trip type | Vehicle Type | |
|-----------|--------------|------|
| | Cars / LCV | HCV |
| Bypass | 1.67% | 2.0% |
| In Town | 0.4% | 0.4% |

LCV = Light Commercial Vehicles

HCV = Heavy Commercial Vehicles – Truck / B-Double

No sensitivity testing of the growth rates would be required as part of the modelling, as this will be tested as part of the Business Case.

2.2 Matrix totals

Having adopted the parameters described above the demand matrices were factored accordingly and resulted in the following trip end totals.

Table 2-2 Total traffic demand AM (4 Hours)

| Vehicle Type | 0530-0930 | | | | |
|--------------|-----------|-------|-------|-------|-------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Car / LCV | 15930 | 16531 | 17131 | 18632 | 20133 |
| Truck | 1072 | 1141 | 1210 | 1382 | 1554 |
| B-Double | 107 | 116 | 124 | 146 | 167 |
| Total | 17109 | 17787 | 18465 | 20159 | 21853 |

Table 2-3 Total traffic demand PM (3 Hours)

| Vehicle Type | 1500-1800 | | | | |
|--------------|-----------|-------|-------|-------|-------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Car / LCV | 18934 | 19588 | 20242 | 21877 | 23511 |
| Truck | 741 | 783 | 825 | 929 | 1034 |
| B-Double | 67 | 72 | 78 | 91 | 105 |
| Total | 19742 | 20443 | 21144 | 22897 | 24649 |

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intentionally.

3.0 Do Minimum Option Details

3.1 Background

3.1.1 Do Minimum ('In town') models

The initial exercise in progressing the model was to understand the potential changes to the existing network that may occur prior to the bypass being completed. These Do minimum scenarios are referred to as 'In town' options and are described below while the detailed results are provided in Chapter 5.

Ultimately, the preferred 'In town' option was then adopted as the 'Do Minimum' network that the bypass would be compared to.

3.1.2 'In town' option 1 – right turn bans

Option 1 proposed the banning of right-turn movements from the New England Highway to the local road network in Singleton as shown below.



Figure 3-1 'In town' option 1 – Locations of the right turn bans on the NEH

The introduction of these turn bans resulted in increased traffic movements at the following locations:

- Newton Street / John Street roundabout
- York Street / New England Highway signals
- New England Highway off ramp to Queen Street.

As a result of the findings it was suggested that the Newton Street / John Street roundabout be converted to a signalised intersection in order that there could be a better share of time for the traffic movements through the intersection.

3.1.3 'In town' option 2 – removal of signalised crossing

During peak times frequent calls for the existing surface level pedestrian crossing at the New England Highway / Elizabeth Street intersection can result in queueing of traffic in both directions on the New England Highway. These southbound queues have been observed to extend back over the Hunter River Bridge. In Option 2 the crossing was removed although it is acknowledged that, if the crossing were to be removed, an alternative facility would need to be provided, for example a pedestrian overbridge.



Figure 3-2 'In town' option 2 – Removal of the pedestrian crossing at the NEH and Elizabeth Street intersection

No other network modifications were included in this test. Only small benefits in travel time were seen with the signalised crossing removed.

3.1.4 'In town' option 3 – additional southbound link capacity

For Option 3, additional capacity was provided for southbound traffic by removing on-street parking/shoulder and providing an additional southbound travel lane. This was along the New England Highway from Market Street to the Boundary Street signals and extending the lanes south of Howe Street to the Haggartys Lane intersection.

It was noted that there is currently a short additional lane provided on the southbound approach to the Boundary Street signals with a short merge lane south of Howe Street. However, this has limited use as vehicles tend to avoid the need to merge and keep to the median lane.



Figure 3-3 'In town' option 3 – an additional southbound lane on the NEH from Market Street to Haggartys Lane intersection

This low cost modification improved the network performance for southbound traffic by providing increased capacity at the New England Highway / York Street intersection, particularly during the evening peak when the southbound flow is dominant. However, it made little difference for the northbound movements as the network was unchanged.

3.1.5 'In town' option 4 – New England Highway provision of two lanes in either direction

Option 4 involved the provision of two lanes through Singleton in both directions and included the following:

- Duplication of the bridge over the Hunter River
- Removal of parking where required to form 4 lanes (e.g. from the Hunter River all the way south out of town)
- Assumes adequate available width of carriageway width along George Street (New England Highway) to accommodate 4 lanes
- Implement right turn bans to and from the New England Highway for all streets between Dalton Avenue/Greenwood Avenue in the south to Campbell Street/Cambridge Street in the north inclusive
- Right turn movements are allowed at the Orchard Avenue / Howe Street intersection and York Street / Boundary Street intersection

These significant infrastructure improvements assisted traffic movements in both directions but adversely impacted the general amenity in Singleton due to the increased road space provided.

It is acknowledged that, due to the scale of works, this option would normally be considered as more than a 'Do Minimum' as it would require significant infrastructure and cost compared to the other options. However, it was considered necessary to include it in the operational comparison in order to determine the impact it may have on local movements.

In effect, the scale of works, impact on severance of the town and cost ruled this out as a Do Minimum option.

3.1.6 Initial outcomes

Based on the results from these options, which are described in Chapter 5, together with the cost / severance concerns discussed above, the bypass was modelled with Option 3 and a set of draft results produced. The results from this initial modelling exercise were presented in a workshop.

As indicated above, each of the options provided some improvement for traffic movement however, they all failed to resolve the significant congestion that was observed at the New England Highway / Bridgman Road intersection. In each case a large queue developed on Bridgman Road due to the volume of right turning traffic leaving Singleton Heights in the morning. In the future years this resulted in significant numbers of vehicles being unable to enter the network.

As a consequence, an additional 'In town' option was considered in which Option 3 was modified to include a second right turn lane for traffic from Bridgman Road to the New England Highway northbound. This also included a revision to the signal plan for the intersection as an additional phase was required.

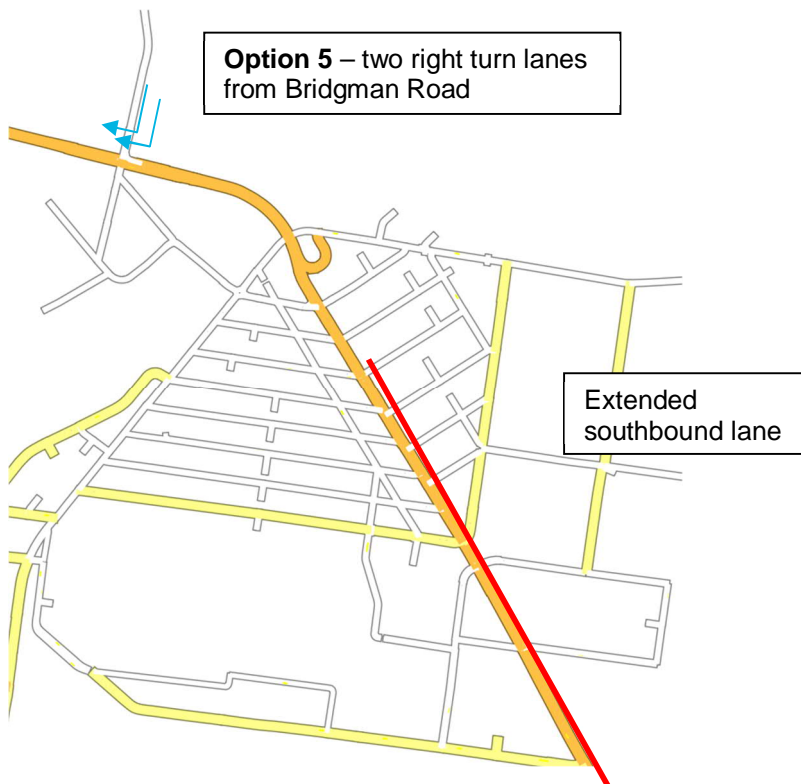


Figure 3-4 'In town' option 5 – modification of intersection layout at Bridgman Road plus In town option 3

This was identified as Option 5 and resulted in an improved Level of Service at the Bridgman Road intersection by reducing delays, as well as allowing more traffic to enter the network in future years.

4.0 Base Model (Do Nothing) Operational Results

4.1 Introduction

The option to do nothing in Singleton is considered unlikely given the existing traffic congestion experienced in the town and the forecast traffic growth. However, the provision of this assessment data has been provided in order to determine the relative benefits of the 'In town' options modelled, and ultimately provide a Do Minimum network which the bypass has been assessed against.

4.2 Assessment metrics

In order to assess the performance of the 'In-town' network options a variety of metrics that are regularly used in traffic and transport assessments were considered as follows:

- Traffic Flows
- Level of Service (LoS) – a review of intersection performance in terms of delay/veh. for key intersections across the network
- Travel time – a comparison of travel time for routes through the network
- Network Performance – a series of global parameters which provide network wide comparisons
 - Vehicle kilometres travelled (VKT) – total distance covered by vehicles in the network
 - Vehicle hours travelled (VHT) – travel time for all trips in the network
 - Average speed – average speed for all vehicles
 - Completed trips – number of completed trips in model period
 - Incomplete trips – number of vehicles still in the network at end of model period
 - Unreleased vehicles – vehicles which could not enter the network due to congestion.

4.2.1 Microsimulation essentials

In developing, understanding and interpreting results from a microsimulation model it is important to understand some of the processes and terminology used. Two issues of importance are:

- use of Random Seeds
- Latent Demand / Latent Delay.

Random Seeds are numerical inputs which the software uses to vary the model performance such that each Random Seed run provides a result which varies slightly from any other run. Within the model there are parameters which have a range of values (e.g. speed range, acceleration, deceleration); each Random Seed value will assign a vehicle to a position in the range and, as the Seed changes, so does the vehicle position in the range, and therefore the performance of the model varies. The Seed will also vary the release of vehicles into the model which in turn changes the dynamics of the performance.

It is common practise to adopt five Random Seed values and report the average the results produced. Each scenario that is modelled must use the same set of Random Seeds to produce the reported results. Roads and Maritime Modelling Guidelines provide a list of values which they expect to be used. However, it must be noted that while the Base model may be shown to operate satisfactorily with the original set of Seed values used in the model development, a more congested, future year scenario may not, and for example, results in gridlock conditions or an intersection fails to operate as expected. This may then require a review of coding, use of different Seeds and re-running of the models. It is possible that is only one or two of the Seeds which cause the problem in a specific scenario, but this would still require all of the models to be re-run with a new set of Seed values. Any such issues must be identified and reported.

Another feature of microsimulation modelling which needs to be considered is the concept of Latent Demand, or 'Unreleased Vehicles', and the delay incurred by them. These are vehicles which are unable to enter the network at their expected time due to congestion in the network – but may still enter at a later time. Typically, the vehicles are held in a zone (external feeder) at the edge of the network or in the middle (e.g. a car park) but due to congestion at a certain location they are unable to enter. As a result, the affected vehicles incur 'Latent Delay'.

How this delay is recognised in the network performance results is an important issue. While the VKT of the unreleased vehicles may be recorded by having a 'cool down' period at the end of the modelled period, the delay / travel time experienced (VHT) during this period would be unrepresentative. It has been suggested that the Latent Delay is apportioned across each intersection, but this is unlikely to fully recognise the revised travel times that would occur due to the change in dynamics experienced if all of the vehicles were able to enter the network.

Another option is to increase the respective links where vehicles are queued, such that they are then 'queued' in the network, but this may only increase the travel time over the entry link in to the network. On close inspection, the travel times may still be seen to improve through the remainder of the network. In addition, there would be a significant increase in the numbers of incomplete trips for which the travel time over the network would not be recorded.

It is also worth noting that Latent Delay is not a direct reflection of the Unreleased vehicles at the end of the model period. It is possible to have a large number of unreleased vehicles but low Latent Delay if the unreleased vehicles were generated late in the model period. On the other hand, if a large number of vehicles were delayed DURING the model period, but ultimately were able to enter the network before the end of the model period, there may be high Latent Delay but a low number of unreleased vehicles.

Advice from software suppliers is that the Latent Delay should be added to the Total Delay experienced by vehicles in the model. A comparison can then be made of the combined Delay value which economists could then allocate a cost to for economic assessment purposes. We have followed this methodology in this report.

4.2.2 Assessment periods

The data presented in this document has focussed on the busier periods of the morning and evening peaks although the complete set of results is provided in Appendix A for reference. Consequently, the data presented is for the following times:

- AM Peak 05:30 – 06:30 and 08:30 – 09:30
- PM Peak 16:00 – 17:00.

The selected times represent the two distinct peaks seen during the overall morning peak (05:30 – 09:30) as people either travel to start early shifts in mine/industry related work, or travel to work / school drop off in the later morning peak.

During the evening, the 'peak' is relatively flat with the hour from 16:00 – 17:00 being slightly busier than the remainder of the overall period (15:00 – 19:00).

4.3 Model results

4.3.1 Traffic flows

Table 4-1, Table 4-2 and Table 4-3 summarise the AM and PM traffic count data collected at key locations as shown in Figure 4-1. The tables provide the flow data at each location over the assessment years and show the changes that have occurred in the models due to re-routing because of increased congestion in the network.

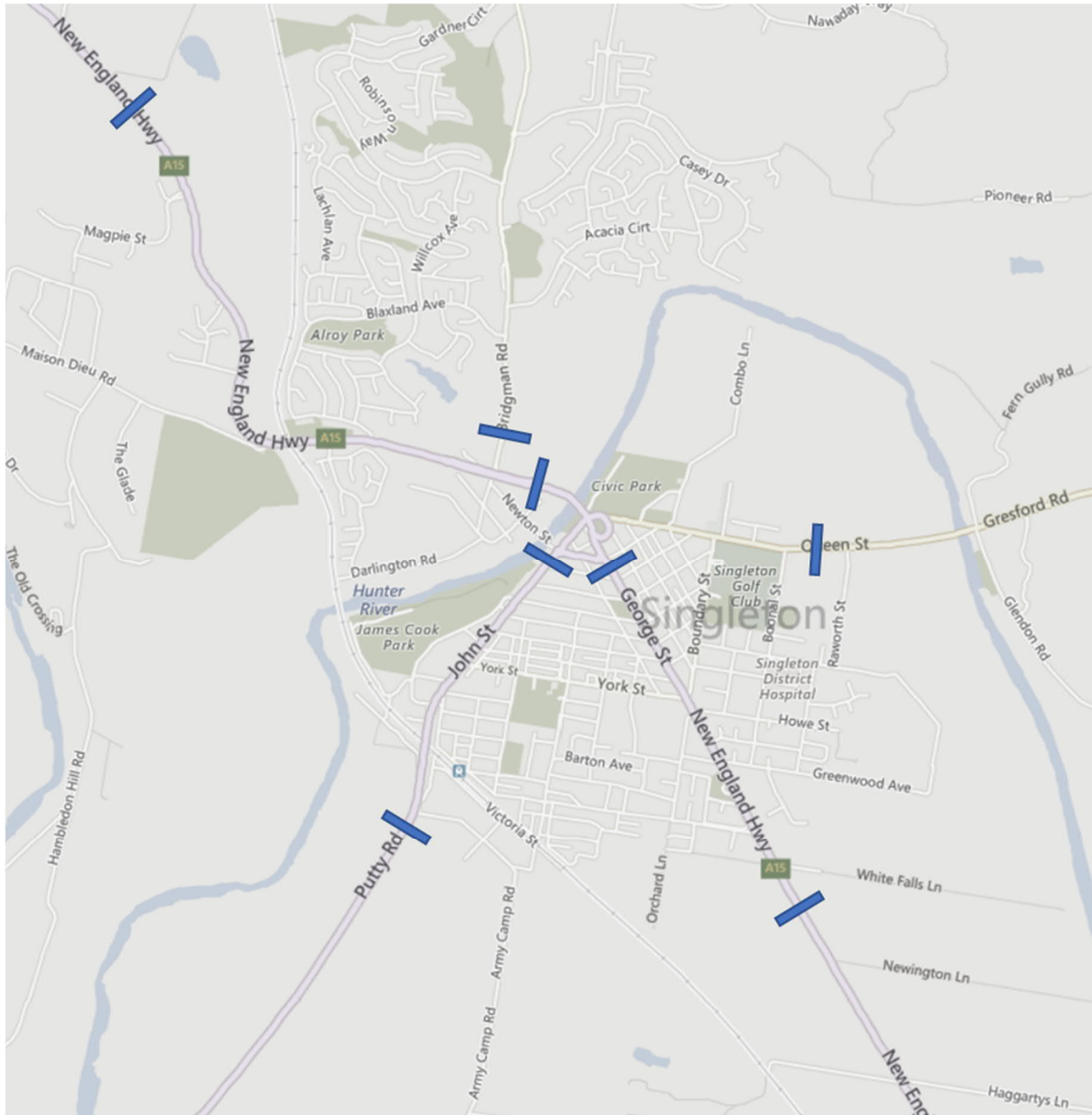


Figure 4-1 Network Flow Location Map

During the first morning peak period, the northbound congestion results in unexpected variations between years such as the reduction of the northbound flow on the New England Highway south of Campbell Street and east of Bridgman Road between 2018 and 2022. However, at the New England Highway north of Magpie Street the flow shows a continuous upward trend suggesting that the northbound traffic had used an alternative route (e.g. Newton Street).

The major congestion on the Bridgman Road southbound approach to the New England Highway, due to the high northbound flow on the New England Highway in the later years, is reflected in the reduced flow seen in 2046. This is also reflected in the number of unreleased vehicles which is reported later in this chapter.

Table 4-1 Network Flows AM 05:30 – 06:30

| Street | Mid-block position | Direction | 2018 Base | 2022 Base | 2026 Base | 2036 Base | 2046 Base |
|---------------------|------------------------------|------------|-----------|-----------|-----------|-----------|-----------|
| New England Highway | South of Waddells Lane | Northbound | 938 | 1007 | 1078 | 1222 | 1382 |
| | | Southbound | 300 | 312 | 337 | 348 | 351 |
| New England Highway | South of Campbell Street | Northbound | 952 | 890 | 952 | 988 | 1052 |
| | | Southbound | 318 | 331 | 353 | 364 | 361 |
| New England Highway | East of Bridgman Road | Northbound | 1097 | 1036 | 1084 | 1093 | 1134 |
| | | Southbound | 458 | 489 | 511 | 521 | 516 |
| New England Highway | North of Magpie Street | Northbound | 1277 | 1350 | 1429 | 1575 | 1655 |
| | | Southbound | 214 | 226 | 243 | 283 | 311 |
| Bridgman Road | North of New England Highway | Northbound | 175 | 179 | 182 | 198 | 206 |
| | | Southbound | 526 | 552 | 570 | 555 | 484 |
| Putty Road | South of Ryan Avenue | Northbound | 88 | 94 | 91 | 96 | 102 |
| | | Southbound | 389 | 399 | 414 | 417 | 424 |
| John Street | South of Newton Street | Northbound | 182 | 189 | 191 | 208 | 225 |
| | | Southbound | 345 | 360 | 365 | 361 | 364 |
| Queen Street | East of Boonal Street | Northbound | 938 | 1007 | 1078 | 1222 | 1382 |
| | | Southbound | 300 | 312 | 337 | 348 | 351 |

A review of Table 4-1 clearly demonstrates the significant changes in directional flow during the morning peak period, and in particular, the impact of traffic to/from Bridgman Road. Firstly, considering the northbound flow north of Magpie St; between 05:30 and 06:30 the flow is in excess of 1200 vehicles but drops to around 450vehs between 08:30 and 09:30. Then, looking on the New England Highway east of Bridgman the early southbound flow is around 460vehs but increases to almost 1200vehs in the later hour.

At Bridgman Road the southbound flow is seen to increase in the later AM peak hour. This in turn led to increased southbound flow on the New England Highway east of Bridgman Road. In addition, the flow from Newton Street is reduced which leads to more opportunities for the right turning traffic from Bridgman Road. More green time could be given to this movement as less time is required for the northbound flow on the New England Highway due to reduced demand.

Table 4-2 Network Flows AM 08:30 – 09:30

| Street | Mid-block position | Direction | 2018 Base | 2022 Base | 2026 Base | 2036 Base | 2046 Base |
|---------------------|------------------------------|------------|-----------|-----------|-----------|-----------|-----------|
| New England Highway | South of Waddells Lane | Northbound | 762 | 802 | 856 | 995 | 1052 |
| | | Southbound | 672 | 724 | 756 | 914 | 975 |
| New England Highway | South of Campbell Street | Northbound | 724 | 714 | 753 | 754 | 739 |
| | | Southbound | 886 | 915 | 944 | 1026 | 1054 |
| New England Highway | East of Bridgman Road | Northbound | 916 | 896 | 879 | 1014 | 1019 |
| | | Southbound | 1185 | 1288 | 1317 | 1472 | 1526 |
| New England Highway | North of Magpie Street | Northbound | 445 | 533 | 570 | 652 | 678 |
| | | Southbound | 337 | 355 | 375 | 439 | 490 |
| Bridgman Road | North of New England Highway | Northbound | 513 | 532 | 539 | 588 | 583 |
| | | Southbound | 866 | 897 | 924 | 981 | 1105 |

| Street | Mid-block position | Direction | 2018 Base | 2022 Base | 2026 Base | 2036 Base | 2046 Base |
|--------------|------------------------|------------|-----------|-----------|-----------|-----------|-----------|
| Putty Road | South of Ryan Avenue | Northbound | 188 | 183 | 188 | 205 | 217 |
| | | Southbound | 328 | 338 | 351 | 357 | 409 |
| John Street | South of Newton Street | Northbound | 389 | 393 | 403 | 438 | 458 |
| | | Southbound | 634 | 671 | 707 | 729 | 753 |
| Queen Street | East of Boonal Street | Northbound | 762 | 802 | 856 | 995 | 1052 |
| | | Southbound | 672 | 724 | 756 | 914 | 975 |

The PM future year base model results indicate that the network is approaching capacity by 2026, as peak traffic flows tend to level off over the following years. There are small reductions in the 2046 base model flows when compared to the 2026 base model. These small variations are related to local congestion effects affecting throughput in the model, not actual reductions in demand.

Table 4-3 Network Flows PM 16:00 – 17:00

| Street | Mid-block position | Direction | 2018 Base | 2022 Base | 2026 Base | 2036 Base | 2046 Base |
|---------------------|------------------------------|------------|-----------|-----------|-----------|-----------|-----------|
| New England Highway | South of Waddells Lane | Northbound | 676 | 725 | 786 | 886 | 972 |
| | | Southbound | 1124 | 1211 | 1291 | 1403 | 1453 |
| New England Highway | South of Campbell Street | Northbound | 729 | 703 | 735 | 774 | 843 |
| | | Southbound | 941 | 1020 | 1078 | 1057 | 1015 |
| New England Highway | East of Bridgman Road | Northbound | 1031 | 1108 | 1145 | 1251 | 1344 |
| | | Southbound | 1332 | 1415 | 1479 | 1488 | 1435 |
| New England Highway | North of Magpie Street | Northbound | 339 | 380 | 408 | 464 | 512 |
| | | Southbound | 966 | 1049 | 1123 | 1297 | 1150 |
| Bridgman Road | North of New England Highway | Northbound | 1018 | 1062 | 1071 | 1160 | 1160 |
| | | Southbound | 618 | 652 | 675 | 741 | 761 |
| Putty Road | South of Ryan Avenue | Northbound | 426 | 443 | 450 | 473 | 485 |
| | | Southbound | 286 | 295 | 306 | 302 | 301 |
| John Street | South of Newton Street | Northbound | 820 | 870 | 818 | 892 | 906 |
| | | Southbound | 597 | 578 | 563 | 592 | 606 |
| Queen Street | East of Boonal Street | Northbound | 676 | 725 | 786 | 886 | 972 |
| | | Southbound | 1124 | 1211 | 1291 | 1403 | 1453 |

Figure 4-2, Figure 4-3 and Figure 4-4 illustrate the network flows in the AIMSUN traffic model for AM peak (05.30 to 06.30, 08.30 to 09.30) and PM peak (16.00 to 17.00).

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Figure 4-2 AIMSUN Base Network Flows AM Peak (05.30 – 06.30)



Figure 4-3 AIMSUN Base Network Flows AM Peak (08.30 – 09.30)



Figure 4-4 AIMSUN Base Network Flows PM Peak (16.00 – 17.00)

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4.3.2 Level of service

Level of Service (LoS) is a measure of the performance (LoS A to F) of intersections based on the delay experienced by vehicles passing through. As intersections become more congested, the delay increases reducing the intersection LoS towards F. The LoS ranges of average delay / vehicle as defined by Roads and Maritime are as follows:

| Ave Delay / veh (secs) | LoS |
|------------------------|-----|
| 0 – 14s | A |
| 15s – 28s | B |
| 29s – 42s | C |
| 43s – 56s | D |
| 57s – 70s | E |
| >70s | F |

It should be noted that LoS F starts when the average delay reaches 70secs/veh and does not register as anything worse than LoS F even though the delay may increase to two or three times this value.

Figure 4-5 indicates the intersections that have been included in this analysis, and Table 4-4, Table 4-5 and Table 4-6 provide details of the changes in the Level of Service at each location over the assessment years based on the traffic growth and subsequent changes in the traffic assignment.

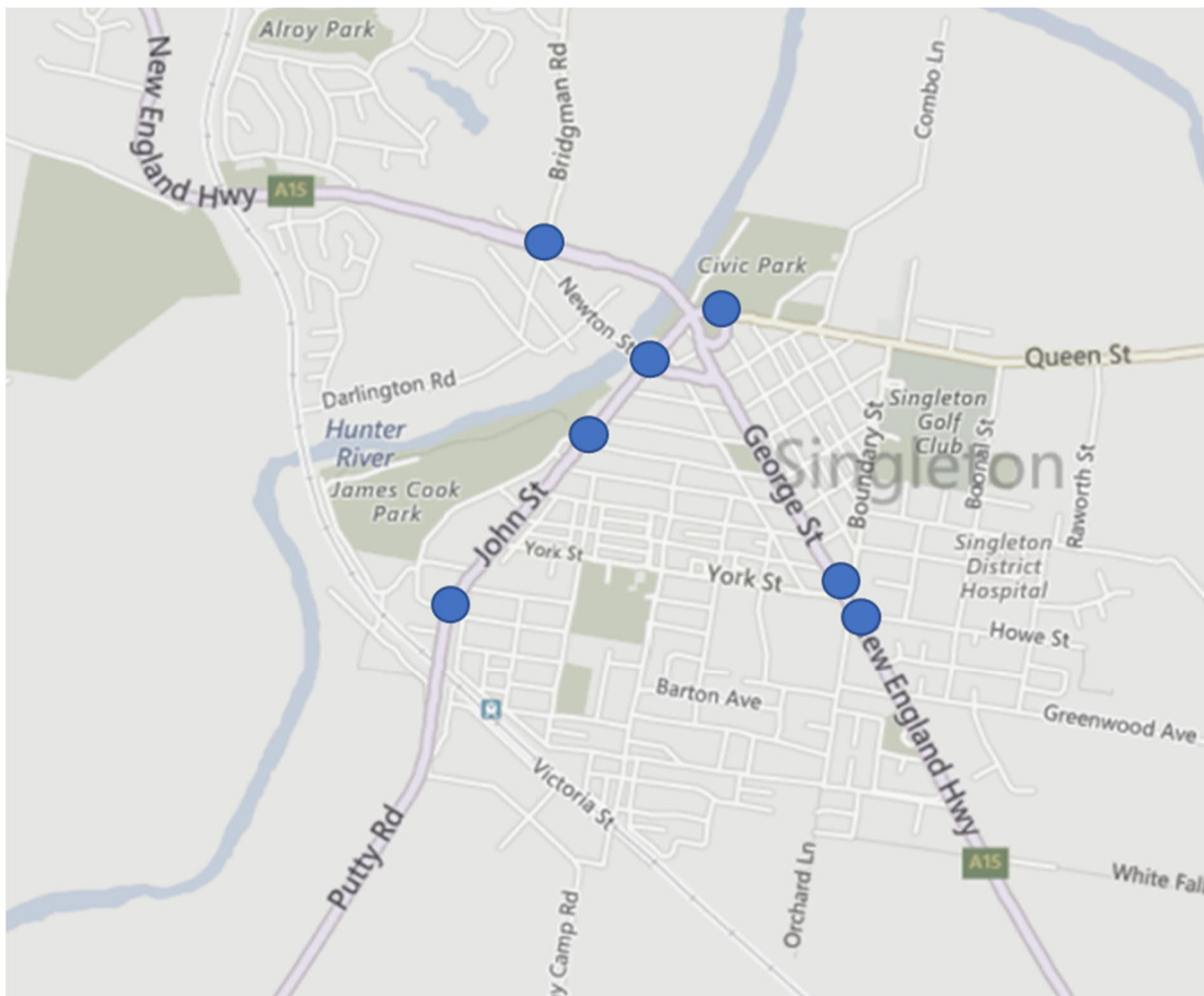


Figure 4-5 Intersection Level of Service Location Map

Table 4-4 indicates that during the early morning peak the only intersection which experiences significant delay is the New England Highway / Bridgman Road intersection which is predicted to increase from an average of 88secs/veh (LoS F) in 2018 to 229secs/veh (LoS F) in 2046. The results do produce a few anomalies where later year delays are lower than earlier ones such as at the New England Highway / Howe Street intersection between the years of 2026 and 2036. These have been investigated and the changes can be attributed to increased delays for some of the side road traffic due to slight assignment variations between different random seed runs; the random seed changes vehicle characteristics to reflect the typical day to day impact that is expected to be observed on site. In this case the changes are considered so small that they have no impact on the overall result.

Table 4-4 Intersection Performance AM Peak 05:30 – 06:30

| Averages Delay (secs / veh) | 2018 Base | | 2022 Base | | 2026 Base | | 2036 Base | | 2046 Base | |
|---|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 88 | F | 78 | F | 105 | F | 149 | F | 229 | F |
| New England Highway & Howe Street | 9 | A | 11 | A | 13 | A | 11 | A | 24 | B |
| New England Highway & York Street | 7 | A | 8 | A | 8 | A | 7 | A | 11 | A |
| Putty Road & Ryan Ave | 13 | A | 15 | B | 15 | B | 17 | B | 18 | B |
| John Street & Hunter Street | 10 | A | 10 | A | 10 | A | 12 | A | 11 | A |
| John Street & Newton Street | 2 | A | 3 | A | 4 | A | 5 | A | 6 | A |
| Queen Street & New England Highway Ramp | 3 | A | 3 | A | 4 | A | 5 | A | 5 | A |

Table 4-5 indicates that, when compared to the 05:30 – 06:30 period, the delays at each location are generally increased with the exception of the New England Highway / Bridgman Road intersection where delays are reduced, but are still shown to be poor. Once again there is the situation where an intersection (New England Highway / Howe St) has a lower delay in a future year than an earlier one (2026 compared to 2022) and this is attributed to assignment variations for side road traffic as a result of the change in random seed but not detracting from the overall result.

By 2046, apart from the Putty Road / Ryan Ave and New England Highway / York Street intersections, the LoS at each location is seen to have significantly reduced.

Table 4-5 Intersection Performance AM Peak 08:30 – 09:30

| Averages Delay (secs / veh) | 2018 Base | | 2022 Base | | 2026 Base | | 2036 Base | | 2046 Base | |
|---|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 44 | D | 43 | D | 44 | D | 58 | E | 129 | F |
| New England Highway & Howe Street | 20 | B | 35 | C | 31 | C | 45 | D | 61 | E |
| New England Highway & York Street | 20 | B | 23 | B | 24 | B | 31 | C | 35 | C |
| Putty Road & Ryan Ave | 14 | B | 14 | B | 14 | B | 14 | B | 18 | B |
| John Street & Hunter Street | 26 | B | 29 | C | 31 | C | 37 | C | 44 | D |
| John Street & Newton Street | 12 | A | 18 | B | 25 | B | 61 | E | 80 | F |
| Queen Street & New England Highway Ramp | 7 | A | 13 | A | 16 | B | 34 | C | 56 | D |

In the PM peak the average delay at the New England Highway / Bridgman Road intersection increased from 58secs (LoS E) to 135secs (LoS F) in 2046.

Table 4-6 Intersection Performance PM Peak 16:00 – 17:00

| Average Delay (secs/veh) | 2018 Base | | 2022 Base | | 2026 Base | | 2036 Base | | 2046 Base | |
|---|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 58 | E | 71 | F | 88 | F | 113 | F | 135 | F |
| New England Highway & Howe Street | 16 | B | 17 | B | 25 | B | 33 | C | 48 | D |
| New England Highway & York Street | 28 | C | 24 | B | 30 | C | 45 | D | 61 | E |
| Putty Road & Ryan Ave | 13 | A | 13 | A | 13 | A | 13 | A | 14 | B |
| John Street & Hunter Street | 24 | B | 45 | D | 35 | C | 47 | D | 61 | E |
| John Street & Newton Street | 19 | B | 20 | B | 18 | B | 33 | C | 77 | F |
| Queen Street & New England Highway Ramp | 6 | A | 8 | A | 8 | A | 11 | A | 27 | B |

Possibly the most notable reduction in performance is at the John Street / Newton Street intersection which is shown to have only 12secs delay (LoS A) in 2018 during the 08:30 to 09:30 AM peak but this increases to 80secs, equating to a reduction in LoS to F, in 2046.

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Figure 4-6 AIMSUN Base Network Delay Plots AM Peak (05.30 – 06.30)

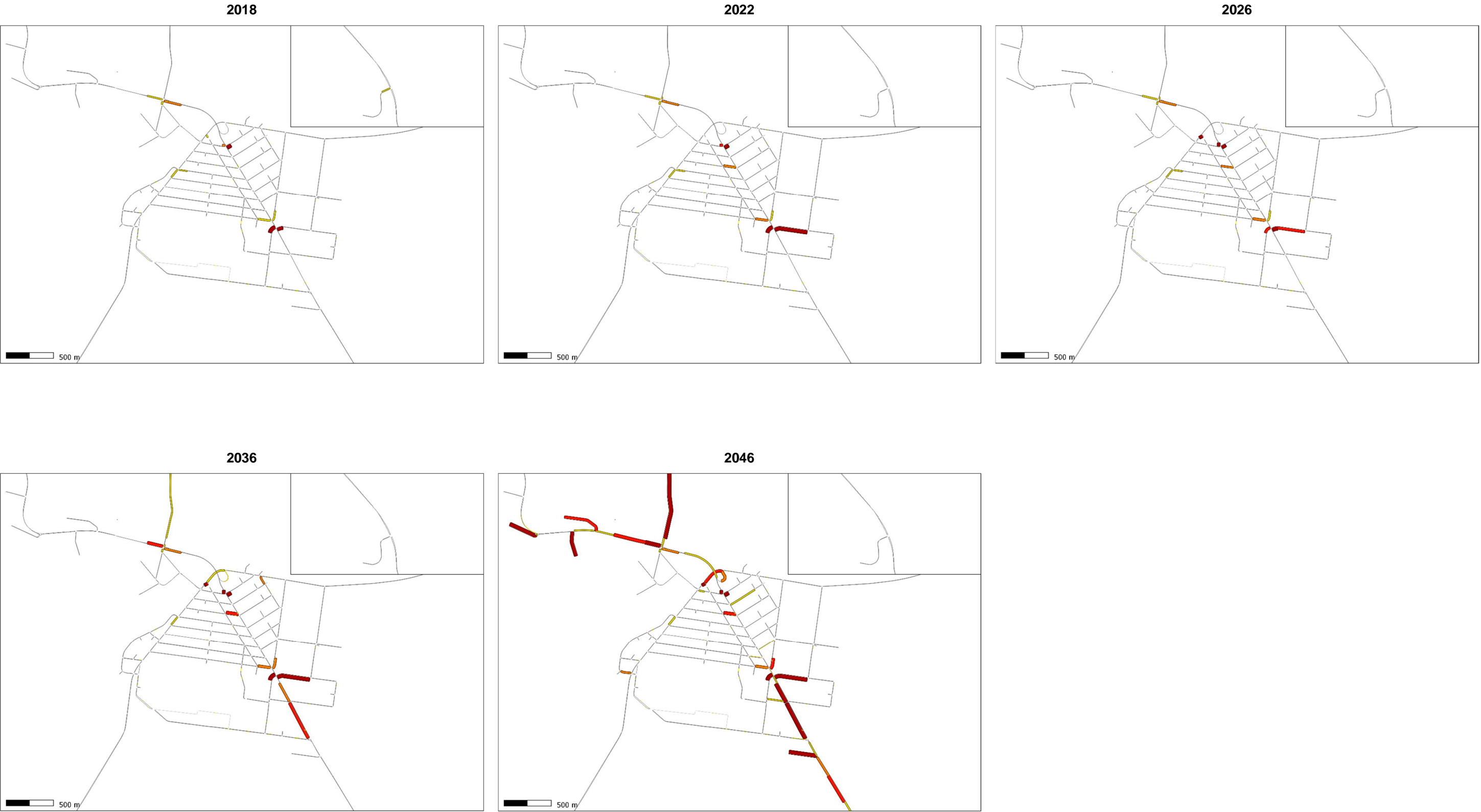


Figure 4-7 AIMSUN Base Network Delay Plots AM Peak (08.30 – 09.30)



Figure 4-8 AIMSUN Base Network Delay Plots PM Peak (16.00 – 17.00)

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4.3.3 Travel time

Travel time data was collected along the four corridors indicated in Figure 4-9 below; however, for the purposes of the assessment, only Routes 1 and 2 have been considered as traffic on these routes is likely to be most impacted by the bypass.

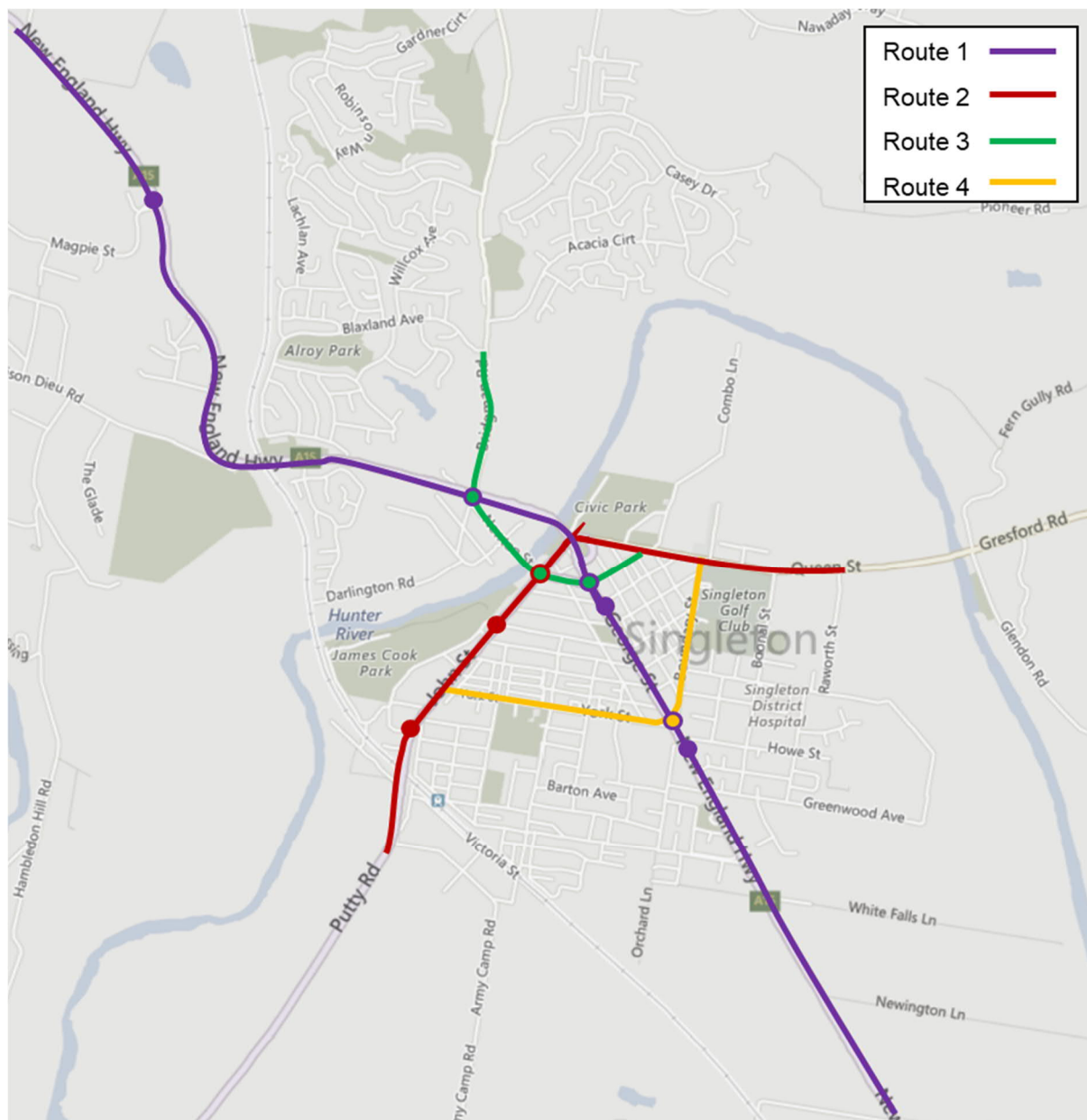


Figure 4-9 Travel Time Routes

The morning peak travel time data in Table 4-7 shows a steady increase in the New England Highway northbound travel time up to 2036 after which there is a significant increase in 2046. This confirms the previous results which suggest the network is over capacity. It is recognised that at this point, the increase in delay can be out of proportion to the increase in demand. The northbound route along John Street / Queen Street remains reasonably consistent over the modelled years. Route 1 (05:30 - 06:30) tends to reflect the issue seen earlier whereby later years results are better than earlier ones (2026 compared to 2036). The checks described earlier identified an assignment change which diverted traffic from the New England Highway to Newton Street in some of the seed runs and resulted in the change.

Table 4-7 Travel Time (mins.) AM Northbound

| Route Name | Time Period | 2018 Base Model | 2022 Base Model | 2026 Base Model | 2036 Base Model | 2046 Base Model |
|---|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Route 1 – New England Highway | 05.30 - 06.30 | 10:13 | 10:28 | 11:35 | 11:08 | 15:33 |
| | 08.30 – 09.30 | 10:16 | 10:44 | 11:00 | 13:43 | 19:34 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 04:57 | 05:01 | 05:02 | 05:03 | 05:05 |
| | 08.30 – 09.30 | 05:41 | 05:47 | 05:55 | 05:57 | 05:54 |

Table 4-8 shows that in the southbound direction the lower flows on the New England Highway during early peak result in only a slight increase in the travel time on Route 1 but, during the later morning peak, the travel time increases significantly due to the higher demand.

It is noted that the southbound travel time for Route 1 in 2018 and 2022 is the same. This has been reviewed and found to be correct with the intermediate times over the route varying in each year.

Route 2 remains consistent in the southbound direction in the early peak but show a significant increase in the late morning peak.

Table 4-8 Travel Time (mins.) AM Southbound

| Route Name | Time Period | 2018 Base Model | 2022 Base Model | 2026 Base Model | 2036 Base Model | 2046 Base Model |
|---|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Route 1 – New England Highway | 05.30 - 06.30 | 08:59 | 08:59 | 09:06 | 09:12 | 09:25 |
| | 08.30 – 09.30 | 10:09 | 10:09 | 10:43 | 12:10 | 17:39 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 04:57 | 05:00 | 04:59 | 04:59 | 04:59 |
| | 08.30 – 09.30 | 06:14 | 06:33 | 07:09 | 08:01 | 08:33 |

It can be seen from Table 4-9 and Table 4-10 that, during the evening peak, Route 1 experiences a significant increase in both directions, but most notably southbound where the journey time increases from 10min 08secs in 2018 to 28min 43secs in 2046. The travel time on Route 2 is similar in both directions.

Table 4-9 Travel Time (mins.) PM Northbound

| Route Name | Time period | 2018 Base Model | 2022 Base Model | 2026 Base Model | 2036 Base Model | 2046 Base Model |
|---|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 10:08 | 10:31 | 10:59 | 12:19 | 17:15 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 06:01 | 07:15 | 07:04 | 07:28 | 07:29 |

Table 4-10 Travel Time (mins.) PM Southbound

| Route Name | Time period | 2018 Base Model | 2022 Base Model | 2026 Base Model | 2036 Base Model | 2046 Base Model |
|---|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 10:23 | 11:14 | 13:14 | 17:38 | 28:43 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 05:21 | 05:25 | 05:20 | 05:45 | 06:27 |

Appendix A includes travel time graphs which show the variation of travel time on each section along the Route 1 and Route 2 in each future year.

4.3.4 Network performance

Table 4-11 and Table 4-12 provide the global network statistics which help to demonstrate the overall performance of the network over the assessment years. In the morning peak period the average speed shows an 18% reduction from 45km/h in 2018 to 37km/h with most of the reduction happening in 2046.

It is also notable that there are trips unable to enter the network with a large number still in the network at the end of the model run in 2046. Other key points include, when compared the 2046 AM modelling results with 2018:

- Demand increase 27.7%
- VKT increase 33.3%
- VHT increase 97.4%

A further point of note is that the trips referred to in these tables include a proportion of trips which entered the network during the 'build-up' period. This is time allowed at the start of the model run, before the actual modelled period, for vehicles to enter the network and create conditions close to those that were observed at the start of the modelled period. As a result, the cumulative number of trips indicated above will exceed the demand shown in Table 2-2.

Table 4-11 Network Statistics AM

| AM (4 Hours) | 2018 Base | 2022 Base | 2026 Base | 2036 Base | 2046 Base |
|---|-----------|-----------|-----------|-----------|-----------|
| Vehicle Kilometres Travelled (km) – VKT | 91,243 | 96,373 | 101,323 | 113,877 | 121,605 |
| Vehicle Hours Travelled (hrs) - VHT | 1,898 | 2,014 | 2,160 | 2,774 | 3,747 |
| Average Network Speed (km/h) | 45 | 46 | 45 | 42 | 37 |
| Completed Trips (vehs) | 17,684 | 18,283 | 18,990 | 20,760 | 21,286 |
| Incomplete Trips (vehs) | 418 | 455 | 489 | 587 | 1,132 |
| Unreleased Trips (vehs) | - | - | - | - | 247 |
| Delay for Unreleased Trips (hrs) | - | - | - | - | 51 |

During the evening peak the average speed shows a 26% drop in 2046 when compared to 2018. It also indicates that the PM network would have more congestion in future when compared to the AM network. Unreleased trips in 2046 PM network are also higher than 2046 AM network.

Other key points include, when compared the 2046 PM modelling results with 2018:

- Demand increase 24.9%
- VKT increase 22.7%
- VHT increase 104.4%

Table 4-12 Network Statistics PM

| PM (3 Hours) | 2018 Base | 2022 Base | 2026 Base | 2036 Base | 2046 Base |
|---|-----------|-----------|-----------|-----------|-----------|
| Vehicle Kilometres Travelled (km) – VKT | 88,333 | 93,613 | 97,875 | 105,636 | 108,395 |
| Vehicle Hours Travelled (h) - VHT | 2,048 | 2,213 | 2,486 | 3,178 | 4,187 |
| Average Network Speed (km/h) | 42 | 41 | 39 | 36 | 31 |
| Completed Trips (vehs) | 20,042 | 20,790 | 21,441 | 22,702 | 22,954 |
| Incomplete Trips (vehs) | 606 | 664 | 786 | 1,193 | 1,778 |
| Unreleased Trips (vehs) | - | - | 10 | 206 | 771 |
| Delay for Unreleased Trips (hrs) | - | - | 2 | 118 | 335 |

4.4 Conclusion

The results indicate that with the forecast demand increase, the existing network will begin to experience increased congestion by 2026. This is exacerbated in 2036 and by 2046 the modelled network became so congested that there was a large volume of traffic unable to enter during both modelled periods.

5.0 Do Minimum Operational Results

5.1 Introduction - 'In-Town' results

It is acknowledged that some interim measures would be required prior to the construction of the bypass to help ease congestion in Singleton. These 'In town', or Do Minimum options as described in Chapter 3, were identified and assessed to determine which may provide the most benefit over the period 2022 to 2036.

The option which was considered to be most beneficial to the whole network was then taken forward as the 'Do -Minimum' which the bypass would be assessed against.

The results of the assessments are provided in the following sections.

5.2 2022 Do minimum results comparison

5.2.1 Traffic flows

During the AM peak periods in the 2022 model the different options tested have minimum impact on the flows across the network and along New England Highway. This is due to the network having adequate capacity and still operating satisfactorily.

Options 1 and 4 show a reduction in southbound traffic along the New England Highway south of Campbell Street, this is due to traffic taking the off-ramp to Queen Street as the 'No Right Turn' bans were implemented along New England Highway limiting access to the western side of town. This also results in an increase in traffic southbound on John Street south of Newton Street.

A reduction in traffic flows in the northbound direction during the 08:30 – 09:30 period in Option 4 along New England Highway is due to increased flow in the previous hours with vehicles clearing these sections earlier with the increased two-lane capacity.

Table 5-1 Network Flows AM 05:30 – 06:30

| Street | Mid-block position | Direction | 2022 | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| | | | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 1007 | 1007 | 1006 | 1006 | 1007 | 1016 |
| | | Southbound | 312 | 313 | 312 | 311 | 310 | 317 |
| New England Highway | South of Campbell Street | Northbound | 890 | 944 | 995 | 978 | 1011 | 1033 |
| | | Southbound | 331 | 297 | 329 | 320 | 299 | 323 |
| New England Highway | East of Bridgman Road | Northbound | 1036 | 1082 | 1113 | 1090 | 1228 | 1210 |
| | | Southbound | 489 | 485 | 514 | 495 | 504 | 504 |
| New England Highway | North of Magpie Street | Northbound | 1350 | 1349 | 1347 | 1350 | 1342 | 1359 |
| | | Southbound | 226 | 226 | 225 | 225 | 225 | 222 |
| Bridgman Road | North of New England Highway | Northbound | 179 | 178 | 176 | 176 | 178 | 184 |
| | | Southbound | 552 | 552 | 558 | 558 | 549 | 556 |
| Putty Road | South of Ryan Avenue | Northbound | 94 | 94 | 95 | 95 | 94 | 91 |
| | | Southbound | 399 | 399 | 408 | 403 | 395 | 396 |
| John Street | South of Newton Street | Northbound | 189 | 192 | 189 | 189 | 192 | 186 |
| | | Southbound | 360 | 377 | 376 | 368 | 364 | 358 |

Table 5-2 Network Flows AM 08:30 – 09:30

| 2022 | | | | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| Street | Mid-block position | Direction | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 802 | 802 | 789 | 789 | 663 | 808 |
| | | Southbound | 724 | 706 | 719 | 715 | 720 | 714 |
| New England Highway | South of Campbell Street | Northbound | 714 | 652 | 732 | 756 | 674 | 682 |
| | | Southbound | 915 | 695 | 898 | 883 | 803 | 893 |
| New England Highway | East of Bridgman Road | Northbound | 896 | 893 | 905 | 903 | 944 | 932 |
| | | Southbound | 1288 | 1141 | 1291 | 1263 | 1275 | 1285 |
| New England Highway | North of Magpie Street | Northbound | 533 | 528 | 523 | 522 | 501 | 536 |
| | | Southbound | 355 | 355 | 355 | 355 | 357 | 349 |
| Bridgman Road | North of New England Highway | Northbound | 532 | 530 | 531 | 531 | 499 | 518 |
| | | Southbound | 897 | 897 | 892 | 892 | 897 | 893 |
| Putty Road | South of Ryan Avenue | Northbound | 183 | 183 | 176 | 176 | 183 | 185 |
| | | Southbound | 338 | 326 | 339 | 341 | 328 | 344 |
| John Street | South of Newton Street | Northbound | 393 | 414 | 389 | 392 | 408 | 402 |
| | | Southbound | 671 | 828 | 671 | 668 | 768 | 676 |

During the PM peak period in the 2022 model the different options tested have minimum impact on the flows across the network and along New England Highway. As indicated above, this is due to the network not being over capacity and still operating at a satisfactory level.

An increase in traffic flows is observed along New England Highway in Option 4 due to the increased capacity along the entirety of the route.

The increase in traffic along John Street in the southbound direction in Option 1 and 4 is due to the 'No Right Turn' restrictions along New England Highway limiting access to the western side of Singleton.

Table 5-3 Network Flows PM 16:00 – 17:00

| 2022 | | | | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| Street | Mid-block position | Direction | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 725 | 725 | 725 | 725 | 727 | 733 |
| | | Southbound | 1211 | 1214 | 1205 | 1218 | 1249 | 1185 |
| New England Highway | South of Campbell Street | Northbound | 703 | 733 | 704 | 741 | 811 | 755 |
| | | Southbound | 1020 | 956 | 1025 | 1024 | 1057 | 1119 |
| New England Highway | East of Bridgman Road | Northbound | 1108 | 1112 | 1122 | 1072 | 1235 | 1180 |
| | | Southbound | 1415 | 1351 | 1417 | 1318 | 1467 | 1506 |
| New England Highway | North of Magpie Street | Northbound | 380 | 386 | 381 | 376 | 377 | 401 |
| | | Southbound | 1049 | 1049 | 1049 | 1049 | 1049 | 1062 |
| Bridgman Road | North of New England Highway | Northbound | 1062 | 1073 | 1062 | 1071 | 1057 | 1019 |
| | | Southbound | 652 | 652 | 652 | 633 | 652 | 657 |

| Street | Mid-block position | Direction | Base | 2022 | | | | |
|-------------|------------------------|------------|------|----------|----------|----------|----------|----------|
| | | | | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Putty Road | South of Ryan Avenue | Northbound | 443 | 443 | 443 | 443 | 443 | 434 |
| | | Southbound | 295 | 292 | 298 | 291 | 292 | 295 |
| John Street | South of Newton Street | Northbound | 870 | 858 | 878 | 828 | 768 | 829 |
| | | Southbound | 578 | 641 | 587 | 590 | 629 | 557 |

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intentionally.



Figure 5-1 AIMSUN Do Minimum Network Flows AM Peak (05.30 – 06.30)

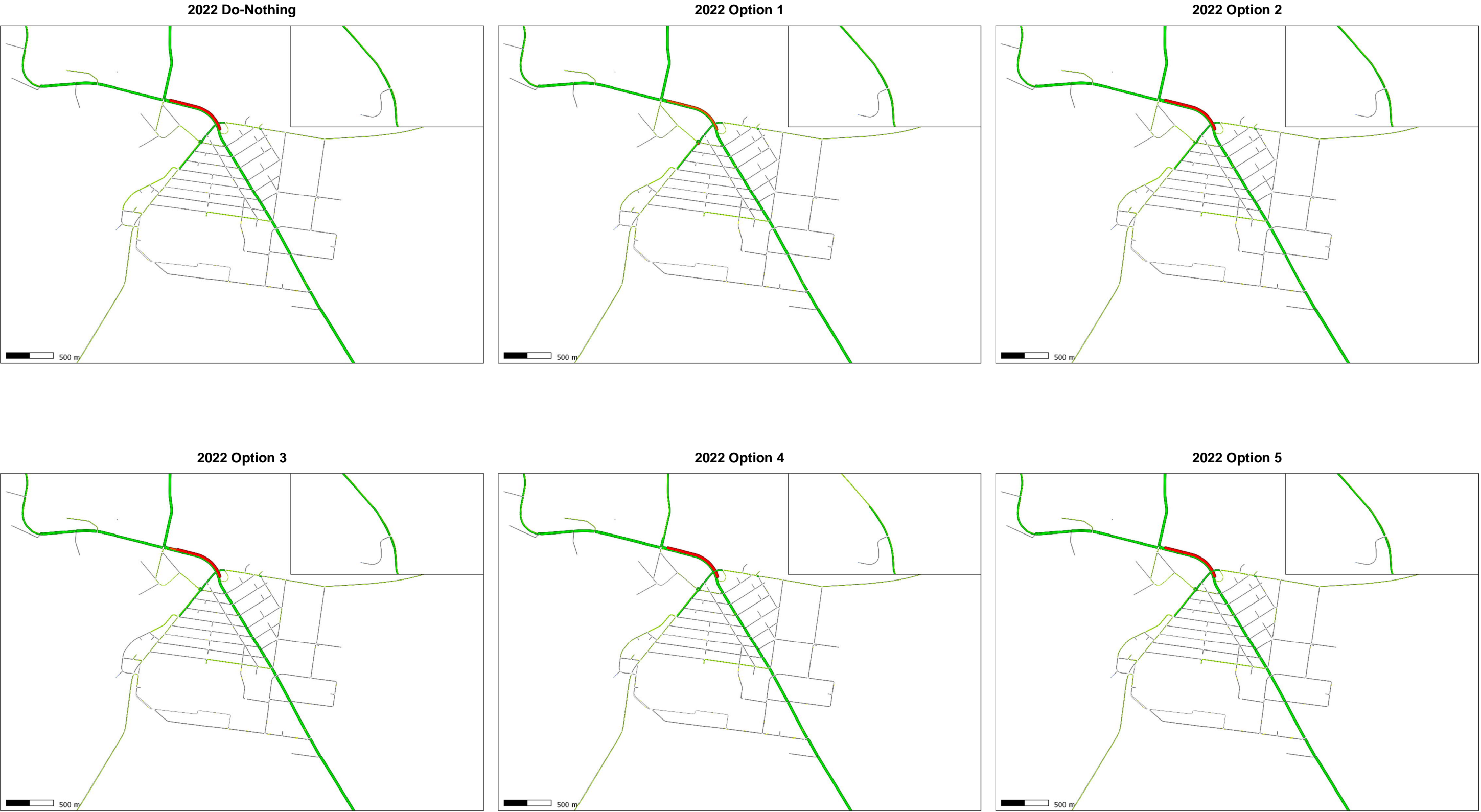


Figure 5-2 AIMSUN Do Minimum Network Flows AM Peak (08.30 – 09.30)

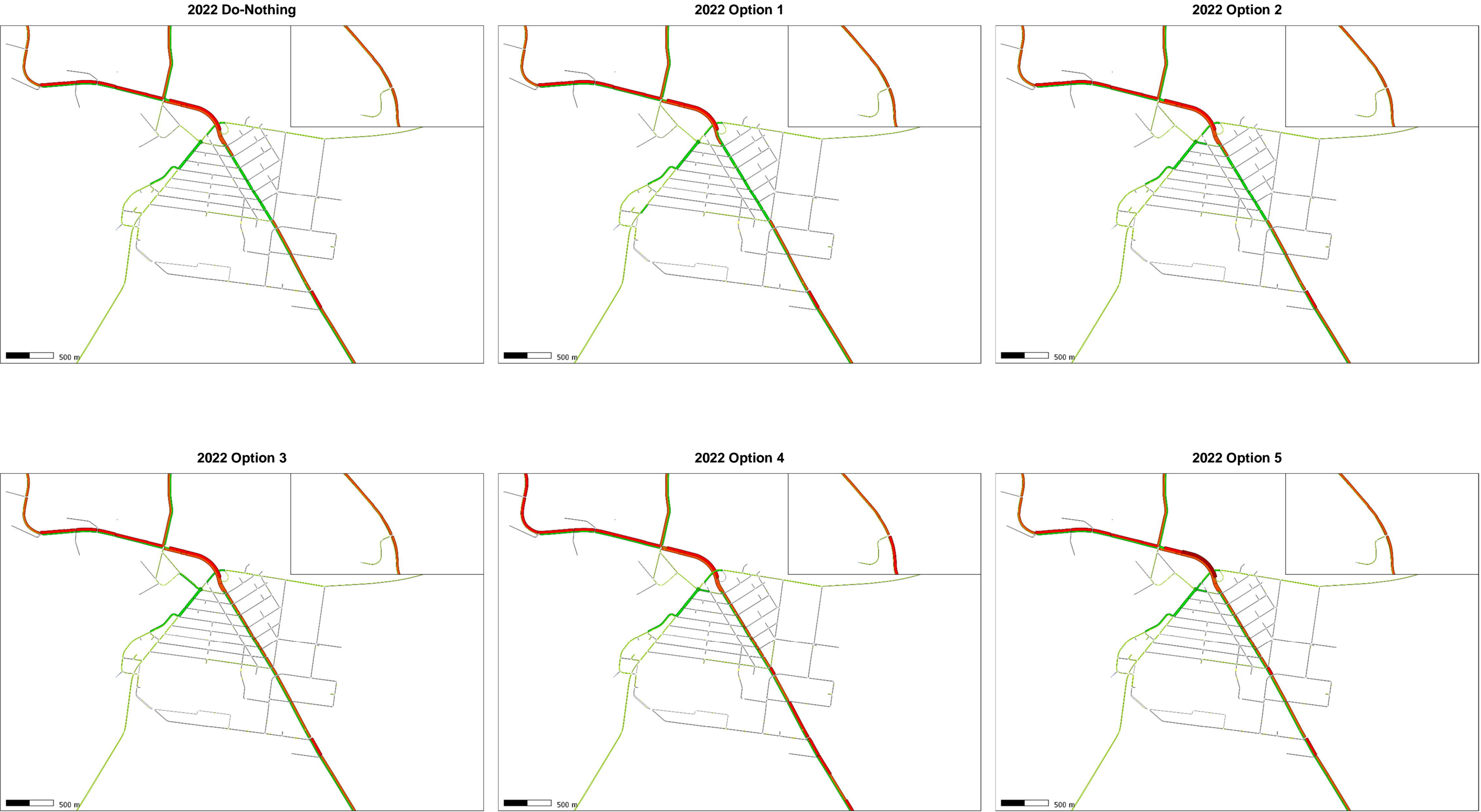


Figure 5-3 AIMSUN Do Minimum Network Flows AM Peak (16.00 – 17.00)

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5.2.2 Intersection level of service

There is an improvement to the intersection performance at New England Highway / Bridgman Road seen in Options 4 and 5 during both of the AM peak periods being assessed. Option 4 sees an improved performance due to the increased capacity resulting in reduced delay for northbound traffic on the eastern approach of the New England Highway to the intersection from 78secs to 55secs during the 05:30 - 06:30 peak.

The Option 5 intersection performance improvements are a result of the increased capacity provided by the two right turn lanes on the northern approach from Bridgman Road reducing delay from 207secs to 52secs on that approach. It must be noted that the modification to the intersection was deemed necessary to alleviate the major congestion observed on Bridgman Road which carried over to later time periods. It was also considered an important element to the ongoing development of the Singleton Heights Area. In addition, with the prospect of the bypass, it was considered that this would provide improved access to the bypass when completed.

Table 5-4 Intersection Performance AM 05:30 - 06:30

| Ave Delay (secs/veh) | | 2022 | | | | | | | | | | | |
|---|----------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | |
| New England Highway & Bridgman Road | 78 | F | 80 | F | 75 | F | 75 | F | 55 | D | 34 | C | |
| New England Highway & Howe Street | 11 | A | 12 | A | 11 | A | 11 | A | 8 | A | 11 | A | |
| New England Highway & York Street | 8 | A | 9 | A | 8 | A | 11 | A | 13 | A | 9 | A | |
| Putty Road & Ryan Ave | 15 | B | 14 | A | 15 | B | 13 | A | 13 | A | 14 | B | |
| John Street & Hunter Street | 10 | A | 10 | A | 10 | A | 10 | A | 10 | A | 10 | A | |
| John Street & Newton Street | 3 | A | 3 | A | 2 | A | 2 | A | 3 | A | 2 | A | |
| Queen Street & New England Highway Ramp | 5 | A | 6 | A | 5 | A | 6 | A | 5 | A | 5 | A | |

An increase in delay and reduction in intersection performance at John Street / Newton Street in Options 1 and 4 during the 08:30 - 09:30 period is observed. This is due to traffic re-routing and an increase in the traffic flows at the intersection due to the 'No Right Turn' bans implemented along New England Highway. These lead to a restriction in access to the western side of Singleton. An increase in traffic is observed on the northern approach and western approach to the roundabout.

Option 5 continues to show an improved performance at the New England Highway / Bridgman Road intersection when compared to Option 3 with Option 4 being best of all at this location.

Table 5-5 Intersection Performance AM 08:30 – 09:30

| Ave Delay (secs/veh) | 2022 | | | | | | | | | | | |
|-------------------------------------|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 43 | D | 61 | E | 43 | D | 44 | D | 39 | C | 41 | C |
| New England Highway & Howe Street | 35 | C | 37 | C | 20 | B | 25 | B | 9 | A | 41 | C |
| New England Highway & York Street | 23 | B | 36 | C | 21 | B | 22 | B | 40 | C | 25 | B |
| Putty Road & Ryan Ave | 14 | B | 13 | A | 14 | A | 13 | A | 14 | A | 13 | A |

| 2022 | | | | | | | | | | | | |
|---|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| Ave Delay (secs/veh) | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| John Street & Hunter Street | 29 | C | 39 | C | 32 | C | 28 | B | 36 | C | 28 | C |
| John Street & Newton Street | 18 | B | 113 | F | 20 | B | 17 | B | 61 | E | 22 | B |
| Queen Street & New England Highway Ramp | 15 | B | 81 | F | 13 | A | 12 | A | 26 | B | 14 | B |

The PM peak period sees significant changes in intersection performance for the intersections of the New England Highway / Bridgman Road in Options 4 and 5 and at John Street and Newton Street in Option 4.

The intersection of New England Highway / Bridgman Road shows improvement in Option 4 due to the increased capacity of New England Highway. Option 5 sees a decrease in intersection performance as a new signal phase is introduced to accommodate the two right turn lanes which helped improve the intersection performance during the AM peak. While the cycle length was increased (132secs to 150secs), and the proportion of green time for the New England Highway also increased, additional delays arise from the need for a four phase cycle as compared to the previous three phase cycle. This increases the total inter-green time by 7secs during each cycle and results in additional waiting time for each approach. However, it was considered that the benefits achieved in the AM peak, and the fact that the SCATS system would vary the times to suit demand, outweighed the reduced performance seen in the PM.

The intersection of John Street / Newton Street decreases in performance due to increased flows on the northern approach to the roundabout because of 'No Right Turn' restrictions on New England Highway limiting access to the western side of Singleton.

Table 5-6 Intersection Performance PM 16:00 – 17:00

| 2022 | | | | | | | | | | | | |
|---|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| Ave Delay (secs/veh) | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 71 | F | 60 | E | 75 | F | 69 | E | 46 | D | 94 | F |
| New England Highway & Howe Street | 17 | B | 45 | D | 19 | B | 13 | A | 10 | A | 14 | B |
| New England Highway & York Street | 24 | B | 48 | D | 27 | B | 27 | B | 28 | B | 24 | B |
| Putty Road & Ryan Ave | 13 | A | 13 | A | 13 | A | 13 | A | 13 | A | 13 | A |
| John Street & Hunter Street | 45 | D | 36 | C | 37 | C | 29 | C | 52 | D | 42 | D |
| John Street & Newton Street | 20 | B | 28 | B | 24 | B | 17 | B | 87 | F | 21 | B |
| Queen Street & New England Highway Ramp | 10 | A | 10 | A | 10 | A | 9 | A | 17 | B | 9 | A |



Figure 5-4 2022 Do Minimum AIMSUN Network Delay Plots AM Peak (05.30 – 06.30)



Figure 5-5 2022 Do Minimum AIMSUN Network Delay Plots AM Peak (08.30 – 09.30)

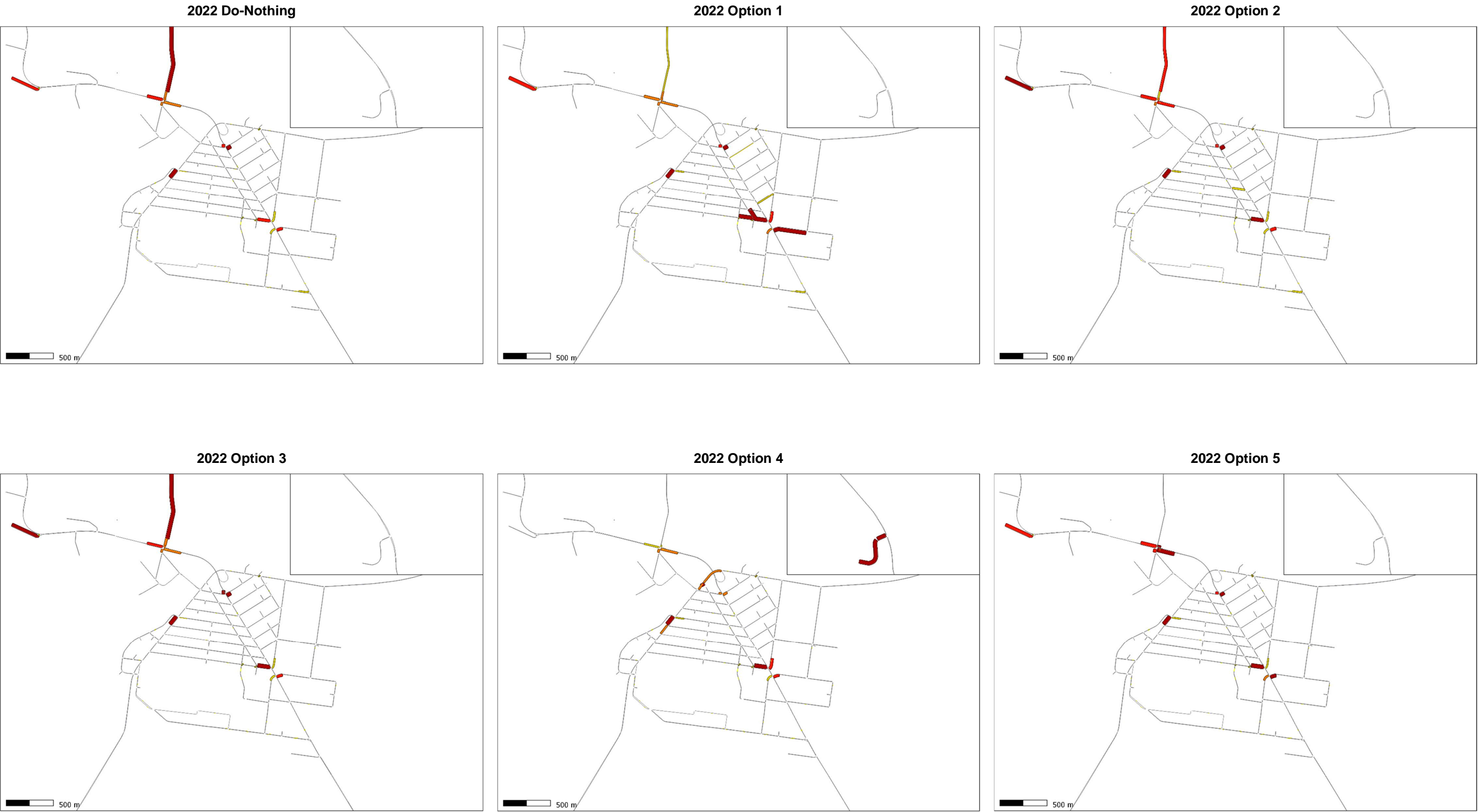


Figure 5-6 2022 Do Minimum AIMSUN Network Delay Plots PM Peak (16.00 – 17.00)

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5.2.3 Travel time

Table 22 and Table 23 show improvements in travel time along the New England Highway are observed in Options 4 and 5 in the northbound direction during the 05:30 – 06:30 period and southbound direction in Options 3 and 5 during the 08:30 – 09:30 peak. These reflect the peak traffic patterns during these periods and network improvements that were implemented.

An increase in travel time is observed in Options 1 and 4 during the 08:30 – 09:30 period in the southbound direction along John Street. This increase is due to increased traffic and delays on the approach to the John Street and Newton Street intersection because of the 'No Right Turn' bans along New England Highway and traffic rerouting.

Table 5-7 Travel Time (mins.) AM Northbound

| 2022 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 05.30 - 06.30 | 10:28 | 10:27 | 10:52 | 10:22 | 09:07 | 09:48 |
| | 08.30 – 09.30 | 10:44 | 10:43 | 11:25 | 10:56 | 09:49 | 11:26 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 05:01 | 04:58 | 04:58 | 04:57 | 04:58 | 04:58 |
| | 08.30 – 09.30 | 05:47 | 06:20 | 05:49 | 05:54 | 05:57 | 05:49 |

Table 5-8 Travel Time (mins.) AM Southbound

| 2022 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 05.30 - 06.30 | 08:59 | 08:56 | 09:00 | 08:46 | 08:36 | 08:47 |
| | 08.30 – 09.30 | 10:09 | 11:10 | 10:11 | 09:32 | 09:58 | 09:28 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 05:00 | 05:01 | 05:00 | 04:59 | 05:00 | 04:59 |
| | 08.30 – 09.30 | 06:33 | 09:24 | 06:47 | 06:25 | 07:38 | 06:37 |

Improved travel time along the New England Highway is observed in both directions in Option 4 and in the southbound direction in Options 3 and 5. This is a result in the increased number of lanes along New England Highway.

Travel times along John Street are seen to increase in both directions in Option 4 due to the restricted access to New England Highway.

Table 5-9 Travel Time (mins.) PM Northbound

| 2022 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 16.00 – 17.00 | 10:31 | 10:35 | 10:42 | 10:37 | 09:49 | 11:23 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 07:15 | 06:59 | 06:30 | 06:30 | 08:26 | 07:24 |

Table 5-10 Travel Time (mins.) PM Southbound

| 2022 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 16.00 – 17.00 | 11:14 | 11:17 | 11:22 | 10:03 | 09:19 | 10:47 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 05:25 | 05:30 | 05:31 | 05:18 | 06:37 | 05:24 |

5.2.4 Network performance

The network performance details for completed trips, for the AM and PM peak periods, are shown in Table 26 and Table 27. In general, the results are similar across the options but some may seem counter intuitive. In particular, the incomplete and unreleased trips seen in Option 4 which has a significant increase in network capacity. In this case the model also includes the banned right turns which results in increased traffic on the ramp to Queen Street and then south to the John Street area. The John Street / Newton Street roundabout does not have the capacity to cope with the demand which leads to queues on the approach. This then blocks access from a side road and prevents vehicles from accessing the network.

Option 5 shows a reduction in VHT during the morning period which is in line with the applied modification to the New England Highway / Bridgman Road intersection. There were long delays during the period and the two-lane right turn was identified to assist with this. The adjustment to the signal plan did introduce some changes to the traffic patterns in the PM period which explains why the results suggest that Option 5 does not perform as well as Option 3.

Table 5-11 Network Statistics AM

| 2022 | | | | | | |
|---|--------|----------|----------|----------|----------|----------|
| AM (4 Hours) | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Vehicle Kilometres Travelled (km) – VKT | 96,373 | 96,032 | 96,013 | 96,262 | 95,021 | 96,302 |
| Vehicle Hours Travelled (h) - VHT | 2,014 | 2,100 | 2,095 | 1,987 | 1,936 | 1,954 |
| Average Network Speed (km/h) | 46 | 44 | 44 | 46 | 47 | 47 |
| Completed Trips (vehs) | 18,283 | 18,172 | 18,285 | 18,289 | 18,067 | 18,281 |
| Incomplete Trips (vehs) | 455 | 560 | 462 | 448 | 652 | 447 |
| Unreleased Trips (vehs) | - | - | - | - | - | - |
| Delay for Unreleased Trips (hrs) | - | - | - | - | - | - |

Table 5-12 Network Statistics PM

| 2022 | | | | | | |
|---|--------|----------|----------|----------|----------|----------|
| PM (3 Hours) | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Vehicle Kilometres Travelled (km) – VKT | 93,613 | 93,878 | 93,458 | 93,684 | 93,593 | 93,848 |
| Vehicle Hours Travelled (h) - VHT | 2,213 | 2,409 | 2,209 | 2,183 | 2,252 | 2,196 |
| Average Network Speed (km/h) | 41 | 39 | 41 | 42 | 42 | 42 |
| Completed Trips (vehs) | 20,790 | 20,781 | 20,773 | 20,841 | 20,736 | 20,830 |
| Incomplete Trips (vehs) | 664 | 709 | 685 | 631 | 751 | 715 |
| Unreleased Trips (vehs) | - | - | - | - | 11 | - |
| Delay for Unreleased Trips (hrs) | - | - | - | - | 5 | - |

Despite the provision of two lanes through the network in Option 4, the impact of banned right turns resulted in some vehicles being unable to enter the network in the PM peak.

While there is not any major difference in network performance between the options in this year, taking all the metrics in to account, and particularly the intersection performance data results for the first morning peak, would indicate that there are benefits to be gained from adopting Option 5.

5.3 2026 Do Minimum results comparison

5.4 Traffic flows

During the AM peak periods in the 2026 model the different options tested have minimum impact on the flows across the network and along New England Highway.

Option 1 and 4 show a reduction in southbound traffic along the New England Highway south of Campbell St, this is due to traffic taking the off-ramp to Queen Street due to the 'No Right Turn' bans along New England Highway which limited access to the western side of town. This also results in an increase in traffic southbound on John Street south of Newton Street.

The increase in traffic flows in the northbound direction in Option 4 along New England Highway is due to increased capacity along the route. The increase in traffic flows along the New England Highway East of Bridgman Road in Option 5 are a result of a change in signal patterns and timing resulting in traffic re-routing to use New England Highway over the alternative of Newton Street Bridge.

Table 5-13 Network Flows AM 05:30 – 06:30

| Street | Mid-block position | Direction | 2026 | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| | | | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 1078 | 1078 | 1078 | 1078 | 1074 | 1078 |
| | | Southbound | 337 | 324 | 338 | 326 | 323 | 334 |
| New England Highway | South of Campbell Street | Northbound | 952 | 955 | 950 | 963 | 1075 | 1093 |
| | | Southbound | 353 | 311 | 352 | 342 | 320 | 342 |
| New England Highway | East of Bridgman Road | Northbound | 1084 | 1070 | 1085 | 1079 | 1294 | 1272 |
| | | Southbound | 511 | 520 | 528 | 530 | 539 | 502 |
| New England Highway | North of Magpie Street | Northbound | 1429 | 1420 | 1428 | 1425 | 1423 | 1463 |
| | | Southbound | 243 | 243 | 243 | 243 | 241 | 236 |
| Bridgman Road | North of New England Highway | Northbound | 182 | 182 | 181 | 182 | 181 | 191 |
| | | Southbound | 570 | 566 | 572 | 571 | 572 | 579 |
| Putty Road | South of Ryan Avenue | Northbound | 91 | 91 | 91 | 91 | 91 | 89 |
| | | Southbound | 414 | 410 | 414 | 414 | 410 | 411 |
| John Street | South of Newton Street | Northbound | 191 | 194 | 190 | 192 | 195 | 191 |
| | | Southbound | 365 | 388 | 368 | 367 | 376 | 372 |

Table 5-14 Network Flows AM 08:30 – 09:30

| 2026 | | | | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| Street | Mid-block position | Direction | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 856 | 856 | 856 | 856 | 855 | 863 |
| | | Southbound | 756 | 741 | 760 | 750 | 753 | 751 |
| New England Highway | South of Campbell Street | Northbound | 753 | 726 | 728 | 685 | 826 | 690 |
| | | Southbound | 944 | 746 | 947 | 921 | 812 | 923 |
| New England Highway | East of Bridgman Road | Northbound | 879 | 882 | 894 | 859 | 1072 | 1002 |
| | | Southbound | 1317 | 1199 | 1329 | 1265 | 1265 | 1353 |
| New England Highway | North of Magpie Street | Northbound | 570 | 567 | 573 | 573 | 576 | 578 |
| | | Southbound | 375 | 375 | 375 | 375 | 377 | 369 |
| Bridgman Road | North of New England Highway | Northbound | 539 | 537 | 541 | 541 | 536 | 537 |
| | | Southbound | 924 | 924 | 924 | 921 | 924 | 921 |
| Putty Road | South of Ryan Avenue | Northbound | 188 | 188 | 188 | 188 | 188 | 190 |
| | | Southbound | 351 | 344 | 354 | 352 | 347 | 359 |
| John Street | South of Newton Street | Northbound | 403 | 422 | 408 | 403 | 413 | 405 |
| | | Southbound | 707 | 838 | 714 | 688 | 795 | 700 |

During the 2026 PM peak periods the different options tested show minimum changes in the flows across the network and along the New England Highway.

However, there is an increase in traffic flows along New England Highway at locations through the town centre in Option 4 due to the increased capacity along the entirety of the route. In addition, there is an increase in traffic along John Street in the southbound direction in Options 1 and 4 is due to the 'No Right Turn' restrictions along New England Highway limiting access to the western side of Singleton.

Table 5-15 Network Flows PM 16:00 – 17:00

| 2026 | | | | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| Street | Mid-block position | Direction | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 786 | 786 | 786 | 786 | 786 | 793 |
| | | Southbound | 1291 | 1274 | 1301 | 1291 | 1344 | 1242 |
| New England Highway | South of Campbell Street | Northbound | 735 | 770 | 750 | 784 | 912 | 757 |
| | | Southbound | 1078 | 982 | 1108 | 1082 | 1134 | 1140 |
| New England Highway | East of Bridgman Road | Northbound | 1145 | 1155 | 1171 | 1151 | 1230 | 1189 |
| | | Southbound | 1479 | 1414 | 1494 | 1455 | 1566 | 1518 |
| New England Highway | North of Magpie Street | Northbound | 408 | 412 | 408 | 408 | 404 | 423 |
| | | Southbound | 1123 | 1123 | 1123 | 1123 | 1123 | 1122 |
| Bridgman Road | North of New England Highway | Northbound | 1071 | 1086 | 1080 | 1076 | 1072 | 1018 |
| | | Southbound | 675 | 675 | 675 | 675 | 675 | 677 |
| Putty Road | South of Ryan Avenue | Northbound | 450 | 450 | 450 | 450 | 450 | 445 |
| | | Southbound | 307 | 304 | 306 | 307 | 309 | 296 |
| John Street | South of Newton Street | Northbound | 818 | 875 | 850 | 860 | 721 | 825 |
| | | Southbound | 563 | 669 | 563 | 627 | 647 | 535 |

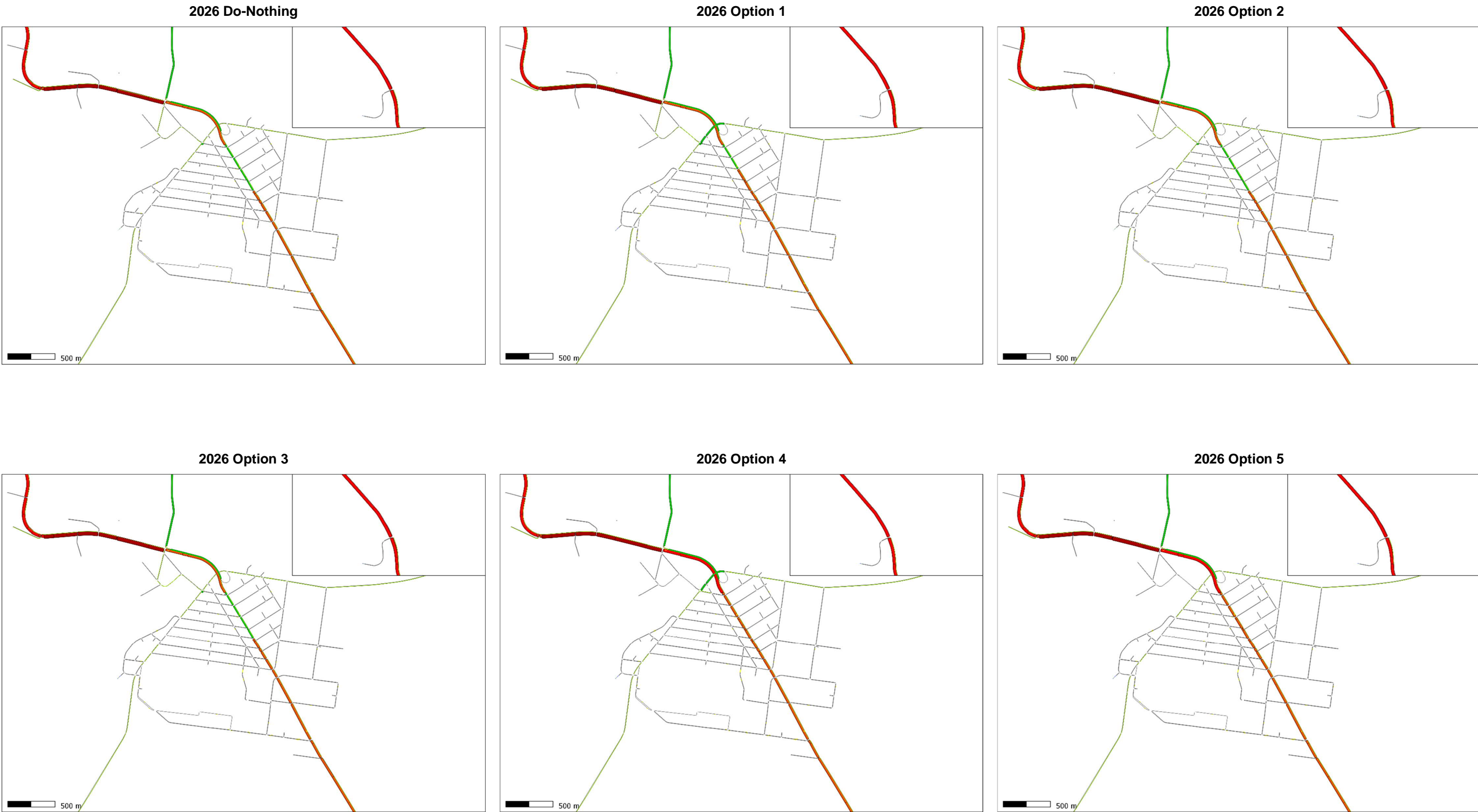


Figure 5-7 2026 Do Minimum AIMSUN Network Flows AM Peak (5.30 – 6.30)



Figure 5-8 2026 Do Minimum AIMSUN Network Flows AM Peak (8.30 – 9.30)

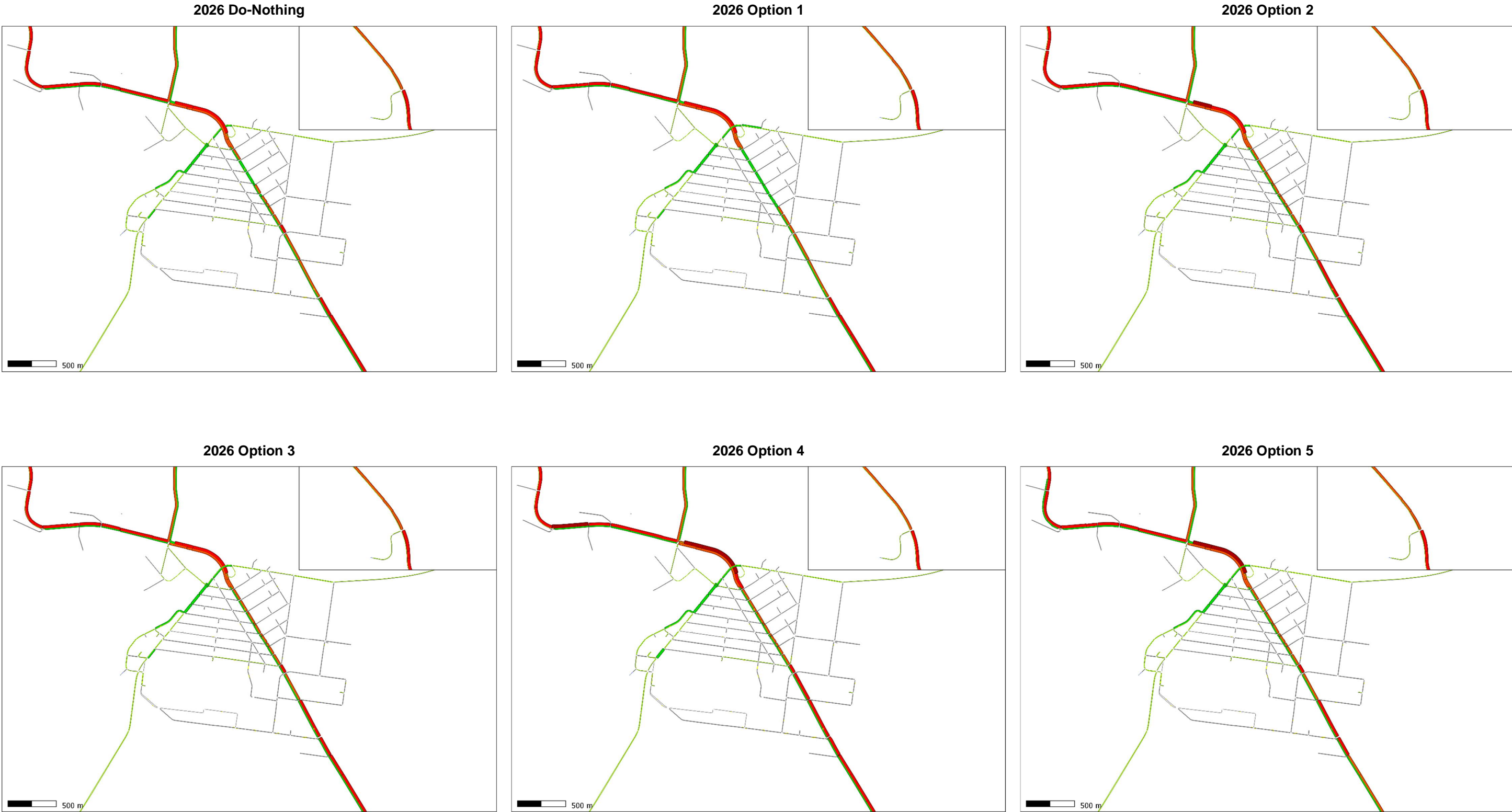


Figure 5-9 2026 Do Minimum AIMSUN Network Flows PM Peak (16.00 – 17.00)

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5.4.1 Intersection level of service

As in 2022, the results indicate an improvement in intersection performance at New England Highway / Bridgman Road in Options 4 and 5 particularly during the 05:30 – 06:30 peak. The improvement in Option 4 may be attributed to the increased network capacity resulting in northbound traffic on the eastern approach of New England Highway having a reduced delay at the intersection from 119secs to 30secs.

In Option 5 the intersection performance improvements are a result of the increased capacity provided by the two right turn lanes on the Bridgman Road approach reducing the average delay from 208secs to 83secs on the approach.

Table 5-16 Intersection Performance AM 05:30 – 06:30

| Ave Delay (secs/veh) | 2026 | | | | | | | | | | | |
|---|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 105 | F | 126 | F | 99 | F | 112 | F | 57 | E | 44 | D |
| New England Highway & Howe Street | 13 | A | 12 | A | 12 | A | 12 | A | 8 | A | 12 | A |
| New England Highway & York Street | 8 | A | 9 | A | 8 | A | 9 | A | 13 | A | 10 | A |
| Putty Road & Ryan Ave | 15 | B | 14 | B | 17 | B | 14 | B | 13 | A | 13 | A |
| John Street & Hunter Street | 10 | A | 10 | A | 10 | A | 10 | A | 10 | A | 10 | A |
| John Street & Newton Street | 4 | A | 3 | A | 4 | A | 2 | A | 3 | A | 2 | A |
| Queen Street & New England Highway Ramp | 6 | A | 6 | A | 6 | A | 6 | A | 7 | A | 5 | A |

During the 08:30 – 09:30 period an increase in delay and reduction in intersection performance is observed at John Street / Newton Street, and Queen Street / New England Highway Ramp in Options 1 and 4. Once again, this can be attributed to traffic re-routing and increased traffic flows at the intersection due to the 'No Right Turn' bans implemented along New England Highway, restricting access to the western side of Singleton. An increase in traffic is observed on the northern approach and western approach to the John Street roundabout, from traffic having used the New England Highway Ramp.

Table 5-17 Intersection Performance AM 08:30 – 09:30

| Ave Delay (secs/veh) | 2026 | | | | | | | | | | | |
|---|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 44 | D | 50 | D | 45 | D | 47 | D | 40 | C | 42 | D |
| New England Highway & Howe Street | 31 | C | 57 | E | 24 | B | 24 | B | 10 | A | 35 | C |
| New England Highway & York Street | 24 | B | 34 | C | 24 | B | 21 | B | 42 | D | 23 | B |
| Putty Road & Ryan Ave | 14 | B | 13 | A | 13 | A | 15 | B | 15 | B | 13 | A |
| John Street & Hunter Street | 31 | C | 35 | C | 27 | B | 32 | C | 33 | C | 26 | B |
| John Street & Newton Street | 25 | B | 88 | F | 17 | B | 39 | C | 95 | F | 24 | B |
| Queen Street & New England Highway Ramp | 17 | B | 64 | E | 14 | B | 24 | B | 83 | F | 15 | B |

The PM peak period sees significant changes in intersection performance for the intersections of New England Highway / Bridgman Road in Options 4 and 5, at John Street / Newton Street in Options 1 and 4, and John Street / Hunter Street in Option 4.

The intersection of New England Highway / Bridgman Road sees improvement in Option 4 due to the increased capacity of New England Highway. However, Option 5 shows a decrease in intersection performance as the new signal phase is introduced for the two right turn lanes which helped improve intersection performance during the AM peak. This results in additional delays due to four phase cycle from a previous three phase cycle. The total inter-green period was increased by 7secs in a cycle resulting in additional waiting time for each approach.

Table 5-18 Intersection Performance PM 16:00 – 17:00

| Ave Delay (secs/veh) | | 2026 | | | | | | | | | | | |
|---|----------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | |
| New England Highway & Bridgman Road | 88 | F | 91 | F | 83 | F | 83 | F | 48 | D | 112 | F | |
| New England Highway & Howe Street | 25 | B | 37 | C | 23 | B | 19 | B | 12 | A | 17 | B | |
| New England Highway & York Street | 30 | C | 57 | E | 34 | C | 24 | B | 28 | B | 29 | C | |
| Putty Road & Ryan Ave | 13 | A | 13 | A | 13 | A | 13 | A | 13 | A | 14 | B | |
| John Street & Hunter Street | 35 | C | 41 | C | 43 | D | 31 | C | 86 | F | 48 | D | |
| John Street & Newton Street | 18 | B | 53 | D | 21 | B | 10 | A | 61 | E | 17 | B | |
| Queen Street & New England Highway Ramp | 10 | A | 12 | A | 10 | A | 9 | A | 30 | C | 10 | A | |

In Option 4, during the PM peak, there is a reduction in the performance of the John Street / Newton Street intersection due to increased flows on the northern approach to the roundabout. This is a result of the 'No Right Turn' restrictions on New England Highway limiting access to the western side of Singleton. This increased traffic flow in the southbound direction also impacts on the John Street / Hunter Street intersection where there is also an increased demand for right turn flow from the southern approach. This results in an increase of the delay for the southern approach from 232secs in the Base case to 323secs in Option 4, while other approaches see minimal changes in delays.

Once again, the performance of Option 5 is slightly lower than Option 3 during the PM peak, but the AM peak benefits and other considerations must be taken in to account.



Figure 5-10 2026 Do Minimum AIMSUN Network Delay Plots AM Peak (5.30 – 6.30)



Figure 5-11 2026 Do Minimum AIMSUN Network Delay Plots AM Peak (8.30 – 9.30)

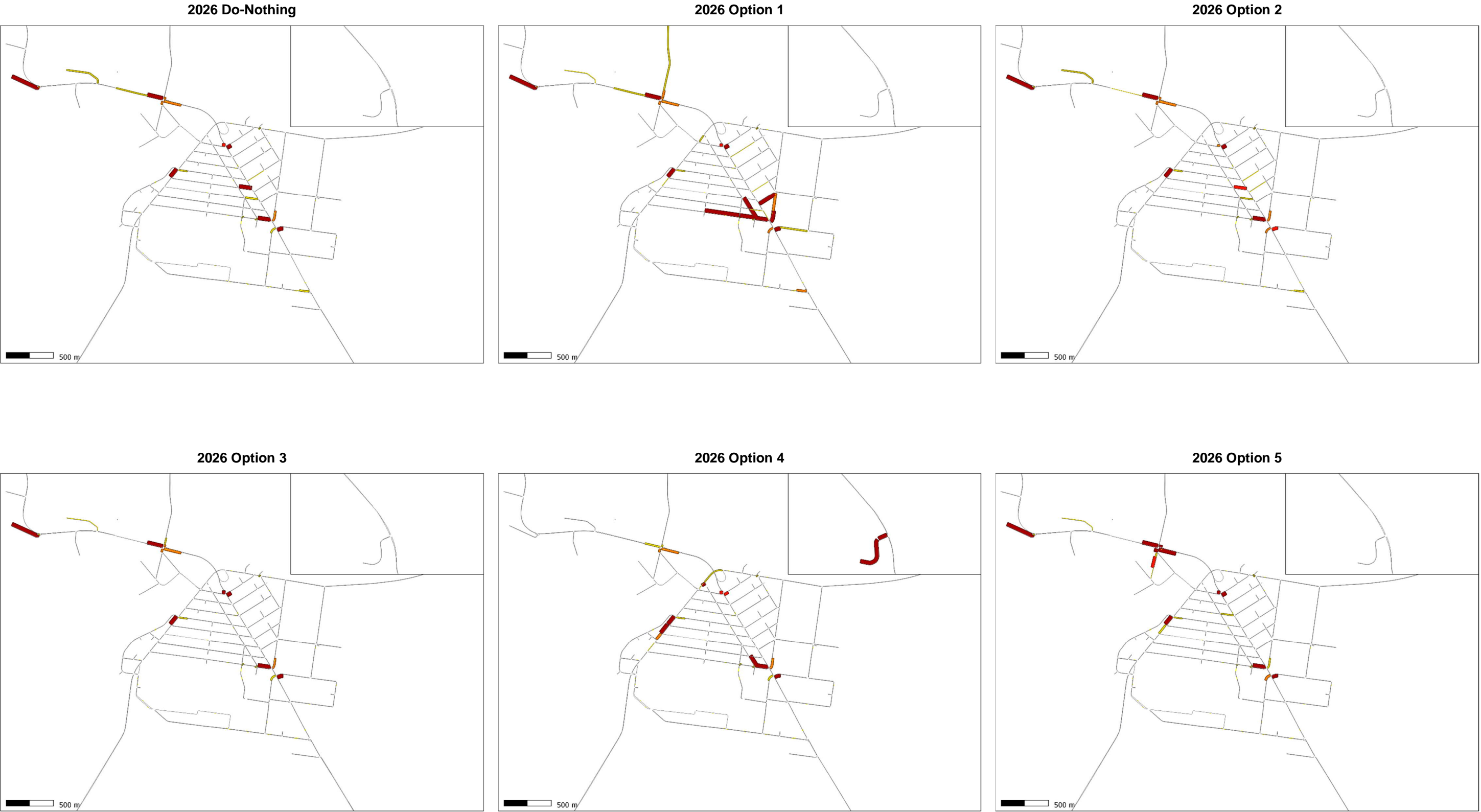


Figure 5-12 2026 Do Minimum AIMSUN Network Delay Plots PM Peak (16.00 – 17.00)

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5.4.2 Travel times

Along Route 1, the 2026 travel times show significant improvements along the New England Highway in Options 4 and 5 in the northbound direction during the 05:30 – 06:30 period. Improvements are also shown southbound for Options 3 -5 during the 08:30 – 09:30 peak. These reflect the peak traffic flow patterns during these periods and the network modifications that were implemented.

Table 5-19 Travel Time (mins.) AM Northbound

| 2026 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 05.30 - 06.30 | 11:35 | 11:15 | 11:24 | 11:32 | 09:10 | 09:57 |
| | 08.30 – 09.30 | 11:00 | 11:23 | 10:47 | 11:07 | 09:40 | 12:03 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 05:27 | 05:02 | 05:01 | 05:03 | 05:00 | 05:01 |
| | 08.30 – 09.30 | 06:28 | 05:11 | 05:13 | 05:10 | 05:13 | 06:54 |

Table 5-20 Travel Time (mins.) AM Southbound

| 2026 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 05.30 - 06.30 | 09:06 | 09:04 | 09:06 | 08:53 | 08:37 | 08:50 |
| | 08.30 – 09.30 | 10:43 | 12:43 | 10:17 | 09:10 | 09:41 | 09:28 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 03:57 | 04:11 | 03:57 | 03:57 | 03:54 | 04:02 |
| | 08.30 – 09.30 | 03:52 | 04:16 | 03:51 | 03:49 | 05:57 | 03:52 |

For Route 2, there is an increase in travel time observed in Option 4 during the 08:30 – 09:30 period in the southbound direction along John Street; this increase is due to increased traffic and delays on the approach to the John Street and Newton Street intersection because of the 'No Right Turn' bans along New England Highway and traffic rerouting.

During the PM peak improved travel time along the New England Highway (Route 1) is observed in both directions in Option 4 and in the southbound direction in Options 3, 4 and 5. This is a result of the increased number, or length, of lanes along New England Highway.

Travel times along John Street (Route 2) are seen to increase in both directions, but significantly northbound, in Option 4 due to the restricted access to New England Highway and increased flow along John Street. This results in increased delays at key intersections along the route such as at Hunter Street and at Newton Street.

Table 5-21 Travel Time (mins.) PM Northbound

| 2026 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 16.00 – 17.00 | 10:59 | 11:02 | 11:08 | 11:20 | 09:44 | 11:36 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 07:04 | 07:37 | 07:14 | 06:56 | 12:27 | 07:58 |

Table 5-22 Travel Time (mins.) PM Southbound

| 2026 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 16.00 – 17.00 | 13:14 | 14:02 | 12:48 | 10:58 | 09:25 | 11:13 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 05:20 | 06:10 | 05:32 | 05:02 | 06:27 | 05:20 |

5.4.3 Network performance

The AM and PM network statistics show minor changes across the different options analysed. As would be expected there was an increase in the average network speed in Option 4 and to a lesser extent in Option 5 in both AM and PM scenarios. Option 3 only increased in the PM scenario. More trips were completed, in less time than the Base, in Option 5 in the AM peak but Option 4 had most completed trips during the PM peak. However, there were unreleased trips in the PM peak in Option 4.

Table 5-23 Network Statistics AM

| 2026 | | | | | | |
|---|---------|----------|----------|----------|----------|----------|
| AM (4 Hours) | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Vehicle Kilometres Travelled (km) – VKT | 101,323 | 101,098 | 101,423 | 101,188 | 101,184 | 101,393 |
| Vehicle Hours Travelled (h) - VHT | 2,160 | 2,365 | 2,139 | 2,174 | 2,081 | 2,100 |
| Average Network Speed (km/h) | 45 | 43 | 45 | 45 | 47 | 46 |
| Completed Trips (vehs) | 18,990 | 18,900 | 19,002 | 18,974 | 18,931 | 19,034 |
| Incomplete Trips (vehs) | 489 | 578 | 477 | 497 | 522 | 479 |
| Unreleased Trips (vehs) | - | 15 | - | - | - | - |
| Delay for Unreleased Trips (hrs) | - | 1 | - | - | - | - |

The PM network statistics show an increase in vehicle kilometres travelled in Options 3 and 4 combined with reductions in vehicle hours travelled but both options had unreleased vehicles at the end of the modelled period. While Option 5 did not appear to operate as well as Option 3 in the PM peak, the revision to the signals at New England Highway / Bridgman Road did impact on delay travel time and, in reality, SCATS would optimise the signals to conditions on site.

Table 5-24 Network Statistics PM

| 2026 | | | | | | |
|---|--------|----------|----------|----------|----------|----------|
| PM (3 Hours) | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Vehicle Kilometres Travelled (km) – VKT | 97,875 | 97,777 | 98,064 | 98,116 | 98,807 | 98,028 |
| Vehicle Hours Travelled (h) - VHT | 2,486 | 2,687 | 2,435 | 2,291 | 2,479 | 2,444 |
| Average Network Speed (km/h) | 39 | 38 | 40 | 42 | 41 | 40 |
| Completed Trips (vehs) | 21,441 | 21,384 | 21,477 | 21,514 | 21,523 | 21,452 |
| Incomplete Trips (vehs) | 786 | 863 | 759 | 692 | 721 | 834 |
| Unreleased Trips (vehs) | 10 | - | - | 2 | 11 | - |
| Delay for Unreleased Trips (hrs) | 2 | - | - | - | 4 | - |

It should be noted that if congestion at an intersection close to an entry to the network prevents vehicles from entering the model network, the resultant speed for those vehicles that are able to enter may appear to be higher through the remainder of the network.

5.4.4 Conclusion

Option 5 continued to display the benefits during the AM peak that it was developed to achieve. However, the additional signal phasing results in some disbenefits in the PM peak.

5.5 2036 Do Minimum results comparison

5.5.1 Traffic flows

The results indicate that although the traffic entering the network from the north and south is consistent in each case, more traffic can exit the network to the north in Option 5. Options 1 and 4 show a reduction in southbound traffic along the New England Highway south of Campbell Street. This is due to traffic taking the off-ramp to Queen Street due to the 'No Right Turn' bans along New England Highway limiting access to the western side of town. This also results in an increase in traffic southbound on John Street south of Newton Street.

The increase in traffic flows in the northbound direction in Option 4 along New England Highway is due to increased capacity along the route. The increase in traffic flow along the New England Highway, east of Bridgman Road in Option 5 in each hour is a result of a change in signal patterns and timing, resulting in traffic re-routing to use New England Highway over the alternative of Newton Street Bridge.

Table 5-25 Network Flows AM 05:30 – 06:30

| 2036 | | | | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| Street | Mid-block position | Direction | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 1222 | 1222 | 1222 | 1222 | 1222 | 1235 |
| | | Southbound | 348 | 348 | 349 | 357 | 354 | 386 |
| New England Highway | South of Campbell Street | Northbound | 988 | 977 | 988 | 1014 | 1214 | 1215 |
| | | Southbound | 364 | 320 | 364 | 363 | 325 | 385 |
| New England Highway | East of Bridgman Road | Northbound | 1093 | 1084 | 1095 | 1130 | 1464 | 1478 |
| | | Southbound | 521 | 519 | 516 | 536 | 533 | 614 |
| New England Highway | North of Magpie Street | Northbound | 1575 | 1575 | 1574 | 1528 | 1581 | 1638 |
| | | Southbound | 283 | 283 | 283 | 283 | 281 | 271 |
| Bridgman Road | North of New England Highway | Northbound | 198 | 197 | 198 | 190 | 200 | 199 |
| | | Southbound | 555 | 557 | 547 | 591 | 557 | 643 |
| Putty Road | South of Ryan Avenue | Northbound | 96 | 96 | 96 | 96 | 96 | 94 |
| | | Southbound | 417 | 416 | 417 | 420 | 415 | 425 |
| John Street | South of Newton Street | Northbound | 208 | 215 | 207 | 216 | 210 | 217 |
| | | Southbound | 361 | 392 | 360 | 377 | 380 | 397 |

Table 5-26 Network Flows AM 08:30 – 09:30

| Street | Mid-block position | Direction | 2036 | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| | | | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 995 | 995 | 995 | 995 | 992 | 1009 |
| | | Southbound | 914 | 855 | 912 | 895 | 853 | 892 |
| New England Highway | South of Campbell Street | Northbound | 754 | 657 | 763 | 693 | 913 | 722 |
| | | Southbound | 1026 | 708 | 1022 | 1040 | 802 | 1042 |
| New England Highway | East of Bridgeman Road | Northbound | 1014 | 884 | 1028 | 930 | 1186 | 1062 |
| | | Southbound | 1472 | 1164 | 1467 | 1477 | 1269 | 1461 |
| New England Highway | North of Magpie Street | Northbound | 652 | 611 | 646 | 639 | 646 | 627 |
| | | Southbound | 439 | 439 | 439 | 439 | 440 | 431 |
| Bridgman Road | North of New England Highway | Northbound | 588 | 576 | 585 | 581 | 580 | 583 |
| | | Southbound | 981 | 940 | 981 | 981 | 963 | 992 |
| Putty Road | South of Ryan Avenue | Northbound | 205 | 205 | 205 | 205 | 205 | 207 |
| | | Southbound | 357 | 324 | 357 | 358 | 331 | 362 |
| John Street | South of Newton Street | Northbound | 438 | 496 | 438 | 491 | 444 | 479 |
| | | Southbound | 729 | 832 | 739 | 718 | 813 | 728 |

During the PM peak periods in the 2036 model the different options tested have minimum impact on the flows across the network and along New England Highway. There is an increase in traffic flows observed in Option 4 along New England Highway, at locations through the town centre, due to the increased capacity along the entirety of the route.

An increase in traffic along John Street in the southbound direction in Options 1 and 4 is due to the 'No Right Turn' restrictions along New England Highway limiting access to the western side of Singleton.

Table 5-27 Network Flows PM 16:00 – 17:00

| Street | Mid-block position | Direction | 2036 | | | | | |
|---------------------|------------------------------|------------|------|----------|----------|----------|----------|----------|
| | | | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| New England Highway | South of Waddells Lane | Northbound | 886 | 903 | 894 | 911 | 895 | 915 |
| | | Southbound | 1403 | 1374 | 1421 | 1397 | 1485 | 1389 |
| New England Highway | South of Campbell Street | Northbound | 774 | 825 | 773 | 868 | 950 | 833 |
| | | Southbound | 1057 | 965 | 1005 | 1143 | 1244 | 1206 |
| New England Highway | East of Bridgeman Road | Northbound | 1251 | 1242 | 1266 | 1257 | 1320 | 1306 |
| | | Southbound | 1488 | 1443 | 1523 | 1559 | 1572 | 1590 |
| New England Highway | North of Magpie Street | Northbound | 464 | 458 | 467 | 472 | 444 | 482 |
| | | Southbound | 1297 | 1296 | 1297 | 1297 | 1296 | 1298 |
| Bridgman Road | North of New England Highway | Northbound | 1160 | 1143 | 1167 | 1161 | 1165 | 1078 |
| | | Southbound | 741 | 710 | 741 | 741 | 610 | 739 |
| Putty Road | South of Ryan Avenue | Northbound | 473 | 473 | 473 | 473 | 473 | 467 |
| | | Southbound | 302 | 307 | 306 | 310 | 327 | 297 |
| John Street | South of Newton Street | Northbound | 892 | 852 | 885 | 863 | 740 | 829 |
| | | Southbound | 592 | 657 | 604 | 595 | 613 | 542 |



Figure 5-13 2036 Do Minimum AIMSUN Network Flows AM Peak (05.30 – 06.30)

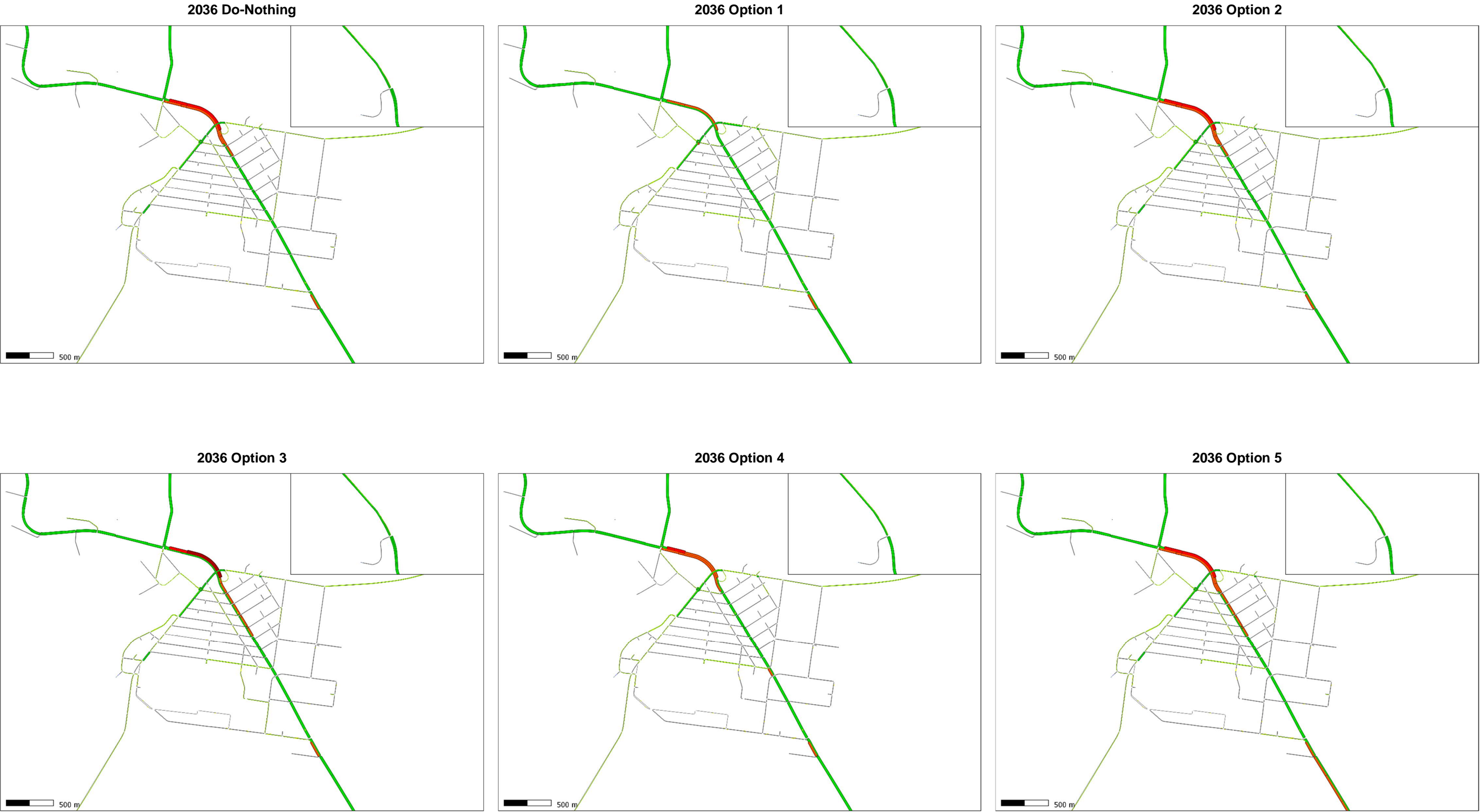


Figure 5-14 2036 Do Minimum AIMSUN Network Flows AM Peak (08.30 – 09.30)

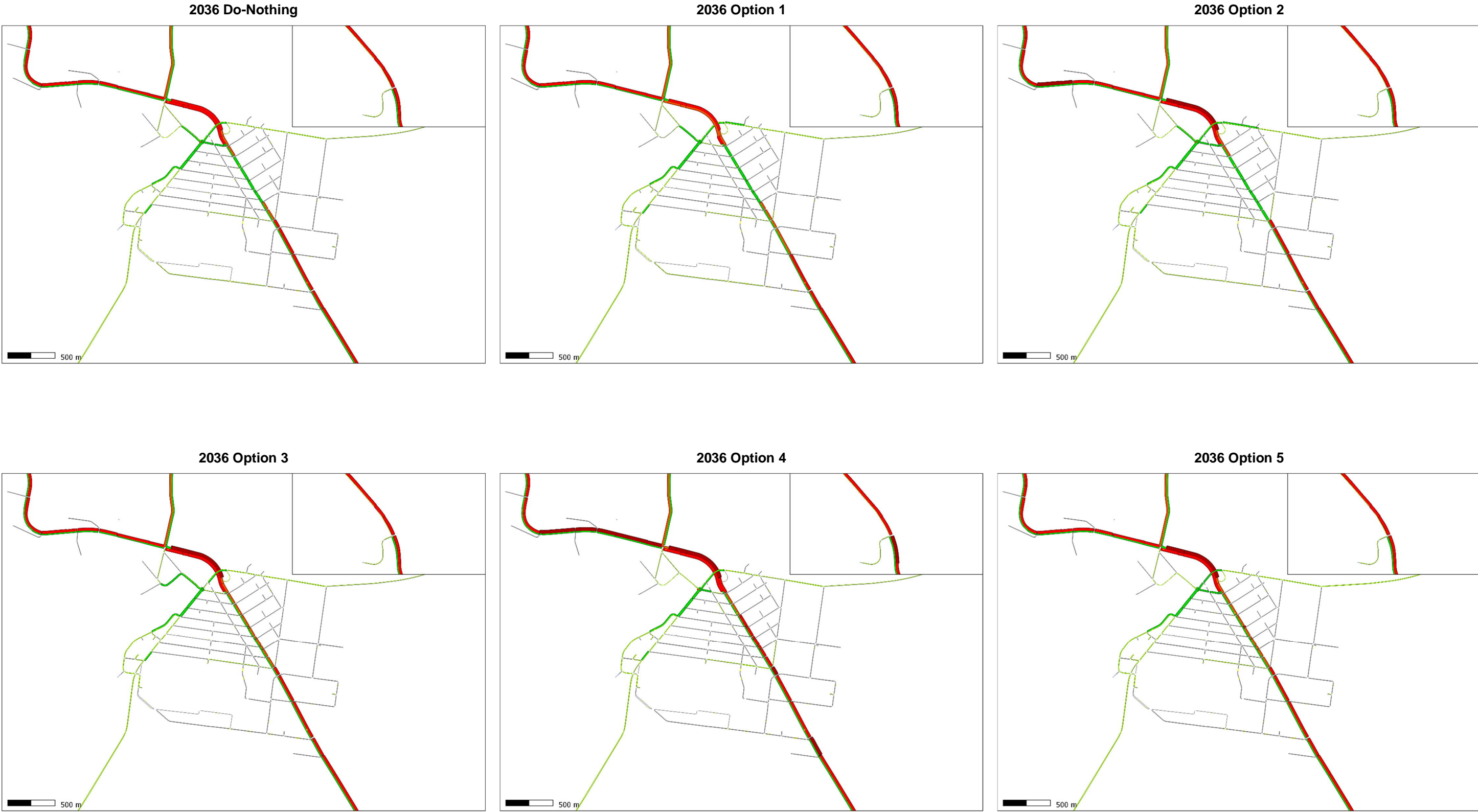


Figure 5-15 2036 Do Minimum AIMSUN Network Flows PM Peak (16.00 – 17.00)

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5.5.2 Intersection level of service

An improvement in intersection performance at New England Highway / Bridgman Road is seen in Options 4 and 5 during the 05:30 – 06:30 peak, however, the intersection still returns a Level of Service F. Option 4 shows an increase in performance due to the increased capacity resulting in northbound traffic, on the eastern approach of the New England Highway, having a reduced delay at the intersection from 98secs to 45secs.

The Option 5 intersection performance improvements can be attributed to the increased capacity provided by the two right turn lanes on the northern approach on Bridgman Road which reduce delay from 764secs to 154secs on the approach – a 10min improvement.

Table 5-28 Intersection Performance AM 05:30 – 06:30

| Ave Delay (secs/veh) | 2036 | | | | | | | | | | | |
|---|-----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| | 2036 Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 149 | F | 142 | F | 144 | F | 181 | F | 93 | F | 84 | F |
| New England Highway & Howe Street | 11 | A | 15 | B | 13 | A | 14 | A | 9 | A | 15 | B |
| New England Highway & York Street | 7 | A | 8 | A | 7 | A | 9 | A | 13 | A | 8 | A |
| Putty Road & Ryan Ave | 17 | B | 14 | B | 17 | B | 14 | B | 14 | A | 14 | B |
| John Street & Hunter Street | 12 | A | 11 | A | 12 | A | 11 | A | 11 | A | 10 | A |
| John Street & Newton Street | 5 | A | 5 | A | 4 | A | 5 | A | 3 | A | 3 | A |
| Queen Street & New England Highway Ramp | 7 | A | 7 | A | 7 | A | 8 | A | 8 | A | 6 | A |

An increase in delay, and reduction in intersection performance, is observed at John Street / Newton Street, and Queen Street / New England Highway Ramp in Option 1 and 4 during the 08:30 - 09:30 period. This is due to traffic re-routing, and increased traffic flows at the intersection, due to the 'No Right Turn' bans along the New England Highway restricting access to the western side of Singleton. An increase in traffic is observed on the western approach to the John Street / Newton Street roundabout, causing additional delays to the northern approach due to conflicts in movements.

Table 5-29 Intersection Performance AM 08:30 – 09:30

| Ave Delay (secs/veh) | 2036 | | | | | | | | | | | |
|---|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 58 | E | 104 | F | 62 | E | 45 | D | 62 | E | 46 | D |
| New England Highway & Howe Street | 45 | D | 95 | F | 43 | D | 49 | D | 11 | A | 60 | E |
| New England Highway & York Street | 31 | C | 47 | D | 28 | C | 26 | B | 37 | C | 30 | C |
| Putty Road & Ryan Ave | 14 | B | 14 | B | 15 | B | 15 | B | 14 | B | 15 | B |
| John Street & Hunter Street | 37 | C | 51 | D | 37 | C | 41 | C | 36 | C | 53 | D |
| John Street & Newton Street | 61 | E | 132 | F | 54 | D | 39 | C | 163 | F | 48 | D |
| Queen Street & New England Highway Ramp | 35 | C | 140 | F | 30 | C | 22 | B | 203 | F | 24 | B |

The PM peak period sees significant changes in intersection performance for the New England Highway / Bridgman Road intersection in Options 4 and 5, and at John Street / Newton Street in Options 1 and 4. The Queen Street / New England Highway ramp performs well in Options 3 and 5

The intersection of New England Highway / Bridgman Road shows an improvement in Option 4 due to the increased capacity of the New England Highway. However, Option 5 shows a reduction in the intersection performance because of the new signal phase for the two right turn lanes which helped improve intersection performance during the AM peak.

The performance of the John Street / Newton Street intersection reduces due to the increased flows on the western approach to the roundabout as the 'No Right Turn' restrictions on New England Highway limit access to the western side of Singleton. These restrictions also add additional traffic along the Queen Street / New England Highway Ramp resulting in the increase in delays due to intersection priorities.

Table 5-30 Intersection Performance PM 16:00 – 17:00

| Ave Delay (secs/veh) | | 2036 | | | | | | | | | | | |
|---|----------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | Base | | Option 1 | | Option 2 | | Option 3 | | Option 4 | | Option 5 | |
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | |
| New England Highway & Bridgman Road | 113 | F | 121 | F | 115 | F | 113 | F | 97 | F | 153 | F | |
| New England Highway & Howe Street | 33 | C | 77 | F | 27 | B | 35 | C | 15 | B | 35 | C | |
| New England Highway & York Street | 45 | D | 74 | F | 39 | C | 37 | C | 51 | D | 28 | C | |
| Putty Road & Ryan Ave | 14 | A | 14 | B | 14 | A | 15 | B | 14 | B | 14 | A | |
| John Street & Hunter Street | 47 | D | 46 | D | 48 | D | 30 | C | 51 | D | 62 | E | |
| John Street & Newton Street | 33 | C | 66 | E | 56 | D | 19 | B | 117 | F | 20 | B | |
| Queen Street & New England Highway Ramp | 13 | A | 22 | B | 14 | B | 10 | A | 91 | F | 10 | A | |

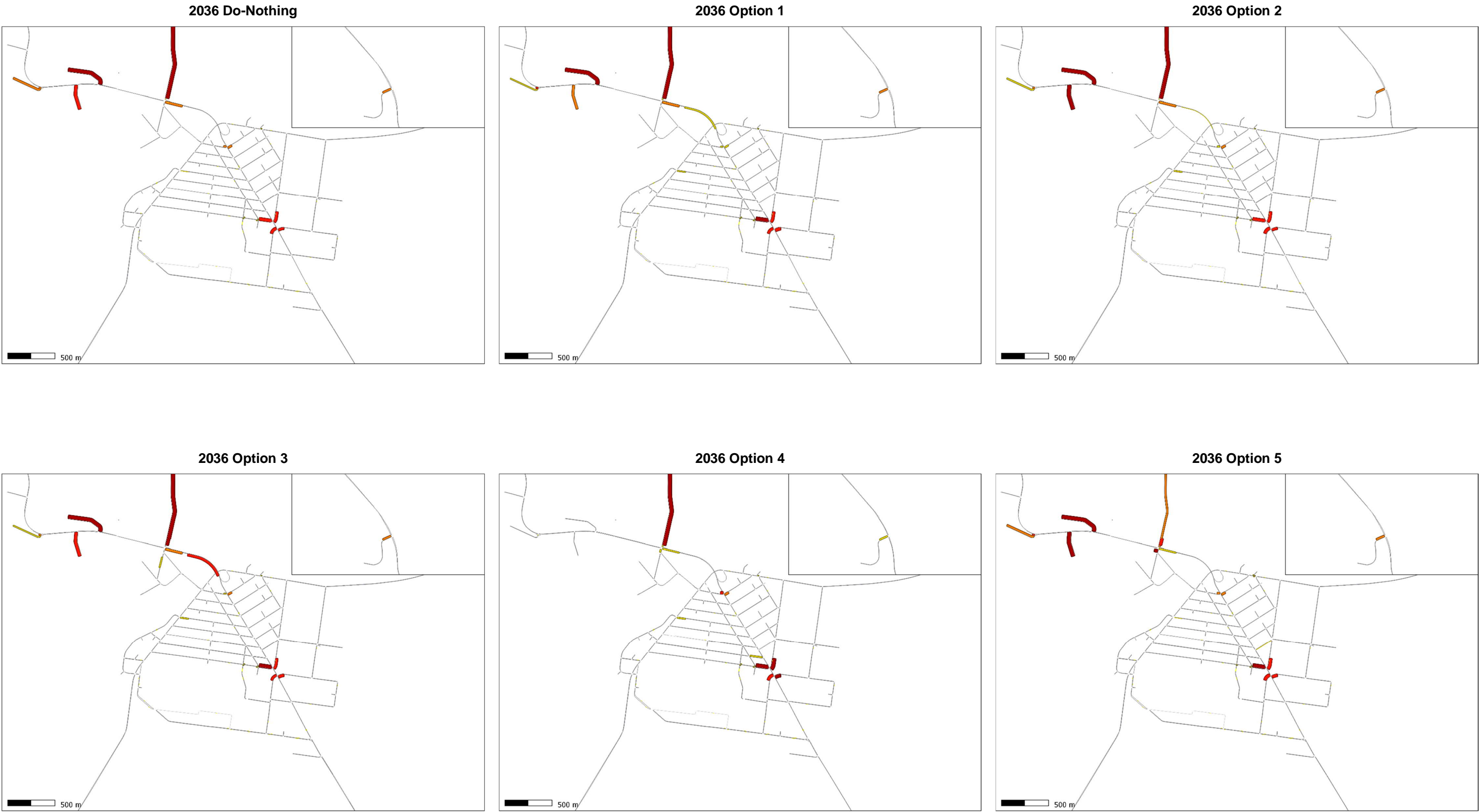


Figure 5-16 2036 Do Minimum AIMSUN Network Delay Plots AM Peak (05.30 – 06.30)



Figure 5-17 2036 Do Minimum AIMSUN Network Delay Plots AM Peak (08.30 – 09.30)



Figure 5-18 2036 Do Minimum AIMSUN Network Delay Pots PM Peak (16.00 – 17.00)

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5.5.3 Travel times

Improvements in travel time along the New England Highway are observed in Option 4 in both directions during the 05:30 – 06:30 period, and the northbound direction during the 08:30 – 09:30 period. This is due to the increased capacity along the route. An increase in travel time is seen in southbound direction for Option 1 and Option 4 along the New England Highway during the 08:30 – 09:30 peak.

Table 5-31 Travel Time (mins.) AM Northbound

| 2036 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 05.30 - 06.30 | 11:08 | 11:19 | 10:58 | 13:02 | 09:29 | 11:12 |
| | 08.30 – 09.30 | 13:43 | 15:46 | 13:18 | 14:29 | 09:48 | 15:42 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 05:03 | 05:03 | 05:03 | 05:05 | 04:59 | 05:01 |
| | 08.30 – 09.30 | 05:21 | 05:20 | 05:19 | 05:18 | 05:17 | 05:16 |

An increase in travel time is observed in Options 1 and 4 during the 08:30 – 09:30 period in the southbound direction along John Street. The southbound increase is due to increased traffic and delays on the approach to the John Street and Newton Street intersection as a result of the 'No Right Turn' bans along New England Highway and traffic rerouting. This traffic queues back causing queueing along the Queen Street / New England Highway Off Ramp which causes delays along the New England Highway southbound. This is reflected in the increased travel time during the 08:30 – 09:30 period along New England Highway.

Table 5-32 Travel Time (mins.) AM Southbound

| 2036 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 05.30 - 06.30 | 09:12 | 09:07 | 09:15 | 09:00 | 08:39 | 08:51 |
| | 08.30 – 09.30 | 12:10 | 14:50 | 12:03 | 09:51 | 13:29 | 09:51 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 04:59 | 05:00 | 04:59 | 05:00 | 05:01 | 04:59 |
| | 08.30 – 09.30 | 08:01 | 10:13 | 08:01 | 07:15 | 10:41 | 07:59 |

Improved travel time along the New England Highway is observed in both directions in Option 4 and in the southbound direction in Options 3, 4 and 5. This is because of the increased number of lanes along New England Highway along these routes.

Travel times along John Street are seen to increase in both directions in Option 4 due to the restricted access to New England Highway and increased flow along John Street. This results in increased delays at key intersections along the route such as at Hunter Street and at Newtown Street.

Table 5-33 Travel Time (mins.) PM Northbound

| 2036 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 16.00 – 17.00 | 12:19 | 15:58 | 11:50 | 14:53 | 09:48 | 15:09 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 07:28 | 07:14 | 07:02 | 06:12 | 08:37 | 09:20 |

Table 5-34 Travel Time (mins.) PM Southbound

| 2036 | | | | | | | |
|---|---------------|-------|----------|----------|----------|----------|----------|
| Route | Time Period | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Route 1 – New England Highway | 16.00 – 17.00 | 17:38 | 18:20 | 16:20 | 13:53 | 12:04 | 14:55 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 05:45 | 06:33 | 06:06 | 05:30 | 07:54 | 05:24 |

5.5.4 Network performance

The benefit of introducing the two right turn lanes from Bridgman Road in Option 5 is clearly seen by the 300hr reduction of vehicle hours travelled (VHT) in the morning peak period when compared to the Base network. While the number of completed trips does not vary much, the reduction in VKT suggests that the journeys are completed earlier, faster, and with less delay.

Table 5-35 Network Statistics AM

| 2036 | | | | | | |
|---|---------|----------|----------|----------|----------|----------|
| AM (4 Hours) | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Vehicle Kilometres Travelled (km) – VKT | 113,972 | 112,261 | 113,814 | 113,778 | 112,904 | 113,314 |
| Vehicle Hours Travelled (h) - VHT | 2,777 | 2,901 | 2,773 | 2,677 | 2,556 | 2,473 |
| Average Network Speed (km/h) | 42 | 40 | 42 | 43 | 45 | 45 |
| Completed Trips (vehs) | 20,772 | 20,434 | 20,754 | 20,754 | 20,604 | 20,700 |
| Incomplete Trips (vehs) | 577 | 880 | 593 | 590 | 698 | 619 |
| Unreleased Trips (vehs) | - | 27 | - | - | 13 | - |
| Delay for Unreleased Trips (hrs) | - | 1 | - | - | 1 | - |

Table 5-36 Network Statistics PM

| 2036 | | | | | | |
|---|---------|----------|----------|----------|----------|----------|
| PM (3 Hours) | Base | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 |
| Vehicle Kilometres Travelled (km) – VKT | 105,636 | 105,594 | 106,338 | 106,089 | 108,950 | 105,893 |
| Vehicle Hours Travelled (h) - VHT | 3,178 | 3,551 | 3,085 | 3,063 | 3,170 | 3,145 |
| Average Network Speed (km/h) | 36 | 33 | 37 | 37 | 38 | 37 |
| Completed Trips (vehs) | 22,702 | 22,595 | 22,752 | 22,768 | 23,103 | 22,665 |
| Incomplete Trips (vehs) | 1,193 | 1,335 | 1,143 | 1,114 | 1,003 | 1,257 |
| Unreleased Trips (vehs) | 206 | 222 | 205 | 188 | 39 | 230 |
| Delay for Unreleased Trips (hrs) | 118 | 119 | 116 | 99 | 4 | 134 |

The increased capacity provided by Option 4 is reflected in the reduced number of unreleased trips, increased VKT and number of completed trips seen in the PM peak results but this does have unreleased trips in the AM Peak. Each of the other options has a high number of unreleased trips, although a significant number of these are on Maison Dieu Road, where the congestion on the New England Highway prevents vehicles from accessing the network.

5.5.5 Conclusion

At the outset of the project four 'Do Minimum' options were identified to be assessed to determine which may provide some initial relief to Singleton prior to the bypass being constructed. The outcomes of these can be summarised as follows:

- The right turn bans tested in Option 1 resulted in re-routing of traffic to the Queen Street ramp and the signalised intersection at the southern end of Singleton. The additional traffic on the ramp resulted in queues which extended back to the New England Highway, problems with the operation of the John Street / Newton Street roundabout and queues on the side roads at New England Highway / York Street and New England Highway / Howe Street.
- Option 2 considered the removal of the pedestrian crossing to the south of Elizabeth Street but did not achieve any notable benefits.
- Option 3 increased the storage and capacity for southbound traffic by extending the two lanes through the New England Highway / York Street / Howe Street signals north and south. As a result, more vehicles completed their trips in less time than Options 1 or 2.
- Option 4 was potentially the most physically intrusive option as it allowed for the provision of two lanes in each direction through Singleton. The additional capacity resulted in improvements throughout Singleton and a reduction in the number of unreleased trips in the PM peak but only this, and Option 1, had unreleased trips in the AM Peak.

In each of the above options the performance of the New England Highway / Bridgman Road intersection continued to be a problem with extensive queues on the Bridgman Road arm. Test runs with the bypass added to Option 3 demonstrated that the Bridgman Road approach to the New England Highway would continue to be a major problem.

Upgrading the New England Highway / Bridgman Road intersection by providing two lanes for right turning traffic was therefore investigated (Option 5).

The modification to the New England Highway / Bridgman Road intersection (Option 5) required a revision to the signal times, and resolved a major bottleneck in the AM peak. Whilst this introduced some delay to the New England Highway through traffic by allowing more traffic out from Bridgman Road, it significantly reduced Bridgman Road delays as demonstrated by a significant reduction in the VHT during the AM peak.

It is acknowledged that the Option 5 results suggest it is not so beneficial in the PM peak, but that there are mitigating circumstances, such as on site signal optimisation through the SCATS signal control system, which may help to improve the PM performance. Taking this in to account, it is considered that Option 5 was suitable to be taken forward as the Do Minimum against which the bypass should be tested.

6.0 Bypass operational results

6.1 Introduction – bypass results

Following the assessment of the 'In town' scenarios the Option 5 network was taken forward as a 'Do Minimum' against which the bypass would be assessed. Figure 6-1 below indicates the network which was adopted, and the inset shows an option which included south facing ramps from Putty Road. It should be noted that the location of the south facing ramps is indicative only. Both layouts were assessed for the assumed opening year of 2026 and future years of 2036 and 2046.

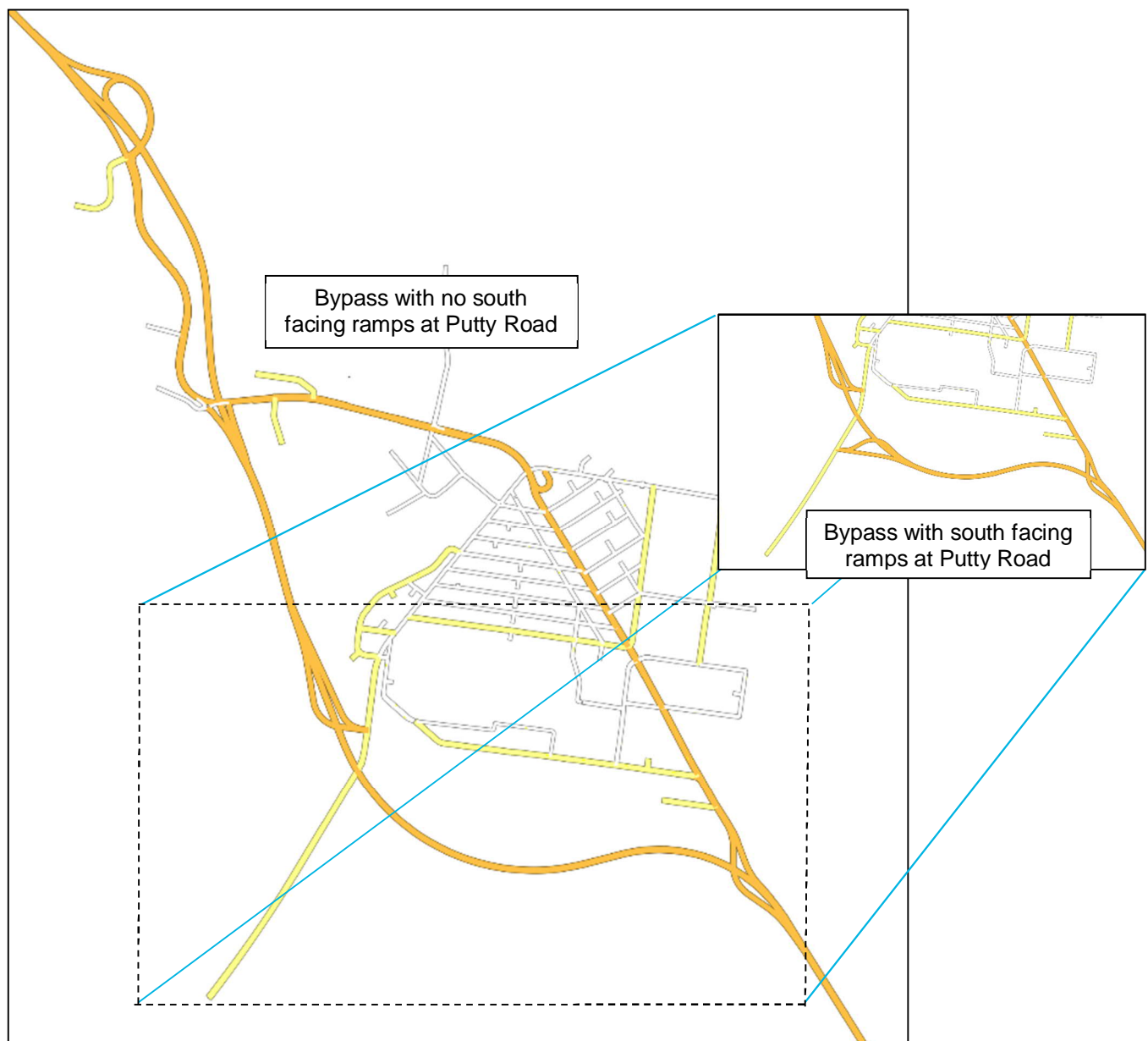


Figure 6-1 Singleton Bypass Alignment 'with' and 'without' south facing ramps at Putty Road

Previous studies into the bypass had suggested that the flows on the south facing ramps would be limited and only serve a relatively small number of trips e.g. trips from the New England Highway (south) to the Ryan Avenue shopping precinct. Locations to/from the southern end of Putty Road / Golden Highway would be expected to make use of Range Road rather than travel up to Singleton then head south. The survey data collected during this study was interrogated to identify the origin / destination of the traffic on the New England Highway and confirmed the previous findings.

The traffic flow tables provided in the following section provide details of the predicted traffic volumes with the south facing ramps in place. For comparison purposes, the traffic volumes for the Putty Road north facing ramps and south facing ramps at Gowrie Gates are also provided.

6.2 2026 bypass results comparison

6.2.1 Traffic flows

Traffic count data at each of the locations used in the Base and 'in-town' network assessments was also recorded in the bypass assessments. In addition, data was also recorded at the following locations:

1. Bypass – south of Putty Road
2. Bypass - south of Maison Dieu
3. Bypass – north of Maison Dieu Road.

All of the sites are shown in Figure 6-2 below.



Figure 6-2 Mid-block locations along the bypass main alignment

The results in Table 6-1 show that in each case the traffic flows at the northern and southern extents as well as Putty Road and Bridgman Road of the model are consistent. The most significant changes being on the New England Highway in Singleton where flows are seen to drop by 1000vehs in the northbound direction during 05:30 – 06:30 which is in line with the modelled flow on the bypass. Flows on John Street south of Newton Street also show significant reductions.

A key point is that the introduction of the bypass does not only remove through traffic from Singleton but also produces re-routing of traffic from the south to the Singleton Heights area and between Putty Road and Singleton Heights. Furthermore, traffic to and from the retail precinct on Ryan Avenue and Singleton Heights also diverts to the bypass.

Traffic to the south from Singleton Heights continues to use the New England Highway through Singleton as there is little or no delay on the left turn out from Bridgman Road.

The flow on the bypass east of Putty Road does not show any significant difference with or without the south facing ramps to Putty Road.

Table 6-1 Network Flows AM 05:30 – 06:30

| Street | Mid-block position | Direction | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|------------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 1078 | 1078 | 1072 | 1076 |
| | | Southbound | 337 | 334 | 348 | 343 |
| New England Highway | South of Campbell Street | Northbound | 952 | 1093 | 194 | 200 |
| | | Southbound | 353 | 342 | 236 | 235 |
| New England Highway | East of Bridgman Road | Northbound | 1084 | 1272 | 213 | 221 |
| | | Southbound | 511 | 502 | 312 | 305 |
| New England Highway | North of Magpie Street | Northbound | 1429 | 1463 | 1433 | 1446 |
| | | Southbound | 243 | 236 | 244 | 237 |
| Bridgman Road | North of New England Highway | Northbound | 182 | 191 | 181 | 187 |
| | | Southbound | 570 | 579 | 575 | 579 |
| Putty Road | South of Ryan Avenue | Northbound | 91 | 89 | 91 | 89 |
| | | Southbound | 414 | 411 | 420 | 415 |
| John Street | South of Newton Street | Northbound | 191 | 191 | 88 | 85 |
| | | Southbound | 365 | 372 | 221 | 221 |
| Bypass (Location 1) | East of Putty Road | Northbound | | | 920 | 938 |
| | | Southbound | | | 126 | 127 |
| Bypass (Location 2) | South of Maison Dieu Road | Northbound | | | 1075 | 1081 |
| | | Southbound | | | 294 | 285 |
| Bypass (Location 2) | North of Maison Dieu Road | Northbound | | | 858 | 866 |
| | | Southbound | | | 194 | 185 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 14 |
| | | Southbound | | | | 9 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 150 | 152 |
| | | Southbound | | | 166 | 166 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 217 | 215 |
| | | Southbound | | | 103 | 103 |

The trend continues during the later (08:30 – 09:30) morning peak showing reductions through Singleton of 600vehs northbound. During this period the flows on John Street south of Newton Street are higher in the base network, and the subsequent reductions due to the bypass are significant.

In this period, northbound flows on the bypass south of Putty Road shows a difference of about 100vehs. These are trips to the Ryan Avenue / John Street retail precinct.

Table 6-2 Network Flows AM 08:30 – 09:30

| Street | Mid-block position | Direction | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|------------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 856 | 863 | 854 | 861 |
| | | Southbound | 756 | 751 | 746 | 743 |
| New England Highway | South of Campbell Street | Northbound | 753 | 690 | 293 | 295 |
| | | Southbound | 944 | 923 | 690 | 704 |
| New England Highway | East of Bridgman Road | Northbound | 879 | 1002 | 406 | 405 |
| | | Southbound | 1317 | 1353 | 1019 | 1022 |
| New England Highway | North of Magpie Street | Northbound | 570 | 578 | 572 | 571 |
| | | Southbound | 375 | 369 | 374 | 368 |
| Bridgman Road | North of New England Highway | Northbound | 539 | 537 | 539 | 527 |
| | | Southbound | 924 | 921 | 924 | 921 |
| Putty Road | South of Ryan Avenue | Northbound | 188 | 190 | 187 | 190 |
| | | Southbound | 351 | 359 | 353 | 359 |
| John Street | South of Newton Street | Northbound | 403 | 405 | 269 | 276 |
| | | Southbound | 707 | 700 | 465 | 468 |
| Bypass (Location 1) | South of Putty Road | Northbound | | | 506 | 601 |
| | | Southbound | | | 260 | 262 |
| Bypass (Location 2) | South of Maison Dieu Road | Northbound | | | 730 | 721 |
| | | Southbound | | | 487 | 478 |
| Bypass (Location 2) | North of Maison Dieu Road | Northbound | | | 336 | 328 |
| | | Southbound | | | 343 | 332 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 92 |
| | | Southbound | | | | 9 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 216 | 204 |
| | | Southbound | | | 232 | 234 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 394 | 394 |
| | | Southbound | | | 141 | 145 |

During the PM peak there are significant reductions in both directions through Singleton with the two-way flow over the Hunter Bridge reducing from almost 2700vehs in the Do Minimum to just over 1500vehs with the bypass. Despite this, the southbound flow over the Hunter Bridge was still seen to be around 900vehs. The John Street area is forecast to have notable reductions in traffic movements.

The combined flow on the bypass is expected to be around 1800vehs north of Maison Dieu Road.

Table 6-3 Network Flows PM 16:00 – 17:00

| Street | Mid-block position | Direction | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|------------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 786 | 793 | 795 | 795 |
| | | Southbound | 1307 | 1242 | 1303 | 1304 |
| New England Highway | South of Campbell Street | Northbound | 749 | 757 | 337 | 339 |
| | | Southbound | 1068 | 1140 | 592 | 605 |
| New England Highway | East of Bridgman Road | Northbound | 1139 | 1189 | 633 | 634 |
| | | Southbound | 1458 | 1518 | 898 | 900 |
| New England Highway | North of Magpie Street | Northbound | 409 | 423 | 423 | 423 |
| | | Southbound | 1123 | 1122 | 1125 | 1125 |
| Bridgman Road | North of New England Highway | Northbound | 1065 | 1018 | 1067 | 1069 |
| | | Southbound | 675 | 677 | 677 | 677 |
| Putty Road | South of Ryan Avenue | Northbound | 450 | 445 | 447 | 447 |
| | | Southbound | 309 | 296 | 304 | 305 |
| John Street | South of Newton Street | Northbound | 832 | 825 | 538 | 537 |
| | | Southbound | 585 | 535 | 390 | 378 |
| Bypass (Location 1) | East of Putty Road | Northbound | | | 486 | 517 |
| | | Southbound | | | 652 | 686 |
| Bypass (Location 2) | South of Maison Dieu Road | Northbound | | | 906 | 898 |
| | | Southbound | | | 913 | 916 |
| Bypass (Location 2) | North of Maison Dieu Road | Northbound | | | 285 | 284 |
| | | Southbound | | | 857 | 857 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 35 |
| | | Southbound | | | | 37 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 419 | 415 |
| | | Southbound | | | 254 | 257 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 622 | 616 |
| | | Southbound | | | 53 | 57 |

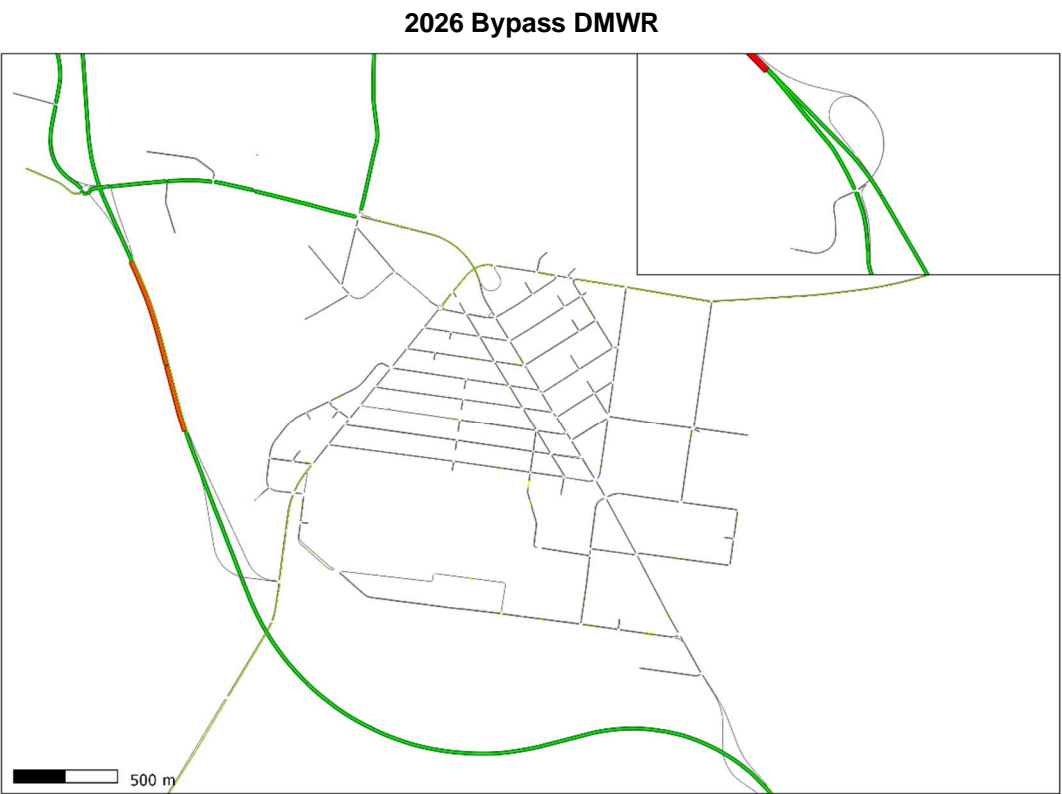
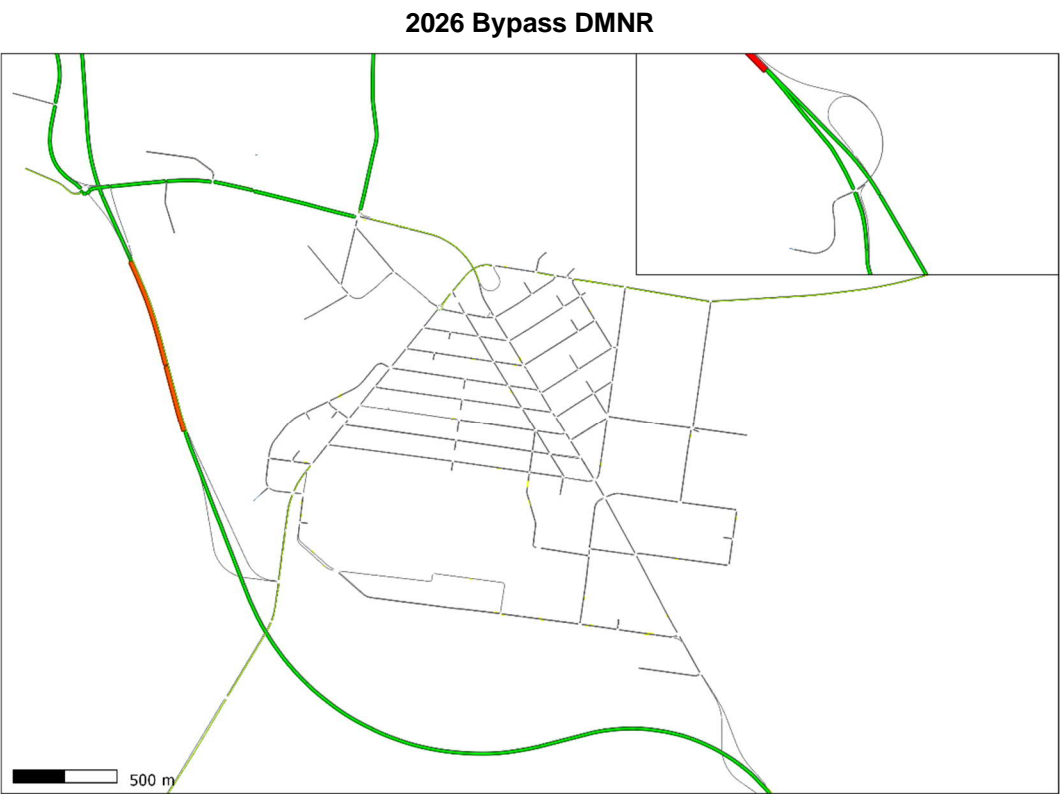
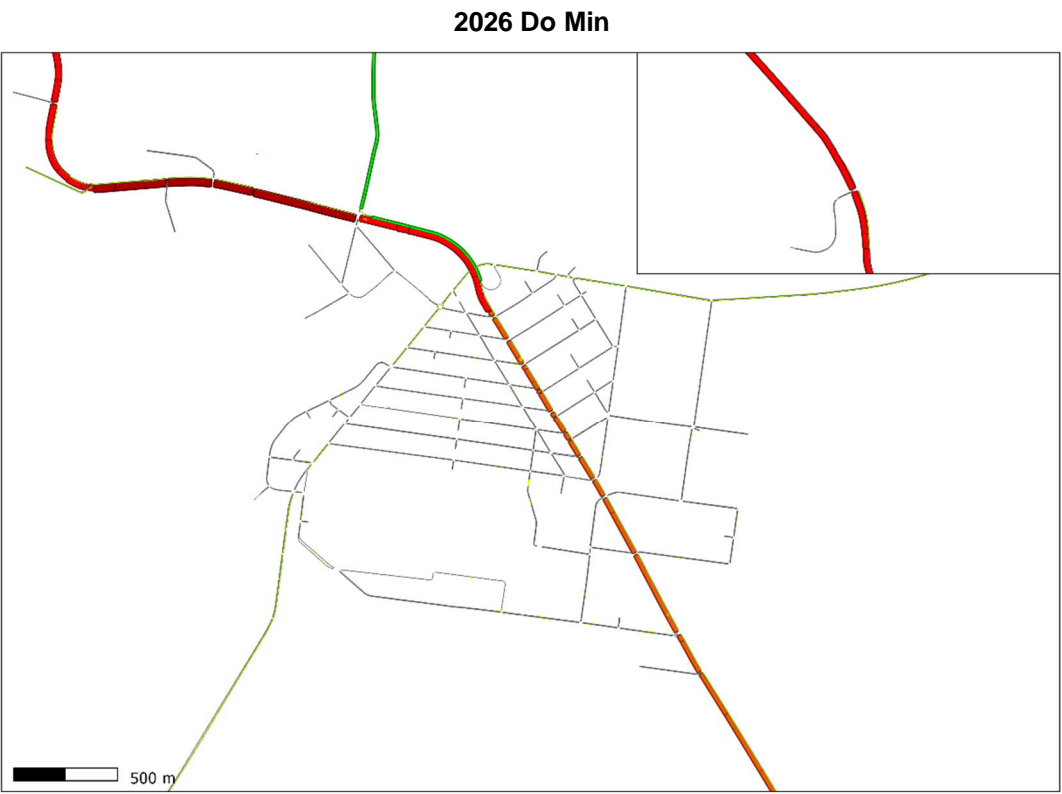


Figure 6-3 2026 Bypass AIMSUN Network Flows AM Peak (5.30 – 6.30)

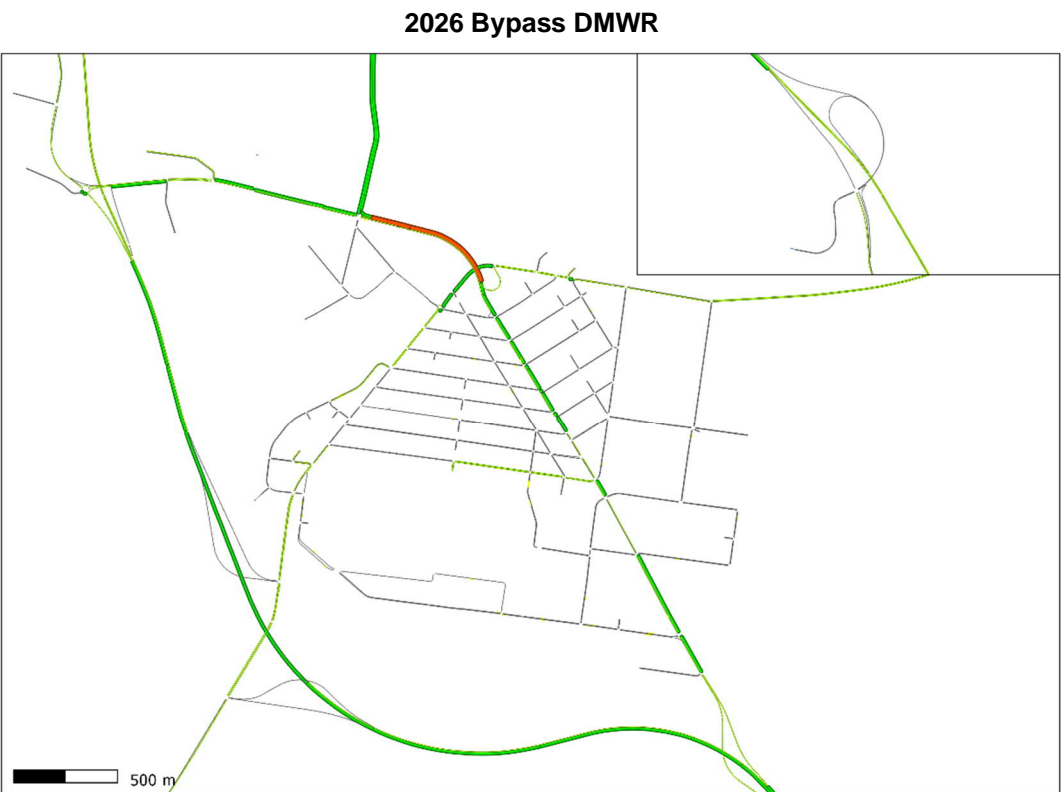
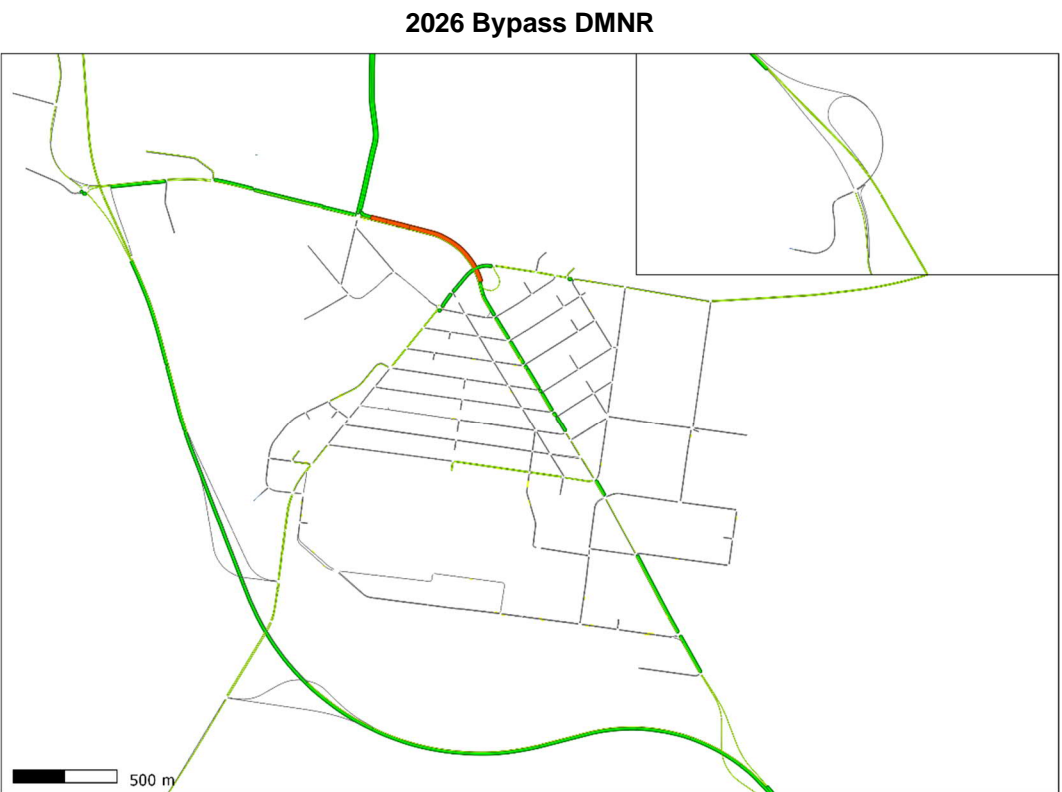
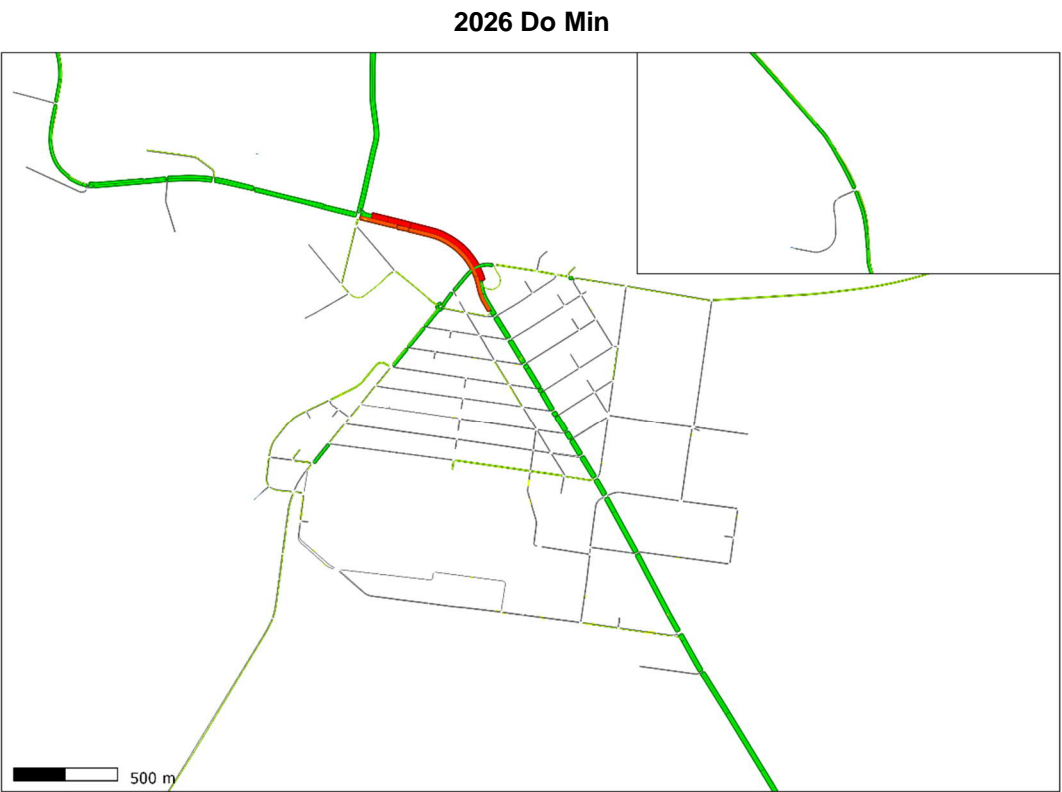


Figure 6-4 2026 Bypass AIMSUN Network Flows AM Peak (8.30 – 9.30)

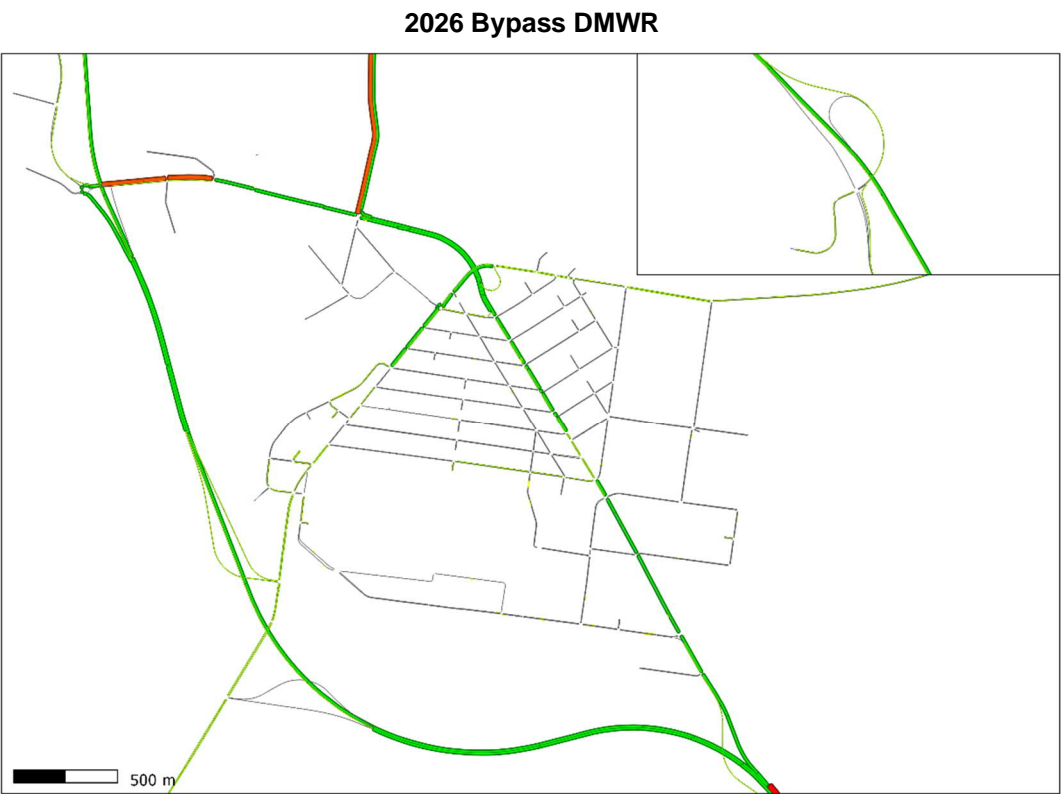
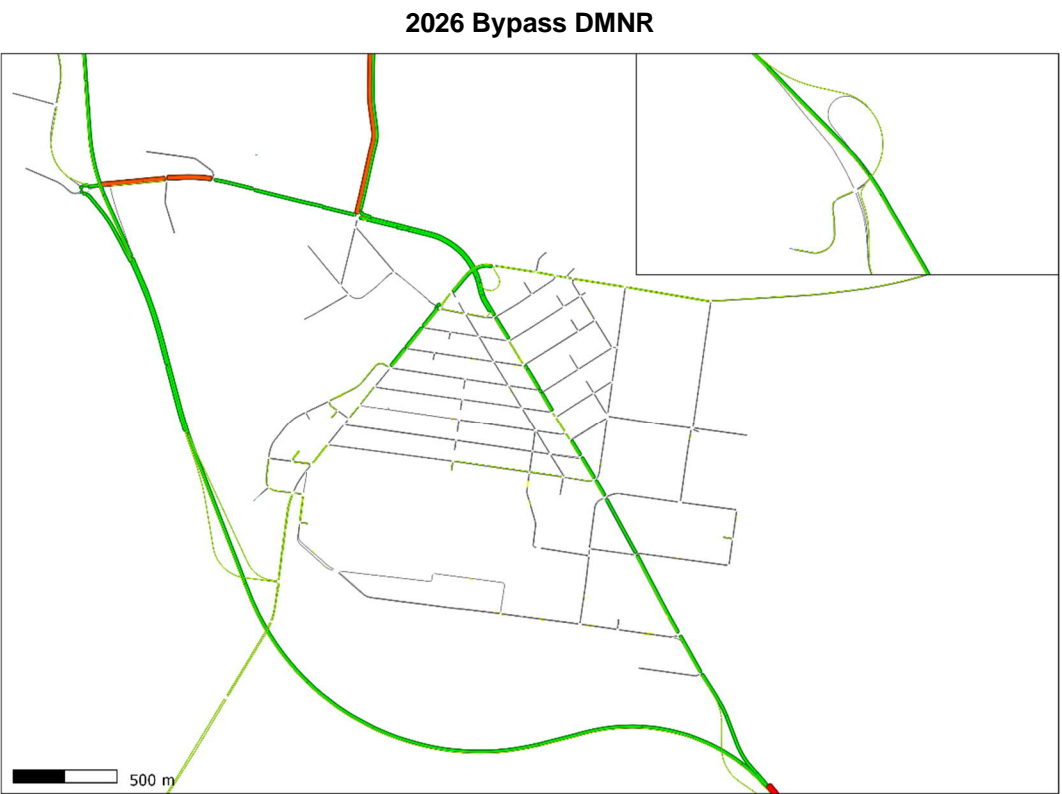


Figure 6-5 2026 Bypass AIMSUN Network Flows PM Peak (16.00 – 17.00)

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6.2.2 Level of service

Two additional intersections were added to the Level of Service assessment. These were:

- The bypass / north facing ramp intersection; and
- Bypass ramp to Maison Dieu Road intersection.

The summary results for 05:30 – 06:30 are presented in Table 6-4 below. A key point of note is that, to isolate the impacts of the bypass, the modelling has **not** included any revision to signal times. In practice there will be opportunities to improve the signal timing on site.

Table 6-4 Intersection Performance AM 05:30 – 06:30

| Ave Delay (sec / veh.) | 2026 Base | | 2026 Do Min. | | 2026 Bypass DMNR | | 2026 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 105 | F | 44 | D | 83 | F | 89 | F |
| New England Highway & Howe Street | 13 | A | 12 | A | 11 | A | 12 | A |
| New England Highway & York Street | 8 | A | 10 | A | 23 | B | 19 | B |
| Putty Road & Ryan Ave | 15 | B | 13 | A | 13 | A | 13 | A |
| John Street & Hunter Street | 10 | A | 10 | A | 9 | A | 9 | A |
| John Street & Newton Street | 4 | A | 2 | A | 1 | A | 1 | A |
| Queen Street & New England Highway Ramp | 6 | A | 5 | A | 4 | A | 4 | A |
| Putty Road Northern Ramp | | | | | 7 | A | 6 | A |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 11 | A | 12 | A |

Consequently, the New England Highway / Bridgman Road intersection, for example, appears to operate at a lower Level of Service than in the Do Minimum despite there being almost 1,000 vehicles less on the New England Highway. The removal of a large number of through traffic on the New England Highway means that the average delay is now highly influenced by the right turning traffic leaving Bridgman Road, and becomes the largest proportion of the total accumulated delay at the intersection, as demonstrated in Table 56 below.

Table 6-5 Bridgman Rd / New England Highway Approach Flows / LoS

| Arm | Approach | 2026 Do Min | | | | 2026 Bypass (No Ramps) Original Signal Phasing | | | | 2026 Bypass (no Ramps) Revised Signal Phasing | | | |
|----------------------------|-----------------------|--------------|------------------|---------------|----------|---|------------------|---------------|----------|--|------------------|---------------|----------|
| | | Flow | Ave. Del. (Secs) | Flow * Del | LoS | Flow | Ave. Del. (Secs) | Flow * Del | LoS | Flow | Ave. Del. (Secs) | Flow * Del | LoS |
| North | Bridgman Rd (N) | 316 | 83 | 26,228 | F | 362 | 156 | 56,472 | F | 411 | 18 | 7,398 | B |
| East | New England H'way (E) | 1,287 | 30 | 38,610 | C | 216 | 25 | 5,400 | B | 282 | 30 | 8,460 | C |
| South | Bridgman Rd (S) | 184 | 99 | 18,216 | F | 146 | 61 | 8,906 | E | 170 | 19 | 3,230 | B |
| West | New England H'way (W) | 310 | 29 | 8,990 | C | 179 | 21 | 3,759 | B | 152 | 26 | 3,952 | B |
| Total | | 2,097 | | 92,044 | | 903 | | 74,537 | | 1,015 | | 23,040 | |
| Average Intersection Delay | | | 43.9 | | D | | 82.5 | | F | | 22.7 | | B |

Whilst the *demand* remains the same across all options for the Bridgman Rd north approach, the difference between the Do Minimum and the Bypass is that more vehicles (increased flow) are able to get into the traffic model (effectively reducing the vehicles outside the model: this is referred to as latent demand or unreleased demand). These additional vehicles then produce a greater total delay (as the signal phasing is held constant), thereby seemingly reducing the LoS of the intersection, and producing the apparent illogical result.

An additional modelling scenario was considered to test the improvement of the operation at the Bridgman Road / New England Highway intersection by revising the traffic signals based on the increased traffic demands in the 2036 AM (05:30 - 06:30) bypass scenario.

The result of this modelling scenario is reported in more detail in 6.3.2, but the summary provided in Table 56, indicates that, even with the increased 2036 demands, the performance of this intersection would be significantly improved (LoS B (Ave Del. = 23sec), as opposed the 2026 LoS F (Ave Del = 83sec)) with revised signal times. It should be expected that signal phasing will be adjusted to optimise the intersection performance once traffic patterns have settled following the opening of the bypass.

As the model moves to the later morning peak the flows are modified which results in improvements in Level of Service at virtually all of the intersections. The average delay at the New England Highway / York Street is slightly increased but, again, that is a signal issue which would be resolved on site.

Table 6-6 Intersection Performance AM 08:30 – 09:30

| Ave Delay (sec / veh.) | 2026 Base | | 2026 Do Min. | | 2026 Bypass DMNR | | 2026 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 44 | D | 42 | D | 35 | C | 36 | C |
| New England Highway & Howe Street | 31 | C | 35 | C | 10 | A | 10 | A |
| New England Highway & York Street | 24 | B | 23 | B | 28 | B | 29 | C |
| Putty Road & Ryan Ave | 14 | B | 13 | A | 13 | A | 12 | A |
| John Street & Hunter Street | 31 | C | 26 | B | 14 | B | 15 | B |
| John Street & Newton Street | 25 | B | 24 | B | 2 | A | 2 | A |
| Queen Street & New England Highway Ramp | 17 | B | 15 | B | 9 | A | 10 | A |
| Putty Road Northern Ramp | | | | | 9 | A | 12 | A |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 9 | A | 9 | A |

The balance of flows in the PM peak means that all the intersections perform better when the bypass is included in the network. When compared to the Do Minimum network the average delay at the New England Highway / Bridgman Road intersection shows a significant reduction as does the John Street / Hunter Street roundabout. The new bypass intersections at Magpie Street and Mason Dieu Road do not indicate any performance issues in the modelled periods.

Table 6-7 Intersection Performance PM 16:00 – 17:00

| Ave Delay (sec / veh.) | 2026 Base | | 2026 Do Min. | | 2026 Bypass DMNR | | 2026 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 84 | F | 112 | F | 49 | D | 48 | D |
| New England Highway & Howe Street | 25 | B | 17 | B | 13 | A | 15 | B |
| New England Highway & York Street | 43 | D | 29 | C | 28 | B | 28 | C |
| Putty Road & Ryan Ave | 13 | A | 14 | B | 13 | A | 13 | A |
| John Street & Hunter Street | 67 | E | 48 | D | 15 | B | 16 | B |
| John Street & Newton Street | 26 | B | 17 | B | 3 | A | 3 | A |
| Queen Street & New England Highway Ramp | 10 | A | 10 | A | 10 | A | 10 | A |
| Putty Road Northern Ramp | | | | | 10 | A | 11 | A |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 9 | A | 9 | A |

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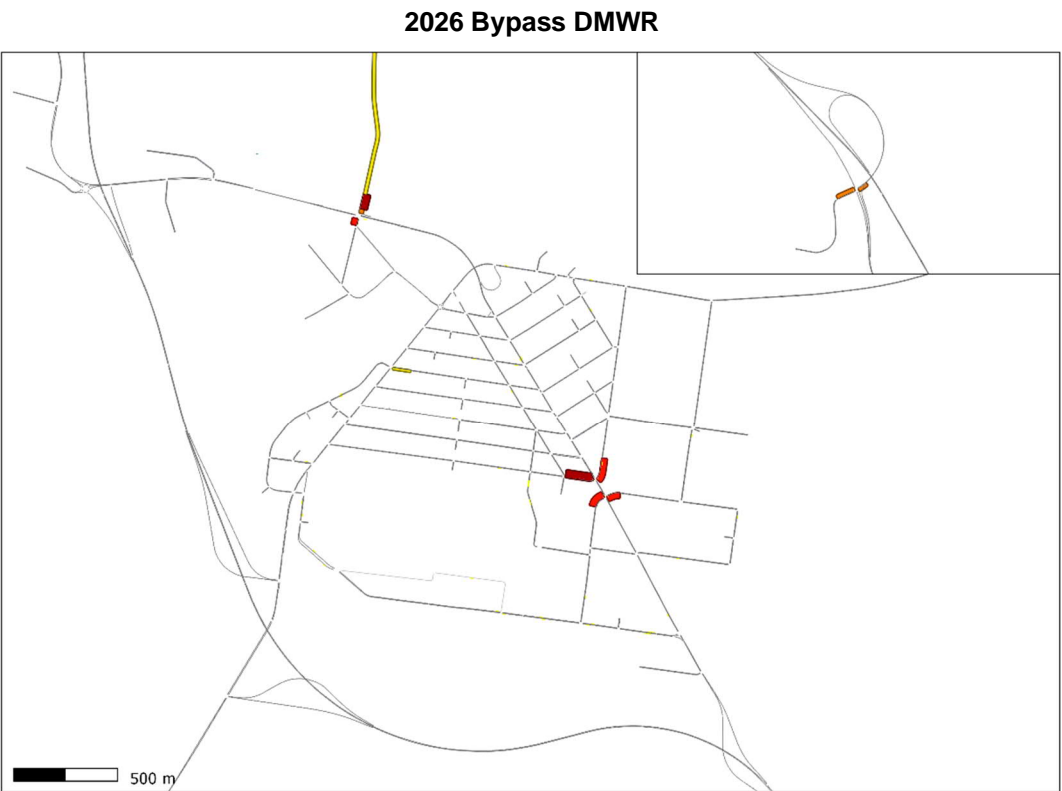
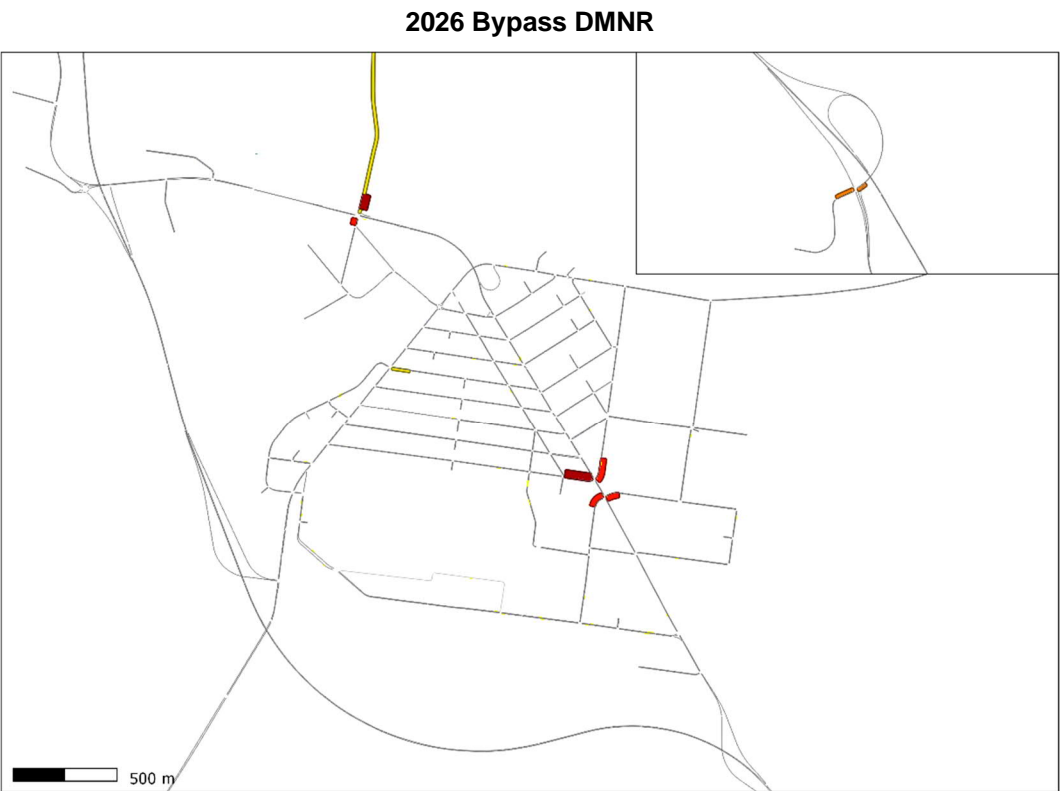
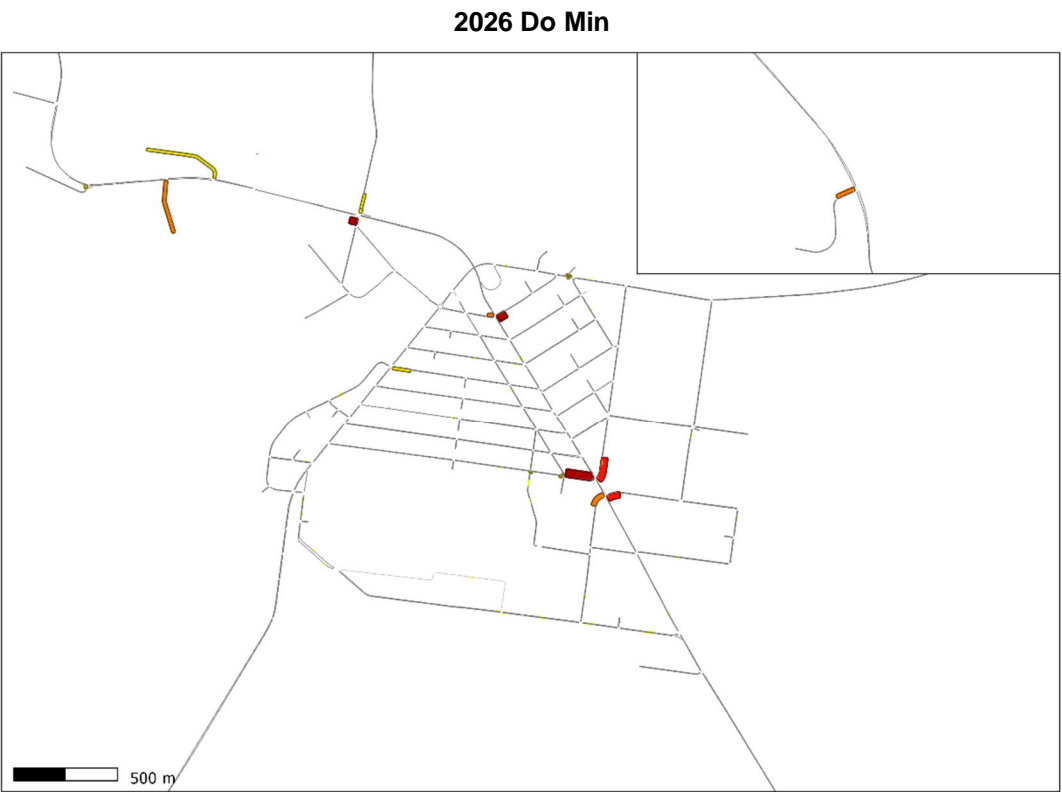


Figure 6-6 2026 Bypass AIMSUN Network Delay Plots AM Peak (05.30 – 06.30)

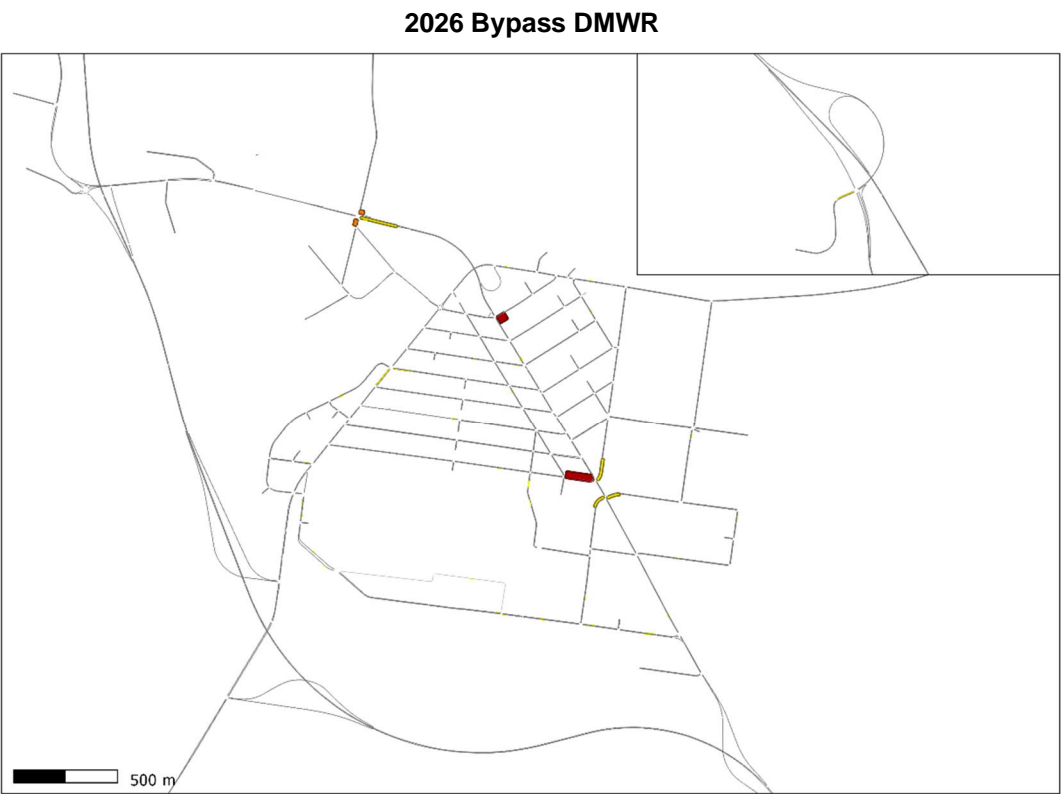
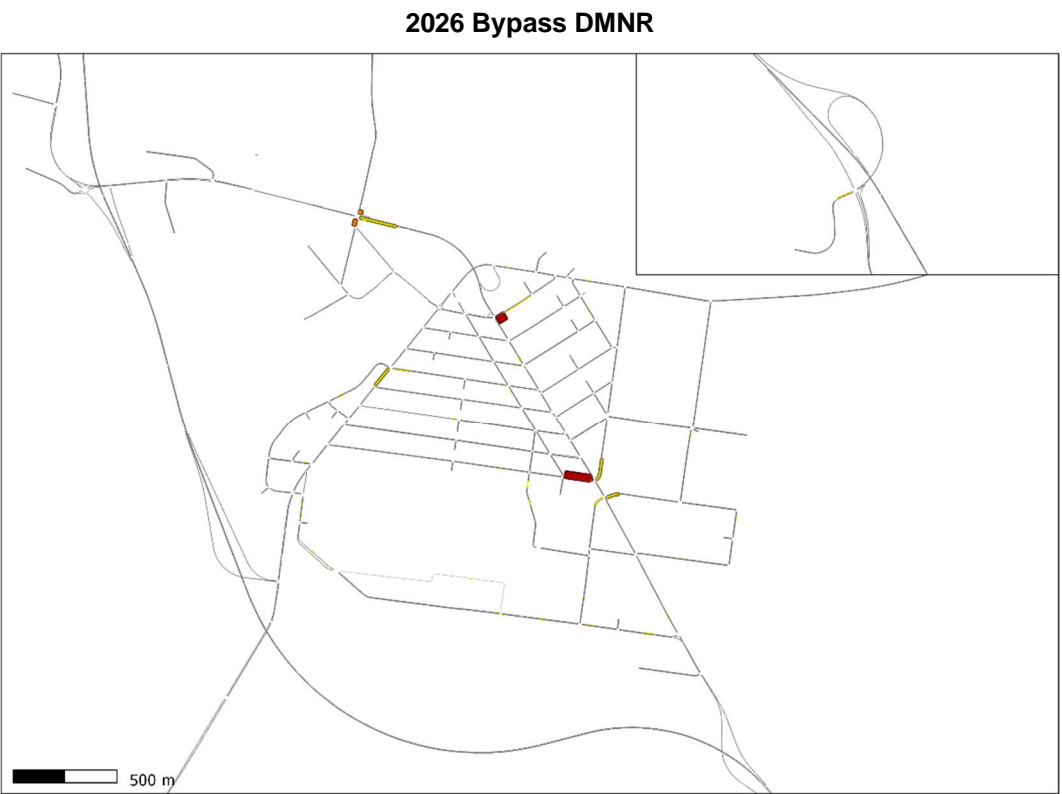
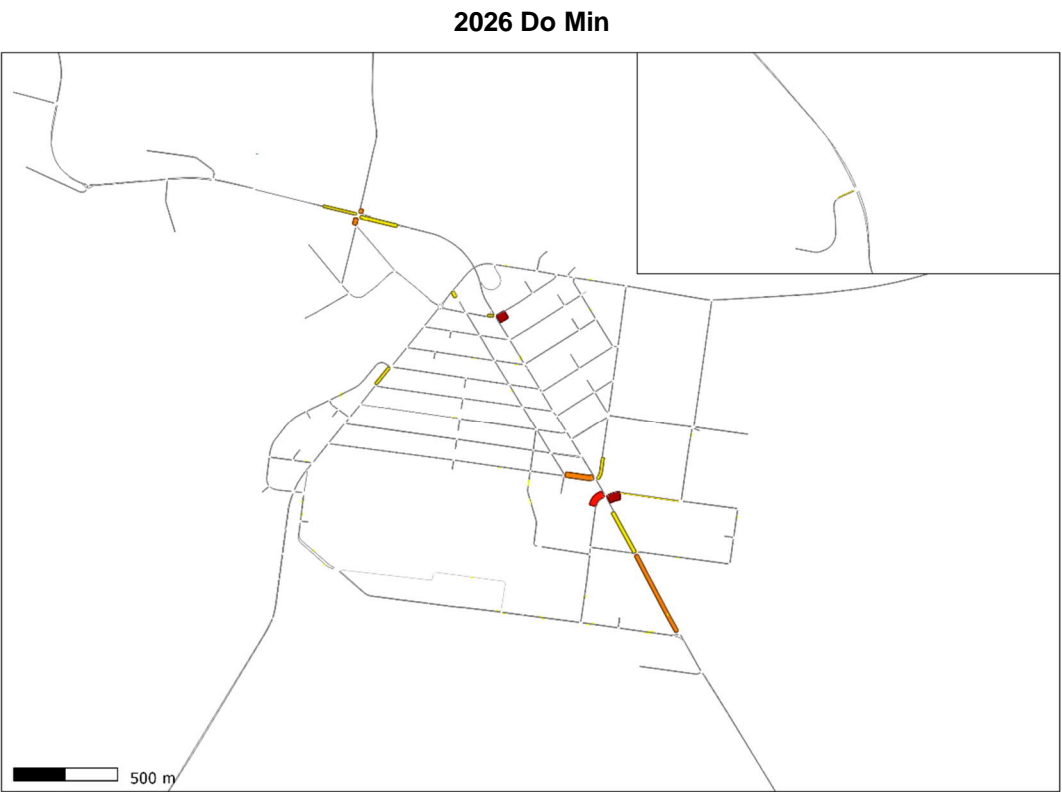


Figure 6-7 2026 Bypass AIMSUN Network Delay Plots AM Peak (08.30 – 09.30)

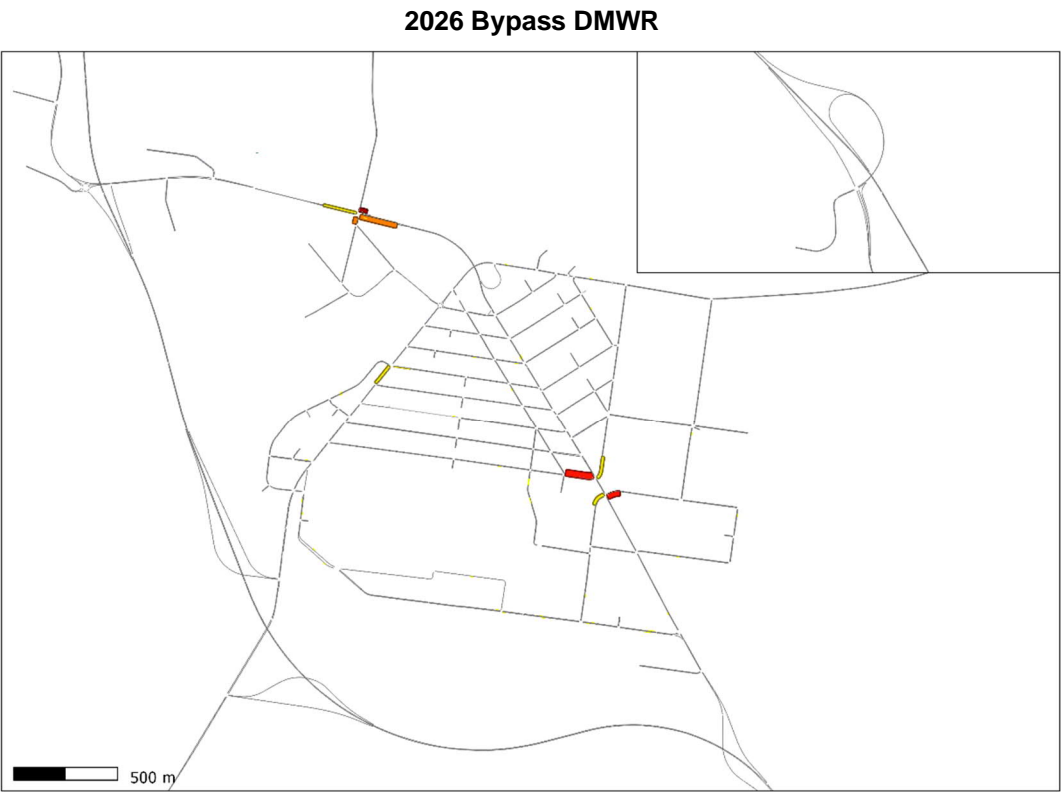
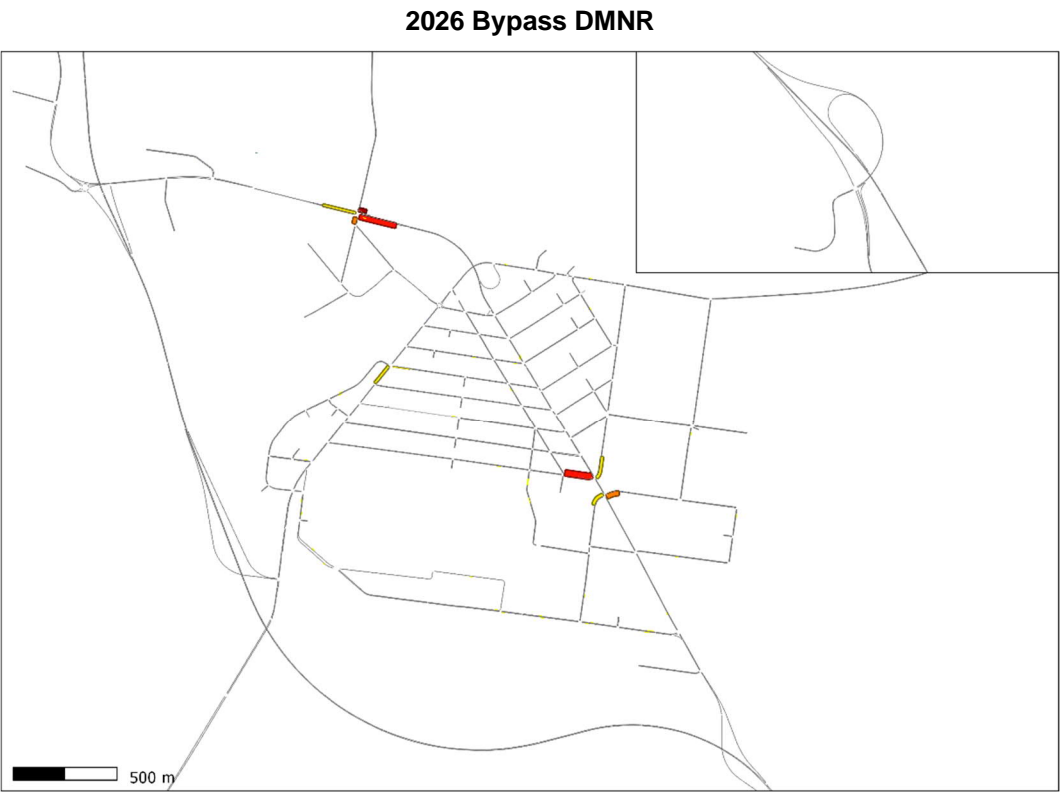
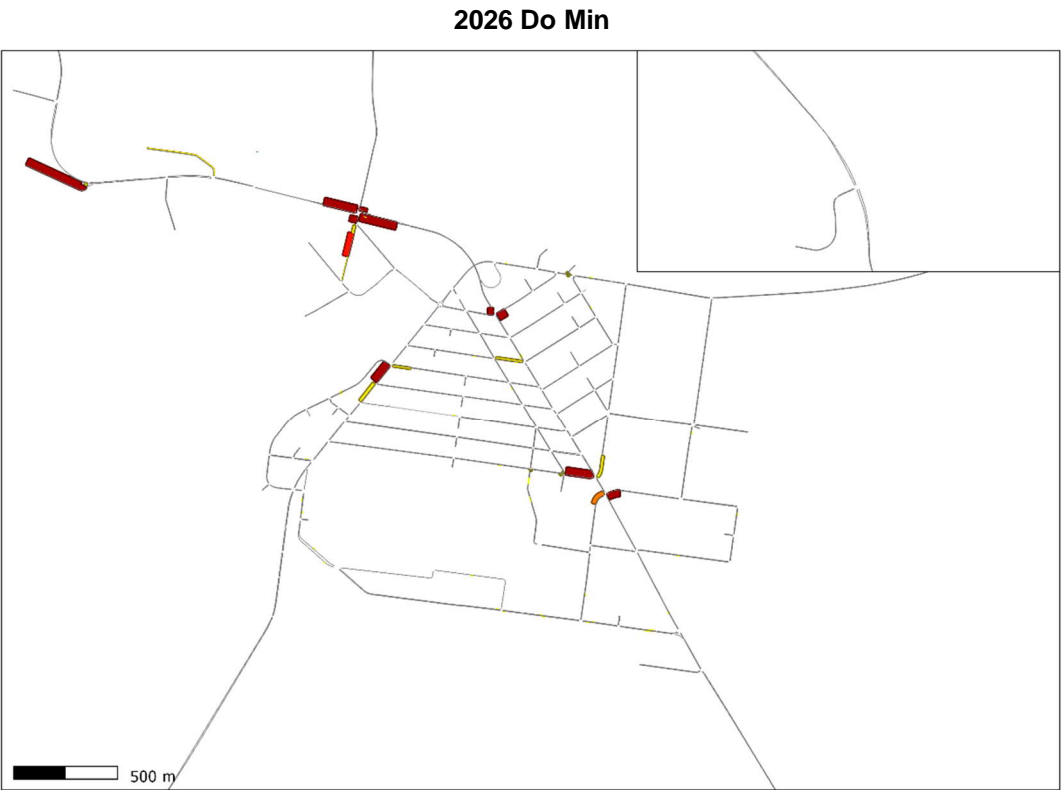


Figure 6-8 2026 Bypass AIMSUN Network Delay Plots PM Peak (16.00 – 17.00)

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6.2.3 Travel times

The bypass has limited impact on travel times across Route 1 in the 2026 when compared against the Do Minimum.

Northbound and southbound through traffic using the bypass see a significant improvement in travel time when using the bypass with a time saving of about 5 mins.

Time savings are also observed on John Street in the northbound direction of up to 1min 42secs because of the bypass (08:30 – 09:30).

Table 6-8 Travel Time (mins.) AM Northbound

| Route | Time Period | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 05.30 – 06.30 | 11:35 | 09:57 | 09:58 | 10:00 |
| | 08.30 – 09.30 | 11:00 | 12:03 | 10:11 | 10:09 |
| Route 2 – John Street / Queen Street | 05.30 – 06.30 | 05:27 | 05:01 | 04:54 | 04:53 |
| | 08.30 – 09.30 | 06:28 | 06:54 | 05:12 | 05:12 |
| Route 5 – Singleton Bypass | 05.30 – 06.30 | | | 06:14 | 06:13 |
| | 08.30 – 09.30 | | | 05:54 | 05:54 |

Table 6-9 Travel Time (mins.) AM Southbound

| Route | Time Period | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 05.30 – 06.30 | 09:06 | 08:50 | 09:11 | 09:11 |
| | 08.30 – 09.30 | 10:43 | 09:28 | 09:36 | 09:34 |
| Route 2 – John Street / Queen Street | 05.30 – 06.30 | 03:57 | 04:02 | 03:54 | 03:54 |
| | 08.30 – 09.30 | 03:52 | 03:52 | 03:34 | 03:36 |
| Route 5 – Singleton Bypass | 05.30 – 06.30 | | | 05:38 | 05:37 |
| | 08.30 – 09.30 | | | 05:41 | 05:40 |

Improvements are seen across Routes 1 and 2 during the PM peak in 2026 with travel time savings of up to 3min 54secs along the New England Highway in the southbound direction. Through traffic using the bypass shows travel time savings of over 5min in both directions.

Traffic on along John Street / Queen Street is expected to have travel time improvements of up to 4min 12secs in the northbound direction when compared to the base case.

Table 6-10 Travel Time (mins.) PM Northbound

| Route | Time Period | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 11:08 | 11:36 | 10:21 | 10:16 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 09:35 | 07:58 | 05:23 | 05:25 |
| Route 5 – Singleton Bypass | 16.00 – 17.00 | | | 06:00 | 06:00 |

Table 6-11 Travel Time (mins.) PM Southbound

| Route | Time Period | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|--------------------------------------|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 13:26 | 11:13 | 09:33 | 09:32 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 05:35 | 05:20 | 04:50 | 04:50 |
| Route 5 – Singleton Bypass | 16.00 – 17.00 | | | 05:48 | 05:48 |

6.2.4 Network performance

The introduction of the bypass sees a 1.3% increase in VKT but a 17.8% reduction in the VHT compared to the Do Minimum during the AM peak. There is a significant improvement of 4.1% in VKT and a reduction of 25.7% in VHT during the PM peak period. This translates to higher average network speeds observed in both AM and PM periods of 55km/h and 52km/h respectively.

There is an apparent variation in the cumulative number of trips that complete their trips and those which are in the network (Incomplete Trips) at the end of the AM model period (Do Min = 19,034+479 = 19513 / Bypass no ramps = 19,005+387 = 19392). The congestion in the Do Min means that vehicles are in the network longer and hence, more of the vehicles released in the 'build – up' period are in the network at the start of the evaluation period resulting in the higher number.

There is less of an issue in the PM peak.

Table 6-12 Network Statistics AM

| AM (4 Hours) | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|---|-----------|--------------|------------------|------------------|
| Vehicle Kilometres Travelled (km) – VKT | 101,323 | 101,393 | 102,695 | 102,842 |
| Vehicle Hours Travelled (hrs) - VHT | 2,160 | 2,100 | 1,727 | 1,727 |
| Average Network Speed (km/h) | 45 | 46 | 55 | 55 |
| Completed Trips (vehs) | 18,990 | 19,034 | 19,005 | 19,029 |
| Incomplete Trips (vehs) | 489 | 479 | 387 | 392 |
| Unreleased Trips (vehs) | - | - | - | - |
| Delay for Unreleased Trips (hrs) | - | - | - | - |

Table 6-13 Network Statistics PM

| PM (3 Hours) | 2026 Base | 2026 Do Min. | 2026 Bypass DMNR | 2026 Bypass DMWR |
|---|-----------|--------------|------------------|------------------|
| Vehicle Kilometres Travelled (km) – VKT | 97,875 | 98,028 | 102,002 | 102,259 |
| Vehicle Hours Travelled (hrs) - VHT | 2,486 | 2,444 | 1,814 | 1,815 |
| Average Network Speed (km/h) | 39 | 40 | 51 | 52 |
| Completed Trips (vehs) | 21,441 | 21,452 | 21,629 | 21,628 |
| Incomplete Trips (vehs) | 786 | 834 | 584 | 584 |
| Unreleased Trips (vehs) | 10 | - | - | - |
| Delay for Unreleased Trips (hrs) | 2 | - | - | - |

Overall, the bypass results show a significant improvement in the network performance compared to the Do Nothing or Do Minimum models.

6.2.5 2026 comparison of bypass scenarios

There is no notable difference in network statistics between the bypass scenarios other than there being more vehicle kilometres covered when the south facing ramps are provided at Putty Road. This is because the distance from Haggartys Lane to the Ryan Ave retail precinct is 0.8km longer via the bypass ramps with little difference in travel time (-30secs to use the bypass and south facing ramps).

The introduction of the bypass without south facing ramps at Putty Road sees negligible change to the VKT, VHT and network average speed compared to the bypass with south facing ramps at Putty Road.

6.3 2036 bypass results comparison

6.3.1 Traffic flows

The introduction of the bypass can be seen to remove up to 1500vph from the New England Highway through the Singleton town centre, as demonstrated by the reduction of northbound and southbound flows south of Campbell Street and east of Bridgman Road together with the forecast flow on the bypass, south of Maison Dieu Road.

Table 6-14 Network Flows AM 05:30 – 06:30

| Street | Mid-block position | Direction | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|----------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 1222 | 1235 | 1232 | 1232 |
| | | Southbound | 348 | 386 | 391 | 397 |
| New England Highway | South of Campbell Street | Northbound | 988 | 1215 | 236 | 239 |
| | | Southbound | 364 | 385 | 255 | 269 |
| New England Highway | East of Bridgman Road | Northbound | 1093 | 1478 | 253 | 253 |
| | | Southbound | 521 | 614 | 335 | 363 |
| New England Highway | North of Magpie Street | Northbound | 1575 | 1638 | 1642 | 1649 |
| | | Southbound | 283 | 271 | 274 | 274 |
| Bridgman Road | North of New England Highway | Northbound | 198 | 199 | 200 | 200 |
| | | Southbound | 555 | 643 | 643 | 643 |
| Putty Road | South of Ryan Avenue | Northbound | 96 | 94 | 95 | 95 |
| | | Southbound | 417 | 425 | 425 | 429 |
| John Street | South of Newton Street | Northbound | 208 | 217 | 89 | 89 |
| | | Southbound | 361 | 397 | 227 | 245 |
| Bypass | East of Putty Road | Northbound | | | 1069 | 1081 |
| | | Southbound | | | 136 | 143 |
| Bypass | South of Maison Dieu Road | Northbound | | | 1231 | 1231 |
| | | Southbound | | | 314 | 299 |
| Bypass | North of Maison Dieu Road | Northbound | | | 988 | 988 |
| | | Southbound | | | 210 | 209 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 12 |
| | | Southbound | | | | 7 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 159 | 159 |
| | | Southbound | | | 175 | 160 |

| Street | Mid-block position | Direction | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|------------------------------------|--------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 246 | 246 |
| | | Southbound | | | 106 | 93 |

The modifications to the New England Highway / Bridgman Road intersection are reflected in the increased southbound flow on Bridgman Road in both morning peak periods when compared to the Do Nothing network.

The flows along John Street show significant reductions in both directions during each of the morning peak periods.

Table 6-15 Network Flows AM 08:30 – 09:30

| Street | Mid-block position | Direction | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|------------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 995 | 1009 | 999 | 1000 |
| | | Southbound | 914 | 892 | 886 | 886 |
| New England Highway | South of Campbell Street | Northbound | 754 | 722 | 311 | 318 |
| | | Southbound | 1026 | 1042 | 772 | 766 |
| New England Highway | East of Bridgman Road | Northbound | 1014 | 1062 | 395 | 392 |
| | | Southbound | 1472 | 1461 | 1104 | 1116 |
| New England Highway | North of Magpie Street | Northbound | 652 | 627 | 642 | 643 |
| | | Southbound | 439 | 431 | 430 | 430 |
| Bridgman Road | North of New England Highway | Northbound | 588 | 583 | 582 | 582 |
| | | Southbound | 981 | 992 | 992 | 992 |
| Putty Road | South of Ryan Avenue | Northbound | 205 | 207 | 205 | 206 |
| | | Southbound | 357 | 362 | 367 | 366 |
| John Street | South of Newton Street | Northbound | 438 | 479 | 273 | 267 |
| | | Southbound | 729 | 728 | 473 | 494 |
| Bypass | East of Putty Road | Northbound | | | 595 | 700 |
| | | Southbound | | | 298 | 306 |
| Bypass | South of Maison Dieu Road | Northbound | | | 859 | 847 |
| | | Southbound | | | 547 | 536 |
| Bypass | North of Maison Dieu Road | Northbound | | | 365 | 362 |
| | | Southbound | | | 380 | 380 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 107 |
| | | Southbound | | | | 8 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 254 | 244 |
| | | Southbound | | | 252 | 240 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 496 | 486 |
| | | Southbound | | | 165 | 154 |

As mentioned earlier, the introduction of the bypass changes the travel patterns of the network as reflected in the changes in flows across the network. The bypass reduces traffic on the New England Highway through Singleton by around 1200vph and by 500vph along John Street. With up to 1800 vehicles using the bypass south of Maison Dieu Road during the PM peak.

Table 6-16 Network Flows PM 16:00 – 17:00

| Street | Mid-block position | Direction | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|------------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 886 | 915 | 913 | 913 |
| | | Southbound | 1403 | 1389 | 1497 | 1501 |
| New England Highway | South of Campbell Street | Northbound | 774 | 833 | 338 | 328 |
| | | Southbound | 1057 | 1206 | 638 | 663 |
| New England Highway | East of Bridgman Road | Northbound | 1251 | 1306 | 699 | 701 |
| | | Southbound | 1488 | 1590 | 942 | 969 |
| New England Highway | North of Magpie Street | Northbound | 464 | 482 | 482 | 484 |
| | | Southbound | 1297 | 1298 | 1301 | 1301 |
| Bridgman Road | North of New England Highway | Northbound | 1160 | 1078 | 1136 | 1135 |
| | | Southbound | 741 | 739 | 739 | 739 |
| Putty Road | South of Ryan Avenue | Northbound | 473 | 467 | 467 | 467 |
| | | Southbound | 302 | 297 | 317 | 320 |
| John Street | South of Newton Street | Northbound | 892 | 829 | 568 | 565 |
| | | Southbound | 592 | 542 | 388 | 391 |
| Bypass | East of Putty Road | Northbound | | | 561 | 595 |
| | | Southbound | | | 760 | 814 |
| Bypass | South of Maison Dieu Road | Northbound | | | 994 | 991 |
| | | Southbound | | | 1041 | 1034 |
| Bypass | North of Maison Dieu Road | Northbound | | | 315 | 317 |
| | | Southbound | | | 987 | 985 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 37 |
| | | Southbound | | | | 56 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 432 | 431 |
| | | Southbound | | | 277 | 273 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 679 | 672 |
| | | Southbound | | | 55 | 52 |

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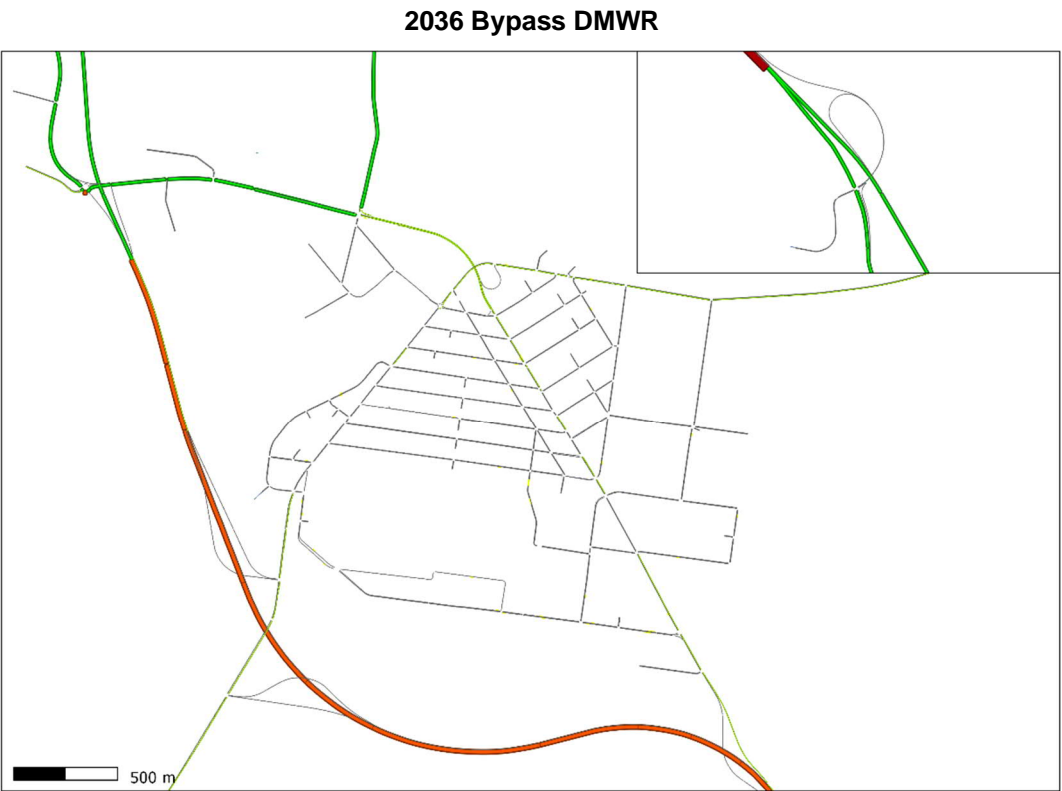
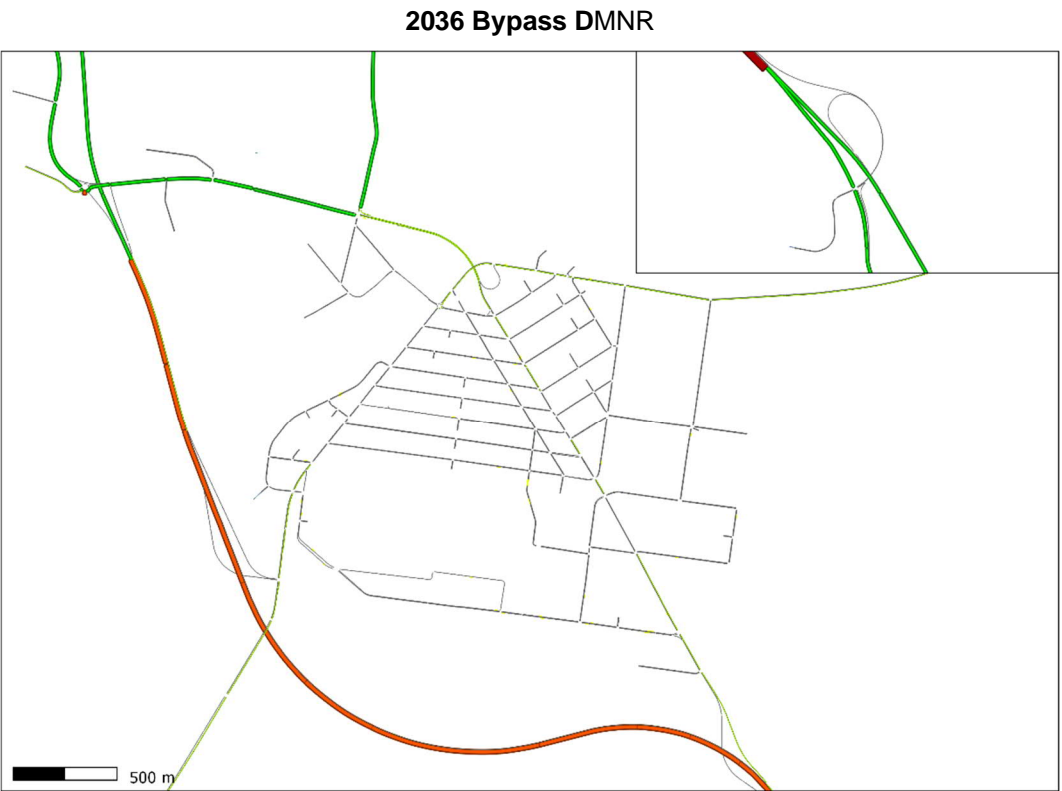
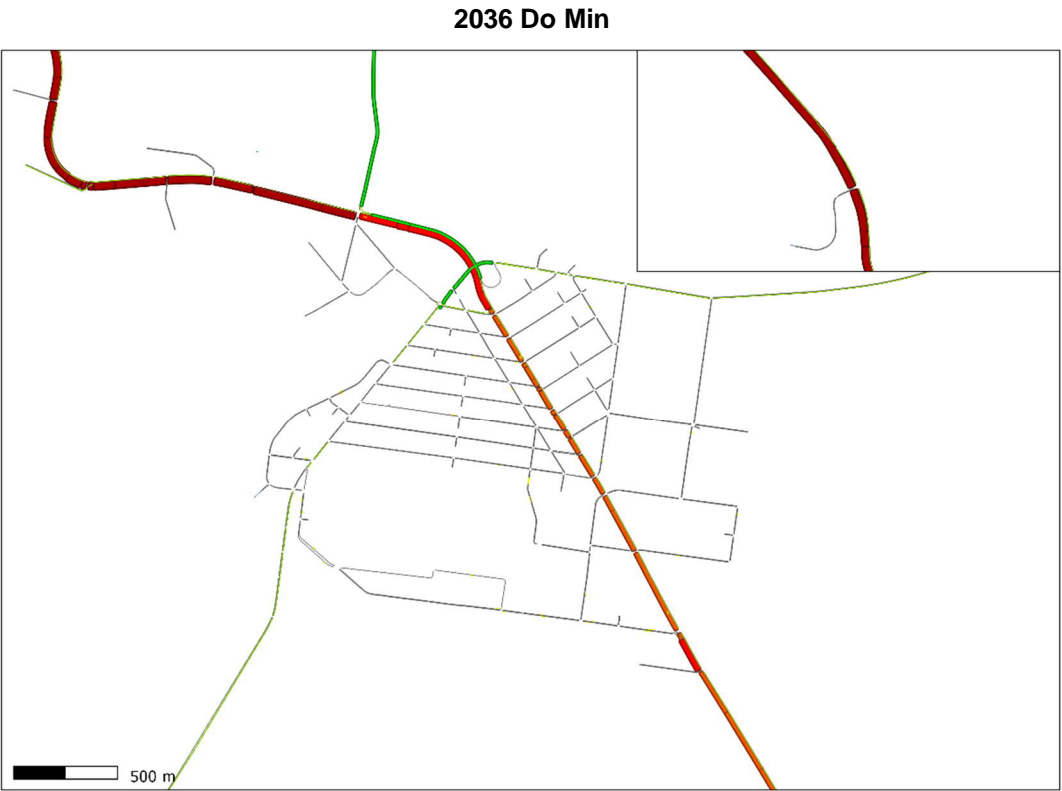


Figure 6-9 2036 Bypass AIMSUN Network Flows AM Peak (05.30 – 06.30)

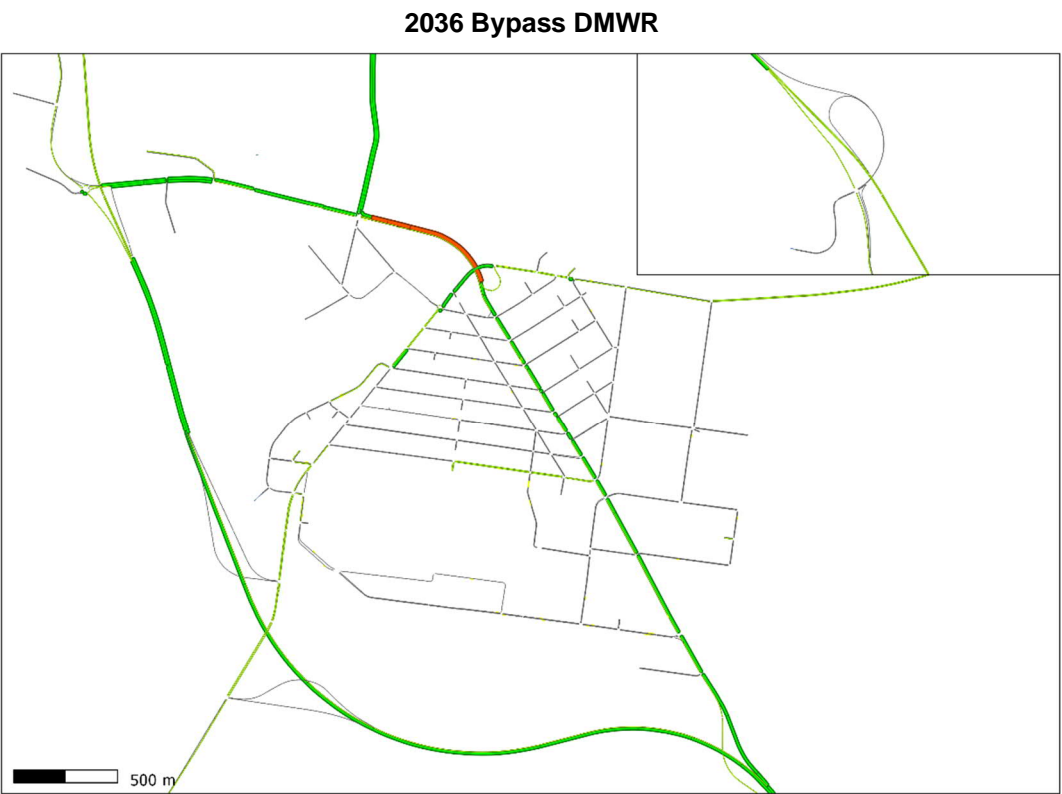
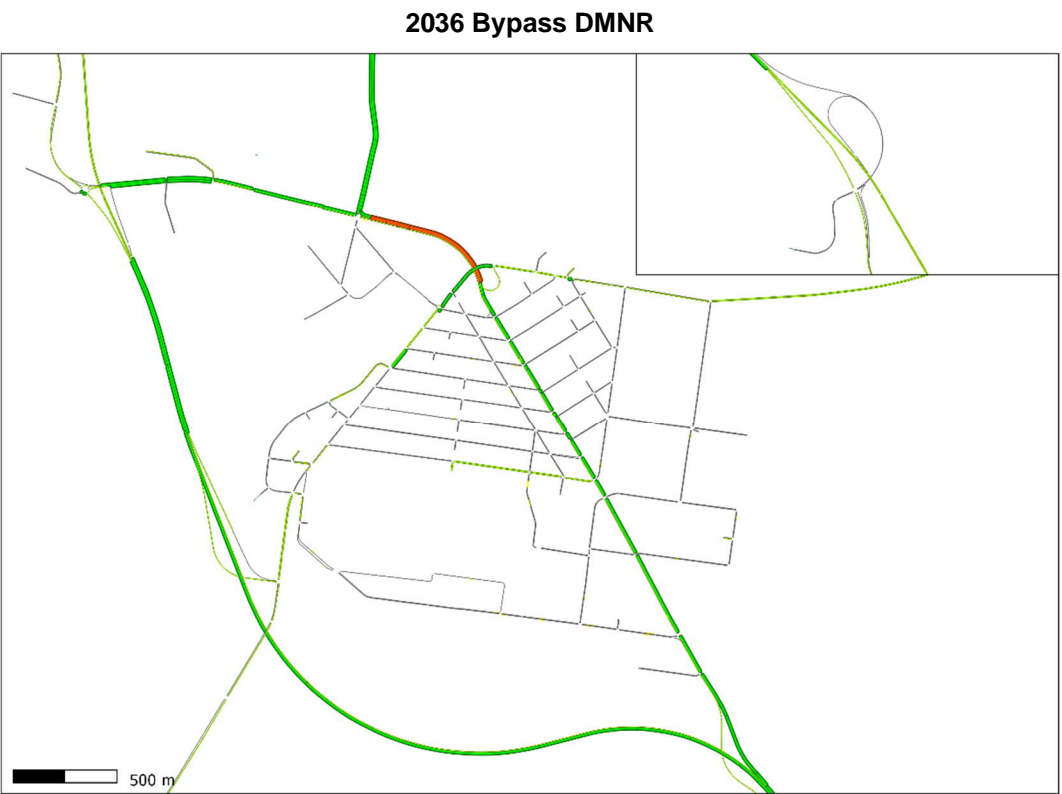
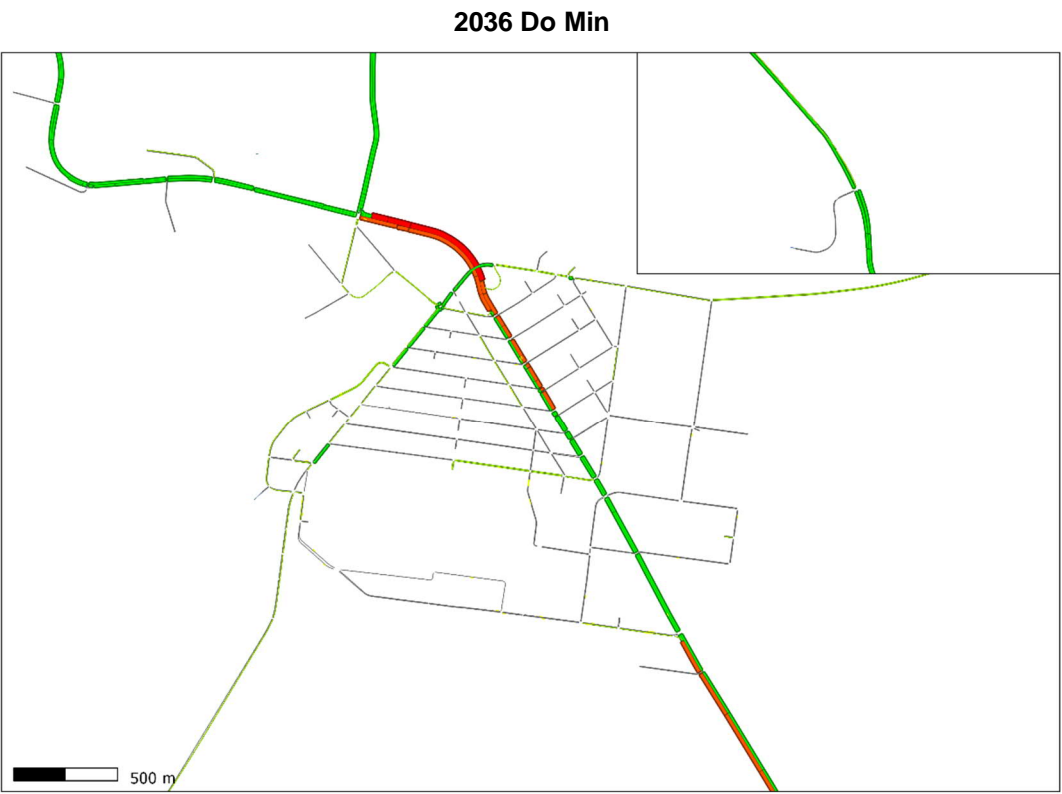


Figure 6-10 2036 Bypass AIMSUN Network Flows AM Peak (08.30 – 09.30)

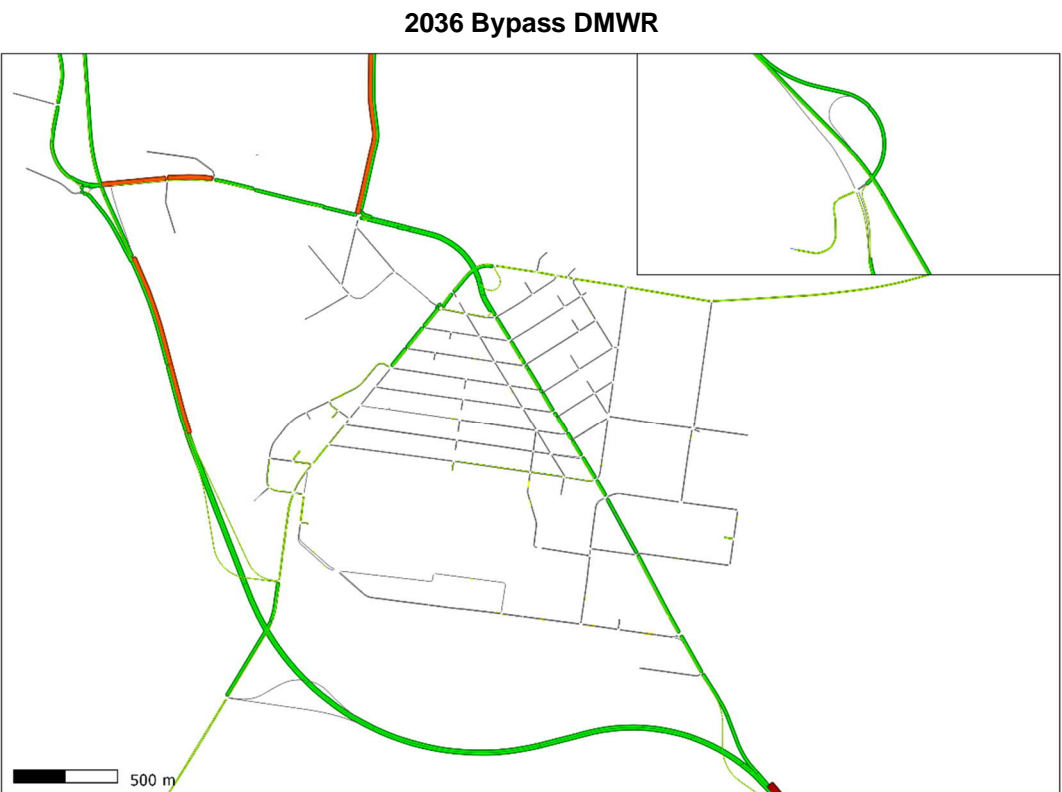
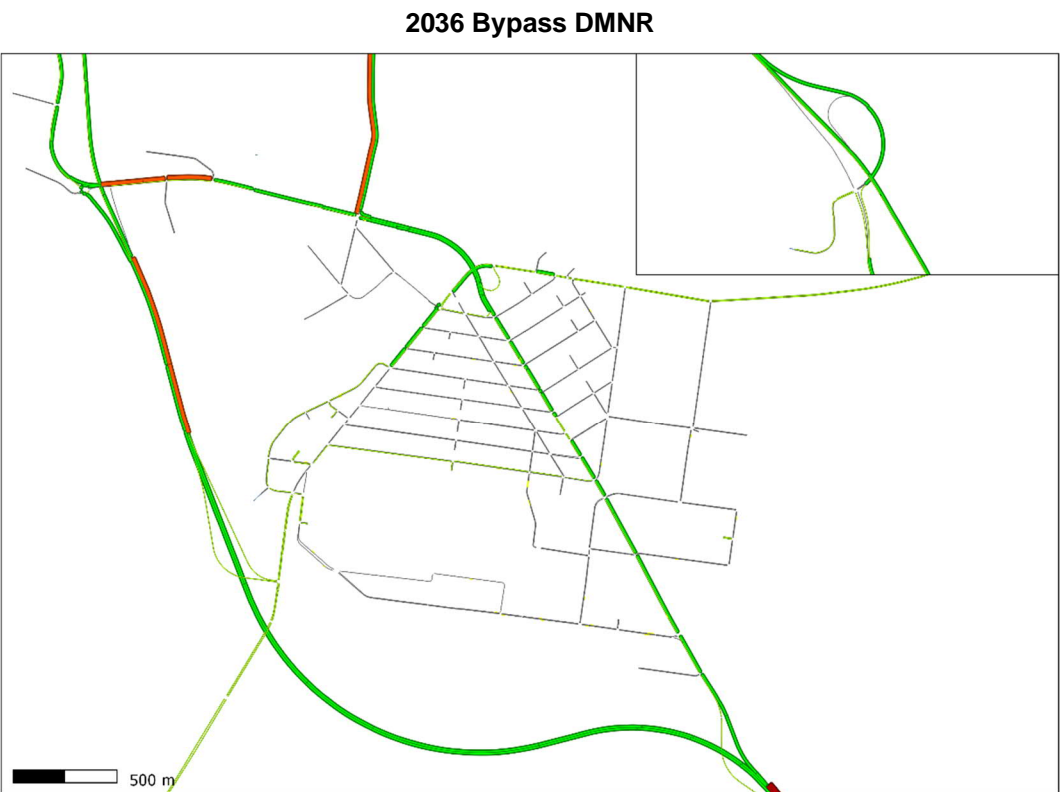


Figure 6-11 2036 Bypass AIMSUN Network Flows PM Peak (16.00 – 17.00)

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6.3.2 Level of service

The results suggest a decrease in the overall intersection performance at the intersection of New England Highway / Bridgman Road during the 05:30 – 06:30 period, from the Do Minimum to the bypass scenario and between the bypass scenarios with the other intersections showing very little change in performance. The impact is less noticeable in the other modelled periods as there is less congestion on the approach at those times. As has been mentioned, for consistency purposes the signals in the network have not been adjusted with the introduction of the bypass as this allows for a direct comparison between the networks due to the addition of the bypass. It is considered that optimising the signals at the intersection of New England Highway / Bridgman Road, to better accommodate the new traffic flow patterns, would probably also have removed the anomaly seen in the average delay, but affected the direct comparison of the impact of the bypass.

The two AM peak periods see an improvement across all other intersections with each one operating at LoS C or better and the majority operating at LoS A during the morning peak periods.

Table 6-17 Intersection Performance AM 05:30 – 06:30

| Ave Delay (sec / veh.) | 2036 Base | | 2036 Do Min. | | 2036 Bypass DMNR | | 2036 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 149 | F | 84 | F | 151* | F | 104* | F |
| New England Highway & Howe Street | 11 | A | 15 | B | 13 | A | 13 | A |
| New England Highway & York Street | 7 | A | 8 | A | 20 | B | 20 | B |
| Putty Road & Ryan Ave | 17 | B | 14 | B | 14 | B | 14 | B |
| John Street & Hunter Street | 12 | A | 10 | A | 9 | A | 10 | A |
| John Street & Newtown Street | 5 | A | 3 | A | 1 | A | 1 | A |
| Queen Street & New England Highway Ramp | 7 | A | 6 | A | 5 | A | 5 | A |
| Putty Road Northern Ramp | | | | | 6 | A | 7 | A |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 14 | A | 14 | B |

***Note: the variation for the Ave Delay for the New England Highway / Bridgman Road intersection is recognised as being anomalous as nothing changes at this location in both bypass models. The results and models have been reviewed and the variation can only be attributed to a 'Random Seed' effect even though the same seed was used in both cases. The addition of the ramps effectively produces Seed changes, such as changing the acceleration/deceleration of vehicles, even though they enter each network at the same time.**

Following the review of these results further tests were undertaken in which:

- a different set of Random Seeds were applied; and
- the signal plan was optimised.

With the change in the set of Random Seed values for the '2036 Bypass (+Do Min) Without Ramps' there was a reduction in the Average Delay at the New England Highway / Bridgman Rd intersection to 111secs from the 151secs shown above. In particular, the delay for traffic on the Bridgman Road approach reduced from 337secs from 231secs while each of the other approaches showed very little change as shown in Table 69 below.

Table 6-18 Revised Seed Intersection Performance AM 05:30 – 06:30

| Approach | Original Seed Results | | | Modified Seed Results | | |
|-------------------------------|-----------------------|------------|----------|-----------------------|------------|----------|
| | Flow | Ave. Del. | LoS | Flow | Ave De | LoS |
| Bridgman Road (North) | 378 | 337 | F | 377 | 231 | F |
| New England Highway (East) | 254 | 25 | B | 239 | 27 | B |
| Bridgman Road (South) | 157 | 64 | E | 164 | 67 | E |
| New England Highway (West) | 191 | 23 | B | 194 | 21 | B |
| Total Flow / Ave Delay | 980 | 151 | F | 974 | 111 | F |

Further, as suggested above, more significant changes to the average delay were expected to be achieved through optimisation of the signals. The results in Table 70 show this to be the case; the resultant assigned flow through the intersection was modified by the software as the revised signal plan reduced the queues / delays. This increased the early period flows and subsequently reduced flows in the later hours.

Table 6-19 Optimised Signal Plan Intersection Performance AM 05:30 – 06:30

| Approach | Original Phasing Results | | | Modified Phasing Results | | |
|-------------------------------|--------------------------|------------|----------|--------------------------|-----------|----------|
| | Flow | Ave. Del. | LoS | Flow | Ave De | LoS |
| Bridgman Road (North) | 378 | 337 | F | 411 | 18 | B |
| New England Highway (East) | 254 | 25 | B | 282 | 30 | C |
| Bridgman Road (South) | 157 | 64 | E | 170 | 19 | B |
| New England Highway (West) | 191 | 23 | B | 152 | 26 | B |
| Total Flow / Ave Delay | 980 | 151 | F | 1015 | 23 | B |

The images in Figure 6-12 demonstrate how the assignment for traffic from Bridgman Road changes with the revised signal timing. With the original signal plan some of the traffic to Putty Road turns left from Bridgman Road toward Singleton CBD and then travels along John Street / Ryan Avenue to Putty Road. With the revised signal plan the right turn from Bridgman Road is easier for the Putty Road traffic so none travel towards the CBD to use John Street / Ryan Avenue.

It must be noted that, despite the change in signal plan, traffic from Bridgman Road to the New England Highway south continues to travel through Singleton and does not divert to the bypass.

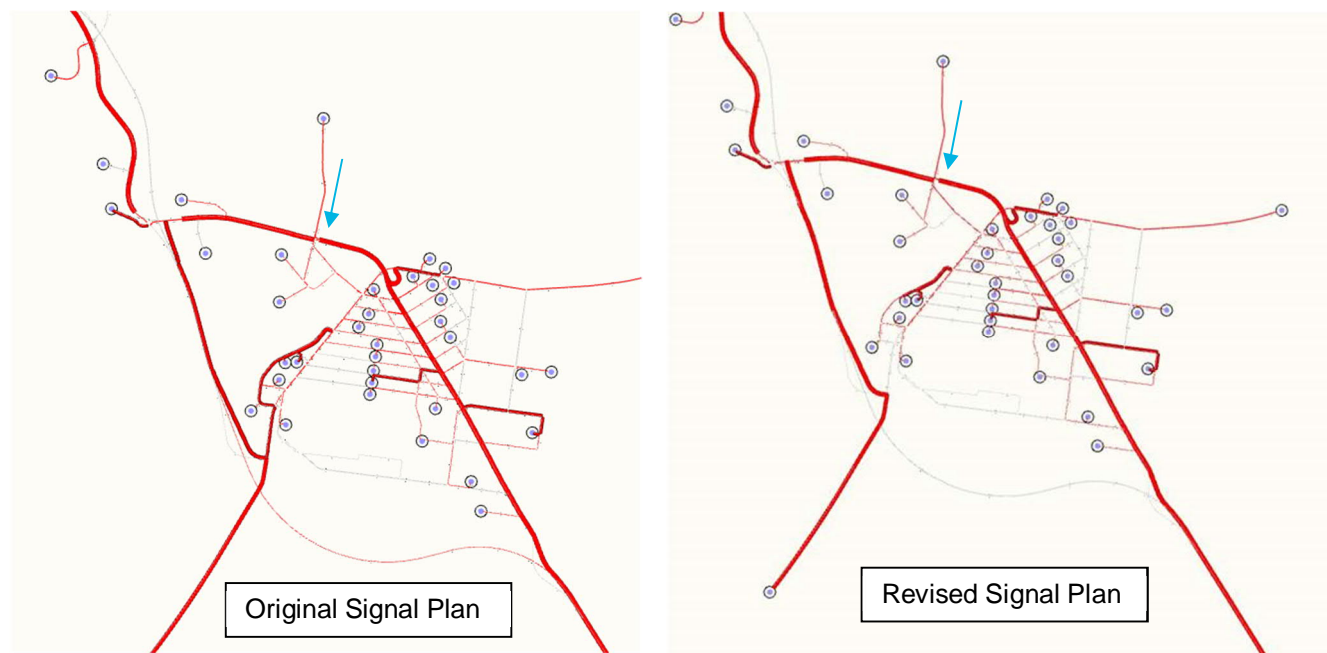


Figure 6-12 2036 Bypass AIMSUN Revised Signal – Bridgman Road Assignment

Table 6-20 Intersection Performance AM 08:30 – 09:30

| Ave Delay (sec / veh.) | 2036 Base | | 2036 Do Min. | | 2036 Bypass DMNR | | 2036 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 58 | E | 46 | D | 35 | C | 35 | C |
| New England Highway & Howe Street | 45 | D | 60 | E | 9 | A | 9 | A |
| New England Highway & York Street | 31 | C | 30 | C | 24 | B | 25 | B |
| Putty Road & Ryan Ave | 14 | B | 15 | B | 14 | B | 13 | A |
| John Street & Hunter Street | 37 | C | 53 | D | 13 | A | 13 | A |
| John Street & Newtown Street | 61 | E | 48 | D | 2 | A | 2 | A |
| Queen Street & New England Highway Ramp | 35 | C | 24 | B | 7 | A | 8 | A |
| Putty Road Northern Ramp | | | | | 12 | A | 17 | B |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 11 | A | 10 | A |

During the PM peak the introduction of the bypass improves the Level of Service performance across all key intersections within the network. Significant improvements are seen to the intersection of New England Highway / Bridgman Road, with Level of Service improving from F to E/D. All other intersections perform at a LoS B or better.

John Street sees improvements to both key intersections with Level of Service reducing from D/E to A due to reduction in traffic through the intersections.

Table 6-21 Intersection Performance PM 16:00 – 17:00

| Ave Delay (sec / veh.) | 2036 Base | | 2036 Do Min. | | 2036 Bypass DMNR | | 2036 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 113 | F | 153 | F | 58 | E | 56 | D |
| New England Highway & Howe Street | 33 | C | 35 | C | 12 | A | 13 | A |
| New England Highway & York Street | 45 | D | 28 | C | 24 | B | 22 | B |
| Putty Road & Ryan Ave | 13 | A | 13 | A | 13 | A | 13 | A |
| John Street & Hunter Street | 47 | D | 62 | E | 13 | A | 13 | A |
| John Street & Newtown Street | 33 | C | 20 | B | 3 | A | 3 | A |
| Queen Street & New England Highway Ramp | 13 | A | 10 | A | 12 | A | 12 | A |
| Putty Road Northern Ramp | | | | | 10 | A | 11 | A |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 10 | A | 10 | A |

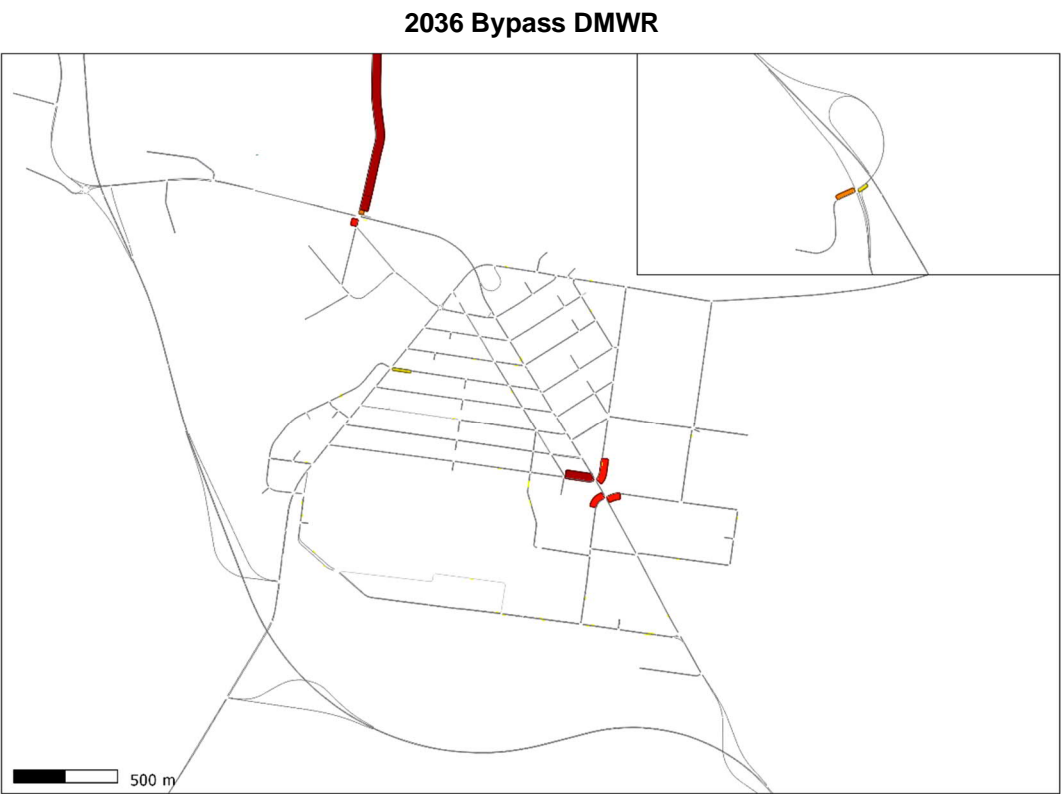
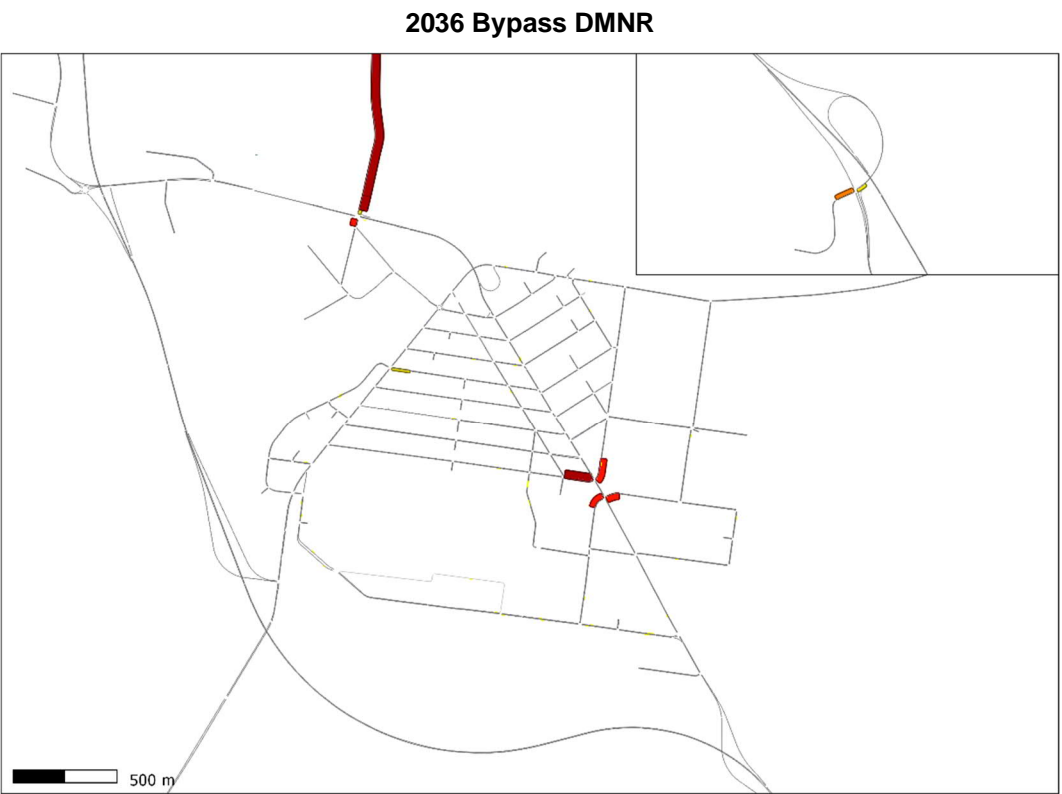


Figure 6-13 2036 Bypass AIMSUN Network Delay Plots AM Peak (05.30 – 06.30)

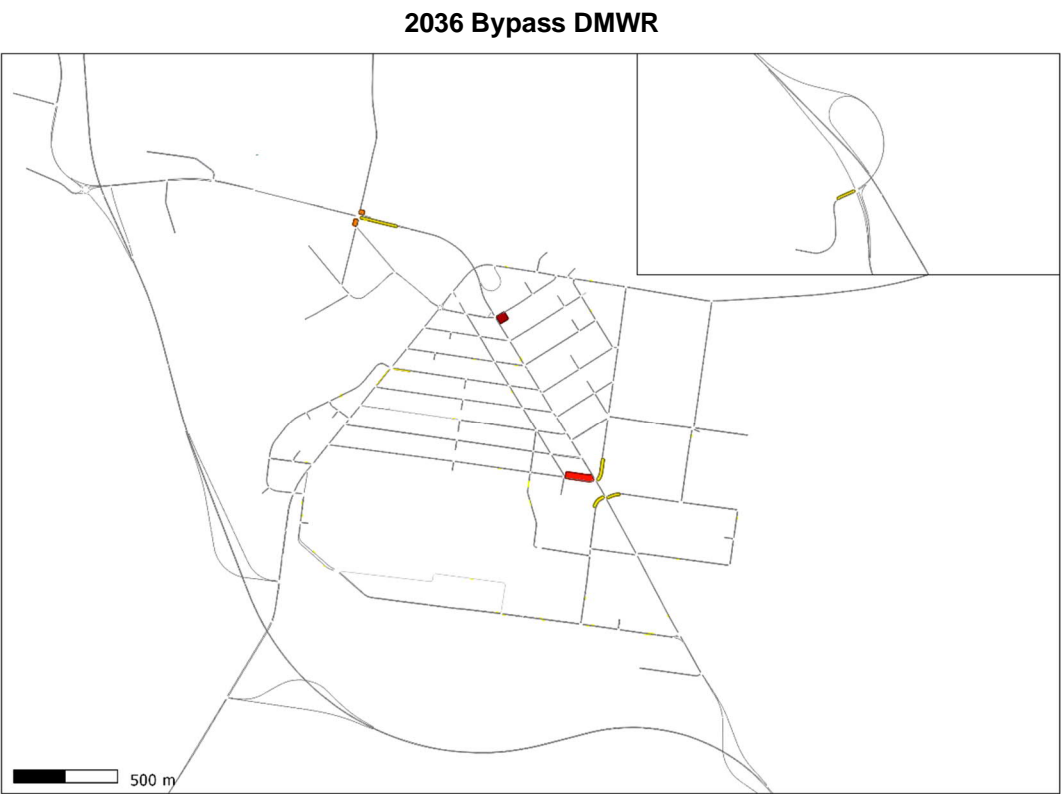
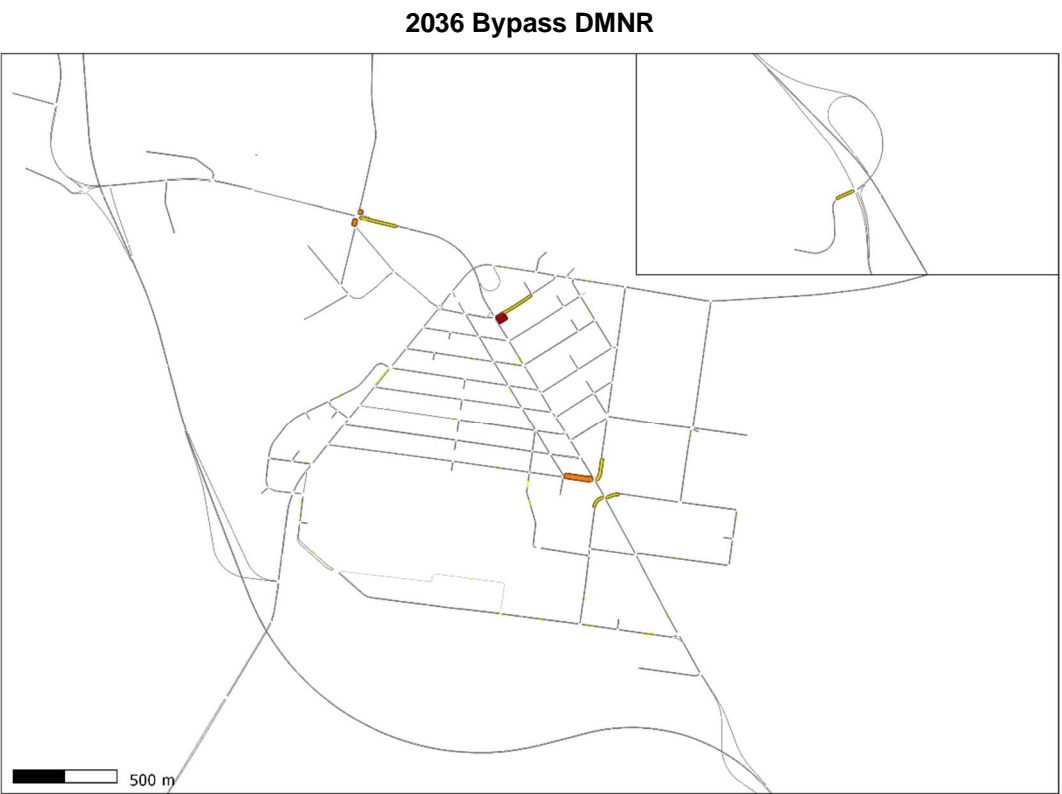
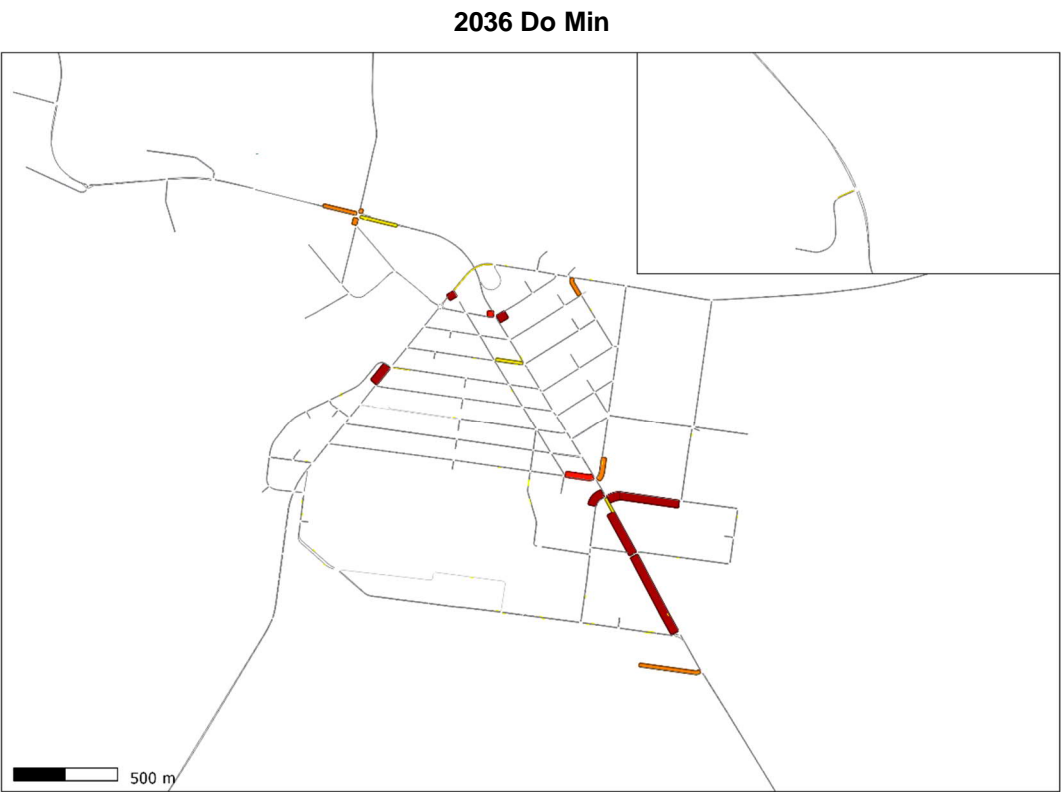


Figure 6-14 2036 Bypass AIMSUN Network Delay Plots AM Peak (08.30 – 09.30)

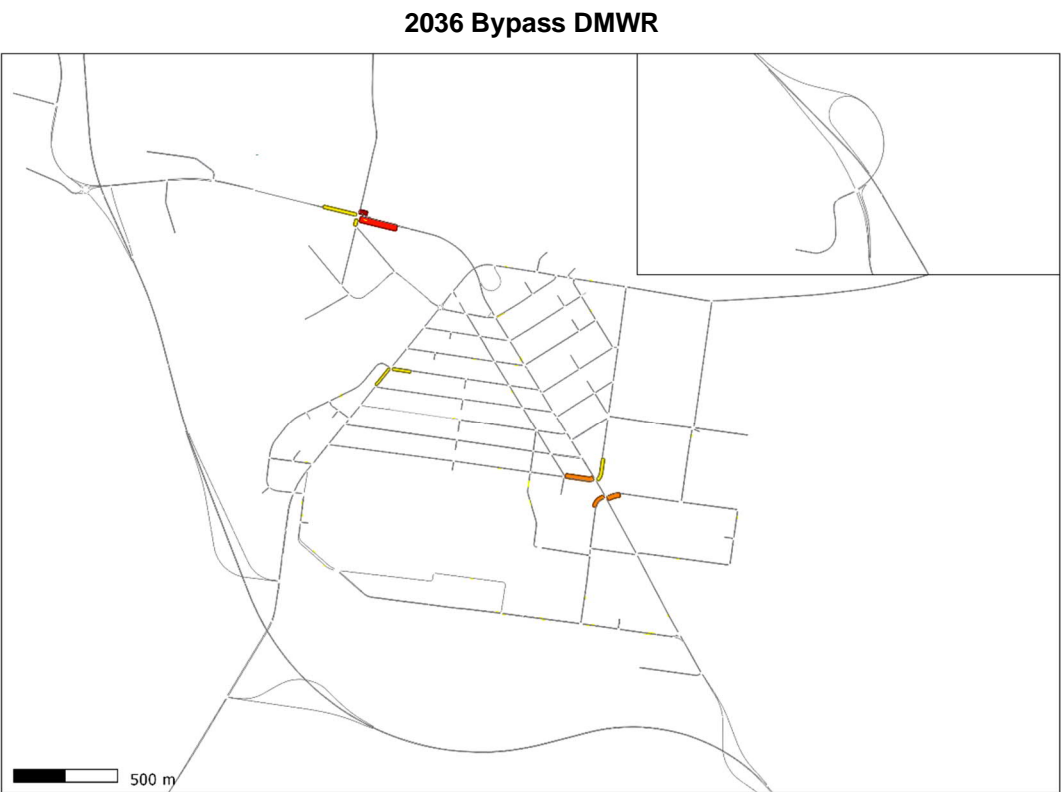
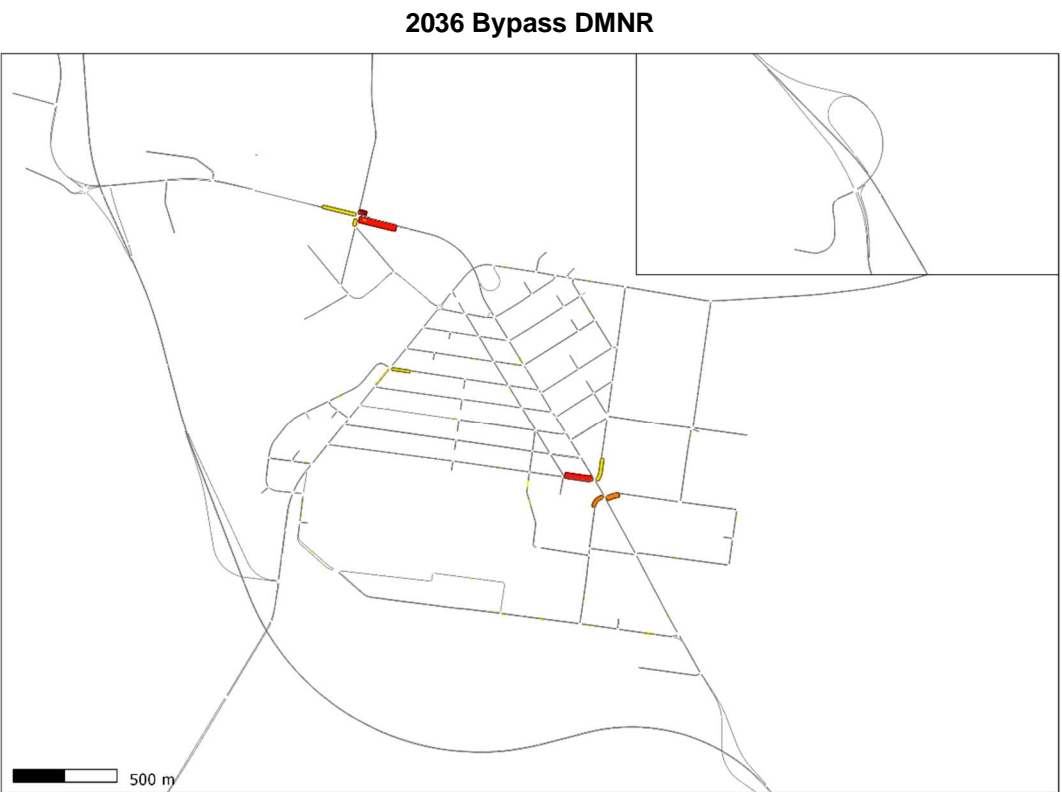


Figure 6-15 2036 Bypass AIMSUN Network Delay Plots PM Peak (16.00 – 17.00)

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6.3.3 Travel time

During the morning peak the main travel time benefits for traffic on the New England Highway occur in the later hour (08:30 – 09:30) with over 3mins in time savings for northbound traffic in this hour. On Route 2 the main benefits also occur in this hour but for southbound traffic.

Table 6-22 Travel Time (mins.) AM Northbound

| Route | End Time | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 05.30 - 06.30 | 11:08 | 11:12 | 10:27 | 10:19 |
| | 08.30 – 09.30 | 13:43 | 15:42 | 10:20 | 10:17 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 05:03 | 05:01 | 05:00 | 04:59 |
| | 08.30 – 09.30 | 05:21 | 05:16 | 05:31 | 05:29 |
| Route 5 – Singleton Bypass | 05.30 - 06.30 | | | 06:25 | 06:25 |
| | 08.30 – 09.30 | | | 05:59 | 05:58 |

Table 6-23 Travel Time (mins.) AM Southbound

| Route | End Time | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 05.30 - 06.30 | 09:12 | 08:51 | 09:14 | 09:10 |
| | 08.30 – 09.30 | 12:10 | 09:51 | 09:41 | 09:42 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 04:59 | 04:59 | 04:55 | 04:54 |
| | 08.30 – 09.30 | 08:01 | 07:59 | 05:19 | 05:17 |
| Route 5 – Singleton Bypass | 05.30 - 06.30 | | | 05:37 | 05:38 |
| | 08.30 – 09.30 | | | 05:42 | 05:42 |

During the PM peak the model indicates that there are benefits in each direction along both routes. Along the New England Highway the model suggests travel time reductions of between 4.5 and 5mins. with around 4mins saved for northbound traffic on John Street.

Table 6-24 Travel Time (mins.) PM Northbound

| Route | Time Period | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 12:19 | 15:09 | 10:32 | 10:30 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 07:28 | 09:20 | 05:18 | 05:20 |
| Route 5 – Singleton Bypass | 16.00 – 17.00 | | | 06:00 | 06:00 |

Table 6-25 Travel Time (mins.) PM Southbound

| Route | Time Period | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|--------------------------------------|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 17:38 | 14:55 | 09:45 | 09:44 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 05:45 | 05:24 | 04:50 | 04:51 |
| Route 5 – Singleton Bypass | 16.00 – 17.00 | | | 05:48 | 05:48 |

6.3.4 Network performance

The network performance tables indicate the major benefits resulting from the provision of the bypass are more trips are completed in both peak periods with no unreleased trips in the evening. The average network speed increases by 10km/h in the morning and 15km/h in the evening.

It must be noted that while there is an increase in the VHT for the 'bypass without ramps' scenario during the AM peak, it has been highlighted earlier that this particular scenario experienced increased delays on the Bridgman Road approach to the New England Highway when compared to the 'with ramps' scenario which, from investigation, are considered to be an anomaly rather than an actual effect of the scheme.

By every metric, the bypass (with or without the ramps) performs significantly better than the Base (Do Nothing) or Option 5 (Do Minimum) during both modelled periods. Indeed, the position may in effect be better than the data suggests at face value. This is because there are unreleased trips in the Base and Do Minimum during the PM peak while this is not the case with the bypass. While the delay experienced by these vehicles waiting is included in the results, their expected travel time and kilometres travelled cannot be recorded. The addition of both, plus VKT and VHT from Incompleted Trips, would greatly increase the totals for the Base and Do Minimum making the comparison of the bypass results even more favourable.

Table 6-26 Network Statistics AM

| AM (4 Hours) | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|---|-----------|--------------|------------------|------------------|
| Vehicle Kilometres Travelled (km) – VKT | 113,972 | 113,314 | 115,611 | 115,569 |
| Vehicle Hours Travelled (hrs) - VHT | 2,777 | 2,473 | 2,008 | 1,947 |
| Average Network Speed (km/h) | 42 | 45 | 55 | 55 |
| Completed Trips (vehs) | 20,772 | 20,700 | 20,811 | 20,813 |
| Incomplete Trips (vehs) | 577 | 619 | 419 | 417 |
| Unreleased Trips (vehs) | - | - | - | - |
| Delay for Unreleased Trips (hrs) | - | - | - | - |

Table 6-27 Network Statistics PM

| PM (3 Hours) | 2036 Base | 2036 Do Min. | 2036 Bypass DMNR | 2036 Bypass DMWR |
|---|-----------|--------------|------------------|------------------|
| Vehicle Kilometres Travelled (km) – VKT | 105,636 | 105,893 | 113,451 | 113,661 |
| Vehicle Hours Travelled (hrs) - VHT | 3,178 | 3,145 | 2,019 | 2,014 |
| Average Network Speed (km/h) | 36 | 37 | 52 | 52 |
| Completed Trips (vehs) | 22,702 | 22,665 | 23,388 | 23,389 |
| Incomplete Trips (vehs) | 1,193 | 1,257 | 665 | 660 |
| Unreleased Trips (vehs) | 206 | 230 | - | - |
| Delay for Unreleased Trips (hrs) | 118 | 134 | - | - |

The results would suggest that the provision of the bypass will have significant benefits to traffic movement in and through Singleton when compared to the Base or Do Minimum networks. The addition of the south facing ramps does not provide any significant relief taking into consideration the delay anomaly seen on Bridgman Road.

6.4 2046 bypass results comparison

6.4.1 Traffic flows

The introduction of the bypass changes the travel patterns of the network as reflected in the changes in flows across the network. The bypass reduces traffic on the New England Highway through Singleton by up to 1100vph. The flow on the bypass south of Maison Dieu Road is up to 1700vph and the increased flow on the New England Highway north of Magpie Road and south of Waddells Lane during this time indicates that more traffic is able to travel through the network. This is also reflected in the slightly higher flows out of Bridgman Road.

Table 6-28 Network Flows AM 05:30 – 06:30

| Street | Mid-block position | Direction | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|---------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 1382 | 1377 | 1404 | 1404 |
| | | Southbound | 351 | 405 | 439 | 438 |
| New England Highway | South of Campbell Street | Northbound | 1052 | 1266 | 223 | 222 |
| | | Southbound | 361 | 398 | 285 | 284 |
| New England Highway | East of Bridgman Road | Northbound | 1134 | 1532 | 268 | 269 |
| | | Southbound | 516 | 610 | 401 | 400 |
| New England Highway | North of Magpie Street | Northbound | 1655 | 1693 | 1763 | 1753 |
| | | Southbound | 311 | 307 | 308 | 308 |
| Bridgman Road | North of New England Highway | Northbound | 206 | 206 | 219 | 219 |
| | | Southbound | 484 | 670 | 695 | 695 |
| Putty Road | South of Ryan Avenue | Northbound | 102 | 98 | 98 | 98 |
| | | Southbound | 424 | 430 | 444 | 445 |
| John Street | South of Newton Street | Northbound | 225 | 99 | 91 | 94 |
| | | Southbound | 364 | 430 | 471 | 476 |
| Bypass | East of Putty Road | Northbound | | | 1200 | 1210 |
| | | Southbound | | | 153 | 167 |

| Street | Mid-block position | Direction | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|------------------------------------|---------------------------|------------|-----------|--------------|------------------|------------------|
| Bypass | South of Maison Dieu Road | Northbound | | | 1389 | 1386 |
| | | Southbound | | | 305 | 303 |
| Bypass | North of Maison Dieu Road | Northbound | | | 1112 | 1110 |
| | | Southbound | | | 238 | 237 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 11 |
| | | Southbound | | | | 15 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 180 | 178 |
| | | Southbound | | | 147 | 146 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 270 | 269 |
| | | Southbound | | | 72 | 72 |

During the later morning peak there is a similar pattern, although the flow through Singleton is reduced by around 725vph and the flow on the bypass south of Maison Dieu Road is 1500vph.

Table 6-29 Network Flows AM 08:30 – 09:30

| Street | Mid-block position | Direction | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|----------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 1052 | 1031 | 1111 | 1111 |
| | | Southbound | 975 | 988 | 980 | 981 |
| New England Highway | South of Campbell Street | Northbound | 739 | 716 | 282 | 265 |
| | | Southbound | 1054 | 1125 | 831 | 840 |
| New England Highway | East of Bridgman Road | Northbound | 1019 | 1075 | 412 | 443 |
| | | Southbound | 1526 | 1550 | 1192 | 1179 |
| New England Highway | North of Magpie Street | Northbound | 678 | 671 | 719 | 718 |
| | | Southbound | 490 | 483 | 481 | 481 |
| Bridgman Road | North of New England Highway | Northbound | 583 | 579 | 619 | 617 |
| | | Southbound | 1105 | 1054 | 1072 | 1072 |
| Putty Road | South of Ryan Avenue | Northbound | 217 | 219 | 218 | 219 |
| | | Southbound | 409 | 370 | 373 | 374 |
| John Street | South of Newton Street | Northbound | 458 | 218 | 270 | 367 |
| | | Southbound | 753 | 366 | 428 | 408 |
| Bypass | East of Putty Road | Northbound | | | 666 | 779 |
| | | Southbound | | | 329 | 361 |
| Bypass | South of Maison Dieu Road | Northbound | | | 931 | 904 |
| | | Southbound | | | 577 | 579 |
| Bypass | North of Maison Dieu Road | Northbound | | | 411 | 406 |
| | | Southbound | | | 413 | 410 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 117 |
| | | Southbound | | | | 32 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 257 | 231 |
| | | Southbound | | | 256 | 258 |

| Street | Mid-block position | Direction | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|------------------------------------|--------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 521 | 501 |
| | | Southbound | | | 158 | 163 |

During the PM peak over 2200 vehicles are predicted to use the bypass south of Maison Dieu Road, as seen in Table 6-30. The flows on the New England Highway to the north of Magpie Road and south of Waddlells Lane show that the flow through the network has greatly increased.

Table 6-30 Network Flows PM 16:00 – 17:00

| Street | Mid-block position | Direction | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|------------------------------------|------------------------------|------------|-----------|--------------|------------------|------------------|
| New England Highway | South of Waddells Lane | Northbound | 972 | 987 | 1036 | 1036 |
| | | Southbound | 1453 | 1462 | 1697 | 1697 |
| New England Highway | South of Campbell Street | Northbound | 843 | 841 | 370 | 349 |
| | | Southbound | 1015 | 1250 | 675 | 655 |
| New England Highway | East of Bridgman Road | Northbound | 1344 | 1312 | 698 | 724 |
| | | Southbound | 1435 | 1638 | 1045 | 1050 |
| New England Highway | North of Magpie Street | Northbound | 512 | 513 | 530 | 531 |
| | | Southbound | 1150 | 1159 | 1460 | 1460 |
| Bridgman Road | North of New England Highway | Northbound | 1160 | 1060 | 1217 | 1216 |
| | | Southbound | 761 | 803 | 803 | 803 |
| Putty Road | South of Ryan Avenue | Northbound | 485 | 479 | 480 | 480 |
| | | Southbound | 301 | 302 | 345 | 344 |
| John Street | South of Newton Street | Northbound | 906 | 479 | 388 | 435 |
| | | Southbound | 606 | 303 | 416 | 511 |
| Bypass | East of Putty Road | Northbound | | | 593 | 636 |
| | | Southbound | | | 854 | 929 |
| Bypass | South of Maison Dieu Road | Northbound | | | 1048 | 1053 |
| | | Southbound | | | 1146 | 1138 |
| Bypass | North of Maison Dieu Road | Northbound | | | 350 | 348 |
| | | Southbound | | | 1096 | 1092 |
| New England Highway / Putty Road | South Facing Ramps | Northbound | | | | 43 |
| | | Southbound | | | | 77 |
| New England Highway / Putty Road | North Facing Ramps | Northbound | | | 449 | 454 |
| | | Southbound | | | 288 | 281 |
| New England Highway / Gowrie Gates | South Facing Ramps | Northbound | | | 702 | 709 |
| | | Southbound | | | 47 | 43 |

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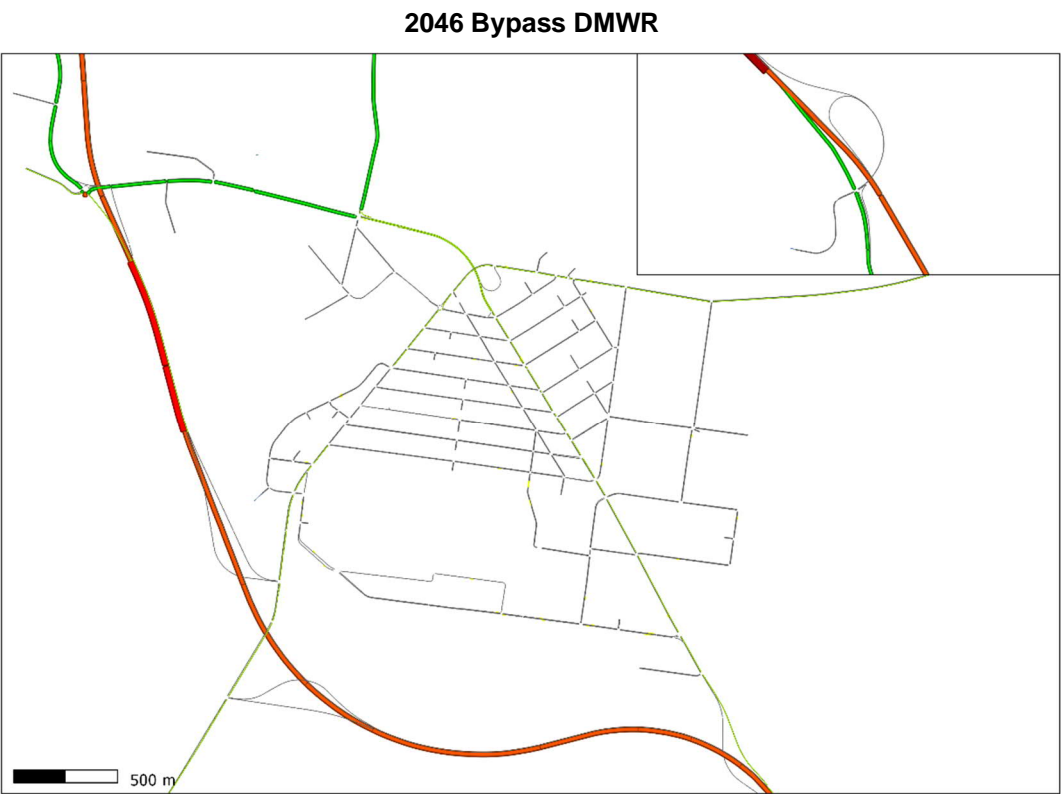
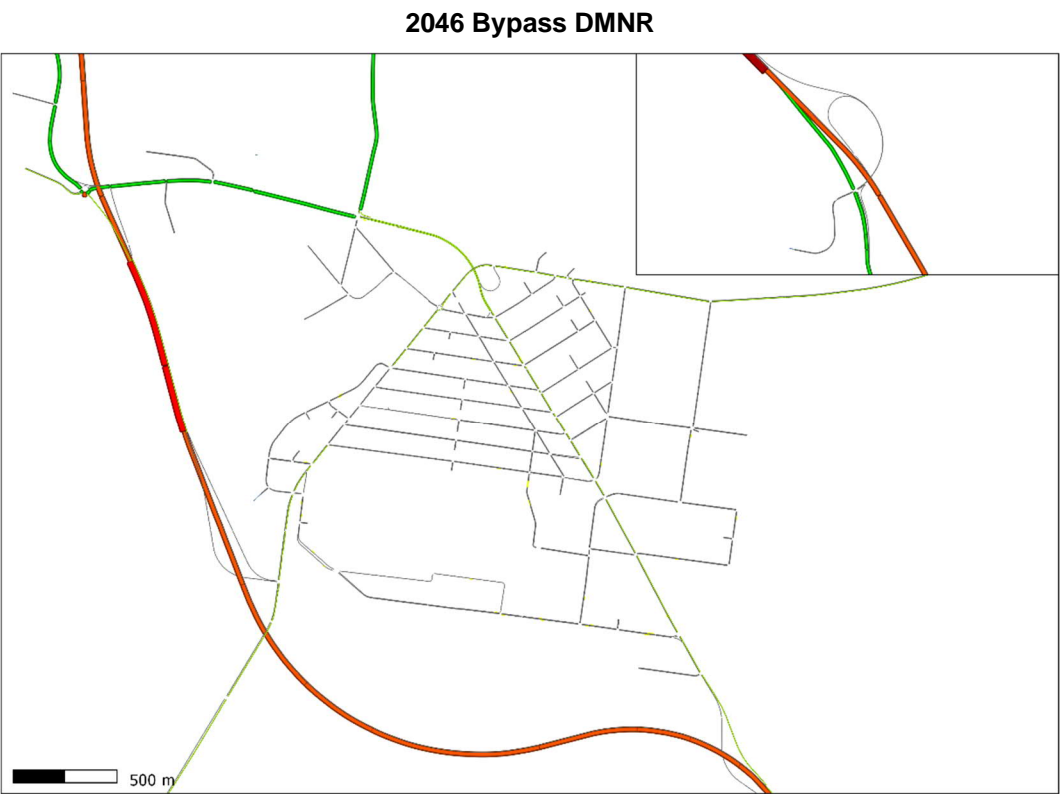


Figure 6-16 2046 Bypass AIMSUN Network Flows AM Peak (05.30 – 06.30)

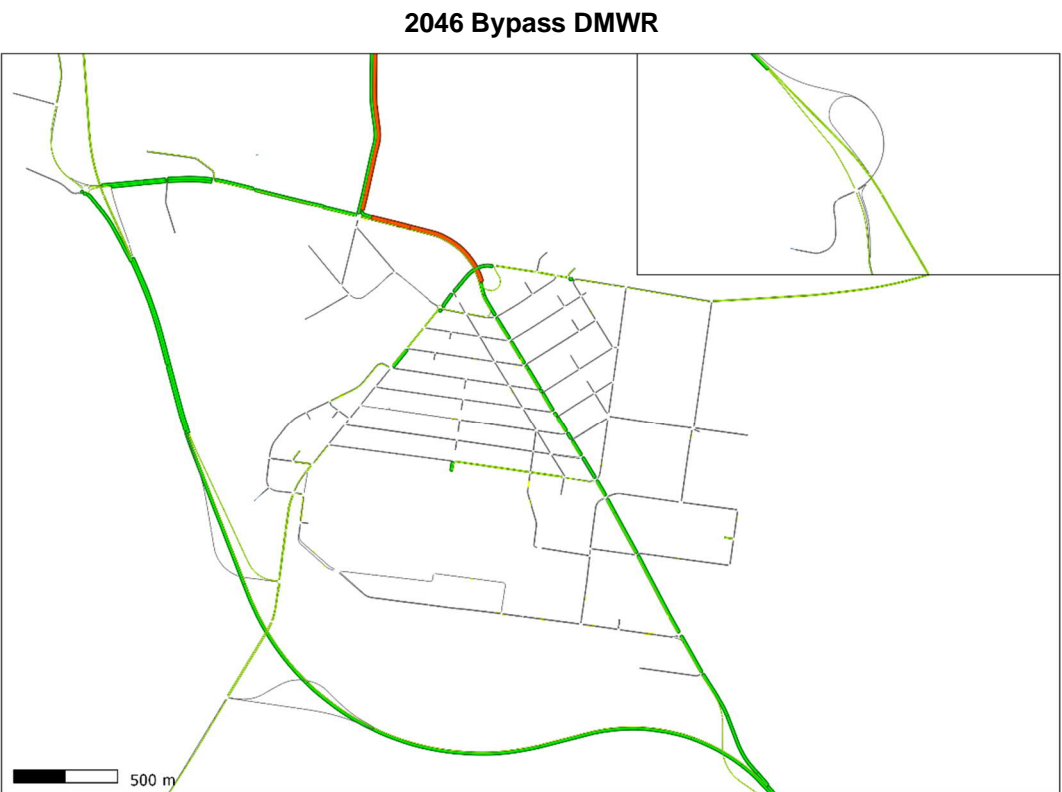
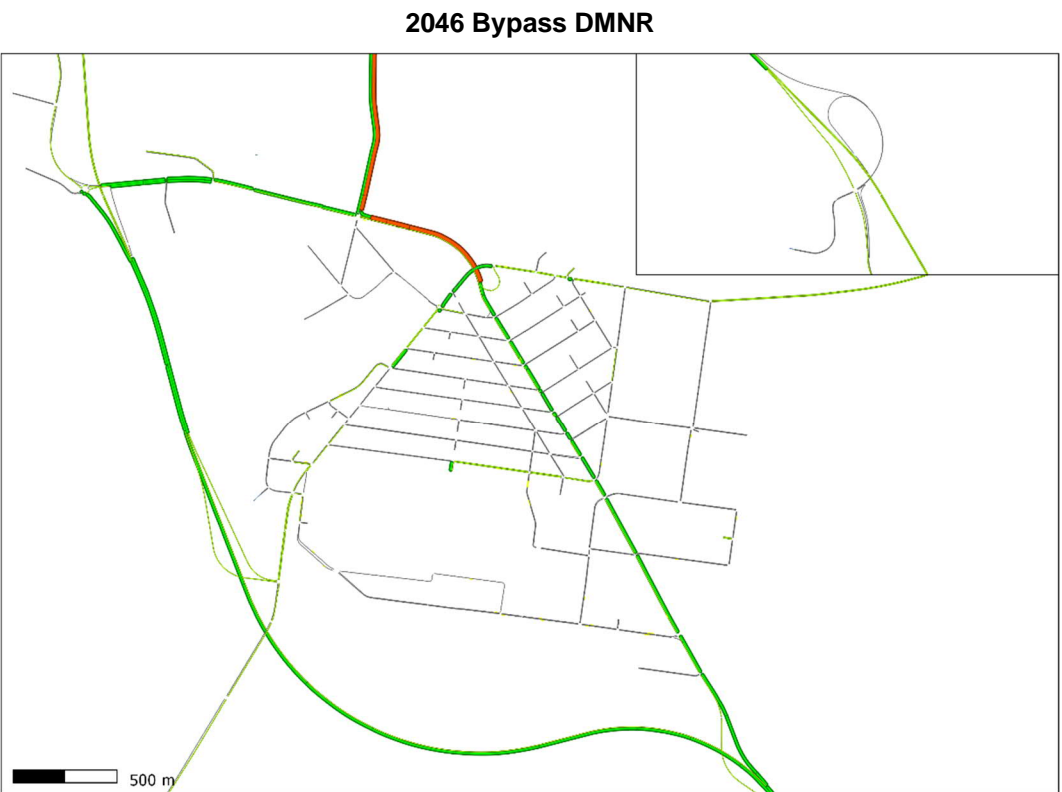
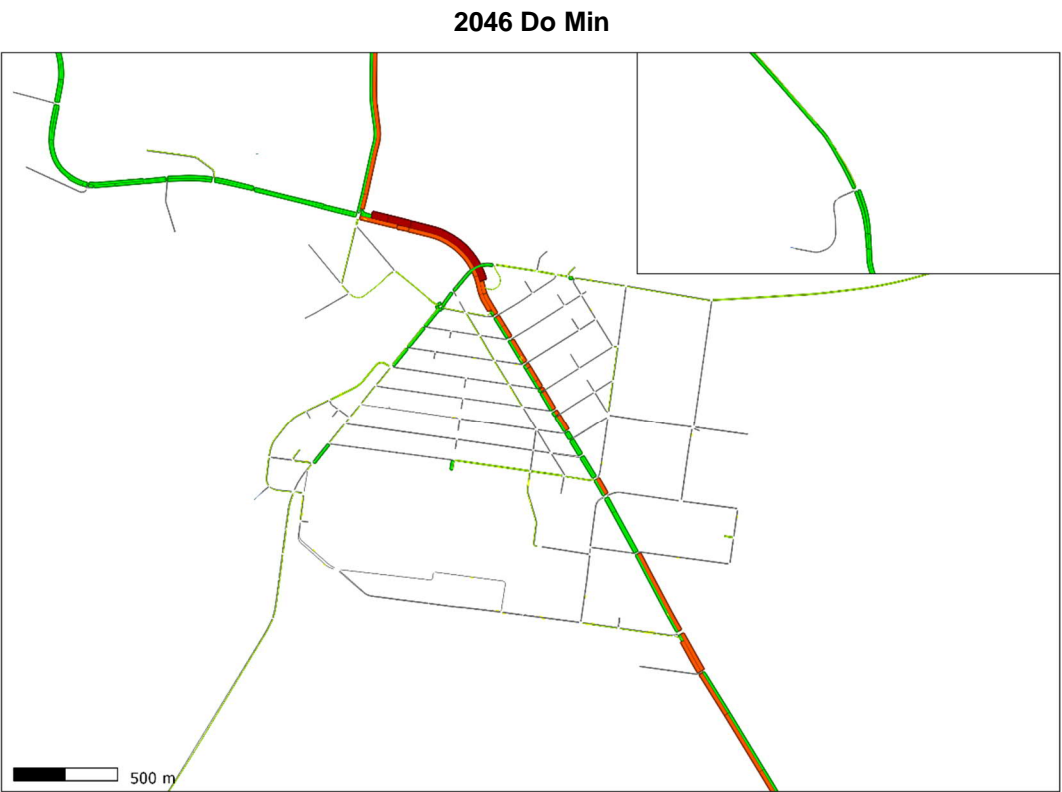


Figure 6-17 2046 Bypass AIMSUN Network Flows AM Peak (08.30 – 09.30)

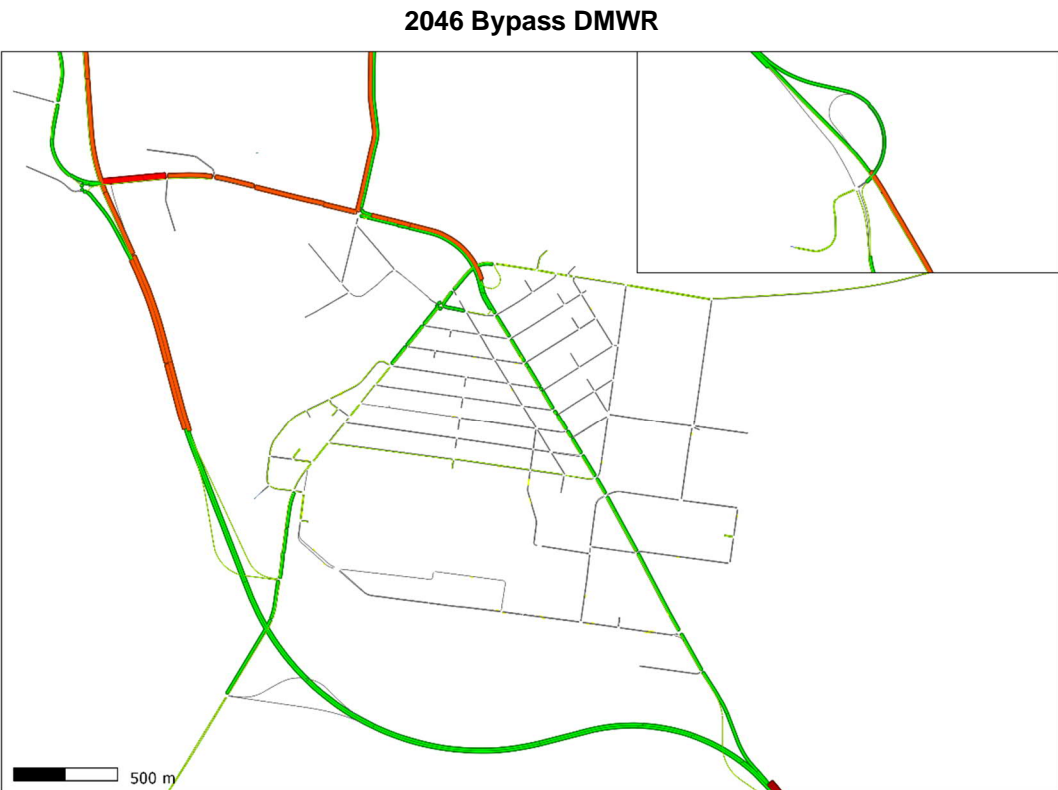
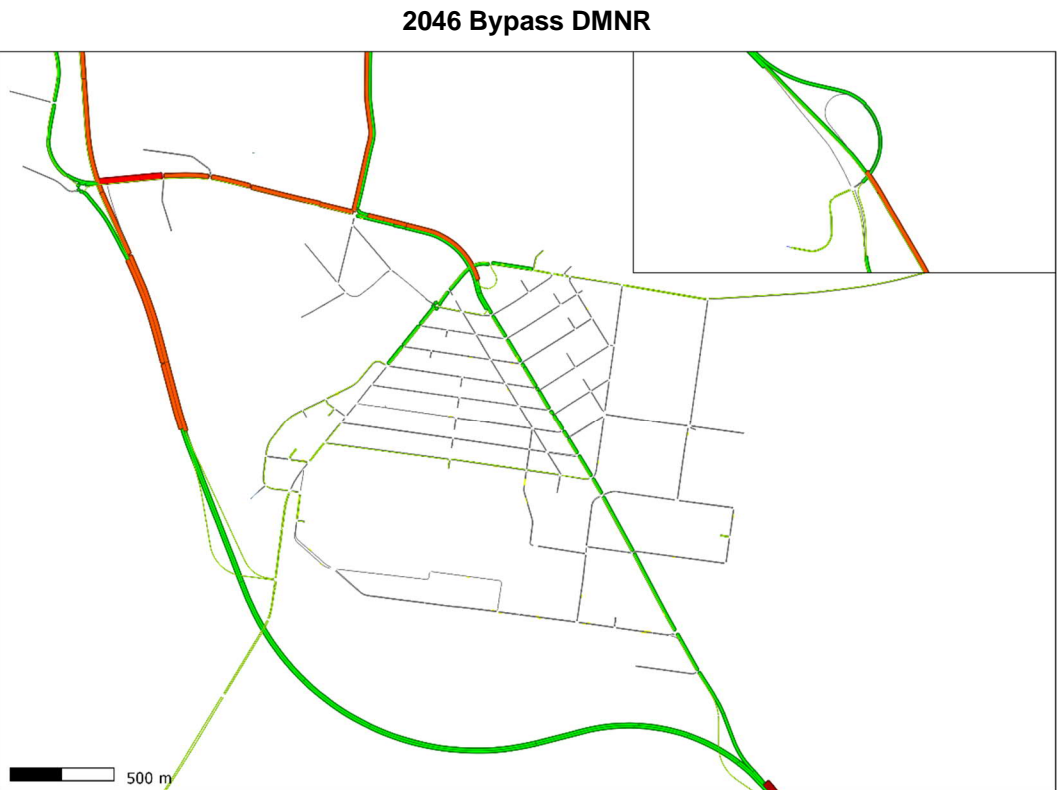
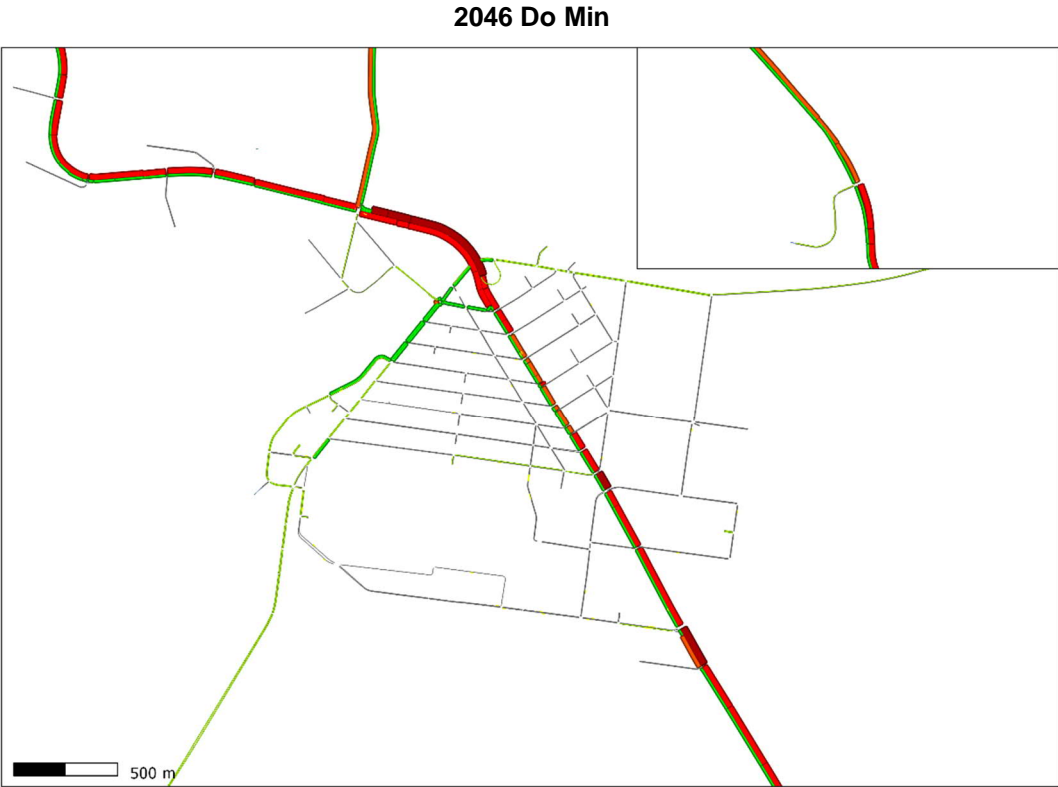


Figure 6-18 2046 Bypass AIMSUN Network Flows PM Peak (16.00 – 17.00)

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6.4.2 Intersection level of service

The 2046 AM Base Case and Do Minimum scenarios have severe congestion and queueing throughout the entire model network; this can be seen by the poor performance of nearly all intersections during the 08:30 – 09:30 peak period. During 05:30 – 06:30 peak, the intersection of New England Highway / Bridgman Road is operating at LoS 'F' with the north, east and south legs of the intersection at LoS 'F' and the north approach with delays of 970secs and 448secs for the Base Case and Do Minimum scenarios. With the introduction to the bypass the intersection improves with the eastern approach achieving LoS 'B', however with no changes to the signals based on the new traffic patterns the northern and southern legs operate at LoS 'F' still impacting the overall intersection performance. This is exacerbated due to the lower traffic flow along New England Highway from the east and west approach having less impact on the overall intersection performance. In reality, the signals would be adjusted at this intersection of New England Highway / Bridgman Road to better accommodate the new traffic flow patterns.

Table 6-31 Intersection Performance AM 05:30 – 06:30

| Ave. Delay (secs/veh) | 2046 Base | | 2046 Do Min. | | 2046 Bypass DMNR | | 2046 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 229 | F | 161 | F | 114 | F | 113 | F |
| New England Highway & Howe Street | 24 | B | 33 | C | 13 | A | 13 | A |
| New England Highway & York Street | 11 | A | 10 | A | 26 | B | 20 | B |
| Putty Road & Ryan Ave | 18 | B | 15 | B | 14 | A | 14 | B |
| John Street & Hunter Street | 11 | A | 11 | A | 9 | A | 9 | A |
| John Street & Newton Street | 6 | A | 4 | A | 1 | A | 1 | A |
| Queen Street & New England Highway Ramp | 7 | A | 7 | A | 5 | A | 5 | A |
| Putty Road Northern Ramp | | | | | 7 | A | 7 | A |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 17 | B | 17 | B |

The two AM peak periods see an improvement across most intersections, operating at LoS 'C' or better during this period, with significant improvements, particularly at the New England Highway / Bridgman Road intersection, observed in the 08:30 – 09:30 peak due to the decreased pressure on the New England Highway.

Table 6-32 Intersection Performance AM 08:30 – 09:30

| Ave. Delay (secs/veh) | 2046 Base | | 2046 Do Min. | | 2046 Bypass DMNR | | 2046 Bypass DMWR | |
|---|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 129 | F | 88 | F | 34 | C | 36 | C |
| New England Highway & Howe Street | 61 | E | 62 | E | 9 | A | 9 | A |
| New England Highway & York Street | 35 | C | 34 | C | 19 | B | 19 | B |
| Putty Road & Ryan Ave | 18 | B | 15 | B | 14 | A | 14 | B |
| John Street & Hunter Street | 44 | D | 51 | D | 15 | B | 16 | B |
| John Street & Newton Street | 80 | F | 68 | E | 3 | A | 3 | A |
| Queen Street & New England Highway Ramp | 57 | E | 36 | C | 10 | A | 12 | A |
| Putty Road Northern Ramp | | | | | 16 | B | 17 | B |

| Ave. Delay (secs/veh) | 2046 Base | | 2046 Do Min. | | 2046 Bypass DMNR | | 2046 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 12 | A | 13 | A |

The introduction of the bypass improves the intersection performance across all the key intersections within the network. Significant improvements seen to the intersection of New England Highway / Bridgman Road, with LoS improving from 'F' to 'E'. All other intersections perform at a LoS 'B' or better, showing significant improvements from the Base Case and Do Minimum scenarios.

John Street sees improvements to both key intersections with LoS reducing from 'E'/'F' to 'A', at Hunter Street, due to a reduction in traffic through the intersections and removal of queuing impacts from the roundabout at Newton Street.

Table 6-33 Intersection Performance PM 16:00 – 17:00

| Intersection | 2046 Base | | 2046 Do Min. | | 2046 Bypass DMNR | | 2046 Bypass DMWR | |
|--|-----------|-----|--------------|-----|------------------|-----|------------------|-----|
| Intersection | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS | Ave Del. | LoS |
| New England Highway & Bridgman Road | 135 | F | 220 | F | 62 | E | 64 | E |
| New England Highway & Howe Street | 48 | D | 41 | C | 11 | A | 11 | A |
| New England Highway & York Street | 61 | E | 36 | C | 21 | B | 21 | B |
| Putty Road & Ryan Ave | 14 | B | 14 | B | 13 | A | 15 | B |
| John Street & Hunter Street | 61 | E | 75 | F | 14 | B | 16 | B |
| John Street & Newton Street | 77 | F | 28 | C | 4 | A | 4 | A |
| Queen Street & New England Highway Ramp | 30 | C | 11 | A | 11 | A | 11 | A |
| Putty Road Northern Ramp | | | | | 13 | A | 17 | B |
| New England Highway & Maison Dieu Road & Bypass Off Ramp | | | | | 11 | A | 10 | A |

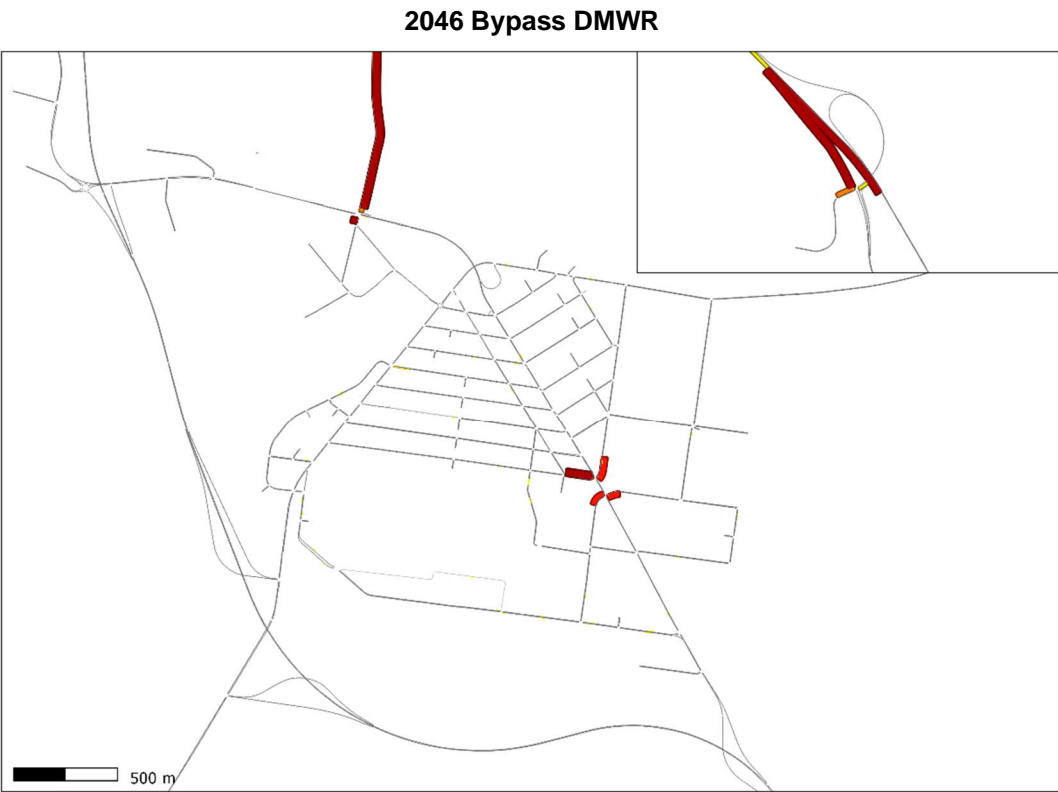
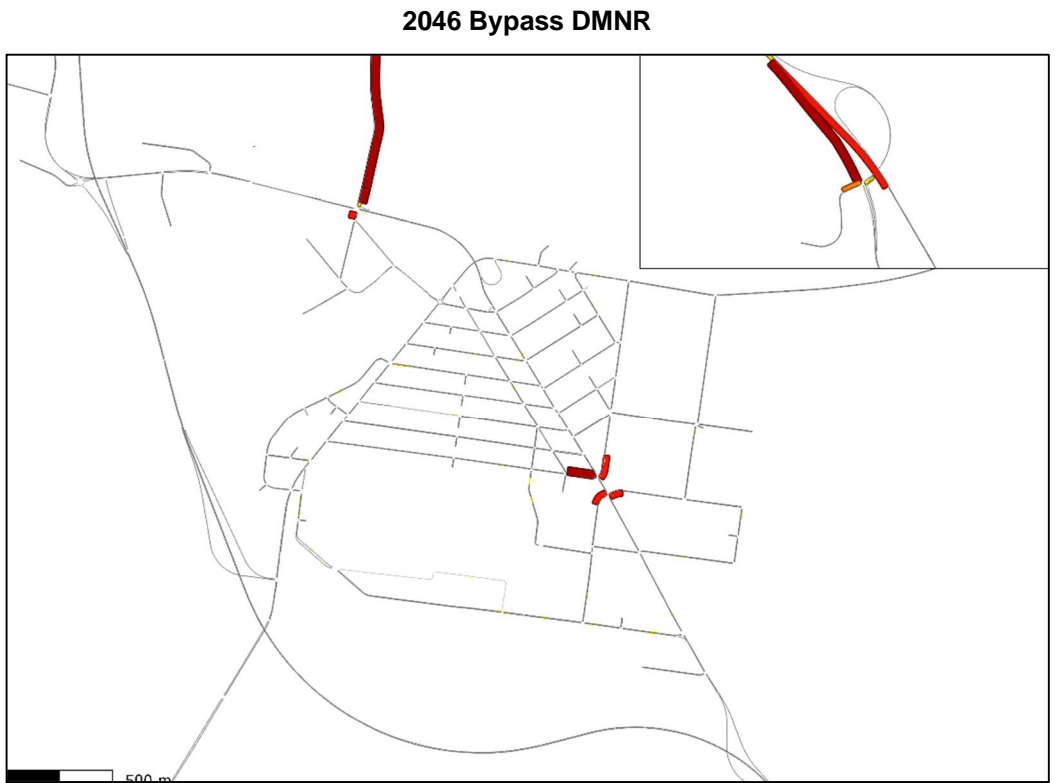
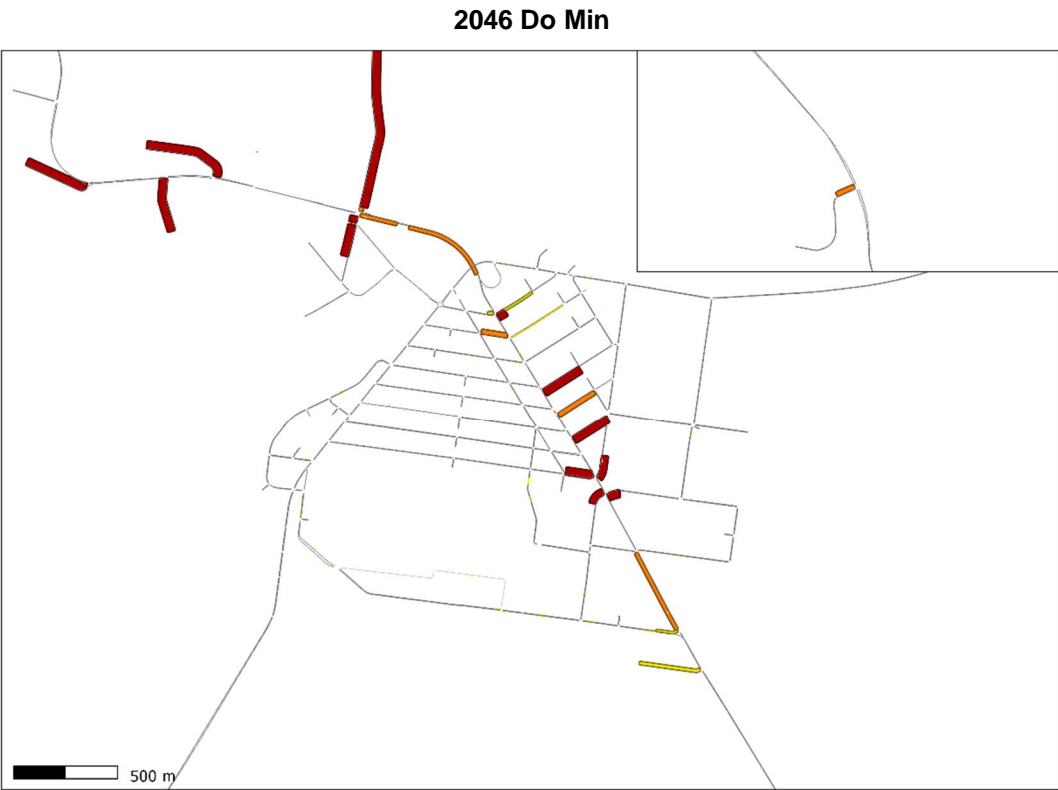
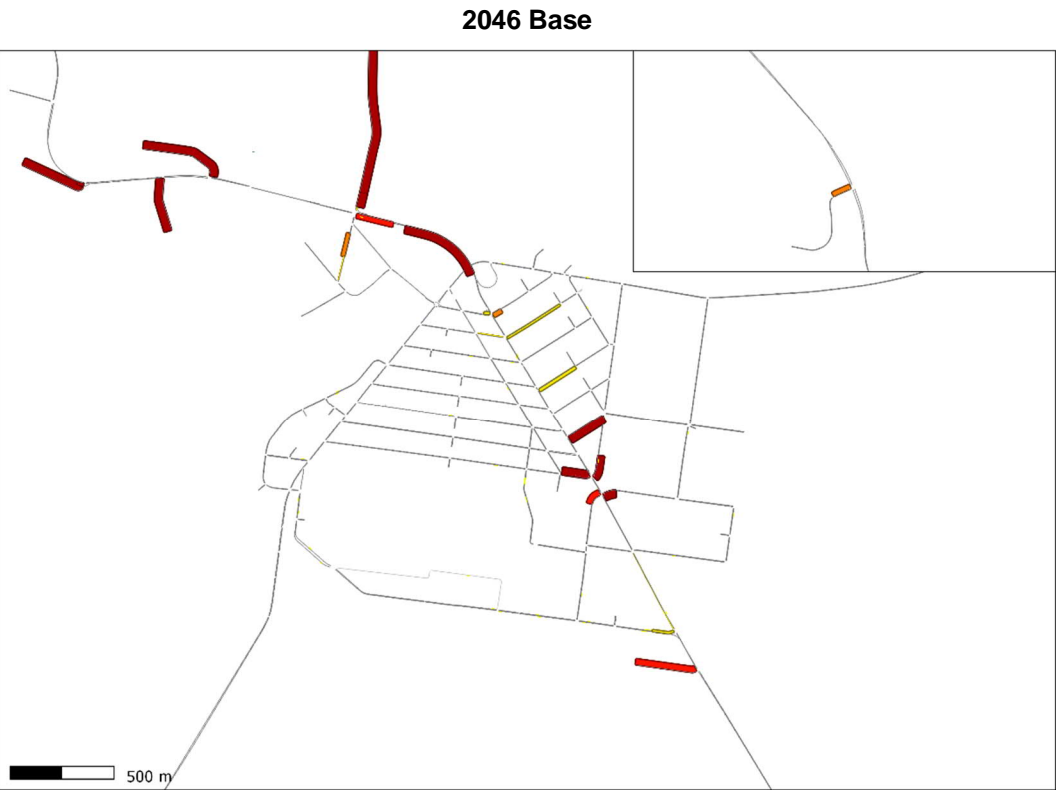


Figure 6-19 2046 Bypass AIMSUN Network Delay Plots AM Peak (05.30 – 06.30)

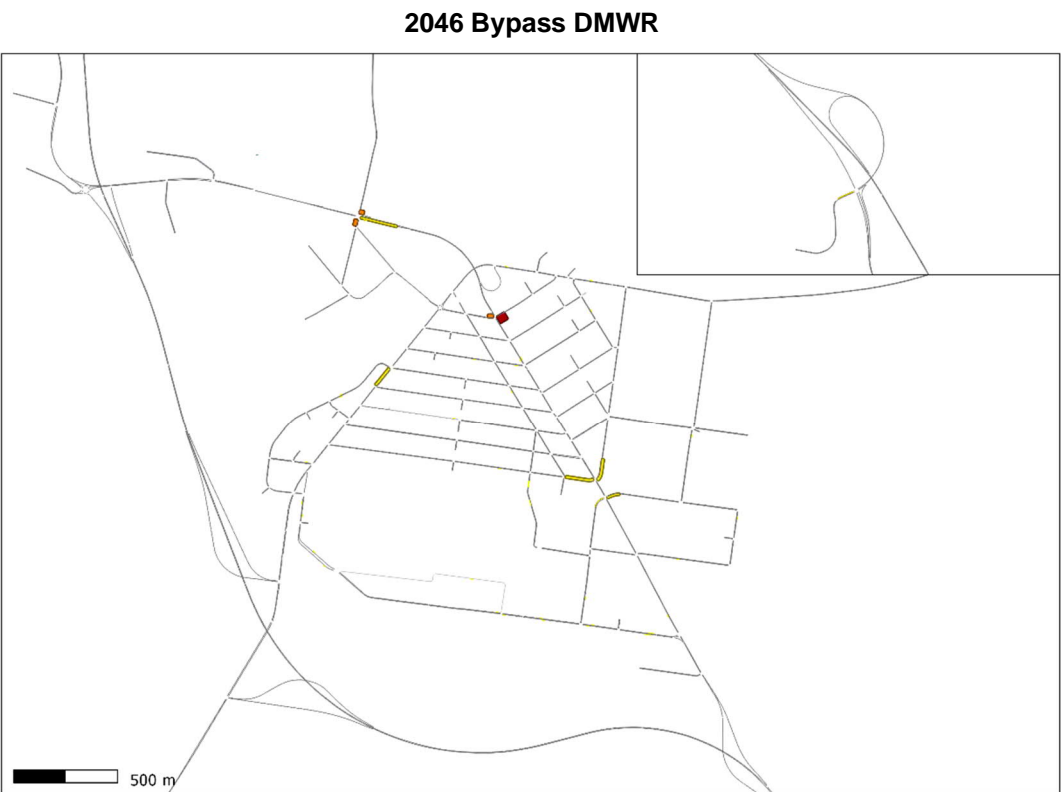
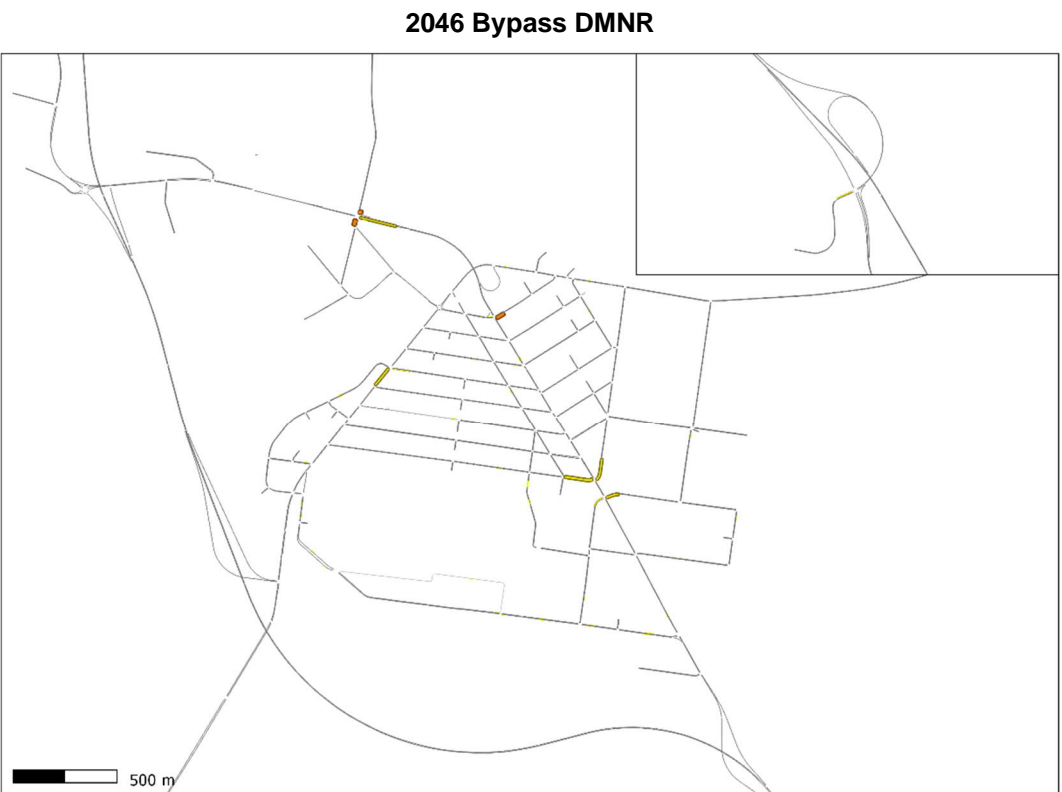
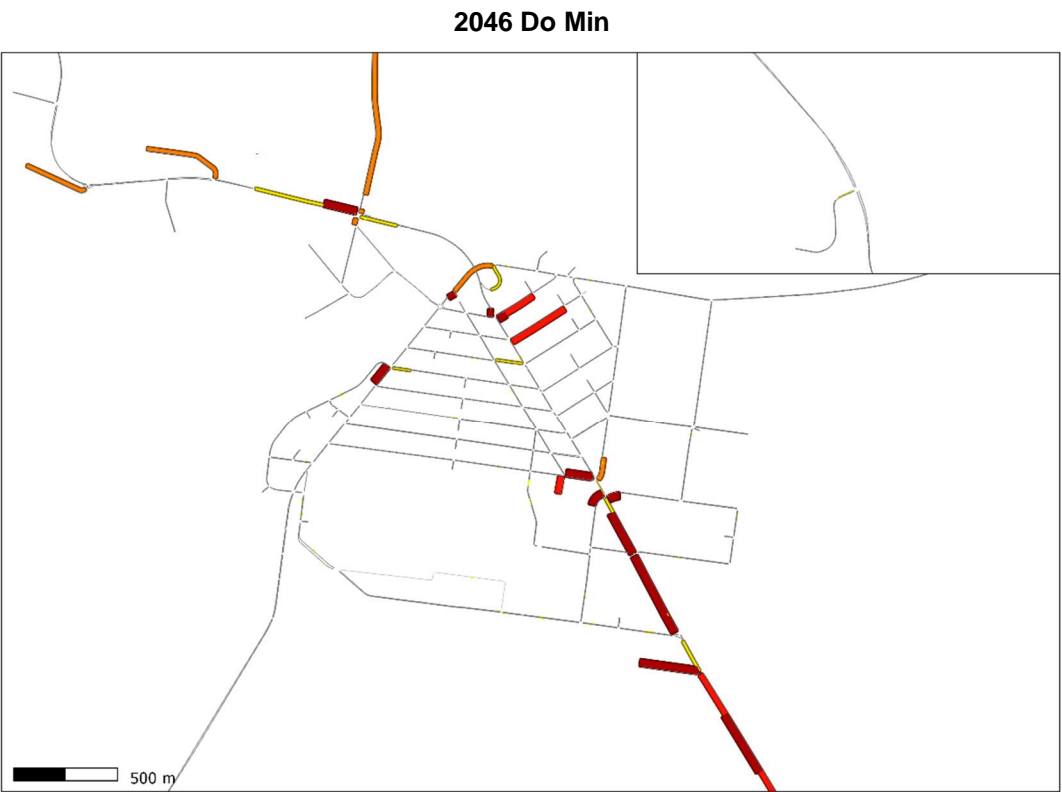
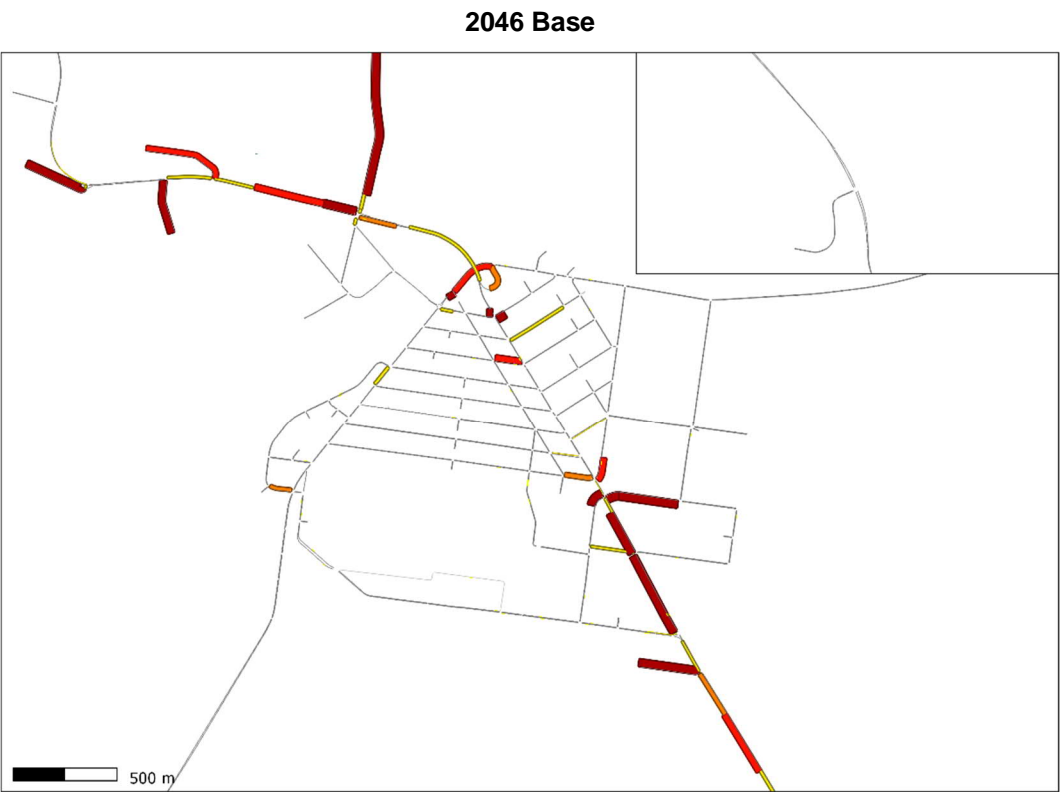


Figure 6-20 2046 Bypass AIMSUN Network Delay Plots AM Peak (08.30 – 09.30)

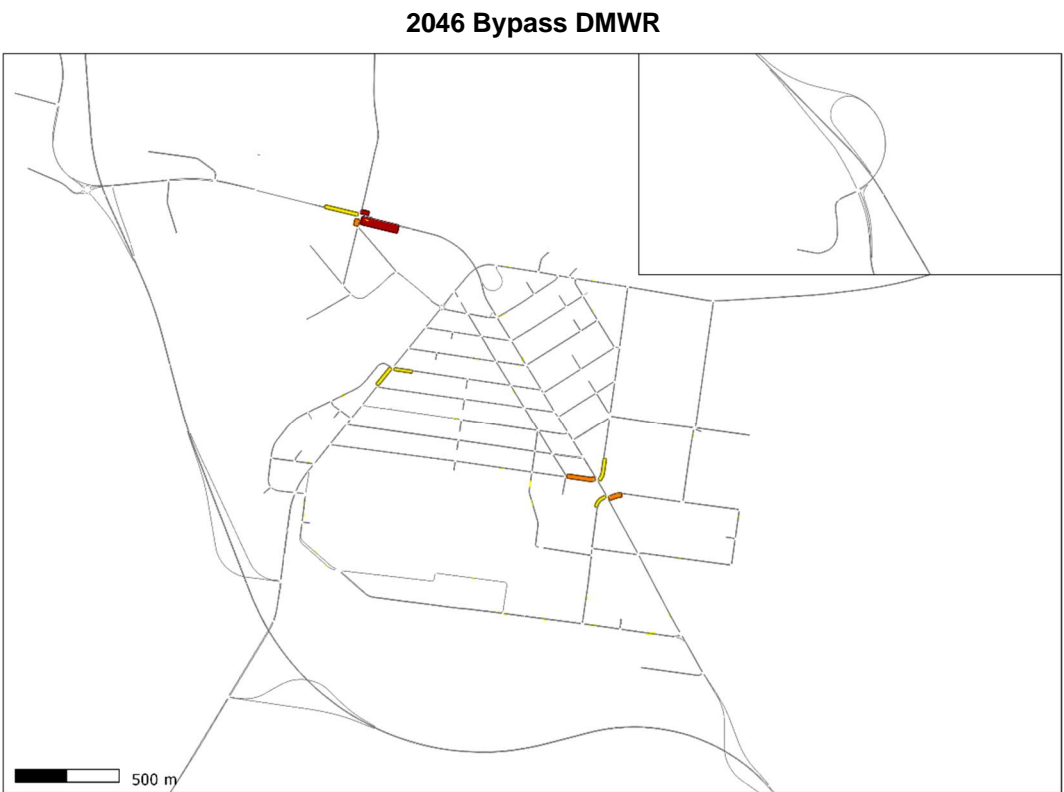
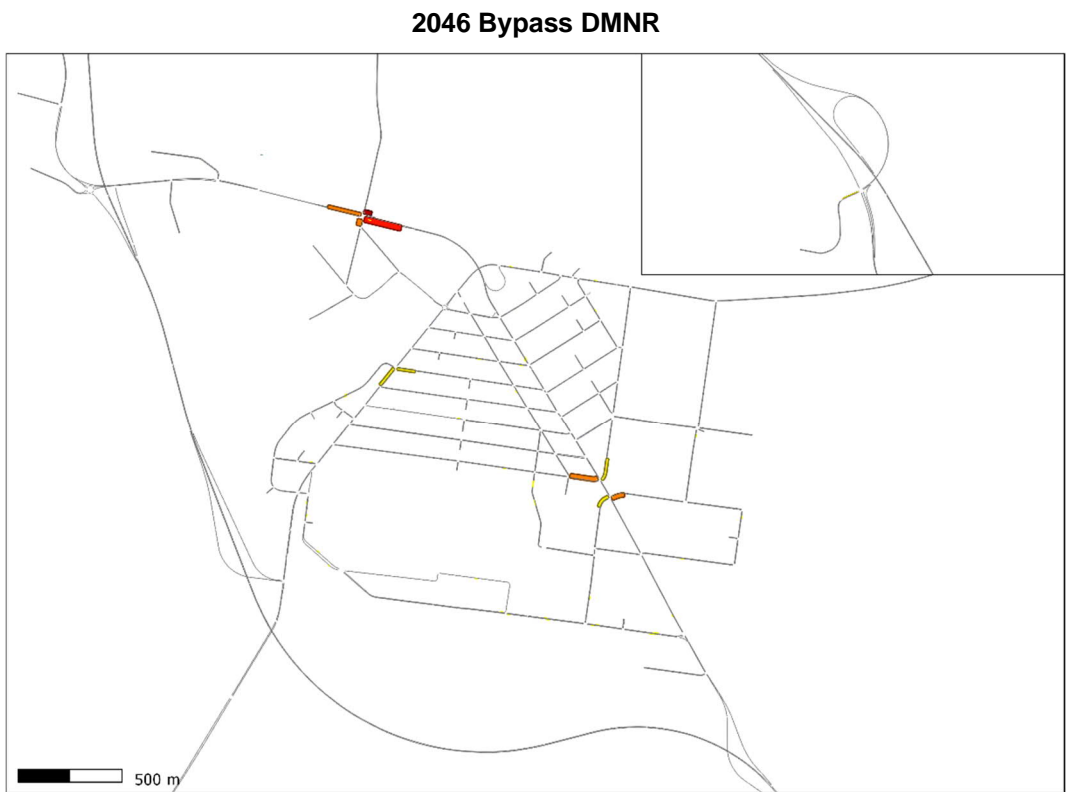
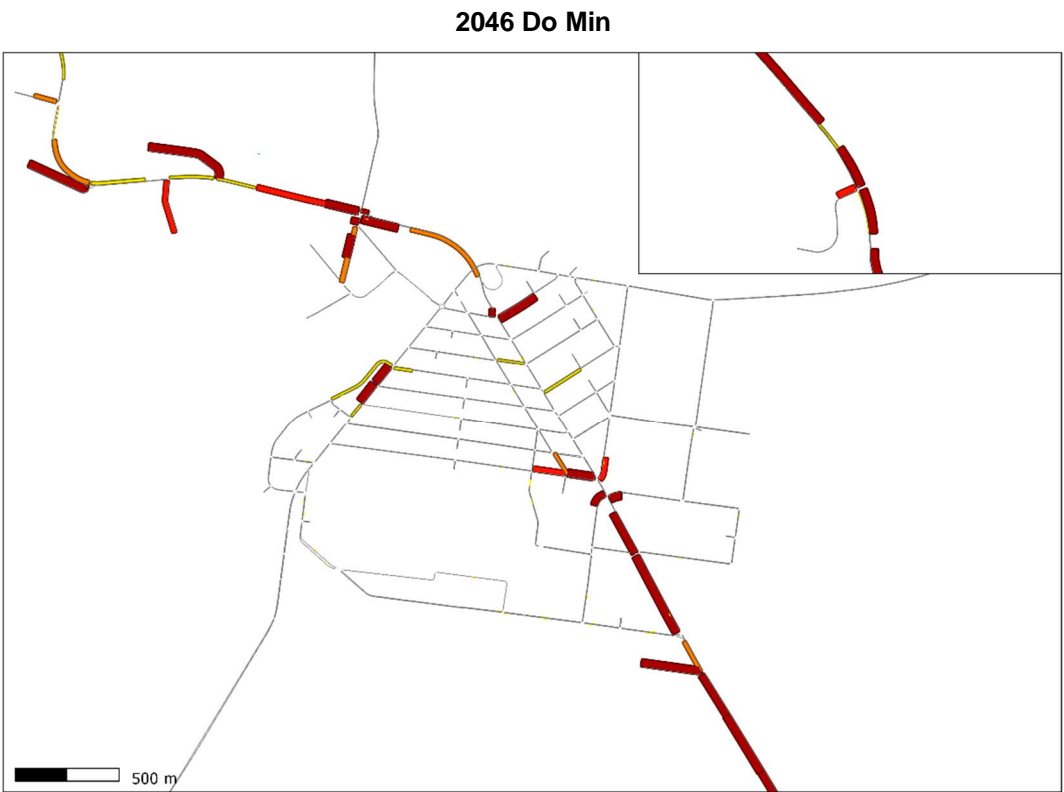


Figure 6-21 2046 Bypass AIMSUN Network Delay Plots PM Peak (16.00 – 17.00)

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6.4.3 Travel time

Table 6-34 and Table 6-35 indicate that the bypass has a significant impact on travel times along Route 1 in the 2046 future year with an improvement of over 10min in the northbound direction during the 08:30 – 09:30 period when compared to the Do Minimum.

Northbound and southbound through traffic see an improvement in travel time when using Route 3 along the bypass with a time saving of up to 8min 6secs during the 05:30 – 06:30 peak and up to 15mins 57secs during the 08:30 – 09:30 peak.

Time savings are also observed on Route 2 in the southbound direction because of the introduction of the bypass of up to 3min 15secs southbound between 08:30 – 09:30.

Table 6-34 Travel Time (mins.) AM Northbound

| Route | Time Period | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 05.30 - 06.30 | 15:33 | 14:43 | 14:22 | 14:08 |
| | 08.30 – 09.30 | 19:34 | 21:56 | 10:28 | 10:25 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 05:27 | 05:05 | 04:58 | 04:58 |
| | 08.30 – 09.30 | 06:28 | 05:17 | 05:37 | 05:38 |
| Route 5 – Singleton Bypass | 05.30 - 06.30 | | | 07:37 | 07:48 |
| | 08.30 – 09.30 | | | 05:59 | 05:59 |

Table 6-35 Travel Time (mins.) AM Southbound

| Route | Time Period | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 05.30 - 06.30 | 09:25 | 09:02 | 09:16 | 09:14 |
| | 08.30 – 09.30 | 17:39 | 12:36 | 09:45 | 09:40 |
| Route 2 – John Street / Queen Street | 05.30 - 06.30 | 04:59 | 05:00 | 04:57 | 04:57 |
| | 08.30 – 09.30 | 08:33 | 08:09 | 05:18 | 05:23 |
| Route 5 – Singleton Bypass | 05.30 - 06.30 | | | 05:40 | 05:40 |
| | 08.30 – 09.30 | | | 05:45 | 05:45 |

Improvements are seen across both travel time routes during the PM peak in 2046 with travel time savings of up to 18mins 59secs along Route 1 as seen in the southbound direction in Table 6-36. Through traffic using the bypass is predicted to have travel time savings of over 10 mins and up to 23 mins in both directions.

Traffic on along Route 2 sees travel time improvements of up to 5min 50secs in the northbound direction when compared to the Do Minimum.

Table 6-36 Travel Time (mins.) PM Northbound

| Route | Time Period | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|---|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 17:15 | 26:22 | 10:37 | 10:48 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 07:29 | 11:12 | 05:22 | 05:31 |
| Route 5 – Singleton Bypass | 16.00 – 17.00 | | | 06:00 | 06:00 |

Table 6-37 Travel Time (mins.) PM Southbound

| Route | Time Period | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|--------------------------------------|---------------|-----------|--------------|------------------|------------------|
| Route 1 – New England Highway | 16.00 – 17.00 | 28:43 | 24:51 | 09:52 | 09:44 |
| Route 2 – John Street / Queen Street | 16.00 – 17.00 | 06:27 | 05:27 | 04:10 | 04:12 |
| Route 5 – Singleton Bypass | 16.00 – 17.00 | | | 05:50 | 05:50 |

6.4.4 Network performance

The introduction of the bypass sees an improvement of up to 5% in VKT and a reduction of up to 40% in VHT during the AM peak period, showing a significant improvement in overall network performance. The PM peak has a more significant improvement of up to 15% VKT and a reduction of up to 48% VHT, showing significant improvements are made across the network. This is also evident in the higher average network speed observed in both AM and PM periods of 55km/h and 52km/h respectively, an improvement of 49% and 68% respectively.

The AM and PM peak also sees minimal unreleased trips in the bypass scenarios compared to both the Base Case and Do Minimum scenarios which have over 700 unreleased trips during the PM peak.

Due to the severe congestion in the network, and in particular, on the Bridgman Road approach to the New England Highway, the anomaly of increased delay on the approach between the two bypass scenarios is not seen in these tests.

Table 6-38 Network Statistics AM

| AM (4 Hours) | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|---|-----------|--------------|------------------|------------------|
| Vehicle Kilometres Travelled (km) – VKT | 121,605 | 123,152 | 127,355 | 127,382 |
| Vehicle Hours Travelled (hrs) - VHT | 3,747 | 3,376 | 2,250 | 2,247 |
| Average Network Speed (km/h) | 37 | 40 | 55 | 55 |
| Completed Trips (vehs) | 21,286 | 21,609 | 21,986 | 21,983 |
| Incomplete Trips (vehs) | 1,132 | 949 | 484 | 483 |
| Unreleased Trips (vehs) | 247 | 14 | - | - |
| Delay for Unreleased Trips (hrs) | 51 | 1 | - | - |

Table 6-39 Network Statistics PM

| PM (3 Hours) | 2046 Base | 2046 Do Min. | 2046 Bypass DMNR | 2046 Bypass DMWR |
|---|-----------|--------------|------------------|------------------|
| Vehicle Kilometres Travelled (km) – VKT | 108,395 | 108,151 | 124,097 | 124,459 |
| Vehicle Hours Travelled (hrs) - VHT | 4,187 | 4,266 | 2,210 | 2,216 |
| Average Network Speed (km/h) | 31 | 32 | 52 | 52 |
| Completed Trips (vehs) | 22,954 | 22,904 | 24,715 | 24,700 |
| Incomplete Trips (vehs) | 1,778 | 1,944 | 727 | 723 |
| Unreleased Trips (vehs) | 771 | 716 | 2 | 2 |
| Delay for Unreleased Trips (hrs) | 335 | 355 | - | - |

6.4.5 Comparison of bypass scenarios

There is no notable difference in network statistics between the bypass scenarios other than there being more vehicle kilometres covered when the south facing ramps are provided at Putty Road. This is because the distance from Haggartys Lane to the Ryan Ave retail precinct is 0.8km longer via the bypass ramps with little difference in travel time (-30secs to use the bypass and south facing ramps).

The introduction of the bypass without south facing ramps at Putty Road sees no change to the VKT, VHT and network average speed compared to the bypass with south facing ramps at Putty Road.

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7.0 Conclusions and Recommendations

The modelling clearly demonstrated that the Singleton network would experience severe congestion in the future years with no improvements. This is particularly evident at the New England Highway / Bridgman Road intersection where significant development is planned.

Initially, four options were considered to improve the network and from these the option to provide increased capacity for the southbound flow by the provision of an additional lane from Market Street to Haggarty's Lane (Option 3) was preferred although it did not resolve the issues at the New England Highway / Bridgman Road intersection. Consequently, this option was modified further to provide an additional right turn lane from Bridgman Road. This significantly improved the queueing conditions and the revised option (Option 5) was taken forward as the Do Minimum scenario against which the bypass would be compared.

Two bypass options were considered:

- the bypass with no south facing ramps at the Putty Road intersection
- the bypass with the south facing ramps at the Putty Road intersection.

While the provision of the bypass made a significant improvement to travel time and junction performance across the network, it was considered that the provision of the ramps did not assist the operation of the network.

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Appendix A

Assessment Period

Matrix Demand Summary

| | 0530-0630 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 3215 | 3352 | 3489 | 3831 | 4173 |
| Truck | 220 | 235 | 251 | 289 | 328 |
| B-Double | 24 | 26 | 28 | 33 | 37 |
| Total | 3459 | 3613 | 3767 | 4153 | 4538 |

| | 1500-1600 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 6248 | 6463 | 6678 | 7216 | 7754 |
| Truck | 277 | 292 | 307 | 344 | 382 |
| B-Double | 24 | 26 | 28 | 33 | 37 |
| Total | 6549 | 6781 | 7013 | 7593 | 8173 |

| | 0630-0730 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 3571 | 3721 | 3871 | 4245 | 4620 |
| Truck | 280 | 297 | 315 | 358 | 402 |
| B-Double | 35 | 38 | 41 | 48 | 55 |
| Total | 3886 | 4056 | 4226 | 4651 | 5076 |

| | 1600-1700 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 6430 | 6649 | 6869 | 7418 | 7967 |
| Truck | 246 | 261 | 275 | 312 | 348 |
| B-Double | 21 | 23 | 24 | 29 | 33 |
| Total | 6697 | 6932 | 7168 | 7758 | 8348 |

| | 0730-0830 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 4036 | 4188 | 4341 | 4722 | 5103 |
| Truck | 285 | 303 | 321 | 367 | 412 |
| B-Double | 34 | 37 | 39 | 46 | 53 |
| Total | 4355 | 4528 | 4701 | 5135 | 5568 |

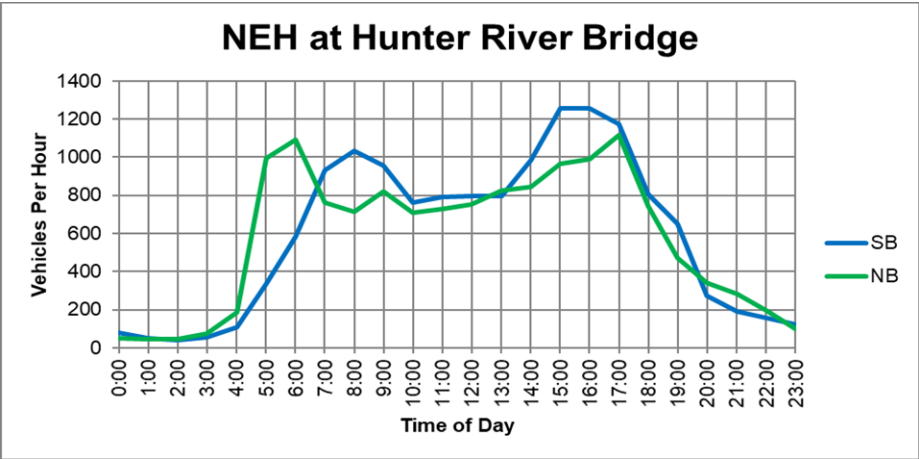
| | 1700-1800 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 6257 | 6476 | 6695 | 7243 | 7790 |
| Truck | 218 | 230 | 242 | 273 | 303 |
| B-Double | 22 | 24 | 26 | 30 | 34 |
| Total | 6497 | 6730 | 6963 | 7545 | 8128 |

| | 0830-0930 | | | | |
|----------|-----------|------|------|------|------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 5108 | 5270 | 5431 | 5834 | 6237 |
| Truck | 287 | 305 | 323 | 368 | 412 |
| B-Double | 14 | 15 | 16 | 19 | 22 |
| Total | 5409 | 5590 | 5770 | 6221 | 6671 |

| | 0530-0930 | | | | |
|----------|-----------|-------|-------|-------|-------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 15930 | 16531 | 17131 | 18632 | 20133 |
| Truck | 1072 | 1141 | 1210 | 1382 | 1554 |
| B-Double | 107 | 116 | 124 | 146 | 167 |
| Total | 17109 | 17787 | 18465 | 20159 | 21853 |

| | 1500-1800 | | | | |
|----------|-----------|-------|-------|-------|-------|
| | 2018 | 2022 | 2026 | 2036 | 2046 |
| Cars | 18934 | 19588 | 20242 | 21877 | 23511 |
| Truck | 741 | 783 | 825 | 929 | 1034 |
| B-Double | 67 | 72 | 78 | 91 | 105 |
| Total | 19742 | 20443 | 21144 | 22897 | 24649 |

Traffic Count Data on New England Highway



Appendix B

Level of Service

From 5:30:00 to 6:30:00 1

| | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | | |
|----|----------------------------------|-----------|---------------------|------|-----------|-----------|------|-----------|-----------|------|-----------|-----------|------|-----------|-----------|------|-----------|-----|
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 299 | 232 | F | 287 | 207 | F | 281 | 208 | F | 245 | 764 | F | 227 | 970 | F |
| | | East | New England Hwy (E) | 1101 | 76 | F | 1043 | 71 | F | 1110 | 119 | F | 1101 | 98 | F | 1143 | 204 | F |
| | | South | Bridgman Rd (S) | 210 | 31 | C | 336 | 36 | C | 366 | 53 | D | 554 | 59 | E | 604 | 126 | F |
| | | West | New England Hwy (W) | 282 | 23 | B | 303 | 24 | B | 323 | 25 | B | 362 | 25 | B | 381 | 24 | B |
| | | Total | | | 88 | F | | 78 | F | | 105 | F | | 149 | F | | 229 | F |
| 3 | New England Hwy & White Ave | North | White Ave | 174 | 19 | B | 179 | 25 | B | 184 | 27 | B | 189 | 118 | F | 179 | 292 | F |
| | | East | New England Hwy (E) | 1386 | 6 | A | 1450 | 7 | A | 1542 | 7 | A | 1687 | 7 | A | 1743 | 7 | A |
| | | West | New England Hwy (W) | 255 | 1 | A | 273 | 1 | A | 296 | 1 | A | 339 | 1 | A | 364 | 1 | A |
| | | Total | | | 19 | B | | 25 | B | | 27 | B | | 118 | F | | 292 | F |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 1511 | 1 | A | 1578 | 1 | A | 1672 | 1 | A | 1822 | 2 | A | 1877 | 2 | A |
| | | South | Simpson Tce | 26 | 29 | C | 34 | 35 | C | 30 | 40 | C | 33 | 60 | E | 34 | 80 | F |
| | | West | New England Hwy (W) | 259 | 1 | A | 276 | 1 | A | 298 | 1 | A | 342 | 2 | A | 365 | 2 | A |
| | | Total | | | 29 | C | | 35 | C | | 40 | C | | 60 | E | | 80 | F |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1314 | 2 | A | 1355 | 2 | A | 1420 | 2 | A | 1569 | 2 | A | 1632 | 2 | A |
| | | South | Maison Dieu Rd | 225 | 3 | A | 260 | 3 | A | 278 | 3 | A | 285 | 3 | A | 274 | 3 | A |
| | | | | 31 | 30 | C | 42 | 37 | C | 51 | 38 | C | 59 | 84 | F | 59 | 150 | F |
| | | | | 25 | 2 | A | 32 | 4 | A | 35 | 3 | A | 40 | 32 | C | 44 | 81 | F |
| | | West | New England Hwy (W) | 238 | 2 | A | 244 | 2 | A | 259 | 2 | A | 296 | 2 | A | 324 | 2 | A |
| | | Total | | | 30 | C | | 37 | C | | 38 | C | | 84 | F | | 150 | F |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 314 | 3 | A | 329 | 3 | A | 344 | 3 | A | 348 | 3 | A | 347 | 4 | A |
| | | East | Howe St | 63 | 59 | E | 65 | 64 | E | 70 | 70 | F | 55 | 57 | E | 55 | 75 | F |
| | | South | New England Hwy (S) | 908 | 8 | A | 971 | 10 | A | 1032 | 12 | A | 1109 | 11 | A | 1226 | 27 | B |
| | | West | Orchard Ave | 6 | 58 | E | 7 | 58 | E | 6 | 54 | D | 6 | 69 | E | 12 | 62 | E |
| | | Total | | | 9 | A | | 11 | A | | 13 | A | | 11 | A | | 24 | B |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 309 | 3 | A | 317 | 2 | A | 331 | 3 | A | 342 | 4 | A | 339 | 3 | A |
| | | East | Boundary St | 16 | 57 | E | 16 | 58 | E | 24 | 56 | E | 18 | 62 | E | 24 | 71 | F |
| | | South | New England Hwy (S) | 950 | 3 | A | 1010 | 3 | A | 1072 | 4 | A | 1129 | 3 | A | 1254 | 6 | A |
| | | West | York St | 67 | 69 | E | 75 | 92 | F | 74 | 84 | F | 62 | 70 | E | 67 | 111 | F |
| | | Total | | | 7 | A | | 8 | A | | 8 | A | | 7 | A | | 11 | A |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 310 | 1 | A | 319 | 2 | A | 341 | 3 | A | 347 | 4 | A | 347 | 12 | A |
| | | East | Market St | 29 | 2 | A | 31 | 3 | A | 22 | 8 | A | 27 | 3 | A | 28 | 19 | B |
| | | South | New England Hwy (S) | 931 | 2 | A | 886 | 2 | A | 961 | 3 | A | 986 | 2 | A | 1059 | 14 | A |
| | | West | Elizabeth St | 5 | 7 | A | 7 | 9 | A | 8 | 11 | A | 12 | 12 | A | 13 | 21 | B |
| | | Total | | | 7 | A | | 9 | A | | 11 | A | | 12 | A | | 21 | B |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 315 | 2 | A | 327 | 2 | A | 346 | 2 | A | 360 | 3 | A | 355 | 3 | A |
| | | East | Campbell St (E) | 18 | 57 | E | 19 | 55 | D | 18 | 45 | D | 17 | 56 | D | 18 | 53 | D |
| | | South | New England Hwy (S) | 952 | 1 | A | 890 | 2 | A | 952 | 5 | A | 988 | 1 | A | 1052 | 22 | B |
| | | West | Campbell St (W) | 9 | 44 | D | 10 | 34 | C | 14 | 32 | C | 9 | 50 | D | 12 | 38 | C |
| | | | | 148 | 1 | A | 148 | 1 | A | 142 | 1 | A | 102 | 1 | A | 109 | 2 | A |
| | | Total | | | 57 | E | | 55 | D | | 45 | D | | 56 | D | | 53 | D |
| 12 | John St & Newton St * | North | John St (N) | 397 | 2 | A | 421 | 2 | A | 447 | 2 | A | 492 | 2 | A | 508 | 3 | A |
| | | East | Campbell St | 44 | 1 | A | 169 | 2 | A | 169 | 2 | A | 240 | 2 | A | 276 | 3 | A |
| | | South | John St (S) | 182 | 1 | A | 189 | 3 | A | 191 | 4 | A | 208 | 5 | A | 225 | 6 | A |
| | | West | Newton St | 176 | 1 | A | 172 | 1 | A | 180 | 0 | A | 166 | 1 | A | 172 | 0 | A |
| | | Total | | | 2 | A | | 3 | A | | 4 | A | | 5 | A | | 6 | A |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 355 | 6 | A | 366 | 7 | A | 371 | 7 | A | 381 | 8 | A | 384 | 8 | A |
| | | East | Hunter St | 5 | 25 | B | 5 | 27 | B | 5 | 31 | C | 7 | 30 | C | 7 | 26 | B |
| | | South | John St (S) | 119 | 17 | B | 121 | 17 | B | 115 | 18 | B | 130 | 18 | B | 137 | 18 | B |
| | | West | Ryan Ave | 77 | 16 | B | 82 | 14 | A | 90 | 14 | B | 95 | 15 | B | 104 | 14 | B |
| | | Total | | | 10 | A | | 10 | A | | 10 | A | | 12 | A | | 11 | A |
| 18 | Putty Rd & Ryan Ave | North | John St (N) | 213 | 14 | B | 202 | 15 | B | 203 | 14 | B | 137 | 14 | B | 137 | 14 | B |
| | | East | Ryan Ave (E) | 73 | 12 | A | 74 | 13 | A | 88 | 13 | A | 114 | 13 | A | 119 | 13 | A |
| | | South | John St (S) | 88 | 7 | A | 94 | 7 | A | 92 | 7 | A | 97 | 7 | A | 103 | 7 | A |
| | | West | Ryan Ave (W) | 148 | 15 | B | 166 | 20 | B | 162 | 22 | B | 212 | 25 | B | 221 | 28 | B |
| | | Total | | | 13 | A | | 15 | B | | 15 | B | | 17 | B | | 18 | B |
| 21 | Queen St & New England Hwy Ramp | East | Queen St (E) | 307 | 0 | A | 314 | 0 | A | 341 | 0 | A | 384 | 0 | A | 398 | 0 | A |
| | | South | New England Hwy (S) | 140 | 3 | A | 160 | 3 | A | 162 | 4 | A | 160 | 5 | A | 159 | 5 | A |
| | | West | Queen St (W) | 58 | 0 | A | 60 | 0 | A | 62 | 0 | A | 68 | 0 | A | 70 | 0 | A |
| | | Total | | | 3 | A | | 3 | A | | 4 | A | | 5 | A | | 5 | A |
| 33 | Magpie St & New England Hwy | North | New England Hwy (N) | 214 | 4 | A | 225 | 4 | A | 241 | 5 | A | 281 | 5 | A | 310 | 5 | A |
| | | South | New England Hwy (S) | 1289 | 7 | A | 1393 | 15 | B | 1466 | 16 | B | 1616 | 17 | B | 1685 | 18 | B |
| | | West | Magpie St | 70 | 52 | D | 78 | 42 | D | 85 | 44 | D | 94 | 47 | D | 103 | 54 | D |
| | | Total | | | 9 | A | | 15 | B | | 16 | B | | 16 | B | | 18 | B |

From 6:30:00 to 7:30:00 2

| | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 236 | 73 | F | 216 | 63 | E | 224 | 78 | F | 257 | 516 | F | 237 | 700 | F |
| | East | New England Hwy (E) | 945 | 40 | C | 947 | 43 | D | 963 | 40 | C | 1030 | 57 | E | 1140 | 192 | F |
| | South | Bridgman Rd (S) | 132 | 35 | C | 179 | 33 | C | 215 | 34 | C | 313 | 35 | C | 349 | 37 | C |
| | West | New England Hwy (W) | 648 | 27 | B | 691 | 26 | B | 736 | 27 | B | 842 | 32 | C | 930 | 37 | C |
| | Total | | | 39 | C | | 39 | C | | 39 | C | | 94 | F | | 163 | F |
| New England Hwy & White Ave | North | White Ave | 137 | 13 | A | 151 | 15 | B | 163 | 22 | B | 165 | 57 | E | 205 | 606 | F |
| | East | New England Hwy (E) | 1019 | 5 | A | 1093 | 6 | A | 1153 | 6 | A | 1344 | 7 | A | 1478 | 7 | A |
| | West | New England Hwy (W) | 656 | 1 | A | 688 | 1 | A | 726 | 1 | A | 836 | 1 | A | 937 | 1 | A |
| | Total | | | 13 | A | | 15 | B | | 22 | B | | 57 | E | | 606 | F |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1105 | 1 | A | 1176 | 1 | A | 1251 | 1 | A | 1438 | 2 | A | 1607 | 2 | A |
| | South | Simpson Tce | 18 | 20 | B | 13 | 16 | B | 17 | 19 | B | 15 | 31 | C | 15 | 36 | C |
| | West | New England Hwy (W) | 662 | 2 | A | 696 | 2 | A | 733 | 2 | A | 845 | 2 | A | 943 | 2 | A |
| | Total | | | 20 | B | | 16 | B | | 19 | B | | 31 | C | | 36 | C |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 822 | 2 | A | 851 | 2 | A | 916 | 2 | A | 1069 | 2 | A | 1217 | 2 | A |
| | South | Maison Dieu Rd | 298 | 2 | A | 336 | 3 | A | 351 | 3 | A | 380 | 3 | A | 399 | 3 | A |
| | | | 54 | 27 | B | 59 | 28 | C | 55 | 30 | C | 61 | 45 | D | 65 | 82 | F |
| | | | 24 | 2 | A | 34 | 3 | A | 35 | 2 | A | 39 | 8 | A | 44 | 30 | C |
| | West | New England Hwy (W) | 630 | 2 | A | 655 | 2 | A | 698 | 2 | A | 806 | 2 | A | 894 | 3 | A |
| | Total | | | 27 | B | | 28 | C | | 30 | C | | 45 | D | | 82 | F |
| New England Hwy & Howe St | North | New England Hwy (N) | 687 | 8 | A | 733 | 9 | A | 770 | 9 | A | 887 | 10 | A | 888 | 12 | A |
| | East | Howe St | 102 | 56 | E | 102 | 57 | E | 110 | 53 | D | 111 | 62 | E | 113 | 76 | F |
| | South | New England Hwy (S) | 739 | 17 | B | 770 | 23 | B | 827 | 27 | B | 795 | 43 | D | 852 | 73 | F |
| | West | Orchard Ave | 8 | 47 | D | 7 | 49 | D | 9 | 56 | D | 17 | 64 | E | 26 | 51 | D |
| | Total | | | 16 | B | | 19 | B | | 21 | B | | 28 | C | | 44 | D |
| New England Hwy & York St | North | New England Hwy (N) | 628 | 6 | A | 666 | 6 | A | 711 | 7 | A | 815 | 10 | A | 806 | 12 | A |
| | East | Boundary St | 62 | 58 | E | 64 | 62 | E | 63 | 53 | D | 73 | 68 | E | 76 | 73 | F |
| | South | New England Hwy (S) | 786 | 8 | A | 808 | 8 | A | 868 | 8 | A | 832 | 10 | A | 895 | 11 | A |
| | West | York St | 124 | 54 | D | 131 | 52 | D | 127 | 51 | D | 128 | 52 | D | 131 | 60 | E |
| | Total | | | 13 | A | | 13 | A | | 13 | A | | 15 | B | | 18 | B |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 643 | 2 | A | 677 | 2 | A | 724 | 2 | A | 836 | 4 | A | 822 | 7 | A |
| | East | Market St | 23 | 6 | A | 28 | 5 | A | 26 | 6 | A | 30 | 7 | A | 31 | 23 | B |
| | South | New England Hwy (S) | 752 | 1 | A | 785 | 1 | A | 837 | 2 | A | 811 | 2 | A | 878 | 11 | A |
| | West | Elizabeth St | 3 | 17 | B | 7 | 17 | B | 6 | 15 | B | 8 | 19 | B | 10 | 42 | C |
| | Total | | | 17 | B | | 17 | B | | 15 | B | | 19 | B | | 42 | C |
| New England Hwy & Campbell St | North | New England Hwy (N) | 640 | 3 | A | 679 | 3 | A | 724 | 3 | A | 844 | 4 | A | 834 | 6 | A |
| | East | Campbell St (E) | 21 | 48 | D | 18 | 77 | F | 16 | 67 | E | 16 | 69 | E | 16 | 77 | F |
| | South | New England Hwy (S) | 753 | 1 | A | 794 | 2 | A | 834 | 2 | A | 852 | 2 | A | 932 | 21 | B |
| | West | Campbell St (W) | 11 | 27 | B | 12 | 43 | D | 12 | 45 | D | 10 | 43 | D | 10 | 55 | D |
| | | | 190 | 1 | A | 151 | 1 | A | 139 | 1 | A | 180 | 1 | A | 192 | 3 | A |
| | Total | | | 48 | D | | 77 | F | | 67 | E | | 69 | E | | 77 | F |
| John St & Newton St * | North | John St (N) | 395 | 4 | A | 444 | 3 | A | 489 | 3 | A | 484 | 3 | A | 488 | 3 | A |
| | East | Campbell St | 72 | 2 | A | 74 | 2 | A | 78 | 2 | A | 134 | 3 | A | 147 | 3 | A |
| | South | John St (S) | 227 | 1 | A | 228 | 1 | A | 221 | 1 | A | 255 | 2 | A | 263 | 3 | A |
| | West | Newton St | 254 | 1 | A | 216 | 1 | A | 218 | 1 | A | 228 | 1 | A | 218 | 1 | A |
| | Total | | | 4 | A | | 3 | A | | 3 | A | | 3 | A | | 3 | A |
| John St & Ryan Ave & Hunter St | North | John St (N) | 453 | 10 | A | 460 | 13 | A | 474 | 12 | A | 477 | 11 | A | 451 | 11 | A |
| | East | Hunter St | 5 | 31 | C | 10 | 26 | B | 5 | 26 | B | 11 | 28 | B | 10 | 31 | C |
| | South | John St (S) | 107 | 23 | B | 97 | 23 | B | 75 | 22 | B | 92 | 21 | B | 93 | 23 | B |
| | West | Ryan Ave | 123 | 10 | A | 132 | 10 | A | 154 | 10 | A | 170 | 11 | A | 179 | 10 | A |
| | Total | | | 12 | A | | 14 | B | | 13 | A | | 12 | A | | 13 | A |
| Putty Rd & Ryan Ave | North | John St (N) | 179 | 16 | B | 132 | 15 | B | 142 | 15 | B | 149 | 15 | B | 146 | 15 | B |
| | East | Ryan Ave (E) | 94 | 12 | A | 92 | 12 | A | 97 | 12 | A | 112 | 12 | A | 121 | 12 | A |
| | South | John St (S) | 124 | 9 | A | 125 | 9 | A | 126 | 9 | A | 145 | 9 | A | 139 | 9 | A |
| | West | Ryan Ave (W) | 171 | 17 | B | 217 | 20 | B | 216 | 19 | B | 203 | 22 | B | 181 | 21 | B |
| | Total | | | 14 | B | | 15 | B | | 15 | B | | 15 | B | | 15 | B |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 230 | 0 | A | 227 | 0 | A | 255 | 0 | A | 264 | 0 | A | 290 | 0 | A |
| | South | New England Hwy (S) | 266 | 3 | A | 325 | 3 | A | 342 | 3 | A | 329 | 4 | A | 282 | 4 | A |
| | West | Queen St (W) | 83 | 0 | A | 85 | 0 | A | 89 | 0 | A | 96 | 0 | A | 100 | 0 | A |
| | Total | | | 3 | A | | 3 | A | | 3 | A | | 4 | A | | 4 | A |
| Magpie St & New England Hwy | North | New England Hwy (N) | 568 | 6 | A | 608 | 6 | A | 648 | 6 | A | 750 | 7 | A | 845 | 7 | A |
| | South | New England Hwy (S) | 793 | 15 | B | 894 | 20 | B | 959 | 21 | B | 1117 | 22 | B | 1269 | 26 | B |
| | West | Magpie St | 94 | 31 | C | 126 | 30 | C | 133 | 31 | C | 147 | 30 | C | 163 | 30 | C |
| | Total | | | 12 | A | | 15 | B | | 16 | B | | 17 | B | | 19 | B |

From 7:30:00 to 8:30:00 3

| | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 235 | 50 | D | 196 | 35 | C | 188 | 33 | C | 230 | 169 | F | 282 | 367 | F |
| | East | New England Hwy (E) | 844 | 37 | C | 861 | 40 | C | 866 | 39 | C | 897 | 43 | D | 1042 | 84 | F |
| | South | Bridgman Rd (S) | 101 | 40 | C | 137 | 38 | C | 175 | 36 | C | 251 | 36 | C | 307 | 38 | C |
| | West | New England Hwy (W) | 767 | 33 | C | 798 | 31 | C | 833 | 35 | C | 942 | 46 | D | 1024 | 90 | F |
| | Total | | 37 | C | | 36 | C | | 37 | C | | 56 | D | | 111 | F | |
| New England Hwy & White Ave | North | White Ave | 147 | 9 | A | 142 | 11 | A | 150 | 12 | A | 163 | 16 | B | 186 | 145 | F |
| | East | New England Hwy (E) | 824 | 5 | A | 869 | 5 | A | 894 | 5 | A | 1032 | 5 | A | 1266 | 6 | A |
| | West | New England Hwy (W) | 731 | 1 | A | 758 | 1 | A | 799 | 1 | A | 907 | 1 | A | 1005 | 4 | A |
| | Total | | 9 | A | | 11 | A | | 12 | A | | 16 | B | | 145 | F | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 860 | 1 | A | 900 | 1 | A | 932 | 1 | A | 1080 | 1 | A | 1323 | 1 | A |
| | South | Simpson Tce | 15 | 15 | B | 16 | 19 | B | 17 | 16 | B | 18 | 34 | C | 20 | 38 | C |
| | West | New England Hwy (W) | 727 | 2 | A | 755 | 2 | A | 795 | 2 | A | 901 | 2 | A | 1008 | 4 | A |
| | Total | | 15 | B | | 19 | B | | 16 | B | | 34 | C | | 38 | C | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 641 | 2 | A | 667 | 2 | A | 696 | 2 | A | 806 | 2 | A | 1008 | 2 | A |
| | South | Maison Dieu Rd | 227 | 2 | A | 239 | 2 | A | 248 | 2 | A | 286 | 2 | A | 328 | 3 | A |
| | | | 128 | 23 | B | 135 | 26 | B | 132 | 27 | B | 140 | 40 | C | 149 | 90 | F |
| | | | 21 | 3 | A | 26 | 6 | A | 26 | 5 | A | 28 | 11 | A | 29 | 48 | D |
| | West | New England Hwy (W) | 604 | 2 | A | 633 | 2 | A | 674 | 2 | A | 771 | 2 | A | 879 | 3 | A |
| | Total | | 23 | B | | 26 | B | | 27 | B | | 40 | C | | 90 | F | |
| New England Hwy & Howe St | North | New England Hwy (N) | 784 | 6 | A | 805 | 6 | A | 850 | 6 | A | 1006 | 8 | A | 1114 | 11 | A |
| | East | Howe St | 96 | 41 | C | 101 | 37 | C | 102 | 36 | C | 100 | 42 | C | 99 | 67 | E |
| | South | New England Hwy (S) | 818 | 18 | B | 798 | 23 | B | 826 | 23 | B | 769 | 34 | C | 851 | 74 | F |
| | West | Orchard Ave | 8 | 37 | C | 16 | 35 | C | 11 | 31 | C | 15 | 38 | C | 18 | 48 | D |
| | Total | | 14 | A | | 16 | B | | 16 | B | | 21 | B | | 39 | C | |
| New England Hwy & York St | North | New England Hwy (N) | 692 | 8 | A | 721 | 7 | A | 779 | 7 | A | 910 | 11 | A | 1006 | 16 | B |
| | East | Boundary St | 120 | 42 | C | 119 | 48 | D | 115 | 41 | C | 140 | 49 | D | 151 | 52 | D |
| | South | New England Hwy (S) | 859 | 10 | A | 833 | 11 | A | 854 | 11 | A | 794 | 12 | A | 878 | 15 | B |
| | West | York St | 157 | 43 | D | 146 | 46 | D | 135 | 42 | D | 146 | 45 | D | 153 | 49 | D |
| | Total | | 14 | A | | 14 | B | | 13 | A | | 17 | B | | 20 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 762 | 5 | A | 799 | 4 | A | 840 | 6 | A | 978 | 9 | A | 1022 | 11 | A |
| | East | Market St | 22 | 8 | A | 17 | 9 | A | 21 | 10 | A | 17 | 8 | A | 23 | 15 | B |
| | South | New England Hwy (S) | 713 | 2 | A | 720 | 2 | A | 735 | 2 | A | 707 | 3 | A | 778 | 4 | A |
| | West | Elizabeth St | 5 | 17 | B | 7 | 20 | B | 8 | 20 | B | 8 | 38 | C | 7 | 37 | C |
| | Total | | 17 | B | | 20 | B | | 20 | B | | 38 | C | | 37 | C | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 776 | 4 | A | 813 | 3 | A | 859 | 5 | A | 1008 | 9 | A | 1045 | 16 | B |
| | East | Campbell St (E) | 20 | 53 | D | 17 | 60 | E | 16 | 47 | D | 11 | 98 | F | 14 | 101 | F |
| | South | New England Hwy (S) | 716 | 1 | A | 720 | 2 | A | 711 | 2 | A | 700 | 3 | A | 779 | 5 | A |
| | West | Campbell St (W) | 12 | 35 | C | 10 | 42 | C | 11 | 45 | D | 10 | 50 | D | 11 | 72 | F |
| | | | 154 | 1 | A | 171 | 1 | A | 189 | 1 | A | 235 | 1 | A | 247 | 1 | A |
| | Total | | 53 | D | | 60 | E | | 47 | D | | 98 | F | | 101 | F | |
| John St & Newton St * | North | John St (N) | 399 | 7 | A | 474 | 6 | A | 481 | 9 | A | 559 | 16 | B | 524 | 26 | B |
| | East | Campbell St | 41 | 6 | A | 52 | 6 | A | 48 | 4 | A | 104 | 6 | A | 129 | 10 | A |
| | South | John St (S) | 237 | 1 | A | 237 | 2 | A | 249 | 2 | A | 250 | 4 | A | 282 | 5 | A |
| | West | Newton St | 342 | 1 | A | 267 | 1 | A | 303 | 1 | A | 319 | 1 | A | 339 | 1 | A |
| | Total | | 7 | A | | 6 | A | | 9 | A | | 16 | B | | 26 | B | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 563 | 17 | B | 561 | 19 | B | 575 | 19 | B | 644 | 24 | B | 626 | 26 | B |
| | East | Hunter St | 8 | 34 | C | 7 | 26 | B | 6 | 25 | B | 8 | 28 | C | 7 | 32 | C |
| | South | John St (S) | 91 | 22 | B | 91 | 21 | B | 94 | 21 | B | 100 | 23 | B | 111 | 22 | B |
| | West | Ryan Ave | 151 | 13 | A | 156 | 13 | A | 165 | 12 | A | 160 | 12 | A | 178 | 13 | A |
| | Total | | 17 | B | | 18 | B | | 18 | B | | 22 | B | | 23 | B | |
| Putty Rd & Ryan Ave | North | John St (N) | 171 | 16 | B | 134 | 16 | B | 130 | 14 | B | 152 | 15 | B | 184 | 14 | B |
| | East | Ryan Ave (E) | 137 | 12 | A | 151 | 13 | A | 197 | 13 | A | 208 | 15 | B | 191 | 14 | A |
| | South | John St (S) | 152 | 9 | A | 159 | 8 | A | 165 | 8 | A | 161 | 8 | A | 179 | 9 | A |
| | West | Ryan Ave (W) | 143 | 19 | B | 178 | 22 | B | 160 | 22 | B | 187 | 37 | C | 194 | 46 | D |
| | Total | | 14 | A | | 15 | B | | 14 | B | | 19 | B | | 21 | B | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 217 | 0 | A | 215 | 0 | A | 247 | 0 | A | 263 | 0 | A | 274 | 5 | A |
| | South | New England Hwy (S) | 310 | 4 | A | 390 | 5 | A | 370 | 5 | A | 470 | 6 | A | 446 | 9 | A |
| | West | Queen St (W) | 98 | 0 | A | 109 | 0 | A | 113 | 0 | A | 119 | 0 | A | 125 | 0 | A |
| | Total | | 4 | A | | 5 | A | | 5 | A | | 6 | A | | 9 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 541 | 8 | A | 573 | 8 | A | 609 | 8 | A | 706 | 9 | A | 803 | 9 | A |
| | South | New England Hwy (S) | 605 | 9 | A | 701 | 10 | A | 739 | 11 | A | 850 | 11 | A | 1060 | 12 | A |
| | West | Magpie St | 97 | 34 | C | 130 | 28 | B | 137 | 27 | B | 153 | 29 | C | 167 | 30 | C |
| | Total | | 10 | A | | 11 | A | | 11 | A | | 12 | A | | 12 | A | |

From 8:30:00 to 9:30:00 4

| | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 191 | 44 | D | 152 | 47 | D | 147 | 45 | D | 132 | 93 | F | 166 | 333 | F |
| | East | New England Hwy (E) | 924 | 49 | D | 900 | 47 | D | 883 | 50 | D | 1016 | 56 | E | 1002 | 56 | D |
| | South | Bridgman Rd (S) | 240 | 41 | C | 316 | 42 | C | 375 | 38 | C | 376 | 39 | C | 400 | 41 | C |
| | West | New England Hwy (W) | 710 | 37 | C | 741 | 37 | C | 768 | 39 | C | 856 | 64 | E | 861 | 215 | F |
| | Total | | | 44 | D | | 43 | D | | 44 | D | | 58 | E | | 129 | F |
| New England Hwy & White Ave | North | White Ave | 250 | 8 | A | 259 | 10 | A | 273 | 9 | A | 304 | 14 | A | 310 | 59 | E |
| | East | New England Hwy (E) | 737 | 5 | A | 768 | 5 | A | 814 | 5 | A | 897 | 6 | A | 924 | 6 | A |
| | West | New England Hwy (W) | 570 | 1 | A | 604 | 1 | A | 622 | 1 | A | 691 | 1 | A | 723 | 35 | C |
| | Total | | | 8 | A | | 10 | A | | 9 | A | | 14 | A | | 59 | E |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 777 | 1 | A | 814 | 1 | A | 865 | 1 | A | 950 | 1 | A | 1011 | 1 | A |
| | South | Simpson Tce | 21 | 13 | A | 23 | 13 | A | 22 | 15 | B | 24 | 20 | B | 27 | 73 | F |
| | West | New England Hwy (W) | 566 | 1 | A | 601 | 1 | A | 620 | 1 | A | 688 | 2 | A | 721 | 43 | D |
| | Total | | | 13 | A | | 13 | A | | 15 | B | | 20 | B | | 73 | F |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 628 | 2 | A | 625 | 2 | A | 670 | 2 | A | 740 | 2 | A | 771 | 2 | A |
| | South | Maison Dieu Rd | 152 | 2 | A | 195 | 2 | A | 197 | 3 | A | 208 | 3 | A | 229 | 3 | A |
| | | | 137 | 22 | B | 141 | 24 | B | 143 | 28 | C | 146 | 35 | C | 139 | 117 | F |
| | | | 23 | 4 | A | 30 | 6 | A | 32 | 8 | A | 34 | 12 | A | 36 | 86 | F |
| | West | New England Hwy (W) | 439 | 1 | A | 482 | 2 | A | 499 | 2 | A | 565 | 2 | A | 610 | 44 | D |
| | Total | | | 22 | B | | 24 | B | | 28 | C | | 35 | C | | 117 | F |
| New England Hwy & Howe St | North | New England Hwy (N) | 735 | 6 | A | 787 | 7 | A | 812 | 8 | A | 981 | 10 | A | 1005 | 9 | A |
| | East | Howe St | 117 | 91 | F | 97 | 268 | F | 107 | 176 | F | 92 | 105 | F | 88 | 193 | F |
| | South | New England Hwy (S) | 643 | 21 | B | 655 | 32 | C | 675 | 33 | C | 704 | 82 | F | 717 | 118 | F |
| | West | Orchard Ave | 43 | 56 | E | 29 | 87 | F | 35 | 58 | E | 29 | 132 | F | 27 | 103 | F |
| | Total | | | 20 | B | | 35 | C | | 31 | C | | 45 | D | | 61 | E |
| New England Hwy & York St | North | New England Hwy (N) | 638 | 10 | A | 671 | 11 | A | 688 | 13 | A | 820 | 19 | B | 845 | 21 | B |
| | East | Boundary St | 234 | 38 | C | 244 | 39 | C | 250 | 40 | C | 275 | 61 | E | 288 | 70 | F |
| | South | New England Hwy (S) | 743 | 15 | B | 718 | 18 | B | 731 | 18 | B | 751 | 24 | B | 750 | 28 | C |
| | West | York St | 289 | 40 | C | 298 | 48 | D | 293 | 53 | D | 330 | 52 | D | 340 | 54 | D |
| | Total | | | 20 | B | | 23 | B | | 24 | B | | 31 | C | | 35 | C |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 827 | 7 | A | 854 | 8 | A | 878 | 10 | A | 962 | 14 | B | 982 | 17 | B |
| | East | Market St | 34 | 12 | A | 30 | 14 | A | 22 | 11 | A | 48 | 12 | A | 49 | 22 | B |
| | South | New England Hwy (S) | 721 | 4 | A | 707 | 4 | A | 720 | 4 | A | 737 | 4 | A | 727 | 5 | A |
| | West | Elizabeth St | 10 | 25 | B | 10 | 50 | D | 9 | 44 | D | 9 | 84 | F | 12 | 66 | E |
| | Total | | | 25 | B | | 50 | D | | 44 | D | | 84 | F | | 66 | E |
| New England Hwy & Campbell St | North | New England Hwy (N) | 877 | 12 | A | 924 | 8 | A | 950 | 23 | B | 1041 | 42 | D | 1074 | 59 | E |
| | East | Campbell St (E) | 32 | 101 | F | 21 | 84 | F | 14 | 72 | F | 19 | 104 | F | 19 | 85 | F |
| | South | New England Hwy (S) | 724 | 3 | A | 714 | 4 | A | 753 | 4 | A | 754 | 5 | A | 739 | 7 | A |
| | West | Campbell St (W) | 16 | 51 | D | 15 | 57 | E | 15 | 95 | F | 20 | 117 | F | 25 | 124 | F |
| | Total | | | 263 | A | | 252 | A | | 183 | A | | 314 | A | | 339 | A |
| | Total | | | 101 | F | | 84 | F | | 95 | F | | 117 | F | | 124 | F |
| John St & Newton St * | North | John St (N) | 545 | 12 | A | 642 | 18 | B | 667 | 25 | B | 743 | 61 | E | 774 | 80 | F |
| | East | Campbell St | 91 | 8 | A | 109 | 15 | B | 102 | 14 | B | 102 | 25 | B | 108 | 39 | C |
| | South | John St (S) | 389 | 3 | A | 393 | 4 | A | 403 | 5 | A | 438 | 7 | A | 458 | 11 | A |
| | West | Newton St | 323 | 2 | A | 279 | 2 | A | 305 | 3 | A | 301 | 4 | A | 302 | 5 | A |
| | Total | | | 12 | A | | 18 | B | | 25 | B | | 61 | E | | 80 | F |
| John St & Ryan Ave & Hunter St | North | John St (N) | 672 | 31 | C | 707 | 36 | C | 732 | 40 | C | 751 | 49 | D | 777 | 61 | E |
| | East | Hunter St | 24 | 30 | C | 10 | 35 | C | 10 | 36 | C | 13 | 30 | C | 13 | 25 | B |
| | South | John St (S) | 131 | 36 | C | 127 | 35 | C | 116 | 33 | C | 142 | 36 | C | 147 | 39 | C |
| | West | Ryan Ave | 297 | 12 | A | 308 | 11 | A | 331 | 11 | A | 341 | 12 | A | 370 | 12 | A |
| | Total | | | 26 | B | | 29 | C | | 31 | C | | 37 | C | | 44 | D |
| Putty Rd & Ryan Ave | North | John St (N) | 161 | 16 | B | 166 | 16 | B | 176 | 16 | B | 192 | 16 | B | 177 | 15 | B |
| | East | Ryan Ave (E) | 291 | 12 | A | 304 | 12 | A | 319 | 12 | A | 377 | 13 | A | 409 | 13 | A |
| | South | John St (S) | 188 | 11 | A | 183 | 11 | A | 188 | 11 | A | 205 | 12 | A | 216 | 11 | A |
| | West | Ryan Ave (W) | 147 | 20 | B | 152 | 23 | B | 160 | 23 | B | 124 | 21 | B | 162 | 45 | D |
| | Total | | | 14 | B | | 14 | B | | 14 | B | | 14 | B | | 18 | B |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 386 | 0 | A | 420 | 1 | A | 452 | 2 | A | 462 | 8 | A | 474 | 11 | A |
| | South | New England Hwy (S) | 311 | 7 | A | 368 | 13 | A | 369 | 16 | B | 437 | 34 | C | 443 | 56 | D |
| | West | Queen St (W) | 169 | 0 | A | 177 | 0 | A | 177 | 0 | A | 203 | 0 | A | 206 | 0 | A |
| | Total | | | 7 | A | | 13 | A | | 16 | B | | 34 | C | | 56 | D |
| Magpie St & New England Hwy | North | New England Hwy (N) | 337 | 5 | A | 357 | 6 | A | 377 | 6 | A | 441 | 6 | A | 490 | 7 | A |
| | South | New England Hwy (S) | 541 | 9 | A | 663 | 19 | B | 707 | 20 | B | 782 | 20 | B | 816 | 20 | B |
| | West | Magpie St | 78 | 34 | C | 154 | 27 | B | 155 | 28 | B | 166 | 28 | C | 166 | 28 | B |
| | Total | | | 10 | A | | 16 | B | | 16 | B | | 17 | B | | 16 | B |

From 15:00:00 to 16:00:00 1

| | | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | | |
|-------|----------------------------------|-----------|---------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|---|
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 124 | 40 | C | 125 | 51 | D | 144 | 50 | D | 122 | 60 | E | 117 | 70 | F | |
| | | East | New England Hwy (E) | 993 | 94 | F | 1009 | 63 | E | 1078 | 75 | F | 1095 | 61 | E | 1181 | 90 | F | |
| | | South | Bridgman Rd (S) | 268 | 42 | C | 294 | 55 | D | 280 | 59 | E | 321 | 57 | E | 339 | 70 | E | |
| | | West | New England Hwy (W) | 1186 | 48 | D | 1258 | 47 | D | 1321 | 67 | E | 1410 | 118 | F | 1396 | 147 | F | |
| | | Total | | | | 65 | E | | 54 | D | | 68 | E | | 88 | F | | 113 | F |
| 3 | New England Hwy & White Ave | North | White Ave | 212 | 16 | B | 223 | 19 | B | 229 | 25 | B | 240 | 80 | F | 249 | 233 | F | |
| | | East | New England Hwy (E) | 586 | 6 | A | 614 | 7 | A | 640 | 7 | A | 678 | 9 | A | 735 | 11 | A | |
| | | West | New England Hwy (W) | 1124 | 1 | A | 1191 | 1 | A | 1271 | 2 | A | 1393 | 11 | A | 1399 | 23 | B | |
| | | Total | | | | 16 | B | | 19 | B | | 25 | B | | 80 | F | | 233 | F |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 511 | 1 | A | 537 | 1 | A | 563 | 1 | A | 623 | 1 | A | 692 | 1 | A | |
| | | South | Simpson Tce | 51 | 11 | A | 53 | 12 | A | 55 | 15 | B | 57 | 24 | B | 58 | 27 | B | |
| | | West | New England Hwy (W) | 1218 | 2 | A | 1288 | 3 | A | 1374 | 3 | A | 1494 | 11 | A | 1478 | 31 | C | |
| | | Total | | | | 11 | A | | 12 | A | | 15 | B | | 24 | B | | 31 | C |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 381 | 1 | A | 397 | 2 | A | 416 | 2 | A | 465 | 2 | A | 507 | 2 | A | |
| | | South | Maison Dieu Rd | 136 | 2 | A | 149 | 2 | A | 152 | 2 | A | 160 | 2 | A | 174 | 3 | A | |
| | | | | 175 | 61 | E | 179 | 84 | F | 188 | 139 | F | 170 | 555 | F | 125 | 839 | F | |
| | | | | 18 | 35 | C | 21 | 55 | D | 24 | 106 | F | 23 | 510 | F | 21 | 779 | F | |
| | | West | New England Hwy (W) | 1059 | 2 | A | 1145 | 2 | A | 1225 | 3 | A | 1378 | 7 | A | 1423 | 33 | C | |
| | | Total | | | | 61 | E | | 84 | F | | 139 | F | | 555 | F | | 839 | F |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 1034 | 15 | B | 1056 | 13 | A | 1069 | 17 | B | 1130 | 18 | B | 1167 | 19 | B | |
| | | East | Howe St | 201 | 52 | D | 204 | 60 | E | 193 | 52 | D | 179 | 58 | E | 201 | 97 | F | |
| | | South | New England Hwy (S) | 585 | 25 | B | 610 | 37 | C | 646 | 35 | C | 708 | 66 | E | 747 | 87 | F | |
| | | West | Orchard Ave | 43 | 35 | C | 72 | 34 | C | 93 | 35 | C | 182 | 39 | C | 191 | 38 | C | |
| | | Total | | | | 22 | B | | 26 | B | | 27 | B | | 39 | C | | 49 | D |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 849 | 20 | B | 860 | 20 | B | 876 | 27 | B | 892 | 27 | B | 911 | 33 | C | |
| | | East | Boundary St | 229 | 42 | D | 267 | 44 | D | 265 | 53 | D | 314 | 97 | F | 332 | 175 | F | |
| | | South | New England Hwy (S) | 725 | 16 | B | 765 | 17 | B | 780 | 16 | B | 837 | 18 | B | 888 | 19 | B | |
| | | West | York St | 386 | 70 | F | 339 | 57 | E | 361 | 67 | E | 328 | 107 | F | 333 | 116 | F | |
| | | Total | | | | 30 | C | | 27 | B | | 33 | C | | 44 | D | | 58 | E |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 861 | 15 | B | 862 | 15 | B | 903 | 21 | B | 887 | 18 | B | 903 | 28 | B | |
| | | East | Market St | 22 | 19 | B | 21 | 23 | B | 23 | 26 | B | 16 | 26 | B | 17 | 40 | C | |
| | | South | New England Hwy (S) | 795 | 11 | A | 785 | 11 | A | 840 | 13 | A | 826 | 11 | A | 875 | 13 | A | |
| | | West | Elizabeth St | 46 | 21 | B | 35 | 22 | B | 35 | 19 | B | 31 | 36 | C | 26 | 47 | D | |
| | | Total | | | | 21 | B | | 23 | B | | 26 | B | | 36 | C | | 47 | D |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 861 | 9 | A | 899 | 8 | A | 980 | 24 | B | 1031 | 30 | C | 1038 | 67 | E | |
| | | East | Campbell St (E) | 57 | 69 | E | 44 | 102 | F | 49 | 140 | F | 42 | 193 | F | 51 | 437 | F | |
| | | South | New England Hwy (S) | 769 | 3 | A | 744 | 3 | A | 803 | 3 | A | 792 | 3 | A | 841 | 5 | A | |
| | | West | Campbell St (W) | 59 | 62 | E | 45 | 58 | E | 54 | 61 | E | 42 | 82 | F | 41 | 111 | F | |
| | | | | 329 | 5 | A | 342 | 2 | A | 364 | 2 | A | 395 | 4 | A | 431 | 8 | A | |
| Total | | | | 69 | E | | 102 | F | | 140 | F | | 193 | F | | 437 | F | | |
| 12 | John St & Newton St | North | John St (N) | 380 | 51 | D | 349 | 44 | D | 324 | 69 | E | 377 | 56 | D | 389 | 100 | F | |
| | | East | Campbell St | 88 | 5 | A | 89 | 6 | A | 108 | 7 | A | 109 | 7 | A | 112 | 6 | A | |
| | | South | John St (S) | 711 | 10 | A | 731 | 11 | A | 746 | 11 | A | 785 | 18 | B | 818 | 20 | B | |
| | | West | Newton St | 484 | 7 | A | 510 | 8 | A | 540 | 10 | A | 536 | 8 | A | 514 | 12 | A | |
| | | Total | | | | 51 | D | | 44 | D | | 69 | E | | 56 | D | | 100 | F |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 662 | 23 | B | 662 | 32 | C | 687 | 37 | C | 708 | 39 | C | 699 | 34 | C | |
| | | East | Hunter St | 15 | 34 | C | 14 | 33 | C | 20 | 35 | C | 21 | 38 | C | 19 | 38 | C | |
| | | South | John St (S) | 253 | 35 | C | 316 | 59 | E | 301 | 58 | E | 347 | 101 | F | 364 | 110 | F | |
| | | West | Ryan Ave | 512 | 22 | B | 448 | 22 | B | 484 | 23 | B | 500 | 49 | D | 524 | 45 | D | |
| | | Total | | | | 25 | B | | 35 | C | | 37 | C | | 56 | D | | 55 | D |
| 18 | Putty Rd & Ryan Ave | North | John St (N) | 130 | 10 | A | 140 | 10 | A | 154 | 10 | A | 151 | 10 | A | 154 | 10 | A | |
| | | East | Ryan Ave (E) | 265 | 13 | A | 280 | 14 | A | 291 | 13 | A | 308 | 16 | B | 328 | 18 | B | |
| | | South | John St (S) | 323 | 13 | A | 320 | 13 | A | 322 | 13 | A | 344 | 14 | A | 362 | 14 | A | |
| | | West | Ryan Ave (W) | 261 | 14 | A | 274 | 13 | A | 283 | 13 | A | 306 | 14 | B | 308 | 14 | A | |
| | | Total | | | | 13 | A | | 13 | A | | 13 | A | | 14 | A | | 14 | B |
| 21 | Queen St & New England Hwy Ramp | East | Queen St (E) | 338 | 0 | A | 314 | 0 | A | 322 | 0 | A | 329 | 0 | A | 354 | 1 | A | |
| | | South | New England Hwy (S) | 241 | 10 | A | 238 | 8 | A | 202 | 11 | A | 267 | 9 | A | 262 | 11 | A | |
| | | West | Queen St (W) | 279 | 0 | A | 287 | 0 | A | 278 | 0 | A | 315 | 0 | A | 310 | 0 | A | |
| | | Total | | | | 10 | A | | 8 | A | | 11 | A | | 9 | A | | 11 | A |
| 33 | Magpie St & New England Hwy | North | New England Hwy (N) | 855 | 9 | A | 910 | 9 | A | 978 | 10 | A | 1110 | 10 | A | 1247 | 12 | A | |
| | | South | New England Hwy (S) | 358 | 9 | A | 411 | 21 | B | 434 | 22 | B | 483 | 22 | B | 525 | 23 | B | |
| | | West | Magpie St | 234 | 42 | D | 365 | 27 | B | 386 | 29 | C | 431 | 30 | C | 451 | 35 | C | |
| | | Total | | | | 14 | B | | 16 | B | | 17 | B | | 17 | B | | 19 | B |

From to
16:00:00 17:00:00 2

| | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|------|-----------|-----------|-----|-----------|-----------|-----|--|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 144 | 196 | F | 124 | 178 | F | 118 | 89 | F | 81 | 147 | F | 82 | 282 | F | |
| | East | New England Hwy (E) | 1039 | 52 | D | 1115 | 55 | D | 1155 | 57 | E | 1258 | 72 | F | 1329 | 87 | F | |
| | South | Bridgman Rd (S) | 394 | 50 | D | 400 | 53 | D | 394 | 54 | D | 444 | 58 | E | 445 | 57 | E | |
| | West | New England Hwy (W) | 1234 | 50 | D | 1263 | 79 | F | 1322 | 124 | F | 1363 | 168 | F | 1287 | 201 | F | |
| | Total | | | 58 | E | 71 | F | F | 88 | F | 113 | F | 135 | F | | | | |
| New England Hwy & White Ave | North | White Ave | 112 | 15 | B | 113 | 23 | B | 119 | 36 | C | 117 | 65 | E | 131 | 102 | F | |
| | East | New England Hwy (E) | 606 | 7 | A | 649 | 7 | A | 679 | 7 | A | 771 | 9 | A | 817 | 9 | A | |
| | West | New England Hwy (W) | 1252 | 1 | A | 1319 | 2 | A | 1381 | 8 | A | 1389 | 29 | C | 1289 | 39 | C | |
| | Total | | | 15 | B | 23 | B | B | 36 | C | 65 | E | 102 | F | | | | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 533 | 1 | A | 583 | 1 | A | 621 | 1 | A | 704 | 1 | A | 749 | 1 | A | |
| | South | Simpson Tce | 42 | 12 | A | 41 | 13 | A | 44 | 15 | B | 47 | 48 | D | 45 | 44 | D | |
| | West | New England Hwy (W) | 1330 | 2 | A | 1407 | 2 | A | 1468 | 8 | A | 1456 | 42 | C | 1355 | 61 | E | |
| | Total | | | 12 | A | 13 | A | A | 15 | B | 48 | D | 61 | E | | | | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 403 | 2 | A | 434 | 2 | A | 464 | 2 | A | 525 | 2 | A | 558 | 2 | A | |
| | South | Maison Dieu Rd | 139 | 2 | A | 156 | 2 | A | 172 | 2 | A | 185 | 2 | A | 188 | 3 | A | |
| | | | 178 | 56 | E | 182 | 92 | F | 173 | 294 | F | 96 | 1315 | F | 79 | 1651 | F | |
| | | | 13 | 28 | C | 17 | 59 | E | 17 | 254 | F | 7 | 1238 | F | 10 | 1555 | F | |
| | West | New England Hwy (W) | 1161 | 2 | A | 1236 | 2 | A | 1320 | 4 | A | 1401 | 46 | D | 1294 | 86 | F | |
| | Total | | | 56 | E | 92 | F | F | 294 | F | 1315 | F | 1651 | F | | | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1131 | 12 | A | 1226 | 12 | A | 1256 | 15 | B | 1312 | 17 | B | 1312 | 17 | B | |
| | East | Howe St | 158 | 51 | D | 161 | 64 | E | 169 | 100 | F | 130 | 141 | F | 155 | 184 | F | |
| | South | New England Hwy (S) | 590 | 12 | A | 618 | 10 | A | 676 | 22 | B | 758 | 38 | C | 818 | 72 | F | |
| | West | Orchard Ave | 41 | 39 | C | 64 | 40 | C | 89 | 40 | C | 162 | 45 | D | 190 | 49 | D | |
| | Total | | | 16 | B | 17 | B | B | 25 | B | 33 | C | 48 | D | | | | |
| New England Hwy & York St | North | New England Hwy (N) | 895 | 17 | B | 989 | 18 | B | 1038 | 23 | B | 1018 | 27 | B | 1026 | 29 | C | |
| | East | Boundary St | 191 | 42 | D | 181 | 41 | C | 177 | 47 | D | 239 | 70 | F | 261 | 157 | F | |
| | South | New England Hwy (S) | 715 | 11 | A | 749 | 12 | A | 799 | 13 | A | 852 | 13 | A | 927 | 15 | B | |
| | West | York St | 367 | 82 | F | 342 | 61 | E | 309 | 84 | F | 302 | 172 | F | 295 | 228 | F | |
| | Total | | | 28 | C | 24 | B | B | 30 | C | 45 | D | 61 | E | | | | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 922 | 3 | A | 983 | 4 | A | 992 | 9 | A | 980 | 16 | B | 949 | 25 | B | |
| | East | Market St | 16 | 13 | A | 14 | 14 | B | 13 | 19 | B | 10 | 25 | B | 10 | 31 | C | |
| | South | New England Hwy (S) | 755 | 3 | A | 723 | 3 | A | 777 | 5 | A | 796 | 8 | A | 862 | 7 | A | |
| | West | Elizabeth St | 56 | 12 | A | 47 | 16 | B | 41 | 28 | B | 48 | 32 | C | 50 | 21 | B | |
| | Total | | | 13 | A | 16 | B | B | 28 | B | 32 | C | 31 | C | | | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 973 | 5 | A | 1060 | 10 | A | 1121 | 23 | B | 1116 | 40 | C | 1066 | 71 | F | |
| | East | Campbell St (E) | 39 | 76 | F | 34 | 85 | F | 30 | 126 | F | 28 | 163 | F | 30 | 138 | F | |
| | South | New England Hwy (S) | 729 | 3 | A | 703 | 4 | A | 735 | 4 | A | 774 | 5 | A | 843 | 6 | A | |
| | West | Campbell St (W) | 14 | 58 | E | 9 | 68 | E | 6 | 70 | F | 5 | 76 | F | 7 | 48 | D | |
| | | | 354 | 1 | A | 445 | 1 | A | 441 | 1 | A | 519 | 1 | A | 546 | 2 | A | |
| Total | | | 76 | F | 85 | F | F | 126 | F | 163 | F | 138 | F | | | | | |
| John St & Newton St | North | John St (N) | 476 | 19 | B | 488 | 20 | B | 471 | 18 | B | 526 | 33 | C | 552 | 77 | F | |
| | East | Campbell St | 87 | 5 | A | 100 | 5 | A | 126 | 10 | A | 102 | 6 | A | 111 | 6 | A | |
| | South | John St (S) | 820 | 5 | A | 870 | 9 | A | 818 | 13 | A | 892 | 14 | B | 906 | 15 | B | |
| | West | Newton St | 341 | 5 | A | 329 | 6 | A | 348 | 8 | A | 391 | 10 | A | 407 | 11 | A | |
| | Total | | | 19 | B | 20 | B | B | 18 | B | 33 | C | 77 | F | | | | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 625 | 15 | B | 621 | 19 | B | 636 | 14 | B | 670 | 16 | B | 674 | 16 | B | |
| | East | Hunter St | 14 | 34 | C | 17 | 31 | C | 23 | 36 | C | 19 | 34 | C | 18 | 37 | C | |
| | South | John St (S) | 284 | 62 | E | 360 | 126 | F | 319 | 111 | F | 343 | 123 | F | 347 | 127 | F | |
| | West | Ryan Ave | 610 | 16 | B | 591 | 23 | B | 584 | 16 | B | 627 | 38 | C | 637 | 74 | F | |
| | Total | | | 24 | B | 45 | D | D | 35 | C | 47 | D | 61 | E | | | | |
| Putty Rd & Ryan Ave | North | John St (N) | 134 | 9 | A | 144 | 9 | A | 138 | 9 | A | 123 | 8 | A | 113 | 9 | A | |
| | East | Ryan Ave (E) | 248 | 12 | A | 258 | 12 | A | 269 | 12 | A | 282 | 13 | A | 311 | 14 | A | |
| | South | John St (S) | 424 | 16 | B | 444 | 14 | B | 449 | 14 | B | 473 | 15 | B | 484 | 16 | B | |
| | West | Ryan Ave (W) | 266 | 13 | A | 267 | 13 | A | 289 | 13 | A | 349 | 13 | A | 358 | 15 | B | |
| | Total | | | 14 | A | 13 | A | A | 13 | A | 14 | A | 14 | B | | | | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 352 | 0 | A | 410 | 0 | A | 402 | 0 | A | 456 | 0 | A | 472 | 5 | A | |
| | South | New England Hwy (S) | 351 | 6 | A | 345 | 8 | A | 353 | 8 | A | 366 | 11 | A | 369 | 27 | B | |
| | West | Queen St (W) | 258 | 0 | A | 276 | 0 | A | 272 | 0 | A | 297 | 0 | A | 307 | 0 | A | |
| | Total | | | 6 | A | 8 | A | A | 8 | A | 11 | A | 27 | B | | | | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 965 | 9 | A | 1049 | 9 | A | 1123 | 10 | A | 1287 | 15 | B | 1092 | 301 | F | |
| | South | New England Hwy (S) | 379 | 11 | A | 446 | 24 | B | 476 | 24 | B | 527 | 25 | B | 566 | 27 | B | |
| | West | Magpie St | 268 | 61 | E | 327 | 25 | B | 350 | 26 | B | 366 | 25 | B | 389 | 99 | F | |
| | Total | | | 18 | B | 16 | B | B | 16 | B | 19 | B | 187 | F | | | | |

| | | | 2018 Base | | | 2022 Base | | | 2026 Base | | | 2036 Base | | | 2046 Base | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 153 | 67 | E | 137 | 52 | D | 109 | 64 | E | 127 | 120 | F | 131 | 230 | F |
| | East | New England Hwy (E) | 1116 | 61 | E | 1209 | 70 | E | 1201 | 66 | E | 1234 | 105 | F | 1295 | 155 | F |
| | South | Bridgman Rd (S) | 424 | 43 | D | 399 | 43 | D | 476 | 52 | D | 533 | 54 | D | 542 | 60 | E |
| | West | New England Hwy (W) | 1128 | 57 | E | 1215 | 105 | F | 1252 | 168 | F | 1254 | 201 | F | 1197 | 224 | F |
| | Total | | | 57 | E | | 80 | F | | 106 | F | | 135 | F | | 168 | F |
| New England Hwy & White Ave | North | White Ave | 158 | 15 | B | 160 | 24 | B | 166 | 46 | D | 174 | 76 | F | 188 | 75 | F |
| | East | New England Hwy (E) | 747 | 6 | A | 791 | 7 | A | 846 | 7 | A | 917 | 7 | A | 963 | 6 | A |
| | West | New England Hwy (W) | 1175 | 1 | A | 1245 | 4 | A | 1286 | 19 | B | 1288 | 38 | C | 1211 | 44 | D |
| | Total | | | 15 | B | | 24 | B | | 46 | D | | 76 | F | | 75 | F |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 686 | 1 | A | 728 | 1 | A | 782 | 1 | A | 860 | 1 | A | 909 | 1 | A |
| | South | Simpson Tce | 64 | 19 | B | 69 | 22 | B | 68 | 63 | E | 69 | 193 | F | 75 | 104 | F |
| | West | New England Hwy (W) | 1190 | 2 | A | 1255 | 4 | A | 1304 | 25 | B | 1313 | 65 | E | 1241 | 74 | F |
| | Total | | | 19 | B | | 22 | B | | 63 | E | | 193 | F | | 104 | F |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 569 | 1 | A | 585 | 2 | A | 629 | 1 | A | 703 | 2 | A | 749 | 2 | A |
| | South | Maison Dieu Rd | 125 | 2 | A | 150 | 2 | A | 150 | 2 | A | 156 | 2 | A | 163 | 2 | A |
| | | | 150 | 43 | D | 164 | 71 | F | 151 | 530 | F | 69 | 2241 | F | 69 | 2400 | F |
| | | | 5 | 15 | B | 14 | 39 | C | 13 | 485 | F | 11 | 2119 | F | 5 | 2291 | F |
| | West | New England Hwy (W) | 1057 | 2 | A | 1115 | 2 | A | 1178 | 21 | B | 1260 | 88 | F | 1184 | 102 | F |
| Total | | | | 43 | D | | 71 | F | | 530 | F | | 2241 | F | | 2400 | F |
| New England Hwy & Howe St | North | New England Hwy (N) | 1151 | 9 | A | 1213 | 13 | A | 1278 | 13 | A | 1398 | 11 | A | 1373 | 15 | B |
| | East | Howe St | 163 | 60 | E | 133 | 58 | E | 121 | 47 | D | 90 | 81 | F | 98 | 74 | F |
| | South | New England Hwy (S) | 653 | 18 | B | 706 | 21 | B | 769 | 35 | C | 713 | 55 | D | 775 | 64 | E |
| | West | Orchard Ave | 62 | 36 | C | 97 | 40 | C | 84 | 38 | C | 208 | 98 | F | 235 | 100 | F |
| | Total | | | 17 | B | | 20 | B | | 23 | B | | 34 | C | | 41 | C |
| New England Hwy & York St | North | New England Hwy (N) | 927 | 13 | A | 1015 | 17 | B | 1018 | 21 | B | 1155 | 20 | B | 1124 | 26 | B |
| | East | Boundary St | 149 | 38 | C | 159 | 39 | C | 207 | 62 | E | 195 | 44 | D | 212 | 73 | F |
| | South | New England Hwy (S) | 793 | 13 | A | 843 | 13 | A | 864 | 15 | B | 872 | 16 | B | 951 | 16 | B |
| | West | York St | 363 | 106 | F | 318 | 66 | E | 328 | 93 | F | 307 | 128 | F | 316 | 244 | F |
| Total | | | | 30 | C | | 23 | B | | 32 | C | | 34 | C | | 52 | D |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 946 | 5 | A | 1013 | 5 | A | 1009 | 11 | A | 1092 | 11 | A | 1054 | 22 | B |
| | East | Market St | 20 | 12 | A | 20 | 15 | B | 22 | 25 | B | 18 | 32 | C | 20 | 39 | C |
| | South | New England Hwy (S) | 842 | 4 | A | 877 | 4 | A | 861 | 4 | A | 800 | 8 | A | 838 | 9 | A |
| | West | Elizabeth St | 28 | 14 | A | 25 | 18 | B | 25 | 16 | B | 35 | 25 | B | 38 | 39 | C |
| Total | | | | 14 | A | | 18 | B | | 25 | B | | 32 | C | | 39 | C |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1021 | 6 | A | 1078 | 8 | A | 1115 | 21 | B | 1185 | 21 | B | 1175 | 71 | F |
| | East | Campbell St (E) | 30 | 106 | F | 27 | 144 | F | 27 | 256 | F | 23 | 177 | F | 33 | 178 | F |
| | South | New England Hwy (S) | 811 | 4 | A | 828 | 5 | A | 831 | 5 | A | 794 | 8 | A | 842 | 13 | A |
| | West | Campbell St (W) | 18 | 72 | F | 15 | 60 | E | 16 | 66 | E | 6 | 74 | F | 9 | 50 | D |
| | | | 383 | 2 | A | 470 | 2 | A | 460 | 1 | A | 502 | 4 | A | 505 | 4 | A |
| Total | | | | 106 | F | | 144 | F | | 256 | F | | 177 | F | | 178 | F |
| John St & Newton St | North | John St (N) | 430 | 11 | A | 438 | 17 | B | 450 | 16 | B | 528 | 17 | B | 554 | 25 | B |
| | East | Campbell St | 126 | 4 | A | 128 | 5 | A | 162 | 8 | A | 155 | 5 | A | 178 | 5 | A |
| | South | John St (S) | 933 | 7 | A | 939 | 8 | A | 883 | 25 | B | 931 | 19 | B | 931 | 30 | C |
| | West | Newton St | 329 | 5 | A | 347 | 7 | A | 336 | 8 | A | 348 | 8 | A | 365 | 9 | A |
| | Total | | | 11 | A | | 17 | B | | 25 | B | | 19 | B | | 30 | C |
| John St & Ryan Ave & Hunter St | North | John St (N) | 593 | 12 | A | 591 | 15 | B | 591 | 12 | A | 613 | 13 | A | 648 | 14 | B |
| | East | Hunter St | 11 | 131 | F | 15 | 34 | C | 13 | 36 | C | 14 | 29 | C | 14 | 41 | C |
| | South | John St (S) | 337 | 66 | E | 369 | 96 | F | 369 | 124 | F | 364 | 92 | F | 362 | 105 | F |
| | West | Ryan Ave | 631 | 102 | F | 613 | 105 | F | 585 | 105 | F | 637 | 64 | E | 648 | 195 | F |
| | Total | | | 61 | E | | 68 | E | | 73 | F | | 51 | D | | 104 | F |
| Putty Rd & Ryan Ave | North | John St (N) | 120 | 8 | A | 141 | 8 | A | 128 | 8 | A | 173 | 8 | A | 184 | 9 | A |
| | East | Ryan Ave (E) | 254 | 13 | A | 258 | 12 | A | 270 | 12 | A | 286 | 14 | A | 300 | 13 | A |
| | South | John St (S) | 299 | 12 | A | 311 | 12 | A | 321 | 12 | A | 334 | 12 | A | 348 | 13 | A |
| | West | Ryan Ave (W) | 268 | 14 | A | 247 | 12 | A | 245 | 12 | A | 245 | 11 | A | 250 | 12 | A |
| | Total | | | 12 | A | | 11 | A | | 12 | A | | 12 | A | | 12 | A |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 321 | 0 | A | 372 | 0 | A | 379 | 0 | A | 446 | 0 | A | 478 | 0 | A |
| | South | New England Hwy (S) | 321 | 9 | A | 310 | 10 | A | 334 | 11 | A | 344 | 12 | A | 349 | 16 | B |
| | West | Queen St (W) | 327 | 0 | A | 339 | 0 | A | 336 | 0 | A | 327 | 0 | A | 357 | 0 | A |
| | Total | | | 9 | A | | 10 | A | | 11 | A | | 12 | A | | 16 | B |
| Magpie St & New England Hwy | North | New England Hwy (N) | 855 | 8 | A | 909 | 8 | A | 963 | 8 | A | 1092 | 107 | F | 1004 | 510 | F |
| | South | New England Hwy (S) | 550 | 10 | A | 607 | 21 | B | 644 | 22 | B | 702 | 22 | B | 735 | 22 | B |
| | West | Magpie St | 202 | 123 | F | 262 | 29 | C | 276 | 30 | C | 288 | 117 | F | 289 | 345 | F |
| | Total | | | 23 | B | | 15 | B | | 16 | B | | 80 | F | | 310 | F |

From 5:30:00 to 6:30:00 1

| | | | | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | | |
|-------|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|--|
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 287 | 207 | F | 291 | 211 | F | 276 | 167 | F | 285 | 198 | F | 249 | 238 | F | 281 | 52 | D | |
| | | East | New England Hwy (E) | 1043 | 71 | F | 1091 | 73 | F | 1118 | 76 | F | 1096 | 68 | E | 1228 | 29 | C | 1220 | 27 | B | |
| | | South | Bridgman Rd (S) | 336 | 36 | C | 287 | 32 | C | 259 | 33 | C | 284 | 32 | C | 148 | 41 | C | 164 | 73 | F | |
| | | West | New England Hwy (W) | 303 | 24 | B | 302 | 24 | B | 299 | 23 | B | 300 | 23 | B | 304 | 21 | B | 295 | 26 | B | |
| | | Total | | | 78 | F | | 80 | F | | 75 | F | | 75 | F | | 55 | D | | 34 | C | |
| 3 | New England Hwy & White Ave | North | White Ave | 179 | 25 | B | 178 | 21 | B | 179 | 21 | B | 178 | 22 | B | 176 | 8 | A | 172 | 26 | B | |
| | | East | New England Hwy (E) | 1450 | 7 | A | 1456 | 6 | A | 1456 | 6 | A | 1454 | 6 | A | 1444 | 2 | A | 1454 | 14 | B | |
| | | West | New England Hwy (W) | 273 | 1 | A | 273 | 1 | A | 270 | 1 | A | 270 | 1 | A | 273 | 0 | A | 268 | 1 | A | |
| | | Total | | | 25 | B | | 21 | B | | 21 | B | | 22 | B | | 8 | A | | 26 | B | |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 1578 | 1 | A | 1581 | 1 | A | 1578 | 1 | A | 1578 | 1 | A | 1567 | 1 | A | 1577 | 1 | A | |
| | | South | Simpson Tce | 34 | 35 | C | 33 | 34 | C | 35 | 34 | C | 34 | 32 | C | 33 | 19 | B | 33 | 42 | D | |
| | | West | New England Hwy (W) | 276 | 1 | A | 275 | 1 | A | 272 | 1 | A | 272 | 1 | A | 276 | 1 | A | 270 | 1 | A | |
| | | Total | | | 35 | C | | 34 | C | | 34 | C | | 32 | C | | 19 | B | | 42 | D | |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1355 | 2 | A | 1353 | 2 | A | 1354 | 2 | A | 1356 | 2 | A | 1343 | 4 | A | 1346 | 2 | A | |
| | | South | Maison Dieu Rd | 260 | 3 | A | 263 | 3 | A | 260 | 2 | A | 259 | 2 | A | 255 | 5 | A | 262 | 3 | A | |
| | | | | 42 | 37 | C | 42 | 33 | C | 41 | 30 | C | 41 | 33 | C | 42 | 26 | B | 40 | 50 | D | |
| | | | | 32 | 4 | A | 32 | 3 | A | 32 | 2 | A | 32 | 2 | A | 32 | 1 | A | 35 | 12 | A | |
| | | West | New England Hwy (W) | 244 | 2 | A | 244 | 2 | A | 242 | 2 | A | 242 | 2 | A | 243 | 1 | A | 241 | 2 | A | |
| Total | | | 37 | C | | 33 | C | | 30 | C | | 33 | C | | 26 | B | | 50 | D | | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 329 | 3 | A | 324 | 3 | A | 331 | 3 | A | 334 | 2 | A | 326 | 2 | A | 340 | 2 | A | |
| | | East | Howe St | 65 | 64 | E | 74 | 66 | E | 63 | 66 | E | 68 | 59 | E | 94 | 65 | E | 71 | 57 | E | |
| | | South | New England Hwy (S) | 971 | 10 | A | 990 | 10 | A | 970 | 9 | A | 968 | 10 | A | 1005 | 4 | A | 982 | 11 | A | |
| | | West | Orchard Ave | 7 | 58 | E | 7 | 62 | E | 8 | 58 | E | 6 | 65 | E | 10 | 61 | E | 6 | 62 | E | |
| | | Total | | | 11 | A | | 12 | A | | 11 | A | | 11 | A | | 8 | A | | 11 | A | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 317 | 2 | A | 313 | 3 | A | 320 | 3 | A | 310 | 2 | A | 305 | 2 | A | 325 | 3 | A | |
| | | East | Boundary St | 16 | 58 | E | 25 | 67 | E | 18 | 56 | E | 22 | 67 | E | 34 | 79 | F | 25 | 60 | E | |
| | | South | New England Hwy (S) | 1010 | 3 | A | 1009 | 3 | A | 1008 | 3 | A | 999 | 3 | A | 1042 | 2 | A | 1019 | 3 | A | |
| | | West | York St | 75 | 92 | F | 76 | 84 | F | 77 | 90 | F | 83 | 131 | F | 96 | 134 | F | 75 | 97 | F | |
| Total | | | 8 | A | | 9 | A | | 8 | A | | 11 | A | | 13 | A | | 9 | A | | | |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 319 | 2 | A | 303 | 1 | A | 318 | 2 | A | 324 | 2 | A | 301 | 0 | A | 330 | 2 | A | |
| | | East | Market St | 31 | 3 | A | 9 | 4 | A | 29 | 3 | A | 33 | 4 | A | 9 | 5 | A | 36 | 4 | A | |
| | | South | New England Hwy (S) | 886 | 2 | A | 961 | 2 | A | 973 | 1 | A | 963 | 2 | A | 1000 | 1 | A | 993 | 2 | A | |
| | | West | Elizabeth St | 7 | 9 | A | 15 | 10 | A | 7 | 10 | A | 7 | 11 | A | 13 | 8 | A | 7 | 14 | B | |
| | | Total | | | 9 | A | | 10 | A | | 10 | A | | 11 | A | | 8 | A | | 14 | B | |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 327 | 2 | A | 302 | 2 | A | 324 | 2 | A | 311 | 2 | A | 319 | 1 | A | 316 | 1 | A | |
| | | East | Campbell St (E) | 19 | 55 | D | 10 | 31 | C | 18 | 47 | D | 18 | 41 | C | 18 | 48 | D | 19 | 50 | D | |
| | | South | New England Hwy (S) | 890 | 2 | A | 944 | 1 | A | 995 | 1 | A | 978 | 1 | A | 1011 | 0 | A | 1033 | 1 | A | |
| | | West | Campbell St (W) | 10 | 34 | C | 12 | 35 | C | 12 | 39 | C | 13 | 31 | C | 12 | 49 | D | 11 | 38 | C | |
| | | | 148 | 1 | A | 152 | 1 | A | 126 | 1 | A | 125 | 1 | A | 234 | 7 | A | 188 | 1 | A | | |
| Total | | | 55 | D | | 35 | C | | 47 | D | | 41 | C | | 49 | D | | 50 | D | | | |
| 12 | John St & Newton St * | North | John St (N) | 421 | 2 | A | 493 | 3 | A | 458 | 2 | A | 466 | 2 | A | 492 | 3 | A | 438 | 2 | A | |
| | | East | Campbell St | 169 | 2 | A | 73 | 2 | A | 62 | 1 | A | 81 | 1 | A | 48 | 1 | A | 52 | 1 | A | |
| | | South | John St (S) | 189 | 3 | A | 192 | 1 | A | 189 | 1 | A | 189 | 1 | A | 192 | 1 | A | 186 | 1 | A | |
| | | West | Newton St | 172 | 1 | A | 174 | 1 | A | 154 | 0 | A | 167 | 0 | A | 135 | 1 | A | 147 | 0 | A | |
| | | Total | | | 3 | A | | 3 | A | | 2 | A | | 2 | A | | 3 | A | | 2 | A | |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 366 | 7 | A | 377 | 7 | A | 380 | 8 | A | 375 | 7 | A | 367 | 6 | A | 362 | 7 | A | |
| | | East | Hunter St | 5 | 27 | B | 5 | 30 | C | 4 | 34 | C | 7 | 37 | C | 6 | 40 | C | 6 | 32 | C | |
| | | South | John St (S) | 121 | 17 | B | 105 | 16 | B | 119 | 17 | B | 112 | 16 | B | 120 | 17 | B | 109 | 17 | B | |
| | | West | Ryan Ave | 82 | 14 | A | 99 | 13 | A | 83 | 13 | A | 89 | 14 | B | 82 | 13 | A | 90 | 14 | A | |
| | | Total | | | 10 | A | | 10 | A | | 10 | A | | 10 | A | | 10 | A | | 10 | A | |
| 18 | Putty Rd & Ryan Ave | North | John St (N) | 202 | 15 | B | 234 | 15 | B | 196 | 15 | B | 227 | 14 | B | 271 | 15 | B | 198 | 15 | B | |
| | | East | Ryan Ave (E) | 74 | 13 | A | 76 | 13 | A | 74 | 13 | A | 83 | 13 | A | 72 | 13 | A | 73 | 13 | A | |
| | | South | John St (S) | 94 | 7 | A | 94 | 7 | A | 95 | 7 | A | 95 | 7 | A | 94 | 7 | A | 91 | 7 | A | |
| | | West | Ryan Ave (W) | 166 | 20 | B | 135 | 16 | B | 180 | 19 | B | 136 | 18 | B | 93 | 12 | A | 166 | 18 | B | |
| | | Total | | | 15 | B | | 14 | A | | 15 | B | | 14 | A | | 13 | A | | 14 | B | |
| 21 | Queen St & New England Hwy Ramp | East | Queen St (E) | 314 | 0 | A | 364 | 0 | A | 325 | 0 | A | 335 | 0 | A | 335 | 0 | A | 307 | 0 | A | |
| | | South | New England Hwy (S) | 160 | 5 | A | 182 | 6 | A | 188 | 5 | A | 184 | 6 | A | 188 | 5 | A | 187 | 5 | A | |
| | | West | Queen St (W) | 60 | 0 | A | 65 | 0 | A | 60 | 0 | A | 61 | 0 | A | 65 | 0 | A | 60 | 0 | A | |
| | | Total | | | 5 | A | | 6 | A | | 5 | A | | 6 | A | | 5 | A | | 5 | A | |
| 33 | Magpie St & New England Hwy | North | New England Hwy (N) | 225 | 4 | A | 225 | 4 | A | 224 | 4 | A | 224 | 4 | A | 225 | 4 | A | 222 | 4 | A | |
| | | South | New England Hwy (S) | 1393 | 15 | B | 1394 | 16 | B | 1392 | 16 | B | 1391 | 15 | B | 1387 | 16 | B | 1391 | 16 | B | |
| | | West | Magpie St | 78 | 42 | D | 78 | 43 | D | 82 | 43 | D | 82 | 43 | D | 79 | 36 | C | 79 | 43 | D | |
| | | Total | | | 15 | B | | 15 | B | | 16 | B | | 15 | B | | 16 | B | | 15 | B | |

| | | | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 216 | 63 | E | 236 | 51 | D | 193 | 54 | D | 236 | 63 | E | 196 | 98 | F | 232 | 49 | D |
| | East | New England Hwy (E) | 947 | 43 | D | 908 | 39 | C | 962 | 43 | D | 933 | 41 | C | 1033 | 28 | C | 988 | 33 | C |
| | South | Bridgman Rd (S) | 179 | 33 | C | 222 | 33 | C | 185 | 33 | C | 211 | 33 | C | 88 | 46 | D | 119 | 47 | D |
| | West | New England Hwy (W) | 691 | 26 | B | 691 | 26 | B | 689 | 26 | B | 689 | 26 | B | 700 | 23 | B | 691 | 27 | B |
| | Total | | 39 | C | | 35 | C | | 37 | C | | 38 | C | | 34 | C | | 34 | C | |
| New England Hwy & White Ave | North | White Ave | 151 | 15 | B | 151 | 15 | B | 154 | 14 | B | 154 | 14 | B | 150 | 10 | A | 150 | 13 | A |
| | East | New England Hwy (E) | 1093 | 6 | A | 1086 | 5 | A | 1107 | 6 | A | 1106 | 5 | A | 1085 | 2 | A | 1080 | 12 | A |
| | West | New England Hwy (W) | 688 | 1 | A | 688 | 1 | A | 683 | 1 | A | 683 | 1 | A | 692 | 0 | A | 700 | 1 | A |
| | Total | | 15 | B | | 15 | B | | 14 | B | | 14 | B | | 10 | A | | 13 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1176 | 1 | A | 1170 | 1 | A | 1195 | 1 | A | 1193 | 1 | A | 1168 | 1 | A | 1163 | 1 | A |
| | South | Simpson Tce | 13 | 16 | B | 13 | 22 | B | 12 | 19 | B | 12 | 19 | B | 13 | 15 | B | 14 | 19 | B |
| | West | New England Hwy (W) | 696 | 2 | A | 696 | 2 | A | 691 | 2 | A | 692 | 2 | A | 698 | 1 | A | 707 | 2 | A |
| | Total | | 16 | B | | 22 | B | | 19 | B | | 19 | B | | 15 | B | | 19 | B | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 851 | 2 | A | 848 | 2 | A | 867 | 2 | A | 863 | 2 | A | 846 | 2 | A | 843 | 2 | A |
| | South | Maison Dieu Rd | 336 | 3 | A | 333 | 3 | A | 337 | 3 | A | 338 | 3 | A | 338 | 3 | A | 328 | 3 | A |
| | | | 59 | 28 | C | 59 | 26 | B | 60 | 28 | B | 60 | 27 | B | 60 | 15 | B | 61 | 29 | C |
| | West | New England Hwy (W) | 34 | 3 | A | 34 | 2 | A | 35 | 3 | A | 35 | 3 | A | 34 | 1 | A | 36 | 3 | A |
| | Total | | 655 | 2 | A | 655 | 2 | A | 649 | 2 | A | 649 | 2 | A | 656 | 1 | A | 661 | 2 | A |
| | Total | | 28 | C | | 26 | B | | 28 | B | | 27 | B | | 15 | B | | 29 | C | |
| New England Hwy & Howe St | North | New England Hwy (N) | 733 | 9 | A | 724 | 8 | A | 732 | 9 | A | 729 | 5 | A | 746 | 5 | A | 734 | 5 | A |
| | East | Howe St | 102 | 57 | E | 115 | 56 | E | 93 | 53 | D | 101 | 54 | D | 127 | 61 | E | 119 | 54 | D |
| | South | New England Hwy (S) | 770 | 23 | B | 753 | 22 | B | 780 | 29 | C | 776 | 32 | C | 832 | 5 | A | 756 | 35 | C |
| | West | Orchard Ave | 7 | 49 | D | 13 | 47 | D | 8 | 55 | D | 9 | 48 | D | 15 | 53 | D | 9 | 53 | D |
| | Total | | 19 | B | | 19 | B | | 21 | B | | 21 | B | | 10 | A | | 23 | B | |
| New England Hwy & York St | North | New England Hwy (N) | 666 | 6 | A | 667 | 7 | A | 662 | 7 | A | 669 | 5 | A | 701 | 6 | A | 680 | 5 | A |
| | East | Boundary St | 64 | 62 | E | 71 | 70 | F | 69 | 72 | F | 62 | 53 | D | 57 | 64 | E | 56 | 57 | E |
| | South | New England Hwy (S) | 808 | 8 | A | 791 | 9 | A | 814 | 9 | A | 806 | 8 | A | 871 | 5 | A | 790 | 8 | A |
| | West | York St | 131 | 52 | D | 131 | 53 | D | 134 | 51 | D | 122 | 65 | E | 162 | 58 | E | 124 | 58 | E |
| | Total | | 13 | A | | 14 | B | | 14 | A | | 13 | A | | 12 | A | | 12 | A | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 677 | 2 | A | 657 | 1 | A | 678 | 1 | A | 695 | 1 | A | 672 | 0 | A | 691 | 2 | A |
| | East | Market St | 28 | 5 | A | 10 | 12 | A | 30 | 4 | A | 40 | 5 | A | 9 | 8 | A | 33 | 6 | A |
| | South | New England Hwy (S) | 785 | 1 | A | 759 | 1 | A | 797 | 1 | A | 789 | 1 | A | 832 | 1 | A | 776 | 1 | A |
| | West | Elizabeth St | 7 | 17 | B | 9 | 15 | B | 8 | 13 | A | 4 | 23 | B | 7 | 11 | A | 6 | 19 | B |
| | Total | | 17 | B | | 15 | B | | 13 | A | | 23 | B | | 11 | A | | 19 | B | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 679 | 3 | A | 654 | 3 | A | 682 | 3 | A | 674 | 3 | A | 709 | 2 | A | 684 | 3 | A |
| | East | Campbell St (E) | 18 | 77 | F | 10 | 43 | D | 17 | 77 | F | 26 | 53 | D | 21 | 47 | D | 21 | 97 | F |
| | South | New England Hwy (S) | 794 | 2 | A | 738 | 1 | A | 819 | 1 | A | 802 | 1 | A | 813 | 0 | A | 797 | 1 | A |
| | West | Campbell St (W) | 12 | 43 | D | 14 | 39 | C | 11 | 37 | C | 13 | 26 | B | 16 | 57 | E | 12 | 27 | B |
| | Total | | 151 | 1 | A | 162 | 1 | A | 135 | 1 | A | 131 | 1 | A | 244 | 5 | A | 209 | 1 | A |
| | Total | | 77 | F | | 43 | D | | 77 | F | | 53 | D | | 57 | E | | 97 | F | |
| John St & Newton St * | North | John St (N) | 444 | 3 | A | 468 | 4 | A | 468 | 3 | A | 463 | 3 | A | 538 | 5 | A | 445 | 4 | A |
| | East | Campbell St | 74 | 2 | A | 98 | 2 | A | 66 | 2 | A | 72 | 2 | A | 61 | 2 | A | 72 | 2 | A |
| | South | John St (S) | 228 | 1 | A | 228 | 2 | A | 216 | 1 | A | 208 | 1 | A | 219 | 1 | A | 227 | 1 | A |
| | West | Newton St | 216 | 1 | A | 244 | 1 | A | 197 | 1 | A | 228 | 1 | A | 163 | 1 | A | 211 | 1 | A |
| | Total | | 3 | A | | 4 | A | | 3 | A | | 3 | A | | 5 | A | | 4 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 460 | 13 | A | 467 | 10 | A | 458 | 12 | A | 459 | 10 | A | 470 | 9 | A | 464 | 10 | A |
| | East | Hunter St | 10 | 26 | B | 7 | 32 | C | 6 | 26 | B | 8 | 24 | B | 9 | 32 | C | 9 | 32 | C |
| | South | John St (S) | 97 | 23 | B | 79 | 22 | B | 92 | 22 | B | 82 | 21 | B | 86 | 22 | B | 90 | 22 | B |
| | West | Ryan Ave | 132 | 10 | A | 149 | 11 | A | 129 | 10 | A | 132 | 10 | A | 139 | 12 | A | 140 | 10 | A |
| | Total | | 14 | B | | 12 | A | | 13 | A | | 11 | A | | 11 | A | | 12 | A | |
| Putty Rd & Ryan Ave | North | John St (N) | 132 | 15 | B | 196 | 16 | B | 96 | 14 | A | 186 | 15 | B | 227 | 16 | B | 144 | 15 | B |
| | East | Ryan Ave (E) | 92 | 12 | A | 90 | 12 | A | 93 | 12 | A | 91 | 12 | A | 85 | 13 | A | 104 | 12 | A |
| | South | John St (S) | 125 | 9 | A | 125 | 9 | A | 124 | 9 | A | 124 | 9 | A | 125 | 9 | A | 124 | 8 | A |
| | West | Ryan Ave (W) | 217 | 20 | B | 150 | 16 | B | 252 | 20 | B | 172 | 16 | B | 128 | 13 | A | 193 | 24 | B |
| | Total | | 15 | B | | 14 | A | | 15 | B | | 14 | A | | 13 | A | | 16 | B | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 227 | 0 | A | 256 | 0 | A | 233 | 0 | A | 250 | 0 | A | 243 | 0 | A | 223 | 0 | A |
| | South | New England Hwy (S) | 325 | 5 | A | 316 | 5 | A | 341 | 5 | A | 316 | 6 | A | 356 | 6 | A | 333 | 5 | A |
| | West | Queen St (W) | 85 | 0 | A | 94 | 0 | A | 86 | 0 | A | 86 | 0 | A | 92 | 0 | A | 89 | 0 | A |
| | Total | | 5 | A | | 5 | A | | 5 | A | | 6 | A | | 6 | A | | 5 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 608 | 6 | A | 608 | 6 | A | 603 | 6 | A | 603 | 6 | A | 608 | 6 | A | 612 | 6 | A |
| | South | New England Hwy (S) | 894 | 20 | B | 891 | 20 | B | 902 | 20 | B | 901 | 20 | B | 890 | 19 | B | 894 | 20 | B |
| | West | Magpie St | 126 | 30 | C | 126 | 30 | C | 126 | 31 | C | 126 | 31 | C | 126 | 37 | C | 124 | 29 | C |
| | Total | | 15 | B | | 16 | B | | 16 | B | | 15 | B | | 15 | B | | 15 | B | |

From 7:30:00 to 8:30:00 3

| | | | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 196 | 35 | C | 229 | 33 | C | 183 | 34 | C | 220 | 31 | C | 216 | 31 | C | 165 | 46 | D |
| | East | New England Hwy (E) | 861 | 40 | C | 885 | 39 | C | 868 | 37 | C | 858 | 39 | C | 931 | 32 | C | 886 | 27 | B |
| | South | Bridgman Rd (S) | 137 | 38 | C | 112 | 37 | C | 143 | 38 | C | 142 | 35 | C | 68 | 41 | C | 103 | 48 | D |
| | West | New England Hwy (W) | 798 | 31 | C | 797 | 31 | C | 788 | 31 | C | 787 | 32 | C | 790 | 27 | B | 808 | 31 | C |
| | Total | | 36 | C | | 35 | C | | 34 | C | | 35 | C | | 30 | C | | 31 | C | |
| New England Hwy & White Ave | North | White Ave | 142 | 11 | A | 142 | 12 | A | 142 | 10 | A | 142 | 10 | A | 143 | 8 | A | 142 | 10 | A |
| | East | New England Hwy (E) | 869 | 5 | A | 868 | 5 | A | 877 | 5 | A | 875 | 5 | A | 864 | 2 | A | 854 | 9 | A |
| | West | New England Hwy (W) | 758 | 1 | A | 759 | 1 | A | 748 | 1 | A | 748 | 1 | A | 758 | 0 | A | 760 | 1 | A |
| | Total | | 11 | A | | 12 | A | | 10 | A | | 10 | A | | 8 | A | | 10 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 900 | 1 | A | 899 | 1 | A | 906 | 1 | A | 903 | 1 | A | 889 | 1 | A | 884 | 1 | A |
| | South | Simpson Tce | 16 | 19 | B | 16 | 17 | B | 15 | 16 | B | 15 | 14 | A | 16 | 11 | A | 17 | 18 | B |
| | West | New England Hwy (W) | 755 | 2 | A | 755 | 2 | A | 748 | 2 | A | 746 | 2 | A | 754 | 1 | A | 756 | 2 | A |
| | Total | | 19 | B | | 17 | B | | 16 | B | | 14 | A | | 11 | A | | 18 | B | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 667 | 2 | A | 667 | 2 | A | 672 | 2 | A | 670 | 2 | A | 658 | 2 | A | 654 | 1 | A |
| | South | Maison Dieu Rd | 239 | 2 | A | 239 | 2 | A | 242 | 2 | A | 241 | 3 | A | 237 | 3 | A | 234 | 2 | A |
| | | | 135 | 26 | B | 135 | 27 | B | 134 | 26 | B | 133 | 27 | B | 135 | 11 | A | 133 | 25 | B |
| | West | New England Hwy (W) | 26 | 6 | A | 26 | 6 | A | 27 | 5 | A | 26 | 6 | A | 26 | 2 | A | 26 | 4 | A |
| | | | 633 | 2 | A | 633 | 2 | A | 626 | 2 | A | 626 | 2 | A | 634 | 1 | A | 634 | 2 | A |
| | Total | | 26 | B | | 27 | B | | 26 | B | | 27 | B | | 11 | A | | 25 | B | |
| New England Hwy & Howe St | North | New England Hwy (N) | 805 | 6 | A | 800 | 5 | A | 801 | 7 | A | 776 | 1 | A | 798 | 2 | A | 793 | 2 | A |
| | East | Howe St | 101 | 37 | C | 112 | 42 | C | 100 | 38 | C | 125 | 40 | C | 132 | 36 | C | 122 | 38 | C |
| | South | New England Hwy (S) | 798 | 23 | B | 840 | 28 | B | 863 | 30 | C | 808 | 33 | C | 931 | 7 | A | 792 | 30 | C |
| | West | Orchard Ave | 16 | 35 | C | 28 | 37 | C | 9 | 47 | D | 17 | 34 | C | 22 | 32 | C | 14 | 39 | C |
| | Total | | 16 | B | | 19 | B | | 20 | B | | 19 | B | | 7 | A | | 18 | B | |
| New England Hwy & York St | North | New England Hwy (N) | 721 | 7 | A | 736 | 9 | A | 719 | 9 | A | 737 | 6 | A | 786 | 8 | A | 752 | 7 | A |
| | East | Boundary St | 119 | 48 | D | 109 | 56 | D | 123 | 48 | D | 90 | 41 | C | 82 | 47 | D | 90 | 42 | C |
| | South | New England Hwy (S) | 833 | 11 | A | 878 | 12 | A | 891 | 11 | A | 835 | 11 | A | 943 | 5 | A | 823 | 10 | A |
| | West | York St | 146 | 46 | D | 165 | 54 | D | 145 | 52 | D | 135 | 44 | D | 172 | 45 | D | 135 | 45 | D |
| | Total | | 14 | B | | 17 | B | | 16 | B | | 13 | A | | 11 | A | | 13 | A | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 799 | 4 | A | 731 | 3 | A | 793 | 2 | A | 815 | 3 | A | 756 | 1 | A | 824 | 3 | A |
| | East | Market St | 17 | 9 | A | 12 | 13 | A | 15 | 8 | A | 30 | 7 | A | 13 | 10 | A | 26 | 8 | A |
| | South | New England Hwy (S) | 720 | 2 | A | 735 | 2 | A | 793 | 1 | A | 725 | 3 | A | 928 | 2 | A | 720 | 3 | A |
| | West | Elizabeth St | 7 | 20 | B | 10 | 15 | B | 7 | 22 | B | 8 | 18 | B | 13 | 12 | A | 6 | 17 | B |
| | Total | | 20 | B | | 15 | B | | 22 | B | | 18 | B | | 12 | A | | 17 | B | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 813 | 3 | A | 724 | 3 | A | 806 | 3 | A | 805 | 3 | A | 781 | 2 | A | 809 | 3 | A |
| | East | Campbell St (E) | 17 | 60 | E | 15 | 51 | D | 17 | 61 | E | 18 | 55 | D | 26 | 39 | C | 20 | 54 | D |
| | South | New England Hwy (S) | 720 | 2 | A | 715 | 1 | A | 778 | 2 | A | 732 | 2 | A | 746 | 0 | A | 717 | 2 | A |
| | West | Campbell St (W) | 10 | 42 | C | 16 | 39 | C | 12 | 30 | C | 10 | 30 | C | 21 | 63 | E | 12 | 29 | C |
| | | | 171 | 1 | A | 199 | 1 | A | 118 | 1 | A | 164 | 1 | A | 215 | 4 | A | 203 | 1 | A |
| | Total | | 60 | E | | 51 | D | | 61 | E | | 55 | D | | 63 | E | | 54 | D | |
| John St & Newton St * | North | John St (N) | 474 | 6 | A | 514 | 21 | B | 502 | 6 | A | 487 | 7 | A | 550 | 14 | B | 496 | 7 | A |
| | East | Campbell St | 52 | 6 | A | 48 | 12 | A | 44 | 5 | A | 37 | 6 | A | 42 | 8 | A | 30 | 4 | A |
| | South | John St (S) | 237 | 2 | A | 247 | 3 | A | 241 | 2 | A | 241 | 2 | A | 240 | 2 | A | 246 | 1 | A |
| | West | Newton St | 267 | 1 | A | 326 | 2 | A | 248 | 1 | A | 293 | 1 | A | 272 | 2 | A | 272 | 1 | A |
| | Total | | 6 | A | | 21 | B | | 6 | A | | 7 | A | | 14 | B | | 7 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 561 | 19 | B | 606 | 17 | B | 567 | 18 | B | 570 | 17 | B | 600 | 15 | B | 565 | 16 | B |
| | East | Hunter St | 7 | 26 | B | 4 | 30 | C | 9 | 25 | B | 11 | 32 | C | 5 | 30 | C | 11 | 30 | C |
| | South | John St (S) | 91 | 21 | B | 86 | 20 | B | 87 | 20 | B | 96 | 20 | B | 106 | 24 | B | 88 | 23 | B |
| | West | Ryan Ave | 156 | 13 | A | 166 | 12 | A | 159 | 12 | A | 153 | 12 | A | 144 | 13 | A | 164 | 12 | A |
| | Total | | 18 | B | | 16 | B | | 17 | B | | 17 | B | | 16 | B | | 16 | B | |
| Putty Rd & Ryan Ave | North | John St (N) | 134 | 16 | B | 195 | 15 | B | 133 | 15 | B | 206 | 15 | B | 224 | 16 | B | 170 | 14 | B |
| | East | Ryan Ave (E) | 151 | 13 | A | 146 | 13 | A | 149 | 13 | A | 146 | 13 | A | 117 | 12 | A | 150 | 13 | A |
| | South | John St (S) | 159 | 8 | A | 159 | 8 | A | 161 | 8 | A | 161 | 8 | A | 159 | 9 | A | 160 | 8 | A |
| | West | Ryan Ave (W) | 178 | 22 | B | 120 | 18 | B | 183 | 20 | B | 117 | 18 | B | 100 | 14 | B | 146 | 17 | B |
| | Total | | 15 | B | | 13 | A | | 14 | B | | 13 | A | | 13 | A | | 13 | A | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 215 | 0 | A | 255 | 1 | A | 220 | 0 | A | 249 | 0 | A | 238 | 0 | A | 241 | 0 | A |
| | South | New England Hwy (S) | 390 | 7 | A | 412 | 8 | A | 410 | 7 | A | 364 | 7 | A | 419 | 6 | A | 395 | 7 | A |
| | West | Queen St (W) | 109 | 0 | A | 119 | 0 | A | 108 | 0 | A | 105 | 0 | A | 115 | 0 | A | 100 | 0 | A |
| | Total | | 7 | A | | 8 | A | | 7 | A | | 7 | A | | 6 | A | | 7 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 573 | 8 | A | 573 | 8 | A | 567 | 7 | A | 567 | 7 | A | 574 | 6 | A | 573 | 8 | A |
| | South | New England Hwy (S) | 701 | 10 | A | 702 | 10 | A | 709 | 20 | B | 710 | 10 | A | 697 | 19 | B | 691 | 10 | A |
| | West | Magpie St | 130 | 28 | B | 130 | 28 | B | 130 | 27 | B | 130 | 27 | B | 130 | 31 | C | 131 | 28 | B |
| | Total | | 11 | A | | 11 | A | | 16 | B | | 10 | A | | 15 | B | | 11 | A | |

From 8:30:00 to 9:30:00 4

| Intersection | Direction | Street | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|
| | | | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 152 | 47 | D | 254 | 147 | F | 139 | 42 | D | 193 | 55 | D | 202 | 37 | C | 134 | 46 | D |
| | East | New England Hwy (E) | 900 | 47 | D | 896 | 47 | D | 907 | 49 | D | 908 | 49 | D | 944 | 42 | C | 938 | 40 | C |
| | South | Bridgman Rd (S) | 316 | 42 | C | 322 | 42 | C | 294 | 41 | C | 301 | 41 | C | 178 | 48 | D | 266 | 52 | D |
| | West | New England Hwy (W) | 741 | 37 | C | 745 | 56 | E | 736 | 38 | C | 739 | 36 | C | 742 | 33 | C | 746 | 37 | C |
| | Total | | 43 | D | | 61 | E | | 43 | D | | 44 | D | | 39 | C | | 41 | C | |
| New England Hwy & White Ave | North | White Ave | 259 | 10 | A | 258 | 9 | A | 259 | 9 | A | 259 | 9 | A | 259 | 8 | A | 264 | 9 | A |
| | East | New England Hwy (E) | 768 | 5 | A | 767 | 5 | A | 754 | 5 | A | 758 | 5 | A | 703 | 2 | A | 766 | 8 | A |
| | West | New England Hwy (W) | 604 | 1 | A | 603 | 1 | A | 601 | 1 | A | 601 | 1 | A | 596 | 0 | A | 597 | 1 | A |
| | Total | | 10 | A | | 9 | A | | 9 | A | | 9 | A | | 8 | A | | 9 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 814 | 1 | A | 812 | 1 | A | 799 | 1 | A | 803 | 1 | A | 758 | 1 | A | 819 | 1 | A |
| | South | Simpson Tce | 23 | 13 | A | 23 | 13 | A | 23 | 15 | B | 22 | 13 | A | 23 | 7 | A | 25 | 13 | A |
| | West | New England Hwy (W) | 601 | 1 | A | 601 | 1 | A | 598 | 1 | A | 598 | 1 | A | 595 | 1 | A | 591 | 1 | A |
| | Total | | 13 | A | | 13 | A | | 15 | B | | 13 | A | | 7 | A | | 13 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 625 | 2 | A | 621 | 2 | A | 617 | 2 | A | 617 | 2 | A | 577 | 2 | A | 639 | 2 | A |
| | South | Maison Dieu Rd | 195 | 2 | A | 194 | 2 | A | 190 | 2 | A | 189 | 2 | A | 186 | 3 | A | 193 | 2 | A |
| | | | 141 | 24 | B | 141 | 24 | B | 141 | 21 | B | 141 | 24 | B | 140 | 9 | A | 140 | 25 | B |
| | | | 30 | 6 | A | 30 | 6 | A | 30 | 4 | A | 30 | 6 | A | 30 | 2 | A | 30 | 7 | A |
| | West | New England Hwy (W) | 482 | 2 | A | 482 | 2 | A | 478 | 2 | A | 478 | 2 | A | 474 | 1 | A | 470 | 2 | A |
| | Total | | 24 | B | | 24 | B | | 21 | B | | 24 | B | | 9 | A | | 25 | B | |
| New England Hwy & Howe St | North | New England Hwy (N) | 787 | 7 | A | 747 | 9 | A | 767 | 7 | A | 761 | 4 | A | 764 | 4 | A | 783 | 3 | A |
| | East | Howe St | 97 | 268 | F | 119 | 175 | F | 94 | 74 | F | 113 | 86 | F | 156 | 40 | C | 135 | 156 | F |
| | South | New England Hwy (S) | 655 | 32 | C | 663 | 42 | C | 672 | 26 | B | 632 | 39 | C | 659 | 8 | A | 645 | 62 | E |
| | West | Orchard Ave | 29 | 87 | F | 34 | 55 | D | 26 | 56 | E | 14 | 56 | E | 33 | 27 | B | 18 | 83 | F |
| | Total | | 35 | C | | 37 | C | | 20 | B | | 25 | B | | 9 | A | | 41 | C | |
| New England Hwy & York St | North | New England Hwy (N) | 671 | 11 | A | 692 | 22 | B | 658 | 11 | A | 694 | 11 | A | 793 | 39 | C | 726 | 13 | A |
| | East | Boundary St | 244 | 39 | C | 234 | 121 | F | 233 | 37 | C | 208 | 34 | C | 209 | 128 | F | 200 | 40 | C |
| | South | New England Hwy (S) | 718 | 18 | B | 730 | 19 | B | 721 | 17 | B | 679 | 20 | B | 739 | 10 | A | 709 | 21 | B |
| | West | York St | 298 | 48 | D | 295 | 42 | C | 293 | 41 | C | 252 | 46 | D | 344 | 54 | D | 262 | 57 | E |
| | Total | | 23 | B | | 36 | C | | 21 | B | | 22 | B | | 40 | C | | 25 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 854 | 8 | A | 698 | 5 | A | 843 | 4 | A | 884 | 3 | A | 816 | 2 | A | 900 | 2 | A |
| | East | Market St | 30 | 14 | A | 22 | 16 | B | 33 | 9 | A | 51 | 13 | A | 20 | 14 | A | 43 | 12 | A |
| | South | New England Hwy (S) | 707 | 4 | A | 672 | 3 | A | 735 | 2 | A | 691 | 5 | A | 653 | 2 | A | 684 | 3 | A |
| | West | Elizabeth St | 10 | 50 | D | 18 | 14 | B | 7 | 31 | C | 7 | 49 | D | 13 | 15 | B | 10 | 20 | B |
| | Total | | 50 | D | | 16 | B | | 31 | C | | 49 | D | | 15 | B | | 20 | B | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 924 | 8 | A | 732 | 36 | C | 911 | 6 | A | 877 | 5 | A | 879 | 4 | A | 903 | 5 | A |
| | East | Campbell St (E) | 21 | 84 | F | 23 | 58 | E | 22 | 64 | E | 25 | 43 | D | 41 | 33 | C | 27 | 87 | F |
| | South | New England Hwy (S) | 714 | 4 | A | 652 | 1 | A | 732 | 4 | A | 756 | 4 | A | 674 | 0 | A | 682 | 4 | A |
| | West | Campbell St (W) | 15 | 57 | E | 16 | 66 | E | 14 | 30 | C | 15 | 62 | E | 12 | 56 | E | 14 | 56 | E |
| | Total | | 252 | 2 | A | 266 | 1 | A | 248 | 1 | A | 217 | 3 | A | 331 | 4 | A | 294 | 1 | A |
| John St & Newton St * | North | John St (N) | 642 | 18 | B | 745 | 113 | F | 659 | 20 | B | 630 | 17 | B | 787 | 61 | E | 689 | 22 | B |
| | East | Campbell St | 109 | 15 | B | 110 | 44 | D | 97 | 17 | B | 100 | 8 | A | 88 | 10 | A | 104 | 8 | A |
| | South | John St (S) | 393 | 4 | A | 414 | 10 | A | 389 | 5 | A | 392 | 5 | A | 408 | 3 | A | 402 | 4 | A |
| | West | Newton St | 279 | 2 | A | 402 | 6 | A | 269 | 2 | A | 297 | 2 | A | 292 | 3 | A | 287 | 2 | A |
| | Total | | 18 | B | | 113 | F | | 20 | B | | 17 | B | | 61 | E | | 22 | B | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 707 | 36 | C | 823 | 49 | D | 704 | 41 | C | 705 | 32 | C | 768 | 44 | D | 704 | 34 | C |
| | East | Hunter St | 10 | 35 | C | 5 | 26 | B | 6 | 29 | C | 13 | 37 | C | 9 | 29 | C | 18 | 28 | B |
| | South | John St (S) | 127 | 35 | C | 158 | 45 | D | 129 | 35 | C | 141 | 42 | C | 154 | 43 | D | 137 | 38 | C |
| | West | Ryan Ave | 308 | 11 | A | 291 | 11 | A | 302 | 11 | A | 284 | 11 | A | 291 | 11 | A | 302 | 11 | A |
| | Total | | 29 | C | | 39 | C | | 32 | C | | 28 | B | | 36 | C | | 28 | C | |
| Putty Rd & Ryan Ave | North | John St (N) | 166 | 16 | B | 199 | 17 | B | 179 | 15 | B | 189 | 16 | B | 177 | 15 | B | 187 | 16 | B |
| | East | Ryan Ave (E) | 304 | 12 | A | 296 | 12 | A | 301 | 12 | A | 301 | 12 | A | 250 | 11 | A | 304 | 12 | A |
| | South | John St (S) | 183 | 11 | A | 183 | 11 | A | 177 | 11 | A | 177 | 11 | A | 183 | 11 | A | 185 | 10 | A |
| | West | Ryan Ave (W) | 152 | 23 | B | 114 | 15 | B | 142 | 21 | B | 134 | 16 | B | 124 | 20 | B | 138 | 18 | B |
| | Total | | 14 | B | | 13 | A | | 14 | A | | 13 | A | | 14 | A | | 13 | A | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 420 | 1 | A | 464 | 23 | B | 421 | 1 | A | 396 | 1 | A | 455 | 3 | A | 437 | 2 | A |
| | South | New England Hwy (S) | 368 | 15 | B | 403 | 81 | F | 384 | 13 | A | 388 | 12 | A | 402 | 26 | B | 384 | 14 | B |
| | West | Queen St (W) | 177 | 0 | A | 203 | 0 | A | 177 | 0 | A | 172 | 0 | A | 213 | 0 | A | 179 | 0 | A |
| | Total | | 15 | B | | 81 | F | | 13 | A | | 12 | A | | 26 | B | | 14 | B | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 357 | 6 | A | 357 | 6 | A | 357 | 5 | A | 357 | 5 | A | 357 | 5 | A | 351 | 6 | A |
| | South | New England Hwy (S) | 663 | 19 | B | 655 | 19 | B | 656 | 18 | B | 650 | 19 | B | 611 | 18 | B | 668 | 18 | B |
| | West | Magpie St | 154 | 27 | B | 154 | 28 | B | 153 | 27 | B | 153 | 27 | B | 148 | 52 | D | 149 | 28 | C |
| | Total | | 16 | B | | 16 | B | | 15 | B | | 16 | B | | 18 | B | | 16 | B | |

From 15:00:00 to 16:00:00

1

| | | | 15:00 - 16:00 | | | | | | | | | | | | | | | | | | |
|-------|----------------------------------|-----------|---------------------|------|-----------|---------------|------|-----------|---------------|------|-----------|---------------|------|-----------|---------------|------|-----------|---------------|------|-----------|-----|
| | | | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | | |
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 125 | 51 | D | 188 | 58 | E | 123 | 56 | D | 127 | 51 | D | 151 | 41 | C | 72 | 69 | E |
| | | East | New England Hwy (E) | 1009 | 63 | E | 925 | 64 | E | 988 | 57 | E | 939 | 55 | D | 1148 | 52 | D | 1090 | 63 | E |
| | | South | Bridgman Rd (S) | 294 | 55 | D | 368 | 62 | E | 312 | 67 | E | 365 | 52 | D | 174 | 49 | D | 188 | 90 | F |
| | | West | New England Hwy (W) | 1258 | 47 | D | 1238 | 56 | D | 1256 | 51 | D | 1246 | 57 | E | 1232 | 42 | C | 1255 | 55 | D |
| | | Total | | 54 | D | | 59 | E | | 55 | D | | 56 | D | | 46 | D | | 62 | E | |
| 3 | New England Hwy & White Ave | North | White Ave | 223 | 19 | B | 223 | 21 | B | 223 | 20 | B | 223 | 20 | B | 223 | 11 | A | 222 | 19 | B |
| | | East | New England Hwy (E) | 614 | 7 | A | 604 | 6 | A | 609 | 6 | A | 610 | 6 | A | 625 | 6 | A | 617 | 9 | A |
| | | West | New England Hwy (W) | 1191 | 1 | A | 1191 | 1 | A | 1191 | 1 | A | 1191 | 1 | A | 1156 | 1 | A | 1188 | 1 | A |
| | | Total | | 19 | B | | 21 | B | | 20 | B | | 20 | B | | 11 | A | | 19 | B | |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 537 | 1 | A | 531 | 1 | A | 534 | 1 | A | 536 | 1 | A | 543 | 1 | A | 542 | 1 | A |
| | | South | Simpson Tce | 53 | 12 | A | 53 | 13 | A | 53 | 14 | A | 53 | 13 | A | 53 | 10 | A | 54 | 10 | A |
| | | West | New England Hwy (W) | 1288 | 3 | A | 1289 | 3 | A | 1288 | 3 | A | 1289 | 3 | A | 1253 | 1 | A | 1297 | 2 | A |
| | | Total | | 12 | A | | 13 | A | | 14 | A | | 13 | A | | 10 | A | | 10 | A | |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 397 | 2 | A | 391 | 1 | A | 395 | 2 | A | 396 | 2 | A | 405 | 1 | A | 397 | 1 | A |
| | | | | 149 | 2 | A | 147 | 2 | A | 148 | 2 | A | 149 | 2 | A | 149 | 2 | A | 152 | 2 | A |
| | | South | Maison Dieu Rd | 179 | 84 | F | 179 | 80 | F | 179 | 81 | F | 179 | 78 | F | 178 | 10 | A | 183 | 100 | F |
| | | | | 21 | 55 | D | 21 | 51 | D | 21 | 52 | D | 21 | 50 | D | 21 | 3 | A | 18 | 71 | F |
| | | West | New England Hwy (W) | 1145 | 2 | A | 1145 | 2 | A | 1145 | 2 | A | 1145 | 2 | A | 1114 | 1 | A | 1149 | 2 | A |
| Total | | 84 | F | | 80 | F | | 81 | F | | 78 | F | | 10 | A | | 100 | F | | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 1056 | 13 | A | 987 | 18 | B | 1062 | 14 | B | 1109 | 3 | A | 1064 | 5 | A | 1169 | 4 | A |
| | | East | Howe St | 204 | 60 | E | 223 | 114 | F | 205 | 44 | D | 196 | 47 | D | 214 | 40 | C | 159 | 44 | D |
| | | South | New England Hwy (S) | 610 | 37 | C | 606 | 82 | F | 610 | 30 | C | 614 | 46 | D | 649 | 7 | A | 583 | 35 | C |
| | | West | Orchard Ave | 72 | 34 | C | 105 | 37 | C | 75 | 34 | C | 37 | 35 | C | 66 | 34 | C | 70 | 37 | C |
| | | Total | | 26 | B | | 50 | D | | 23 | B | | 22 | B | | 10 | A | | 17 | B | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 860 | 20 | B | 837 | 27 | B | 880 | 21 | B | 980 | 13 | A | 934 | 19 | B | 1024 | 15 | B |
| | | East | Boundary St | 267 | 44 | D | 220 | 58 | E | 253 | 39 | C | 203 | 38 | C | 220 | 131 | F | 176 | 61 | E |
| | | South | New England Hwy (S) | 765 | 17 | B | 726 | 22 | B | 766 | 16 | B | 756 | 18 | B | 769 | 10 | A | 716 | 17 | B |
| | | West | York St | 339 | 57 | E | 409 | 142 | F | 336 | 52 | D | 394 | 95 | F | 472 | 95 | F | 372 | 52 | D |
| | | Total | | 27 | B | | 50 | D | | 26 | B | | 30 | C | | 41 | C | | 25 | B | |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 862 | 15 | B | 769 | 11 | A | 870 | 3 | A | 914 | 17 | B | 837 | 4 | A | 1004 | 2 | A |
| | | East | Market St | 21 | 23 | B | 25 | 16 | B | 23 | 14 | B | 31 | 13 | A | 25 | 13 | A | 33 | 16 | B |
| | | South | New England Hwy (S) | 785 | 11 | A | 683 | 7 | A | 799 | 2 | A | 799 | 13 | A | 657 | 5 | A | 812 | 13 | A |
| | | West | Elizabeth St | 35 | 22 | B | 22 | 15 | B | 33 | 19 | B | 39 | 17 | B | 96 | 7 | A | 45 | 20 | B |
| | | Total | | 23 | B | | 16 | B | | 19 | B | | 17 | B | | 13 | A | | 20 | B | |
| # | New England Hwy & Campbell St | North | New England Hwy (N) | 899 | 8 | A | 788 | 4 | A | 903 | 5 | A | 888 | 8 | A | 940 | 2 | A | 1023 | 7 | A |
| | | East | Campbell St (E) | 44 | 102 | F | 97 | 78 | F | 43 | 116 | F | 80 | 70 | F | 130 | 228 | F | 80 | 73 | F |
| | | South | New England Hwy (S) | 744 | 3 | A | 674 | 1 | A | 754 | 3 | A | 780 | 3 | A | 775 | 0 | A | 788 | 4 | A |
| | | West | Campbell St (W) | 45 | 58 | E | 61 | 37 | C | 44 | 63 | E | 56 | 74 | F | 49 | 38 | C | 32 | 92 | F |
| | | Total | | 342 | 2 | A | 318 | 2 | A | 320 | 3 | A | 256 | 6 | A | 420 | 5 | A | 412 | 3 | A |
| # | John St & Newton St * | North | John St (N) | 349 | 44 | D | 379 | 77 | F | 338 | 38 | C | 345 | 34 | C | 439 | 185 | F | 327 | 32 | C |
| | | East | Campbell St | 89 | 4 | A | 146 | 4 | A | 93 | 3 | A | 87 | 3 | A | 182 | 6 | A | 76 | 2 | A |
| | | South | John St (S) | 731 | 2 | A | 783 | 4 | A | 730 | 3 | A | 704 | 2 | A | 706 | 4 | A | 695 | 1 | A |
| | | West | Newton St | 510 | 8 | A | 603 | 11 | A | 507 | 7 | A | 526 | 6 | A | 523 | 14 | B | 432 | 7 | A |
| | | Total | | 44 | D | | 77 | F | | 38 | C | | 34 | C | | 185 | F | | 32 | C | |
| # | John St & Ryan Ave & Hunter St | North | John St (N) | 662 | 32 | C | 726 | 20 | B | 660 | 28 | B | 651 | 22 | B | 725 | 15 | B | 594 | 18 | B |
| | | East | Hunter St | 14 | 33 | C | 13 | 26 | B | 13 | 37 | C | 13 | 30 | C | 18 | 30 | C | 24 | 34 | C |
| | | South | John St (S) | 316 | 59 | E | 285 | 37 | C | 303 | 49 | D | 266 | 48 | D | 335 | 91 | F | 303 | 47 | D |
| | | West | Ryan Ave | 448 | 22 | B | 518 | 28 | B | 458 | 23 | B | 492 | 23 | B | 446 | 16 | B | 453 | 15 | B |
| | | Total | | 35 | C | | 26 | B | | 31 | C | | 27 | B | | 32 | C | | 24 | B | |
| # | Putty Rd & Ryan Ave | North | John St (N) | 140 | 10 | A | 144 | 10 | A | 145 | 9 | A | 158 | 10 | A | 146 | 10 | A | 141 | 9 | A |
| | | East | Ryan Ave (E) | 280 | 14 | A | 286 | 14 | A | 277 | 14 | A | 267 | 14 | A | 271 | 13 | A | 288 | 14 | A |
| | | South | John St (S) | 320 | 13 | A | 320 | 14 | A | 320 | 13 | A | 320 | 14 | A | 320 | 13 | A | 324 | 13 | A |
| | | West | Ryan Ave (W) | 274 | 13 | A | 269 | 11 | A | 262 | 14 | A | 229 | 11 | A | 261 | 13 | A | 254 | 12 | A |
| | | Total | | 13 | A | | 13 | A | | 13 | A | | 12 | A | | 13 | A | | 12 | A | |
| # | Queen St & New England Hwy Ramp | East | Queen St (E) | 314 | 0 | A | 339 | 1 | A | 306 | 0 | A | 306 | 0 | A | 339 | 46 | D | 306 | 0 | A |
| | | South | New England Hwy (S) | 238 | 10 | A | 241 | 12 | A | 233 | 11 | A | 223 | 11 | A | 174 | 58 | E | 210 | 9 | A |
| | | West | Queen St (W) | 287 | 0 | A | 331 | 0 | A | 284 | 0 | A | 266 | 0 | A | 338 | 0 | A | 290 | 0 | A |
| | | Total | | 10 | A | | 12 | A | | 11 | A | | 11 | A | | 58 | E | | 9 | A | |
| # | Maggie St & New England Hwy | North | New England Hwy (N) | 910 | 9 | A | 910 | 9 | A | 910 | 9 | A | 910 | 9 | A | 909 | 8 | A | 902 | 9 | A |
| | | South | New England Hwy (S) | 411 | 21 | B | 402 | 20 | B | 412 | 22 | B | 412 | 20 | B | 416 | 19 | B | 413 | 22 | B |
| | | West | Maggie St | 365 | 27 | B | 365 | 27 | B | 365 | 25 | B | 365 | 27 | B | 331 | 233 | F | 382 | 30 | C |
| | | Total | | 16 | B | | 16 | B | | 16 | B | | 16 | B | | 56 | D | | 17 | B | |

| | | | 16:00 - 17:00 | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|---------------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---|
| | | | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 124 | 178 | F | 135 | 127 | F | 125 | 149 | F | 140 | 253 | F | 174 | 64 | E | 91 | 103 | F | |
| | East | New England Hwy (E) | 1115 | 55 | D | 1124 | 53 | D | 1131 | 63 | E | 1084 | 54 | D | 1238 | 51 | D | 1190 | 98 | F | |
| | South | Bridgman Rd (S) | 400 | 53 | D | 408 | 56 | D | 388 | 50 | D | 444 | 63 | E | 259 | 51 | D | 315 | 92 | F | |
| | West | New England Hwy (W) | 1263 | 79 | F | 1314 | 60 | E | 1277 | 85 | F | 1298 | 63 | E | 1335 | 39 | C | 1262 | 89 | F | |
| | Total | | | 71 | F | | 60 | E | | 75 | F | | 69 | E | | 46 | D | | 94 | F | |
| New England Hwy & White Ave | North | White Ave | 113 | 23 | B | 114 | 18 | B | 114 | 19 | B | 114 | 19 | B | 114 | 14 | A | 116 | 20 | B | |
| | East | New England Hwy (E) | 649 | 7 | A | 658 | 7 | A | 650 | 8 | A | 643 | 6 | A | 637 | 7 | A | 671 | 12 | A | |
| | West | New England Hwy (W) | 1319 | 2 | A | 1319 | 1 | A | 1320 | 1 | A | 1320 | 1 | A | 1350 | 1 | A | 1324 | 2 | A | |
| | Total | | | 23 | B | | 18 | B | | 19 | B | | 19 | B | | 14 | A | | 20 | B | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 583 | 1 | A | 588 | 1 | A | 582 | 1 | A | 574 | 1 | A | 569 | 1 | A | 604 | 1 | A | |
| | South | Simpson Tce | 41 | 13 | A | 41 | 13 | A | 41 | 13 | A | 41 | 13 | A | 41 | 8 | A | 45 | 15 | B | |
| | West | New England Hwy (W) | 1407 | 2 | A | 1406 | 2 | A | 1408 | 2 | A | 1408 | 2 | A | 1437 | 1 | A | 1409 | 2 | A | |
| | Total | | | 13 | A | | 13 | A | | 13 | A | | 13 | A | | 8 | A | | 15 | B | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 434 | 2 | A | 439 | 2 | A | 433 | 2 | A | 426 | 2 | A | 424 | 1 | A | 459 | 1 | A | |
| | South | Maison Dieu Rd | 156 | 2 | A | 157 | 2 | A | 156 | 2 | A | 155 | 2 | A | 154 | 2 | A | 155 | 2 | A | |
| | | | 182 | 92 | F | 181 | 103 | F | 182 | 106 | F | 182 | 105 | F | 185 | 10 | A | 186 | 101 | F | |
| | | | 17 | 59 | E | 17 | 70 | F | 17 | 74 | F | 17 | 73 | F | 17 | 2 | A | 19 | 68 | E | |
| | | West | New England Hwy (W) | 1236 | 2 | A | 1236 | 2 | A | 1236 | 2 | A | 1236 | 2 | A | 1261 | 1 | A | 1236 | 2 | A |
| | Total | | | 92 | F | | 103 | F | | 106 | F | | 105 | F | | 10 | A | | 101 | F | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1226 | 12 | A | 1170 | 16 | B | 1229 | 13 | A | 1241 | 2 | A | 1302 | 3 | A | 1278 | 2 | A | |
| | East | Howe St | 161 | 64 | E | 164 | 295 | F | 171 | 72 | F | 169 | 61 | E | 191 | 61 | E | 142 | 80 | F | |
| | South | New England Hwy (S) | 618 | 10 | A | 637 | 32 | C | 618 | 14 | B | 627 | 19 | B | 683 | 7 | A | 630 | 21 | B | |
| | West | Orchard Ave | 64 | 40 | C | 124 | 43 | D | 52 | 40 | C | 37 | 40 | C | 56 | 40 | C | 54 | 44 | D | |
| | Total | | | 17 | B | | 45 | D | | 19 | B | | 13 | A | | 10 | A | | 14 | B | |
| New England Hwy & York St | North | New England Hwy (N) | 989 | 18 | B | 985 | 26 | B | 983 | 20 | B | 1078 | 12 | A | 1146 | 16 | B | 1071 | 11 | A | |
| | East | Boundary St | 181 | 41 | C | 185 | 59 | E | 176 | 39 | C | 121 | 37 | C | 115 | 65 | E | 114 | 35 | C | |
| | South | New England Hwy (S) | 749 | 12 | A | 758 | 15 | B | 756 | 11 | A | 768 | 14 | A | 793 | 8 | A | 769 | 13 | A | |
| | West | York St | 342 | 61 | E | 386 | 167 | F | 356 | 75 | F | 399 | 94 | F | 471 | 81 | F | 407 | 76 | F | |
| | Total | | | 24 | B | | 48 | D | | 27 | B | | 27 | B | | 28 | B | | 24 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 983 | 4 | A | 932 | 5 | A | 990 | 2 | A | 1021 | 3 | A | 1048 | 1 | A | 1067 | 1 | A | |
| | East | Market St | 14 | 14 | B | 11 | 16 | B | 16 | 18 | B | 21 | 14 | A | 14 | 12 | A | 20 | 16 | B | |
| | South | New England Hwy (S) | 723 | 3 | A | 735 | 2 | A | 731 | 2 | A | 747 | 4 | A | 696 | 1 | A | 775 | 3 | A | |
| | West | Elizabeth St | 47 | 16 | B | 28 | 11 | A | 43 | 13 | A | 49 | 18 | B | 77 | 6 | A | 43 | 15 | B | |
| | Total | | | 16 | B | | 16 | B | | 18 | B | | 18 | B | | 12 | A | | 16 | B | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1060 | 10 | A | 996 | 6 | A | 1065 | 10 | A | 1028 | 5 | A | 1196 | 3 | A | 1125 | 13 | A | |
| | East | Campbell St (E) | 34 | 85 | F | 50 | 97 | F | 41 | 86 | F | 69 | 89 | F | 88 | 54 | D | 47 | 78 | F | |
| | South | New England Hwy (S) | 703 | 4 | A | 733 | 1 | A | 704 | 4 | A | 741 | 4 | A | 811 | 0 | A | 755 | 5 | A | |
| | West | Campbell St (W) | 9 | 68 | E | 25 | 61 | E | 8 | 67 | E | 12 | 95 | F | 28 | 49 | D | 10 | 56 | E | |
| | Total | | | 445 | 1 | A | 398 | 1 | A | 453 | 1 | A | 375 | 1 | A | 452 | 6 | A | 467 | 1 | A |
| John St & Newton St * | North | John St (N) | 488 | 20 | B | 469 | 28 | B | 483 | 24 | B | 442 | 17 | B | 491 | 87 | F | 511 | 21 | B | |
| | East | Campbell St | 100 | 3 | A | 125 | 3 | A | 106 | 3 | A | 92 | 2 | A | 144 | 5 | A | 99 | 3 | A | |
| | South | John St (S) | 870 | 3 | A | 858 | 4 | A | 878 | 3 | A | 828 | 2 | A | 768 | 5 | A | 829 | 2 | A | |
| | West | Newton St | 329 | 6 | A | 401 | 10 | A | 336 | 7 | A | 388 | 6 | A | 336 | 13 | A | 262 | 6 | A | |
| | Total | | | 20 | B | | 28 | B | | 24 | B | | 17 | B | | 87 | F | | 21 | B | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 621 | 19 | B | 650 | 13 | A | 639 | 18 | B | 605 | 15 | B | 637 | 14 | B | 600 | 16 | B | |
| | East | Hunter St | 17 | 31 | C | 13 | 35 | C | 15 | 36 | C | 11 | 31 | C | 16 | 32 | C | 19 | 36 | C | |
| | South | John St (S) | 360 | 126 | F | 334 | 101 | F | 375 | 84 | F | 306 | 83 | F | 343 | 171 | F | 336 | 128 | F | |
| | West | Ryan Ave | 591 | 23 | B | 585 | 23 | B | 574 | 27 | B | 590 | 16 | B | 524 | 21 | B | 574 | 20 | B | |
| | Total | | | 45 | D | | 36 | C | | 37 | C | | 29 | C | | 52 | D | | 42 | D | |
| Putty Rd & Ryan Ave | North | John St (N) | 144 | 9 | A | 136 | 8 | A | 148 | 9 | A | 143 | 9 | A | 116 | 9 | A | 138 | 10 | A | |
| | East | Ryan Ave (E) | 258 | 12 | A | 269 | 13 | A | 257 | 12 | A | 257 | 12 | A | 233 | 11 | A | 269 | 13 | A | |
| | South | John St (S) | 444 | 14 | B | 443 | 15 | B | 444 | 14 | B | 443 | 15 | B | 444 | 15 | B | 434 | 15 | B | |
| | West | Ryan Ave (W) | 267 | 13 | A | 268 | 13 | A | 264 | 13 | A | 235 | 13 | A | 282 | 13 | A | 241 | 13 | A | |
| | Total | | | 13 | A | | 13 | A | | 13 | A | | 13 | A | | 13 | A | | 13 | A | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 410 | 0 | A | 410 | 0 | A | 400 | 0 | A | 378 | 0 | A | 400 | 4 | A | 400 | 0 | A | |
| | South | New England Hwy (S) | 345 | 10 | A | 349 | 10 | A | 344 | 10 | A | 285 | 9 | A | 247 | 17 | B | 381 | 9 | A | |
| | West | Queen St (W) | 276 | 0 | A | 293 | 0 | A | 278 | 0 | A | 234 | 0 | A | 274 | 0 | A | 256 | 0 | A | |
| | Total | | | 10 | A | | 10 | A | | 10 | A | | 9 | A | | 17 | B | | 9 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 1049 | 9 | A | 1049 | 9 | A | 1049 | 9 | A | 1049 | 9 | A | 1049 | 8 | A | 1061 | 10 | A | |
| | South | New England Hwy (S) | 446 | 24 | B | 453 | 24 | B | 446 | 23 | B | 437 | 25 | B | 444 | 22 | B | 467 | 23 | B | |
| | West | Magpie St | 327 | 25 | B | 327 | 25 | B | 327 | 25 | B | 327 | 25 | B | 354 | 280 | F | 331 | 26 | B | |
| | Total | | | 16 | B | | 16 | B | | 16 | B | | 16 | B | | 64 | E | | 16 | B | |

| 17:00 - 18:00 | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|
| Intersection | Direction | Street | 2022 Base | | | 2022 Option 1 | | | 2022 Option 2 | | | 2022 Option 3 | | | 2022 Option 4 | | | 2022 Option 5 | | |
| | | | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 137 | 52 | D | 172 | 122 | F | 127 | 60 | E | 146 | 181 | F | 184 | 48 | D | 70 | 68 | E |
| | East | New England Hwy (E) | 1209 | 70 | E | 1143 | 53 | D | 1206 | 62 | E | 1138 | 66 | E | 1327 | 67 | E | 1141 | 56 | E |
| | South | Bridgman Rd (S) | 399 | 43 | D | 465 | 41 | C | 406 | 46 | D | 485 | 45 | D | 239 | 42 | C | 416 | 310 | F |
| | West | New England Hwy (W) | 1215 | 105 | F | 1188 | 71 | F | 1205 | 91 | F | 1191 | 101 | F | 1204 | 37 | C | 1252 | 75 | F |
| Total | | | | 80 | F | | 62 | E | | 72 | F | | 82 | F | | 52 | D | | 101 | F |
| New England Hwy & White Ave | North | White Ave | 160 | 24 | B | 159 | 18 | B | 160 | 20 | B | 159 | 22 | B | 158 | 13 | A | 166 | 20 | B |
| | East | New England Hwy (E) | 791 | 7 | A | 794 | 7 | A | 786 | 7 | A | 804 | 7 | A | 768 | 8 | A | 785 | 13 | A |
| | West | New England Hwy (W) | 1245 | 4 | A | 1245 | 1 | A | 1244 | 2 | A | 1245 | 3 | A | 1242 | 1 | A | 1248 | 3 | A |
| | Total | | | 24 | B | | 18 | B | | 20 | B | | 22 | B | | 13 | A | | 20 | B |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 728 | 1 | A | 733 | 1 | A | 727 | 1 | A | 741 | 1 | A | 705 | 1 | A | 723 | 1 | A |
| | South | Simpson Tce | 69 | 22 | B | 69 | 19 | B | 69 | 21 | B | 69 | 21 | B | 69 | 14 | B | 65 | 25 | B |
| | West | New England Hwy (W) | 1255 | 4 | A | 1256 | 2 | A | 1255 | 2 | A | 1255 | 4 | A | 1254 | 1 | A | 1257 | 3 | A |
| | Total | | | 22 | B | | 19 | B | | 21 | B | | 21 | B | | 14 | B | | 25 | B |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 585 | 2 | A | 590 | 2 | A | 586 | 2 | A | 597 | 1 | A | 562 | 2 | A | 593 | 1 | A |
| | South | Maison Dieu Rd | 150 | 2 | A | 149 | 2 | A | 150 | 2 | A | 150 | 2 | A | 144 | 2 | A | 146 | 2 | A |
| | | | 164 | 71 | F | 165 | 67 | E | 163 | 57 | E | 164 | 61 | E | 162 | 12 | A | 156 | 62 | E |
| | | | 14 | 39 | C | 14 | 36 | C | 14 | 26 | B | 14 | 29 | C | 14 | 2 | A | 16 | 29 | C |
| | West | New England Hwy (W) | 1115 | 2 | A | 1115 | 2 | A | 1115 | 2 | A | 1115 | 2 | A | 1114 | 1 | A | 1125 | 2 | A |
| Total | | | | 71 | F | | 67 | E | | 57 | E | | 61 | E | | 12 | A | | 62 | E |
| New England Hwy & Howe St | North | New England Hwy (N) | 1213 | 13 | A | 1193 | 17 | B | 1234 | 13 | A | 1237 | 3 | A | 1227 | 4 | A | 1264 | 3 | A |
| | East | Howe St | 133 | 58 | E | 153 | 175 | F | 138 | 64 | E | 133 | 48 | D | 154 | 80 | F | 115 | 52 | D |
| | South | New England Hwy (S) | 706 | 21 | B | 714 | 55 | D | 729 | 21 | B | 708 | 27 | B | 725 | 6 | A | 709 | 24 | B |
| | West | Orchard Ave | 97 | 40 | C | 118 | 39 | C | 78 | 37 | C | 55 | 39 | C | 89 | 39 | C | 87 | 40 | C |
| Total | | | | 20 | B | | 42 | C | | 20 | B | | 15 | B | | 11 | A | | 14 | A |
| New England Hwy & York St | North | New England Hwy (N) | 1015 | 17 | B | 992 | 27 | B | 1019 | 18 | B | 1086 | 10 | A | 1089 | 17 | B | 1096 | 11 | A |
| | East | Boundary St | 159 | 39 | C | 174 | 78 | F | 164 | 39 | C | 126 | 40 | C | 166 | 83 | F | 105 | 40 | C |
| | South | New England Hwy (S) | 843 | 13 | A | 841 | 16 | B | 849 | 13 | A | 837 | 13 | A | 845 | 8 | A | 845 | 14 | A |
| | West | York St | 318 | 66 | E | 372 | 210 | F | 327 | 95 | F | 345 | 59 | E | 409 | 109 | F | 377 | 101 | F |
| Total | | | | 23 | B | | 55 | D | | 28 | C | | 20 | B | | 33 | C | | 27 | B |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 1013 | 5 | A | 923 | 10 | A | 1015 | 7 | A | 1030 | 3 | A | 999 | 1 | A | 1069 | 2 | A |
| | East | Market St | 20 | 15 | B | 31 | 18 | B | 21 | 21 | B | 29 | 12 | A | 22 | 15 | B | 32 | 15 | B |
| | South | New England Hwy (S) | 877 | 4 | A | 820 | 2 | A | 875 | 3 | A | 856 | 5 | A | 729 | 2 | A | 830 | 3 | A |
| | West | Elizabeth St | 25 | 18 | B | 14 | 7 | A | 27 | 18 | B | 31 | 15 | B | 100 | 6 | A | 18 | 13 | A |
| Total | | | | 18 | B | | 18 | B | | 21 | B | | 15 | B | | 15 | B | | 15 | B |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1078 | 8 | A | 996 | 8 | A | 1083 | 15 | B | 1086 | 5 | A | 1204 | 11 | A | 1141 | 10 | A |
| | East | Campbell St (E) | 27 | 144 | F | 32 | 82 | F | 31 | 221 | F | 35 | 96 | F | 64 | 95 | F | 47 | 115 | F |
| | South | New England Hwy (S) | 828 | 5 | A | 801 | 1 | A | 833 | 4 | A | 834 | 6 | A | 907 | 0 | A | 779 | 6 | A |
| | West | Campbell St (W) | 15 | 60 | E | 24 | 65 | E | 12 | 65 | E | 16 | 71 | F | 29 | 73 | F | 15 | 84 | F |
| | | | 470 | 2 | A | 413 | 2 | A | 435 | 1 | A | 377 | 1 | A | 499 | 9 | A | 495 | 1 | A |
| Total | | | | 144 | F | | 82 | F | | 221 | F | | 96 | F | | 95 | F | | 115 | F |
| John St & Newton St * | North | John St (N) | 438 | 17 | B | 522 | 39 | C | 432 | 14 | A | 493 | 21 | B | 487 | 188 | F | 514 | 26 | B |
| | East | Campbell St | 128 | 2 | A | 166 | 3 | A | 133 | 2 | A | 135 | 3 | A | 218 | 8 | A | 205 | 9 | A |
| | South | John St (S) | 939 | 3 | A | 963 | 5 | A | 917 | 3 | A | 898 | 4 | A | 794 | 14 | B | 751 | 17 | B |
| | West | Newton St | 347 | 7 | A | 394 | 12 | A | 332 | 8 | A | 339 | 7 | A | 354 | 18 | B | 266 | 7 | A |
| Total | | | | 17 | B | | 39 | C | | 14 | A | | 21 | B | | 188 | F | | 26 | B |
| John St & Ryan Ave & Hunter St | North | John St (N) | 591 | 15 | B | 649 | 14 | B | 590 | 13 | A | 606 | 14 | A | 595 | 10 | A | 564 | 15 | B |
| | East | Hunter St | 15 | 34 | C | 11 | 35 | C | 11 | 31 | C | 11 | 46 | D | 17 | 31 | C | 21 | 30 | C |
| | South | John St (S) | 369 | 96 | F | 302 | 70 | E | 367 | 232 | F | 317 | 78 | F | 322 | 71 | F | 299 | 82 | F |
| | West | Ryan Ave | 613 | 105 | F | 688 | 129 | F | 581 | 58 | E | 637 | 96 | F | 576 | 129 | F | 586 | 76 | F |
| Total | | | | 68 | E | | 72 | F | | 82 | F | | 60 | E | | 69 | E | | 53 | D |
| Putty Rd & Ryan Ave | North | John St (N) | 141 | 8 | A | 136 | 8 | A | 135 | 8 | A | 162 | 9 | A | 144 | 8 | A | 150 | 8 | A |
| | East | Ryan Ave (E) | 258 | 12 | A | 260 | 12 | A | 261 | 12 | A | 254 | 11 | A | 239 | 12 | A | 245 | 13 | A |
| | South | John St (S) | 311 | 12 | A | 311 | 13 | A | 311 | 12 | A | 311 | 12 | A | 311 | 12 | A | 320 | 13 | A |
| | West | Ryan Ave (W) | 247 | 12 | A | 257 | 14 | B | 249 | 12 | A | 216 | 12 | A | 242 | 13 | A | 261 | 12 | A |
| Total | | | | 11 | A | | 12 | A | | 11 | A | | 11 | A | | 12 | A | | 12 | A |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 372 | 0 | A | 414 | 5 | A | 361 | 0 | A | 372 | 0 | A | 354 | 51 | D | 383 | 0 | A |
| | South | New England Hwy (S) | 310 | 12 | A | 355 | 23 | B | 321 | 12 | A | 354 | 12 | A | 177 | 131 | F | 334 | 11 | A |
| | West | Queen St (W) | 339 | 0 | A | 378 | 0 | A | 343 | 0 | A | 301 | 0 | A | 335 | 0 | A | 219 | 0 | A |
| Total | | | | 12 | A | | 23 | B | | 12 | A | | 12 | A | | 131 | F | | 11 | A |
| Magpie St & New England Hwy | North | New England Hwy (N) | 909 | 8 | A | 909 | 8 | A | 909 | 8 | A | 909 | 8 | A | 909 | 6 | A | 919 | 8 | A |
| | South | New England Hwy (S) | 607 | 21 | B | 611 | 21 | B | 604 | 20 | B | 618 | 20 | B | 574 | 19 | B | 619 | 21 | B |
| | West | Magpie St | 262 | 29 | C | 262 | 29 | C | 262 | 29 | C | 262 | 29 | C | 260 | 238 | F | 271 | 29 | C |
| | Total | | | 15 | B | | 15 | B | | 15 | B | | 15 | B | | 45 | D | | 16 | B |

| | | | | From 5:30:00 | | to 6:30:00 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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From 6:30:00 to 7:30:00

2

| | | | 2026 Base | | | 2026 Option 1 | | | 2026 Option 2 | | | 2026 Option 3 | | | 2026 Option 4 | | | 2026 Option 5 | | | 2026 Bypass | | | 2026 Bypass Without | | | 2026 Bypass With Ramps | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 224 | 78 | F | 254 | 164 | F | 197 | 67 | E | 240 | 116 | F | 219 | 113 | F | 246 | 50 | D | 341 | 490 | F | 303 | 67 | E | 301 | 76 | F | |
| | East | New England Hwy (E) | 963 | 40 | C | 961 | 42 | D | 984 | 46 | D | 965 | 42 | C | 1101 | 29 | C | 1061 | 36 | C | 223 | 30 | C | 223 | 32 | C | 230 | 32 | C | |
| | South | Bridgman Rd (S) | 215 | 34 | C | 220 | 37 | C | 197 | 35 | C | 207 | 34 | C | 76 | 44 | D | 103 | 47 | D | 75 | 35 | C | 70 | 44 | D | 70 | 45 | D | |
| | West | New England Hwy (W) | 736 | 27 | B | 734 | 27 | B | 736 | 26 | B | 736 | 27 | B | 738 | 23 | B | 730 | 30 | C | 304 | 24 | B | 301 | 23 | B | 304 | 24 | B | |
| | Total | | | 39 | C | | 51 | D | | 40 | C | | 44 | D | | 36 | C | | 36 | C | | 195 | F | | 42 | C | | 45 | D | |
| New England Hwy & White Ave | North | White Ave | 163 | 22 | B | 164 | 22 | B | 164 | 21 | B | 164 | 21 | B | 161 | 11 | A | 162 | 20 | B | 161 | 4 | A | 161 | 4 | A | 160 | 4 | A | |
| | East | New England Hwy (E) | 1153 | 6 | A | 1164 | 6 | A | 1147 | 6 | A | 1148 | 6 | A | 1148 | 2 | A | 1131 | 13 | A | 511 | 3 | A | 461 | 4 | A | 465 | 4 | A | |
| | West | New England Hwy (W) | 726 | 1 | A | 726 | 1 | A | 727 | 1 | A | 726 | 1 | A | 729 | 0 | A | 736 | 1 | A | 319 | 1 | A | 324 | 1 | A | 323 | 1 | A | |
| | Total | | | 22 | B | | 22 | B | | 21 | B | | 21 | B | | 11 | A | | 20 | B | | 4 | A | | 4 | A | | 4 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1251 | 1 | A | 1263 | 1 | A | 1247 | 1 | A | 1249 | 1 | A | 1242 | 1 | A | 1226 | 1 | A | 626 | 1 | A | 576 | 1 | A | 578 | 1 | A | |
| | South | Simpson Tce | 17 | 19 | B | 17 | 23 | B | 17 | 20 | B | 17 | 19 | B | 17 | 15 | B | 16 | 25 | B | 16 | 8 | A | 17 | 5 | A | 16 | 6 | A | |
| | West | New England Hwy (W) | 733 | 2 | A | 735 | 2 | A | 734 | 2 | A | 735 | 2 | A | 736 | 1 | A | 743 | 2 | A | 325 | 1 | A | 330 | 1 | A | 327 | 1 | A | |
| | Total | | | 19 | B | | 23 | B | | 20 | B | | 19 | B | | 15 | B | | 25 | B | | 8 | A | | 5 | A | | 6 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 916 | 2 | A | 924 | 2 | A | 914 | 2 | A | 914 | 2 | A | 909 | 3 | A | 893 | 2 | A | 468 | 2 | A | 445 | 2 | A | 444 | 2 | A | |
| | South | Maison Dieu Rd | 351 | 3 | A | 357 | 3 | A | 349 | 3 | A | 351 | 3 | A | 352 | 3 | A | 345 | 3 | A | 371 | 9 | A | 375 | 10 | A | 370 | 10 | A | |
| | | | 55 | 30 | C | 55 | 32 | C | 55 | 29 | C | 55 | 31 | C | 56 | 15 | B | 58 | 28 | B | | | | | | | | | | |
| | | | 35 | 2 | A | 35 | 2 | A | 35 | 2 | A | 35 | 2 | A | 35 | 1 | A | 35 | 2 | A | | | | | | | | | | |
| | West | New England Hwy (W) | 698 | 2 | A | 699 | 2 | A | 699 | 2 | A | 699 | 2 | A | 700 | 1 | A | 701 | 2 | A | 14 | 1 | A | 14 | 1 | A | 12 | 1 | A | |
| Total | | | 30 | C | | 32 | C | | 29 | C | | 31 | C | | 15 | B | | 28 | B | | 9 | A | | 10 | A | | 10 | A | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 770 | 9 | A | 773 | 9 | A | 771 | 9 | A | 770 | 5 | A | 769 | 5 | A | 778 | 5 | A | 415 | 4 | A | 410 | 4 | A | 415 | 4 | A | |
| | East | Howe St | 110 | 53 | D | 127 | 73 | F | 109 | 58 | E | 111 | 58 | E | 140 | 60 | E | 138 | 57 | E | 114 | 59 | E | 111 | 59 | E | 118 | 54 | D | |
| | South | New England Hwy (S) | 827 | 27 | B | 831 | 42 | D | 824 | 33 | C | 812 | 51 | D | 887 | 5 | A | 819 | 42 | D | 154 | 5 | A | 163 | 5 | A | 162 | 6 | A | |
| | West | Orchard Ave | 9 | 56 | D | 23 | 54 | D | 7 | 55 | D | 8 | 53 | D | 19 | 52 | D | 12 | 52 | D | 5 | 41 | C | 5 | 41 | C | 6 | 46 | D | |
| Total | | | 21 | B | | 30 | C | | 24 | B | | 31 | C | | 10 | A | | 27 | B | | 14 | A | | 14 | A | | 13 | A | | |
| New England Hwy & York St | North | New England Hwy (N) | 711 | 7 | A | 724 | 8 | A | 710 | 7 | A | 713 | 5 | A | 731 | 6 | A | 721 | 6 | A | 380 | 4 | A | 370 | 4 | A | 356 | 4 | A | |
| | East | Boundary St | 63 | 53 | D | 71 | 51 | D | 64 | 52 | D | 76 | 52 | D | 73 | 65 | E | 69 | 53 | D | 37 | 50 | D | 37 | 49 | D | 58 | 49 | D | |
| | South | New England Hwy (S) | 868 | 8 | A | 880 | 10 | A | 864 | 9 | A | 857 | 9 | A | 927 | 6 | A | 877 | 8 | A | 204 | 5 | A | 210 | 5 | A | 213 | 5 | A | |
| | West | York St | 127 | 51 | D | 131 | 54 | D | 126 | 50 | D | 117 | 63 | E | 145 | 61 | E | 124 | 62 | E | 135 | 51 | D | 136 | 54 | D | 135 | 55 | D | |
| | Total | | | 13 | A | | 14 | A | | 12 | A | | 13 | A | | 12 | A | | 13 | A | | 15 | B | | 16 | B | | 17 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 724 | 2 | A | 708 | 1 | A | 720 | 2 | A | 736 | 3 | A | 716 | 0 | A | 734 | 2 | A | 337 | 0 | A | 338 | 0 | A | 345 | 0 | A | |
| | East | Market St | 26 | 6 | A | 9 | 11 | A | 25 | 7 | A | 35 | 5 | A | 9 | 8 | A | 23 | 7 | A | 16 | 4 | A | 21 | 3 | A | 20 | 3 | A | |
| | South | New England Hwy (S) | 837 | 2 | A | 825 | 1 | A | 842 | 1 | A | 824 | 1 | A | 886 | 1 | A | 850 | 1 | A | 155 | 1 | A | 145 | 1 | A | 158 | 1 | A | |
| | West | Elizabeth St | 6 | 15 | B | 10 | 12 | A | 6 | 18 | B | 5 | 16 | B | 8 | 10 | A | 4 | 17 | B | 3 | 7 | A | 6 | 4 | A | 3 | 4 | A | |
| Total | | | 15 | B | | 12 | A | | 18 | B | | 16 | B | | 10 | A | | 17 | B | | 7 | A | | 4 | A | | 4 | A | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 724 | 3 | A | 701 | 3 | A | 723 | 3 | A | 717 | 3 | A | 746 | 2 | A | 723 | 3 | A | 325 | 2 | A | 326 | 1 | A | 332 | 1 | A | |
| | East | Campbell St (E) | 16 | 67 | E | 9 | 45 | D | 16 | 60 | E | 24 | 50 | D | 24 | 41 | C | 34 | 52 | D | 39 | 17 | B | 39 | 17 | B | 40 | 17 | B | |
| | South | New England Hwy (S) | 834 | 2 | A | 811 | 1 | A | 835 | 2 | A | 840 | 1 | A | 874 | 0 | A | 846 | 1 | A | 186 | 0 | A | 182 | 1 | A | 184 | 1 | A | |
| | West | Campbell St (W) | 12 | 45 | D | 15 | 51 | D | 11 | 49 | D | 13 | 44 | D | 16 | 60 | E | 16 | 45 | D | 21 | 8 | A | 21 | 8 | A | 21 | 8 | A | |
| | Total | | | 139 | 1 | A | 155 | 1 | A | 153 | 1 | A | 135 | 1 | A | 251 | 5 | A | 236 | 1 | A | 51 | 1 | A | 58 | 1 | A | 60 | 1 | A |
| John St & Newton St * | North | John St (N) | 489 | 3 | A | 519 | 3 | A | 520 | 3 | A | 470 | 3 | A | 547 | 5 | A | 442 | 4 | A | 218 | 1 | A | 252 | 1 | A | 261 | 1 | A | |
| | East | Campbell St | 78 | 2 | A | 76 | 2 | A | 70 | 2 | A | 73 | 2 | A | 59 | 2 | A | 65 | 2 | A | 61 | 0 | A | 59 | 0 | A | 58 | 0 | A | |
| | South | John St (S) | 221 | 1 | A | 224 | 1 | A | 221 | 1 | A | 222 | 1 | A | 217 | 1 | A | 231 | 1 | A | 93 | 0 | A | 92 | 1 | A | 93 | 0 | A | |
| | West | Newton St | 218 | 1 | A | 232 | 1 | A | 185 | 1 | A | 223 | 1 | A | 174 | 1 | A | 246 | 1 | A | 125 | 0 | A | 118 | 0 | A | 116 | 0 | A | |
| | Total | | | 3 | A | | 3 | A | | 3 | A | | 3 | A | | 5 | A | | 4 | A | | 1 | A | | 1 | A | | 1 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 474 | 12 | A | 490 | 11 | A | 473 | 11 | A | 472 | 11 | A | 482 | 10 | A | 476 | 11 | A | 188 | 7 | A | 220 | 7 | A | 222 | 7 | A | |
| | East | Hunter St | 5 | 26 | B | 7 | 34 | C | 7 | 27 | B | 8 | 31 | C | 10 | 31 | C | 10 | 31 | C | 8 | 29 | C | 10 | 28 | C | 14 | 31 | C | |
| | South | John St (S) | 75 | 22 | B | 93 | 23 | B | 73 | 22 | B | 86 | 23 | B | 87 | 22 | B | 82 | 22 | B | 51 | 22 | B | 53 | 21 | B | 53 | 21 | B | |

From 7:30:00 to 8:30:00

3

| | | | 2026 Base | | | 2026 Option 1 | | | 2026 Option 2 | | | 2026 Option 3 | | | 2026 Option 4 | | | 2026 Option 5 | | | 2026 Bypass | | | 2026 Bypass Without | | | 2026 Bypass With Ramps | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 188 | 33 | C | 204 | 33 | C | 180 | 32 | C | 178 | 32 | C | 175 | 31 | C | 193 | 50 | D | 326 | 207 | F | 190 | 50 | D | 190 | 59 | E | |
| | East | New England Hwy (E) | 866 | 39 | C | 835 | 38 | C | 863 | 42 | C | 852 | 40 | C | 986 | 31 | C | 933 | 29 | C | 190 | 33 | C | 196 | 33 | C | 202 | 33 | C | |
| | South | Bridgman Rd (S) | 175 | 36 | C | 203 | 36 | C | 178 | 38 | C | 188 | 36 | C | 70 | 45 | D | 90 | 51 | D | 59 | 42 | C | 57 | 37 | C | 59 | 40 | C | |
| | West | New England Hwy (W) | 833 | 35 | C | 833 | 35 | C | 832 | 35 | C | 832 | 36 | C | 827 | 26 | B | 849 | 32 | C | 397 | 26 | B | 395 | 26 | B | 404 | 27 | B | |
| | Total | | | 37 | C | 36 | C | 38 | C | 37 | C | 29 | C | 33 | C | 89 | F | 34 | C | 36 | C | | | | | | | | | |
| New England Hwy & White Ave | North | White Ave | 150 | 12 | A | 150 | 11 | A | 150 | 12 | A | 149 | 11 | A | 150 | 9 | A | 150 | 11 | A | 150 | 4 | A | 150 | 4 | A | 150 | 4 | A | |
| | East | New England Hwy (E) | 894 | 5 | A | 895 | 5 | A | 895 | 5 | A | 903 | 5 | A | 902 | 2 | A | 882 | 10 | A | 426 | 2 | A | 309 | 3 | A | 310 | 3 | A | |
| | West | New England Hwy (W) | 799 | 1 | A | 799 | 1 | A | 798 | 1 | A | 798 | 1 | A | 796 | 0 | A | 805 | 1 | A | 407 | 1 | A | 406 | 1 | A | 410 | 1 | A | |
| | Total | | | 12 | A | 11 | A | 12 | A | 11 | A | 9 | A | 11 | A | 4 | A | 4 | A | 4 | A | | | | | | | | | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 932 | 1 | A | 933 | 1 | A | 932 | 1 | A | 940 | 1 | A | 934 | 1 | A | 921 | 1 | A | 505 | 1 | A | 387 | 1 | A | 386 | 1 | A | |
| | South | Simpson Tce | 17 | 16 | B | 17 | 19 | B | 17 | 19 | B | 17 | 16 | B | 17 | 12 | A | 17 | 19 | B | 17 | 7 | A | 17 | 5 | A | 17 | 5 | A | |
| | West | New England Hwy (W) | 795 | 2 | A | 794 | 2 | A | 795 | 2 | A | 793 | 2 | A | 794 | 1 | A | 799 | 2 | A | 411 | 1 | A | 411 | 1 | A | 415 | 1 | A | |
| | Total | | | 16 | B | 19 | B | 19 | B | 16 | B | 12 | A | 19 | B | 7 | A | 5 | A | 5 | A | | | | | | | | | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 696 | 2 | A | 697 | 2 | A | 696 | 2 | A | 703 | 2 | A | 695 | 2 | A | 693 | 2 | A | 309 | 3 | | 294 | 2 | A | 292 | 2 | A | |
| | | | 248 | 2 | A | 247 | 2 | A | 248 | 2 | A | 247 | 3 | A | 237 | 2 | A | | | | | | | | | | | | | |
| | South | Maison Dieu Rd | 132 | 27 | B | 132 | 27 | B | 132 | 26 | B | 131 | 28 | C | 132 | 12 | A | 136 | 26 | B | 369 | 8 | A | 368 | 8 | A | 366 | 8 | A | |
| | | | 26 | 5 | A | 26 | 4 | A | 26 | 4 | A | 26 | 5 | A | 26 | 2 | A | 28 | 5 | A | 156 | 2 | A | 156 | 2 | A | 163 | 2 | A | |
| | West | New England Hwy (W) | 674 | 2 | A | 674 | 2 | A | 674 | 2 | A | 674 | 2 | A | 674 | 1 | A | 674 | 2 | A | 15 | 2 | A | 15 | 2 | A | 14 | 3 | A | |
| Total | | | 27 | B | 27 | B | 26 | B | 28 | C | 12 | A | 26 | B | 8 | A | 8 | A | 8 | A | | | | | | | | | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 850 | 6 | A | 828 | 7 | A | 841 | 5 | A | 833 | 1 | A | 851 | 2 | A | 838 | 2 | A | 453 | 3 | A | 436 | 3 | A | 434 | 3 | A | |
| | East | Howe St | 102 | 36 | C | 110 | 44 | D | 102 | 37 | C | 116 | 38 | C | 129 | 37 | C | 126 | 38 | C | 86 | 35 | C | 89 | 35 | C | 84 | 37 | C | |
| | South | New England Hwy (S) | 826 | 23 | B | 863 | 34 | C | 825 | 19 | B | 817 | 36 | C | 994 | 7 | A | 869 | 58 | E | 257 | 7 | A | 285 | 6 | A | 267 | 6 | A | |
| | West | Orchard Ave | 11 | 31 | C | 21 | 35 | C | 11 | 29 | C | 8 | 34 | C | 28 | 33 | C | 10 | 42 | C | 5 | 33 | C | 5 | 43 | D | 5 | 33 | C | |
| | Total | | | 16 | B | 22 | B | 13 | A | 20 | B | 7 | A | 31 | C | 8 | A | 3 | A | 3 | A | | | | | | | | | |
| New England Hwy & York St | North | New England Hwy (N) | 779 | 7 | A | 775 | 10 | A | 774 | 7 | A | 790 | 6 | A | 833 | 10 | A | 804 | 7 | A | 433 | 5 | A | 412 | 5 | A | 368 | 5 | A | |
| | East | Boundary St | 115 | 41 | C | 115 | 51 | D | 118 | 44 | D | 95 | 41 | C | 79 | 43 | D | 90 | 43 | D | 68 | 34 | C | 69 | 35 | C | 111 | 40 | C | |
| | South | New England Hwy (S) | 854 | 11 | A | 881 | 12 | A | 853 | 11 | A | 846 | 12 | A | 996 | 5 | A | 893 | 11 | A | 280 | 5 | A | 308 | 5 | A | 286 | 5 | A | |
| | West | York St | 135 | 42 | D | 147 | 43 | D | 125 | 40 | C | 124 | 43 | D | 181 | 48 | D | 141 | 48 | D | 137 | 39 | C | 141 | 40 | C | 144 | 45 | D | |
| | Total | | | 13 | A | 16 | B | 13 | A | 13 | A | 12 | A | 14 | A | 12 | A | 12 | A | 12 | A | | | | | | | | | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 840 | 6 | A | 776 | 3 | A | 843 | 2 | A | 858 | 7 | A | 801 | 1 | A | 865 | 3 | A | 456 | 1 | A | 440 | 1 | A | 439 | 1 | A | |
| | East | Market St | 21 | 10 | A | 12 | 10 | A | 22 | 7 | A | 24 | 8 | A | 15 | 9 | A | 23 | 10 | A | 20 | 7 | A | 21 | 4 | A | 22 | 4 | A | |
| | South | New England Hwy (S) | 735 | 2 | A | 736 | 3 | A | 740 | 1 | A | 758 | 2 | A | 1000 | 2 | A | 783 | 3 | A | 160 | 2 | A | 157 | 2 | A | 160 | 2 | A | |
| | West | Elizabeth St | 8 | 20 | B | 15 | 13 | A | 7 | 23 | B | 21 | 13 | A | 12 | 16 | B | 6 | 19 | B | 4 | 7 | A | 9 | 6 | A | 5 | 4 | A | |
| | Total | | | 20 | B | 13 | A | 23 | B | 13 | A | 16 | B | 19 | B | 7 | A | 6 | A | 7 | A | | | | | | | | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 859 | 5 | A | 774 | 3 | A | 864 | 4 | A | 852 | 4 | A | 829 | 3 | A | 849 | 4 | A | 445 | 2 | A | 425 | 1 | A | 425 | 1 | A | |
| | East | Campbell St (E) | 16 | 47 | D | 7 | 56 | D | 14 | 67 | E | 16 | 46 | D | 26 | 45 | D | 30 | 76 | F | 33 | 20 | B | 33 | 19 | B | 36 | 17 | B | |
| | South | New England Hwy (S) | 711 | 2 | A | 718 | 1 | A | 721 | 2 | A | 751 | 2 | A | 794 | 0 | A | 766 | 2 | A | 150 | 1 | A | 157 | 1 | A | 159 | 1 | A | |
| | West | Campbell St (W) | 11 | 45 | D | 15 | 69 | E | 9 | 34 | C | 12 | 37 | C | 21 | 61 | E | 15 | 41 | C | 21 | 11 | A | 20 | 10 | A | 20 | 8 | A | |
| | Total | | | 189 | 1 | A | 135 | 1 | A | 177 | 1 | A | 126 | 1 | A | 228 | 5 | A | 205 | 1 | A | 79 | 1 | A | 76 | 1 | A | 79 | 1 | A |
| John St & Newton St * | North | John St (N) | 481 | 9 | A | 553 | 18 | B | 495 | 9 | A | 491 | 12 | A | 606 | 19 | B | 470 | 10 | A | 344 | 2 | A | 418 | 2 | A | 422 | 2 | A | |
| | East | Campbell St | 48 | 4 | A | 45 | 10 | A | 41 | 3 | A | 36 | 5 | A | 35 | 6 | A | 30 | 5 | A | 34 | 1 | A | 35 | 1 | A | 38 | 1 | A | |
| | South | John St (S) | 249 | 2 | A | 256 | 2 | A | 248 | 1 | A | 255 | 2 | A | 246 | 1 | A | 260 | 1 | A | 141 | 0 | A | 138 | 0 | A | 139 | 0 | A | |
| | West | Newton St | 303 | 1 | A | 330 | 1 | A | 294 | 1 | A | 301 | 1 | A | 235 | 1 | A | 316 | 1 | A | 147 | 0 | A | 138 | 0 | A | 135 | 0 | A | |
| | Total | | | 9 | A | 18 | B | 9 | A | 12 | A | 19 | B | 10 | A | 2 | A | 2 | A | 2 | A | | | | | | | | | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 575 | 19 | B | 626 | 19 | B | 578 | 17 | B | 568 | 22 | B | 609 | 17 | B | 573 | 16 | B | 323 | 8 | A | 401 | 9 | A | 395 | 9 | A | |
| | East | Hunter St | 6 | 25 | B | 5 | 28 | C | 8 | 33 | C | 6 | 29 | C | 5 | 29 | C | 9 | 30 | C | 3 | 22 | B | 3 | 30 | C | 5 | 37 | C | |
| | South | John St (S) | 94 | 21 | B | 107 | 21 | B | 91 | 20 | B | 118 | 23 | B | 107 | 24 | B | 104 | 23 | | | | | | | | | | | |

From 8:30:00 to 9:30:00

4

| | | | 2026 Base | | | 2026 Option 1 | | | 2026 Option 2 | | | 2026 Option 3 | | | 2026 Option 4 | | | 2026 Option 5 | | | 2026 Bypass | | | 2026 Bypass Without | | | 2026 Bypass With Ramps | | | | | | | | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|---|-----|---|---|-----|---|---|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | | | | | | | | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 147 | 45 | D | 209 | 94 | F | 133 | 46 | D | 182 | 85 | F | 227 | 42 | D | 147 | 50 | D | 176 | 41 | C | 171 | 52 | D | 165 | 58 | E | | | | | | | | |
| | East | New England Hwy (E) | 883 | 50 | D | 882 | 47 | D | 900 | 50 | D | 862 | 48 | D | 1072 | 42 | D | 1012 | 45 | D | 376 | 40 | C | 407 | 37 | C | 406 | 36 | C | | | | | | | | |
| | South | Bridgman Rd (S) | 375 | 38 | C | 385 | 40 | C | 360 | 40 | C | 401 | 41 | C | 191 | 49 | D | 255 | 50 | D | 173 | 44 | D | 119 | 45 | D | 114 | 45 | D | | | | | | | | |
| | West | New England Hwy (W) | 768 | 39 | C | 769 | 46 | D | 769 | 40 | C | 770 | 41 | C | 777 | 34 | C | 769 | 34 | C | 540 | 31 | C | 569 | 27 | B | 567 | 27 | B | | | | | | | | |
| | Total | | 44 | D | | 50 | D | | 45 | D | | 47 | D | | 40 | C | | 42 | D | | 37 | C | | 35 | C | | 36 | C | | | | | | | | | |
| New England Hwy & White Ave | North | White Ave | 273 | 9 | A | 272 | 9 | A | 272 | 10 | A | 272 | 10 | A | 272 | 9 | A | 273 | 9 | A | 272 | 6 | A | 272 | 5 | A | 273 | 6 | A | | | | | | | | |
| | East | New England Hwy (E) | 814 | 5 | A | 812 | 5 | A | 813 | 5 | A | 814 | 5 | A | 810 | 3 | A | 820 | 10 | A | 355 | 3 | A | 351 | 3 | A | 358 | 3 | A | | | | | | | | |
| | West | New England Hwy (W) | 622 | 1 | A | 622 | 1 | A | 622 | 1 | A | 622 | 1 | A | 615 | 0 | A | 614 | 1 | A | 468 | 1 | A | 492 | 1 | A | 494 | 1 | A | | | | | | | | |
| | Total | | 9 | A | | 9 | A | | 10 | A | | 10 | A | | 9 | A | | 10 | A | | 6 | A | | 5 | A | | 6 | A | | | | | | | | | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 865 | 1 | A | 861 | 1 | A | 864 | 1 | A | 863 | 1 | A | 862 | 1 | A | 873 | 1 | A | 491 | 1 | A | 485 | 1 | A | 495 | 1 | A | | | | | | | | |
| | South | Simpson Tce | 22 | 15 | B | 22 | 15 | B | 22 | 13 | A | 22 | 16 | B | 22 | 12 | A | 25 | 16 | B | 22 | 7 | A | 22 | 8 | A | 25 | 7 | A | | | | | | | | |
| | West | New England Hwy (W) | 620 | 1 | A | 621 | 1 | A | 620 | 1 | A | 620 | 1 | A | 614 | 1 | A | 609 | 1 | A | 471 | 1 | A | 494 | 1 | A | 493 | 1 | A | | | | | | | | |
| | Total | | 15 | B | | 15 | B | | 13 | A | | 16 | B | | 12 | A | | 16 | B | | 7 | A | | 8 | A | | 7 | A | | | | | | | | | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 670 | 2 | A | 663 | 2 | A | 670 | 2 | A | 668 | 2 | A | 667 | 2 | A | 685 | 2 | A | 362 | 3 | A | 356 | 2 | A | 366 | 2 | A | | | | | | | | |
| | South | Maison Dieu Rd | 197 | 3 | A | 197 | 3 | A | 197 | 3 | A | 198 | 2 | A | 198 | 3 | A | 198 | 2 | A | A | A | A | A | A | A | A | A | A | | | | | | | | |
| | | 143 | 28 | C | 143 | 25 | B | 143 | 24 | B | 143 | 27 | B | 143 | 11 | A | 142 | 29 | C | 373 | | | | | | | | | | 8 | A | 394 | 9 | A | 394 | 9 | A |
| | | 32 | 8 | A | 32 | 6 | A | 32 | 5 | A | 32 | 7 | A | 32 | 2 | A | 32 | 8 | A | 176 | | | | | | | | | | 3 | A | 176 | 3 | A | 176 | 3 | A |
| | West | New England Hwy (W) | 499 | 2 | A | 499 | 2 | A | 499 | 2 | A | 499 | 2 | A | 492 | 1 | A | 487 | 2 | A | 22 | 3 | A | 22 | 3 | A | 21 | 3 | A | | | | | | | | |
| Total | | 28 | C | | 25 | B | | 24 | B | | 27 | B | | 11 | A | | 29 | C | | 8 | A | | 9 | A | | 9 | A | | | | | | | | | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 812 | 8 | A | 757 | 9 | A | 813 | 8 | A | 806 | 4 | A | 773 | 4 | A | 830 | 4 | A | 553 | 5 | A | 560 | 5 | A | 565 | 5 | A | | | | | | | | |
| | East | Howe St | 107 | 176 | F | 143 | 293 | F | 102 | 88 | F | 116 | 56 | D | 174 | 39 | C | 117 | 105 | F | 113 | 33 | C | 111 | 34 | C | 125 | 35 | C | | | | | | | | |
| | South | New England Hwy (S) | 675 | 33 | C | 704 | 59 | E | 669 | 32 | C | 627 | 43 | D | 846 | 8 | A | 602 | 64 | E | 244 | 9 | A | 262 | 8 | A | 228 | 8 | A | | | | | | | | |
| | West | Orchard Ave | 35 | 58 | E | 29 | 70 | E | 33 | 74 | F | 16 | 62 | E | 45 | 34 | C | 24 | 68 | E | 14 | 33 | C | 15 | 31 | C | 17 | 34 | C | | | | | | | | |
| | Total | | 31 | C | | 57 | E | | 24 | B | | 24 | B | | 10 | A | | 35 | C | | 10 | A | | 10 | A | | 10 | A | | | | | | | | | |
| New England Hwy & York St | North | New England Hwy (N) | 688 | 13 | A | 724 | 32 | C | 687 | 13 | A | 737 | 11 | A | 782 | 33 | C | 752 | 13 | A | 494 | 9 | A | 487 | 10 | A | 490 | 10 | A | | | | | | | | |
| | East | Boundary St | 250 | 40 | C | 250 | 63 | E | 257 | 37 | C | 210 | 35 | C | 221 | 177 | F | 219 | 36 | C | 189 | 32 | C | 197 | 33 | C | 210 | 35 | C | | | | | | | | |
| | South | New England Hwy (S) | 731 | 18 | B | 748 | 20 | B | 716 | 19 | B | 677 | 19 | B | 906 | 10 | A | 660 | 18 | B | 311 | 10 | A | 331 | 10 | A | 307 | 10 | A | | | | | | | | |
| | West | York St | 293 | 53 | D | 302 | 51 | D | 289 | 49 | D | 263 | 45 | D | 336 | 61 | E | 272 | 55 | D | 301 | 57 | E | 312 | 73 | F | 315 | 73 | F | | | | | | | | |
| | Total | | 24 | B | | 34 | C | | 24 | B | | 21 | B | | 42 | D | | 23 | B | | 24 | B | | 28 | B | | 29 | C | | | | | | | | | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 878 | 10 | A | 734 | 17 | B | 836 | 5 | A | 927 | 6 | A | 824 | 2 | A | 913 | 2 | A | 645 | 1 | A | 652 | 2 | A | 663 | 2 | A | | | | | | | | |
| | East | Market St | 22 | 11 | A | 13 | 21 | B | 24 | 6 | A | 49 | 11 | A | 19 | 9 | A | 52 | 11 | A | 34 | 9 | A | 31 | 8 | A | 36 | 9 | A | | | | | | | | |
| | South | New England Hwy (S) | 720 | 4 | A | 699 | 3 | A | 709 | 1 | A | 668 | 3 | A | 836 | 2 | A | 636 | 3 | A | 282 | 2 | A | 265 | 2 | A | 269 | 2 | A | | | | | | | | |
| | West | Elizabeth St | 9 | 44 | D | 15 | 14 | B | 9 | 21 | B | 11 | 37 | C | 12 | 14 | B | 42 | 16 | B | 6 | 5 | A | 8 | 16 | B | 4 | 17 | B | | | | | | | | |
| | Total | | 44 | D | | 21 | B | | 21 | B | | 37 | C | | 14 | B | | 16 | B | | 9 | A | | 16 | B | | 17 | B | | | | | | | | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 950 | 23 | B | 782 | 48 | D | 957 | 14 | B | 922 | 11 | A | 877 | 22 | B | 919 | 4 | A | 656 | 2 | A | 652 | 2 | A | 664 | 2 | A | | | | | | | | |
| | East | Campbell St (E) | 14 | 72 | F | 18 | 163 | F | 15 | 100 | F | 23 | 79 | F | 45 | 59 | E | 25 | 87 | F | 59 | 97 | F | 72 | 109 | F | 77 | 100 | F | | | | | | | | |
| | South | New England Hwy (S) | 753 | 4 | A | 726 | 1 | A | 728 | 5 | A | 685 | 4 | A | 826 | 0 | A | 690 | 4 | A | 283 | 2 | A | 293 | 2 | A | 295 | 2 | A | | | | | | | | |
| | West | Campbell St (W) | 15 | 95 | F | 18 | 74 | F | 13 | 67 | E | 19 | 48 | D | 9 | 77 | F | 16 | 32 | C | 25 | 28 | B | 22 | 24 | B | 22 | 22 | B | | | | | | | | |
| | Total | | 183 | 3 | A | 182 | 2 | A | 214 | 1 | A | 240 | 1 | A | 328 | 5 | A | 367 | 1 | A | 147 | 1 | A | 168 | 1 | A | 170 | 1 | A | | | | | | | | |
| John St & Newton St * | North | John St (N) | 667 | 25 | B | 781 | 88 | F | 681 | 17 | B | 655 | 39 | C | 765 | 95 | F | 731 | 24 | B | 560 | 2 | A | 541 | 2 | A | 544 | 2 | A | | | | | | | | |
| | East | Campbell St | 102 | 14 | B | 88 | 23 | B | 100 | 10 | A | 110 | 13 | A | 103 | 14 | B | 120 | 7 | A | 99 | 1 | A | 94 | 1 | A | 92 | 1 | A | | | | | | | | |
| | South | John St (S) | 403 | 5 | A | 422 | 7 | A | 408 | 5 | A | 403 | 5 | A | 413 | 4 | A | 405 | 4 | A | 261 | 1 | A | 269 | 1 | A | 276 | 1 | A | | | | | | | | |
| | West | Newton St | 305 | 3 | A | 400 | 4 | A | 294 | 2 | A | 343 | 3 | A | 343 | 4 | A | 271 | 2 | A | 129 | 1 | A | 116 | 1 | A | 113 | 1 | A | | | | | | | | |
| | Total | | 25 | B | | 88 | F | | 17 | B | | 39 | C | | 95 | F | | 24 | B | | 2 | A | | 2 | A | | 2 | A | | | | | | | | | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 732 | 40 | C | 829 | 44 | D | 732 | 32 | C | 721 | 39 | C | 795 | 42 | C | 731 | 31 | C | 482 | 10 | A | 484 | 11 | A | 486 | 12 | A | | | | | | | | |
| | East | Hunter St | 10 | 36 | C | 8 | 21 | B | 15 | 32 | C | 13 | 29 | C | 10 | 26 | B | 16 | 26 | B | 6 | 23 | B | 7 | 30 | C | 15 | 28 | C | | | | | | | | |
| | South | John St (S) | 116 | 33 | C | 139 | 39 | C | 119 | 33 | C | 139 | 37 | C | 1 | | | | | | | | | | | | | | | | | | | | | | |

From 15:00:00 to 16:00:00 1 1

| | | | | 15:00 - 16:00 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----------------------------------|-----------|---------------------|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|
| | | | | 2026 Base | | | 2026 Option 1 | | | 2026 Option 2 | | | 2026 Option 3 | | | 2026 Option 4 | | | 2026 Option 5 | | | 2026 Bypass | | | 2026 Bypass Without | | | 2026 Bypass With Ramps | | | |
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 144 | 50 | D | 180 | 60 | E | 143 | 47 | D | 127 | 53 | D | 138 | 49 | D | 73 | 72 | F | 77 | 38 | C | 78 | 80 | F | 80 | 93 | F | |
| | | East | New England Hwy (E) | 1078 | 75 | F | 995 | 60 | E | 1056 | 62 | E | 971 | 65 | E | 1141 | 71 | F | 1105 | 97 | F | 584 | 51 | D | 579 | 52 | D | 580 | 58 | E | |
| | | South | Bridgman Rd (S) | 280 | 59 | E | 337 | 44 | D | 288 | 65 | E | 375 | 61 | E | 216 | 64 | E | 208 | 69 | E | 67 | 37 | C | 31 | 33 | C | 32 | 33 | C | |
| | | West | New England Hwy (W) | 1321 | 67 | E | 1305 | 72 | F | 1324 | 74 | F | 1333 | 66 | E | 1303 | 38 | C | 1333 | 71 | F | 828 | 31 | C | 827 | 34 | C | 819 | 34 | C | |
| | | Total | | 68 | E | | 64 | E | | 67 | E | | 64 | E | | 54 | D | | 81 | F | | 39 | C | | 43 | D | | 46 | D | | |
| 3 | New England Hwy & White Ave | North | White Ave | 229 | 25 | B | 228 | 28 | C | 229 | 28 | B | 229 | 26 | B | 229 | 13 | A | 224 | 25 | B | 229 | 11 | A | 225 | 11 | A | 224 | 11 | A | |
| | | East | New England Hwy (E) | 640 | 7 | A | 631 | 7 | A | 637 | 8 | A | 633 | 7 | A | 652 | 7 | A | 620 | 10 | A | 245 | 4 | A | 221 | 4 | A | 224 | 4 | A | |
| | | West | New England Hwy (W) | 1271 | 2 | A | 1262 | 5 | A | 1271 | 2 | A | 1271 | 1 | A | 1221 | 1 | A | 1273 | 1 | A | 938 | 1 | A | 931 | 1 | A | 923 | 1 | A | |
| | | Total | | 25 | B | | 28 | C | | 28 | B | | 26 | B | | 13 | A | | 25 | B | | 11 | A | | 11 | A | | 11 | A | | |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 563 | 1 | A | 561 | 1 | A | 560 | 1 | A | 556 | 1 | A | 567 | 1 | A | 550 | 1 | A | 351 | 1 | A | 334 | 1 | A | 335 | 1 | A | |
| | | South | Simpson Tce | 55 | 15 | B | 55 | 16 | B | 56 | 14 | B | 55 | 14 | B | 55 | 9 | A | 51 | 12 | A | 55 | 7 | A | 51 | 6 | A | 51 | 6 | A | |
| | | West | New England Hwy (W) | 1374 | 3 | A | 1367 | 7 | A | 1373 | 3 | A | 1373 | 3 | A | 1319 | 2 | A | 1386 | 3 | A | 1072 | 2 | A | 1074 | 2 | A | 1065 | 2 | A | |
| | | Total | | 15 | B | | 16 | B | | 14 | B | | 14 | B | | 9 | A | | 12 | A | | 7 | A | | 6 | A | | 6 | A | | |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 416 | 2 | A | 413 | 1 | A | 415 | 2 | A | 409 | 2 | A | 427 | 1 | A | 402 | 1 | A | 220 | 2 | A | 208 | 2 | A | 209 | 2 | A | |
| | | South | Maison Dieu Rd | 152 | 2 | A | 153 | 2 | A | 152 | 2 | A | 151 | 2 | A | 151 | 2 | A | 148 | 2 | A | A | A | A | A | A | A | A | A | | |
| | | | | 188 | 139 | F | 187 | 154 | F | 188 | 157 | F | 186 | 141 | F | 186 | 11 | A | 193 | 142 | F | | | | | | | | | 481 | 8 |
| | | | | 24 | 106 | F | 23 | 121 | F | 23 | 124 | F | 23 | 109 | F | 24 | 2 | A | 20 | 109 | F | | | | | | | | | 210 | 3 |
| | | West | New England Hwy (W) | 1225 | 3 | A | 1225 | 4 | A | 1225 | 3 | A | 1225 | 3 | A | 1172 | 1 | A | 1232 | 2 | A | 36 | 4 | A | 38 | 5 | A | 39 | 4 | A | |
| Total | | 139 | F | | 154 | F | | 157 | F | | 141 | F | | 11 | A | | 142 | F | | 8 | A | | 8 | A | | 8 | A | | | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 1069 | 17 | B | 1026 | 18 | B | 1079 | 18 | B | 1203 | 3 | A | 1116 | 4 | A | 1236 | 3 | A | 675 | 4 | A | 715 | 4 | A | 705 | 5 | A | |
| | | East | Howe St | 193 | 52 | D | 196 | 79 | F | 188 | 60 | E | 168 | 53 | D | 198 | 41 | C | 170 | 47 | D | 208 | 38 | C | 216 | 38 | C | 218 | 38 | C | |
| | | South | New England Hwy (S) | 646 | 35 | C | 658 | 67 | E | 646 | 34 | C | 620 | 86 | F | 712 | 8 | A | 602 | 40 | C | 224 | 7 | A | 215 | 6 | A | 192 | 6 | A | |
| | | West | Orchard Ave | 93 | 35 | C | 97 | 38 | C | 100 | 35 | C | 55 | 37 | C | 69 | 35 | C | 74 | 38 | C | 34 | 30 | C | 41 | 36 | C | 40 | 37 | C | |
| Total | | 27 | B | | 41 | C | | 28 | B | | 33 | C | | 10 | A | | 19 | B | | 12 | A | | 12 | A | | 12 | A | | | | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 876 | 27 | B | 903 | 32 | C | 898 | 26 | B | 1081 | 15 | B | 1038 | 25 | B | 1111 | 15 | B | 593 | 11 | A | 613 | 12 | A | 544 | 10 | A | |
| | | East | Boundary St | 265 | 53 | D | 249 | 148 | F | 250 | 41 | C | 209 | 56 | E | 214 | 113 | F | 174 | 47 | D | 110 | 31 | C | 126 | 33 | C | 193 | 37 | C | |
| | | South | New England Hwy (S) | 780 | 16 | B | 764 | 20 | B | 774 | 16 | B | 759 | 21 | B | 832 | 11 | A | 746 | 17 | B | 370 | 14 | A | 371 | 13 | A | 350 | 14 | B | |
| | | West | York St | 361 | 67 | E | 395 | 121 | F | 361 | 67 | E | 372 | 85 | F | 460 | 99 | F | 348 | 48 | D | 382 | 45 | D | 390 | 45 | D | 387 | 53 | D | |
| Total | | 33 | C | | 56 | D | | 31 | C | | 31 | C | | 41 | C | | 23 | B | | 22 | B | | 23 | B | | 26 | B | | | | |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 903 | 21 | B | 819 | 16 | B | 913 | 4 | A | 991 | 8 | A | 946 | 4 | A | 1050 | 3 | A | 558 | 4 | A | 563 | 3 | A | 561 | 3 | A | |
| | | East | Market St | 23 | 26 | B | 41 | 15 | B | 23 | 16 | B | 31 | 11 | A | 34 | 13 | A | 30 | 18 | B | 32 | 9 | A | 33 | 10 | A | 30 | 11 | A | |
| | | South | New England Hwy (S) | 840 | 13 | A | 738 | 8 | A | 831 | 2 | A | 805 | 9 | A | 723 | 5 | A | 795 | 10 | A | 411 | 6 | A | 387 | 5 | A | 390 | 6 | A | |
| | | West | Elizabeth St | 35 | 19 | B | 40 | 13 | A | 35 | 13 | A | 32 | 25 | B | 109 | 8 | A | 47 | 21 | B | 50 | 5 | A | 50 | 5 | A | 53 | 5 | A | |
| Total | | 26 | B | | 16 | B | | 16 | B | | 25 | B | | 13 | A | | 21 | B | | 9 | A | | 10 | A | | 11 | A | | | | |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 980 | 24 | B | 879 | 5 | A | 991 | 8 | A | 983 | 7 | A | 988 | 5 | A | 1059 | 6 | A | 527 | 2 | A | 530 | 2 | A | 522 | 2 | A | |
| | | East | Campbell St (E) | 49 | 140 | F | 71 | 105 | F | 52 | 200 | F | 84 | 109 | F | 128 | 181 | F | 66 | 86 | F | 134 | 33 | C | 135 | 26 | B | 135 | 24 | B | |
| | | South | New England Hwy (S) | 803 | 3 | A | 749 | 1 | A | 793 | 4 | A | 773 | 3 | A | 796 | 0 | A | 778 | 3 | A | 398 | 1 | A | 363 | 2 | A | 360 | 2 | A | |
| | | West | Campbell St (W) | 54 | 61 | E | 74 | 58 | E | 52 | 100 | F | 41 | 67 | E | 63 | 53 | D | 22 | 73 | F | 81 | 26 | B | 87 | 21 | B | 86 | 18 | B | |
| | | Total | | 364 | 2 | A | 311 | 4 | A | 348 | 12 | A | 287 | 1 | A | 412 | 9 | A | 422 | 1 | A | 267 | 2 | A | 296 | 2 | A | 304 | 2 | A | |
| 12 | John St & Newton St * | North | John St (N) | 324 | 69 | E | 360 | 108 | F | 317 | 79 | F | 356 | 28 | B | 486 | 153 | F | 333 | 39 | C | 410 | 18 | B | 428 | 18 | B | 422 | 19 | B | |
| | | East | Campbell St | 108 | 5 | A | 118 | 4 | A | 109 | 7 | A | 105 | 3 | A | 197 | 17 | B | 74 | 2 | A | 65 | 1 | A | 53 | 1 | A | 54 | 1 | A | |
| | | South | John St (S) | 746 | 4 | A | 767 | 4 | A | 720 | 6 | A | 742 | 2 | A | 693 | 11 | A | 695 | 1 | A | 486 | 1 | A | 470 | 0 | A | 467 | 0 | A | |
| | | West | Newton St | 540 | 10 | A | 604 | 14 | B | 541 | 12 | A | 520 | 4 | A | 469 | 13 | A | 472 | 9 | A | 158 | 2 | A | 166 | 1 | A | 168 | 1 | A | |
| Total | | 69 | E | | 108 | F | | 79 | F | | 28 | B | | 153 | F | | 39 | C | | 18 | B | | 18 | B | | 19 | B | | | | |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 687 | 37 | C | 722 | 24 | B | 679 | 42 | C | 645 | 8 | A | 692 | 19 | B | 608 | 19 | B | 369 | 6 | A | 399 | 6 | A | 395 | 7 | A | |
| | | East | Hunter St | 20 | 35 | C | 18 | 35 | C | 18 | 37 | C | 16 | 34 | C | 25 | 32 | C | 21 | 38 | C | 18 | 31 | C | 16 | 34 | C | 17 | 38 | C | |
| | | South | John St (S) | 301 | 58 | E | 338 | 85 | F | 313 | 69 | E | 312 | 50 | D | 332 | 120 | F | 298 | 52 | D | 174 | 30 | C | 184 | 32 | C | 188 | 32 | C | |
| | | West | Ryan Ave | 484 | 23</ | | | | | | | | | | | | | | | | | | | | | | | | | | |

From 16:00:00 to 17:00:00

| | | | 16:00 - 17:00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | 2026 Base | | | 2026 Option 1 | | | 2026 Option 2 | | | 2026 Option 3 | | | 2026 Option 4 | | | 2026 Option 5 | | | 2026 Bypass | | | 2026 Bypass Without | | | 2026 Bypass With Ramps | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 118 | 89 | F | 147 | 132 | F | 106 | 84 | F | 136 | 98 | F | 154 | 81 | F | 89 | 121 | F | 154 | 34 | C | 76 | 97 | F | 73 | 112 | F |
| | East | New England Hwy (E) | 1155 | 57 | E | 1159 | 57 | E | 1170 | 59 | E | 1152 | 62 | E | 1234 | 52 | D | 1196 | 84 | F | 633 | 49 | D | 645 | 59 | E | 647 | 58 | E |
| | South | Bridgman Rd (S) | 394 | 54 | D | 425 | 64 | E | 398 | 51 | D | 405 | 56 | D | 303 | 50 | D | 346 | 213 | F | 47 | 38 | C | 56 | 47 | D | 61 | 49 | D |
| | West | New England Hwy (W) | 1322 | 124 | F | 1330 | 124 | F | 1332 | 114 | F | 1332 | 108 | F | 1420 | 40 | C | 1278 | 110 | F | 877 | 38 | C | 870 | 37 | C | 865 | 36 | C |
| | Total | | | 88 | F | | 91 | F | | 83 | F | | 83 | F | | 48 | D | | 112 | F | | 42 | C | | 49 | D | | 48 | D |
| New England Hwy & White Ave | North | White Ave | 119 | 36 | C | 120 | 32 | C | 119 | 33 | C | 121 | 31 | C | 122 | 15 | B | 109 | 30 | C | 122 | 8 | A | 112 | 8 | A | 113 | 8 | A |
| | East | New England Hwy (E) | 679 | 7 | A | 697 | 8 | A | 688 | 8 | A | 686 | 7 | A | 679 | 8 | A | 719 | 13 | A | 239 | 3 | A | 223 | 3 | A | 226 | 3 | A |
| | West | New England Hwy (W) | 1381 | 8 | A | 1384 | 8 | A | 1396 | 5 | A | 1396 | 5 | A | 1441 | 1 | A | 1361 | 8 | A | 988 | 1 | A | 1011 | 1 | A | 1005 | 1 | A |
| | Total | | | 36 | C | | 32 | C | | 33 | C | | 31 | C | | 15 | B | | 30 | C | | 8 | A | | 8 | A | | 8 | A |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 621 | 1 | A | 634 | 1 | A | 627 | 1 | A | 624 | 1 | A | 613 | 1 | A | 646 | 1 | A | 268 | 1 | A | 248 | 1 | A | 252 | 1 | A |
| | South | Simpson Tce | 44 | 15 | B | 44 | 20 | B | 44 | 17 | B | 44 | 16 | B | 45 | 10 | A | 45 | 18 | B | 45 | 5 | A | 45 | 7 | A | 45 | 7 | A |
| | West | New England Hwy (W) | 1468 | 8 | A | 1470 | 8 | A | 1486 | 4 | A | 1489 | 5 | A | 1534 | 2 | A | 1467 | 8 | A | 1106 | 1 | A | 1124 | 2 | A | 1117 | 1 | A |
| | Total | | | 15 | B | | 20 | B | | 17 | B | | 16 | B | | 10 | A | | 18 | B | | 5 | A | | 7 | A | | 7 | A |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 464 | 2 | A | 473 | 2 | A | 468 | 2 | A | 466 | 2 | A | 461 | 1 | A | 488 | 2 | A | 231 | 2 | A | 227 | 2 | A | 226 | 2 | A |
| | South | Maison Dieu Rd | 172 | 2 | A | 171 | 2 | A | 171 | 2 | A | 173 | 2 | A | 166 | 2 | A | 165 | 2 | A | 612 | 8 | A | 622 | 9 | A | 616 | 9 | A |
| | | 173 | 294 | F | 170 | 314 | F | 177 | 247 | F | 179 | 261 | F | 193 | 14 | A | 183 | 225 | F | | | | | | | | | | |
| | | 17 | 254 | F | 17 | 273 | F | 17 | 207 | F | 17 | 222 | F | 18 | 3 | A | 18 | 185 | F | | | | | | | | | | |
| | West | New England Hwy (W) | 1320 | 4 | A | 1320 | 7 | A | 1328 | 2 | A | 1328 | 2 | A | 1353 | 1 | A | 1307 | 3 | A | 12 | 4 | A | 14 | 5 | A | 14 | 5 | A |
| Total | | | 294 | F | | 314 | F | | 247 | F | | 261 | F | | 14 | A | | 225 | F | | 8 | A | | 9 | A | | 9 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1256 | 15 | B | 1217 | 17 | B | 1306 | 16 | B | 1309 | 2 | A | 1388 | 3 | A | 1319 | 2 | A | 648 | 3 | A | 684 | 3 | A | 665 | 4 | A |
| | East | Howe St | 169 | 100 | F | 160 | 161 | F | 167 | 71 | F | 164 | 98 | F | 190 | 86 | F | 98 | 85 | F | 200 | 51 | D | 174 | 54 | D | 178 | 58 | E |
| | South | New England Hwy (S) | 676 | 22 | B | 699 | 43 | D | 681 | 24 | B | 678 | 32 | C | 749 | 7 | A | 683 | 32 | C | 194 | 5 | A | 208 | 5 | A | 193 | 5 | A |
| | West | Orchard Ave | 89 | 40 | C | 124 | 45 | D | 69 | 42 | D | 47 | 40 | C | 76 | 41 | C | 59 | 52 | D | 23 | 38 | C | 42 | 41 | C | 47 | 41 | C |
| | Total | | | 25 | B | | 37 | C | | 23 | B | | 19 | B | | 12 | A | | 17 | B | | 13 | A | | 13 | A | | 15 | B |
| New England Hwy & York St | North | New England Hwy (N) | 1038 | 23 | B | 1010 | 29 | C | 1062 | 25 | B | 1137 | 12 | A | 1213 | 17 | B | 1101 | 12 | A | 484 | 9 | A | 513 | 9 | A | 478 | 9 | A |
| | East | Boundary St | 177 | 47 | D | 196 | 162 | F | 175 | 47 | D | 131 | 43 | D | 122 | 52 | D | 123 | 37 | C | 80 | 44 | D | 77 | 38 | C | 129 | 38 | C |
| | South | New England Hwy (S) | 799 | 13 | A | 800 | 16 | B | 803 | 13 | A | 813 | 14 | B | 865 | 9 | A | 787 | 15 | B | 331 | 11 | A | 352 | 11 | A | 340 | 11 | A |
| | West | York St | 309 | 84 | F | 404 | 161 | F | 345 | 104 | F | 368 | 78 | F | 462 | 87 | F | 386 | 102 | F | 447 | 116 | F | 393 | 66 | E | 348 | 67 | E |
| | Total | | | 30 | C | | 57 | E | | 34 | C | | 24 | B | | 28 | B | | 29 | C | | 47 | D | | 28 | B | | 28 | C |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 992 | 9 | A | 948 | 16 | B | 1035 | 5 | A | 1083 | 3 | A | 1123 | 1 | A | 1075 | 1 | A | 486 | 1 | A | 500 | 1 | A | 507 | 1 | A |
| | East | Market St | 13 | 19 | B | 11 | 19 | B | 15 | 21 | B | 19 | 15 | B | 12 | 14 | A | 21 | 16 | B | 22 | 6 | A | 19 | 6 | A | 20 | 7 | A |
| | South | New England Hwy (S) | 777 | 5 | A | 770 | 2 | A | 772 | 3 | A | 823 | 6 | A | 759 | 2 | A | 780 | 5 | A | 382 | 1 | A | 389 | 1 | A | 389 | 1 | A |
| | West | Elizabeth St | 41 | 28 | B | 30 | 12 | A | 48 | 15 | B | 45 | 24 | B | 117 | 8 | A | 41 | 33 | C | 69 | 3 | A | 56 | 4 | A | 68 | 4 | A |
| Total | | | 28 | B | | 19 | B | | 21 | B | | 24 | B | | 14 | A | | 33 | C | | 6 | A | | 6 | A | | 7 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1121 | 23 | B | 1013 | 30 | C | 1146 | 15 | B | 1092 | 5 | A | 1271 | 3 | A | 1164 | 10 | A | 536 | 2 | A | 547 | 2 | A | 548 | 2 | A |
| | East | Campbell St (E) | 30 | 126 | F | 63 | 145 | F | 28 | 79 | F | 60 | 129 | F | 90 | 65 | E | 33 | 82 | F | 114 | 20 | B | 122 | 27 | B | 120 | 23 | B |
| | South | New England Hwy (S) | 735 | 4 | A | 770 | 1 | A | 750 | 4 | A | 784 | 6 | A | 912 | 0 | A | 757 | 4 | A | 348 | 1 | A | 337 | 1 | A | 339 | 1 | A |
| | West | Campbell St (W) | 6 | 70 | F | 26 | 67 | E | 8 | 49 | D | 9 | 75 | F | 26 | 69 | E | 7 | 72 | F | 26 | 16 | B | 26 | 17 | B | 37 | 17 | B |
| | Total | | | 441 | 1 | A | 412 | 4 | A | 454 | 1 | A | 423 | 1 | A | 346 | 7 | A | 486 | 1 | A | 354 | 1 | A | 340 | 1 | A | 349 | 1 |
| John St & Newton St * | Total | | | 126 | F | | 145 | F | | 79 | F | | 129 | F | | 69 | E | | 82 | F | | 20 | B | | 27 | B | | 23 | B |
| | North | John St (N) | 471 | 18 | B | 497 | 53 | D | 465 | 21 | B | 501 | 10 | A | 539 | 61 | E | 513 | 17 | B | 436 | 3 | A | 499 | 3 | A | 508 | 3 | A |
| | East | Campbell St | 126 | 7 | A | 140 | 3 | A | 116 | 5 | A | 99 | 2 | A | 132 | 5 | A | 112 | 3 | A | 89 | 1 | A | 83 | 1 | A | 76 | 1 | A |
| | South | John St (S) | 818 | 5 | A | 875 | 5 | A | 850 | 5 | A | 860 | 1 | A | 721 | 5 | A | 825 | 3 | A | 502 | 1 | A | 538 | 1 | A | 537 | 1 | A |
| | West | Newton St | 348 | 8 | A | 418 | 12 | A | 339 | 9 | A | 376 | 4 | A | 325 | 8 | A | 263 | 6 | A | 134 | 2 | A | 105 | 2 | A | 104 | 2 | A |
| John St & Ryan Ave & Hunter St | Total | | | 18 | B | | 53 | D | | 21 | B | | 10 | A | | 61 | E | | 17 | B | | 3 | A | | 3 | A | | 3 | A |
| | North | John St (N) | 636 | 14 | B | 668 | 13 | A | 632 | 19 | B | 633 | 7 | A | 652 | 15 | B | 594 | 14 | B | 394 | 6 | A | 419 | 6 | A | 407 | 6 | A |
| | East | Hunter St | 23 | 36 | C | 14 | 33 | C | 26 | 38 | C | 16 | 35 | C | 23 | 34 | C | 25 | 32 | C | 15 | 34 | C | 18 | 29 | C | 22 | 29 | C |
| | South | John St (S) | 319 | 111 | F | 330 | 137 | F | 370 | 117 | F | 338 | 108 | F | 346 | 323 | F | 338 | 167 | F | 197 | 34 | C | 225 | 36 | C | 250 | 37 | C |
| | West | Ryan Ave | 584 | 16 | B | 602 | 19 | B | 553 | | | | | | | | | | | | | | | | | | | | |

| | | | 17:00 - 18:00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | 2026 Base | | | 2026 Option 1 | | | 2026 Option 2 | | | 2026 Option 3 | | | 2026 Option 4 | | | 2026 Option 5 | | | 2026 Bypass | | | 2026 Bypass Without | | | 2026 Bypass With Ramps | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 109 | 64 | E | 157 | 62 | E | 111 | 71 | F | 105 | 88 | F | 241 | 165 | F | 73 | 192 | F | 148 | 35 | C | 98 | 77 | F | 93 | 81 | F |
| | East | New England Hwy (E) | 1201 | 66 | E | 1195 | 62 | E | 1226 | 68 | E | 1215 | 68 | E | 1402 | 67 | E | 1236 | 76 | F | 806 | 96 | F | 566 | 94 | F | 537 | 92 | F |
| | South | Bridgman Rd (S) | 476 | 52 | D | 466 | 45 | D | 457 | 54 | D | 491 | 66 | E | 286 | 44 | D | 408 | 352 | F | 57 | 39 | C | 181 | 50 | D | 195 | 50 | D |
| | West | New England Hwy (W) | 1252 | 168 | F | 1281 | 168 | F | 1260 | 151 | F | 1268 | 139 | F | 1259 | 38 | C | 1303 | 168 | F | 709 | 34 | C | 861 | 38 | C | 859 | 37 | C |
| | Total | | 106 | F | | 103 | F | | 100 | F | | 98 | F | | 61 | E | | 156 | F | | 63 | E | | 60 | E | | 59 | E | |
| New England Hwy & White Ave | North | White Ave | 166 | 46 | D | 165 | 40 | C | 167 | 36 | C | 166 | 37 | C | 165 | 13 | A | 176 | 49 | D | 165 | 6 | A | 172 | 9 | A | 172 | 9 | A |
| | East | New England Hwy (E) | 846 | 7 | A | 837 | 7 | A | 834 | 7 | A | 852 | 8 | A | 840 | 9 | A | 828 | 14 | B | 261 | 3 | A | 254 | 4 | A | 246 | 3 | A |
| | West | New England Hwy (W) | 1286 | 19 | B | 1319 | 17 | B | 1290 | 13 | A | 1303 | 11 | A | 1292 | 1 | A | 1323 | 21 | B | 869 | 1 | A | 1019 | 1 | A | 1023 | 1 | A |
| | Total | | 46 | D | | 40 | C | | 36 | C | | 37 | C | | 13 | A | | 49 | D | | 6 | A | | 9 | A | | 9 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 782 | 1 | A | 773 | 1 | A | 773 | 1 | A | 786 | 1 | A | 771 | 1 | A | 776 | 1 | A | 319 | 1 | A | 313 | 1 | A | 309 | 1 | A |
| | South | Simpson Tce | 68 | 63 | E | 69 | 49 | D | 68 | 35 | C | 69 | 33 | C | 69 | 15 | B | 66 | 86 | F | 68 | 8 | A | 67 | 9 | A | 67 | 10 | A |
| | West | New England Hwy (W) | 1304 | 25 | B | 1338 | 21 | B | 1316 | 14 | B | 1319 | 11 | A | 1303 | 1 | A | 1323 | 20 | B | 904 | 1 | A | 1054 | 1 | A | 1059 | 1 | A |
| | Total | | 63 | E | | 49 | D | | 35 | C | | 33 | C | | 15 | B | | 86 | F | | 8 | A | | 9 | A | | 10 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 629 | 1 | A | 624 | 1 | A | 625 | 1 | A | 643 | 2 | A | 619 | 2 | A | 629 | 1 | A | 254 | 2 | A | 264 | 2 | A | 261 | 2 | A |
| | South | Maison Dieu Rd | 150 | 2 | A | 149 | 2 | A | 150 | 2 | A | 150 | 2 | A | 150 | 3 | A | 155 | 2 | A | 375 | 7 | A | 526 | 8 | A | 533 | 8 | A |
| | | | 151 | 530 | F | 168 | 588 | F | 163 | 415 | F | 164 | 329 | F | 159 | 15 | B | 160 | 498 | F | | | | | | | | | |
| | | | 13 | 485 | F | 14 | 544 | F | 13 | 373 | F | 13 | 291 | F | 13 | 3 | A | 14 | 455 | F | | | | | | | | | |
| | West | New England Hwy (W) | 1178 | 21 | B | 1182 | 12 | A | 1173 | 7 | A | 1174 | 5 | A | 1167 | 1 | A | 1182 | 8 | A | 27 | 3 | A | 24 | 3 | A | 24 | 3 | A |
| Total | | 530 | F | | 588 | F | | 415 | F | | 329 | F | | 15 | B | | 498 | F | | 7 | A | | 8 | A | | 8 | A | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1278 | 13 | A | 1272 | 17 | B | 1269 | 12 | A | 1293 | 3 | A | 1280 | 4 | A | 1318 | 3 | A | 678 | 4 | A | 705 | 4 | A | 679 | 4 | A |
| | East | Howe St | 121 | 47 | D | 106 | 84 | F | 110 | 50 | D | 125 | 71 | F | 171 | 69 | E | 107 | 46 | D | 174 | 46 | D | 151 | 43 | D | 139 | 42 | C |
| | South | New England Hwy (S) | 769 | 35 | C | 716 | 93 | F | 771 | 22 | B | 748 | 30 | C | 827 | 6 | A | 759 | 34 | C | 334 | 7 | A | 198 | 5 | A | 190 | 6 | A |
| | West | Orchard Ave | 84 | 38 | C | 174 | 43 | D | 106 | 38 | C | 60 | 40 | C | 88 | 38 | C | 87 | 39 | C | 31 | 27 | B | 41 | 40 | C | 42 | 40 | C |
| Total | | 23 | B | | 46 | D | | 18 | B | | 17 | B | | 11 | A | | 17 | B | | 11 | A | | 11 | A | | 11 | A | | |
| New England Hwy & York St | North | New England Hwy (N) | 1018 | 21 | B | 1071 | 29 | C | 1030 | 20 | B | 1143 | 11 | A | 1133 | 17 | B | 1137 | 11 | A | 557 | 8 | A | 563 | 9 | A | 541 | 9 | A |
| | East | Boundary St | 207 | 62 | E | 188 | 73 | F | 192 | 50 | D | 112 | 37 | C | 140 | 55 | D | 130 | 36 | C | 71 | 36 | C | 58 | 32 | C | 104 | 34 | C |
| | South | New England Hwy (S) | 864 | 15 | B | 813 | 19 | B | 855 | 12 | A | 856 | 15 | B | 962 | 9 | A | 876 | 13 | A | 463 | 11 | A | 332 | 11 | A | 308 | 10 | A |
| | West | York St | 328 | 93 | F | 376 | 202 | F | 344 | 116 | F | 340 | 77 | F | 438 | 112 | F | 362 | 79 | F | 361 | 57 | E | 334 | 43 | D | 293 | 42 | D |
| Total | | 32 | C | | 56 | D | | 33 | C | | 23 | B | | 32 | C | | 23 | B | | 23 | B | | 19 | B | | 19 | B | | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 1009 | 11 | A | 984 | 22 | B | 1023 | 5 | A | 1080 | 4 | A | 1059 | 1 | A | 1144 | 2 | A | 553 | 1 | A | 568 | 1 | A | 571 | 1 | A |
| | East | Market St | 22 | 25 | B | 26 | 21 | B | 24 | 18 | B | 29 | 16 | B | 24 | 15 | B | 26 | 15 | B | 28 | 8 | A | 23 | 7 | A | 25 | 8 | A |
| | South | New England Hwy (S) | 861 | 4 | A | 805 | 2 | A | 893 | 3 | A | 863 | 3 | A | 830 | 2 | A | 906 | 4 | A | 507 | 1 | A | 321 | 1 | A | 329 | 1 | A |
| | West | Elizabeth St | 25 | 16 | B | 13 | 13 | A | 26 | 26 | B | 27 | 22 | B | 119 | 6 | A | 38 | 14 | B | 39 | 5 | A | 34 | 5 | A | 44 | 5 | A |
| Total | | 25 | B | | 22 | B | | 26 | B | | 22 | B | | 15 | B | | 15 | B | | 8 | A | | 7 | A | | 8 | A | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1115 | 21 | B | 1054 | 37 | C | 1154 | 13 | A | 1117 | 5 | A | 1273 | 5 | A | 1232 | 14 | B | 592 | 2 | A | 591 | 2 | A | 588 | 2 | A |
| | East | Campbell St (E) | 27 | 256 | F | 48 | 86 | F | 27 | 180 | F | 41 | 75 | F | 80 | 145 | F | 43 | 113 | F | 90 | 23 | B | 107 | 21 | B | 103 | 26 | B |
| | South | New England Hwy (S) | 831 | 5 | A | 780 | 1 | A | 858 | 6 | A | 839 | 4 | A | 1021 | 0 | A | 863 | 7 | A | 462 | 2 | A | 279 | 1 | A | 281 | 2 | A |
| | West | Campbell St (W) | 16 | 66 | E | 14 | 50 | D | 12 | 70 | F | 22 | 54 | D | 26 | 63 | E | 14 | 100 | F | 49 | 26 | B | 48 | 18 | B | 51 | 20 | B |
| | Total | | 460 | 1 | A | 472 | 1 | A | 445 | 1 | A | 426 | 2 | A | 479 | 9 | A | 486 | 1 | A | 462 | 2 | A | 367 | 1 | A | 330 | 1 | A |
| John St & Newton St * | Total | | 256 | F | | 86 | F | | 180 | F | | 75 | F | | 145 | F | | 113 | F | | 26 | B | | 21 | B | | 26 | B | |
| | North | John St (N) | 450 | 16 | B | 549 | 46 | D | 454 | 27 | B | 503 | 7 | A | 451 | 220 | F | 515 | 20 | B | 400 | 4 | A | 454 | 4 | A | 467 | 3 | A |
| | East | Campbell St | 162 | 6 | A | 173 | 3 | A | 157 | 5 | A | 121 | 2 | A | 212 | 7 | A | 167 | 4 | A | 106 | 1 | A | 122 | 1 | A | 117 | 1 | A |
| | South | John St (S) | 883 | 10 | A | 917 | 6 | A | 823 | 9 | A | 860 | 2 | A | 833 | 12 | A | 854 | 12 | A | 680 | 1 | A | 689 | 3 | A | 652 | 3 | A |
| | West | Newton St | 336 | 8 | A | 404 | 7 | A | 342 | 7 | A | 344 | 3 | A | 416 | 19 | B | 264 | 7 | A | 126 | 3 | A | 98 | 4 | A | 93 | 3 | A |
| John St & Ryan Ave & Hunter St | Total | | 16 | B | | 46 | D | | 27 | B | | 7 | A | | 220 | F | | 20 | B | | 4 | A | | 4 | A | | 3 | A | |
| | North | John St (N) | 591 | 12 | A | 652 | 15 | B | 600 | 11 | A | 600 | 8 | A | 610 | 10 | A | 558 | 12 | A | 359 | 5 | A | 363 | 6 | A | 362 | 6 | A |
| | East | Hunter St | 13 | 36 | C | 13 | 30 | C | 16 | 36 | C | 10 | 34 | C | 20 | 53 | D | 26 | 34 | C | 12 | 32 | C | 13 | 32 | C | 16 | 35 | C |
| | South | John St (S) | 369 | 124 | F | 327 | 95 | F | 328 | 153 | F | 318 | 81 | F | 337 | 160 | F | 346 | 151 | F | 177 | 26 | B | 227 | 28 | C | 267 | 30 | C |
| | West | Ryan Ave | 585 | 105 | F | 617 | 46 | D | 587 | 42 | D | 579 | 13 | A | 643 | | | | | | | | | | | | | | |

From 5:30:00 to 6:30:00

1

| | | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | |
|-------|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 243 | 801 | F | 229 | 701 | F | 241 | 790 | F | 265 | 535 | F | 219 | 578 | F | 310 | 154 | F | 319 | 713 | F | 378 | 337 | F | 375 | 215 | F |
| | | East | New England Hwy (E) | 1102 | 88 | F | 1100 | 105 | F | 1101 | 92 | F | 1142 | 136 | F | 1464 | 45 | D | 1485 | 76 | F | 272 | 29 | C | 254 | 25 | B | 255 | 26 | B |
| | | South | Bridgman Rd (S) | 555 | 68 | E | 559 | 62 | E | 555 | 65 | E | 499 | 102 | F | 176 | 39 | C | 165 | 162 | F | 166 | 32 | C | 157 | 64 | E | 157 | 64 | E |
| | | West | New England Hwy (W) | 362 | 25 | B | 363 | 26 | B | 362 | 25 | B | 358 | 25 | B | 367 | 22 | B | 350 | 22 | B | 182 | 23 | B | 191 | 23 | B | 192 | 23 | B |
| | | Total | | | 150 | F | | 142 | F | | 149 | F | | 158 | F | | 93 | F | | 84 | F | | 261 | F | | 151 | F | | 104 | F |
| 3 | New England Hwy & White Ave | North | White Ave | 191 | 109 | F | 191 | 127 | F | 189 | 136 | F | 180 | 107 | F | 197 | 11 | A | 188 | 172 | F | 196 | 4 | A | 195 | 6 | A | 195 | 6 | A |
| | | East | New England Hwy (E) | 1686 | 7 | A | 1683 | 7 | A | 1684 | 7 | A | 1698 | 7 | A | 1679 | 2 | A | 1755 | 20 | B | 603 | 3 | A | 674 | 6 | A | 670 | 6 | A |
| | | West | New England Hwy (W) | 339 | 1 | A | 339 | 1 | A | 339 | 1 | A | 337 | 1 | A | 340 | 0 | A | 324 | 1 | A | 172 | 0 | A | 185 | 0 | A | 187 | 0 | A |
| | | Total | | | 109 | F | | 127 | F | | 136 | F | | 107 | F | | 11 | A | | 172 | F | | 4 | A | | 6 | A | | 6 | A |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 1826 | 2 | A | 1822 | 2 | A | 1822 | 2 | A | 1827 | 2 | A | 1820 | 1 | A | 1895 | 2 | A | 767 | 1 | A | 840 | 1 | A | 835 | 1 | A |
| | | South | Simpson Tce | 33 | 69 | E | 33 | 55 | D | 33 | 80 | F | 33 | 67 | E | 33 | 24 | B | 32 | 95 | F | 33 | 10 | A | 32 | 9 | A | 32 | 10 | A |
| | | West | New England Hwy (W) | 342 | 2 | A | 342 | 2 | A | 341 | 2 | A | 340 | 1 | A | 342 | 1 | A | 325 | 1 | A | 173 | 0 | A | 186 | 1 | A | 187 | 1 | A |
| | | Total | | | 69 | E | | 55 | D | | 80 | F | | 67 | E | | 24 | B | | 95 | F | | 10 | A | | 9 | A | | 10 | A |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1569 | 2 | A | 1567 | 2 | A | 1568 | 2 | A | 1578 | 2 | A | 1566 | 6 | A | 1622 | 2 | A | 699 | 2 | A | 761 | 3 | A | 770 | 3 | A |
| | | South | Maison Dieu Rd | 286 | 3 | A | 284 | 3 | A | 284 | 3 | A | 281 | 3 | A | 285 | 7 | A | 304 | 3 | A | 224 | 10 | A | 246 | 14 | A | 246 | 14 | B |
| | | | | 59 | 103 | F | 58 | 90 | F | 59 | 90 | F | 57 | 90 | F | 59 | 35 | C | 55 | 109 | F | | | | | | | | | |
| | | | | 40 | 50 | D | 40 | 35 | C | 40 | 39 | C | 38 | 36 | C | 40 | 4 | A | 41 | 50 | D | | | | | | | | | |
| | | West | New England Hwy (W) | 296 | 2 | A | 296 | 2 | A | 296 | 2 | A | 296 | 2 | A | 297 | 1 | A | 284 | 2 | A | 10 | 1 | A | 10 | 1 | A | 10 | 2 | A |
| Total | | | 103 | F | | 90 | F | | 90 | F | | 90 | F | | 35 | C | | 109 | F | | 10 | A | | 14 | A | | 14 | B | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 344 | 4 | A | 353 | 5 | A | 344 | 4 | A | 379 | 2 | A | 354 | 3 | A | 403 | 2 | A | 227 | 2 | A | 264 | 3 | A | 266 | 3 | A |
| | | East | Howe St | 56 | 57 | E | 76 | 69 | E | 55 | 59 | E | 83 | 64 | E | 106 | 72 | F | 85 | 65 | E | 62 | 63 | E | 66 | 66 | E | 67 | 64 | E |
| | | South | New England Hwy (S) | 1110 | 12 | A | 1203 | 14 | A | 1113 | 13 | A | 1168 | 15 | B | 1220 | 4 | A | 1187 | 16 | B | 130 | 3 | A | 125 | 3 | A | 117 | 3 | A |
| | | West | Orchard Ave | 6 | 66 | E | 12 | 61 | E | 6 | 68 | E | 5 | 57 | E | 14 | 66 | E | 10 | 69 | E | 8 | 56 | E | 7 | 62 | E | 7 | 62 | E |
| Total | | | 12 | A | | 15 | B | | 13 | A | | 15 | B | | 9 | A | | 15 | B | | 12 | A | | 13 | A | | 13 | A | | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 340 | 3 | A | 341 | 4 | A | 341 | 4 | A | 365 | 3 | A | 331 | 3 | A | 397 | 5 | A | 217 | 2 | A | 247 | 6 | A | 253 | 5 | A |
| | | East | Boundary St | 18 | 64 | E | 30 | 64 | E | 17 | 66 | E | 22 | 59 | E | 43 | 78 | F | 30 | 69 | E | 18 | 63 | E | 21 | 64 | E | 22 | 64 | E |
| | | South | New England Hwy (S) | 1132 | 4 | A | 1215 | 3 | A | 1135 | 3 | A | 1204 | 4 | A | 1247 | 2 | A | 1230 | 4 | A | 157 | 2 | A | 156 | 2 | A | 150 | 2 | A |
| | | West | York St | 62 | 70 | E | 81 | 83 | F | 62 | 68 | E | 73 | 86 | F | 98 | 159 | F | 58 | 91 | F | 73 | 88 | F | 78 | 90 | F | 72 | 95 | F |
| | | Total | | | 7 | A | | 8 | A | | 7 | A | | 8 | A | | 13 | A | | 8 | A | | 18 | B | | 20 | B | | 20 | B |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 344 | 5 | A | 329 | 1 | A | 343 | 5 | A | 385 | 6 | A | 333 | 0 | A | 390 | 3 | A | 214 | 0 | A | 246 | 1 | A | 257 | 1 | A |
| | | East | Market St | 27 | 3 | A | 8 | 4 | A | 26 | 3 | A | 27 | 5 | A | 9 | 4 | A | 30 | 5 | A | 19 | 4 | A | 21 | 3 | A | 21 | 2 | A |
| | | South | New England Hwy (S) | 987 | 2 | A | 998 | 2 | A | 984 | 1 | A | 1015 | 3 | A | 1211 | 1 | A | 1202 | 3 | A | 152 | 1 | A | 131 | 1 | A | 131 | 0 | A |
| | | West | Elizabeth St | 12 | 14 | A | 12 | 14 | A | 13 | 12 | A | 7 | 13 | A | 14 | 9 | A | 10 | 16 | B | 4 | 1 | A | 10 | 3 | A | 5 | 2 | A |
| | | Total | | | 14 | A | | 14 | A | | 12 | A | | 13 | A | | 9 | A | | 16 | B | | 4 | A | | 3 | A | | 2 | A |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 358 | 3 | A | 326 | 3 | A | 358 | 3 | A | 365 | 2 | A | 349 | 2 | A | 380 | 2 | A | 201 | 1 | A | 240 | 1 | A | 253 | 1 | A |
| | | East | Campbell St (E) | 17 | 50 | D | 11 | 39 | C | 17 | 53 | D | 18 | 48 | D | 15 | 53 | D | 15 | 52 | D | 26 | 13 | A | 26 | 12 | A | 26 | 14 | A |
| | | South | New England Hwy (S) | 991 | 1 | A | 977 | 2 | A | 991 | 1 | A | 1004 | 7 | A | 1214 | 0 | A | 1215 | 4 | A | 242 | 0 | A | 235 | 1 | A | 239 | 1 | A |
| | | West | Campbell St (W) | 9 | 48 | D | 12 | 35 | C | 10 | 40 | C | 13 | 32 | C | 13 | 63 | E | 11 | 51 | D | 22 | 8 | A | 18 | 6 | A | 20 | 7 | A |
| | | Total | | | 50 | D | | 39 | C | | 53 | D | | 48 | D | | 63 | E | | 52 | D | | 13 | A | | 12 | A | | 14 | A |
| 12 | John St & Newton St * | North | John St (N) | 492 | 2 | A | 558 | 3 | A | 492 | 2 | A | 534 | 3 | A | 541 | 3 | A | 550 | 3 | A | 300 | 1 | A | 299 | 1 | A | 313 | 1 | A |
| | | East | Campbell St | 239 | 3 | A | 229 | 2 | A | 241 | 3 | A | 215 | 2 | A | 53 | 1 | A | 56 | 1 | A | 43 | 1 | A | 44 | 1 | A | 43 | 1 | A |
| | | South | John St (S) | 207 | 4 | A | 215 | 5 | A | 207 | 4 | A | 215 | 4 | A | 210 | 1 | A | 217 | 1 | A | 92 | 1 | A | 89 | 1 | A | 89 | 1 | A |
| | | West | Newton St | 164 | 0 | A | 162 | 0 | A | 165 | 0 | A | 156 | 0 | A | 134 | 0 | A | 180 | 0 | A | 114 | 0 | A | 110 | 0 | A | 110 | 0 | A |
| | | Total | | | 4 | A | | 5 | A | | 4 | A | | 4 | A | | 3 | A | | 3 | A | | 1 | A | | 1 | A | | 1 | A |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 380 | 8 | A | 392 | 7 | A | 379 | 8 | A | 393 | 8 | A | 383 | 7 | A | 403 | 7 | A | 225 | 5 | A | 234 | 5 | A | 251 | 6 | A |
| | | East | Hunter St | 7 | 32 | C | 5 | 32 | C | 7 | 35 | C | 5 | 35 | C | 5 | 37 | C | 6 | 31 | C | 7 | 29 | C | 11 | 33 | C | 13 | 34 | C |
| | | South | John St (S) | 128 | 18 | B | 116 | 18 | B | 129 | 18 | B | 129 | 19 | B | 131 | 18 | B | 151 | 18 | B | 70 | 17 | B | 65 | 18 | B | 66 | 18 | B |
| | | West | Ryan Ave | 95 | 15 | B | 112 | 15 | B | 95 | 15 | B | 101 | 16 | B | 95 | 15 | B | 81 | 14 | B | 27 | 16 | B | 34 | 15 | B | 29 | 15 | B |
| | | Total | | | 11 | A | | 11 | A | | 12 | A | | 11 | A | | 11 | A | | 10 | A | | 9 | A | | 9 | A | | 10 | A |
| 18 | Putty Rd & Ryan Ave | North | John St (N) | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | |

From 6:30:00 to 7:30:00 2

| | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 253 | 539 | F | 238 | 540 | F | 262 | 522 | F | 233 | 238 | F | 295 | 354 | F | 230 | 53 | D | 340 | 630 | F | 278 | 220 | F | 293 | 84 | F | |
| | East | New England Hwy (E) | 1030 | 55 | D | 983 | 49 | D | 1034 | 57 | E | 1046 | 54 | D | 1248 | 31 | C | 1113 | 42 | D | 283 | 35 | C | 265 | 31 | C | 277 | 34 | C | |
| | South | Bridgman Rd (S) | 313 | 34 | C | 363 | 39 | C | 310 | 34 | C | 321 | 42 | D | 87 | 46 | D | 236 | 45 | D | 80 | 34 | C | 85 | 51 | D | 85 | 50 | D | |
| | West | New England Hwy (W) | 844 | 30 | C | 840 | 31 | C | 842 | 31 | C | 844 | 30 | C | 848 | 23 | B | 833 | 30 | C | 316 | 23 | B | 354 | 24 | B | 329 | 23 | B | |
| | Total | | | 94 | F | | 90 | F | | 95 | F | | 62 | E | | 68 | E | | 39 | C | | 230 | F | | 84 | F | | 47 | D | |
| New England Hwy & White Ave | North | White Ave | 163 | 46 | D | 164 | 39 | C | 165 | 54 | D | 174 | 121 | F | 156 | 13 | A | 172 | 79 | F | 156 | 5 | A | 162 | 4 | A | 162 | 5 | A | |
| | East | New England Hwy (E) | 1338 | 6 | A | 1340 | 7 | A | 1350 | 6 | A | 1370 | 7 | A | 1361 | 2 | A | 1299 | 15 | B | 543 | 3 | A | 496 | 4 | A | 500 | 4 | A | |
| | West | New England Hwy (W) | 837 | 1 | A | 836 | 1 | A | 836 | 1 | A | 838 | 1 | A | 838 | 0 | A | 838 | 1 | A | 343 | 1 | A | 379 | 1 | A | 354 | 1 | A | |
| | Total | | | 46 | D | | 39 | C | | 54 | D | | 121 | F | | 13 | A | | 79 | F | | 5 | A | | 4 | A | | 5 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1429 | 1 | A | 1431 | 1 | A | 1442 | 1 | A | 1466 | 2 | A | 1447 | 1 | A | 1393 | 1 | A | 654 | 1 | A | 608 | 1 | A | 613 | 1 | A | |
| | South | Simpson Tce | 15 | 29 | C | 15 | 27 | B | 15 | 34 | C | 15 | 47 | D | 15 | 17 | B | 15 | 26 | B | 15 | 8 | A | 15 | 6 | A | 15 | 6 | A | |
| | West | New England Hwy (W) | 845 | 2 | A | 844 | 2 | A | 845 | 2 | A | 847 | 2 | A | 847 | 1 | A | 847 | 2 | A | 348 | 1 | A | 384 | 1 | A | 360 | 1 | A | |
| | Total | | | 29 | C | | 27 | B | | 34 | C | | 47 | D | | 17 | B | | 26 | B | | 8 | A | | 6 | A | | 6 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1065 | 2 | A | 1064 | 2 | A | 1072 | 2 | A | 1081 | 2 | A | 1080 | 3 | A | 1037 | 2 | A | 512 | 3 | A | 502 | 2 | A | 496 | 3 | A | |
| | South | Maison Dieu Rd | 377 | 3 | A | 377 | 3 | A | 382 | 3 | A | 395 | 3 | A | 388 | 4 | A | 368 | 3 | A | | | A | | | A | | | A | |
| | | | 61 | 41 | C | 61 | 42 | C | 61 | 42 | D | 62 | 51 | D | 62 | 23 | B | 63 | 38 | C | | | A | | | A | | | A | |
| | | | 39 | 5 | A | 39 | 7 | A | 39 | 6 | A | 41 | 11 | A | 39 | 3 | A | 38 | 5 | A | | | A | | | A | | | A | |
| | West | New England Hwy (W) | 806 | 2 | A | 806 | 2 | A | 806 | 2 | A | 806 | 2 | A | 803 | 1 | A | 803 | 2 | A | 15 | 1 | A | 14 | 2 | A | 14 | 2 | A | |
| Total | | | 41 | C | | 42 | C | | 42 | D | | 51 | D | | 23 | B | | 38 | C | | 12 | A | | 12 | A | | 12 | A | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 886 | 10 | A | 859 | 11 | A | 881 | 12 | A | 916 | 5 | A | 948 | 6 | A | 920 | 6 | A | 452 | 4 | A | 495 | 4 | A | 488 | 5 | A | |
| | East | Howe St | 112 | 53 | D | 124 | 60 | E | 113 | 53 | D | 109 | 53 | D | 147 | 54 | D | 129 | 54 | D | 103 | 52 | D | 98 | 50 | D | 95 | 48 | D | |
| | South | New England Hwy (S) | 800 | 35 | C | 809 | 53 | D | 792 | 41 | C | 785 | 51 | D | 1023 | 6 | A | 738 | 53 | D | 204 | 6 | A | 187 | 5 | A | 205 | 6 | A | |
| | West | Orchard Ave | 20 | 53 | D | 28 | 45 | D | 20 | 53 | D | 14 | 51 | D | 14 | 48 | D | 13 | 54 | D | 7 | 50 | D | 5 | 45 | D | 5 | 56 | E | |
| Total | | | 25 | B | | 33 | C | | 27 | B | | 28 | B | | 10 | A | | 29 | C | | 12 | A | | 11 | A | | 11 | A | | |
| New England Hwy & York St | North | New England Hwy (N) | 811 | 10 | A | 804 | 10 | A | 811 | 10 | A | 854 | 6 | A | 896 | 8 | A | 857 | 6 | A | 399 | 4 | A | 454 | 4 | A | 431 | 5 | A | |
| | East | Boundary St | 73 | 71 | F | 78 | 76 | F | 71 | 63 | E | 76 | 57 | E | 65 | 67 | E | 78 | 54 | D | 53 | 57 | E | 39 | 53 | D | 57 | 59 | E | |
| | South | New England Hwy (S) | 838 | 9 | A | 835 | 10 | A | 831 | 10 | A | 820 | 10 | A | 1047 | 6 | A | 787 | 9 | A | 243 | 6 | A | 229 | 5 | A | 231 | 6 | A | |
| | West | York St | 129 | 57 | E | 128 | 64 | E | 129 | 55 | D | 119 | 69 | E | 170 | 75 | F | 105 | 60 | E | 142 | 77 | F | 136 | 55 | D | 131 | 65 | E | |
| | Total | | | 15 | B | | 17 | B | | 15 | B | | 14 | A | | 14 | B | | 12 | A | | 20 | B | | 15 | B | | 18 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 831 | 4 | A | 800 | 2 | A | 836 | 4 | A | 875 | 3 | A | 874 | 0 | A | 848 | 2 | A | 353 | 0 | A | 401 | 1 | A | 399 | 1 | A | |
| | East | Market St | 31 | 6 | A | 9 | 11 | A | 30 | 8 | A | 37 | 7 | A | 14 | 9 | A | 33 | 8 | A | 22 | 3 | A | 23 | 4 | A | 30 | 3 | A | |
| | South | New England Hwy (S) | 813 | 1 | A | 770 | 1 | A | 810 | 1 | A | 784 | 1 | A | 1024 | 1 | A | 768 | 1 | A | 193 | 0 | A | 155 | 0 | A | 177 | 0 | A | |
| | West | Elizabeth St | 10 | 15 | B | 13 | 15 | B | 8 | 20 | B | 5 | 26 | B | 11 | 15 | B | 7 | 22 | B | 2 | 6 | A | 7 | 8 | A | 4 | 3 | A | |
| Total | | | 15 | B | | 15 | B | | 20 | B | | 26 | B | | 15 | B | | 22 | B | | 6 | A | | 8 | A | | 3 | A | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 839 | 4 | A | 808 | 3 | A | 847 | 5 | A | 855 | 3 | A | 916 | 3 | A | 840 | 3 | A | 333 | 2 | A | 387 | 2 | A | 387 | 2 | A | |
| | East | Campbell St (E) | 15 | 63 | E | 7 | 49 | D | 15 | 44 | D | 22 | 83 | F | 21 | 77 | F | 16 | 61 | E | 41 | 17 | B | 39 | 16 | B | 41 | 20 | B | |
| | South | New England Hwy (S) | 854 | 2 | A | 760 | 1 | A | 854 | 2 | A | 799 | 2 | A | 983 | 0 | A | 782 | 2 | A | 229 | 1 | A | 174 | 1 | A | 214 | 1 | A | |
| | West | Campbell St (W) | 8 | 56 | E | 11 | 55 | D | 9 | 39 | C | 14 | 35 | C | 16 | 78 | F | 11 | 56 | E | 22 | 8 | A | 21 | 12 | A | 20 | 12 | A | |
| | Total | | | 179 | 1 | A | 223 | 1 | A | 181 | 1 | A | 240 | 1 | A | 286 | 7 | A | 342 | 2 | A | 62 | 1 | A | 102 | 1 | A | 73 | 1 | A |
| John St & Newton St * | North | John St (N) | 486 | 4 | A | 547 | 4 | A | 491 | 3 | A | 560 | 4 | A | 621 | 7 | A | 534 | 4 | A | 230 | 1 | A | 363 | 2 | A | 319 | 2 | A | |
| | East | Campbell St | 133 | 2 | A | 130 | 3 | A | 132 | 2 | A | 149 | 3 | A | 58 | 2 | A | 90 | 2 | A | 51 | 0 | A | 56 | 0 | A | 60 | 1 | A | |
| | South | John St (S) | 254 | 2 | A | 272 | 3 | A | 253 | 3 | A | 270 | 4 | A | 258 | 1 | A | 274 | 2 | A | 100 | 0 | A | 98 | 0 | A | 94 | 1 | A | |
| | West | Newton St | 227 | 1 | A | 238 | 1 | A | 229 | 1 | A | 217 | 1 | A | 172 | 1 | A | 225 | 1 | A | 128 | 0 | A | 126 | 0 | A | 117 | 0 | A | |
| | Total | | | 4 | A | | 4 | A | | 3 | A | | 4 | A | | 7 | A | | 4 | A | | 1 | A | | 2 | A | | 2 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 476 | 10 | A | 495 | 11 | A | 480 | 10 | A | 515 | 10 | A | 534 | 11 | A | 504 | 10 | A | 184 | 6 | A | 281 | 7 | A | 257 | 7 | A | |
| | East | Hunter St | 10 | 28 | C | 7 | 35 | C | 11 | 28 | C | 8 | 34 | C | 12 | 30 | C | 9 | 32 | C | 8 | 28 | B | 9 | 31 | C | 10 | 30 | C | |
| | South | John St (S) | 92 | 21 | B | 94 | 22 | B | 91 | 21 | B | 113 | 23 | B | 83 | 222 | | | | | | | | | | | | | | |

From 7:30:00 to 8:30:00

3

| | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 238 | 199 | F | 219 | 161 | F | 231 | 170 | F | 156 | 35 | C | 199 | 31 | C | 153 | 45 | D | 356 | 439 | F | 195 | 49 | D | 186 | 56 | D | |
| | East | New England Hwy (E) | 897 | 43 | D | 872 | 40 | C | 893 | 44 | D | 904 | 46 | D | 1096 | 31 | C | 1025 | 28 | C | 212 | 32 | C | 213 | 30 | C | 207 | 30 | C | |
| | South | Bridgman Rd (S) | 252 | 36 | C | 273 | 37 | C | 254 | 36 | C | 250 | 37 | C | 86 | 45 | D | 132 | 58 | E | 55 | 42 | C | 55 | 44 | D | 59 | 43 | D | |
| | West | New England Hwy (W) | 943 | 50 | D | 947 | 50 | D | 942 | 48 | D | 943 | 44 | D | 937 | 29 | C | 960 | 39 | C | 448 | 26 | B | 467 | 26 | B | 465 | 27 | B | |
| | Total | | | 61 | E | | 56 | D | | 57 | E | | 43 | D | | 31 | C | | 36 | C | | 165 | F | | 33 | C | | 34 | C | |
| New England Hwy & White Ave | North | White Ave | 163 | 16 | B | 163 | 15 | B | 163 | 19 | B | 163 | 17 | B | 163 | 11 | A | 161 | 18 | B | 163 | 5 | A | 160 | 4 | A | 160 | 4 | A | |
| | East | New England Hwy (E) | 1043 | 5 | A | 1034 | 5 | A | 1037 | 5 | A | 1000 | 5 | A | 1010 | 2 | A | 999 | 11 | A | 465 | 3 | A | 337 | 3 | A | 321 | 3 | A | |
| | West | New England Hwy (W) | 906 | 1 | A | 907 | 1 | A | 906 | 1 | A | 907 | 1 | A | 904 | 0 | A | 911 | 1 | A | 455 | 1 | A | 473 | 1 | A | 471 | 1 | A | |
| | Total | | | 16 | B | | 15 | B | | 19 | B | | 17 | B | | 11 | A | | 18 | B | | 5 | A | | 4 | A | | 4 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1090 | 1 | A | 1082 | 1 | A | 1085 | 1 | A | 1050 | 1 | A | 1047 | 1 | A | 1043 | 1 | A | 554 | 1 | A | 420 | 1 | A | 403 | 1 | A | |
| | South | Simpson Tce | 18 | 28 | B | 18 | 34 | C | 18 | 29 | C | 18 | 30 | C | 18 | 16 | B | 20 | 33 | C | 18 | 9 | A | 20 | 5 | A | 20 | 5 | A | |
| | West | New England Hwy (W) | 900 | 2 | A | 902 | 2 | A | 900 | 2 | A | 901 | 2 | A | 898 | 1 | A | 903 | 2 | A | 463 | 1 | A | 479 | 1 | A | 477 | 1 | A | |
| | Total | | | 28 | B | | 34 | C | | 29 | C | | 30 | C | | 16 | B | | 33 | C | | 9 | A | | 5 | A | | 5 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 814 | 2 | A | 805 | 2 | A | 809 | 2 | A | 789 | 2 | A | 784 | 2 | A | 785 | 2 | A | 356 | 3 | A | 311 | 2 | A | 315 | 2 | A | |
| | South | Maison Dieu Rd | 289 | 2 | A | 290 | 2 | A | 287 | 3 | A | 274 | 2 | A | 273 | 3 | A | 265 | 2 | A | 411 | 9 | A | 422 | 8 | A | 419 | 8 | A | |
| | | 140 | 38 | C | 141 | 41 | C | 139 | 41 | C | 140 | 39 | C | 140 | 14 | B | 141 | 40 | C | | | | | | | | | | | |
| | | 28 | 10 | A | 28 | 11 | A | 28 | 12 | A | 27 | 10 | A | 27 | 2 | A | 31 | 11 | A | | | | | | | | | | | |
| | West | New England Hwy (W) | 771 | 2 | A | 772 | 2 | A | 771 | 2 | A | 771 | 2 | A | 773 | 1 | A | 773 | 2 | A | 17 | 2 | A | 16 | 3 | A | 16 | 3 | A | |
| Total | | | 38 | C | | 41 | C | | 41 | C | | 39 | C | | 14 | B | | 40 | C | | 9 | A | | 8 | A | | 8 | A | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1016 | 7 | A | 994 | 10 | A | 1014 | 9 | A | 952 | 2 | A | 968 | 2 | A | 963 | 2 | A | 524 | 3 | A | 489 | 3 | A | 498 | 3 | A | |
| | East | Howe St | 100 | 40 | C | 113 | 41 | C | 101 | 41 | C | 118 | 39 | C | 140 | 38 | C | 124 | 37 | C | 84 | 36 | C | 79 | 37 | C | 85 | 36 | C | |
| | South | New England Hwy (S) | 769 | 30 | C | 810 | 48 | D | 776 | 35 | C | 784 | 38 | C | 1138 | 8 | A | 788 | 48 | D | 287 | 8 | A | 302 | 6 | A | 291 | 6 | A | |
| | West | Orchard Ave | 15 | 37 | C | 38 | 36 | C | 17 | 37 | C | 28 | 37 | C | 29 | 31 | C | 19 | 36 | C | 6 | 31 | C | 6 | 33 | C | 6 | 38 | C | |
| Total | | | 18 | B | | 28 | C | | 21 | B | | 20 | B | | 8 | A | | 24 | B | | 8 | A | | 7 | A | | 7 | A | | |
| New England Hwy & York St | North | New England Hwy (N) | 928 | 9 | A | 941 | 16 | B | 918 | 12 | A | 905 | 6 | A | 929 | 11 | A | 922 | 7 | A | 471 | 5 | A | 451 | 5 | A | 444 | 5 | A | |
| | East | Boundary St | 138 | 44 | D | 120 | 58 | E | 140 | 44 | D | 112 | 44 | D | 114 | 53 | D | 109 | 43 | D | 108 | 42 | C | 97 | 38 | C | 114 | 43 | D | |
| | South | New England Hwy (S) | 798 | 13 | A | 821 | 16 | B | 800 | 12 | A | 807 | 13 | A | 1140 | 6 | A | 814 | 13 | A | 308 | 5 | A | 337 | 5 | A | 324 | 5 | A | |
| | West | York St | 145 | 42 | C | 167 | 56 | E | 145 | 52 | D | 140 | 48 | D | 196 | 67 | E | 140 | 47 | D | 153 | 56 | D | 145 | 44 | D | 139 | 46 | D | |
| | Total | | | 15 | B | | 21 | B | | 17 | B | | 14 | B | | 15 | B | | 14 | B | | 16 | B | | 13 | A | | 15 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 985 | 7 | A | 922 | 7 | A | 977 | 5 | A | 970 | 6 | A | 905 | 1 | A | 980 | 3 | A | 478 | 1 | A | 490 | 1 | A | 488 | 1 | A | |
| | East | Market St | 18 | 8 | A | 8 | 13 | A | 16 | 8 | A | 34 | 9 | A | 13 | 9 | A | 29 | 10 | A | 22 | 7 | A | 25 | 5 | A | 28 | 4 | A | |
| | South | New England Hwy (S) | 709 | 3 | A | 709 | 3 | A | 714 | 1 | A | 731 | 2 | A | 1141 | 2 | A | 730 | 2 | A | 162 | 1 | A | 166 | 1 | A | 153 | 1 | A | |
| | West | Elizabeth St | 9 | 26 | B | 16 | 15 | B | 8 | 28 | B | 10 | 25 | B | 13 | 15 | B | 6 | 26 | B | 7 | 11 | A | 6 | 10 | A | 6 | 9 | A | |
| Total | | | 26 | B | | 15 | B | | 28 | B | | 25 | B | | 15 | B | | 26 | B | | 11 | A | | 10 | A | | 9 | A | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1019 | 8 | A | 932 | 7 | A | 1009 | 9 | A | 961 | 4 | A | 945 | 3 | A | 967 | 4 | A | 479 | 3 | A | 482 | 2 | A | 482 | 2 | A | |
| | East | Campbell St (E) | 11 | 78 | F | 8 | 64 | E | 11 | 59 | E | 15 | 75 | F | 19 | 48 | D | 17 | 63 | E | 35 | 22 | B | 35 | 19 | B | 33 | 18 | B | |
| | South | New England Hwy (S) | 704 | 4 | A | 694 | 1 | A | 703 | 3 | A | 716 | 3 | A | 917 | 0 | A | 721 | 2 | A | 190 | 1 | A | 158 | 1 | A | 171 | 1 | A | |
| | West | Campbell St (W) | 10 | 84 | F | 10 | 127 | F | 12 | 52 | D | 12 | 53 | D | 22 | 90 | F | 14 | 44 | D | 21 | 15 | B | 20 | 9 | A | 20 | 9 | A | |
| | Total | | | 231 | 1 | A | 203 | 2 | A | 236 | 1 | A | 222 | 2 | A | 226 | 6 | A | 335 | 2 | A | 62 | 1 | A | 92 | 1 | A | 71 | 1 | A |
| John St & Newton St * | North | John St (N) | 555 | 19 | B | 632 | 26 | B | 557 | 18 | B | 563 | 15 | B | 587 | 26 | B | 545 | 19 | B | 281 | 2 | A | 434 | 2 | A | 430 | 2 | A | |
| | East | Campbell St | 100 | 10 | A | 100 | 10 | A | 102 | 8 | A | 66 | 8 | A | 51 | 6 | A | 40 | 4 | A | 34 | 1 | A | 35 | 1 | A | 32 | 1 | A | |
| | South | John St (S) | 248 | 4 | A | 260 | 5 | A | 249 | 4 | A | 257 | 3 | A | 257 | 2 | A | 266 | 1 | A | 138 | 1 | A | 125 | 0 | A | 127 | 0 | A | |
| | West | Newton St | 319 | 1 | A | 338 | 2 | A | 316 | 1 | A | 282 | 1 | A | 282 | 2 | A | 281 | 1 | A | 167 | 0 | A | 146 | 0 | A | 153 | 0 | A | |
| | Total | | | 19 | B | | 26 | B | | 18 | B | | 15 | B | | 26 | B | | 19 | B | | 2 | A | | 2 | A | | 2 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 640 | 26 | B | 675 | 18 | B | 637 | 23 | B | 593 | 17 | B | 614 | 20 | B | 593 | 17 | B | 290 | 7 | A | 391 | 8 | A | 412 | 8 | A | |
| | East | Hunter St | 9 | 33 | C | 5 | 29 | C | 8 | 30 | C | 9 | 32 | C | 7 | 28 | B | 10 | 30 | C | 7 | 26 | B | 8 | 29 | C | 11 | 31 | C | |
| | South | John St (S) | 102 | 23 | B | 88 | 21 | B | 100 | 23 | B | 81 | 23 | B | 121 | 25 | B | 112 | 23 | B | 61 | 20 | B | 5 | | | | | | |

From 8:30:00 to 9:30:00

4

| | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | | | | | | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|-----|----|---|-----|----|---|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | | | | | | | |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 133 | 91 | F | 192 | 341 | F | 130 | 90 | F | 135 | 53 | D | 275 | 186 | F | 167 | 52 | D | 267 | 147 | F | 166 | 51 | D | 155 | 57 | E | | | | | | | |
| | East | New England Hwy (E) | 1014 | 53 | D | 880 | 47 | D | 1011 | 54 | D | 952 | 50 | D | 1186 | 44 | D | 1065 | 43 | D | 422 | 42 | C | 393 | 36 | C | 395 | 36 | C | | | | | | | |
| | South | Bridgman Rd (S) | 376 | 40 | C | 465 | 49 | D | 381 | 40 | C | 437 | 41 | C | 207 | 47 | D | 287 | 56 | E | 148 | 44 | D | 121 | 47 | D | 135 | 48 | D | | | | | | | |
| | West | New England Hwy (W) | 854 | 66 | E | 830 | 140 | F | 857 | 55 | D | 862 | 44 | D | 861 | 51 | D | 844 | 44 | D | 607 | 32 | C | 667 | 27 | B | 655 | 27 | B | | | | | | | |
| | Total | | | 58 | E | | 104 | F | | 54 | D | | 47 | D | | 62 | E | | 46 | D | | 57 | E | | 35 | C | | 35 | C | | | | | | | |
| New England Hwy & White Ave | North | White Ave | 304 | 13 | A | 304 | 19 | B | 304 | 12 | A | 305 | 12 | A | 304 | 10 | A | 301 | 11 | A | 305 | 8 | A | 302 | 8 | A | 302 | 7 | A | | | | | | | |
| | East | New England Hwy (E) | 897 | 5 | A | 837 | 5 | A | 891 | 5 | A | 893 | 5 | A | 889 | 3 | A | 856 | 11 | A | 423 | 3 | A | 382 | 3 | A | 377 | 3 | A | | | | | | | |
| | West | New England Hwy (W) | 692 | 1 | A | 691 | 6 | A | 692 | 1 | A | 692 | 1 | A | 683 | 0 | A | 681 | 1 | A | 533 | 1 | A | 595 | 1 | A | 581 | 1 | A | | | | | | | |
| | Total | | | 13 | A | | 19 | B | | 12 | A | | 12 | A | | 10 | A | | 11 | A | | 8 | A | | 8 | A | | 7 | A | | | | | | | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 954 | 1 | A | 898 | 1 | A | 947 | 1 | A | 950 | 1 | A | 950 | 1 | A | 914 | 1 | A | 578 | 1 | A | 540 | 1 | A | 533 | 1 | A | | | | | | | |
| | South | Simpson Tce | 25 | 19 | B | 25 | 19 | B | 25 | 17 | B | 25 | 16 | B | 25 | 11 | A | 25 | 15 | B | 25 | 7 | A | 25 | 7 | A | 25 | 7 | A | | | | | | | |
| | West | New England Hwy (W) | 688 | 2 | A | 687 | 4 | A | 688 | 1 | A | 688 | 2 | A | 680 | 1 | A | 675 | 2 | A | 532 | 1 | A | 592 | 1 | A | 579 | 1 | A | | | | | | | |
| | Total | | | 19 | B | | 19 | B | | 17 | B | | 16 | B | | 11 | A | | 15 | B | | 7 | A | | 7 | A | | 7 | A | | | | | | | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 747 | 2 | A | 697 | 2 | A | 742 | 2 | A | 744 | 2 | A | 742 | 3 | A | 722 | 2 | A | 397 | 3 | A | 392 | 3 | A | 394 | 2 | A | | | | | | | |
| | South | Maison Dieu Rd | 207 | 3 | A | 200 | 3 | A | 207 | 3 | A | 205 | 3 | A | 208 | 3 | A | 199 | 3 | A | A | A | A | A | A | A | A | A | | | | | | | | |
| | | 146 | 34 | C | 146 | 31 | C | 147 | 35 | C | 147 | 38 | C | 146 | 16 | B | 144 | 35 | C | 438 | | | | | | | | | 9 | A | 500 | 11 | A | 486 | 10 | A |
| | | 34 | 11 | A | 34 | 9 | A | 34 | 12 | A | 34 | 15 | B | 34 | 5 | A | 33 | 13 | A | 181 | | | | | | | | | 4 | A | 177 | 4 | A | 177 | 4 | A |
| | West | New England Hwy (W) | 565 | 2 | A | 565 | 2 | A | 565 | 2 | A | 565 | 2 | A | 556 | 1 | A | 554 | 2 | A | 23 | 3 | A | 21 | 4 | A | 21 | 4 | A | | | | | | | |
| Total | | | 34 | C | | 31 | C | | 35 | C | | 38 | C | | 16 | B | | 35 | C | | 9 | A | | 11 | A | | 10 | A | | | | | | | | |
| New England Hwy & Howe St | North | New England Hwy (N) | 975 | 8 | A | 861 | 12 | A | 982 | 8 | A | 954 | 3 | A | 848 | 4 | A | 955 | 3 | A | 702 | 5 | A | 672 | 5 | A | 671 | 5 | A | | | | | | | |
| | East | Howe St | 82 | 356 | F | 113 | 545 | F | 92 | 84 | F | 115 | 222 | F | 198 | 45 | D | 123 | 191 | F | 106 | 33 | C | 114 | 34 | C | 112 | 34 | C | | | | | | | |
| | South | New England Hwy (S) | 712 | 74 | F | 708 | 126 | F | 699 | 77 | F | 625 | 111 | F | 945 | 10 | A | 667 | 114 | F | 256 | 8 | A | 281 | 8 | A | 259 | 9 | A | | | | | | | |
| | West | Orchard Ave | 23 | 86 | F | 45 | 66 | E | 29 | 141 | F | 34 | 150 | F | 40 | 33 | C | 23 | 141 | F | 19 | 30 | C | 14 | 28 | C | 11 | 33 | C | | | | | | | |
| Total | | | 51 | D | | 95 | F | | 41 | C | | 60 | E | | 11 | A | | 60 | E | | 9 | A | | 9 | A | | 9 | A | | | | | | | | |
| New England Hwy & York St | North | New England Hwy (N) | 814 | 17 | B | 746 | 28 | C | 820 | 18 | B | 892 | 12 | A | 790 | 51 | D | 868 | 15 | B | 609 | 10 | A | 592 | 11 | A | 581 | 10 | A | | | | | | | |
| | East | Boundary St | 273 | 55 | D | 268 | 131 | F | 275 | 44 | D | 217 | 48 | D | 234 | 61 | E | 239 | 53 | D | 221 | 34 | C | 212 | 35 | C | 221 | 38 | C | | | | | | | |
| | South | New England Hwy (S) | 747 | 24 | B | 747 | 27 | B | 745 | 25 | B | 676 | 28 | B | 1015 | 13 | A | 716 | 27 | B | 325 | 13 | A | 352 | 12 | A | 328 | 12 | A | | | | | | | |
| | West | York St | 329 | 55 | D | 341 | 67 | E | 332 | 54 | D | 283 | 50 | D | 312 | 65 | E | 290 | 60 | E | 321 | 59 | E | 322 | 55 | D | 321 | 58 | E | | | | | | | |
| | Total | | | 30 | C | | 47 | D | | 29 | C | | 26 | B | | 37 | C | | 30 | C | | 25 | B | | 24 | B | | 25 | B | | | | | | | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 963 | 14 | B | 717 | 13 | A | 962 | 9 | A | 1051 | 7 | A | 815 | 2 | A | 1045 | 3 | A | 804 | 1 | A | 728 | 2 | A | 721 | 3 | A | | | | | | | |
| | East | Market St | 52 | 15 | B | 23 | 19 | B | 47 | 10 | A | 49 | 13 | A | 25 | 12 | A | 45 | 11 | A | 38 | 14 | A | 37 | 11 | A | 38 | 11 | A | | | | | | | |
| | South | New England Hwy (S) | 737 | 5 | A | 650 | 2 | A | 727 | 2 | A | 660 | 4 | A | 939 | 3 | A | 687 | 4 | A | 298 | 3 | A | 288 | 2 | A | 284 | 2 | A | | | | | | | |
| | West | Elizabeth St | 8 | 68 | E | 23 | 15 | B | 7 | 38 | C | 10 | 92 | F | 16 | 18 | B | 8 | 38 | C | 5 | 15 | B | 7 | 24 | B | 6 | 16 | B | | | | | | | |
| Total | | | 68 | E | | 19 | B | | 38 | C | | 92 | F | | 18 | B | | 38 | C | | 15 | B | | 24 | B | | 16 | B | | | | | | | | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1039 | 44 | D | 782 | 82 | F | 1043 | 32 | C | 1037 | 12 | A | 887 | 135 | F | 1058 | 10 | A | 797 | 5 | A | 811 | 7 | A | 768 | 5 | A | | | | | | | |
| | East | Campbell St (E) | 21 | 169 | F | 39 | 115 | F | 22 | 175 | F | 43 | 93 | F | 45 | 72 | F | 37 | 158 | F | 76 | 153 | F | 57 | 99 | F | 42 | 66 | E | | | | | | | |
| | South | New England Hwy (S) | 758 | 6 | A | 657 | 1 | A | 742 | 6 | A | 672 | 5 | A | 913 | 0 | A | 722 | 7 | A | 309 | 3 | A | 311 | 3 | A | 318 | 2 | A | | | | | | | |
| | West | Campbell St (W) | 18 | 103 | F | 9 | 80 | F | 18 | 142 | F | 19 | 73 | F | 8 | 74 | F | 14 | 62 | E | 29 | 57 | E | 18 | 25 | B | 20 | 32 | C | | | | | | | |
| | Total | | | 313 | 5 | A | 259 | 1 | A | 312 | 9 | A | 340 | 2 | A | 352 | 6 | A | 413 | 4 | A | 177 | 5 | A | 162 | 1 | A | 152 | 1 | A | | | | | | |
| John St & Newton St * | North | John St (N) | 754 | 57 | E | 802 | 132 | F | 760 | 59 | E | 792 | 33 | C | 722 | 163 | F | 716 | 48 | D | 591 | 3 | A | 560 | 2 | A | 579 | 2 | A | | | | | | | |
| | East | Campbell St | 100 | 27 | B | 115 | 60 | E | 105 | 21 | B | 132 | 15 | B | 132 | 21 | B | 111 | 18 | B | 107 | 2 | A | 105 | 1 | A | 106 | 1 | A | | | | | | | |
| | South | John St (S) | 443 | 8 | A | 496 | 19 | B | 442 | 7 | A | 483 | 10 | A | 444 | 8 | A | 479 | 6 | A | 284 | 1 | A | 265 | 1 | A | 267 | 1 | A | | | | | | | |
| | West | Newton St | 299 | 3 | A | 396 | 7 | A | 297 | 4 | A | 273 | 2 | A | 425 | 8 | A | 305 | 2 | A | 156 | 1 | A | 113 | 1 | A | 111 | 1 | A | | | | | | | |
| | Total | | | 57 | E | | 132 | F | | 59 | E | | 33 | C | | 163 | F | | 48 | D | | 3 | A | | 2 | A | | 2 | A | | | | | | | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 764 | 49 | D | 826 | 54 | D | 767 | 48 | D | 752 | 38 | C | 819 | 46 | D | 744 | 54 | D | 543 | 16 | B | 497 | 11 | A | 515 | 11 | A | | | | | | | |
| | East | Hunter St | 17 | 28 | B | 8 | 31 | C | 16 | 30 | C | 14 | 33 | C | 14 | 26 | B | 17 | 28 | C | 7 | 26 | B | 9 | 30 | C | 10 | 30 | C | | | | | | | |
| | South | John St (S) | 141 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

From 15:00:00 to 16:00:00 1 1

| | | | | 15:00 - 16:00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----------------------------------|-----------|---------------------|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | |
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 122 | 60 | E | 140 | 89 | F | 114 | 64 | E | 101 | 66 | E | 157 | 91 | F | 75 | 66 | E | 85 | 77 | F | 83 | 77 | F | 85 | 84 | F |
| | | East | New England Hwy (E) | 1095 | 61 | E | 999 | 57 | E | 1089 | 54 | D | 1000 | 69 | E | 1230 | 56 | E | 1140 | 82 | F | 637 | 62 | E | 604 | 61 | E | 612 | 58 | E |
| | | South | Bridgman Rd (S) | 321 | 57 | E | 404 | 81 | F | 334 | 63 | E | 392 | 102 | F | 240 | 52 | D | 243 | 72 | F | 45 | 36 | C | 45 | 43 | D | 47 | 45 | D |
| | | West | New England Hwy (W) | 1410 | 118 | F | 1413 | 118 | F | 1378 | 132 | F | 1424 | 115 | F | 1412 | 50 | D | 1386 | 132 | F | 911 | 34 | C | 896 | 35 | C | 884 | 34 | C |
| | | Total | | 88 | F | | 91 | F | | 92 | F | | 96 | F | | 55 | D | | 105 | F | | 47 | D | | 47 | D | | 46 | D | |
| 3 | New England Hwy & White Ave | North | White Ave | 240 | 80 | F | 238 | 43 | D | 237 | 95 | F | 238 | 81 | F | 243 | 14 | B | 235 | 175 | F | 242 | 14 | B | 244 | 14 | A | 244 | 12 | A |
| | | East | New England Hwy (E) | 678 | 9 | A | 662 | 10 | A | 684 | 11 | A | 657 | 8 | A | 715 | 8 | A | 686 | 12 | A | 253 | 4 | A | 245 | 4 | A | 242 | 4 | A |
| | | West | New England Hwy (W) | 1393 | 11 | A | 1396 | 8 | A | 1377 | 15 | B | 1410 | 9 | A | 1359 | 1 | A | 1392 | 13 | A | 1027 | 1 | A | 1007 | 1 | A | 994 | 1 | A |
| | | Total | | 80 | F | | 43 | D | | 95 | F | | 81 | F | | 14 | B | | 175 | F | | 14 | B | | 14 | A | | 12 | A | |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 623 | 1 | A | 602 | 1 | A | 633 | 1 | A | 607 | 1 | A | 631 | 1 | A | 636 | 1 | A | 373 | 1 | A | 360 | 1 | A | 358 | 1 | A |
| | | South | Simpson Tce | 57 | 24 | B | 57 | 23 | B | 56 | 25 | B | 57 | 22 | B | 57 | 12 | A | 56 | 19 | B | 57 | 8 | A | 58 | 7 | A | 58 | 7 | A |
| | | West | New England Hwy (W) | 1494 | 11 | A | 1501 | 8 | A | 1475 | 15 | B | 1514 | 7 | A | 1464 | 2 | A | 1495 | 14 | A | 1172 | 2 | A | 1163 | 2 | A | 1150 | 2 | A |
| | | Total | | 24 | B | | 23 | B | | 25 | B | | 22 | B | | 12 | A | | 19 | B | | 8 | A | | 7 | A | | 7 | A | |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 465 | 2 | A | 453 | 2 | A | 473 | 2 | A | 448 | 2 | A | 486 | 1 | A | 462 | 2 | A | 236 | 2 | A | 233 | 2 | A | 232 | 2 | A |
| | | | | 160 | 2 | A | 157 | 2 | A | 164 | 2 | A | 160 | 2 | A | 160 | 2 | A | 165 | 2 | A | | | | | | | | | |
| | | South | Maison Dieu Rd | 170 | 555 | F | 175 | 553 | F | 165 | 573 | F | 176 | 550 | F | 211 | 14 | A | 161 | 489 | F | 502 | 8 | A | 509 | 8 | A | 494 | 8 | A |
| | | | | 23 | 510 | F | 23 | 510 | F | 23 | 527 | F | 24 | 506 | F | 25 | 4 | A | 18 | 441 | F | 237 | 3 | A | 225 | 3 | A | 225 | 3 | A |
| | | West | New England Hwy (W) | 1378 | 7 | A | 1377 | 6 | A | 1374 | 9 | A | 1385 | 3 | A | 1298 | 1 | A | 1388 | 7 | A | 40 | 5 | A | 44 | 4 | A | 44 | 4 | A |
| Total | | 555 | F | | 553 | F | | 573 | F | | 550 | F | | 14 | A | | 489 | F | | 8 | A | | 8 | A | | 8 | A | | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 1130 | 18 | B | 1011 | 20 | B | 1081 | 19 | B | 1287 | 4 | A | 1154 | 5 | A | 1331 | 5 | A | 753 | 4 | A | 788 | 4 | A | 775 | 5 | A |
| | | East | Howe St | 179 | 58 | E | 202 | 190 | F | 208 | 154 | F | 200 | 72 | F | 204 | 52 | D | 167 | 57 | E | 213 | 38 | C | 223 | 38 | C | 221 | 38 | C |
| | | South | New England Hwy (S) | 708 | 66 | E | 644 | 106 | F | 706 | 72 | F | 651 | 100 | F | 796 | 10 | A | 652 | 97 | F | 255 | 8 | A | 272 | 8 | A | 251 | 8 | A |
| | | West | Orchard Ave | 182 | 39 | C | 241 | 54 | D | 201 | 41 | C | 58 | 39 | C | 116 | 36 | C | 74 | 40 | C | 35 | 33 | C | 45 | 35 | C | 51 | 34 | C |
| Total | | 39 | C | | 66 | E | | 51 | D | | 40 | C | | 13 | A | | 37 | C | | 11 | A | | 12 | A | | 12 | A | | | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 892 | 27 | B | 860 | 32 | C | 878 | 29 | C | 1133 | 14 | B | 1067 | 33 | C | 1162 | 15 | B | 628 | 11 | A | 657 | 12 | A | 608 | 12 | A |
| | | East | Boundary St | 314 | 97 | F | 298 | 214 | F | 282 | 65 | E | 246 | 45 | D | 233 | 234 | F | 203 | 84 | F | 145 | 36 | C | 147 | 38 | C | 212 | 45 | D |
| | | South | New England Hwy (S) | 837 | 18 | B | 770 | 22 | B | 844 | 18 | B | 797 | 20 | B | 911 | 11 | A | 771 | 19 | B | 390 | 13 | A | 419 | 13 | A | 404 | 14 | A |
| | | West | York St | 328 | 107 | F | 349 | 111 | F | 313 | 83 | F | 370 | 106 | F | 427 | 109 | F | 366 | 60 | E | 399 | 71 | F | 398 | 72 | F | 374 | 91 | F |
| | | Total | | 44 | D | | 65 | E | | 37 | C | | 32 | C | | 55 | D | | 28 | C | | 29 | C | | 29 | C | | 35 | C | |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 887 | 18 | B | 857 | 20 | B | 877 | 6 | A | 1049 | 16 | B | 996 | 4 | A | 1118 | 2 | A | 573 | 4 | A | 580 | 2 | A | 614 | 3 | A |
| | | East | Market St | 16 | 26 | B | 18 | 18 | B | 15 | 19 | B | 30 | 12 | A | 23 | 12 | A | 24 | 19 | B | 27 | 12 | A | 23 | 10 | A | 24 | 11 | A |
| | | South | New England Hwy (S) | 826 | 11 | A | 731 | 8 | A | 844 | 3 | A | 806 | 13 | A | 806 | 6 | A | 808 | 13 | A | 420 | 6 | A | 420 | 6 | A | 433 | 6 | A |
| | | West | Elizabeth St | 31 | 36 | C | 29 | 16 | B | 31 | 17 | B | 30 | 28 | C | 86 | 11 | A | 49 | 23 | B | 53 | 9 | A | 51 | 9 | A | 50 | 8 | A |
| | | Total | | 36 | C | | 20 | B | | 19 | B | | 28 | C | | 12 | A | | 23 | B | | 12 | A | | 10 | A | | 11 | A | |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 1031 | 30 | C | 979 | 18 | B | 1033 | 11 | A | 1093 | 29 | C | 1095 | 57 | E | 1149 | 13 | A | 564 | 3 | A | 550 | 2 | A | 564 | 2 | A |
| | | East | Campbell St (E) | 42 | 193 | F | 59 | 88 | F | 37 | 337 | F | 61 | 214 | F | 104 | 464 | F | 55 | 253 | F | 126 | 38 | C | 125 | 33 | C | 156 | 37 | C |
| | | South | New England Hwy (S) | 792 | 3 | A | 731 | 1 | A | 803 | 6 | A | 767 | 5 | A | 871 | 0 | A | 821 | 5 | A | 377 | 2 | A | 377 | 1 | A | 386 | 2 | A |
| | | West | Campbell St (W) | 42 | 82 | F | 47 | 57 | E | 34 | 114 | F | 47 | 120 | F | 63 | 61 | E | 14 | 83 | F | 96 | 29 | C | 92 | 24 | B | 95 | 24 | B |
| | | Total | | 395 | 4 | A | 322 | 3 | A | 378 | 10 | A | 299 | 12 | A | 399 | 13 | A | 409 | 2 | A | 352 | 2 | A | 322 | 2 | A | 325 | 2 | A |
| 12 | John St & Newton St * | North | John St (N) | 377 | 56 | D | 472 | 121 | F | 390 | 56 | E | 394 | 45 | D | 404 | 280 | F | 394 | 39 | C | 435 | 19 | B | 423 | 19 | B | 421 | 19 | B |
| | | East | Campbell St | 109 | 4 | A | 143 | 5 | A | 117 | 7 | A | 105 | 3 | A | 169 | 11 | A | 81 | 3 | A | 73 | 1 | A | 69 | 1 | A | 67 | 1 | A |
| | | South | John St (S) | 785 | 4 | A | 784 | 10 | A | 779 | 5 | A | 765 | 4 | A | 794 | 8 | A | 733 | 1 | A | 537 | 1 | A | 524 | 0 | A | 512 | 1 | A |
| | | West | Newton St | 536 | 8 | A | 586 | 10 | A | 523 | 8 | A | 489 | 5 | A | 553 | 35 | C | 417 | 6 | A | 188 | 2 | A | 198 | 2 | A | 183 | 2 | A |
| | | Total | | 56 | D | | 121 | F | | 56 | E | | 45 | D | | 280 | F | | 39 | C | | 19 | B | | 19 | B | | 19 | B | |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 708 | 39 | C | 772 | 32 | C | 704 | 40 | C | 651 | 19 | B | 687 | 33 | C | 607 | 17 | B | 397 | 6 | A | 393 | 7 | A | 391 | 6 | A |
| | | East | Hunter St | 21 | 38 | C | 21 | 36 | C | 23 | 31 | C | 17 | 36 | C | 38 | 36 | C | 22 | 38 | C | 21 | 34 | C | 22 | 35 | C | 26 | 33 | C |
| | | South | John St (S) | 347 | 101 | F | 324 | 64 | E | 355 | 100 | F | 266 | 41 | C | 3 | | | | | | | | | | | | | | |

| | | | 16:00 - 17:00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 81 | 147 | F | 119 | 344 | F | 84 | 115 | F | 97 | 115 | F | 138 | 557 | F | 86 | 142 | F | 172 | 176 | F | 87 | 132 | F | 74 | 110 | F |
| | East | New England Hwy (E) | 1258 | 72 | F | 1249 | 64 | E | 1277 | 82 | F | 1262 | 76 | F | 1325 | 51 | D | 1301 | 109 | F | 701 | 68 | E | 713 | 67 | E | 714 | 65 | E |
| | South | Bridgman Rd (S) | 444 | 58 | E | 448 | 71 | F | 429 | 53 | D | 468 | 78 | F | 366 | 59 | E | 349 | 244 | F | 31 | 43 | D | 32 | 41 | C | 31 | 41 | C |
| | West | New England Hwy (W) | 1363 | 168 | F | 1357 | 172 | F | 1410 | 165 | F | 1370 | 158 | F | 1545 | 103 | F | 1356 | 173 | F | 908 | 47 | D | 959 | 46 | D | 956 | 45 | D |
| | Total | | | 113 | F | | 121 | F | | 115 | F | | 113 | F | | 97 | F | | 153 | F | | 67 | E | | 58 | E | | 56 | D |
| New England Hwy & White Ave | North | White Ave | 117 | 65 | E | 118 | 64 | E | 120 | 68 | E | 119 | 57 | E | 116 | 17 | B | 126 | 80 | F | 117 | 11 | A | 120 | 11 | A | 120 | 10 | A |
| | East | New England Hwy (E) | 771 | 9 | A | 772 | 8 | A | 775 | 9 | A | 793 | 7 | A | 742 | 9 | A | 786 | 13 | A | 261 | 3 | A | 258 | 4 | A | 254 | 4 | A |
| | West | New England Hwy (W) | 1389 | 29 | C | 1385 | 28 | B | 1429 | 29 | C | 1405 | 24 | B | 1578 | 15 | B | 1369 | 28 | C | 1081 | 1 | A | 1094 | 1 | A | 1091 | 1 | A |
| | Total | | | 65 | E | | 64 | E | | 68 | E | | 57 | E | | 17 | B | | 80 | F | | 11 | A | | 11 | A | | 10 | A |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 704 | 1 | A | 704 | 1 | A | 707 | 1 | A | 726 | 1 | A | 668 | 1 | A | 724 | 1 | A | 293 | 1 | A | 273 | 1 | A | 269 | 1 | A |
| | South | Simpson Tce | 47 | 48 | D | 47 | 42 | D | 48 | 37 | C | 47 | 28 | B | 47 | 14 | B | 45 | 45 | D | 47 | 7 | A | 44 | 7 | A | 44 | 7 | A |
| | West | New England Hwy (W) | 1456 | 42 | C | 1452 | 41 | C | 1503 | 41 | C | 1478 | 33 | C | 1677 | 18 | B | 1461 | 40 | C | 1203 | 2 | A | 1220 | 2 | A | 1217 | 2 | A |
| | Total | | | 48 | D | | 42 | D | | 41 | C | | 33 | C | | 18 | B | | 45 | D | | 7 | A | | 7 | A | | 7 | A |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 525 | 2 | A | 525 | 2 | A | 529 | 2 | A | 544 | 2 | A | 500 | 1 | A | 544 | 2 | A | 256 | 2 | A | 249 | 2 | A | 248 | 2 | A |
| | South | Maison Dieu Rd | 185 | 2 | A | 184 | 2 | A | 183 | 2 | A | 186 | 2 | A | 175 | 2 | A | 177 | 2 | A | 670 | 9 | A | 679 | 10 | A | 672 | 10 | A |
| | | | 96 | 1315 | F | 88 | 1378 | F | 97 | 1360 | F | 105 | 1172 | F | 202 | 36 | C | 94 | 1296 | F | | | | | | | | | |
| | | | 7 | 1238 | F | 6 | 1292 | F | 6 | 1285 | F | 9 | 1101 | F | 18 | 22 | B | 7 | 1219 | F | | | | | | | | | |
| | West | New England Hwy (W) | 1401 | 46 | D | 1399 | 50 | D | 1423 | 47 | D | 1414 | 38 | C | 1491 | 5 | A | 1393 | 43 | D | 14 | 5 | A | 14 | 6 | A | 14 | 7 | A |
| Total | | | 1315 | F | | 1378 | F | | 1360 | F | | 1172 | F | | 36 | C | | 1296 | F | | 9 | A | | 10 | A | | 10 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1312 | 17 | B | 1239 | 19 | B | 1271 | 15 | B | 1434 | 3 | A | 1518 | 4 | A | 1442 | 2 | A | 739 | 3 | A | 728 | 3 | A | 730 | 4 | A |
| | East | Howe St | 130 | 141 | F | 144 | 488 | F | 147 | 95 | F | 131 | 160 | F | 184 | 117 | F | 89 | 142 | F | 193 | 51 | D | 171 | 52 | D | 175 | 52 | D |
| | South | New England Hwy (S) | 758 | 38 | C | 792 | 98 | F | 760 | 30 | C | 786 | 72 | F | 839 | 9 | A | 785 | 80 | F | 222 | 6 | A | 252 | 5 | A | 222 | 5 | A |
| | West | Orchard Ave | 162 | 45 | D | 197 | 51 | D | 167 | 46 | D | 69 | 48 | D | 98 | 44 | D | 84 | 62 | E | 29 | 31 | C | 49 | 42 | D | 44 | 42 | D |
| | Total | | | 33 | C | | 77 | F | | 27 | B | | 35 | C | | 15 | B | | 35 | C | | 12 | A | | 12 | A | | 13 | A |
| New England Hwy & York St | North | New England Hwy (N) | 1018 | 27 | B | 1016 | 32 | C | 951 | 23 | B | 1234 | 13 | A | 1354 | 26 | B | 1222 | 12 | A | 548 | 9 | A | 587 | 9 | A | 570 | 9 | A |
| | East | Boundary St | 239 | 70 | F | 252 | 232 | F | 271 | 96 | F | 165 | 50 | D | 157 | 196 | F | 156 | 46 | D | 98 | 46 | D | 77 | 41 | C | 120 | 39 | C |
| | South | New England Hwy (S) | 852 | 13 | A | 881 | 18 | B | 850 | 13 | A | 923 | 16 | B | 950 | 10 | A | 899 | 17 | B | 362 | 11 | A | 390 | 11 | A | 358 | 12 | A |
| | West | York St | 302 | 172 | F | 348 | 224 | F | 308 | 108 | F | 394 | 160 | F | 459 | 158 | F | 366 | 100 | F | 453 | 107 | F | 364 | 59 | E | 325 | 50 | D |
| | Total | | | 45 | D | | 74 | F | | 39 | C | | 37 | C | | 51 | D | | 28 | C | | 42 | D | | 24 | B | | 22 | B |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 980 | 16 | B | 941 | 21 | B | 921 | 3 | A | 1085 | 2 | A | 1240 | 1 | A | 1157 | 2 | A | 554 | 1 | A | 538 | 1 | A | 550 | 1 | A |
| | East | Market St | 10 | 25 | B | 9 | 26 | B | 10 | 16 | B | 23 | 16 | B | 23 | 15 | B | 23 | 18 | B | 18 | 7 | A | 22 | 9 | A | 23 | 10 | A |
| | South | New England Hwy (S) | 796 | 8 | A | 832 | 2 | A | 795 | 4 | A | 887 | 6 | A | 857 | 2 | A | 859 | 5 | A | 400 | 1 | A | 380 | 1 | A | 374 | 1 | A |
| | West | Elizabeth St | 48 | 32 | C | 19 | 16 | B | 49 | 18 | B | 46 | 17 | B | 81 | 8 | A | 39 | 19 | B | 76 | 4 | A | 65 | 5 | A | 79 | 6 | A |
| | Total | | | 32 | C | | 26 | B | | 18 | B | | 17 | B | | 15 | B | | 19 | B | | 7 | A | | 9 | A | | 10 | A |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1116 | 40 | C | 1019 | 26 | B | 1067 | 10 | A | 1180 | 13 | A | 1372 | 31 | C | 1232 | 16 | B | 573 | 3 | A | 589 | 3 | A | 606 | 2 | A |
| | East | Campbell St (E) | 28 | 163 | F | 56 | 177 | F | 38 | 134 | F | 41 | 215 | F | 84 | 227 | F | 40 | 183 | F | 138 | 30 | C | 106 | 27 | B | 123 | 28 | C |
| | South | New England Hwy (S) | 774 | 5 | A | 825 | 1 | A | 773 | 5 | A | 868 | 6 | A | 950 | 0 | A | 833 | 5 | A | 369 | 1 | A | 338 | 1 | A | 328 | 2 | A |
| | West | Campbell St (W) | 5 | 76 | F | 26 | 53 | D | 5 | 61 | E | 6 | 92 | F | 27 | 81 | F | 10 | 102 | F | 30 | 16 | B | 40 | 21 | B | 35 | 16 | B |
| | Total | | | 519 | 1 | A | 452 | 2 | A | 534 | 1 | A | 431 | 2 | A | 396 | 8 | A | 532 | 2 | A | 392 | 1 | A | 417 | 2 | A | 425 | 1 |
| John St & Newton St * | North | John St (N) | 526 | 33 | C | 555 | 66 | E | 526 | 56 | D | 497 | 19 | B | 546 | 117 | F | 506 | 20 | B | 431 | 3 | A | 493 | 3 | A | 518 | 3 | A |
| | East | Campbell St | 102 | 3 | A | 130 | 4 | A | 118 | 4 | A | 96 | 3 | A | 222 | 8 | A | 121 | 4 | A | 92 | 1 | A | 79 | 1 | A | 87 | 1 | A |
| | South | John St (S) | 892 | 6 | A | 852 | 7 | A | 885 | 8 | A | 863 | 3 | A | 740 | 11 | A | 829 | 5 | A | 554 | 1 | A | 568 | 1 | A | 565 | 1 | A |
| | West | Newton St | 391 | 10 | A | 402 | 8 | A | 422 | 13 | A | 356 | 5 | A | 351 | 14 | B | 303 | 7 | A | 140 | 2 | A | 130 | 2 | A | 115 | 2 | A |
| | Total | | | 33 | C | | 66 | E | | 56 | D | | 19 | B | | 117 | F | | 20 | B | | 3 | A | | 3 | A | | 3 | A |
| John St & Ryan Ave & Hunter St | North | John St (N) | 670 | 16 | B | 674 | 21 | B | 683 | 15 | B | 647 | 18 | B | 619 | 15 | B | 584 | 15 | B | 388 | 6 | A | 416 | 6 | A | 426 | 6 | A |
| | East | Hunter St | 19 | 34 | C | 14 | 36 | C | 21 | 39 | C | 18 | 36 | C | 31 | 35 | C | 19 | 30 | C | 14 | 36 | C | 15 | 34 | C | 15 | 35 | C |
| | South | John St (S) | 343 | 123 | F | 329 | 102 | F | 317 | 90 | F | 314 | 64 | E | 340 | 173 | F | 337 | 226 | F | 133 | 31 | C | 195 | 31 | C | 214 | 33 | C |
| | West | Ryan Ave | 627 | 38 | C | 613 | 43 | D | 646 | 62 | E | 625 | 24 | B | 546 | 15 | B | 637 | 19 | B | 478 | 11 | A | 448 | 11 | A | 447 | 11 | A |
| | Total | | | 47 | D | | 46 | D | | 48 | D | | 30 | C | | 51 | D | | 62 | E | | 12 | A | | 13 | A | | 14 | A |
| Putty Rd & Ryan Ave | North | John St (N) | 123 | 8 | A | 139 | 9 | A | 133 | 9 | A | 144 | 10 | A | 132 | 9 | A | 135 | | | | | | | | | | | |

| | | | 17:00 - 18:00 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|---------------|-----------|------|---------------|-----------|------|---------------|-----------|------|---------------|-----------|------|---------------|-----------|-----|---------------|-----------|------|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | 2036 Base | | | 2036 Option 1 | | | 2036 Option 2 | | | 2036 Option 3 | | | 2036 Option 4 | | | 2036 Option 5 | | | 2036 Bypass | | | 2036 Bypass Without | | | 2036 Bypass With Ramps | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 127 | 120 | F | 159 | 182 | F | 121 | 71 | F | 117 | 90 | F | 210 | 292 | F | 75 | 90 | F | 151 | 263 | F | 105 | 96 | F | 98 | 94 | F |
| | East | New England Hwy (E) | 1234 | 105 | F | 1294 | 109 | F | 1287 | 97 | F | 1249 | 104 | F | 1457 | 63 | E | 1346 | 116 | F | 556 | 63 | E | 562 | 68 | E | 569 | 63 | E |
| | South | Bridgman Rd (S) | 533 | 54 | D | 545 | 44 | D | 504 | 60 | E | 587 | 70 | E | 316 | 41 | C | 410 | 407 | F | 249 | 51 | D | 245 | 51 | D | 253 | 49 | D |
| | West | New England Hwy (W) | 1254 | 201 | F | 1218 | 214 | F | 1261 | 193 | F | 1243 | 204 | F | 1434 | 62 | E | 1299 | 192 | F | 933 | 42 | D | 936 | 40 | C | 934 | 41 | C |
| | Total | | | 135 | F | | 142 | F | | 128 | F | | 136 | F | | 74 | F | | 185 | F | | 67 | E | | 53 | D | | 51 | D |
| New England Hwy & White Ave | North | White Ave | 174 | 76 | F | 175 | 79 | F | 176 | 102 | F | 173 | 86 | F | 174 | 14 | A | 172 | 136 | F | 173 | 12 | A | 173 | 13 | A | 174 | 12 | A |
| | East | New England Hwy (E) | 917 | 7 | A | 952 | 6 | A | 934 | 7 | A | 951 | 7 | A | 947 | 9 | A | 949 | 17 | B | 293 | 4 | A | 287 | 4 | A | 301 | 5 | A |
| | West | New England Hwy (W) | 1288 | 38 | C | 1248 | 41 | C | 1301 | 36 | C | 1277 | 39 | C | 1454 | 1 | A | 1321 | 37 | C | 1095 | 1 | A | 1112 | 1 | A | 1108 | 1 | A |
| | Total | | | 76 | F | | 79 | F | | 102 | F | | 86 | F | | 14 | A | | 136 | F | | 12 | A | | 13 | A | | 12 | A |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 860 | 1 | A | 898 | 1 | A | 882 | 1 | A | 898 | 1 | A | 884 | 1 | A | 902 | 1 | A | 354 | 1 | A | 346 | 1 | A | 354 | 1 | A |
| | South | Simpson Tce | 69 | 193 | F | 68 | 181 | F | 68 | 167 | F | 67 | 217 | F | 71 | 17 | B | 65 | 210 | F | 71 | 11 | A | 67 | 11 | A | 67 | 12 | A |
| | West | New England Hwy (W) | 1313 | 65 | E | 1273 | 69 | E | 1336 | 60 | E | 1300 | 66 | E | 1464 | 1 | A | 1328 | 62 | E | 1140 | 2 | A | 1150 | 2 | A | 1145 | 2 | A |
| | Total | | | 193 | F | | 181 | F | | 167 | F | | 217 | F | | 17 | B | | 210 | F | | 11 | A | | 11 | A | | 12 | A |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 703 | 2 | A | 732 | 2 | A | 722 | 2 | A | 737 | 2 | A | 731 | 2 | A | 737 | 2 | A | 290 | 2 | A | 291 | 2 | A | 294 | 2 | A |
| | South | New England Hwy (E) | 156 | 2 | A | 160 | 2 | A | 157 | 2 | A | 159 | 2 | A | 160 | 3 | A | 160 | 2 | A | | | | | | | | | |
| | | Maison Dieu Rd | 69 | 2241 | F | 74 | 2214 | F | 77 | 2061 | F | 75 | 2183 | F | 165 | 20 | B | 68 | 2412 | F | 566 | 9 | A | 563 | 9 | A | 554 | 9 | A |
| | | | | 11 | 2119 | F | 12 | 2099 | F | 10 | 1950 | F | 9 | 2069 | F | 11 | 5 | A | 8 | 2291 | F | 176 | 5 | A | 190 | 4 | A | 190 | 4 |
| | West | New England Hwy (W) | 1260 | 88 | F | 1222 | 95 | F | 1285 | 77 | F | 1248 | 89 | F | 1324 | 1 | A | 1277 | 82 | F | 29 | 5 | A | 28 | 4 | A | 28 | 4 | A |
| Total | | | 2241 | F | | 2214 | F | | 2061 | F | | 2183 | F | | 20 | B | | 2412 | F | | 9 | A | | 9 | A | | 9 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1398 | 11 | A | 1322 | 15 | B | 1346 | 13 | A | 1466 | 3 | A | 1545 | 5 | A | 1481 | 3 | A | 763 | 3 | A | 794 | 3 | A | 775 | 4 | A |
| | East | Howe St | 90 | 81 | F | 109 | 203 | F | 102 | 48 | D | 76 | 75 | F | 177 | 100 | F | 125 | 74 | F | 173 | 48 | D | 145 | 46 | D | 153 | 46 | D |
| | South | New England Hwy (S) | 713 | 55 | D | 761 | 105 | F | 800 | 48 | D | 774 | 89 | F | 930 | 10 | A | 802 | 66 | E | 206 | 5 | A | 213 | 5 | A | 211 | 5 | A |
| | West | Orchard Ave | 208 | 98 | F | 305 | 150 | F | 176 | 41 | C | 165 | 120 | F | 106 | 39 | C | 116 | 48 | D | 29 | 27 | B | 44 | 39 | C | 44 | 39 | C |
| Total | | | 34 | C | | 67 | E | | 28 | B | | 40 | C | | 14 | B | | 29 | C | | 11 | A | | 10 | A | | 11 | A | |
| New England Hwy & York St | North | New England Hwy (N) | 1155 | 20 | B | 1090 | 26 | B | 1086 | 21 | B | 1240 | 11 | A | 1363 | 30 | C | 1276 | 12 | A | 598 | 8 | A | 626 | 9 | A | 594 | 9 | A |
| | East | Boundary St | 195 | 44 | D | 191 | 53 | D | 209 | 87 | F | 176 | 45 | D | 166 | 67 | E | 134 | 37 | C | 92 | 36 | C | 94 | 32 | C | 122 | 32 | C |
| | South | New England Hwy (S) | 872 | 16 | B | 925 | 18 | B | 938 | 14 | A | 934 | 16 | B | 1066 | 10 | A | 954 | 16 | B | 341 | 11 | A | 346 | 11 | A | 336 | 10 | A |
| | West | York St | 307 | 128 | F | 369 | 212 | F | 315 | 144 | F | 371 | 155 | F | 468 | 153 | F | 370 | 128 | F | 401 | 103 | F | 332 | 51 | D | 342 | 77 | F |
| Total | | | 34 | C | | 52 | D | | 39 | C | | 35 | C | | 44 | D | | 30 | C | | 37 | C | | 21 | B | | 28 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 1092 | 11 | A | 1020 | 16 | B | 1016 | 6 | A | 1136 | 3 | A | 1284 | 2 | A | 1224 | 3 | A | 612 | 1 | A | 594 | 1 | A | 620 | 1 | A |
| | East | Market St | 18 | 32 | C | 21 | 28 | C | 10 | 25 | B | 33 | 20 | B | 23 | 16 | B | 26 | 21 | B | 26 | 10 | A | 22 | 8 | A | 24 | 9 | A |
| | South | New England Hwy (S) | 800 | 8 | A | 933 | 2 | A | 832 | 4 | A | 894 | 6 | A | 939 | 2 | A | 924 | 5 | A | 342 | 2 | A | 344 | 2 | A | 365 | 2 | A |
| | West | Elizabeth St | 35 | 25 | B | 19 | 9 | A | 32 | 17 | B | 29 | 23 | B | 91 | 8 | A | 25 | 22 | B | 43 | 3 | A | 46 | 4 | A | 45 | 6 | A |
| Total | | | 32 | C | | 28 | C | | 25 | B | | 23 | B | | 16 | B | | 22 | B | | 10 | A | | 8 | A | | 9 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1185 | 21 | B | 1132 | 26 | B | 1132 | 21 | B | 1173 | 8 | A | 1512 | 20 | B | 1278 | 17 | B | 614 | 3 | A | 654 | 2 | A | 643 | 2 | A |
| | East | Campbell St (E) | 23 | 177 | F | 40 | 116 | F | 36 | 270 | F | 45 | 101 | F | 52 | 197 | F | 42 | 252 | F | 109 | 22 | B | 104 | 38 | C | 104 | 38 | C |
| | South | New England Hwy (S) | 794 | 8 | A | 914 | 2 | A | 808 | 5 | A | 878 | 8 | A | 1162 | 0 | A | 900 | 7 | A | 290 | 1 | A | 278 | 2 | A | 300 | 1 | A |
| | West | Campbell St (W) | 6 | 74 | F | 14 | 71 | F | 6 | 82 | F | 8 | 71 | F | 14 | 140 | F | 12 | 99 | F | 67 | 18 | B | 47 | 19 | B | 55 | 19 | B |
| | | | 502 | 4 | A | 455 | 2 | A | 523 | 2 | A | 451 | 2 | A | 405 | 14 | A | 500 | 1 | A | 375 | 1 | A | 367 | 1 | A | 364 | 1 | A |
| Total | | | 177 | F | | 116 | F | | 270 | F | | 101 | F | | 197 | F | | 252 | F | | 22 | B | | 38 | C | | 38 | C | |
| John St & Newton St * | North | John St (N) | 528 | 17 | B | 632 | 43 | D | 503 | 16 | B | 553 | 31 | C | 496 | 181 | F | 553 | 15 | B | 412 | 3 | A | 476 | 4 | A | 515 | 3 | A |
| | East | Campbell St | 155 | 3 | A | 178 | 3 | A | 151 | 3 | A | 150 | 4 | A | 217 | 10 | A | 174 | 5 | A | 138 | 1 | A | 154 | 1 | A | 140 | 1 | A |
| | South | John St (S) | 931 | 10 | A | 924 | 14 | A | 909 | 9 | A | 969 | 11 | A | 815 | 15 | B | 814 | 15 | B | 735 | 3 | A | 729 | 3 | A | 716 | 4 | A |
| | West | Newton St | 348 | 8 | A | 379 | 8 | A | 351 | 8 | A | 316 | 7 | A | 371 | 24 | B | 264 | 5 | A | 145 | 3 | A | 113 | 3 | A | 89 | 3 | A |
| Total | | | 17 | B | | 43 | D | | 16 | B | | 31 | C | | 181 | F | | 15 | B | | 3 | A | | 4 | A | | 4 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 613 | 13 | A | 644 | 12 | A | 595 | 11 | A | 584 | 11 | A | 622 | 12 | A | 556 | 13 | A | 324 | 6 | A | 388 | 6 | A | 374 | 5 | A |
| | East | Hunter St | 14 | 29 | C | 12 | 32 | C | 16 | 36 | C | 13 | 31 | C | 22 | 37 | C | 22 | 32 | C | 12 | 33 | C | 10 | 28 | B | 16 | 31 | C |
| | South | John St (S) | 364 | 92 | F | 338 | 92 | F | 341 | 125 | F | 334 | 112 | F | 330 | 58 | E | 290 | 92 | F | 226 | 31 | C | 243 | 34 | C | 239 | 29 | C |
| | West | Ryan Ave | 637 | 64 | E | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | From 5:30:00 to 6:30:00 1 | | | | | | | | | | | | | | | |
|--------------|----------------------------------|-----------|---------------------|---------------------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|---|
| | | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | | |
| | Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 227 | 970 | F | 298 | 448 | F | 299 | 834 | F | 380 | 248 | F | 381 | 243 | F | |
| | | East | New England Hwy (E) | 1143 | 204 | F | 1549 | 116 | F | 287 | 30 | C | 270 | 25 | B | 270 | 25 | B | |
| | | South | Bridgman Rd (S) | 604 | 126 | F | 168 | 365 | F | 175 | 31 | C | 166 | 71 | F | 166 | 71 | F | |
| | | West | New England Hwy (W) | 381 | 24 | B | 370 | 24 | B | 209 | 23 | B | 218 | 23 | B | 217 | 23 | B | |
| | | Total | | 229 | F | | 161 | F | | 276 | F | | 114 | F | | 113 | F | | |
| 3 | New England Hwy & White Ave | North | White Ave | 179 | 292 | F | 172 | 501 | F | 222 | 4 | A | 233 | 6 | A | 233 | 6 | A | |
| | | East | New England Hwy (E) | 1743 | 7 | A | 1803 | 22 | B | 604 | 3 | A | 686 | 6 | A | 687 | 6 | A | |
| | | West | New England Hwy (W) | 364 | 1 | A | 350 | 1 | A | 195 | 0 | A | 202 | 0 | A | 201 | 0 | A | |
| | | Total | | 292 | F | | 501 | F | | 4 | A | | 6 | A | | 6 | A | | |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 1877 | 2 | A | 1929 | 2 | A | 789 | 1 | A | 879 | 1 | A | 880 | 1 | A | |
| | | South | Simpson Tce | 34 | 80 | F | 34 | 119 | F | 33 | 10 | A | 34 | 14 | A | 34 | 13 | A | |
| | | West | New England Hwy (W) | 365 | 2 | A | 352 | 2 | A | 195 | 1 | A | 202 | 1 | A | 201 | 1 | A | |
| | | Total | | 80 | F | | 119 | F | | 10 | A | | 14 | A | | 13 | A | | |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1632 | 2 | A | 1668 | 2 | A | 744 | 2 | A | 834 | 3 | A | 837 | 3 | A | |
| | | South | Maison Dieu Rd | 274 | 3 | A | 291 | 3 | A | 262 | 12 | A | 270 | 17 | B | 269 | 17 | B | |
| | | | | 59 | 150 | F | 51 | 200 | F | | | | | | | | | | |
| | | | | 44 | 81 | F | 42 | 117 | F | | | | | | | | | | |
| | | West | New England Hwy (W) | 324 | 2 | A | 318 | 2 | A | 10 | 1 | A | 11 | 1 | A | 11 | 1 | A | |
| Total | | 150 | F | | 200 | F | | 12 | A | | 17 | B | | 17 | B | | | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 347 | 4 | A | 422 | 2 | A | 228 | 3 | A | 297 | 3 | A | 293 | 3 | A | |
| | | East | Howe St | 55 | 75 | F | 87 | 107 | F | 78 | 64 | E | 79 | 62 | E | 80 | 64 | E | |
| | | South | New England Hwy (S) | 1226 | 27 | B | 1260 | 38 | C | 136 | 3 | A | 144 | 3 | A | 136 | 3 | A | |
| | | West | Orchard Ave | 12 | 62 | E | 12 | 73 | F | 7 | 50 | D | 6 | 62 | E | 6 | 60 | E | |
| | | Total | | 24 | B | | 33 | C | | 14 | B | | 13 | A | | 13 | A | | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 339 | 3 | A | 416 | 7 | A | 213 | 3 | A | 279 | 6 | A | 277 | 5 | A | |
| | | East | Boundary St | 24 | 71 | F | 34 | 71 | F | 23 | 69 | E | 20 | 61 | E | 23 | 66 | E | |
| | | South | New England Hwy (S) | 1254 | 6 | A | 1309 | 7 | A | 178 | 2 | A | 184 | 2 | A | 177 | 2 | A | |
| | | West | York St | 67 | 111 | F | 60 | 85 | F | 77 | 84 | F | 84 | 136 | F | 77 | 101 | F | |
| Total | | 11 | A | | 10 | A | | 18 | B | | 26 | B | | 20 | B | | | | |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 347 | 12 | A | 405 | 7 | A | 217 | 0 | A | 278 | 0 | A | 278 | 0 | A | |
| | | East | Market St | 28 | 19 | B | 31 | 10 | A | 19 | 2 | A | 17 | 3 | A | 19 | 3 | A | |
| | | South | New England Hwy (S) | 1059 | 14 | A | 1266 | 12 | A | 160 | 1 | A | 144 | 1 | A | 146 | 1 | A | |
| | | West | Elizabeth St | 13 | 21 | B | 10 | 28 | B | 4 | 2 | A | 10 | 3 | A | 5 | 5 | A | |
| Total | | 21 | B | | 28 | B | | 2 | A | | 3 | A | | 5 | A | | | | |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 355 | 3 | A | 391 | 3 | A | 197 | 1 | A | 268 | 2 | A | 268 | 2 | A | |
| | | East | Campbell St (E) | 18 | 53 | D | 15 | 180 | F | 25 | 13 | A | 24 | 15 | B | 25 | 16 | B | |
| | | South | New England Hwy (S) | 1052 | 22 | B | 1266 | 15 | B | 234 | 0 | A | 223 | 1 | A | 222 | 0 | A | |
| | | West | Campbell St (W) | 12 | 38 | C | 10 | 39 | C | 25 | 8 | A | 25 | 7 | A | 23 | 9 | A | |
| | | Total | | 109 | 2 | A | 311 | 2 | A | 66 | 1 | A | 63 | 1 | A | 69 | 1 | A | |
| 12 | John St & Newton St * | North | John St (N) | 508 | 3 | A | 555 | 4 | A | 356 | 1 | A | 372 | 1 | A | 376 | 1 | A | |
| | | East | Campbell St | 276 | 3 | A | 60 | 1 | A | 52 | 0 | A | 54 | 1 | A | 57 | 1 | A | |
| | | South | John St (S) | 225 | 6 | A | 236 | 1 | A | 95 | 0 | A | 90 | 1 | A | 88 | 1 | A | |
| | | West | Newton St | 172 | 0 | A | 185 | 1 | A | 118 | 0 | A | 115 | 0 | A | 116 | 0 | A | |
| | | Total | | 6 | A | | 4 | A | | 1 | A | | 1 | A | | 1 | A | | |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 384 | 8 | A | 397 | 7 | A | 249 | 5 | A | 275 | 6 | A | 274 | 5 | A | |
| | | East | Hunter St | 7 | 26 | B | 9 | 27 | B | 7 | 29 | C | 12 | 29 | C | 13 | 29 | C | |
| | | South | John St (S) | 137 | 18 | B | 166 | 18 | B | 76 | 16 | B | 67 | 16 | B | 68 | 16 | B | |
| | | West | Ryan Ave | 104 | 14 | B | 84 | 14 | B | 24 | 16 | B | 34 | 14 | B | 27 | 14 | A | |
| | | Total | | 11 | A | | 11 | A | | 9 | A | | 9 | A | | 9 | A | | |
| 18 | Putty Rd & Ryan Ave | North | John St (N) | 137 | 14 | B | 227 | 16 | B | 287 | 16 | B | 300 | 16 | B | 300 | 17 | B | |
| | | East | Ryan Ave (E) | 119 | 13 | A | 105 | 13 | A | 69 | 13 | A | 100 | 13 | A | 97 | 13 | A | |
| | | South | John St (S) | 103 | 7 | A | 100 | 6 | A | 96 | 6 | A | 92 | 6 | A | 95 | 6 | A | |
| | | West | Ryan Ave (W) | 221 | 28 | B | 148 | 22 | B | 102 | 13 | A | 108 | 15 | B | 113 | 17 | B | |
| | | Total | | 18 | B | | 15 | B | | 13 | A | | 14 | A | | 14 | B | | |
| 21 | Queen St & New England Hwy Ramp | East | Queen St (E) | 398 | 0 | A | 389 | 0 | A | 298 | 0 | A | 300 | 0 | A | 304 | 0 | A | |
| | | South | New England Hwy (S) | 159 | 7 | A | 222 | 7 | A | 112 | 4 | A | 133 | 5 | A | 132 | 5 | A | |
| | | West | Queen St (W) | 70 | 0 | A | 71 | 0 | A | 69 | 0 | A | 65 | 0 | A | 66 | 0 | A | |
| | | Total | | 7 | A | | 7 | A | | 4 | A | | 5 | A | | 5 | A | | |
| 33 | Magpie St & New England Hwy | North | New England Hwy (N) | 310 | 5 | A | 307 | 5 | A | 27 | 42 | C | 24 | 41 | C | 24 | 41 | C | |
| | | South | New England Hwy (S) | 1685 | 18 | B | 1714 | 17 | B | 693 | 9 | A | 760 | 27 | B | 763 | 24 | B | |
| | | West | Magpie St | 103 | 54 | D | 100 | 53 | D | 103 | 51 | D | 100 | 50 | D | 100 | 53 | D | |
| | | Total | | 18 | B | | 17 | B | | 15 | B | | 30 | C | | 28 | B | | |
| Bypass Ramps | | | | | | | | | | | | | | | | | | | |
| 34 | Putty Road Northern Ramps | North | Putty Road (N) | | | | | | | | | | 419 | 1 | A | 469 | 1 | A | |
| | | South | Putty Road (S) | | | | | | | | | | 107 | 2 | A | 98 | 2 | A | |
| | | West | Off-Ramp (W) | | | | | | | | | | 149 | 6 | A | 147 | 7 | A | |
| 35 | Gowrie Gates Roundabout | Total | | | | | | | | | | | | 6 | A | | 7 | A | |
| | | East | New England Hwy (E) | | | | | | | | | | | 744 | 2 | A | 834 | 3 | A |
| | | South | Bypass (S) | | | | | | | | | | | 262 | 12 | A | 270 | 17 | B |
| | | West | Maison Dieu Rd (S) | | | | | | | | | | | 103 | 4 | A | 97 | 5 | A |
| | | | New England Hwy (W) | | | | | | | | | | | 10 | 1 | A | 11 | 1 | A |
| Total | | | | | | | | | | | | | 12 | A | | 17 | B | | |

From 6:30:00 to 7:30:00

2

| | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 237 | 700 | F | 281 | 270 | F | 330 | 687 | F | 288 | 88 | F | 260 | 108 | F |
| | East | New England Hwy (E) | 1140 | 192 | F | 1295 | 118 | F | 302 | 33 | C | 258 | 31 | C | 328 | 32 | C |
| | South | Bridgman Rd (S) | 349 | 37 | C | 262 | 56 | E | 80 | 32 | C | 91 | 47 | D | 92 | 47 | D |
| | West | New England Hwy (W) | 930 | 37 | C | 931 | 40 | C | 351 | 23 | B | 376 | 23 | B | 349 | 23 | B |
| | Total | | 163 | F | | 101 | F | | 233 | F | | 46 | D | | 50 | D | |
| New England Hwy & White Ave | North | White Ave | 205 | 606 | F | 216 | 751 | F | 173 | 5 | A | 167 | 5 | A | 167 | 6 | A |
| | East | New England Hwy (E) | 1478 | 7 | A | 1536 | 19 | B | 551 | 3 | A | 492 | 4 | A | 516 | 4 | A |
| | West | New England Hwy (W) | 937 | 1 | A | 940 | 1 | A | 383 | 1 | A | 415 | 1 | A | 388 | 1 | A |
| | Total | | 606 | F | | 751 | F | | 5 | A | | 5 | A | | 6 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1607 | 2 | A | 1666 | 1 | A | 680 | 1 | A | 613 | 1 | A | 635 | 1 | A |
| | South | Simpson Tce | 15 | 36 | C | 17 | 40 | C | 16 | 8 | A | 17 | 8 | A | 17 | 8 | A |
| | West | New England Hwy (W) | 943 | 2 | A | 946 | 2 | A | 389 | 1 | A | 420 | 1 | A | 393 | 1 | A |
| | Total | | 36 | C | | 40 | C | | 8 | A | | 8 | A | | 8 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1217 | 2 | A | 1262 | 2 | A | 561 | 2 | A | 522 | 2 | A | 544 | 2 | A |
| | South | Maison Dieu Rd | 399 | 3 | A | 413 | 3 | A | 444 | 15 | B | 470 | 14 | B | 443 | 15 | B |
| | | | 65 | 82 | F | 66 | 178 | F | | | | | | | | | |
| | | | 44 | 30 | C | 45 | 117 | F | | | | | | | | | |
| | West | New England Hwy (W) | 894 | 3 | A | 894 | 3 | A | 16 | 2 | A | 15 | 2 | A | 15 | 2 | A |
| | Total | | 82 | F | | 178 | F | | 15 | B | | 14 | B | | 15 | B | |
| New England Hwy & Howe St | North | New England Hwy (N) | 888 | 12 | A | 1023 | 5 | A | 452 | 4 | A | 541 | 5 | A | 529 | 5 | A |
| | East | Howe St | 113 | 76 | F | 135 | 102 | F | 106 | 58 | E | 72 | 52 | D | 100 | 61 | E |
| | South | New England Hwy (S) | 852 | 73 | F | 860 | 87 | F | 225 | 6 | A | 209 | 6 | A | 229 | 6 | A |
| | West | Orchard Ave | 26 | 51 | D | 18 | 49 | D | 6 | 43 | D | 5 | 46 | D | 8 | 49 | D |
| | Total | | 44 | D | | 46 | D | | 12 | A | | 9 | A | | 12 | A | |
| New England Hwy & York St | North | New England Hwy (N) | 806 | 12 | A | 960 | 6 | A | 385 | 4 | A | 496 | 4 | A | 456 | 4 | A |
| | East | Boundary St | 76 | 73 | F | 84 | 62 | E | 66 | 55 | D | 48 | 48 | D | 79 | 54 | D |
| | South | New England Hwy (S) | 895 | 11 | A | 915 | 10 | A | 265 | 5 | A | 214 | 5 | A | 264 | 5 | A |
| | West | York St | 131 | 60 | E | 110 | 62 | E | 150 | 81 | F | 136 | 60 | E | 142 | 79 | F |
| | Total | | 18 | B | | 13 | A | | 21 | B | | 15 | B | | 20 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 822 | 7 | A | 949 | 5 | A | 339 | 0 | A | 452 | 1 | A | 449 | 1 | A |
| | East | Market St | 31 | 23 | B | 31 | 15 | B | 22 | 5 | A | 28 | 4 | A | 27 | 4 | A |
| | South | New England Hwy (S) | 878 | 11 | A | 895 | 6 | A | 218 | 0 | A | 171 | 0 | A | 205 | 1 | A |
| | West | Elizabeth St | 10 | 42 | C | 8 | 28 | B | 5 | 5 | A | 4 | 5 | A | 3 | 3 | A |
| | Total | | 42 | C | | 28 | B | | 5 | A | | 5 | A | | 4 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 834 | 6 | A | 947 | 4 | A | 317 | 1 | A | 432 | 2 | A | 429 | 2 | A |
| | East | Campbell St (E) | 16 | 77 | F | 19 | 167 | F | 43 | 17 | B | 34 | 28 | C | 35 | 29 | C |
| | South | New England Hwy (S) | 932 | 21 | B | 923 | 10 | A | 264 | 1 | A | 211 | 1 | A | 247 | 1 | A |
| | West | Campbell St (W) | 10 | 55 | D | 13 | 96 | F | 28 | 11 | A | 28 | 11 | A | 26 | 11 | A |
| | Total | | 192 | 3 | A | 379 | 2 | A | 56 | 1 | A | 66 | 1 | A | 102 | 1 | A |
| John St & Newton St * | North | John St (N) | 488 | 3 | A | 569 | 5 | A | 218 | 1 | A | 361 | 2 | A | 391 | 2 | A |
| | East | Campbell St | 147 | 3 | A | 101 | 2 | A | 57 | 0 | A | 61 | 1 | A | 64 | 1 | A |
| | South | John St (S) | 263 | 3 | A | 282 | 2 | A | 99 | 1 | A | 98 | 1 | A | 94 | 1 | A |
| | West | Newton St | 218 | 1 | A | 244 | 1 | A | 138 | 0 | A | 131 | 0 | A | 130 | 0 | A |
| | Total | | 3 | A | | 5 | A | | 1 | A | | 2 | A | | 2 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 451 | 11 | A | 537 | 10 | A | 183 | 7 | A | 316 | 9 | A | 304 | 8 | A |
| | East | Hunter St | 10 | 31 | C | 9 | 28 | C | 9 | 29 | C | 8 | 28 | C | 12 | 27 | B |
| | South | John St (S) | 93 | 23 | B | 123 | 23 | B | 61 | 21 | B | 55 | 21 | B | 59 | 20 | B |
| | West | Ryan Ave | 179 | 10 | A | 169 | 11 | A | 40 | 9 | A | 51 | 10 | A | 39 | 9 | A |
| | Total | | 13 | A | | 12 | A | | 11 | A | | 11 | A | | 11 | A | |
| Putty Rd & Ryan Ave | North | John St (N) | 146 | 15 | B | 251 | 17 | B | 203 | 14 | A | 195 | 15 | B | 202 | 15 | B |
| | East | Ryan Ave (E) | 121 | 12 | A | 121 | 12 | A | 92 | 12 | A | 167 | 13 | A | 155 | 12 | A |
| | South | John St (S) | 139 | 9 | A | 143 | 9 | A | 150 | 7 | A | 151 | 8 | A | 156 | 8 | A |
| | West | Ryan Ave (W) | 181 | 21 | B | 153 | 14 | A | 52 | 11 | A | 147 | 28 | C | 135 | 19 | B |
| | Total | | 15 | B | | 14 | A | | 11 | A | | 16 | B | | 14 | A | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 290 | 0 | A | 276 | 0 | A | 185 | 0 | A | 203 | 0 | A | 199 | 0 | A |
| | South | New England Hwy (S) | 282 | 6 | A | 422 | 6 | A | 121 | 5 | A | 290 | 5 | A | 329 | 5 | A |
| | West | Queen St (W) | 100 | 0 | A | 99 | 0 | A | 87 | 0 | A | 89 | 0 | A | 86 | 0 | A |
| | Total | | 6 | A | | 6 | A | | 5 | A | | 5 | A | | 5 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 845 | 7 | A | 847 | 7 | A | 41 | 31 | C | 44 | 29 | C | 44 | 29 | C |
| | South | New England Hwy (S) | 1269 | 26 | B | 1313 | 29 | C | 585 | 12 | A | 532 | 30 | C | 556 | 23 | B |
| | West | Magpie St | 163 | 30 | C | 157 | 30 | C | 161 | 33 | C | 157 | 33 | C | 157 | 33 | C |
| | Total | | 19 | B | | 21 | B | | 17 | B | | 31 | C | | 26 | B | |

Bypass Ramps

| | | | | | | | | | | | |
|---------------------------|-------|---------------------|-----|----|---|-----|----|---|-----|----|---|
| Putty Road Northern Ramps | North | Putty Road (N) | 300 | 2 | A | 456 | 2 | A | 446 | 1 | A |
| | South | Putty Road (S) | 147 | 1 | A | 145 | 2 | A | 151 | 1 | A |
| | West | Off-Ramp (W) | 263 | 7 | A | 241 | 9 | A | 238 | 8 | A |
| | Total | | 7 | A | | 9 | A | | 8 | A | |
| Gowrie Gates Roundabout | East | New England Hwy (E) | 561 | 2 | A | 522 | 2 | A | 544 | 2 | A |
| | South | Bypass (S) | 444 | 15 | B | 470 | 14 | B | 443 | 15 | B |
| | West | Maison Dieu Rd (S) | 109 | 4 | A | 112 | 3 | A | 112 | 3 | A |
| | | New England Hwy (W) | 16 | 2 | A | 15 | 2 | A | 15 | 2 | A |
| | Total | | 15 | B | | 14 | B | | 15 | B | |

From 7:30:00 to 8:30:00

3

| | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 282 | 367 | F | 177 | 115 | F | 310 | 579 | F | 186 | 54 | D | 169 | 58 | E |
| | East | New England Hwy (E) | 1042 | 84 | F | 1148 | 38 | C | 246 | 32 | C | 243 | 32 | C | 273 | 31 | C |
| | South | Bridgman Rd (S) | 307 | 38 | C | 150 | 63 | E | 70 | 39 | C | 67 | 44 | D | 67 | 42 | D |
| | West | New England Hwy (W) | 1024 | 90 | F | 1056 | 56 | D | 483 | 26 | B | 479 | 27 | B | 479 | 27 | B |
| | Total | | 111 | F | | 52 | D | | 183 | F | | 35 | C | | 34 | C | |
| New England Hwy & White Ave | North | White Ave | 186 | 145 | F | 186 | 139 | F | 171 | 5 | A | 167 | 5 | A | 168 | 5 | A |
| | East | New England Hwy (E) | 1266 | 6 | A | 1155 | 13 | A | 458 | 2 | A | 326 | 3 | A | 336 | 3 | A |
| | West | New England Hwy (W) | 1005 | 4 | A | 1014 | 2 | A | 478 | 1 | A | 483 | 1 | A | 481 | 1 | A |
| | Total | | 145 | F | | 139 | F | | 5 | A | | 5 | A | | 5 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1323 | 1 | A | 1213 | 1 | A | 543 | 1 | A | 412 | 1 | A | 421 | 1 | A |
| | South | Simpson Tce | 20 | 38 | C | 21 | 37 | C | 20 | 7 | A | 21 | 6 | A | 21 | 6 | A |
| | West | New England Hwy (W) | 1008 | 4 | A | 1010 | 2 | A | 480 | 1 | A | 484 | 1 | A | 482 | 1 | A |
| | Total | | 38 | C | | 37 | C | | 7 | A | | 6 | A | | 6 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 1008 | 2 | A | 935 | 2 | A | 369 | 2 | A | 323 | 2 | A | 328 | 2 | A |
| | South | Maison Dieu Rd | 328 | 3 | A | 288 | 3 | A | 436 | 9 | A | 434 | 9 | A | 433 | 8 | A |
| | | | 149 | 90 | F | 153 | 122 | F | | | | | | | | | |
| | | | 29 | 48 | D | 35 | 86 | F | | | | | | | | | |
| | West | New England Hwy (W) | 879 | 3 | A | 873 | 3 | A | 16 | 2 | A | 16 | 2 | A | 16 | 2 | A |
| | Total | | 90 | F | | 122 | F | | 9 | A | | 9 | A | | 8 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1114 | 11 | A | 1065 | 2 | A | 494 | 4 | A | 547 | 3 | A | 550 | 3 | A |
| | East | Howe St | 99 | 67 | E | 127 | 100 | F | 93 | 36 | C | 85 | 33 | C | 88 | 34 | C |
| | South | New England Hwy (S) | 851 | 74 | F | 840 | 90 | F | 358 | 8 | A | 370 | 8 | A | 354 | 8 | A |
| | West | Orchard Ave | 18 | 48 | D | 22 | 46 | D | 6 | 28 | B | 6 | 27 | B | 7 | 25 | B |
| | Total | | 39 | C | | 44 | D | | 9 | A | | 8 | A | | 8 | A | |
| New England Hwy & York St | North | New England Hwy (N) | 1006 | 16 | B | 1015 | 9 | A | 442 | 5 | A | 521 | 6 | A | 503 | 5 | A |
| | East | Boundary St | 151 | 52 | D | 115 | 53 | D | 101 | 47 | D | 83 | 39 | C | 92 | 38 | C |
| | South | New England Hwy (S) | 878 | 15 | B | 863 | 16 | B | 382 | 5 | A | 396 | 5 | A | 379 | 5 | A |
| | West | York St | 153 | 49 | D | 148 | 50 | D | 160 | 56 | E | 144 | 44 | D | 154 | 50 | D |
| | Total | | 20 | B | | 17 | B | | 16 | B | | 13 | A | | 14 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 1022 | 11 | A | 1056 | 3 | A | 410 | 1 | A | 525 | 1 | A | 535 | 1 | A |
| | East | Market St | 23 | 15 | B | 32 | 13 | A | 22 | 5 | A | 28 | 6 | A | 24 | 7 | A |
| | South | New England Hwy (S) | 778 | 4 | A | 781 | 3 | A | 219 | 1 | A | 206 | 1 | A | 217 | 1 | A |
| | West | Elizabeth St | 7 | 37 | C | 7 | 24 | B | 5 | 7 | A | 5 | 10 | A | 6 | 7 | A |
| | Total | | 37 | C | | 24 | B | | 7 | A | | 10 | A | | 7 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1045 | 16 | B | 1046 | 7 | A | 396 | 2 | A | 509 | 2 | A | 509 | 2 | A |
| | East | Campbell St (E) | 14 | 101 | F | 20 | 184 | F | 39 | 17 | B | 33 | 22 | B | 32 | 21 | B |
| | South | New England Hwy (S) | 779 | 5 | A | 774 | 3 | A | 215 | 1 | A | 187 | 1 | A | 203 | 1 | A |
| | West | Campbell St (W) | 11 | 72 | F | 15 | 110 | F | 19 | 9 | A | 23 | 9 | A | 34 | 9 | A |
| | Total | | 247 | 1 | A | 370 | 9 | A | 80 | 1 | A | 96 | 1 | A | 112 | 1 | A |
| John St & Newton St * | North | John St (N) | 524 | 26 | B | 549 | 30 | C | 290 | 1 | A | 463 | 2 | A | 495 | 2 | A |
| | East | Campbell St | 129 | 10 | A | 48 | 8 | A | 41 | 1 | A | 36 | 1 | A | 36 | 1 | A |
| | South | John St (S) | 282 | 5 | A | 292 | 5 | A | 142 | 0 | A | 137 | 0 | A | 134 | 0 | A |
| | West | Newton St | 339 | 1 | A | 299 | 9 | A | 162 | 0 | A | 169 | 0 | A | 155 | 0 | A |
| | Total | | 26 | B | | 30 | C | | 1 | A | | 2 | A | | 2 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 626 | 26 | B | 610 | 18 | B | 281 | 6 | A | 440 | 9 | A | 424 | 9 | A |
| | East | Hunter St | 7 | 32 | C | 8 | 28 | B | 4 | 29 | C | 7 | 30 | C | 12 | 34 | C |
| | South | John St (S) | 111 | 22 | B | 130 | 25 | B | 78 | 20 | B | 73 | 20 | B | 74 | 21 | B |
| | West | Ryan Ave | 178 | 13 | A | 171 | 13 | A | 68 | 12 | A | 73 | 14 | A | 66 | 12 | A |
| | Total | | 23 | B | | 18 | B | | 10 | A | | 11 | A | | 11 | A | |
| Putty Rd & Ryan Ave | North | John St (N) | 184 | 14 | B | 227 | 16 | B | 162 | 14 | A | 180 | 15 | B | 161 | 15 | B |
| | East | Ryan Ave (E) | 191 | 14 | A | 194 | 13 | A | 105 | 13 | A | 184 | 13 | A | 142 | 13 | A |
| | South | John St (S) | 179 | 9 | A | 185 | 9 | A | 246 | 8 | A | 219 | 8 | A | 261 | 8 | A |
| | West | Ryan Ave (W) | 194 | 46 | D | 121 | 22 | B | 48 | 11 | A | 129 | 19 | B | 139 | 16 | B |
| | Total | | 21 | B | | 14 | B | | 11 | A | | 13 | A | | 12 | A | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 274 | 5 | A | 271 | 13 | A | 231 | 0 | A | 252 | 0 | A | 264 | 0 | A |
| | South | New England Hwy (S) | 446 | 11 | A | 450 | 14 | A | 210 | 6 | A | 365 | 6 | A | 385 | 6 | A |
| | West | Queen St (W) | 125 | 0 | A | 111 | 0 | A | 109 | 0 | A | 105 | 0 | A | 102 | 0 | A |
| | Total | | 11 | A | | 14 | A | | 6 | A | | 6 | A | | 6 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 803 | 9 | A | 800 | 9 | A | 54 | 25 | B | 51 | 25 | B | 51 | 26 | B |
| | South | New England Hwy (S) | 1060 | 12 | A | 996 | 12 | A | 388 | 12 | A | 374 | 19 | B | 378 | 14 | A |
| | West | Magpie St | 167 | 30 | C | 161 | 30 | C | 168 | 34 | C | 161 | 30 | C | 161 | 30 | C |
| | Total | | 12 | A | | 12 | A | | 19 | B | | 22 | B | | 19 | B | |

Bypass Ramps

| | | | | | | | | | | | |
|---------------------------|-------|---------------------|-----|---|---|-----|---|---|-----|----|---|
| Putty Road Northern Ramps | North | Putty Road (N) | 231 | 1 | A | 378 | 1 | A | 371 | 1 | A |
| | South | Putty Road (S) | 213 | 1 | A | 185 | 2 | A | 228 | 1 | A |
| | West | Off-Ramp (W) | 331 | 8 | A | 241 | 8 | A | 245 | 10 | A |
| | Total | | 8 | A | | 8 | A | | 10 | A | |
| Gowrie Gates Roundabout | East | New England Hwy (E) | 369 | 2 | A | 323 | 2 | A | 328 | 2 | A |
| | South | Bypass (S) | 436 | 9 | A | 434 | 9 | A | 433 | 8 | A |
| | West | Maison Dieu Rd (S) | 177 | 2 | A | 182 | 3 | A | 182 | 3 | A |
| | | New England Hwy (W) | 16 | 2 | A | 16 | 2 | A | 16 | 2 | A |
| | Total | | 9 | A | | 9 | A | | 8 | A | |

From 8:30:00 to 9:30:00

4

| | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 166 | 333 | F | 177 | 135 | F | 259 | 444 | F | 170 | 50 | D | 187 | 58 | E |
| | East | New England Hwy (E) | 1002 | 56 | D | 1073 | 45 | D | 443 | 41 | C | 414 | 34 | C | 444 | 36 | C |
| | South | Bridgman Rd (S) | 400 | 41 | C | 305 | 56 | D | 175 | 45 | D | 139 | 46 | D | 132 | 46 | D |
| | West | New England Hwy (W) | 861 | 215 | F | 901 | 143 | F | 637 | 30 | C | 698 | 28 | C | 685 | 28 | C |
| | Total | | 129 | F | | 88 | F | | 106 | F | | 34 | C | | 36 | C | |
| New England Hwy & White Ave | North | White Ave | 310 | 59 | E | 312 | 49 | D | 315 | 10 | A | 311 | 9 | A | 311 | 9 | A |
| | East | New England Hwy (E) | 924 | 6 | A | 886 | 11 | A | 465 | 3 | A | 398 | 4 | A | 409 | 4 | A |
| | West | New England Hwy (W) | 723 | 35 | C | 744 | 16 | B | 573 | 1 | A | 624 | 1 | A | 609 | 1 | A |
| | Total | | 59 | E | | 49 | D | | 10 | A | | 9 | A | | 9 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 1011 | 1 | A | 961 | 1 | A | 627 | 1 | A | 554 | 1 | A | 565 | 1 | A |
| | South | Simpson Tce | 27 | 73 | F | 29 | 23 | B | 27 | 7 | A | 29 | 7 | A | 29 | 7 | A |
| | West | New England Hwy (W) | 721 | 43 | D | 734 | 18 | B | 577 | 1 | A | 626 | 1 | A | 609 | 1 | A |
| | Total | | 73 | F | | 23 | B | | 7 | A | | 7 | A | | 7 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 771 | 2 | A | 750 | 2 | A | 431 | 3 | A | 416 | 3 | A | 422 | 3 | A |
| | | | 229 | 3 | A | 215 | 3 | A | | | | | | A | | | A |
| | South | Maison Dieu Rd | 139 | 117 | F | 152 | 77 | F | 468 | 11 | A | 521 | 12 | A | 501 | 13 | A |
| | | | 36 | 86 | F | 39 | 50 | D | 196 | 4 | A | 192 | 5 | A | 191 | 5 | A |
| | West | New England Hwy (W) | 610 | 44 | D | 601 | 6 | A | 22 | 3 | A | 20 | 4 | A | 20 | 4 | A |
| | Total | | 117 | F | | 77 | F | | 11 | A | | 12 | A | | 13 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1005 | 9 | A | 1027 | 3 | A | 647 | 5 | A | 734 | 4 | A | 729 | 4 | A |
| | East | Howe St | 88 | 193 | F | 120 | 99 | F | 129 | 44 | D | 119 | 34 | C | 129 | 33 | C |
| | South | New England Hwy (S) | 717 | 118 | F | 669 | 145 | F | 316 | 9 | A | 288 | 8 | A | 289 | 11 | A |
| | West | Orchard Ave | 27 | 103 | F | 30 | 106 | F | 15 | 37 | C | 12 | 30 | C | 13 | 29 | C |
| | Total | | 61 | E | | 62 | E | | 11 | A | | 9 | A | | 9 | A | |
| New England Hwy & York St | North | New England Hwy (N) | 845 | 21 | B | 954 | 16 | B | 577 | 11 | A | 683 | 11 | A | 695 | 11 | A |
| | East | Boundary St | 288 | 70 | F | 237 | 54 | D | 203 | 35 | C | 211 | 33 | C | 222 | 38 | C |
| | South | New England Hwy (S) | 750 | 28 | C | 721 | 28 | C | 401 | 13 | A | 371 | 13 | A | 375 | 13 | A |
| | West | York St | 340 | 54 | D | 301 | 89 | F | 311 | 52 | D | 263 | 37 | C | 213 | 36 | C |
| | Total | | 35 | C | | 34 | C | | 23 | B | | 19 | B | | 19 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 982 | 17 | B | 1131 | 3 | A | 639 | 1 | A | 791 | 3 | A | 801 | 3 | A |
| | East | Market St | 49 | 22 | B | 58 | 20 | B | 40 | 11 | A | 41 | 14 | A | 42 | 11 | A |
| | South | New England Hwy (S) | 727 | 5 | A | 675 | 4 | A | 306 | 2 | A | 279 | 2 | A | 297 | 2 | A |
| | West | Elizabeth St | 12 | 66 | E | 15 | 33 | C | 5 | 6 | A | 13 | 14 | B | 19 | 4 | A |
| | Total | | 66 | E | | 33 | C | | 11 | A | | 14 | B | | 11 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1074 | 59 | E | 1131 | 20 | B | 588 | 2 | A | 845 | 5 | A | 834 | 4 | A |
| | East | Campbell St (E) | 19 | 85 | F | 46 | 253 | F | 74 | 42 | D | 51 | 44 | D | 51 | 85 | F |
| | South | New England Hwy (S) | 739 | 7 | A | 716 | 6 | A | 309 | 2 | A | 282 | 4 | A | 265 | 4 | A |
| | West | Campbell St (W) | 25 | 124 | F | 17 | 89 | F | 24 | 21 | B | 25 | 30 | C | 29 | 46 | D |
| | | | 339 | 7 | A | 429 | 3 | A | 209 | 1 | A | 199 | 1 | A | 263 | 4 | A |
| | Total | | 124 | F | | 253 | F | | 42 | D | | 44 | D | | 85 | F | |
| John St & Newton St * | North | John St (N) | 774 | 80 | F | 723 | 68 | E | 571 | 3 | A | 606 | 3 | A | 636 | 3 | A |
| | East | Campbell St | 108 | 39 | C | 128 | 24 | B | 108 | 2 | A | 110 | 1 | A | 110 | 2 | A |
| | South | John St (S) | 458 | 11 | A | 484 | 9 | A | 299 | 2 | A | 285 | 1 | A | 293 | 1 | A |
| | West | Newton St | 302 | 5 | A | 320 | 3 | A | 138 | 1 | A | 119 | 1 | A | 132 | 1 | A |
| | Total | | 80 | F | | 68 | E | | 3 | A | | 3 | A | | 3 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 777 | 61 | E | 745 | 54 | D | 473 | 15 | B | 517 | 12 | A | 507 | 13 | A |
| | East | Hunter St | 13 | 25 | B | 19 | 33 | C | 4 | 34 | C | 7 | 29 | C | 13 | 27 | B |
| | South | John St (S) | 147 | 39 | C | 193 | 114 | F | 134 | 36 | C | 117 | 34 | C | 128 | 36 | C |
| | West | Ryan Ave | 370 | 12 | A | 336 | 11 | A | 199 | 11 | A | 208 | 12 | A | 190 | 11 | A |
| | Total | | 44 | D | | 51 | D | | 18 | B | | 15 | B | | 16 | B | |
| Putty Rd & Ryan Ave | North | John St (N) | 177 | 15 | B | 189 | 16 | B | 170 | 17 | B | 195 | 16 | B | 162 | 16 | B |
| | East | Ryan Ave (E) | 409 | 13 | A | 355 | 12 | A | 271 | 12 | A | 385 | 13 | A | 264 | 12 | A |
| | South | John St (S) | 216 | 11 | A | 218 | 11 | A | 355 | 10 | A | 270 | 10 | A | 367 | 10 | A |
| | West | Ryan Ave (W) | 162 | 45 | D | 157 | 27 | B | 135 | 19 | B | 137 | 23 | B | 175 | 25 | B |
| | Total | | 18 | B | | 15 | B | | 13 | A | | 14 | A | | 14 | B | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 474 | 11 | A | 430 | 9 | A | 426 | 0 | A | 416 | 0 | A | 458 | 0 | A |
| | South | New England Hwy (S) | 443 | 57 | E | 425 | 36 | C | 342 | 11 | A | 348 | 10 | A | 347 | 12 | A |
| | West | Queen St (W) | 206 | 0 | A | 198 | 0 | A | 191 | 0 | A | 199 | 0 | A | 192 | 0 | A |
| | Total | | 57 | E | | 36 | C | | 11 | A | | 10 | A | | 12 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 490 | 7 | A | 483 | 7 | A | 25 | 27 | B | 24 | 27 | B | 24 | 27 | B |
| | South | New England Hwy (S) | 816 | 20 | B | 802 | 19 | B | 476 | 12 | A | 474 | 23 | B | 478 | 16 | B |
| | West | Magpie St | 166 | 28 | B | 162 | 29 | C | 166 | 29 | C | 161 | 31 | C | 161 | 30 | C |
| | Total | | 16 | B | | 16 | B | | 17 | B | | 25 | B | | 20 | B | |

Bypass Ramps

| | | | | | | | | | | | |
|-------------------------|-------|---------------------|-----|----|---|-----|----|---|-----|----|---|
| F | North | Putty Road (N) | 385 | 2 | A | 429 | 3 | A | 408 | 2 | A |
| | South | Putty Road (S) | 308 | 1 | A | 218 | 2 | A | 317 | 1 | A |
| | West | Off-Ramp (W) | 308 | 20 | B | 256 | 16 | B | 258 | 17 | B |
| Total | | | 20 | B | | 16 | B | | 17 | B | |
| Gowrie Gates Roundabout | East | New England Hwy (E) | 431 | 3 | A | 416 | 3 | A | 422 | 3 | A |
| | South | Bypass (S) | 468 | 11 | A | 521 | 12 | A | 501 | 13 | A |
| | | Maison Dieu Rd (S) | 196 | 4 | A | 192 | 5 | A | 191 | 5 | A |
| | West | New England Hwy (W) | 22 | 3 | A | 20 | 4 | A | 20 | 4 | A |
| | Total | | 11 | A | | 12 | A | | 13 | A | |

From to
15:00:00 16:00:00 1

| | | | | 15:00 - 16:00 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|----------------------------------|-----------|---------------------|---------------|-----------|------|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|-----|---|---|-----|---|---|-----|---|---|--|
| | | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | | | | | | | | | | | |
| Intersection | | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | | | | | | | | | | |
| 2 | New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 117 | 70 | F | 77 | 76 | F | 156 | 40 | C | 87 | 86 | F | 87 | 94 | F | | | | | | | | | | |
| | | East | New England Hwy (E) | 1181 | 90 | F | 1155 | 121 | F | 659 | 53 | D | 615 | 52 | D | 658 | 72 | F | | | | | | | | | | |
| | | South | Bridgman Rd (S) | 339 | 70 | E | 271 | 84 | F | 93 | 38 | C | 113 | 59 | E | 43 | 38 | C | | | | | | | | | | |
| | | West | New England Hwy (W) | 1396 | 147 | F | 1364 | 155 | F | 992 | 36 | C | 978 | 36 | C | 999 | 38 | C | | | | | | | | | | |
| | | Total | | | 113 | F | | 133 | F | | 42 | D | | 45 | D | | 53 | D | | | | | | | | | | |
| 3 | New England Hwy & White Ave | North | White Ave | 249 | 233 | F | 243 | 318 | F | 260 | 32 | C | 269 | 33 | C | 269 | 43 | D | | | | | | | | | | |
| | | East | New England Hwy (E) | 735 | 11 | A | 700 | 14 | A | 291 | 4 | A | 251 | 5 | A | 249 | 6 | A | | | | | | | | | | |
| | | West | New England Hwy (W) | 1399 | 23 | B | 1380 | 26 | B | 1122 | 1 | A | 1097 | 1 | A | 1120 | 1 | A | | | | | | | | | | |
| | | Total | | | 233 | F | | 318 | F | | 32 | C | | 33 | C | | 43 | D | | | | | | | | | | |
| 4 | New England Hwy & Simpson Tce | East | New England Hwy (E) | 692 | 1 | A | 674 | 1 | A | 410 | 1 | A | 384 | 1 | A | 383 | 1 | A | | | | | | | | | | |
| | | South | Simpson Tce | 58 | 27 | B | 58 | 44 | D | 57 | 8 | A | 59 | 8 | A | 59 | 7 | A | | | | | | | | | | |
| | | West | New England Hwy (W) | 1478 | 31 | C | 1460 | 36 | C | 1283 | 3 | A | 1269 | 2 | A | 1291 | 2 | A | | | | | | | | | | |
| | | Total | | | 31 | C | | 44 | D | | 8 | A | | 8 | A | | 7 | A | | | | | | | | | | |
| 5 | New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 507 | 2 | A | 485 | 2 | A | 262 | 2 | A | 252 | 2 | A | 255 | 2 | A | | | | | | | | | | |
| | | South | Maison Dieu Rd | 174 | 3 | A | 172 | 2 | A | A | A | A | A | A | A | A | A | A | | | | | | | | | | |
| | | | | 125 | 839 | F | 107 | 1057 | F | | | | | | | | | | 550 | 9 | A | 550 | 9 | A | 570 | 9 | A | |
| | | | | 21 | 779 | F | 11 | 977 | F | | | | | | | | | | 254 | 4 | A | 252 | 4 | A | 251 | 4 | A | |
| | | West | New England Hwy (W) | 1423 | 33 | C | 1417 | 40 | C | 47 | 5 | A | 50 | 5 | A | 50 | 5 | A | | | | | | | | | | |
| Total | | | 839 | F | | 1057 | F | | 9 | A | | 9 | A | | 9 | A | | | | | | | | | | | | |
| 7 | New England Hwy & Howe St | North | New England Hwy (N) | 1167 | 19 | B | 1401 | 6 | A | 828 | 4 | A | 894 | 4 | A | 848 | 4 | A | | | | | | | | | | |
| | | East | Howe St | 201 | 97 | F | 171 | 65 | E | 259 | 39 | C | 225 | 39 | C | 247 | 40 | C | | | | | | | | | | |
| | | South | New England Hwy (S) | 747 | 87 | F | 639 | 132 | F | 276 | 9 | A | 286 | 9 | A | 255 | 10 | A | | | | | | | | | | |
| | | West | Orchard Ave | 191 | 38 | C | 79 | 40 | C | 35 | 30 | C | 52 | 33 | C | 50 | 31 | C | | | | | | | | | | |
| | | Total | | | 49 | D | | 46 | D | | 12 | A | | 12 | A | | 13 | A | | | | | | | | | | |
| 8 | New England Hwy & York St | North | New England Hwy (N) | 911 | 33 | C | 1212 | 17 | B | 677 | 12 | A | 744 | 13 | A | 700 | 12 | A | | | | | | | | | | |
| | | East | Boundary St | 332 | 175 | F | 222 | 107 | F | 170 | 38 | C | 145 | 33 | C | 167 | 33 | C | | | | | | | | | | |
| | | South | New England Hwy (S) | 888 | 19 | B | 772 | 20 | B | 428 | 15 | B | 455 | 16 | B | 413 | 15 | B | | | | | | | | | | |
| | | West | York St | 333 | 116 | F | 386 | 91 | F | 384 | 67 | E | 400 | 50 | D | 397 | 78 | F | | | | | | | | | | |
| | | Total | | | 58 | E | | 37 | C | | 28 | B | | 24 | B | | 30 | C | | | | | | | | | | |
| 9 | New England Hwy & Elizabeth St | North | New England Hwy (N) | 903 | 28 | B | 1153 | 3 | A | 628 | 5 | A | 685 | 4 | A | 679 | 4 | A | | | | | | | | | | |
| | | East | Market St | 17 | 40 | C | 32 | 19 | B | 30 | 11 | A | 28 | 11 | A | 46 | 8 | A | | | | | | | | | | |
| | | South | New England Hwy (S) | 875 | 13 | A | 824 | 14 | B | 446 | 7 | A | 460 | 7 | A | 439 | 7 | A | | | | | | | | | | |
| | | West | Elizabeth St | 26 | 47 | D | 46 | 23 | B | 56 | 6 | A | 50 | 7 | A | 72 | 7 | A | | | | | | | | | | |
| | | Total | | | 47 | D | | 23 | B | | 11 | A | | 11 | A | | 8 | A | | | | | | | | | | |
| 11 | New England Hwy & Campbell St | North | New England Hwy (N) | 1038 | 67 | E | 1169 | 14 | B | 590 | 3 | A | 675 | 4 | A | 639 | 3 | A | | | | | | | | | | |
| | | East | Campbell St (E) | 51 | 437 | F | 59 | 240 | F | 120 | 34 | C | 116 | 38 | C | 119 | 39 | C | | | | | | | | | | |
| | | South | New England Hwy (S) | 841 | 5 | A | 837 | 8 | A | 394 | 2 | A | 408 | 2 | A | 415 | 1 | A | | | | | | | | | | |
| | | West | Campbell St (W) | 41 | 111 | F | 16 | 112 | F | 90 | 26 | B | 88 | 36 | C | 83 | 31 | C | | | | | | | | | | |
| | | Total | | | 431 | 8 | A | 446 | 3 | A | 349 | 2 | A | 311 | 4 | A | 337 | 3 | A | | | | | | | | | |
| 12 | John St & Newton St * | North | John St (N) | 389 | 100 | F | 417 | 44 | D | 403 | 22 | B | 408 | 22 | B | 405 | 22 | B | | | | | | | | | | |
| | | East | Campbell St | 112 | 4 | A | 82 | 3 | A | 79 | 1 | A | 96 | 1 | A | 73 | 1 | A | | | | | | | | | | |
| | | South | John St (S) | 818 | 6 | A | 781 | 2 | A | 573 | 1 | A | 559 | 1 | A | 534 | 1 | A | | | | | | | | | | |
| | | West | Newton St | 514 | 12 | A | 411 | 8 | A | 265 | 3 | A | 215 | 2 | A | 218 | 2 | A | | | | | | | | | | |
| | | Total | | | 100 | F | | 44 | D | | 22 | B | | 22 | B | | 22 | B | | | | | | | | | | |
| 14 | John St & Ryan Ave & Hunter St | North | John St (N) | 699 | 34 | C | 586 | 17 | B | 407 | 6 | A | 391 | 6 | A | 390 | 7 | A | | | | | | | | | | |
| | | East | Hunter St | 19 | 38 | C | 23 | 40 | C | 22 | 37 | C | 15 | 38 | C | 15 | 38 | C | | | | | | | | | | |
| | | South | John St (S) | 364 | 110 | F | 350 | 123 | F | 165 | 32 | C | 218 | 32 | C | 245 | 40 | C | | | | | | | | | | |
| | | West | Ryan Ave | 524 | 45 | D | 549 | 34 | C | 465 | 13 | A | 406 | 13 | A | 353 | 12 | A | | | | | | | | | | |
| | | Total | | | 55 | D | | 48 | D | | 14 | A | | 15 | B | | 17 | B | | | | | | | | | | |
| 18 | Putty Rd & Ryan Ave | North | John St (N) | 154 | 10 | A | 142 | 9 | A | 119 | 10 | A | 157 | 10 | A | 147 | 10 | A | | | | | | | | | | |
| | | East | Ryan Ave (E) | 328 | 18 | B | 347 | 15 | B | 256 | 13 | A | 352 | 15 | B | 289 | 14 | B | | | | | | | | | | |
| | | South | John St (S) | 362 | 14 | A | 369 | 13 | A | 517 | 12 | A | 488 | 13 | A | 561 | 15 | B | | | | | | | | | | |
| | | West | Ryan Ave (W) | 308 | 14 | A | 243 | 12 | A | 298 | 20 | B | 282 | 21 | B | 295 | 21 | B | | | | | | | | | | |
| | | Total | | | 14 | B | | 13 | A | | 14 | B | | 15 | B | | 15 | B | | | | | | | | | | |
| 21 | Queen St & New England Hwy Ramp | East | Queen St (E) | 354 | 1 | A | 385 | 0 | A | 416 | 0 | A | 386 | 0 | A | 382 | 0 | A | | | | | | | | | | |
| | | South | New England Hwy (S) | 262 | 13 | A | 269 | 14 | A | 206 | 19 | B | 220 | 14 | B | 246 | 15 | B | | | | | | | | | | |
| | | West | Queen St (W) | 310 | 0 | A | 345 | 0 | A | 335 | 0 | A | 319 | 0 | A | 326 | 0 | A | | | | | | | | | | |
| | | Total | | | 13 | A | | 14 | A | | 19 | B | | 14 | B | | 15 | B | | | | | | | | | | |
| 33 | Magpie St & New England Hwy | North | New England Hwy (N) | 1247 | 12 | A | 1259 | 12 | A | 108 | 26 | B | 110 | 25 | B | 110 | 25 | B | | | | | | | | | | |
| | | South | New England Hwy (S) | 525 | 23 | B | 493 | 24 | B | 259 | 12 | A | 242 | 21 | B | 242 | 18 | B | | | | | | | | | | |
| | | West | Magpie St | 451 | 35 | C | 459 | 38 | C | 453 | 63 | E | 459 | 75 | F | 459 | 64 | E | | | | | | | | | | |
| | | Total | | | 19 | B | | 20 | B | | 42 | C | | 52 | D | | 45 | D | | | | | | | | | | |
| Bypass Ramps | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | Putty Road Northern Ramps | North | Putty Road (N) | | | | | | | 358 | 2 | A | 376 | 3 | A | 412 | 3 | A | | | | | | | | | | |
| | | South | Putty Road (S) | | | | | | | 390 | 2 | A | 369 | 5 | A | 437 | 2 | A | | | | | | | | | | |
| | | West | Off-Ramp (W) | | | | | | | 443 | 10 | A | 434 | 12 | A | 429 | 16 | B | | | | | | | | | | |
| | | Total | | | | | | | | | 10 | A | | 12 | A | | 16 | B | | | | | | | | | | |
| 35 | Gowrie Gates Roundabout | East | New England Hwy (E) | | | | | | | 262 | 2 | A | 252 | 2 | A | 255 | 2 | A | | | | | | | | | | |
| | | South | Bypass (S) | | | | | | | 550 | 9 | A | 550 | 9 | A | 570 | 9 | A | | | | | | | | | | |
| | | West | Maison Dieu Rd (S) | | | | | | | 254 | 4 | A | 252 | 4 | A | 251 | 4 | A | | | | | | | | | | |
| | | | | | | | | | | 47 | 5 | A | 50 | 5 | A | 50 | 5 | A | | | | | | | | | | |
| | | Total | New England Hwy (W) | | | | | | | | 9 | A | | 9 | A | | 9 | A | | | | | | | | | | |

From 16:00:00 to 17:00:00 2

| 16:00 - 17:00 | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|-----------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 82 | 282 | F | 88 | 140 | F | 244 | 99 | F | 96 | 127 | F | 82 | 124 | F |
| | East | New England Hwy (E) | 1329 | 87 | F | 1308 | 234 | F | 760 | 57 | E | 708 | 65 | E | 735 | 80 | F |
| | South | Bridgman Rd (S) | 445 | 57 | E | 358 | 300 | F | 48 | 40 | C | 78 | 56 | E | 47 | 52 | D |
| | West | New England Hwy (W) | 1287 | 201 | F | 1308 | 188 | F | 953 | 39 | C | 1023 | 54 | D | 1021 | 48 | D |
| | Total | | 135 | F | | 220 | F | | 53 | D | | 62 | E | | 64 | E | |
| New England Hwy & White Ave | North | White Ave | 131 | 102 | F | 145 | 174 | F | 125 | 10 | A | 122 | 14 | A | 123 | 14 | A |
| | East | New England Hwy (E) | 817 | 9 | A | 808 | 15 | B | 267 | 4 | A | 256 | 4 | A | 240 | 4 | A |
| | West | New England Hwy (W) | 1289 | 39 | C | 1304 | 36 | C | 1088 | 1 | A | 1181 | 1 | A | 1194 | 1 | A |
| | Total | | 102 | F | | 174 | F | | 10 | A | | 14 | A | | 14 | A | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 749 | 1 | A | 756 | 1 | A | 289 | 1 | A | 276 | 1 | A | 277 | 1 | A |
| | South | Simpson Tce | 45 | 44 | D | 52 | 56 | E | 44 | 6 | A | 51 | 7 | A | 51 | 7 | A |
| | West | New England Hwy (W) | 1355 | 61 | E | 1366 | 58 | E | 1217 | 2 | A | 1305 | 2 | A | 1320 | 2 | A |
| | Total | | 61 | E | | 58 | E | | 6 | A | | 7 | A | | 7 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 558 | 2 | A | 559 | 2 | A | 249 | 2 | A | 266 | 2 | A | 269 | 2 | A |
| | South | Maison Dieu Rd | 188 | 3 | A | 194 | 2 | A | 638 | 9 | A | 702 | 11 | A | 709 | 10 | A |
| | | | 79 | 1651 | F | 59 | 2137 | F | | | | | | | | | |
| | | | 10 | 1555 | F | 11 | 2021 | F | | | | | | | | | |
| | West | New England Hwy (W) | 1294 | 86 | F | 1323 | 81 | F | 17 | 4 | A | 17 | 6 | A | 17 | 6 | A |
| | Total | | 1651 | F | | 2137 | F | | 9 | A | | 11 | A | | 10 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1312 | 17 | B | 1508 | 3 | A | 845 | 3 | A | 826 | 3 | A | 795 | 3 | A |
| | East | Howe St | 155 | 184 | F | 89 | 111 | F | 221 | 56 | D | 178 | 49 | D | 174 | 50 | D |
| | South | New England Hwy (S) | 818 | 72 | F | 810 | 102 | F | 289 | 7 | A | 314 | 6 | A | 281 | 6 | A |
| | West | Orchard Ave | 190 | 49 | D | 100 | 72 | F | 30 | 31 | C | 43 | 39 | C | 47 | 38 | C |
| | Total | | 48 | D | | 41 | C | | 13 | A | | 11 | A | | 11 | A | |
| New England Hwy & York St | North | New England Hwy (N) | 1026 | 29 | C | 1278 | 12 | A | 637 | 9 | A | 667 | 10 | A | 640 | 9 | A |
| | East | Boundary St | 261 | 157 | F | 166 | 57 | E | 104 | 40 | C | 80 | 35 | C | 127 | 40 | C |
| | South | New England Hwy (S) | 927 | 15 | B | 927 | 20 | B | 437 | 11 | A | 459 | 12 | A | 416 | 12 | A |
| | West | York St | 295 | 228 | F | 382 | 145 | F | 446 | 128 | F | 367 | 51 | D | 332 | 46 | D |
| | Total | | 61 | E | | 36 | C | | 44 | D | | 21 | B | | 21 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 949 | 25 | B | 1197 | 2 | A | 607 | 1 | A | 601 | 1 | A | 626 | 1 | A |
| | East | Market St | 10 | 31 | C | 22 | 23 | B | 18 | 7 | A | 20 | 9 | A | 23 | 9 | A |
| | South | New England Hwy (S) | 862 | 7 | A | 878 | 11 | A | 438 | 1 | A | 429 | 2 | A | 416 | 1 | A |
| | West | Elizabeth St | 50 | 21 | B | 42 | 32 | C | 65 | 4 | A | 85 | 7 | A | 82 | 6 | A |
| | Total | | 31 | C | | 32 | C | | 7 | A | | 9 | A | | 9 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1066 | 71 | F | 1275 | 16 | B | 614 | 3 | A | 631 | 3 | A | 589 | 2 | A |
| | East | Campbell St (E) | 30 | 138 | F | 43 | 344 | F | 150 | 29 | C | 119 | 28 | B | 148 | 29 | C |
| | South | New England Hwy (S) | 843 | 6 | A | 841 | 13 | A | 390 | 1 | A | 370 | 2 | A | 349 | 2 | A |
| | West | Campbell St (W) | 7 | 48 | D | 8 | 115 | F | 39 | 18 | B | 25 | 19 | B | 41 | 20 | B |
| | Total | | 546 | 2 | A | 550 | 5 | A | 456 | 1 | A | 395 | 1 | A | 430 | 1 | A |
| John St & Newton St * | North | John St (N) | 552 | 77 | F | 533 | 28 | C | 347 | 4 | A | 523 | 4 | A | 560 | 4 | A |
| | East | Campbell St | 111 | 4 | A | 148 | 4 | A | 118 | 1 | A | 112 | 1 | A | 102 | 1 | A |
| | South | John St (S) | 906 | 6 | A | 860 | 7 | A | 631 | 1 | A | 603 | 1 | A | 571 | 1 | A |
| | West | Newton St | 407 | 11 | A | 301 | 7 | A | 259 | 4 | A | 127 | 2 | A | 146 | 2 | A |
| | Total | | 77 | F | | 28 | C | | 4 | A | | 4 | A | | 4 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 674 | 16 | B | 607 | 16 | B | 388 | 5 | A | 458 | 6 | A | 451 | 6 | A |
| | East | Hunter St | 18 | 37 | C | 19 | 36 | C | 13 | 40 | C | 15 | 34 | C | 18 | 37 | C |
| | South | John St (S) | 347 | 127 | F | 336 | 267 | F | 149 | 28 | C | 213 | 36 | C | 259 | 41 | C |
| | West | Ryan Ave | 637 | 74 | F | 668 | 34 | C | 542 | 12 | A | 481 | 12 | A | 406 | 11 | A |
| | Total | | 61 | E | | 75 | F | | 12 | A | | 14 | B | | 16 | B | |
| Putty Rd & Ryan Ave | North | John St (N) | 113 | 9 | A | 137 | 9 | A | 108 | 10 | A | 120 | 8 | A | 162 | 9 | A |
| | East | Ryan Ave (E) | 311 | 14 | A | 310 | 13 | A | 251 | 12 | A | 282 | 12 | A | 276 | 12 | A |
| | South | John St (S) | 484 | 16 | B | 480 | 16 | B | 404 | 11 | A | 392 | 12 | A | 441 | 13 | A |
| | West | Ryan Ave (W) | 358 | 15 | B | 261 | 14 | A | 321 | 17 | B | 324 | 17 | B | 348 | 24 | B |
| | Total | | 14 | B | | 14 | B | | 13 | A | | 13 | A | | 15 | B | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 472 | 5 | A | 456 | 0 | A | 364 | 0 | A | 387 | 0 | A | 382 | 0 | A |
| | South | New England Hwy (S) | 369 | 30 | C | 354 | 11 | A | 202 | 15 | B | 413 | 11 | A | 461 | 11 | A |
| | West | Queen St (W) | 307 | 0 | A | 258 | 0 | A | 318 | 0 | A | 300 | 0 | A | 291 | 0 | A |
| | Total | | 30 | C | | 11 | A | | 15 | B | | 11 | A | | 11 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 1092 | 301 | F | 1102 | 323 | F | 136 | 25 | B | 149 | 25 | B | 149 | 26 | B |
| | South | New England Hwy (S) | 566 | 27 | B | 568 | 30 | C | 285 | 14 | B | 288 | 21 | B | 288 | 17 | B |
| | West | Magpie St | 389 | 99 | F | 390 | 71 | F | 393 | 29 | C | 396 | 29 | C | 396 | 28 | B |
| | Total | | 187 | F | | 195 | F | | 23 | B | | 26 | B | | 24 | B | |

Bypass Ramps

| | | | | | | | | | | | |
|---------------------------|-------|---------------------|-----|----|---|-----|----|---|-----|----|---|
| Putty Road Northern Ramps | North | Putty Road (N) | 371 | 3 | A | 417 | 5 | A | 510 | 3 | A |
| | South | Putty Road (S) | 496 | 3 | A | 480 | 7 | A | 523 | 3 | A |
| | West | Off-Ramp (W) | 300 | 12 | A | 288 | 13 | A | 281 | 17 | B |
| Total | | | 12 | A | | 13 | A | | 17 | B | |
| Gowrie Gates Roundabout | East | New England Hwy (E) | 249 | 2 | A | 266 | 2 | A | 269 | 2 | A |
| | South | Bypass (S) | 638 | 9 | A | 702 | 11 | A | 709 | 10 | A |
| | West | Maison Dieu Rd (S) | 247 | 5 | A | 243 | 7 | A | 243 | 7 | A |
| | | New England Hwy (W) | 17 | 4 | A | 17 | 6 | A | 17 | 6 | A |
| | Total | | 9 | A | | 11 | A | | 10 | A | |

From 17:00:00 to 18:00:00 3

| | | | 17:00 - 18:00 | | | | | | | | | | | | | | |
|----------------------------------|-----------|---------------------|---------------|-----------|-----|---------------|-----------|-----|-------------|-----------|-----|---------------------|-----------|-----|------------------------|-----------|-----|
| | | | 2046 Base | | | 2046 Option 5 | | | 2046 Bypass | | | 2046 Bypass Without | | | 2046 Bypass With Ramps | | |
| Intersection | Direction | Street | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS | Flow | Ave Delay | LOS |
| New England Hwy & Bridgman Rd | North | Bridgman Rd (N) | 131 | 230 | F | 75 | 86 | F | 250 | 67 | E | 91 | 88 | F | 94 | 103 | F |
| | East | New England Hwy (E) | 1295 | 155 | F | 1331 | 272 | F | 839 | 84 | F | 561 | 55 | D | 558 | 69 | E |
| | South | Bridgman Rd (S) | 542 | 60 | E | 412 | 437 | F | 121 | 43 | D | 272 | 53 | D | 272 | 58 | E |
| | West | New England Hwy (W) | 1197 | 224 | F | 1344 | 181 | F | 854 | 45 | D | 1010 | 43 | D | 997 | 48 | D |
| | Total | | 168 | F | | 250 | F | | 63 | E | | 50 | D | | 58 | E | |
| New England Hwy & White Ave | North | White Ave | 188 | 75 | F | 191 | 156 | F | 182 | 11 | A | 195 | 16 | B | 194 | 17 | B |
| | East | New England Hwy (E) | 963 | 6 | A | 895 | 16 | B | 331 | 3 | A | 291 | 5 | A | 278 | 4 | A |
| | West | New England Hwy (W) | 1211 | 44 | D | 1357 | 34 | C | 1070 | 1 | A | 1174 | 1 | A | 1203 | 1 | A |
| | Total | | 75 | F | | 156 | F | | 11 | A | | 16 | B | | 17 | B | |
| New England Hwy & Simpson Tce | East | New England Hwy (E) | 909 | 1 | A | 856 | 1 | A | 404 | 1 | A | 362 | 1 | A | 362 | 1 | A |
| | South | Simpson Tce | 75 | 104 | F | 67 | 212 | F | 78 | 10 | A | 74 | 12 | A | 73 | 11 | A |
| | West | New England Hwy (W) | 1241 | 74 | F | 1379 | 57 | E | 1118 | 2 | A | 1219 | 2 | A | 1247 | 2 | A |
| | Total | | 104 | F | | 212 | F | | 10 | A | | 12 | A | | 11 | A | |
| New England Hwy & Maison Dieu Rd | East | New England Hwy (E) | 749 | 2 | A | 692 | 1 | A | 334 | 2 | A | 320 | 2 | A | 320 | 2 | A |
| | South | Maison Dieu Rd | 163 | 2 | A | 160 | 2 | A | 478 | 9 | A | 553 | 9 | A | 581 | 9 | A |
| | | | 69 | 2400 | F | 62 | 2589 | F | | | | | | | | | |
| | | | 5 | 2291 | F | 2 | 2468 | F | | | | | | | | | |
| | West | New England Hwy (W) | 1184 | 102 | F | 1336 | 77 | F | 31 | 4 | A | 31 | 5 | A | 31 | 5 | A |
| | Total | | 2400 | F | | 2589 | F | | 9 | A | | 9 | A | | 9 | A | |
| New England Hwy & Howe St | North | New England Hwy (N) | 1373 | 15 | B | 1554 | 3 | A | 886 | 3 | A | 872 | 3 | A | 844 | 3 | A |
| | East | Howe St | 98 | 74 | F | 118 | 178 | F | 192 | 46 | D | 186 | 51 | D | 176 | 51 | D |
| | South | New England Hwy (S) | 775 | 64 | E | 776 | 116 | F | 342 | 7 | A | 318 | 6 | A | 260 | 6 | A |
| | West | Orchard Ave | 235 | 100 | F | 131 | 50 | D | 38 | 26 | B | 39 | 34 | C | 42 | 35 | C |
| | Total | | 41 | C | | 47 | D | | 10 | A | | 11 | A | | 11 | A | |
| New England Hwy & York St | North | New England Hwy (N) | 1124 | 26 | B | 1342 | 13 | A | 697 | 9 | A | 721 | 10 | A | 654 | 9 | A |
| | East | Boundary St | 212 | 73 | F | 139 | 46 | D | 94 | 34 | C | 70 | 34 | C | 128 | 34 | C |
| | South | New England Hwy (S) | 951 | 16 | B | 931 | 22 | B | 485 | 10 | A | 450 | 10 | A | 392 | 10 | A |
| | West | York St | 316 | 244 | F | 383 | 147 | F | 407 | 102 | F | 362 | 53 | D | 303 | 62 | E |
| | Total | | 52 | D | | 36 | C | | 33 | C | | 21 | B | | 22 | B | |
| New England Hwy & Elizabeth St | North | New England Hwy (N) | 1054 | 22 | B | 1262 | 4 | A | 693 | 2 | A | 649 | 1 | A | 684 | 1 | A |
| | East | Market St | 20 | 39 | C | 34 | 30 | C | 28 | 10 | A | 28 | 8 | A | 29 | 10 | A |
| | South | New England Hwy (S) | 838 | 9 | A | 864 | 25 | B | 497 | 2 | A | 403 | 2 | A | 373 | 2 | A |
| | West | Elizabeth St | 38 | 39 | C | 26 | 35 | C | 48 | 4 | A | 51 | 4 | A | 53 | 7 | A |
| | Total | | 39 | C | | 35 | C | | 10 | A | | 8 | A | | 10 | A | |
| New England Hwy & Campbell St | North | New England Hwy (N) | 1175 | 71 | F | 1313 | 14 | B | 707 | 3 | A | 692 | 3 | A | 678 | 2 | A |
| | East | Campbell St (E) | 33 | 178 | F | 42 | 272 | F | 111 | 26 | B | 119 | 44 | D | 131 | 46 | D |
| | South | New England Hwy (S) | 842 | 13 | A | 851 | 27 | B | 442 | 2 | A | 342 | 2 | A | 304 | 2 | A |
| | West | Campbell St (W) | 9 | 50 | D | 12 | 134 | F | 45 | 28 | C | 53 | 32 | C | 53 | 27 | B |
| | Total | | 505 | 4 | A | 524 | 12 | A | 486 | 2 | A | 349 | 2 | A | 359 | 1 | A |
| John St & Newton St * | North | John St (N) | 554 | 25 | B | 559 | 24 | B | 353 | 6 | A | 472 | 4 | A | 479 | 5 | A |
| | East | Campbell St | 178 | 3 | A | 200 | 5 | A | 137 | 1 | A | 208 | 1 | A | 179 | 1 | A |
| | South | John St (S) | 931 | 13 | A | 830 | 20 | B | 767 | 2 | A | 712 | 4 | A | 718 | 4 | A |
| | West | Newton St | 365 | 9 | A | 286 | 7 | A | 238 | 5 | A | 130 | 3 | A | 137 | 3 | A |
| | Total | | 25 | B | | 24 | B | | 6 | A | | 4 | A | | 5 | A | |
| John St & Ryan Ave & Hunter St | North | John St (N) | 648 | 14 | B | 586 | 12 | A | 380 | 6 | A | 419 | 7 | A | 409 | 7 | A |
| | East | Hunter St | 14 | 41 | C | 29 | 35 | C | 17 | 34 | C | 12 | 33 | C | 20 | 33 | C |
| | South | John St (S) | 362 | 105 | F | 307 | 131 | F | 244 | 35 | C | 266 | 37 | C | 268 | 39 | C |
| | West | Ryan Ave | 648 | 195 | F | 688 | 158 | F | 582 | 14 | A | 513 | 12 | A | 523 | 13 | A |
| | Total | | 104 | F | | 97 | F | | 16 | B | | 16 | B | | 17 | B | |
| Putty Rd & Ryan Ave | North | John St (N) | 184 | 9 | A | 150 | 9 | A | 115 | 8 | A | 158 | 8 | A | 202 | 9 | A |
| | East | Ryan Ave (E) | 300 | 13 | A | 287 | 14 | A | 239 | 12 | A | 279 | 13 | A | 267 | 12 | A |
| | South | John St (S) | 348 | 13 | A | 372 | 13 | A | 347 | 11 | A | 331 | 11 | A | 377 | 12 | A |
| | West | Ryan Ave (W) | 250 | 12 | A | 270 | 13 | A | 316 | 22 | B | 343 | 20 | B | 324 | 22 | B |
| | Total | | 12 | A | | 13 | A | | 14 | B | | 14 | A | | 14 | B | |
| Queen St & New England Hwy Ramp | East | Queen St (E) | 478 | 0 | A | 440 | 0 | A | 372 | 0 | A | 342 | 0 | A | 363 | 0 | A |
| | South | New England Hwy (S) | 349 | 18 | B | 352 | 11 | A | 213 | 16 | B | 379 | 13 | A | 374 | 13 | A |
| | West | Queen St (W) | 357 | 0 | A | 276 | 0 | A | 348 | 0 | A | 314 | 0 | A | 315 | 0 | A |
| | Total | | 18 | B | | 11 | A | | 16 | B | | 13 | A | | 13 | A | |
| Magpie St & New England Hwy | North | New England Hwy (N) | 1004 | 510 | F | 1141 | 417 | F | 66 | 24 | B | 73 | 25 | B | 73 | 25 | B |
| | South | New England Hwy (S) | 735 | 22 | B | 673 | 23 | B | 303 | 12 | A | 285 | 18 | B | 285 | 16 | B |
| | West | Magpie St | 289 | 345 | F | 307 | 283 | F | 313 | 47 | D | 321 | 47 | D | 321 | 47 | D |
| | Total | | 310 | F | | 273 | F | | 29 | C | | 32 | C | | 32 | C | |

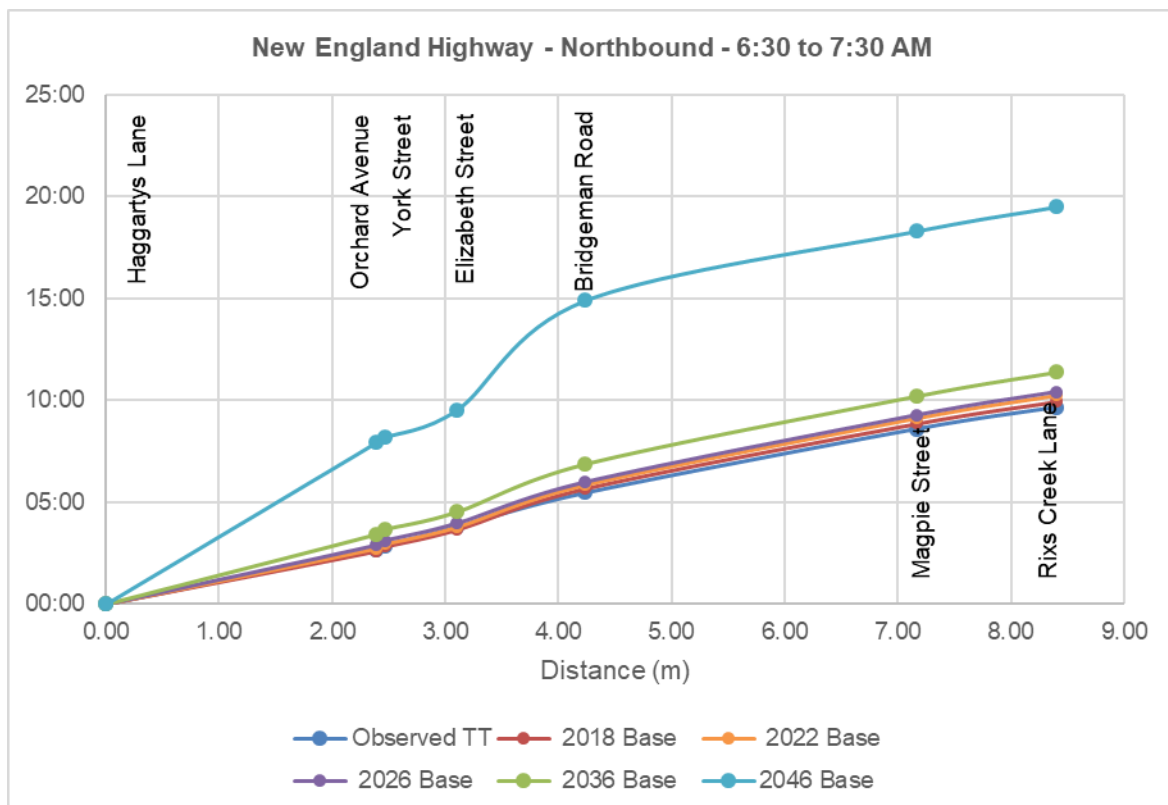
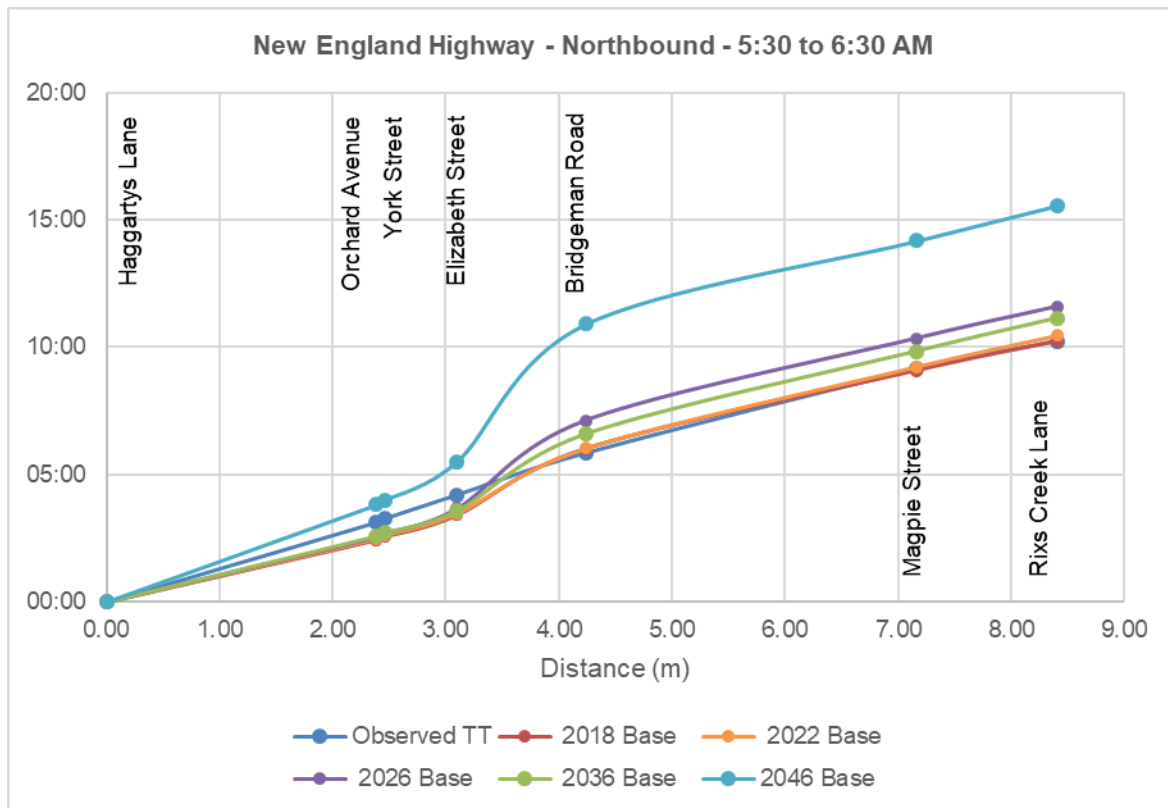
Bypass Ramps

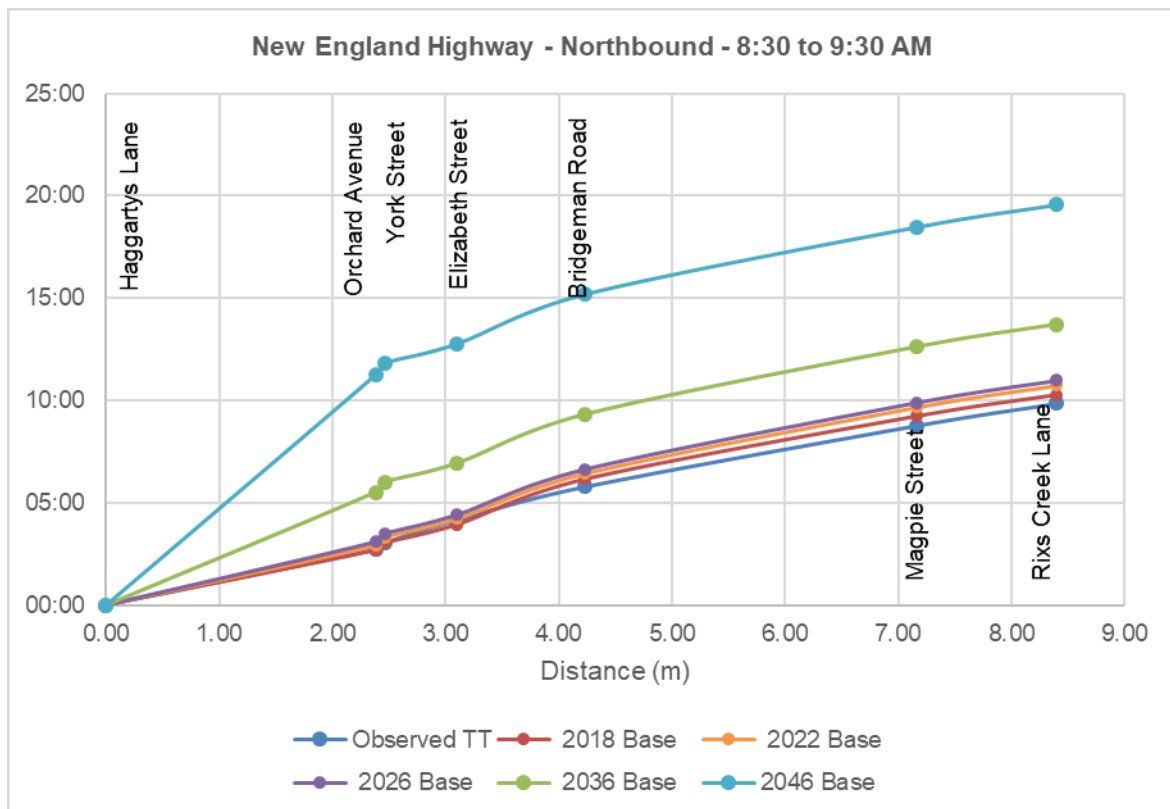
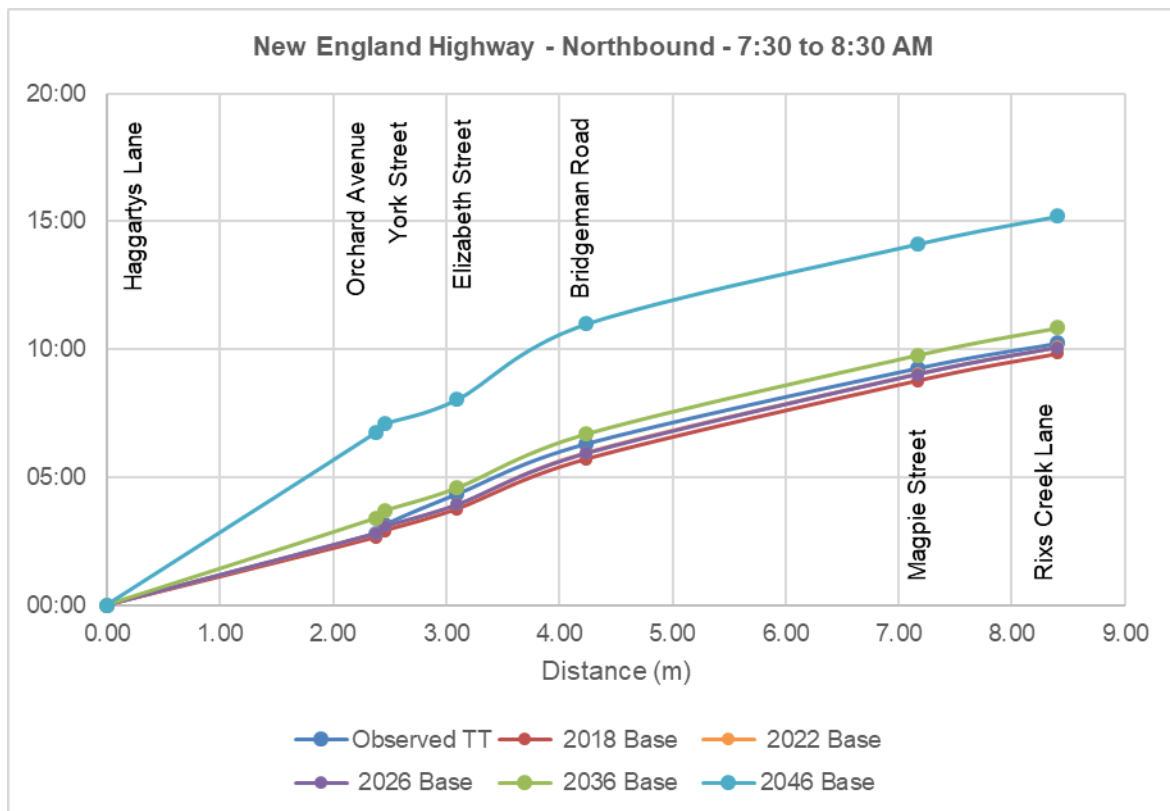
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|---------------------------|-------|---------------------|-----|----|---|-----|----|---|-----|----|---|
| Putty Road Northern Ramps | North | Putty Road (N) | 404 | 3 | A | 449 | 4 | A | 515 | 3 | A |
| | South | Putty Road (S) | 348 | 2 | A | 368 | 6 | A | 410 | 2 | A |
| | West | Off-Ramp (W) | 297 | 10 | A | 248 | 11 | A | 245 | 10 | A |
| Total | | | 10 | A | | 11 | A | | 10 | A | |
| Gowrie Gates Roundabout | East | New England Hwy (E) | 334 | 2 | A | 320 | 2 | A | 320 | 2 | A |
| | South | Bypass (S) | 478 | 9 | A | 553 | 9 | A | 581 | 9 | A |
| | West | Maison Dieu Rd (S) | 202 | 4 | A | 209 | 5 | A | 209 | 5 | A |
| | | New England Hwy (W) | 31 | 4 | A | 31 | 5 | A | 31 | 5 | A |
| | Total | | 9 | A | | 9 | A | | 9 | A | |

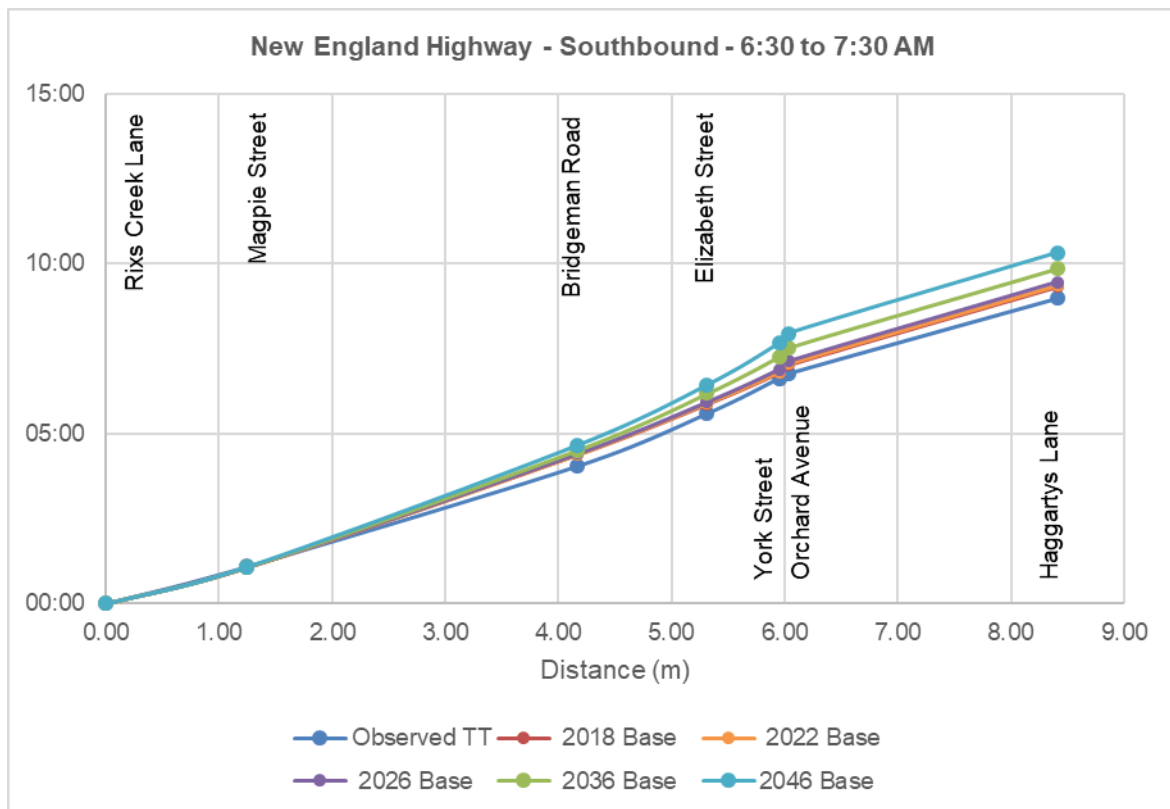
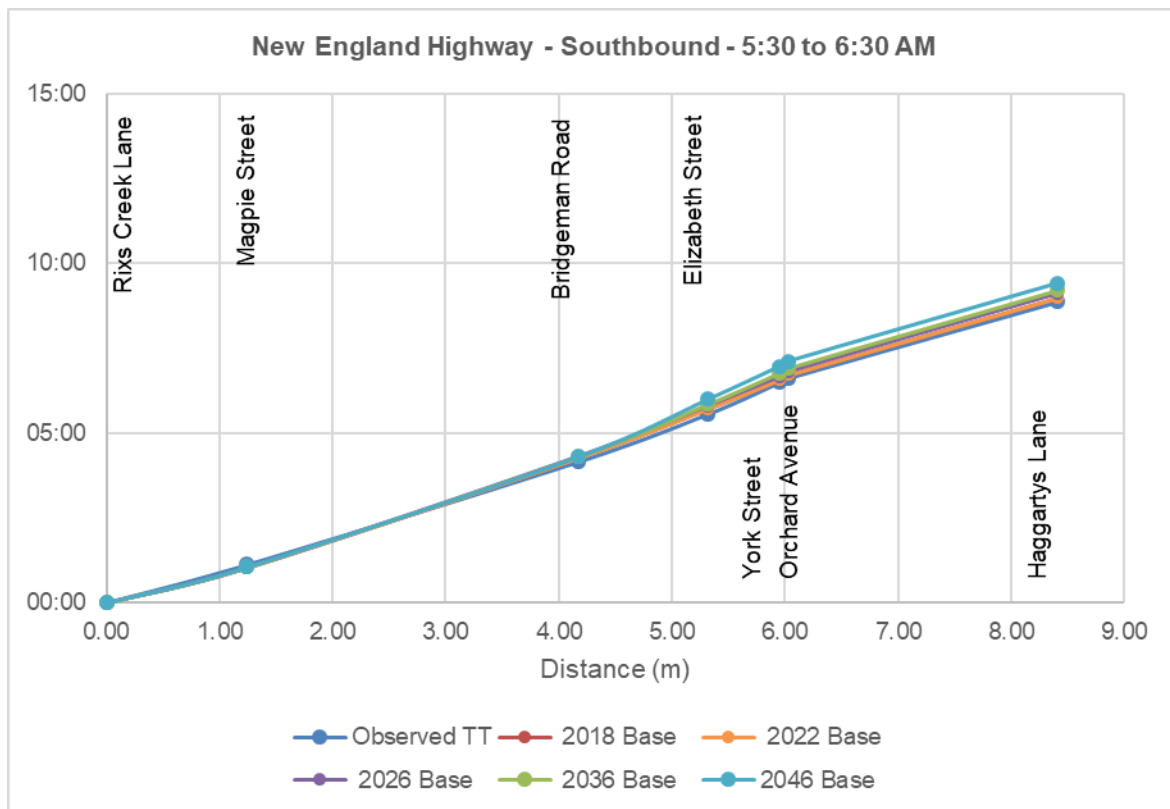
Appendix C

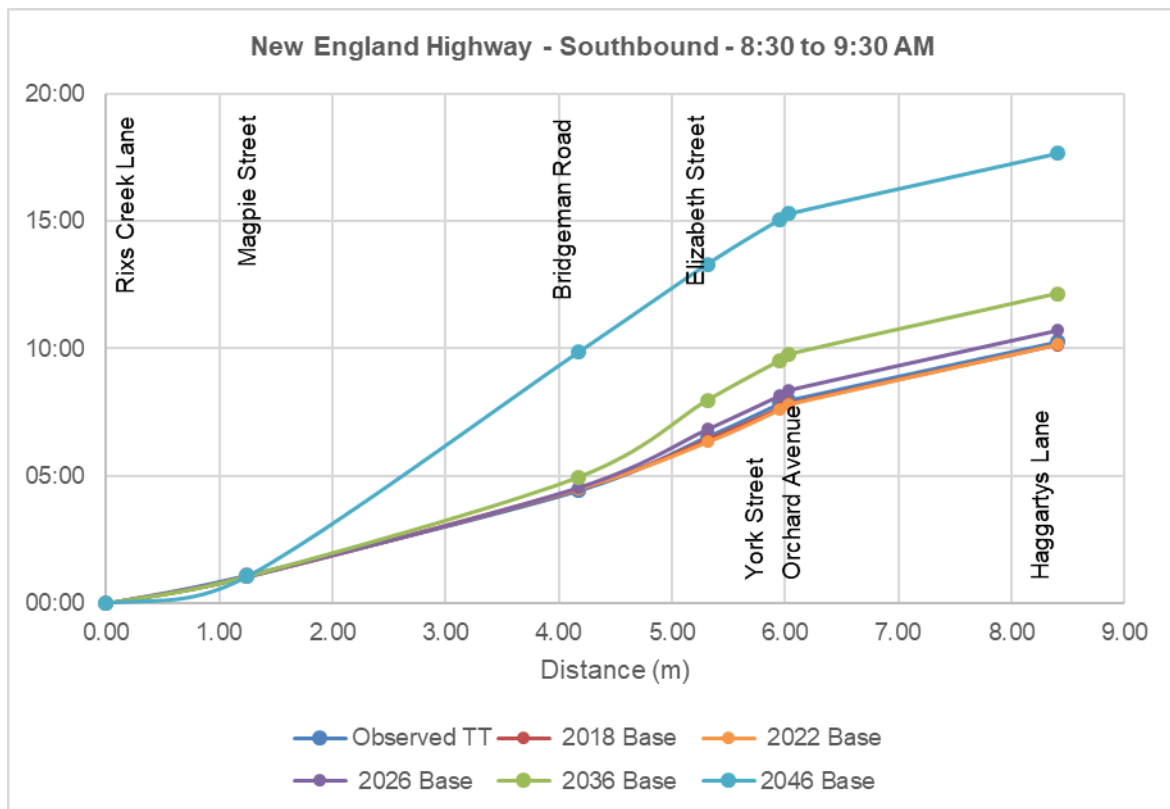
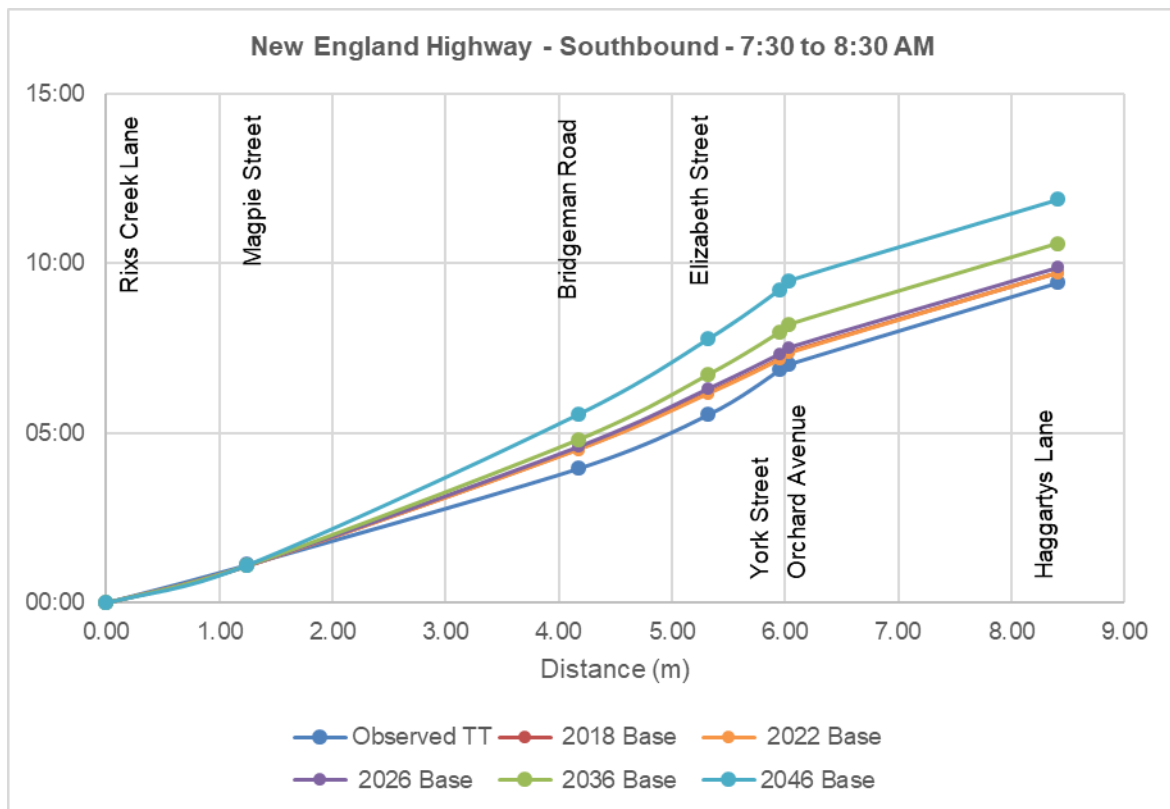
Travel Time Graphs

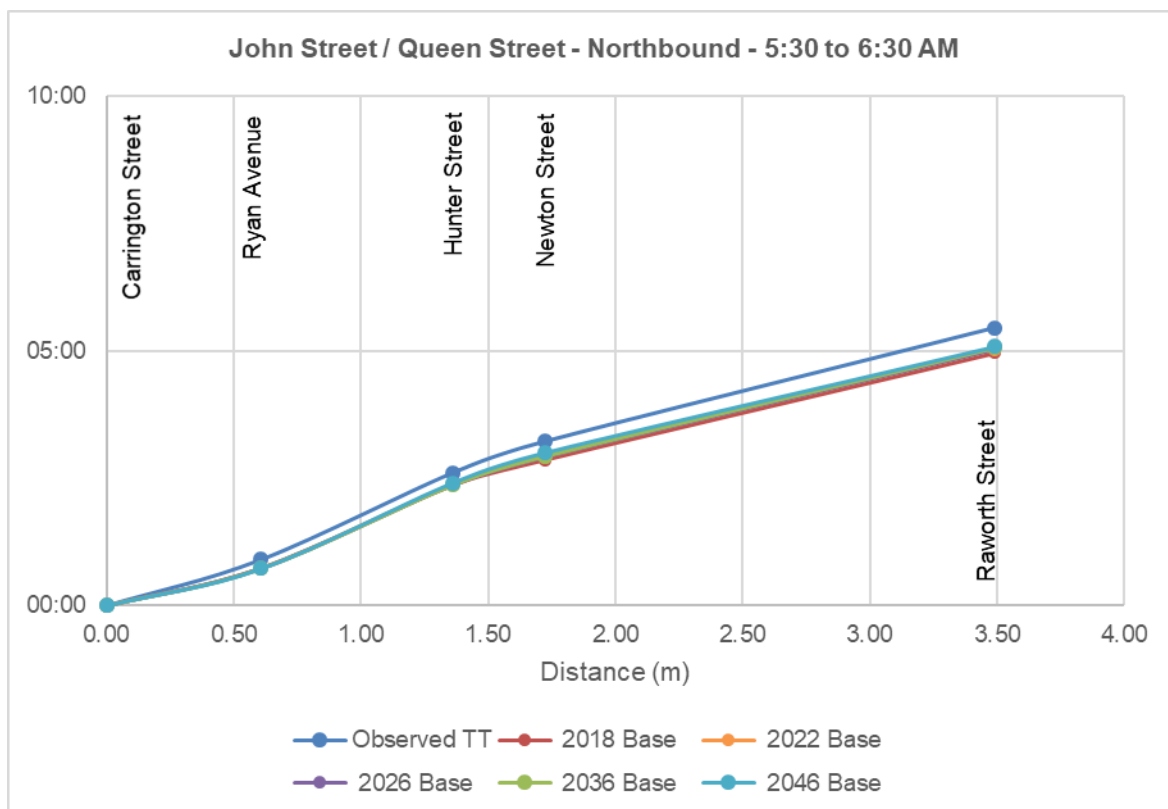
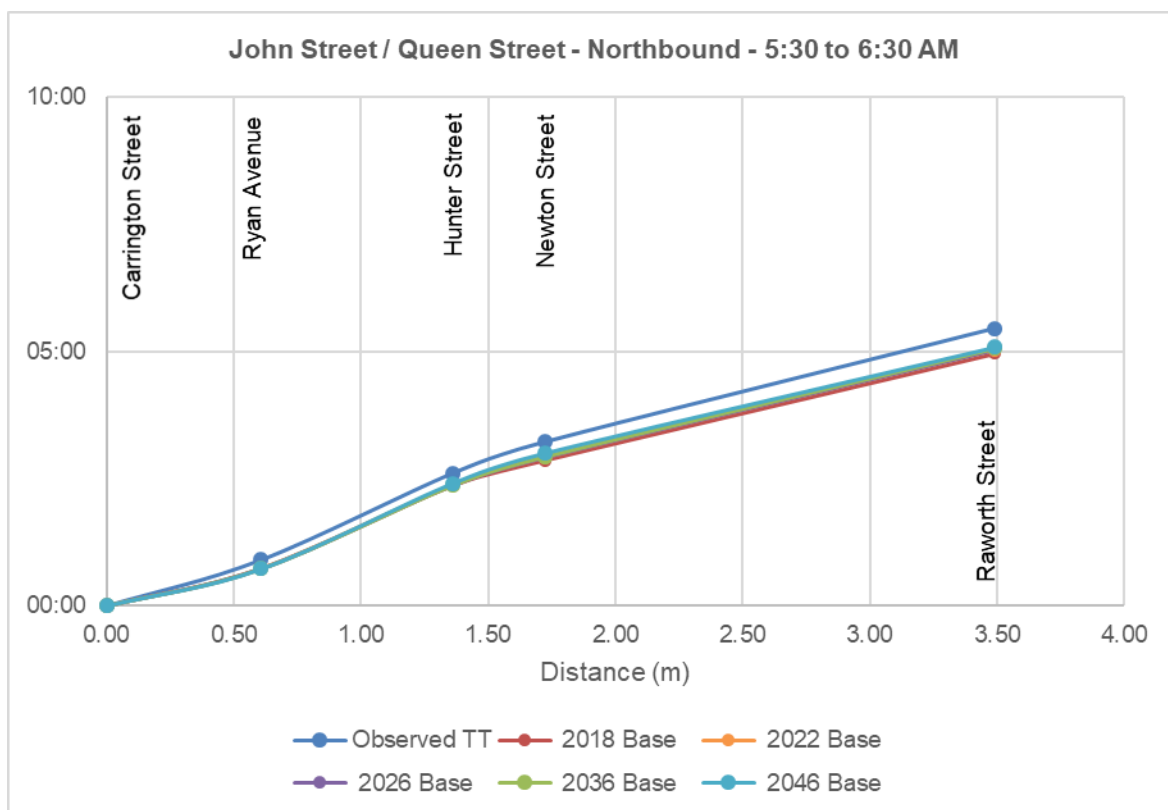
Future Year Base Travel Time Graphs

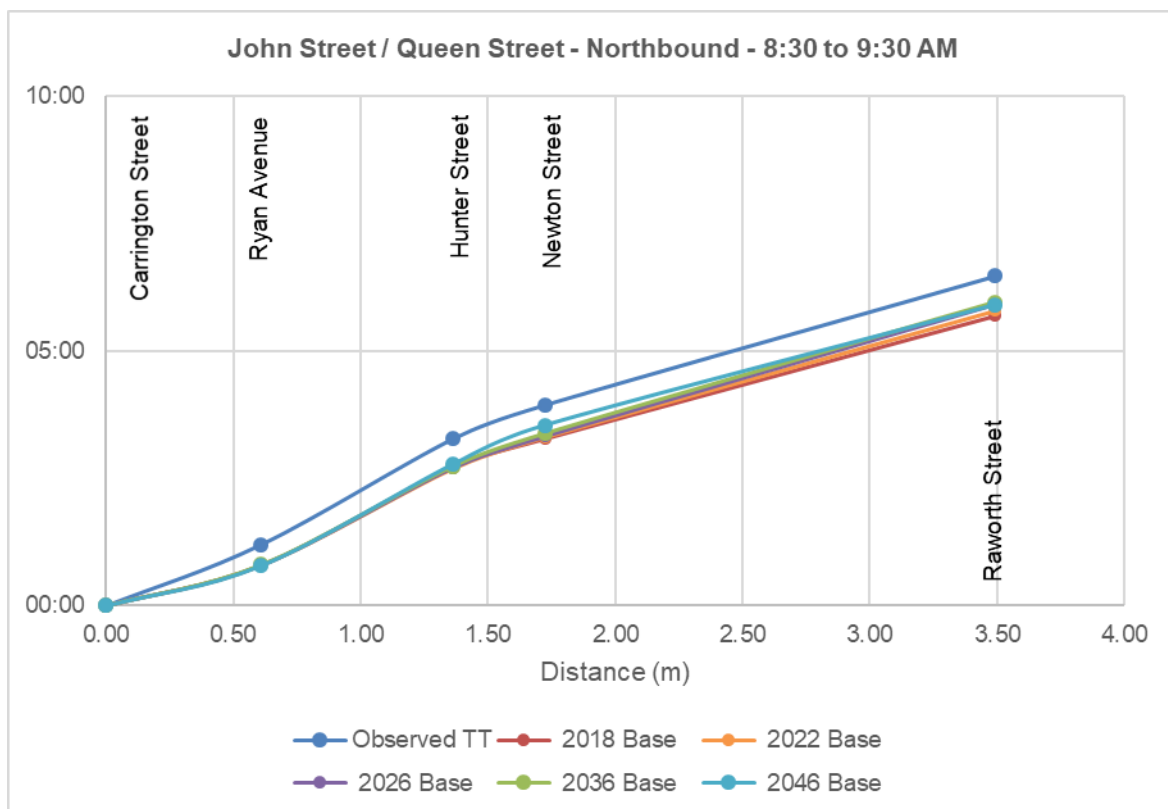
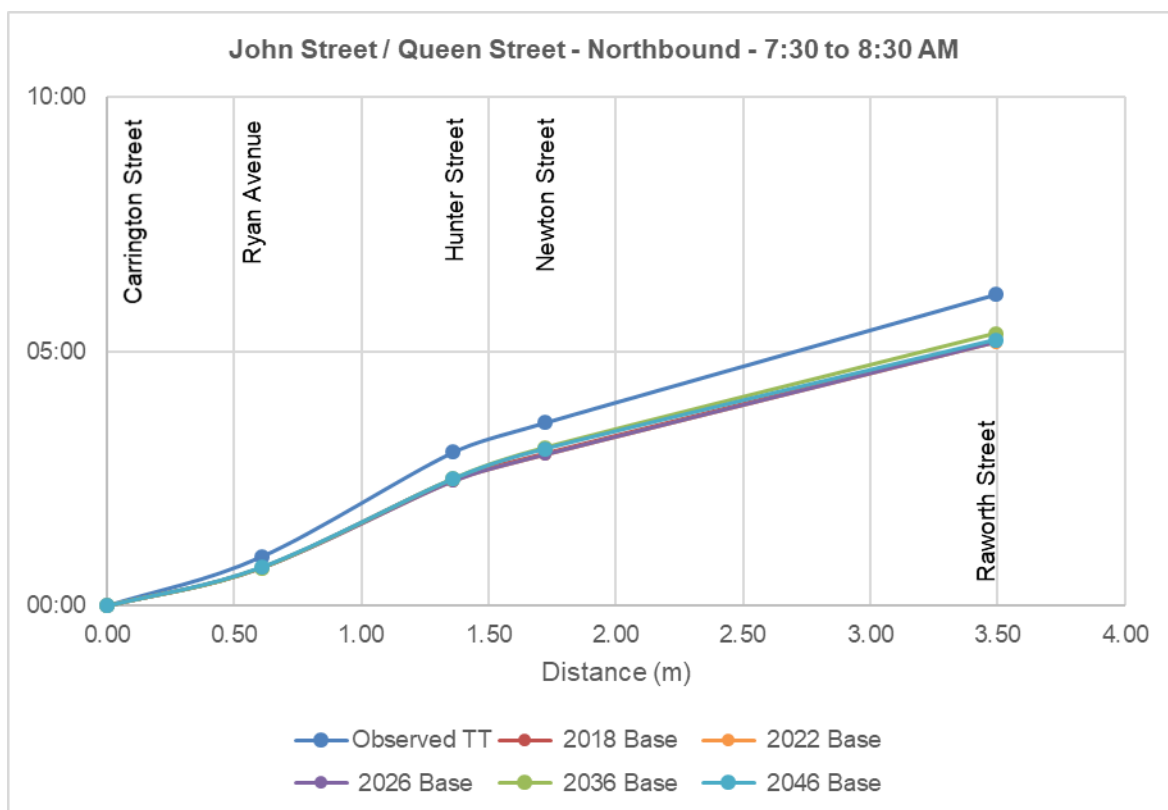


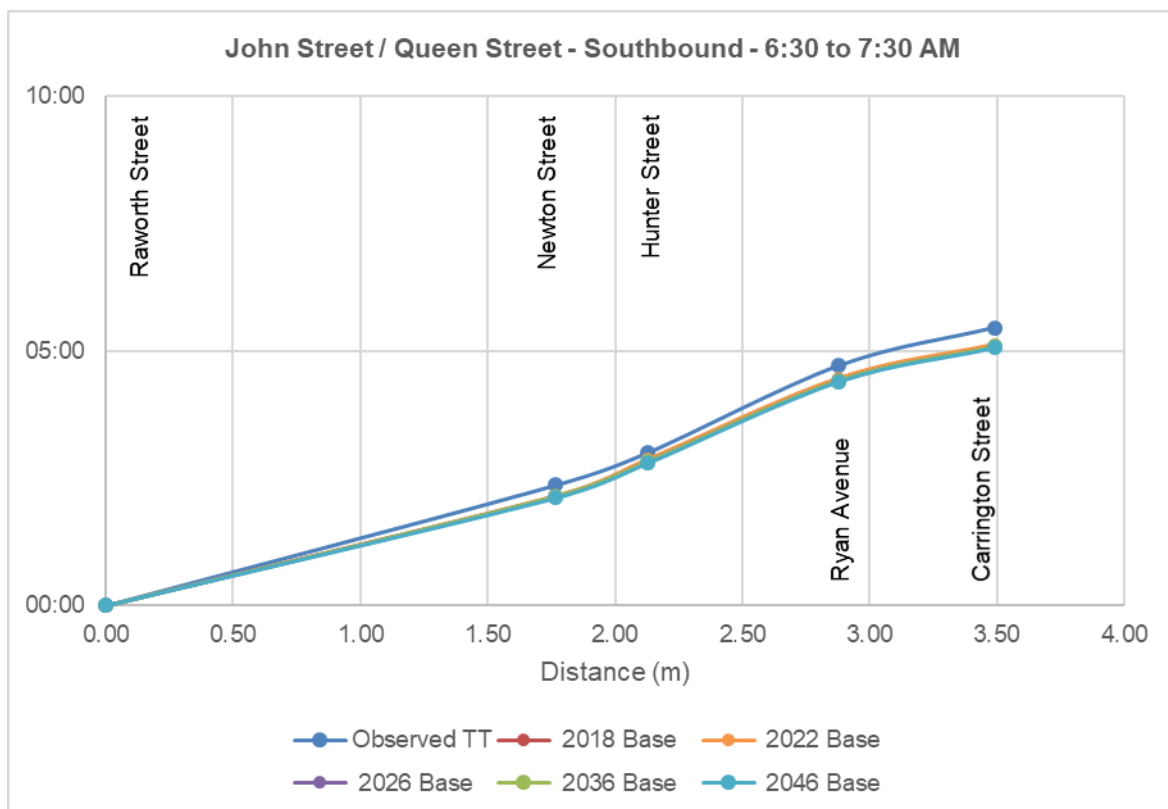
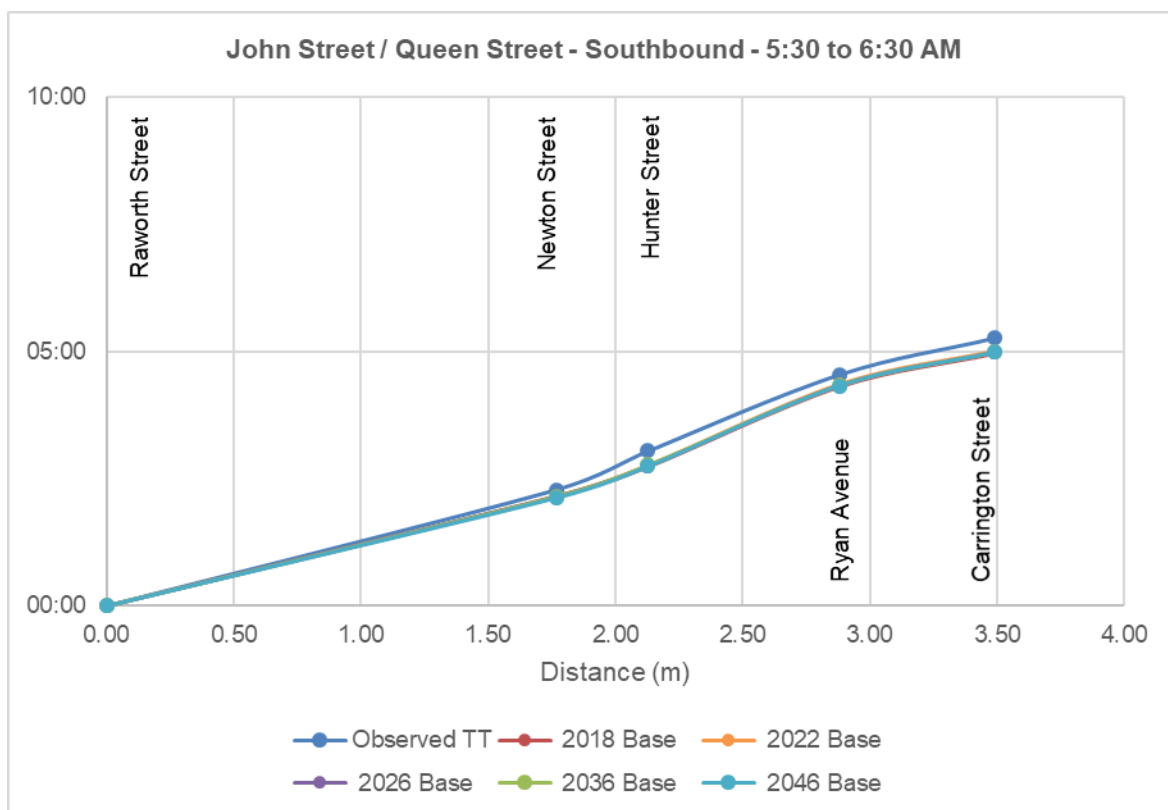


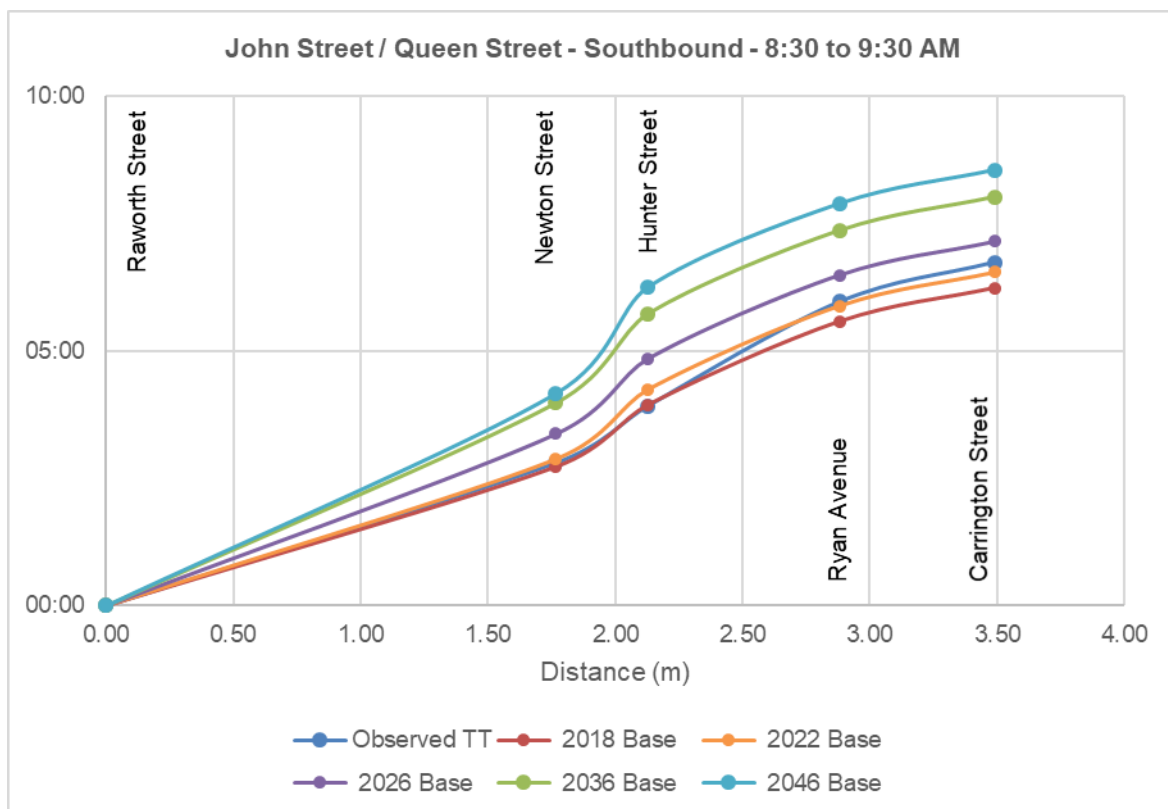
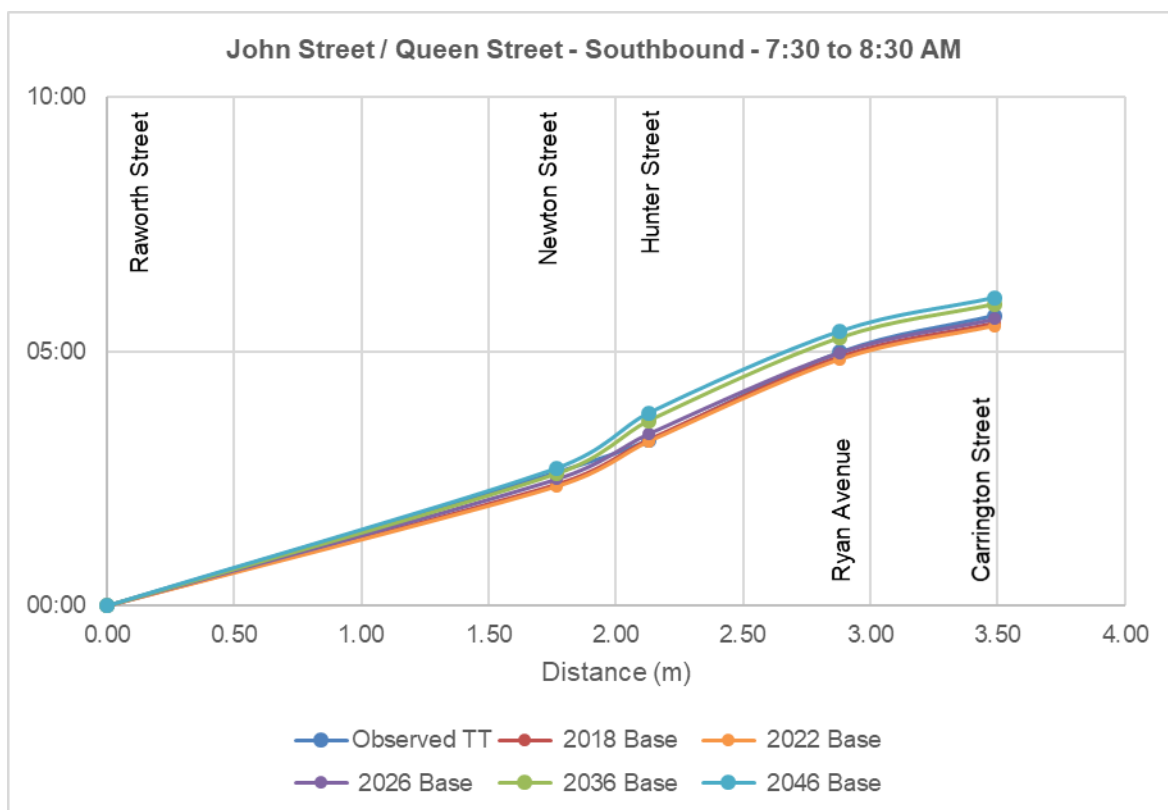


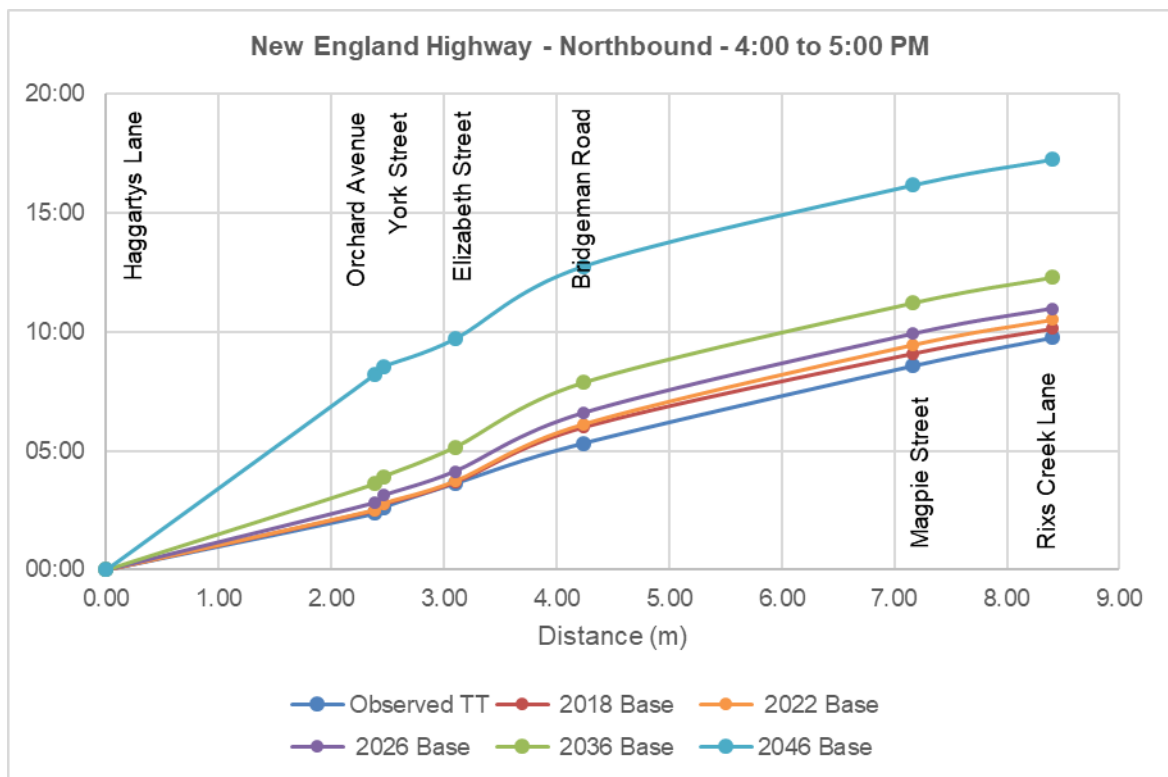
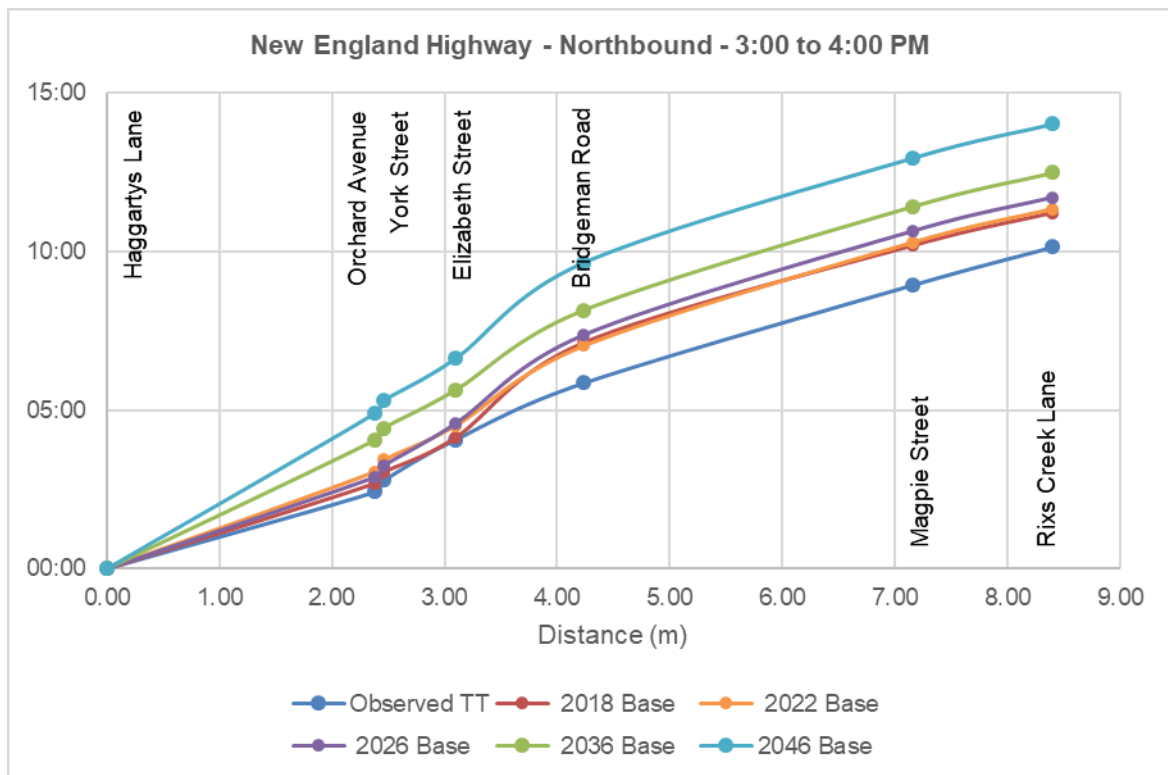


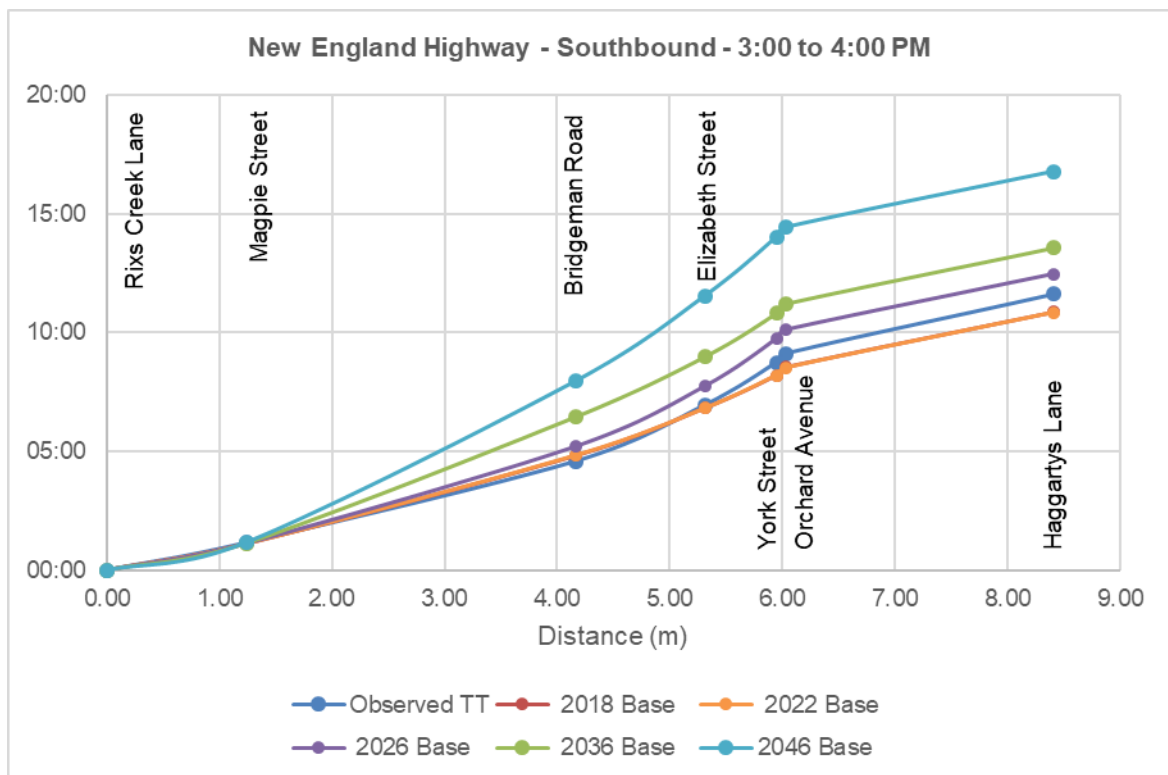
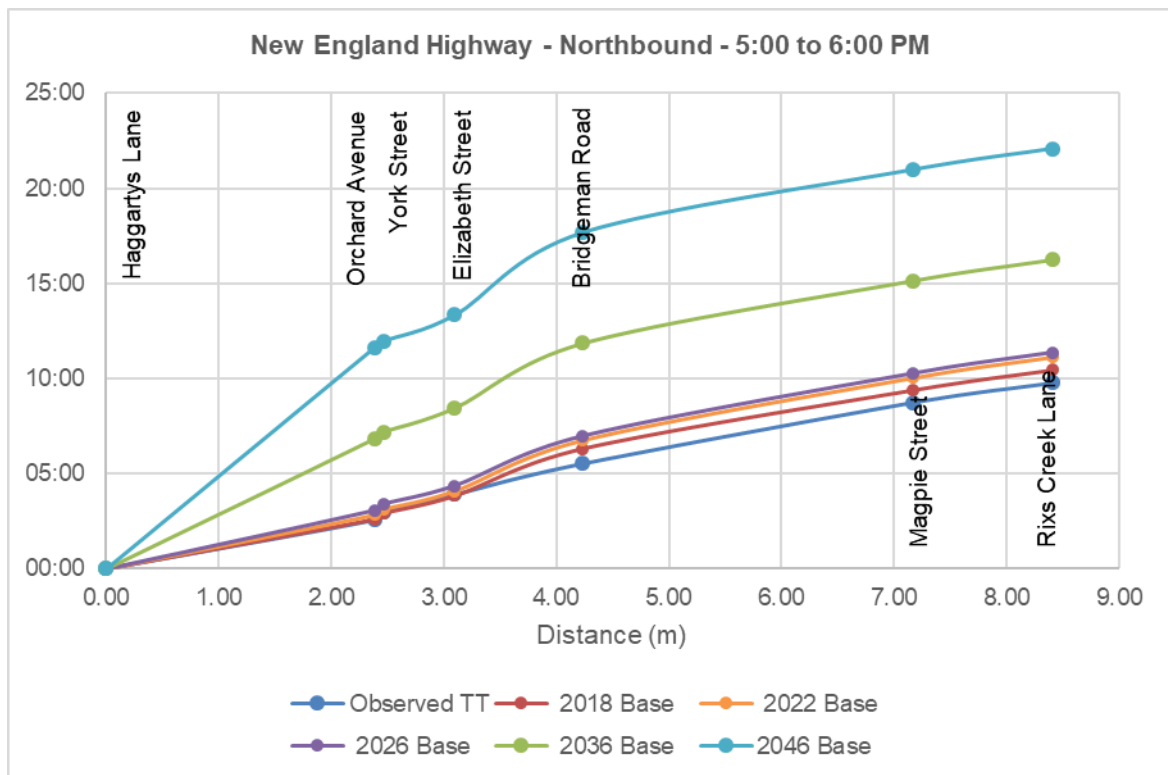


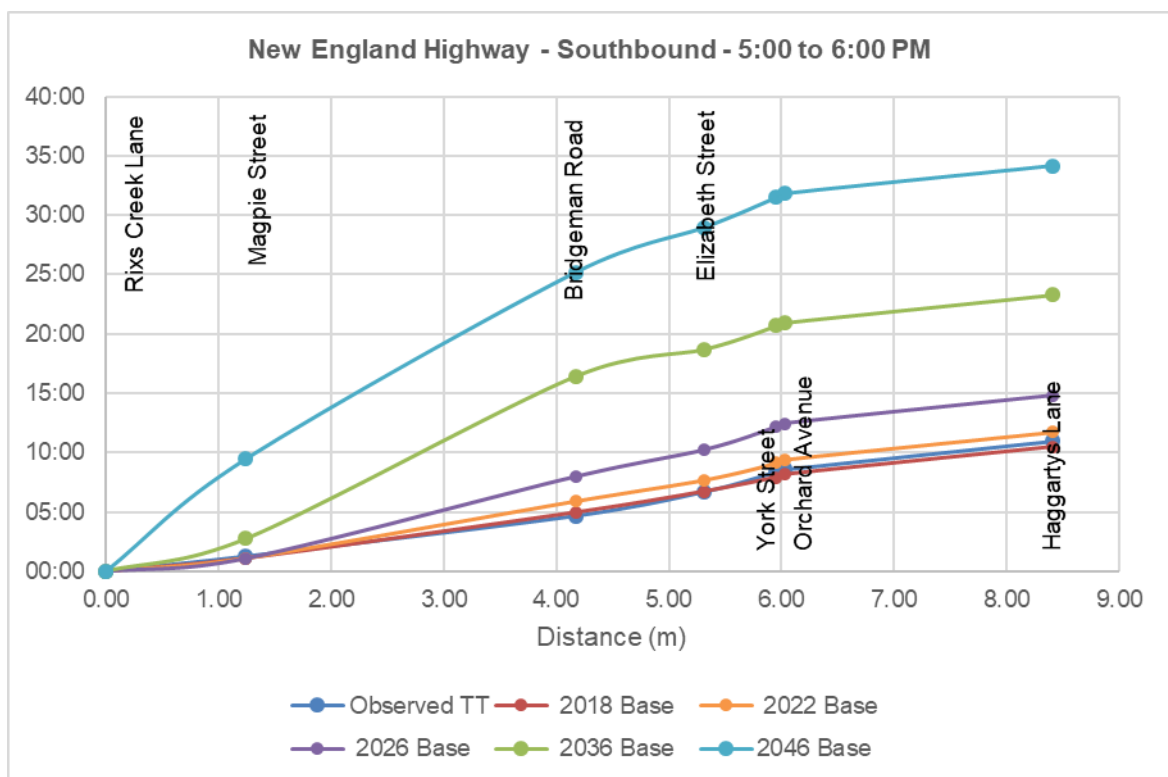
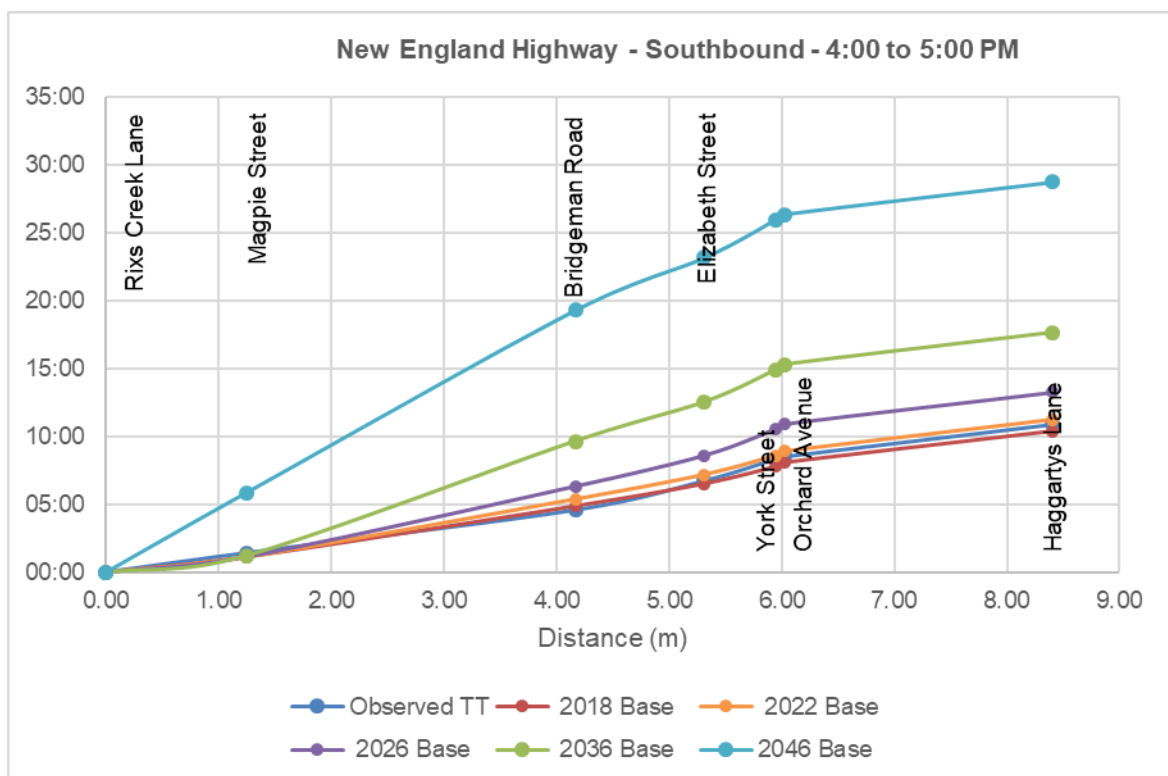


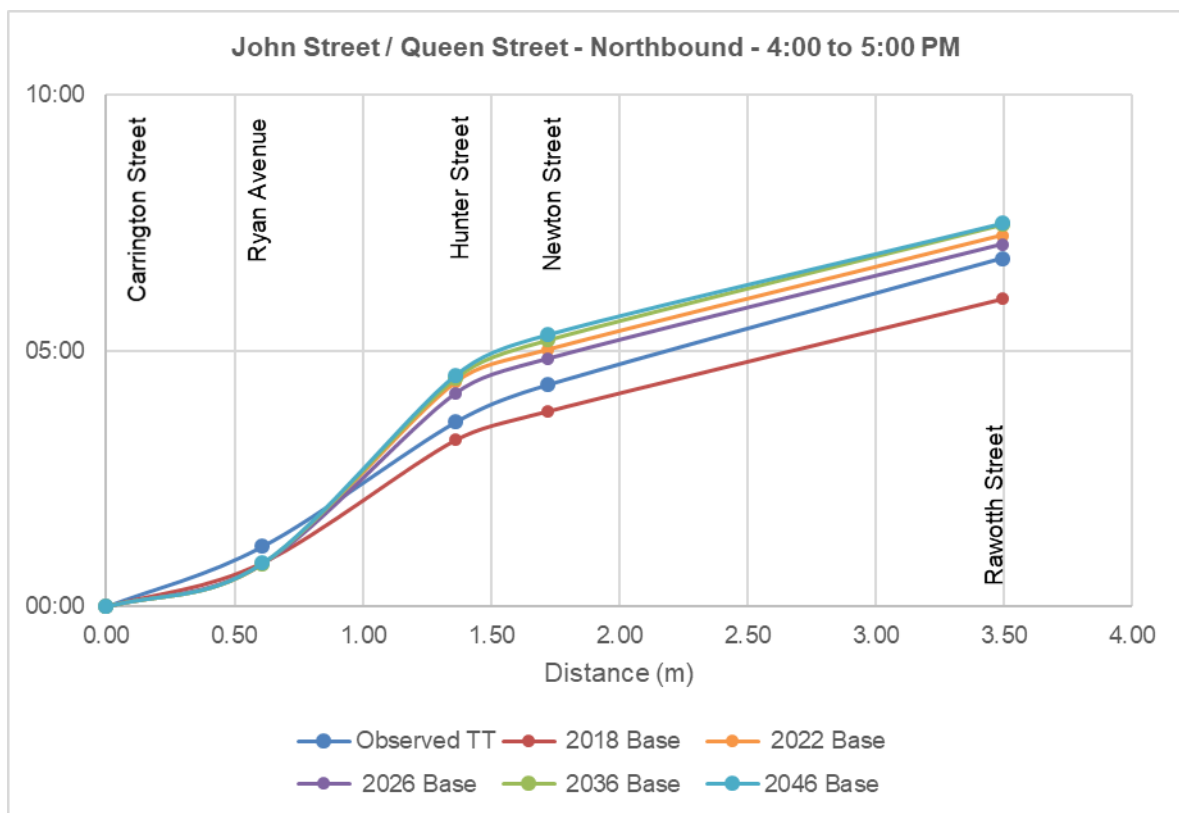
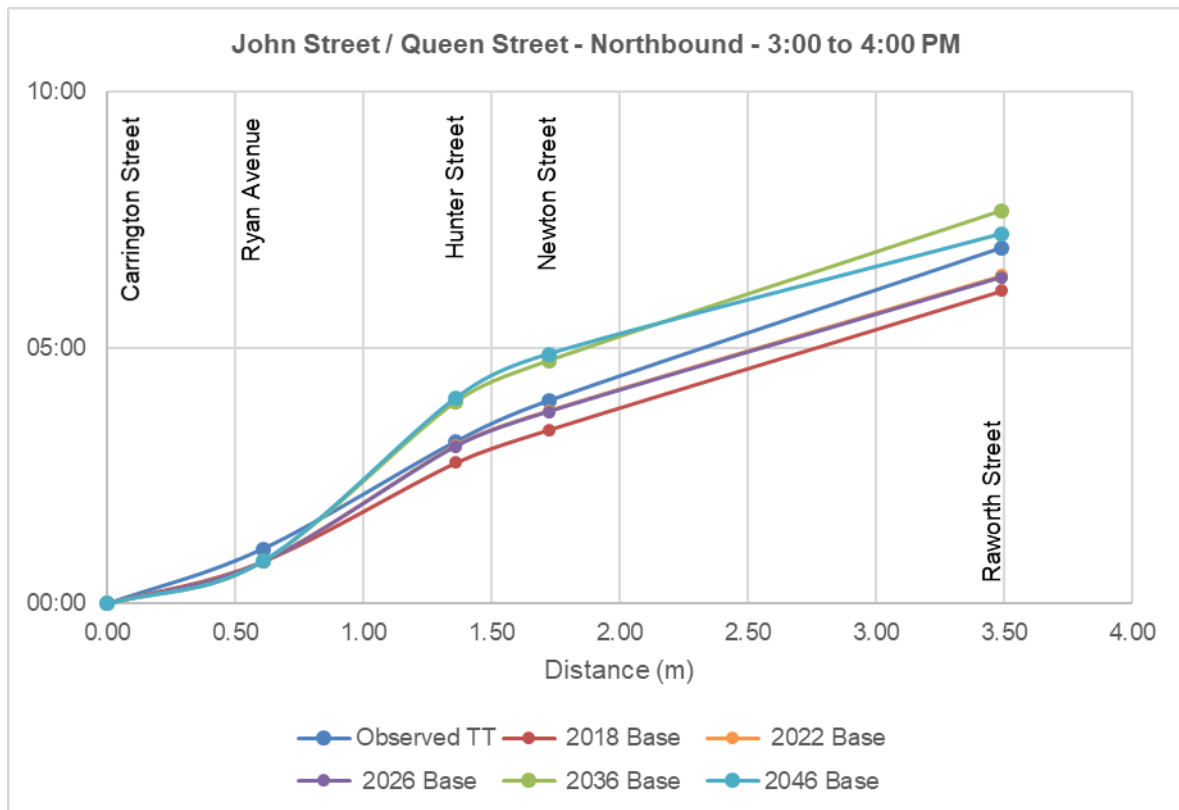


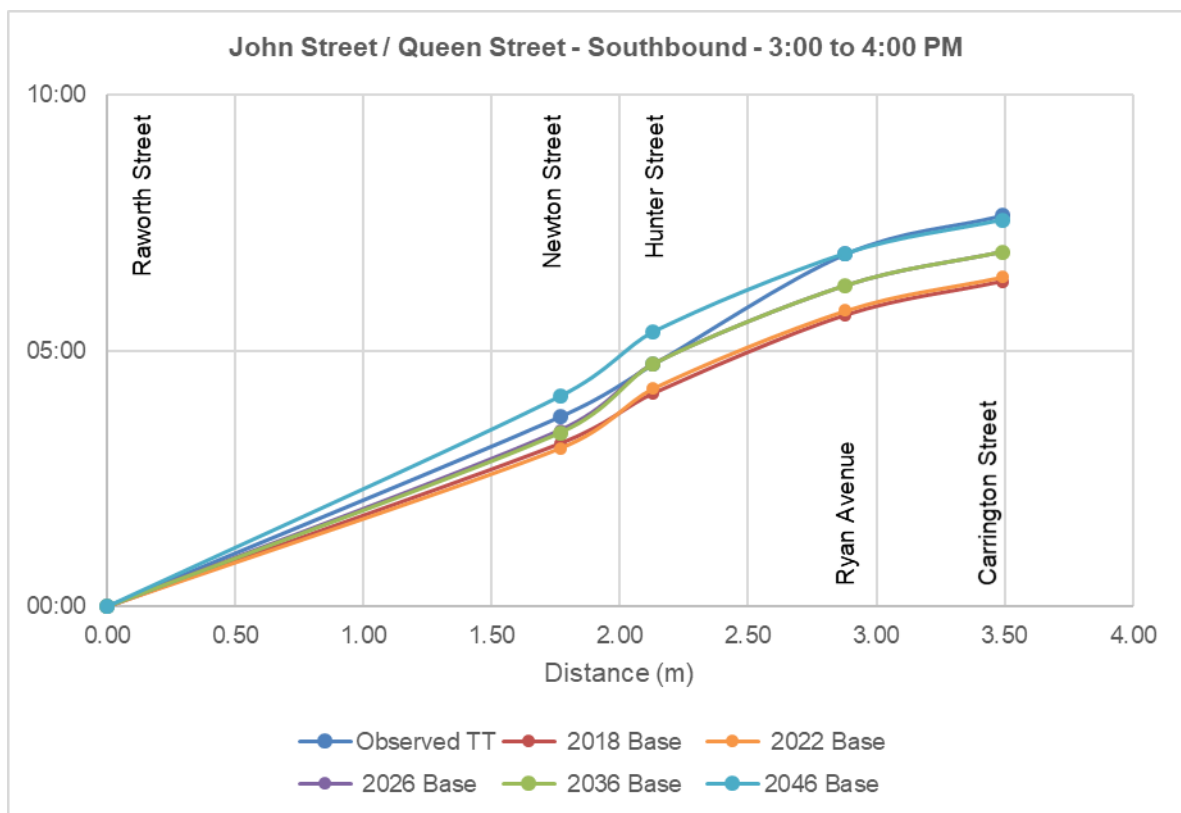
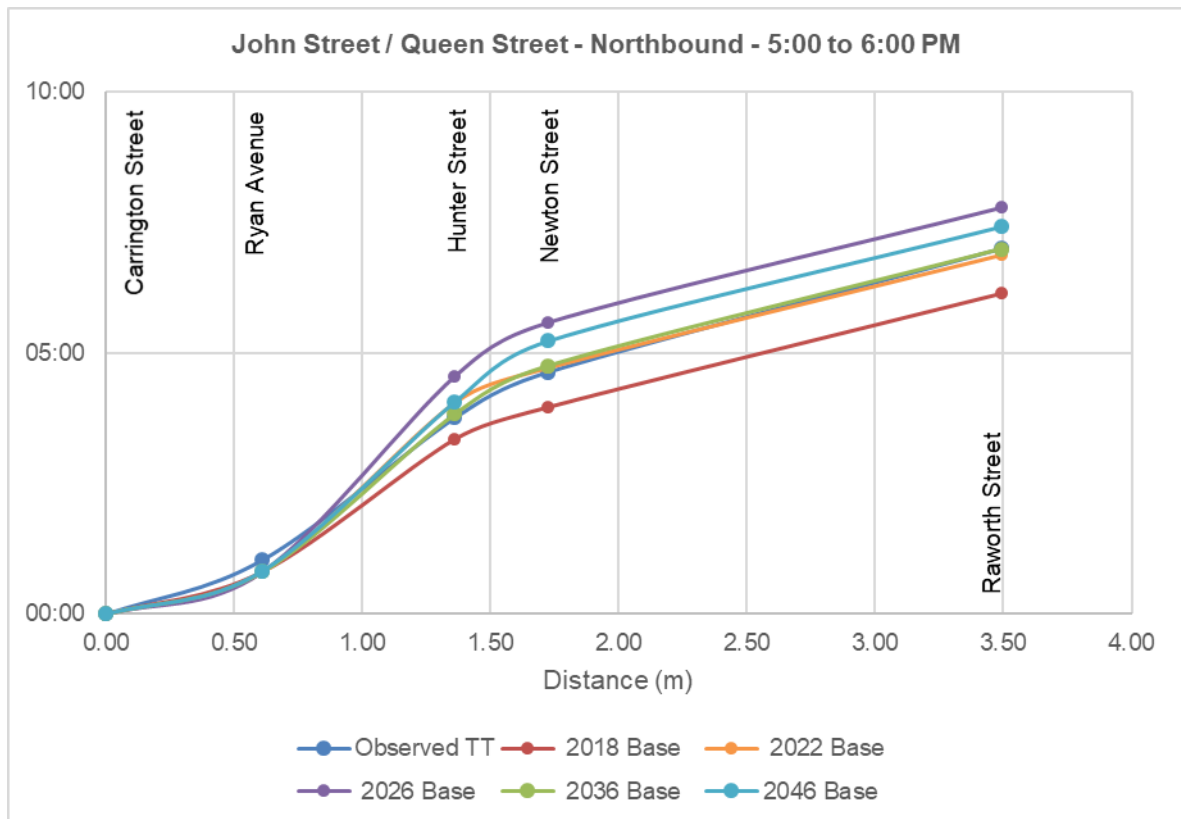


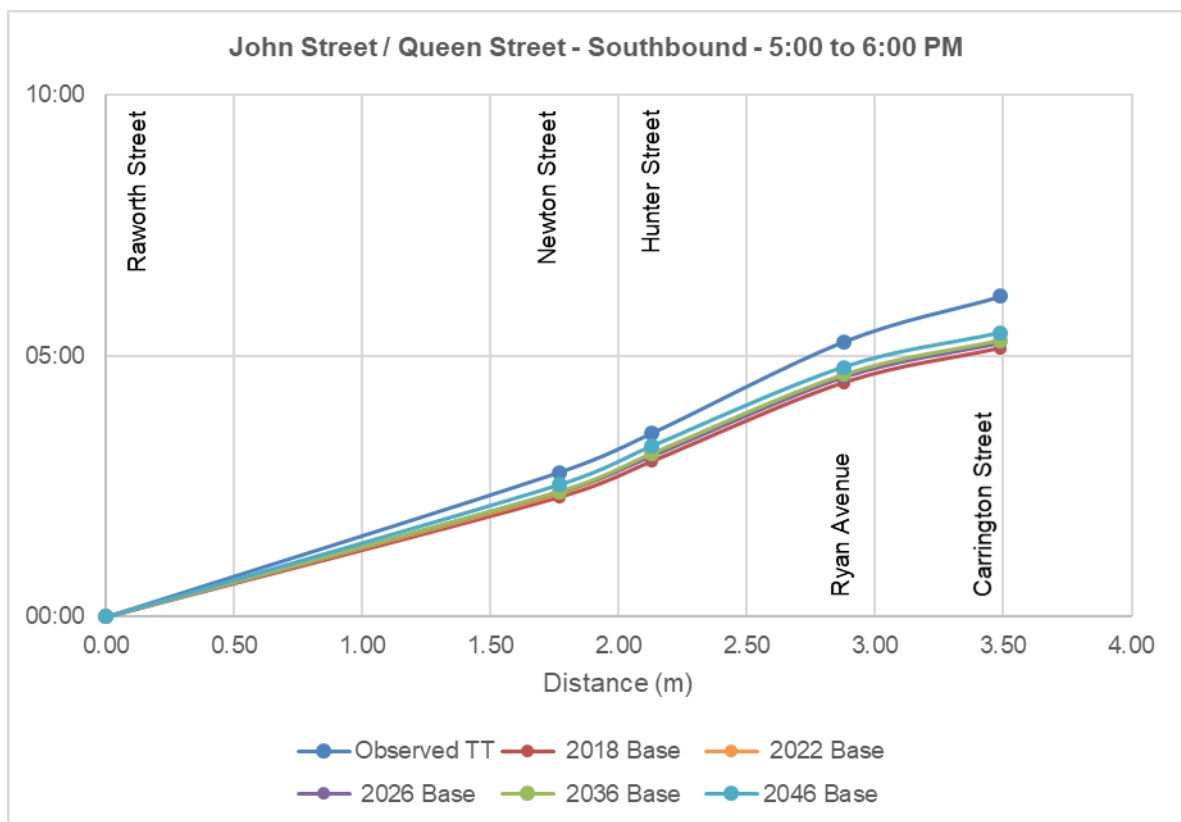
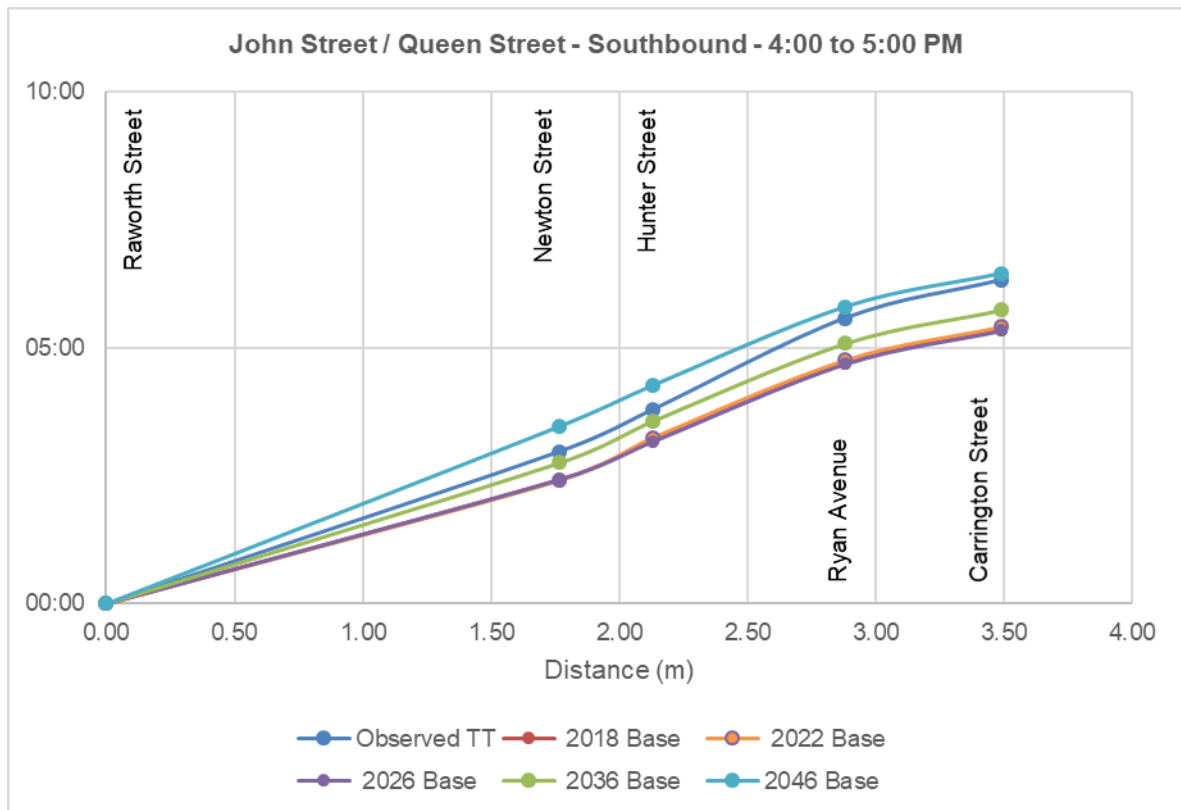




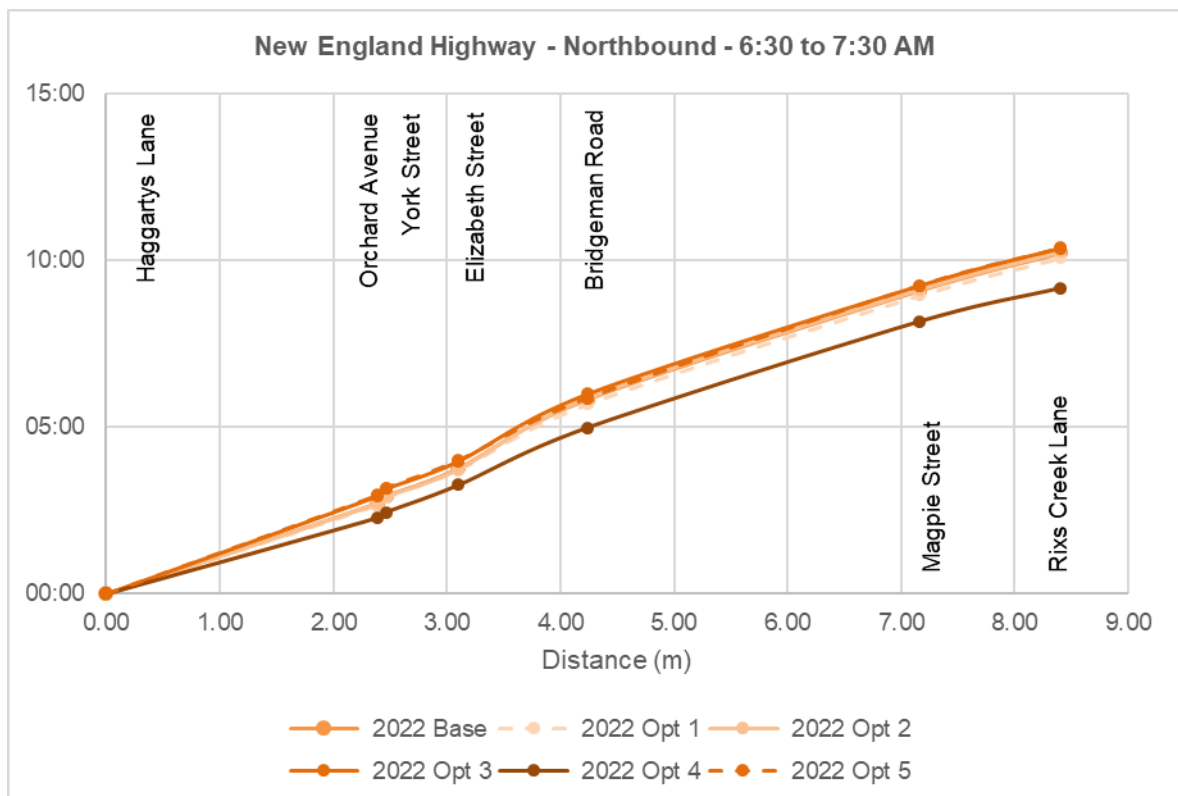
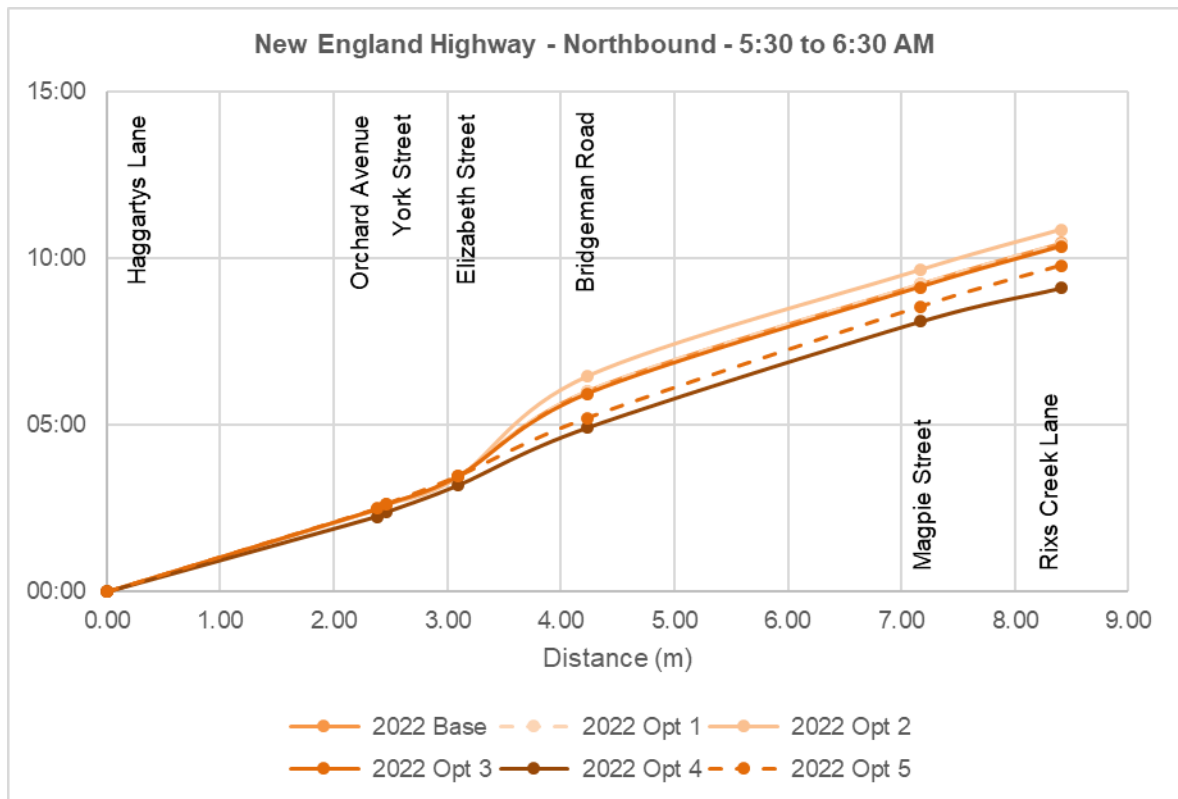


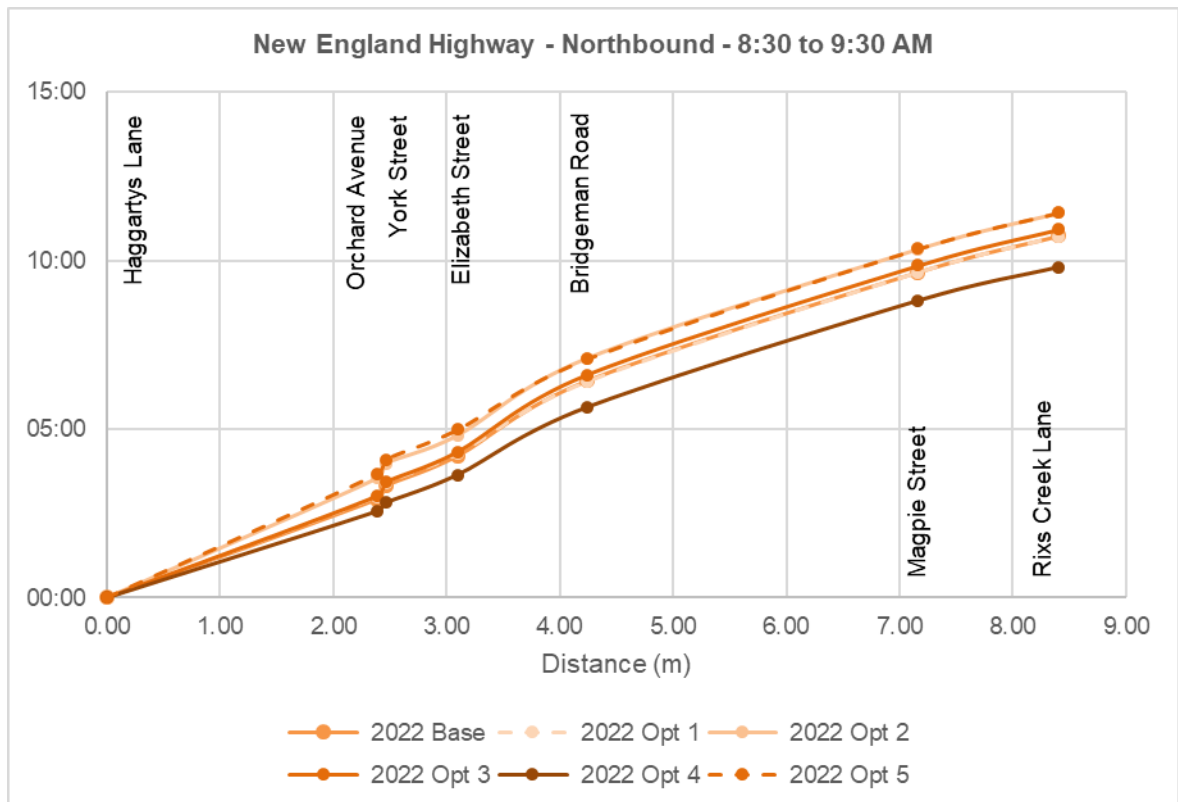
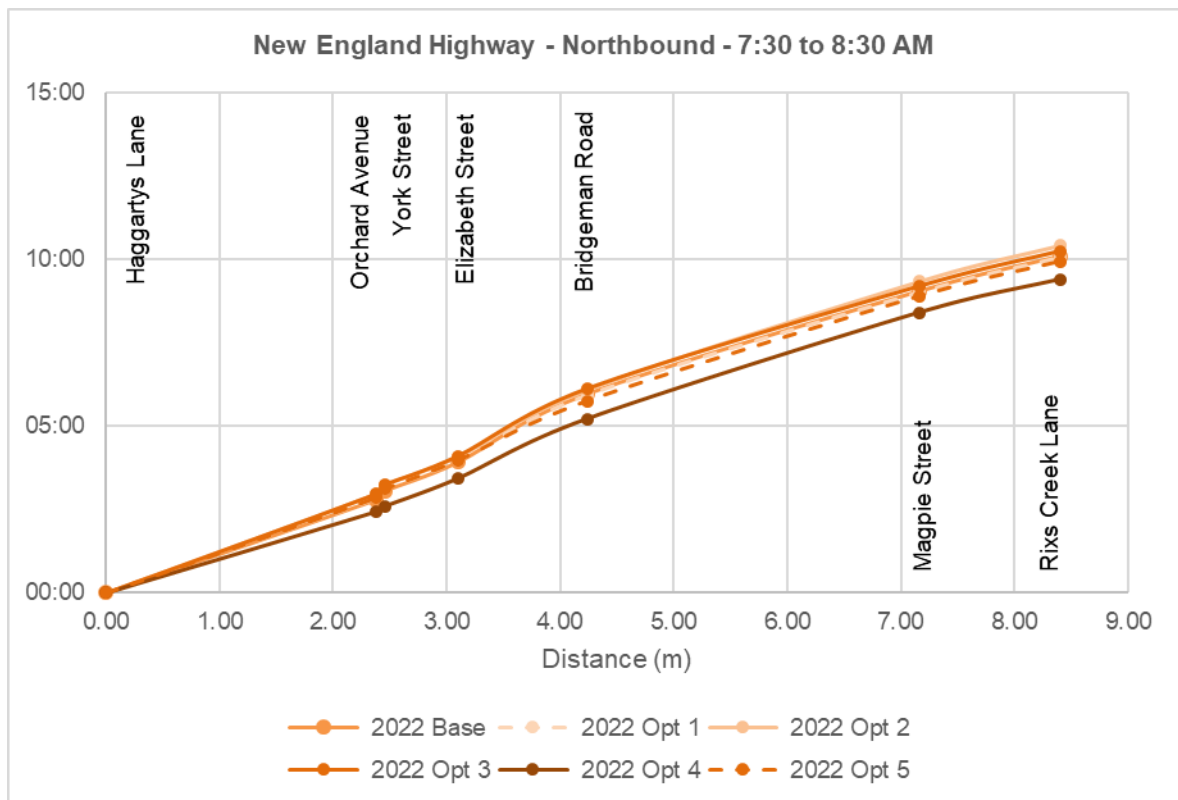


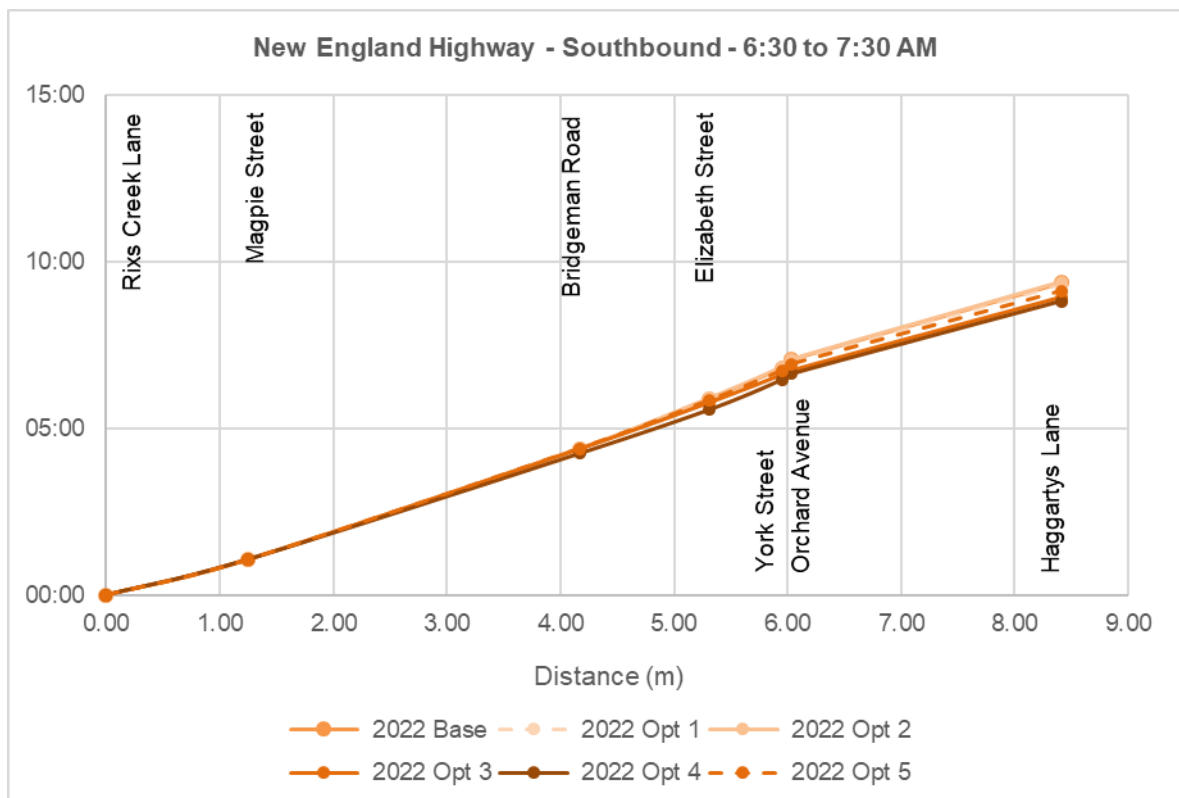
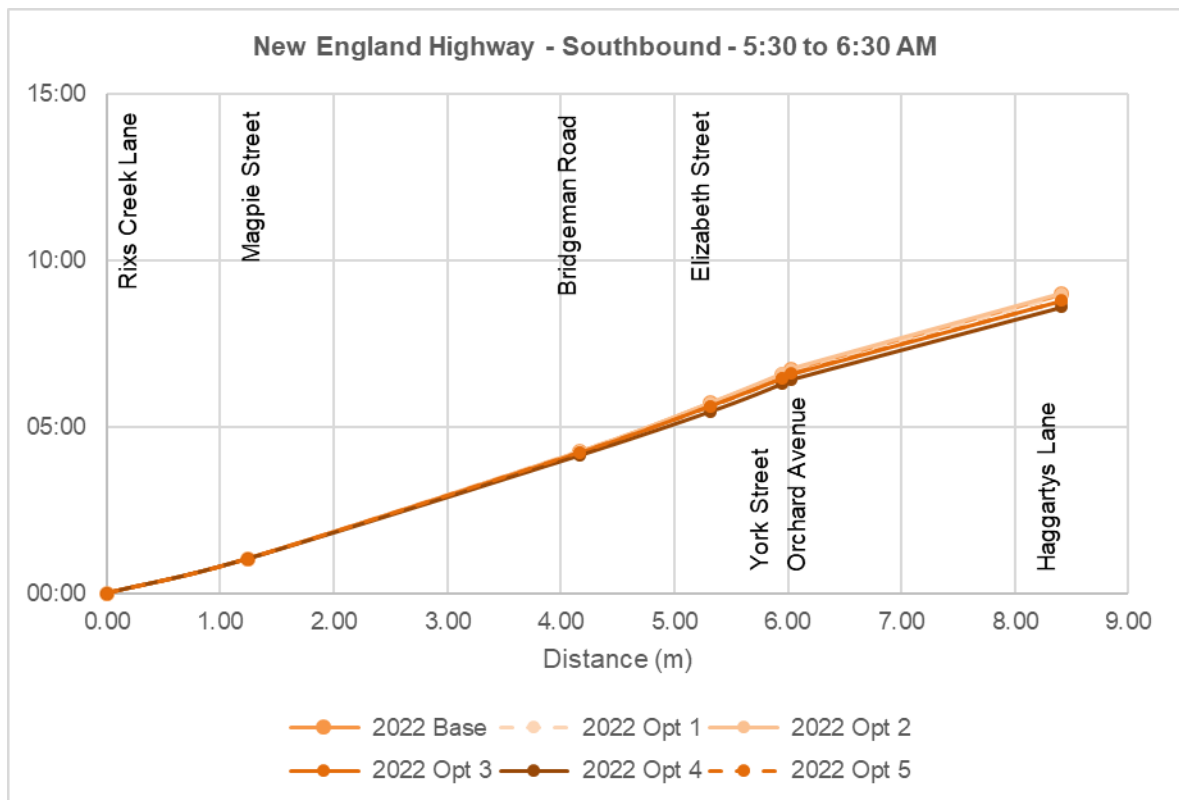


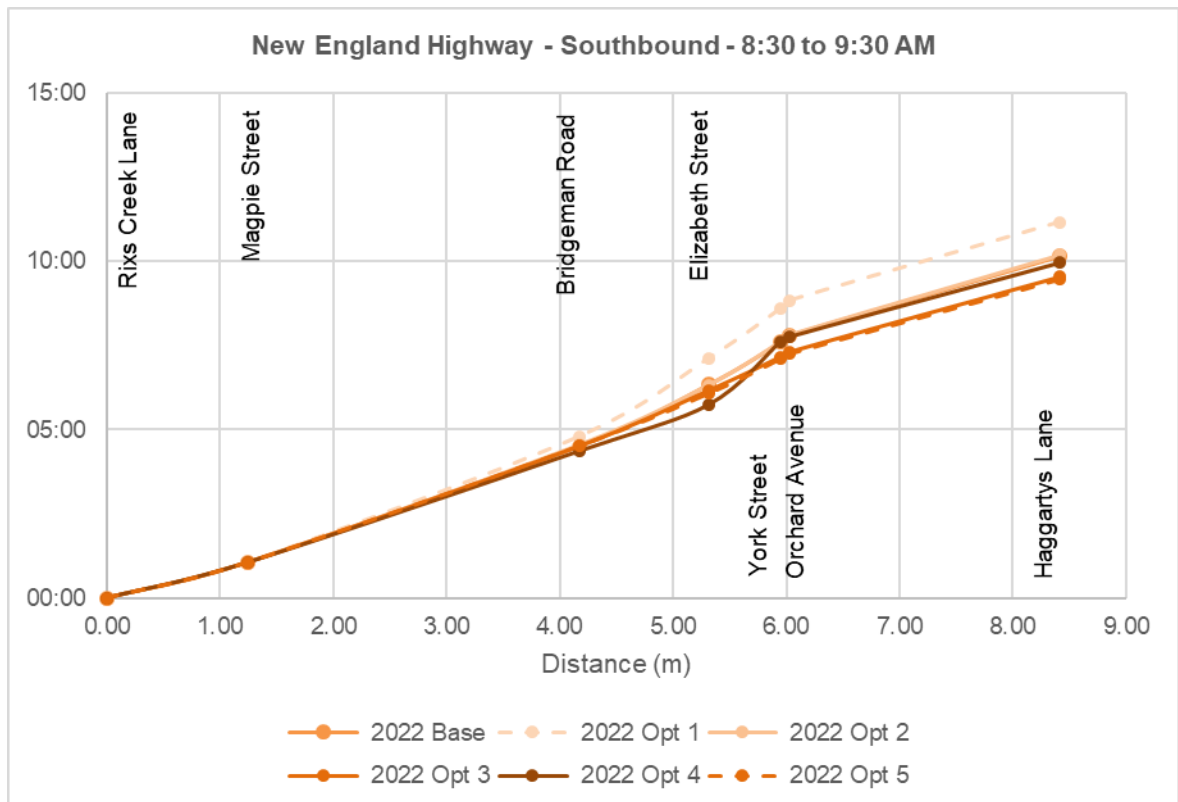
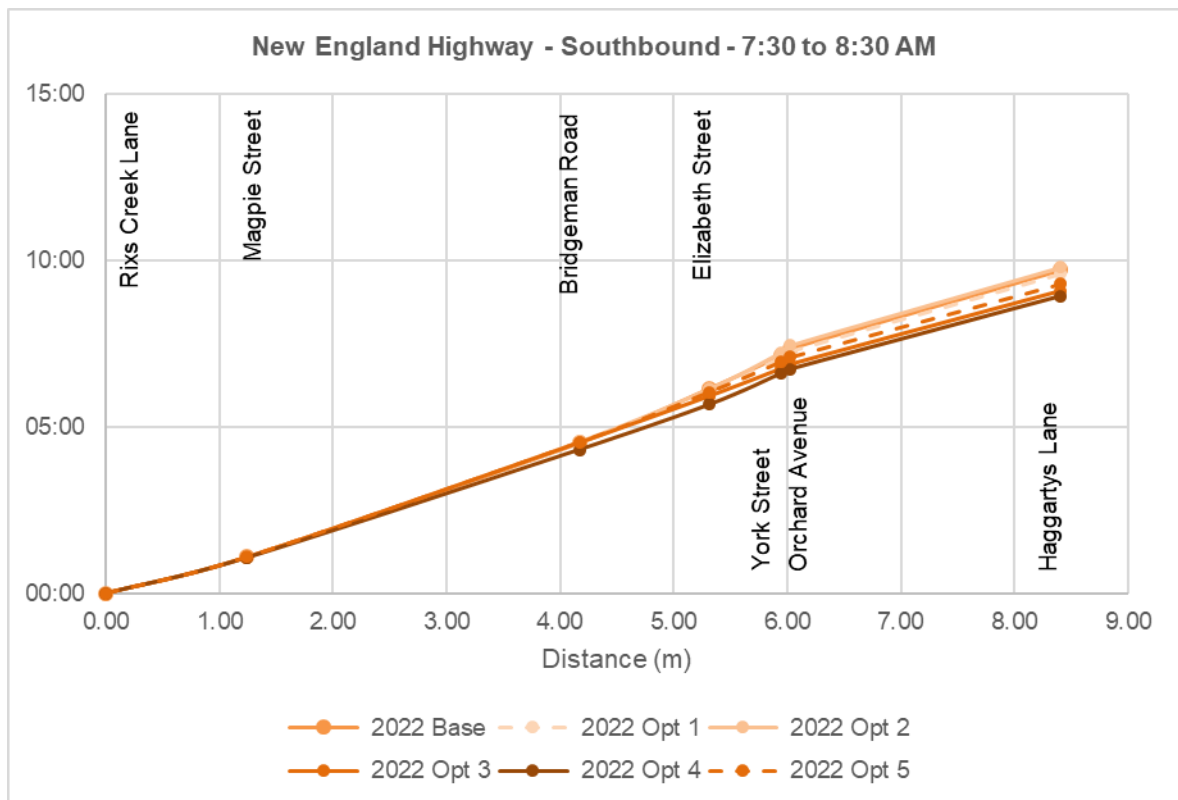


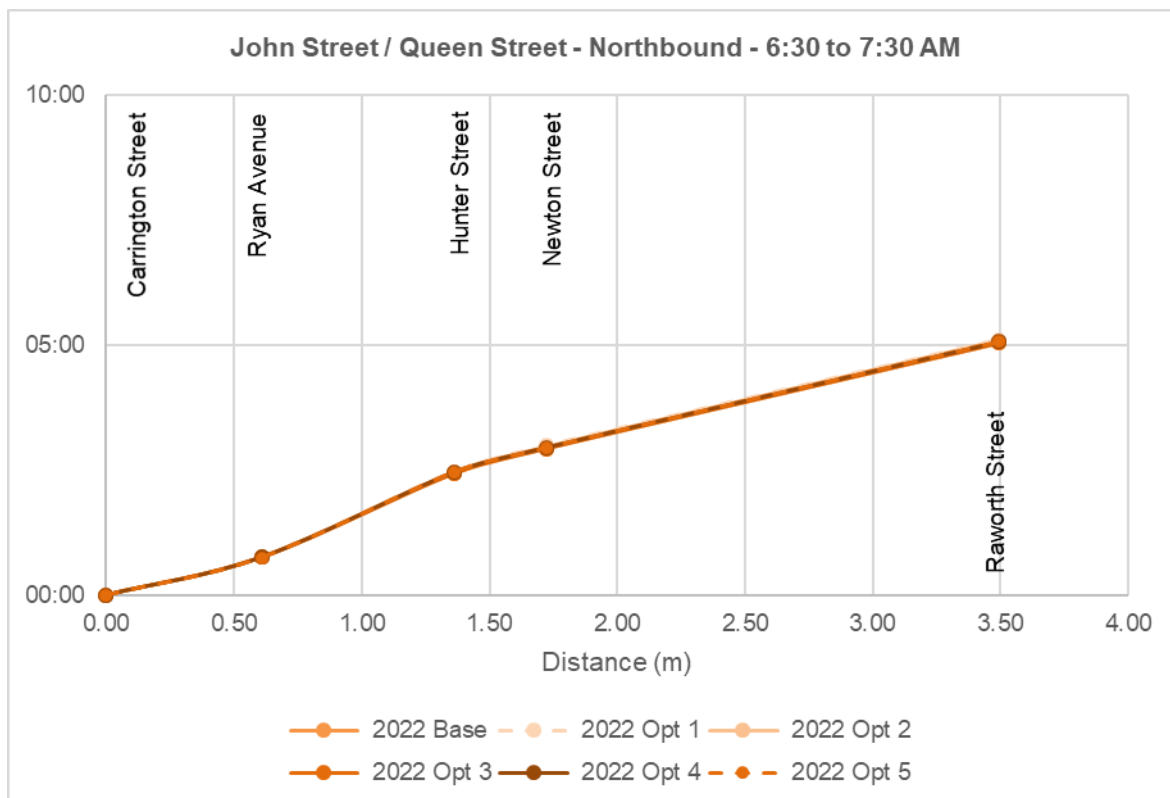
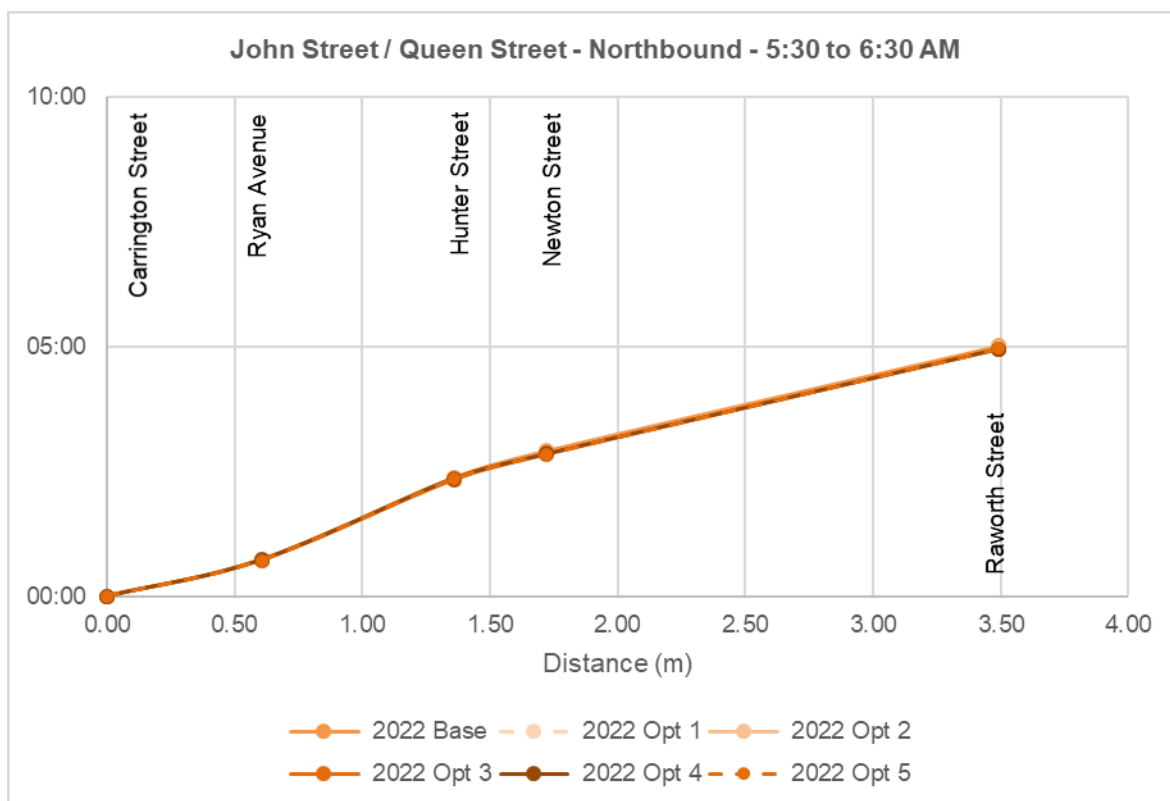
Future Year 2022 Travel Time Graphs

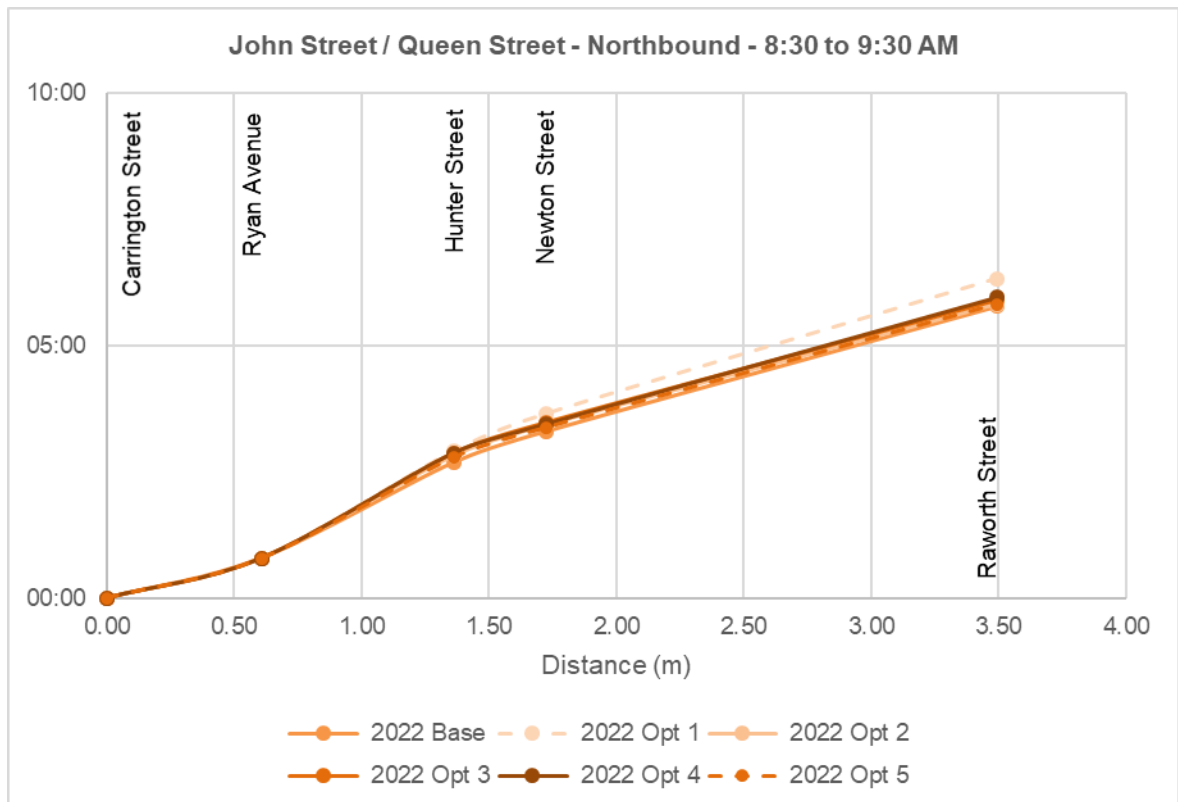
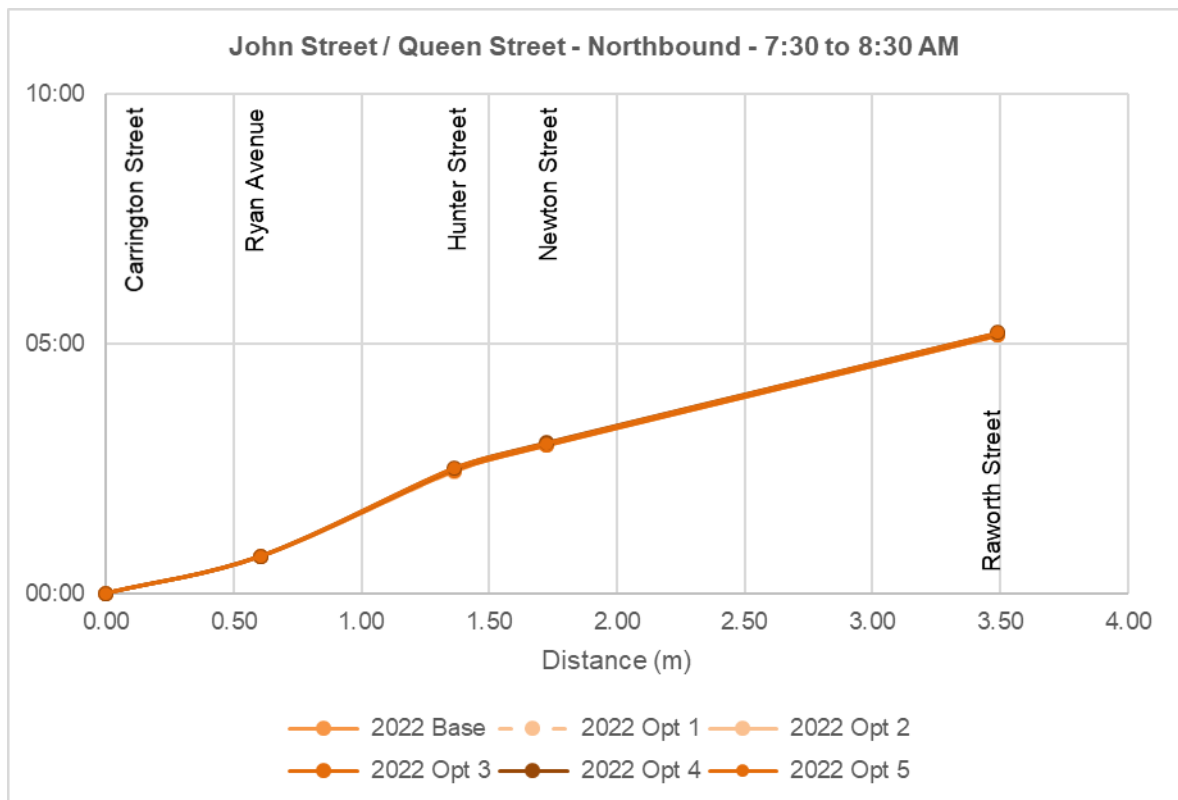


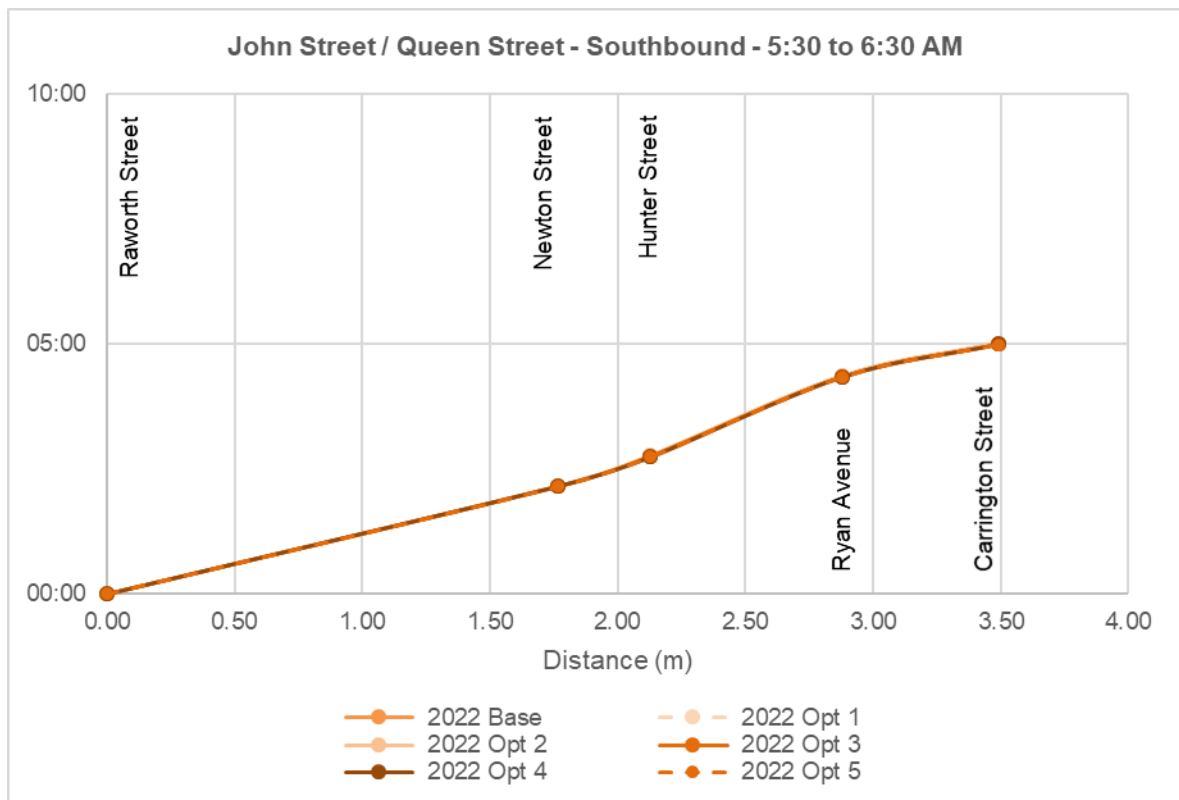


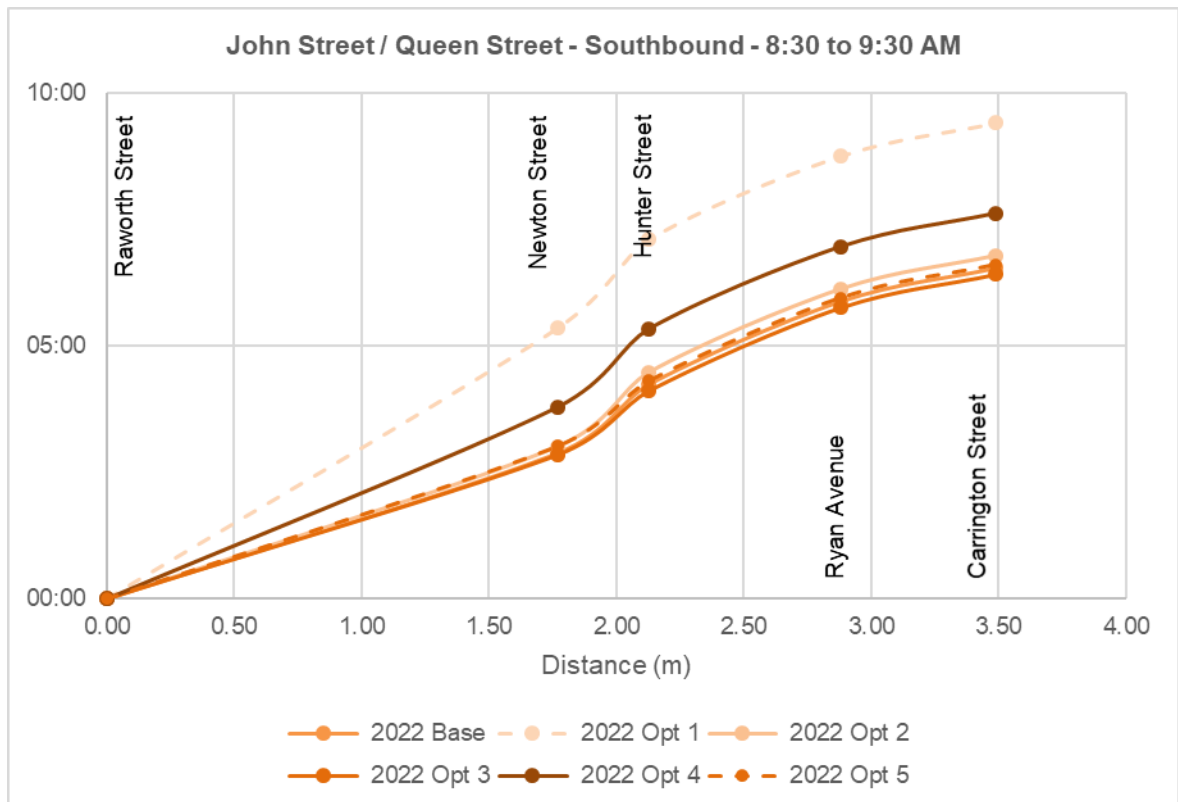


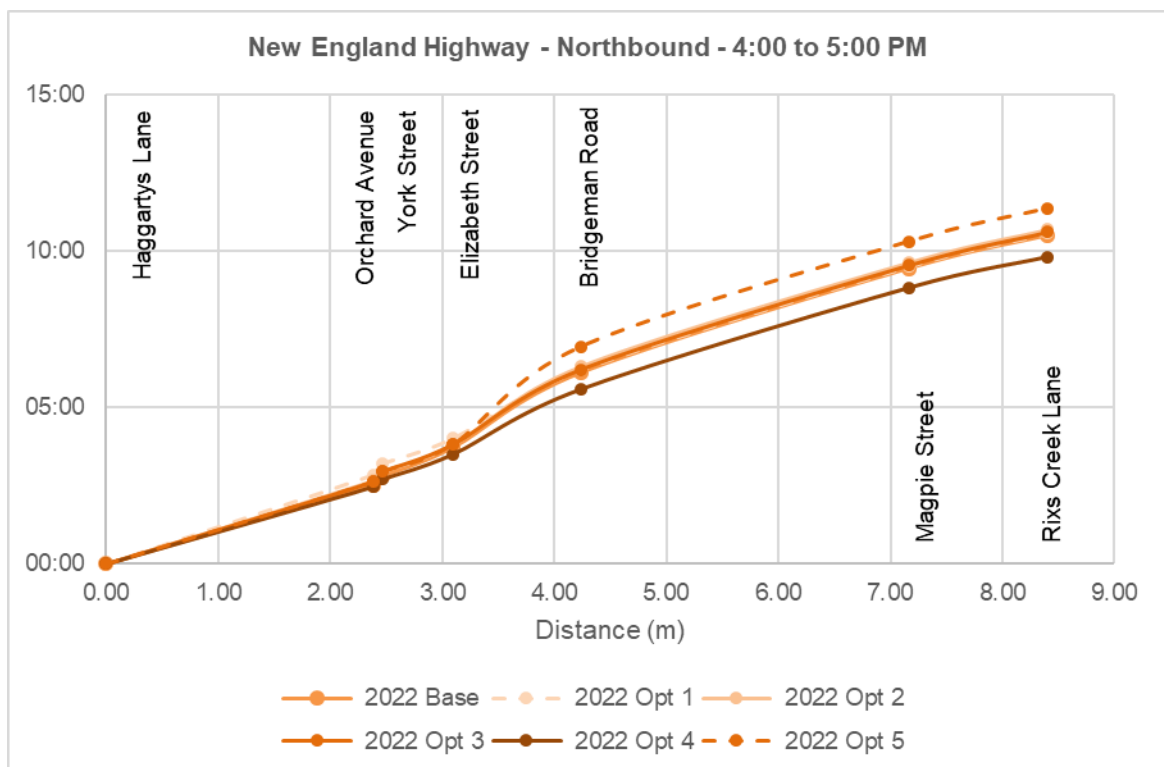
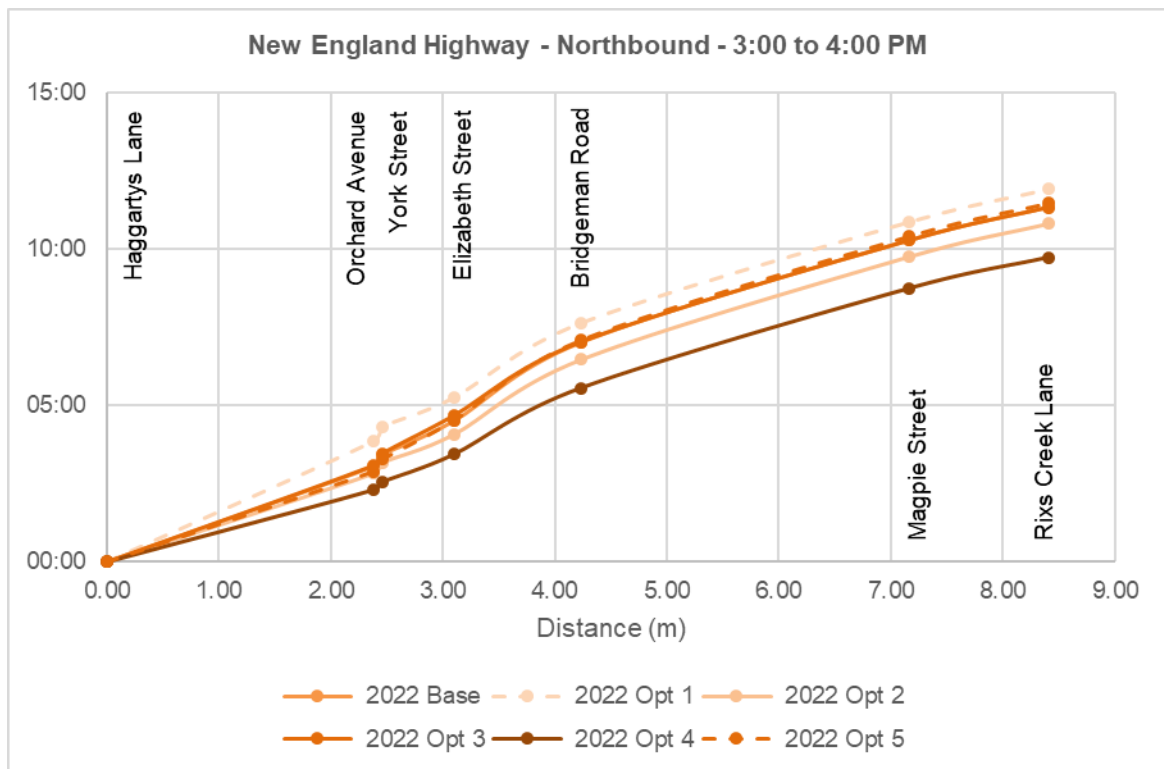


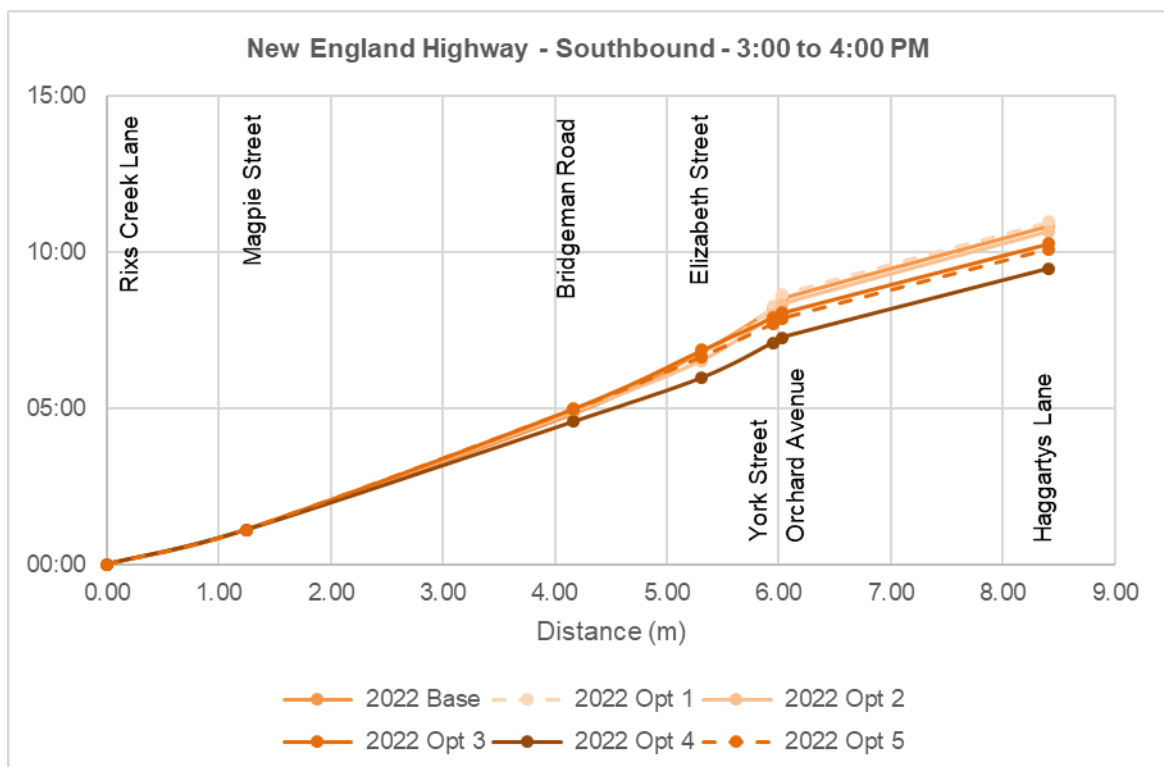
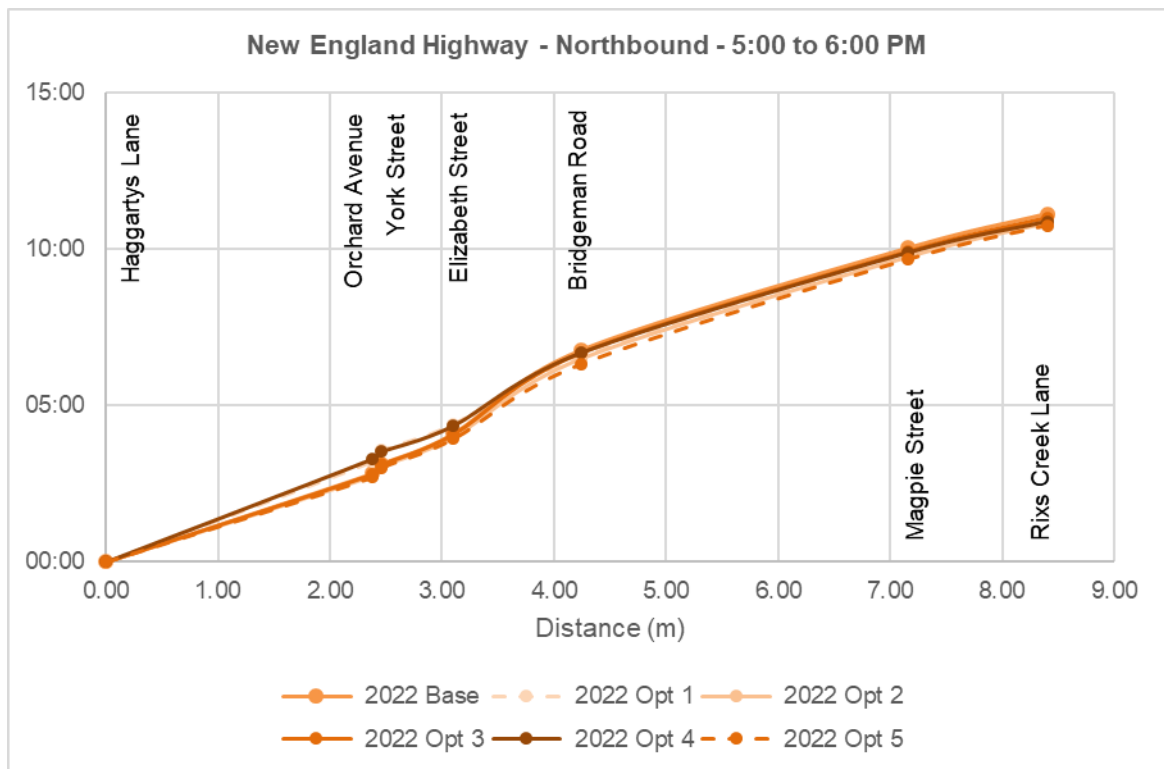


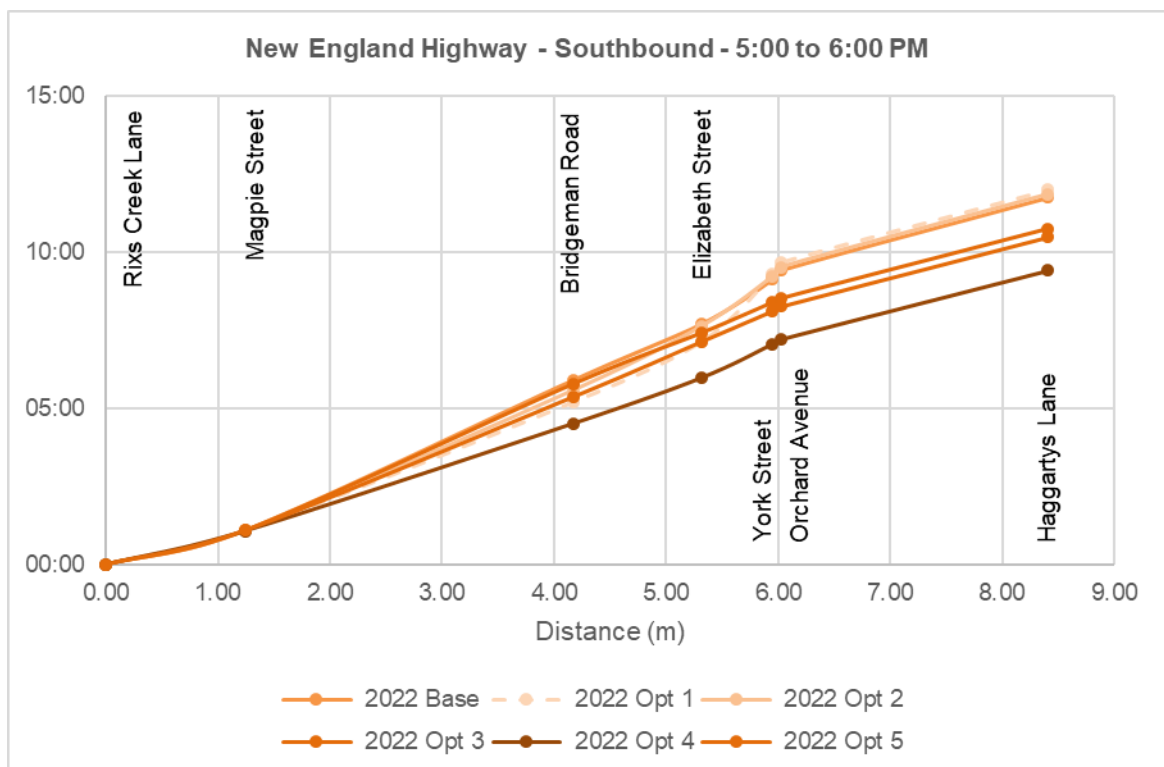
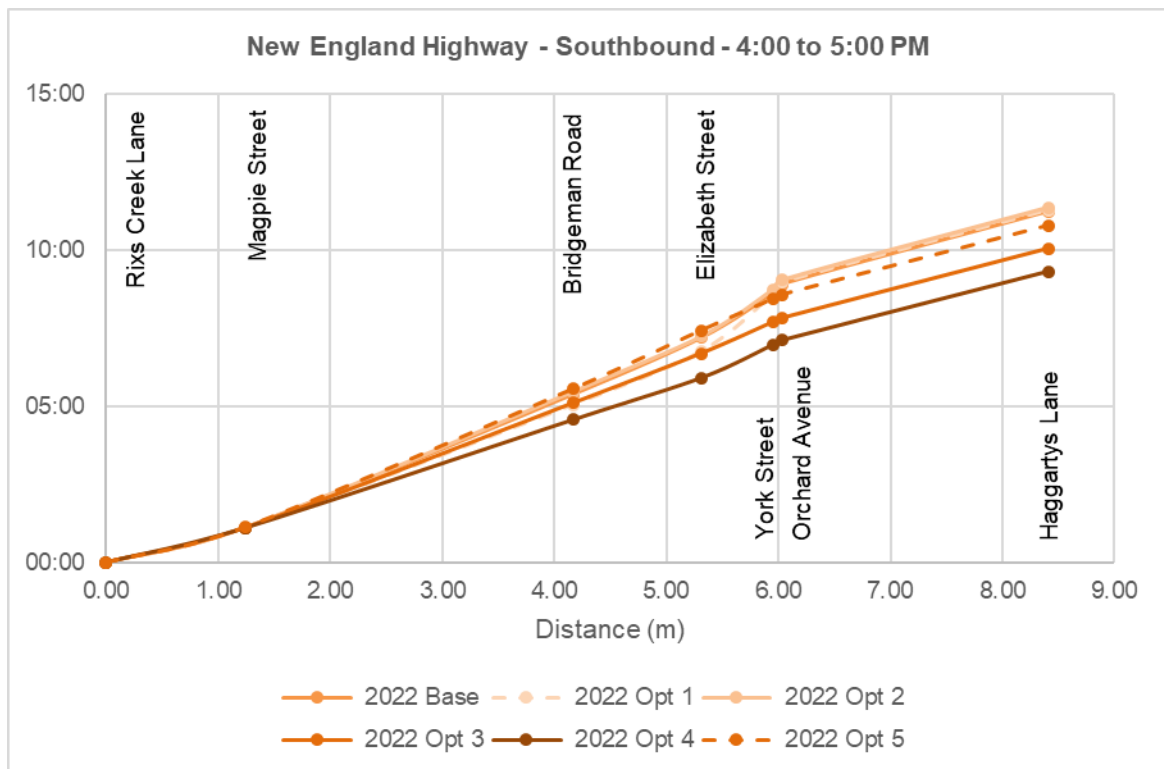


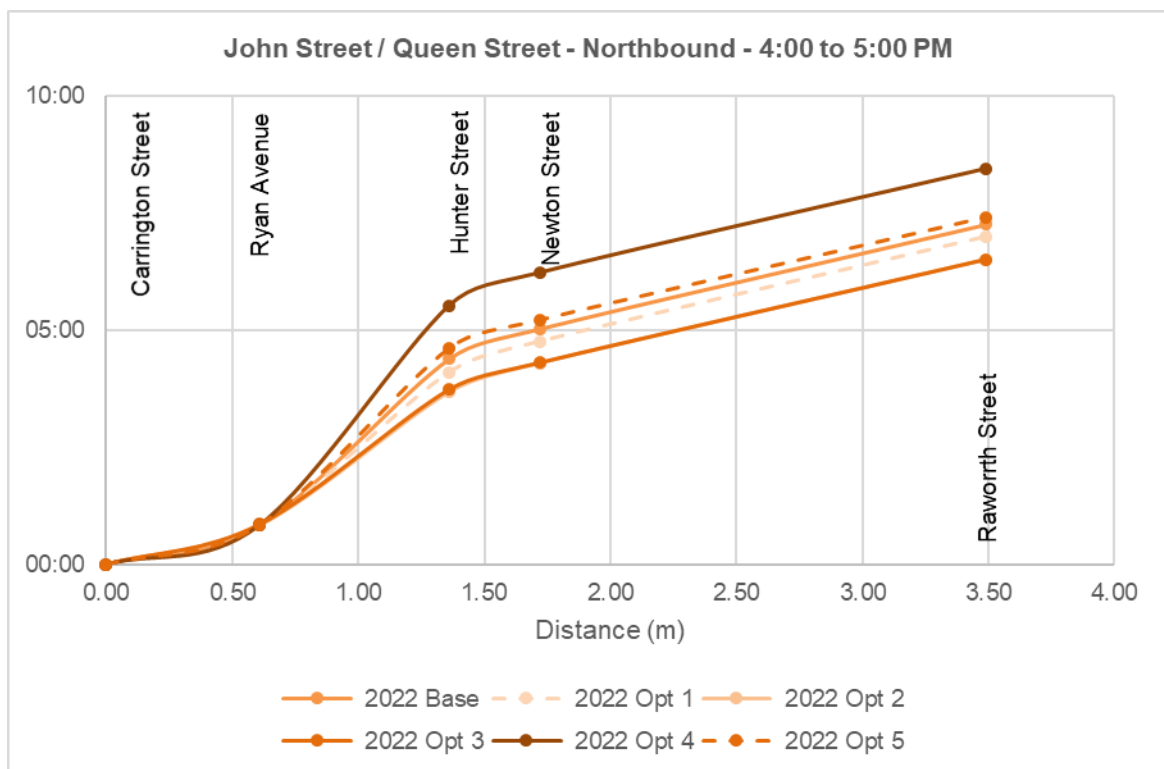
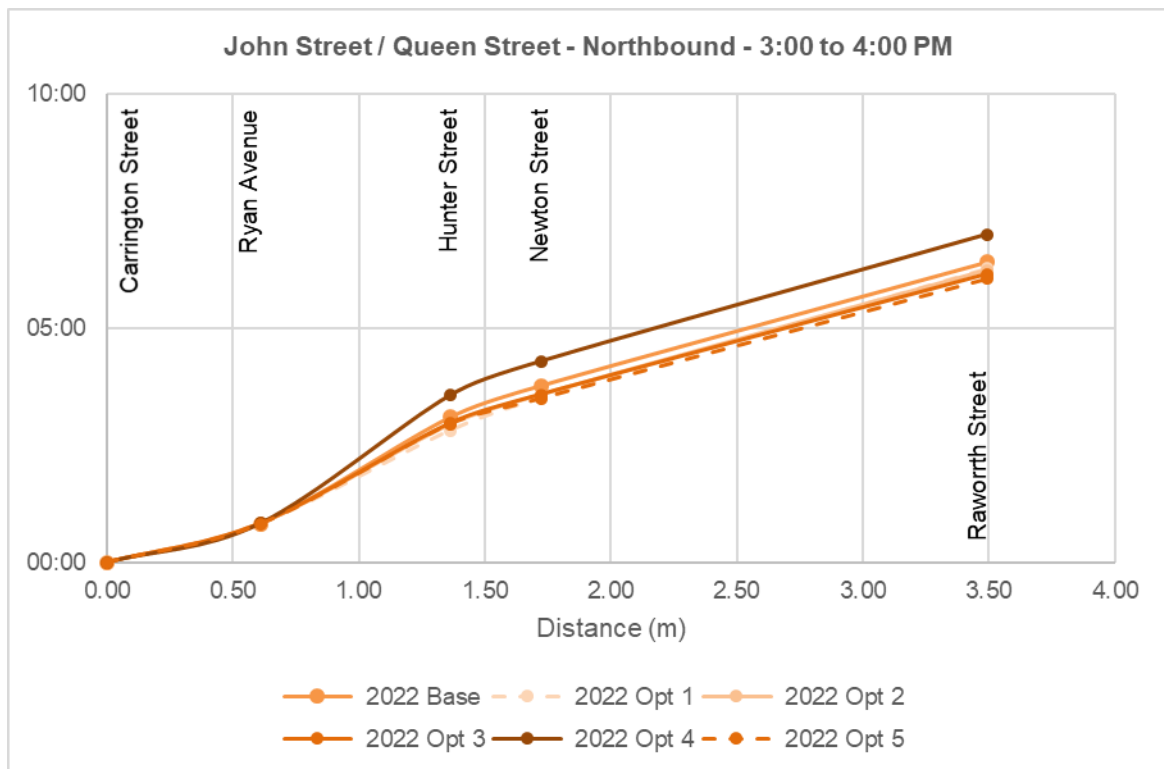


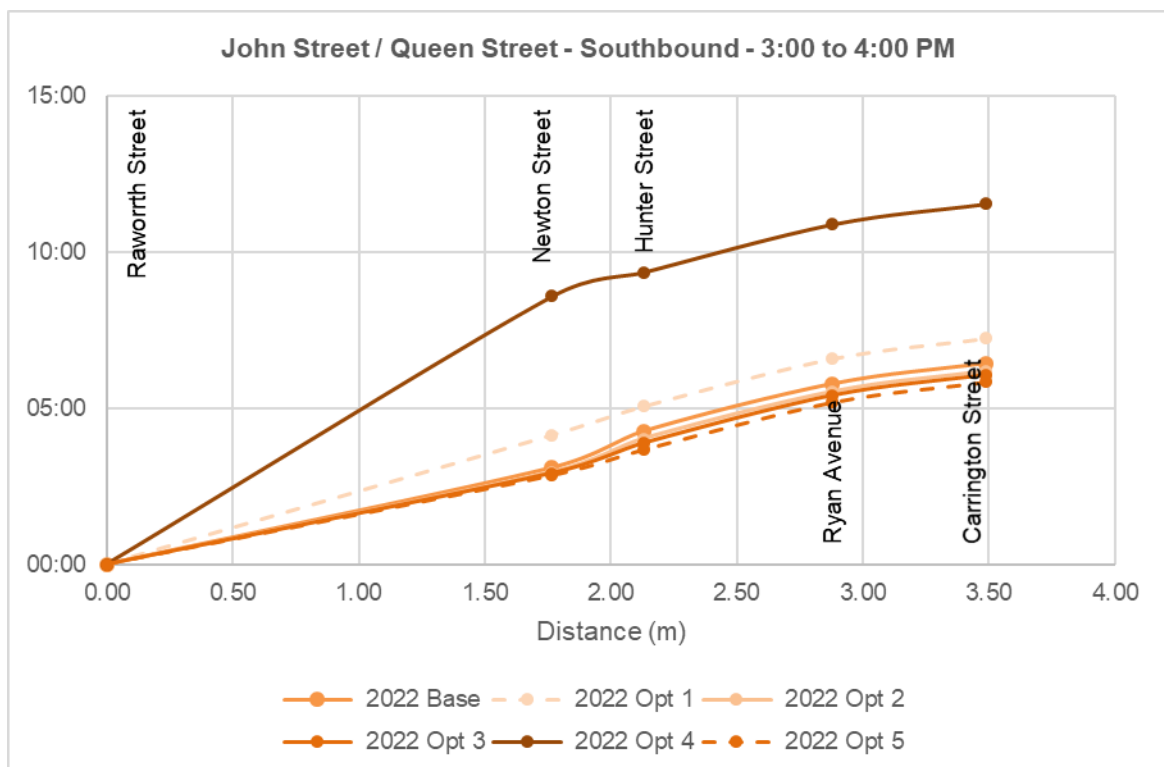
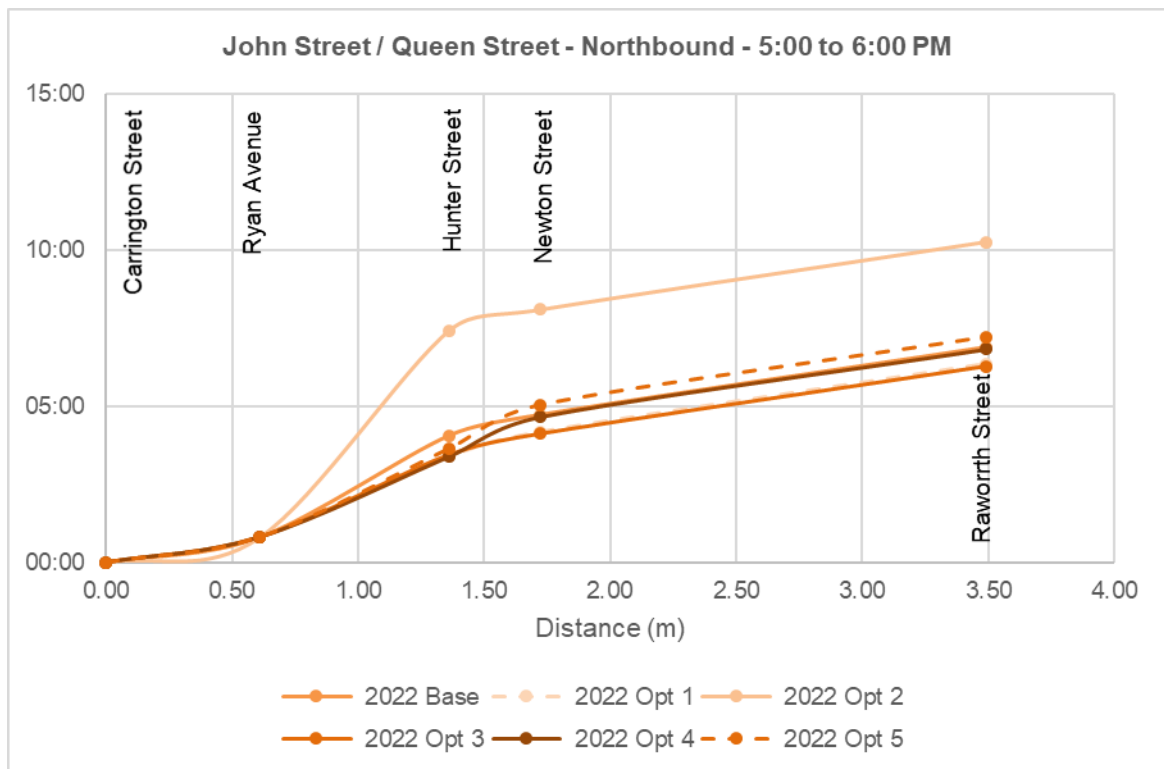


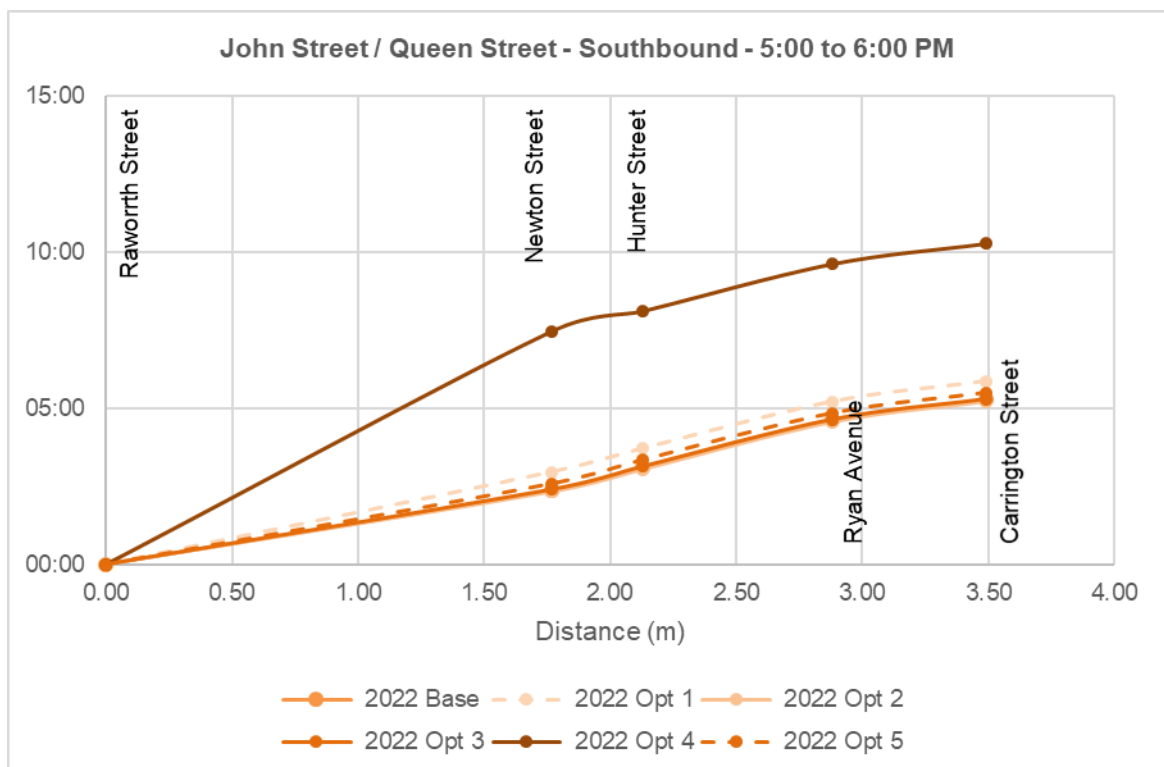
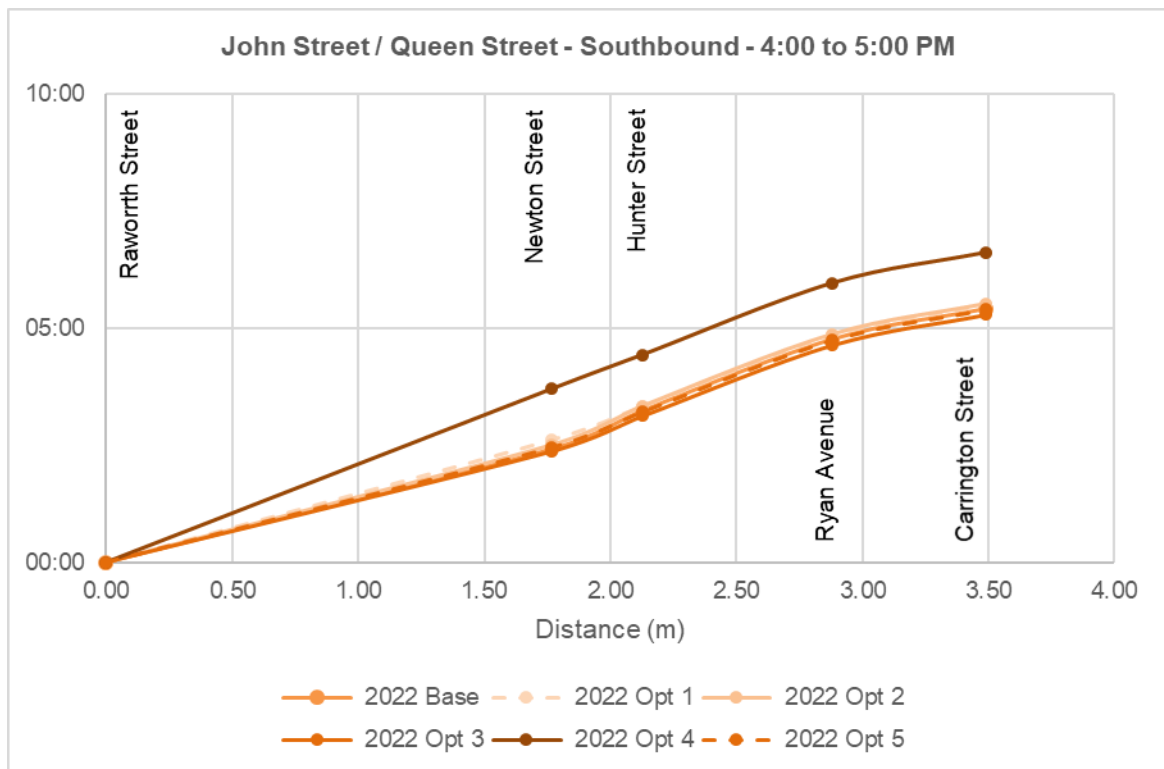




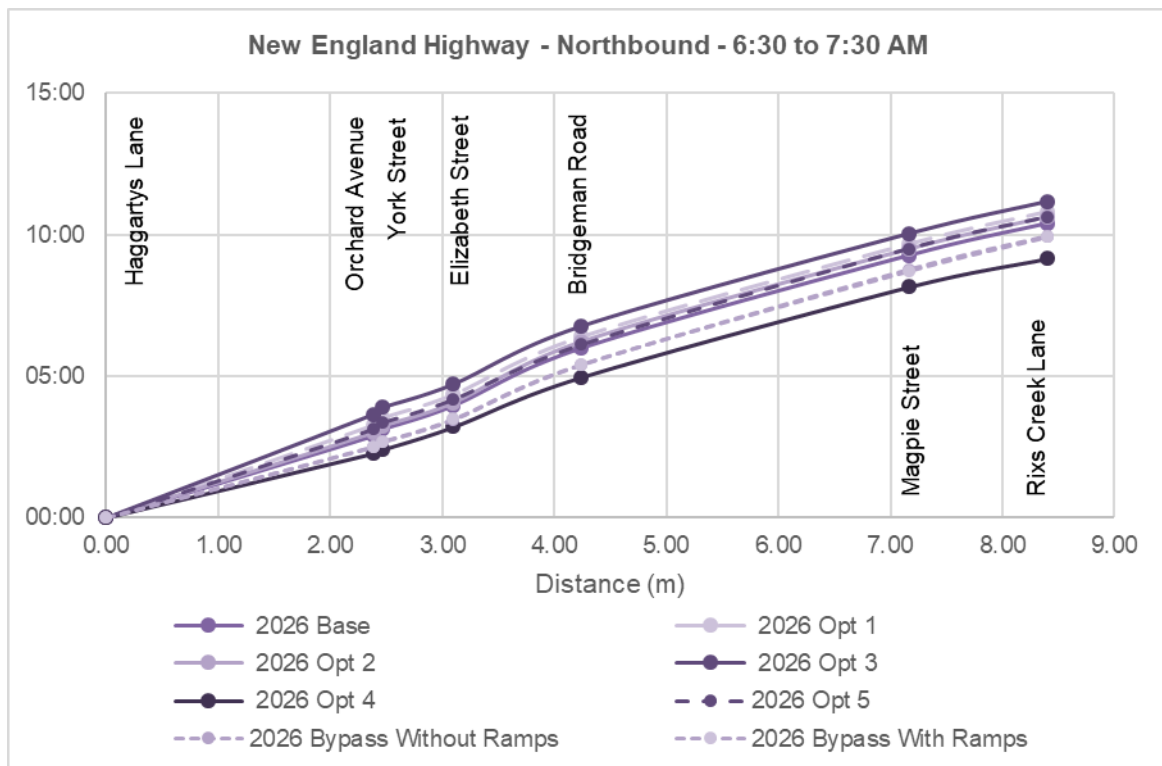
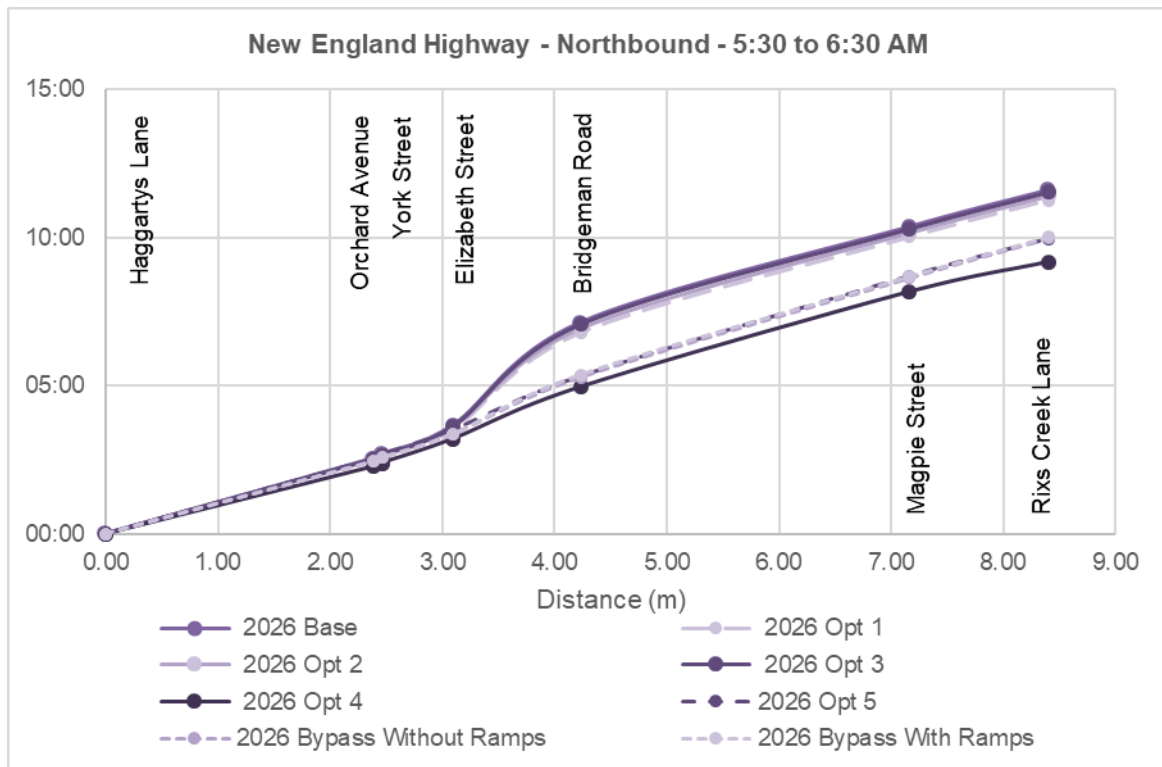


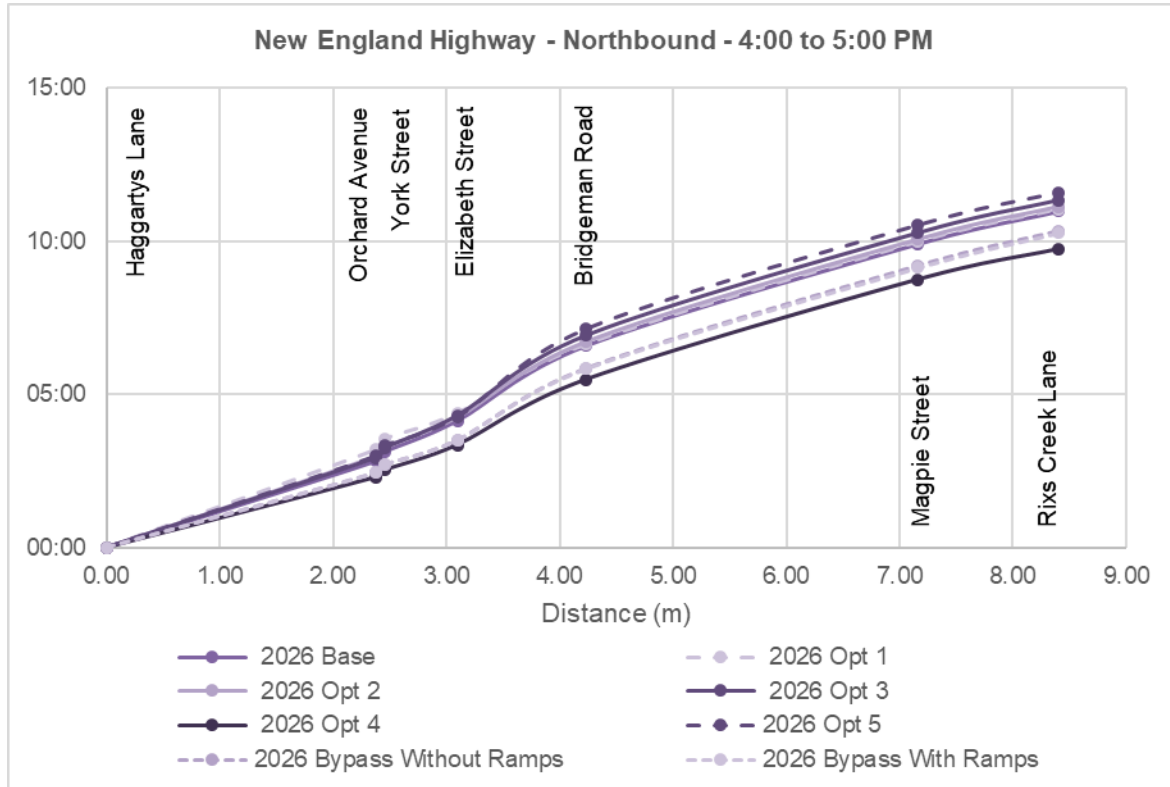
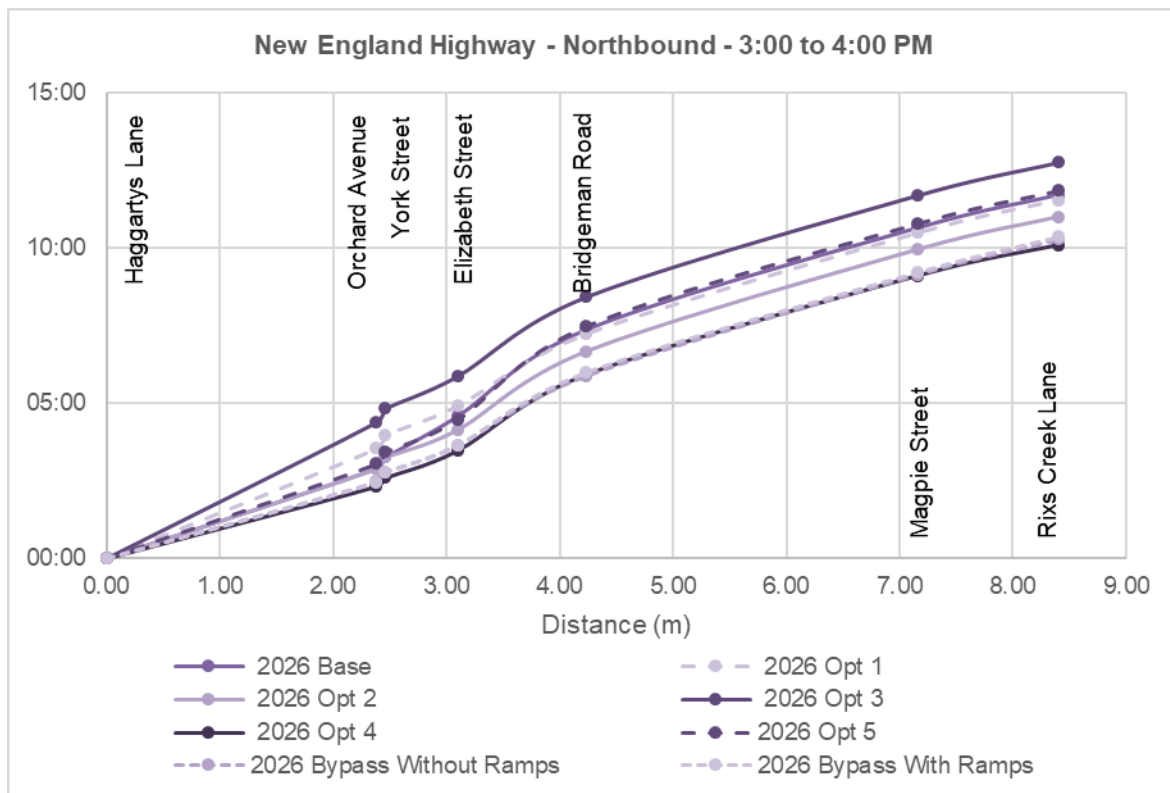


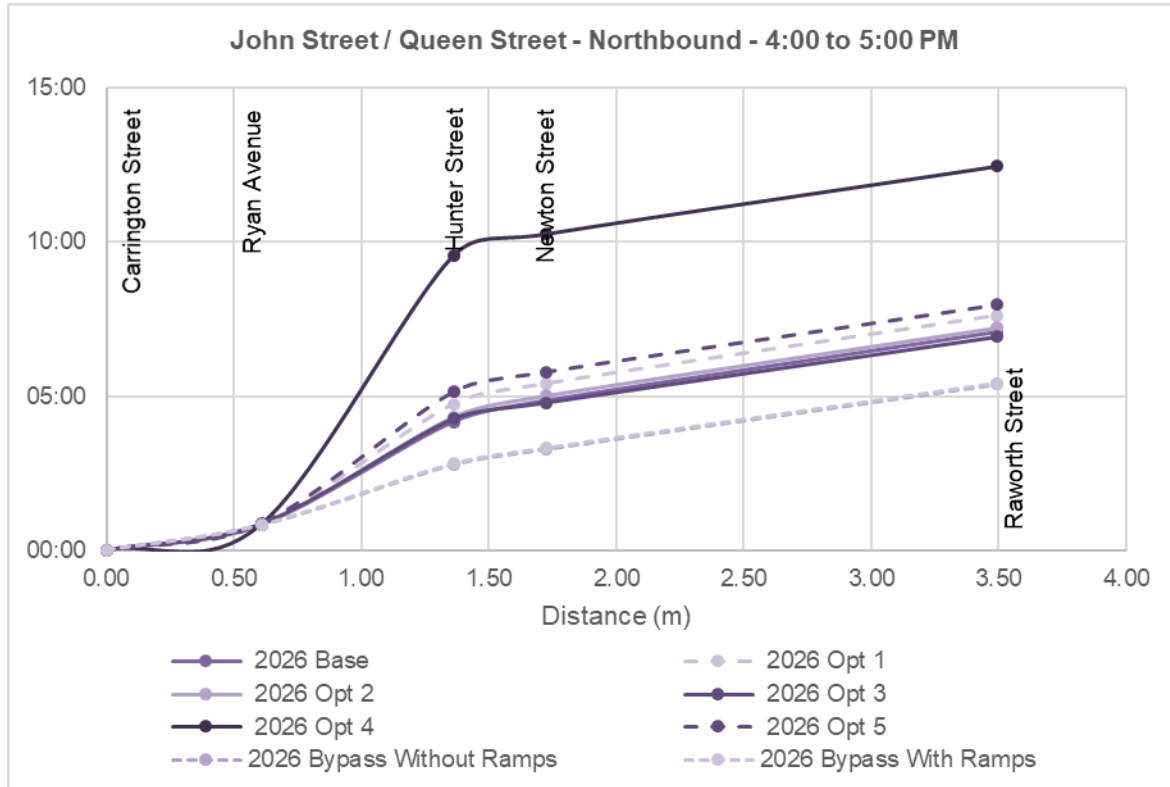
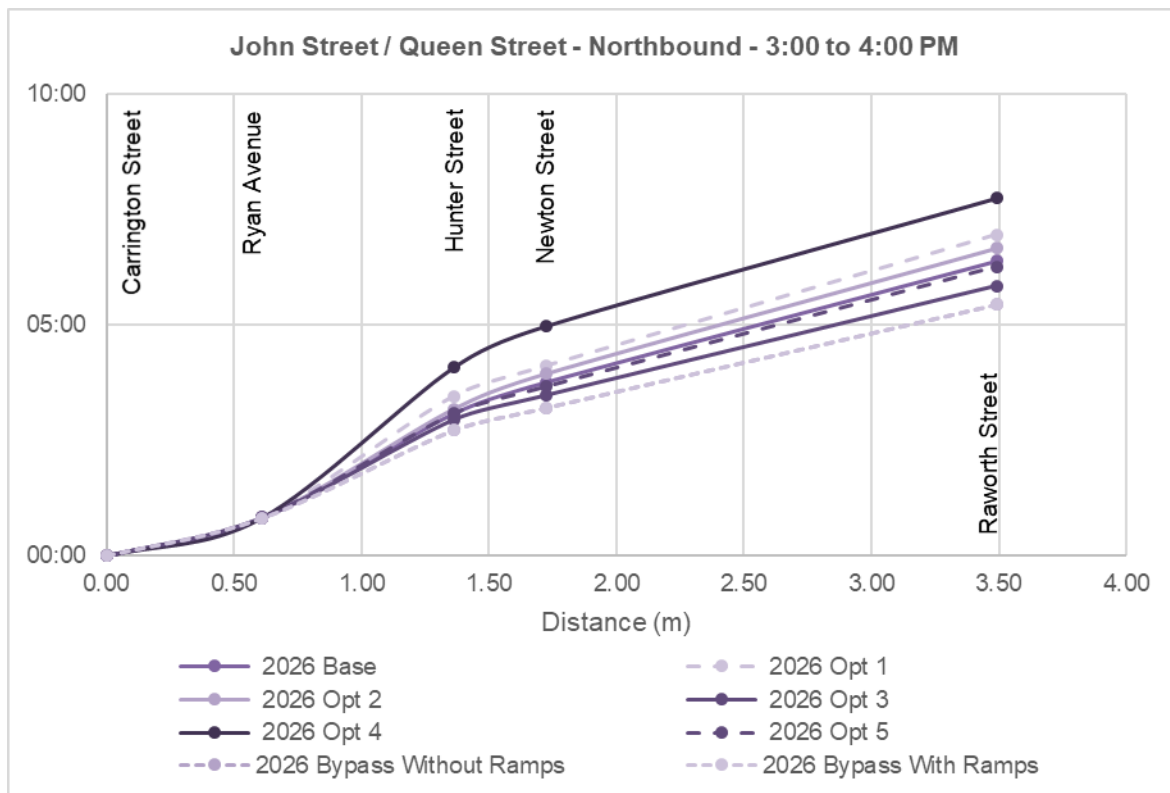


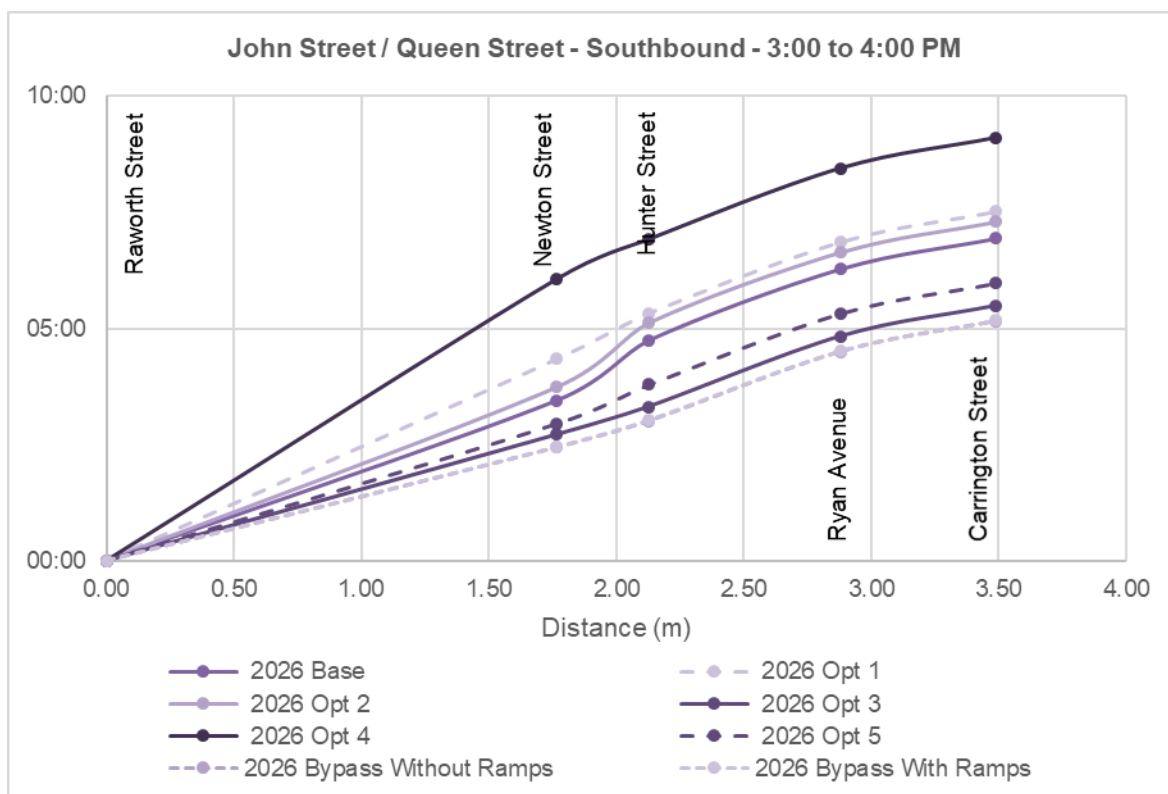
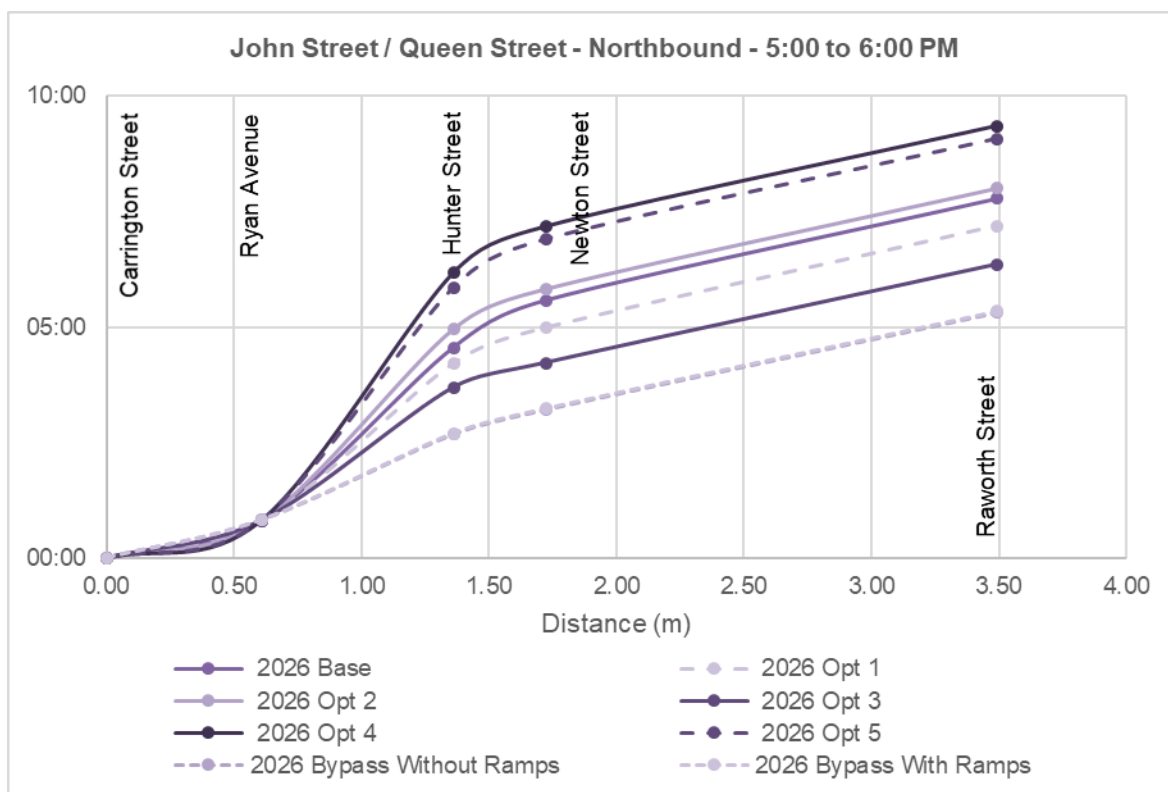


Future Year 2026 Travel Time Graphs

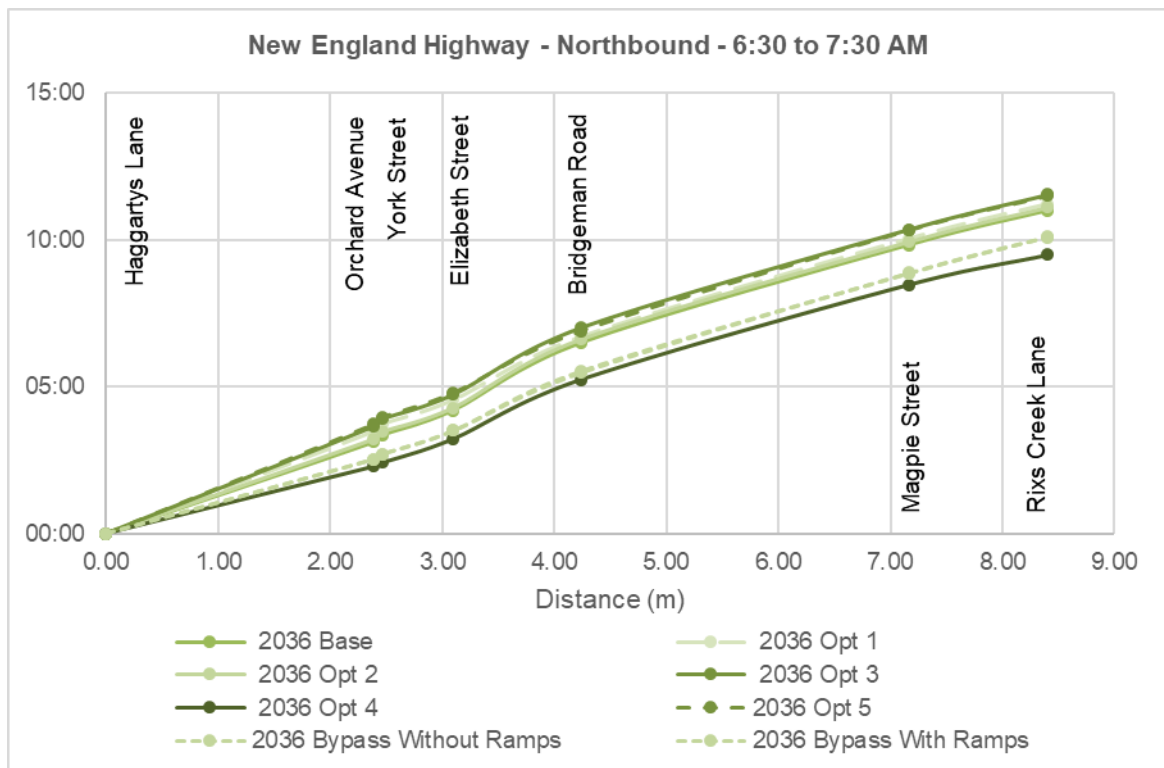
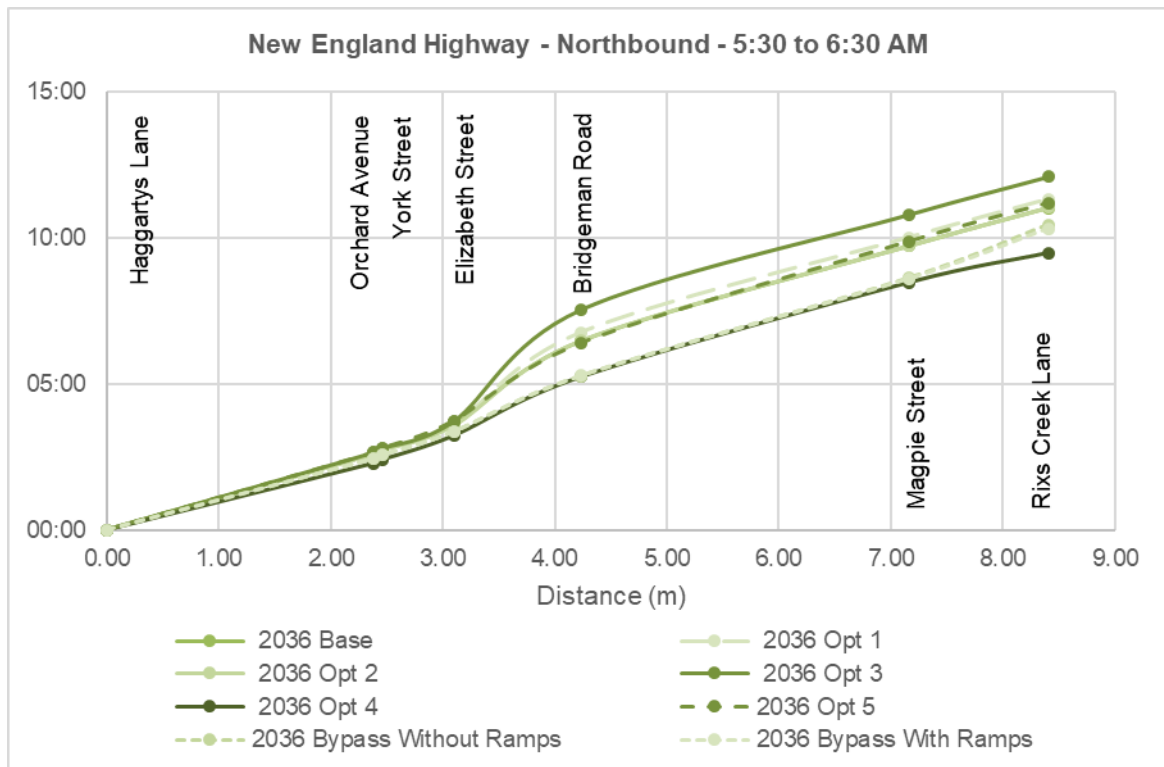








Future Year 2036 Travel Time Graphs



Future Year 2046 Travel Time Graphs

