

COMMUNICATION # CC-2022-0225

TITLE:

Traffic Lights – Intersections of 9th Ave. NW and Highway #1 and Thatcher

Drive and Highway #1

TO:

City Council

FROM:

City Manager

DATE:

September 20, 2022

PUBLIC:

PUBLIC DOCUMENT

RECOMMENDATION

THAT the City of Moose Jaw notify the Minister of Highways that it is in support of vehicle actuated traffic lights at the intersections of as an interim measure:

- 9th Ave. NW and Highway #1
- Thatcher Drive and Highway #1.

EXECUTIVE SUMMARY

The City of Moose Jaw is in support of the business owners on the Highway #1 North Service Road and recognizes that urgent action is required at this intersection to enhance traffic safety. The City is also concerned about the intersection of Thatcher Drive and Highway #1.

A resolution will formalize the need and state the City's official position.

BACKGROUND

The City of Moose Jaw has had ongoing discussions with the Ministry of Highways respecting the need for traffic safety enhancements at the two noted intersections.

The City will participate in a committee with Highways to study the Highway #1 corridor through Moose Jaw in 2022/23. These two intersections have been flagged as a safety concern for many years. It is believed that an interchange is required for a permanent solution; however, that can be a lengthy process and immediate action is required to enhance safety at these locations.

DISCUSSION

The business owners on the Highway #1 service road met with the Minister of Highways and presented the attached report (Attachment A).

The business group have asked for City Council support and the City does not have a formal resolution to that effect. The Highway #1 corridor study can take some time to complete. The construction of an interchange potentially can take three to five years to design and construct.

It is suggested vehicle actuated lights are necessary, for interim safety measures, to address this long outstanding safety concern.

STRATEGIC PLAN

This report supports the Strategic Plan Objective #6 – Transportation and Infrastructure.

PRESENTATION

Mr. Jim Puffalt, City Manager, will provide a brief overview of this report.

ATTACHMENTS

A. Report dated September 9, 2022 from the Moose Jaw North Service Road Business Community, re: Request for the Installation of Traffic Signals: Intersection between 9th Avenue North West, Moose Jaw & Trans-Canada Highway One.

REPORT APPROVAL

Written by: Jim Puffalt, MBA, CMMA, RMA, City Manager

Reviewed by: Tracy Wittke, City Clerk

Approved by: Jim Puffalt, MBA, CMMA, RMA, City Manager

Approved by: Clive Tolley, Mayor

To be completed by the Clerk's Department only.	
Presented to Regular Council or Executive Committee on	
Resolution No.	

Report Approval Details

Document Title:	Traffic Lights - Intersections of 9th Ave. NW and Highway 1 and Thatcher Dr. and Highway 1 - CC-2022-0225.docx
Attachments:	- Attachment A - MJ North Service Road Business Community
	Report - Sept. 9, 2022.pdf
Final Approval Date:	Sep 22, 2022

This report and all of its attachments were approved and signed as outlined below:

Tracy Wittke

Jim Puffalt

No Signature - Task assigned to Clive Tolley was completed by assistant Caroline Dreger

Clive Tolley

Request for the Installation of Traffic Signals:

Intersection between 9th Avenue North West, Moose Jaw & Trans-Canada Highway One

For: Honourable Jeremy Cockrill - Minister of Highways

From: Moose Jaw North Service Road Business Community

Date: Friday 9th September 2022

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Community

Appendix C - Three Examples of Controlled Intersections on Highway 1

(MB & AB)

1. Background

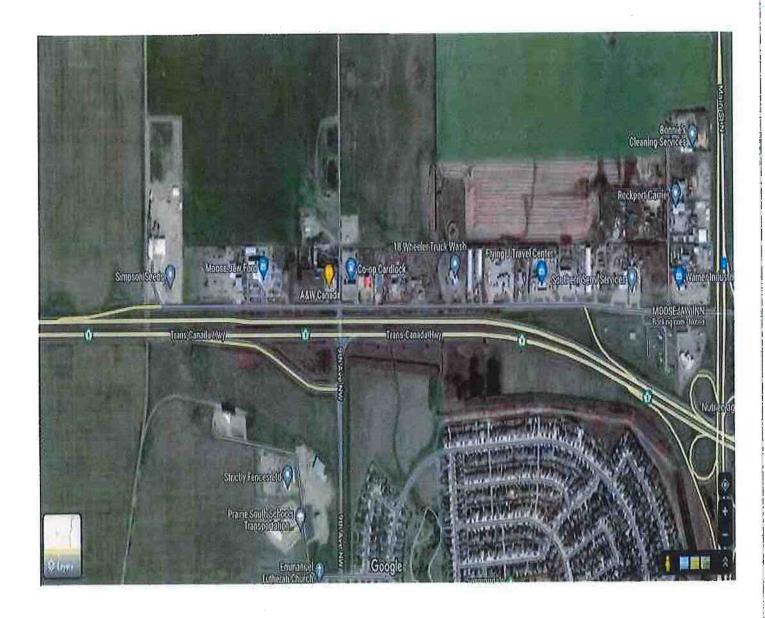


Fig: Aerial view of 9th Ave NW & TCH including some businesses on North Service Road

The intersection between 9th Avenue Northwest and the Trans-Canada Highway (TCH) in Moose Jaw is unsafe. Over the years, the number of collisions have been well documented (Shirkey 2022). The high traffic count on our major highway and the close proximity it shares to other businesses along North Service Road and the City of Moose Jaw makes intersection safety and access a key priority.

Over the years, we recognize that there have been numerous improvements by the Ministry of Highways and the City of Moose Jaw to enhance intersection safety. The installation of a speed camera at this particular intersection was one such addition. Unfortunately, despite being able to monitor speeds, many motorists have not been deterred by this. Based on the number of tickets issued, this intersection is synonymous with being the most 'popular' high speed zone in the entire province! (Davis and Hill 2020). A worrying distinction. These speeding metrics coupled with the consistent number of collisions continue to clash with the increasing development in Moose Jaw and surrounding areas. This alarming trend reinforces the importance of road safety on this major intersection.

There has been a strong interest among a diverse group of stakeholders including the public (Appendix A) & the North Service Road Business Community (Appendix B) and Municipal leadership to install traffic signals at the affected intersection. In the next section, we outline the case for traffic signals.

2.0 Case for Traffic Signals

There are a number of factors that make this intersection a suitable candidate for traffic signals:

- Increased volume of aggressive high-speed traffic. Despite other measures that have been implemented, including speed reductions and other traffic calming measures, the highway remains an immensely popular route one that can not easily be substituted. Its use is only expected to continue to grow with time. The installation of lights would give motorists the assurances they need while navigating an increasingly hectic intersection on our principal highway. Commuters, who reside in Moose Jaw using that intersection when traveling eastbound to Regina or westbound to Swift Current would feel more confident and assured with the order and safety that the traffic lights would bring with it.
 Minimizing motorist uncertainty would improve highway safety.
- The frequent use of the TCH often means motorists, especially truckers, struggle when visiting one of the many businesses on the service road that cater to this specific group of motorists. Farmers hauling grain or livestock face a similar predicament. Traffic signals would help to ease the congestion caused by slower moving larger commercial vehicles that require more time when navigating the intersection. As such, all users would benefit from a wholly controlled intersection, enhancing safety for all motorists.
- The NSRBC has a common fear around staff safety. Hundreds of Moose Jaw residents work on the North Service Road. Our staff often make several trips a day to and from

work. Due to the close proximity of home to work, many go home for their lunch break and then back to work. This convenience for staff results in in excess of a 1000 trips/day at peak traffic times to this intersection by the NSRBC staff alone. Suggestions have been made by many onlookers to have our staff avoid this intersection and use alternative routes, but most staff continue to see this intersection as the most practical way to and from work. Business owners talk about their fear and anxiety when we first hear of an accident. Common thoughts are, "is it one of my staff, neighboring business staff, a customer, or even a family member coming to visit?". All motor accidents are awful but we fear for staff, customers, and loved ones everyday. One such business owner recalls a son that was killed in the late 1960's at this same intersection and other business owners can recall family, friends, co-workers, and customers who have been in fatalities or serious collisions at this infamous intersection. This has to stop.

- The intersection possesses the capacity to support lane widening and any radius improvements that may be required to facilitate the installation of traffic signals.

 Widening of the median separating the eastbound and westbound lanes is also possible to properly configure the traffic signals.
- Less physical collisions with the Eastbound Highway 2 Overpass. In the past, higher speeds on the TCH have seen numerous semi's literally collide with the overpass.

 According to SGI, between 2016 and 2020 there were ten separate instances where larger vehicles collided with the Highway 2 Overpass (Slaght 2022b). Controlling the 9th Ave NW & TCH intersection would ensure that these larger vehicles come to a gradual halt

instead of barreling past the overpass which would save in prospective repairs to the overpass & reduce any delays associated with any collisions.

- It is a cost-effective measure that requires less temporal bandwidth. Alternatives such as a bypass can be very expensive to initiate and implement. In addition to the monetary cost, the scope and horizon of such a project would require a lot of time and other resources which could be better served towards other Government initiatives.
- Lastly, traffic signals at this major intersection would also bring other positive externalities to the City and to the Province. Attractive access would help all business owners by making their respective businesses more accessible to motorists on the highway and to residents in Moose Jaw. Suffice to say, the past few years have been daunting for a majority of the business owners. Needless to say, navigating the pandemic and dealing with unforeseeable economic challenges have wreaked havoc on many businesses. To mitigate some of this uncertainty, improved highway safety and better access would be an ideal solution for all concerned stakeholders.

3.0 Comparable Controlled Intersections on Highway 1

We now consider other similar intersections on the TCH that have businesses along the highway supported by controlled intersections. In our appendix, we examine three separate intersections in our neighboring provinces. These include the following intersections:

- 18th Street North & TCH, Brandon MB
- Eagle Butte Road & TCH, Dunmore AB
- Boundary Road SE & TCH, Redcliff AB

The above three intersections share a lot in common with our intersection. Notably, they each have a service road with numerous businesses along the TCH. The composition of these intersections are very similar to our intersection, except that these intersections are fully controlled.

In addition to examining these three separate intersections, we also list the following intersections on the TCH that have traffic signals that can be found throughout Western Canada.

- Race Track Road & TCH, Headingley MB
- Festival Drive & TCH, Winnipeg MB
- Deacon Road & TCH, Navin, MB
- ♦ 1st Street N & TCH, Brandon MB
- King ST E & TCH, Virden MB

- ♦ Mitchell ST NE & TCH, Redcliff AB
- Broadway Ave E & TCH, Redcliff AB
- 13th Ave SE & TCH, Medicine Hat AB
- ♦ 6th St SW & TCH, Medicine Hat AB
- ❖ George Freeman Trail & TCH, Strathmore AB
- Lakeside Blvd & TCH, Strathmore AB
- ❖ Wheatland Trail & TCH, Strathmore AB
- Westmount Road & TCH, Strathmore AB
- Highway 1 Frontage Road & TCH, Golden BC
- 30th Street NE & TCH, Salmon Arm BC
- Nakusp Mica Creek Highway & TCH, Revelstoke BC

By no means is the above list exhaustive, but it does illustrate a good number of intersections along the TCH with signal lights. Note that there are many other larger cities along the TCH where the route passes through including Calgary AB, Winnipeg MB, Kamloops BC, Vancouver BC and Victoria BC, to name a few. The number of controlled intersections in these larger cities would be far too many to list!

After considering other similar intersections along the TCH in our neighboring provinces, we also explore the negative consequences and externalities associated with pursuing less adequate alternatives. In particular, we examine the inadequacies of a median closure while reaffirming that such a proposal would be unacceptable to us.

4.0 NO To a Median Closure!

In the past one proposed "remedy" that has been touted is a median closure. Invalidating the intersection is unacceptable as it would restrict access to our businesses on North Service Road. Furthermore, a median closure would not resolve the speeding issue. Removing an intersection does not make the highway safer.

It goes without saying that restricted access via a median closure would be catastrophic to the entire business community on North Service Road. Businesses who employ hundreds of individuals, many of whom reside in the city would experience a slowdown in sales. These include many businesses that cater to travelers that comprise of farmers and truckers. In an already difficult economic climate, other potential negative externalities include business closures and layoffs associated with lower margins. Property values would also plumett as North Service Road would now be seen as a less desirable, dare we say 'inferior' location for businesses. We can all agree that this outcome is not one that would be beneficial for any of the concerned stakeholders.

From the onset we have been adamant that this is not a solution that we would be willing to accept. We have also expressed these grievances to municipal leadership who also agree that such an option would be detrimental to the businesses on North Service Road and are also very supportive of the proposal to install traffic lights at this particular intersection. Collectively, we recognize the importance of highway safety and believe that this can be achieved without having to compromise access to our many businesses.

5.0 CONCLUSION

In our report, we examine the safety of the intersection between 9th Ave NW & TCH in Moose Jaw. We outline the reasons why traffic lights would be beneficial to motorists and to the businesses along North Service Road. In doing so, we compare other similar intersections along the TCH in neighboring provinces.

In addition to evaluating the improvements and positive externalities that traffic signals would bring to ALL stakeholders, we also outline why other proposals may not be feasible for this particular intersection. In particular, we consider the demerits that a median closure would have, including the negative impacts it would have on our businesses.

It is worth mentioning that in our findings across Western Canada, we observed that any city with a similar composition like Moose Jaw that had businesses on the TCH were supported by a controlled intersection providing good access to these businesses. We consider three separate intersections in our neighboring provinces, but list other similar intersections (with traffic lights) that serve the same purpose. We share these intersections because we are not aware of any other uncontrolled intersections along the TCH that have a service road with so many businesses adjacent to a city as big as Moose Jaw. As we illustrate, in such cases there is typically a system of traffic signals to protect motorists at such intersections on the TCH.

To complement the traffic signals, we also encourage the use of more safety signage, more street lighting and other measures to increase awareness and to encourage drivers to adhere

to the proper traffic signals and directions. This would aid in making the transition more seamless for the motorists.

We genuinely believe that our objectives are aligned - Improved highway safety and better access to the businesses along the TCH to foster greater safety and to encourage future prosperity for all stakeholders. We commend you and your predecessors for all the good work that has been done towards improving highway safety and access in our Province. We look forward to collaborating with you and your good team and providing you with any feedback and support when making these much-needed improvements.

6.0 References

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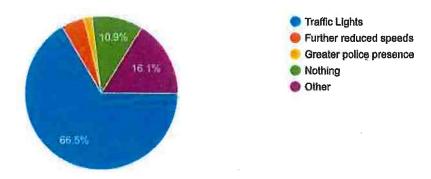
APPENDIX A - Safety Study

The following chart illustrates the results of an Intersection Safety Study conducted by Discover Moose Jaw on Jan 10 2022 (Slaght 2022a).

The poll provided a good opportunity for public engagement by allowing the general public to share their concerns and participate in policy recommendations that would improve road safety in their community.

The data indicates that a majority of those that participated in this study are in favor of the installation of traffic lights. From the 2,916 responses received, 1,938 of the respondents (~66.5%) believed that the installation of traffic lights would improve intersection safety.

What do you think needs to be done to make the intersection of Ninth Avenue Northwest and Highway 1 safer? 2,916 responses



Appendix C: Three Examples of Controlled Intersections on Highway 1 (MB & AB)

EXAMPLE A: TCH & 18 St North - Brandon, MB

Like Moose Jaw, the residential dwellings in Brandon are situated away from the major highway. Both cities also have numerous businesses within close proximity to the Trans-Canada highway. In Brandon, both intersections make for good case studies. However, for purposes of this report, we examine the intersection between Highway 1 & 18 Street North as it has more in common with the intersection between 9th Ave NW & Highway 1 in Moose Jaw. In this example, Middleton Avenue would be akin to our North Service Road. 18 St N would be similar to 9th Ave NW.



Fig 1A: A Map illustrating the intersection between Highway 1 & 18 Street North.



Fig 1B: Aerial View illustrating the intersection between Highway 1 & 18 Street North.



Fig 1C: Street View from Middleton Avenue (Service Road) illustrating the intersection between Highway 1 & 18 Street North.

EXAMPLE B: TCH & Eagle Butte Road - Dunmore, AB

Dunmore, AB would be the most recent example in this report. The addition of traffic signals were a direct response towards improving highway safety and were installed at a total cost of ~\$1.2 Million (Slade 2021). Like Moose Jaw, the intersection in Dunmore is an intersection between a service road and the same Trans-Canada highway. In this example, E3 Avenue would be akin to our North Service Road. Eagle Butte Road would be similar to 9th Ave NW.

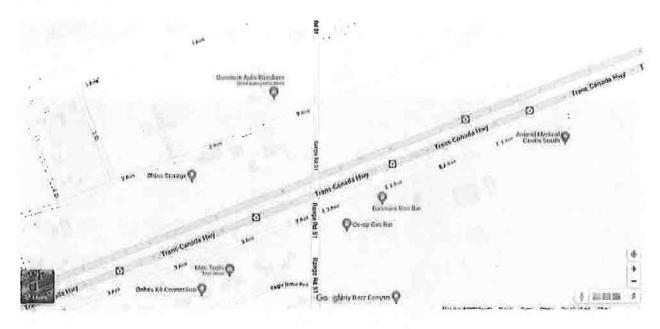


Fig 2A: A Map illustrating the intersection between Highway 1 & Eagle Butte Road



Fig 2B: Aerial View illustrating the intersection between Highway 1 & Eagle Butte Road



Fig 2C: Older Street View from E3 Avenue (Service Road) illustrating the intersection between Highway 1 & Eagle Butte Road- Circa 2014 (No Lights)



Fig 2D: Older Street View from Eagle Butte Road illustrating the intersection between Highway

1 & Eagle Butte Road- Circa 2014 (No Lights)



Fig 2E: Recent Street View from E3 Avenue (Service Road) illustrating the intersection between Highway I & Eagle Butte Road- Circa 2022 (Lights)



Fig 2F: Recent Street View from E3 Avenue (Service Road) illustrating the intersection between Highway 1 & Eagle Butte Road - Circa 2022 (Lights)



Fig 2G: Recent Street View from TCH illustrating the intersection between Highway 1 & Eagle

Butte Road - Circa 2022 (Lights)

EXAMPLE C: TCH & Boundary Road SE - Redcliff, AB

There are a number of controlled intersections along the TCH in Redcliff, AB that we could explore. However, due to the already lengthy nature of this report, we only consider one controlled intersection instead. Like Moose Jaw, and the other examples, the intersection in Redcliff is an intersection between a service road and the same TCH. In this example, South Highway Drive SE would be comparable to our North Service Road. Similarly, Boundary Road SE would be similar to 9th Ave NW.

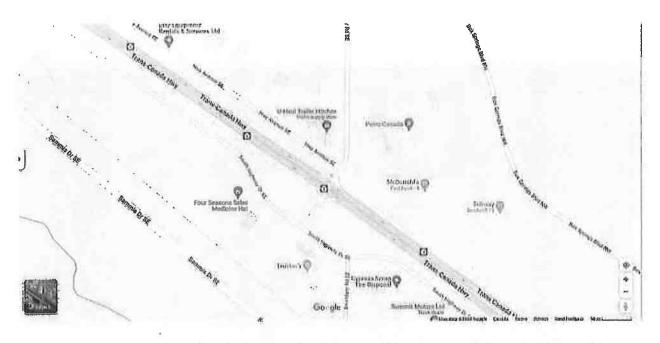


Fig 3A: A Map illustrating the intersection between Highway 1 and Boundary Road SE



Fig 3B: Aerial View illustrating the intersection between Highway 1 and Boundary Road SE

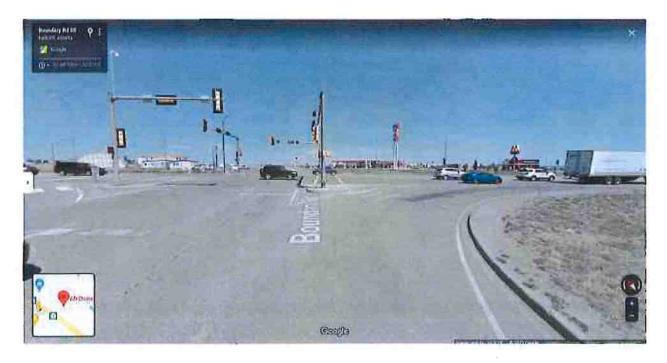


Fig 3C: Street View from Boundary Road SE (Service Road) illustrating the intersection between Highway 1 & Boundary Road SE.



Fig 3D: Street View from Eastbound TCH illustrating the intersection between Highway 1 & Boundary Road SE.