



STAFF REPORT ACTION REQUIRED

Legion Road Extension Class Environmental Assessment Study

Date:	October 13, 2009
To:	Public Works and Infrastructure Committee
From:	General Manager, Transportation Services
Wards:	Ward 6 – Etobicoke-Lakeshore
Reference Number:	P:\2009\ClusterB\TRA\TIM\pw09014tim

SUMMARY

The extension of Legion Road, from its northern limit to the Park Lawn Road exit ramp from the eastbound F.G Gardiner Expressway, is identified in the new Official Plan as a planned but unbuilt road. The extension of Legion Road will satisfy transportation needs of the area, improve traffic safety, and improve the efficiency of the road network throughout the area.

A Municipal Class Environmental Assessment (EA) Study has been undertaken to develop alignment options for the extension for Legion Road while taking into consideration the planned stormwater facility being investigated by Toronto Water for Bonar Creek and the Mimico Creek watershed which would be situated immediately to the east of the extension. The EA study included the identification and evaluation of a reasonable range of alternatives in consultation with the public and review agencies. The resulting Recommended Design is to extend Legion Road from its current northern limit to the Park lawn Road exit ramp from the eastbound F. G. Gardiner Expressway using a single portal tunnel under the CN rail corridor.

A Notice of Study Completion must now be issued and the Environmental Study Report filed in the public record for a minimum 30-day review period in accordance with the requirements of the Municipal Class Environmental Assessment.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. Authority be granted to the General Manager of Transportation Services to issue a Notice of Study Completion and to file the Environmental Study Report for the Legion Road Extension Class Environmental Assessment Study in the public record for 30 days in accordance with the requirements of the Municipal Class Environmental Assessment; and
2. Appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

Financial Impact

The preliminary cost estimate for this project is \$7.42 million. Construction of the Legion Road Extension is not anticipated in the immediate future as this section of road is not currently identified in the 2010 Capital Budget and 2011-2019 Capital Plan Submission for Transportation Services. However, approved alignment of Legion Road is one of the factors influencing the location and sizing of a stormwater management facility identified in the Weather Flow Master Plan. Construction of this facility by Toronto Water is expected to begin in 2011.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

ISSUE BACKGROUND

The extension of Legion Road, from its northern limit to the Park Lawn Road exit ramp from the eastbound F.G Gardiner Expressway, is identified in the new Official Plan as a planned but unbuilt road. The extension of Legion Road will satisfy transportation needs of the area, improve traffic safety, and improve the efficiency of the road network throughout the area.

In 1997 the former City of Etobicoke undertook a Municipal Class Environmental Assessment (EA) Study for the extension of Legion Road. The recommendation from this study identified an alignment for the extension of Legion Road from its current northern limit to the Park Lawn Road off-ramp from the eastbound F. G. Gardiner Expressway (Gardiner). Since the approval of that EA study conditions for the floodplain and flood protection requirements for Mimico Creek have changed in such a manner that it requires an alteration to the design of Legion Road and this change would have triggered an Addendum to the EA prior to the construction of the roadway. In addition, the new requirement from Toronto Water to implement a stormwater facility to the east of the road alignment required that a new EA study be undertaken to take into

consideration the new Mimico Creek floodplain requirements as well as the size and alignment of the proposed stormwater facility.

In 2003, the City approved the Wet Weather Flow Master Plan (WWFMP). The goal of the WWFMP is to reduce and ultimately eliminate the adverse impacts of wet weather flow to protect the environment and improve the ecosystem health of the watersheds. The proposed Bonar Creek Stormwater Facility is one of the projects identified in the plan for implementation. This facility will be located in the vicinity of Bonar Creek and Mimico Creek and on the site of the former Humber Sewage Dewatering plant.

Transportation Services staff in conjunction with Toronto Water staff concluded that it was in both divisions best interests to conduct a joint EA study that would ensure that the requirements for each project would be reflected in the study of the other.

COMMENTS

Study Process

A Class Environmental Assessment (EA) Study was initiated to evaluate a range of options for extending Legion Road from its current northern limit to the Park Lawn Road off-ramp from the eastbound Gardiner. The EA study has been completed according to the requirements for a Schedule “C” project under the Municipal Class Environmental Assessment (The Class EA). The Class EA process requires that the City confirm the need (i.e. define the problem/opportunity), identify feasible solutions, evaluate the impact of the alternative solutions on the natural, social and economic environments, and select an alternative for construction.

As a requirement of Schedule “C” projects, if City Council endorses the recommendations of this Study, the Environmental Study Report (ESR) will be filed in the public record for a minimum 30-day review period. During this period, members of the public, and any other interested individual, interest group, or government agency, may request that a Part II Order be issued. A Part II Order, if granted by the Minister of the Environment, elevates the status of the project from a Class EA Study to an Individual Environmental Assessment. If this occurs, the project cannot proceed until the proponent completes an Individual Environmental Assessment Study and receives approval from the Minister. If a Part II Order is not granted or if no requests or objections are received during the filing period, the project is approved under the Environmental Assessment Act and may proceed.

The ESR describes in detail the first three phases of the five-phase environmental planning process set out by the Class EA:

Phase 1 – identification of the problem or opportunity;

Phase 2 – identification and evaluation of alternative solutions; and

Phase 3 – identification and evaluation of alternative design concepts for the preferred solution.

The preparation of the ESR itself and the filing of the document in the public record constitute Phase 4 of the environmental planning process. Phase 5 is the construction and operation or implementation of the project, and monitoring of impacts, in accordance with the terms of the EA approval. The Legion Road Extension Class Environmental Assessment Study is currently at Phase 4 of the process.

The Class EA Study was carried out with the assistance of technical consultants and supported by a Technical Advisory Committee comprised of staff from Transportation Services, City Planning, Toronto Water, Technical Services and the Toronto and Region Conservation Authority.

Public Consultation

Public involvement is an integral and ongoing part of the EA Study process. The public consultation requirements of the Class EA were met and exceeded in this study. The public consultation program included two Public Open Houses (POHs), held at key decision points during the study, and two community newsletters advising and updating the public on the status of the project. In addition, the City of Toronto's website provided a link to all pertinent information related to the Study as well as contact information.

Notice of Study Commencement

A Notice of Study Commencement was provided through newspaper advertisements in the Etobicoke Guardian on December 14 and 21, 2007. Notices were also directly mailed to relevant government review agencies, local Business Improvements Associations and Ratepayer Associations within the study area. The geographic limits for the mail drop was bounded by Kipling Avenue to the west, The Queensway to the north, Park Lawn Road/Mimico Creek to the east and Lake Shore Boulevard to the south.

Newsletter No. 1

In late September 2008, the first study Newsletter was circulated within the study area. The purpose of the newsletter was to promote the first Public Open House as well as provide local area residents and businesses of the status of the study. Approximately 15,000 residents and businesses in the study area were delivered copies of the newsletter via a Canada Post flyer drop, as well as direct mail to local ratepayer associations and individuals on the project mailing list. The project mailing list was generated using review agency contacts, local interest groups and members of the public expressing an interest in participating in or being kept up to date on the project. A copy of the newsletter was also posted on the project website.

Public Open House No. 1

The first Public Open House was held on October 8, 2008 at Mimico Centennial Library (47 Station Road). Notices for this open house were advertised in Study Newsletter No. 1 (circulation is described above) as well as advertisements in the Etobicoke Guardian on October 1 and 3, 2008. Twenty seven members of the public attended the open house.

The purpose of the open house was to:

- Introduce and provide background information on the study;
- Explain the Municipal Class Environmental Assessment process;
- Present the proposed alternatives;
- Identify the preliminary preferred solution; and
- Outline the next steps in the study.

Generally residents expressed a desire to see Legion Road extended. There were also comments to upgrade pedestrian and cycling facilities as well as adjacent roadways.

Newsletter No. 2

In early April 2009 the second study Newsletter was mailed to all residents, businesses and review agencies on the project mailing list. The purpose of the newsletter was to promote the second Public Open House as well as advise local area residents and businesses of the status of the study. A copy of the newsletter was also posted on the project website.

Public Open House No. 2

The second Public Open House was held on April 15, 2009 at Mimico Centennial Library (47 Station Road). Notices for this open house were included in Study Newsletter No. 2 (circulation is described above) and advertised in the April 8 and 10, 2008 editions of the Etobicoke Guardian. Fifteen members of the public attended the open house.

The purpose of the open house was to:

- Present a summary of the feedback collected from Public Open House #1;
- Present and gather information on the design concepts for the preferred solution; and
- Outline the next steps in the study.

Generally residents expressed a desire for a single portal connection under the rail corridor. There were also additional comments to implement designs and features to make the area more aesthetically pleasing.

Environmental Assessment Findings

(1) Identification of the Problem or Opportunity

The Study Area, shown in Attachment 1, was bounded by Lake Shore Boulevard to the south, The Queensway to the north, Park Lawn Road to the east and Grand Avenue to the west. Currently the southerly leg of Legion Road extends from Lake Shore Boulevard to a point approximately 300m north of Lake Shore Boulevard. The northerly leg of Legion Road extends between the Gardiner Expressway eastbound off-ramp to Park Lawn Road south to Manitoba Street.

The 1992 Motel Strip Secondary Plan and the 1995 Park Lawn Road/Lake Shore Boulevard Secondary Plan (both of which have now been incorporated into the City of Toronto Official Plan) identified Legion Road as a required road connection within the transportation network. This need was based on a projected future build out of this area.

The EA study identified that the locations of the CN rail corridor and the Gardiner Expressway limits the number of continuous north-south roadways in south Etobicoke thereby restricting available capacity and convenient access across this corridor. Therefore there is a need to:

- Provide additional transportation capacity to support the continuing development within the study area;
- Reduce congestion, particularly along Park Lawn Road;
- Improve access to the main arterial road network for residents in the study area; and
- Create new connections to accommodate the additional traffic generated by new developments.

The requirement of Toronto Water to implement a stormwater facility on the site of the former Humber Sewage Dewatering plant also presents an opportunity to evaluate options for an extension to Legion Road.

(2) Identification and Evaluation of Alternative Solutions

To address the problem and opportunity as outlined above, three (3) alternative solutions were identified and evaluated as part of this study. A brief description of these alternatives and results of the evaluation are provided below:

Alternative 1 – Do Nothing

The “Do Nothing” alternative was included as a benchmark for the assessment of the other planning alternatives. As the name suggests, the “Do Nothing” alternative involves leaving Legion Road as it exists now with no other changes to the road network.

Alternative 2 – Upgrade Existing Roads

This alternative would include upgrading and widening parallel roads such as Park Lawn Road and Royal York Road.

Alternative 3 – Extend Legion Road

This alternative would include extending Legion Road to cross the CN rail corridor to provide a connection between the Gardiner Expressway/Park Lawn Road off-ramp and Lake Shore Blvd. West.

Each alternative was analyzed and evaluated in detail utilizing the following four criteria groups:

- Natural Environment;
- Land Use/Social Environment;
- Cultural Environment; and
- Economic and Technical Considerations.

A detailed traffic analysis of the existing and the projected future conditions was also undertaken for Legion Road and the adjacent and parallel streets.

Results for the existing traffic conditions indicate that all signalized and unsignalized intersections within the study area are operating at an acceptable level of service with exceptions to some individual movements. In the AM peak hour this movement is the WB left-turn at The Queensway and Park Lawn Road. In the PM peak hour these movements include all WB movements at Park Lawn Road and Lake Shore Blvd.

Additional development in the study area will result in additional traffic to the transportation network and decreased levels of service resulting in increased delays. The results of the traffic analysis show that the inclusion of the Legion Road Extension would result in more acceptable intersection levels of service than without the Legion Road Extension.

A summary of the overall intersection levels of service can be found in Table 1 below.

Table 1 – Traffic Analysis

Intersections	Existing		Without Extension		With Extension	
	AM	PM	AM	PM	AM	PM
Signalized Intersections						
The Queensway and Park Lawn Road	D	C	E	D	D	D
The Queensway and Grand Avenue	B	A	B	A	B	A
Park Lawn Road and Gardiner Expressway WB on-ramp	B	A	C	A	C	A
Park Lawn Road and Gardiner Expressway EB off-ramp	C	C	B	B	B	B
Park Lawn Road and Lake Shore Blvd	C	D	D	E	D	D
Lake Shore Blvd and Legion Road South	A	A	B	A	C	C
Gardiner Expressway EB off-ramp and Legion Road North	B	B	C	B	B	A
Unsignalized Intersections						
Legion Road North and Manitoba Street	A	A	A	A	A	C
Grand Avenue and Manitoba Street	A	A	A	A	A	A

Based on the results of the analysis and evaluation, Alternative 3 – Extend Legion Road was identified as the preferred solution. While there was some potential impact to the natural environment, this option offered the most support for the Land Use/Social Economic criteria as it supports planning policies, goals and objectives while supporting development in the area and providing increased pedestrian and cycling links for residents. A summary of the full evaluation of all the alternatives can be found in Attachment 2.

(3) Identification and Evaluation of Alternative Design Concepts for the Preferred Solution

As a result of feedback from the public consultation process Alternative 3 – Extend Legion Road was confirmed as the preferred solution.

In order to extend Legion Road it is necessary to cross the existing CN Lakeshore Rail Corridor. This corridor is among the busiest in the country accommodating CN freight traffic along with passenger traffic on both VIA Rail and GO Transit. As a result of the busy rail traffic an at-grade crossing is not feasible and a grade separated crossing must be considered at this location. There is not enough distance available to provide the

length needed for sufficient clearance for an overpass across the rail corridor therefore, the only alternative remaining to cross the corridor is via an underpass.

Two alternative design concepts were identified to extend Legion Road via an underpass across the CN rail corridor. A brief description of these alternative design concepts and results of their evaluation are provided below.

Design Concept 1 – Single Portal

This concept provides a single portal/opening for sidewalks, bicycle lanes and vehicular traffic lanes. Attachment 3 illustrates this concept.

The advantages of providing a single portal are:

- Ease of construction and lower costs due to fewer openings;
- Emergency access is possible for pedestrians along the roadway;
- Visibility from the roadway creates a safer environment for pedestrians; and
- Sidewalk profile can be raised for pedestrians to provide separation from the adjacent roadway.

The disadvantages for this concept are:

- Will require a barrier to protect pedestrians if the sidewalk profile is set higher than the adjacent road;
- Vehicle incidents may have a negative impact on pedestrian access depending on the nature and severity of the incident; and
- Less flexibility exists for the location of sidewalks as they will be adjacent to the road.

Design Concept 2 – Multiple Portals

This concept provides separate portals/openings for pedestrians from cyclists/vehicles. Attachment 4 illustrates this concept.

The advantages of providing separate openings for pedestrians and cyclists/vehicles are:

- Physical separation of pedestrians from other traffic allows pedestrian access in the event of restricted access due to a traffic incident;
- Separate profiles and locations for sidewalks can be provided which allows for greater flexibility in both approach grade and location; and
- Pedestrian tunnels can be set at different elevations and locations depending on the need of the users.

The disadvantages of the concept are:

- This can create an unsafe condition for pedestrians by restricting visibility;
- It may restrict access for emergency services;
- Pedestrian tunnels may have to be larger to allow emergency vehicle access due to the length of the tunnel; and
- Higher resulting costs due to the number and size of tunnels required.

After the review of the advantages and disadvantages of the two design concepts it was determined that the preferred design solution for the extension of Legion Road is the provision of a single portal. This concept was selected because it is safer for pedestrians as they will be more visible and can be easily accessed in the event of an emergency and it results in lower costs due to fewer openings and less construction staging.

Recommended Design

The Recommended Design for the extension of Legion Road includes the following elements:

- One northbound and one southbound vehicle travel lane;
- Bicycle lanes on both sides of the road;
- Sidewalks on both sides of the road;
- A single portal/tunnel to accommodate pedestrians/cyclists and vehicles under the CN rail corridor; and
- Provision of trees within the boulevards.

Property Impacts

There are no requirements to acquire private property for this project.

Public/Agency Concerns

Throughout the public consultation process various comments were received from the general public, adjacent property owners and review agencies which assisted in the development and evaluation of the alternatives. The primary concerns identified through the consultation process and our responses are summarized below.

- (1) Allow for two lanes in each direction

Future traffic analysis, taking into consideration the anticipated full build out of this area, indicate that only a single lane in each direction is required for Legion Road.

- (2) Widen Park Lawn Road

Evaluation of the alternative to widen adjacent roads indicates that it does not support the Official Plan nor does it provide any additional access across the rail corridor.

- (3) Should provide for transit

There are no plans by the Toronto Transit Commission to implement an exclusive transit route in this location. However, should transit be introduced it would operate in mixed traffic and there is sufficient width and height in the recommended design to accommodate transit in mixed traffic.

- (4) Do not agree with extension for vehicular traffic

Future traffic operations analysis indicate that without the extension of Legion Road there will be additional congestion and delay particularly at the intersections of The Queensway and Park Lawn Road and Park Lawn Road and Lake Shore Blvd. These intersections are currently experiencing higher than average delays on some movements today which will be exacerbated in the future. The extension of Legion Road will aid in reducing some of this delay and congestion.

- (5) Hope that there will be consideration for adding visually pleasing aspects to any proposed design

As with all projects, this project will have an urban design component during the detailed design phase to ensure compatibility with urban design and streetscape policies.

- (6) Ensure that any portal is well lit for safety reasons

To ensure safety, especially pedestrian safety, a single portal was chosen to enhance visibility. The portal will be lit as well to ensure safety of all users of the roadway.

Next Steps

Pending approval of this report by City Council, the ESR will be filed in the public record for a minimum 30-day period. Once EA approval is received detailed design of the Recommended Design may proceed.

Construction of this project is not anticipated to start in the immediate future as this section of road is not identified in the Transportation Services 10-year Capital Plan. However, approved alignment of Legion Road forms one of the factors influencing the location and sizing of the proposed stormwater facility. Construction of the stormwater management facility by Toronto Water is expected to begin in 2011.

CONTACT

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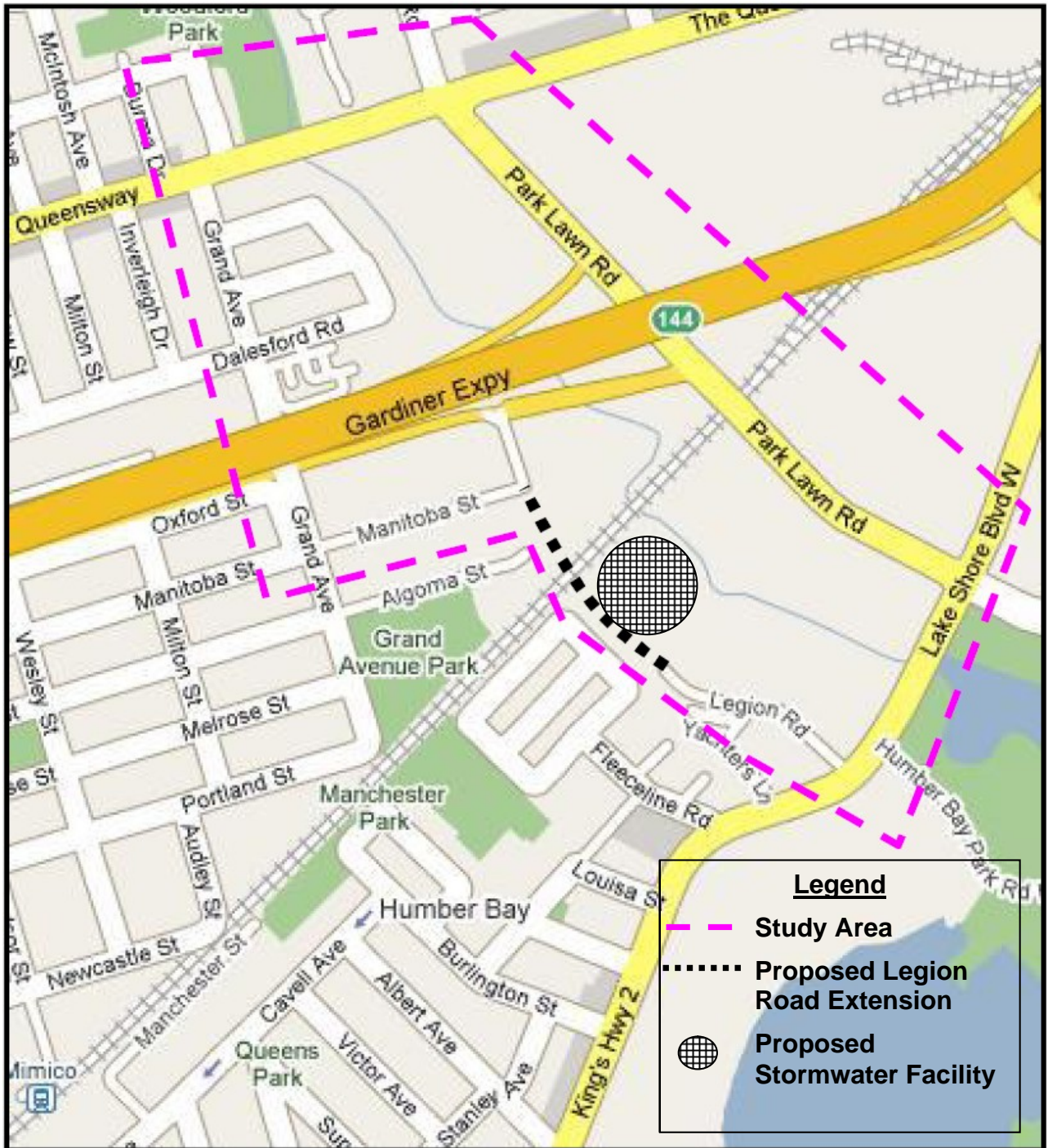
Gary Welsh, P.Eng.
General Manager, Transportation Services

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ATTACHMENTS

1. Study Area
2. Evaluation Table
3. Legion Road Extension Single Portal
4. Legion Road Extension Multiple Portals

Study Area



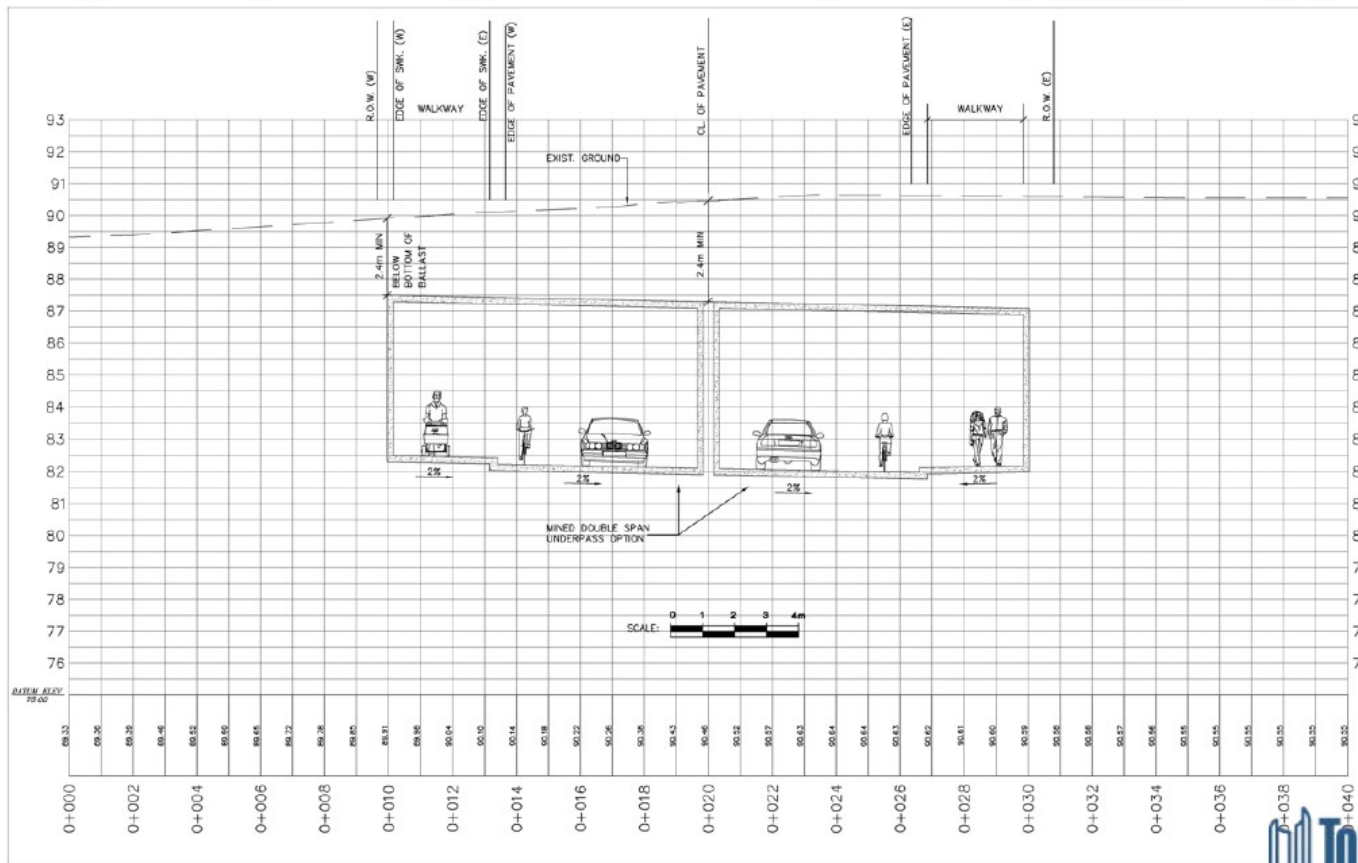
Legion Road Evaluation of Alternative Solutions

Evaluation Criteria	Alternative 1 Do Nothing	Alternative 2 Upgrade Existing Roads	Alternative 3 Extend Legion Road
Natural Environment			
Fisheries and Aquatic Systems	Good – No impact	Medium – Potential impact on fisheries – mitigation required	Medium – Potential impact on fisheries – mitigation required
Terrestrial Ecosystems	Good – No impact	Medium – Potential impact on environment – mitigation required	Medium – Potential impact on environment – mitigation required
Groundwater (Recharge)	Good – No impact	Medium – Potential impact on environment – mitigation required	Medium – Potential impact on environment – mitigation required
Surface Water	Good – No impact	Medium – Potential impact on environment – mitigation required	Medium – Potential impact on environment – mitigation required
Land Use/Social Economic			
Planning Policies Goals and Objectives	Poor – Not compatible with area Secondary Plans or OP	Poor – Not compatible with area Secondary plans or OP	Good – Compatible with area Secondary Plans and OP
Community Impact	Poor- Does not support continuing development in the area	Poor- Does not support continuing development in the area	Good – Supports development in area
Land Use Compatibility	Poor- Does not support continuing development in the area	Poor- Does not support continuing development in the area	Good – Supports development in area
Recreational Impact	Poor – No additional pedestrian bicycle opportunities	Poor – No additional pedestrian bicycle opportunities	Good – Provides opportunity for additional north-south linkages
Community Linkages	Poor – Lack of north-south linkages	Poor – Lack of north-south linkages	Good – Provides opportunity for additional pedestrian/bicycle linkages
Aesthetics/Landscaping	Neutral – No opportunity for enhanced/improved aesthetics	Neutral – No opportunity for enhanced/improved aesthetics	Good – Provides opportunity for streetscaping
Cultural Environment			
Built Heritage and Cultural Landscapes	Good – No impact	Medium – Potential for heritage impacts depending on the road to be widened	Medium – Minor potential for impact on built heritage
Archaeology	Good – No Impact	Medium – Potential for heritage impacts depending on the road to be widened	Medium – Minor potential for impact on Archaeological environment

Evaluation Criteria	Alternative 1 Do Nothing	Alternative 2 Upgrade Existing Roads	Alternative 3 Extend Legion Road
Economic and Technical Considerations			
Ease of Construction	Neutral – No construction required	Poor – Not easily constructed	Medium – New construction in Greenfield area
Life Cycle Costs	Poor – Continued deterioration of road network increases operating and maintenance costs	Medium – Some improvement in traffic operations may reduce operating and maintenance costs	Good – Road network operations improve with decreased delay
Level of Treatment	Poor – Not compatible with area Secondary Plans or OP	Poor- No additional north-south linkages	Good – Improved north-south linkages
Compatibility with Bonar Creek Options	Neutral – Does not conflict with Bonar Creek Options	Neutral – Does not conflict with Bonar Creek Options	Neutral – Does not conflict with Bonar Creek Options
Remarks			
	Poor Does not support local planning objectives or OP. Conditions on the existing road network continue to deteriorate.	Poor Does not support local planning objectives or OP. Conditions on the existing road network continue to deteriorate. Access for adjacent area does not improve. No north-south linkages for traffic pedestrians or bicycles.	Good Compatible with Secondary Plans and OP. Provides opportunity for an additional north-south linkage. Improved access for area residents. Road network operations improve with decreased delay.

Legion Road Extension

Railway Underpass Design Solutions – Single Portal





Legion Road Extension

Railway Underpass Design Solutions – Multiple Portals

