Agenda - Executive Policy Committee - May 20, 2009

Report - Standing Policy Committee on Infrastructure Renewal and Public Works – May 12, 2009

Item No. 5 Chief Peguis Trail Extension Project Conceptual Design
eFile SB-23

STANDING COMMITTEE RECOMMENDATION:

On May 12, 2009, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submits the following to Council:

1. That Chief Peguis Trail be extended as a 4-lane divided regional street from Henderson Highway to Lagimodiere Boulevard.

2. That the Chief Peguis Trail Project include sound attenuation, landscaping, an asphalt Active Transportation path network with connections to adjacent communities and parks, and the intersection improvements, roadway realignments and closures identified in Discussion Section B to the report of the Winnipeg Public Service dated April 23, 2009.

3. That the Chief Administrative Officer be delegated the authority to award the multi-year contract for the Design, Build, Financing and Maintenance of the Chief Peguis Trail Extension Project within the Council approved budget, with either an at-grade intersection or a grade separated underpass at Rothesay Street. This authority may not be further delegated.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the foregoing.

Agenda - Executive Policy Committee - May 20, 2009

Report - Standing Policy Committee on Infrastructure Renewal and Public Works – May 12, 2009

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On May 12, 2009, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

ISSUE: Chief Peguis Trail Extension Project Conceptual Design Recommendation

For Submission to: STANDING POLICY COMMITTEE ON INFRASTRUCTURE RENEWAL AND PUBLIC WORKS

REPORT DATE: April 23rd, 2009

AUTHORIZATION

Author	Department Head	CFO	CAO
Neil Myska, P. Eng.	Brad Sacher, P. Eng.	Mike Ruta	Mike Ruta A/CAO

RECOMMENDATION:

1. That Chief Peguis Trail be extended as a 4-lane divided regional street from Henderson Highway to Lagimodiere Boulevard.
2. That the Chief Peguis Trail Project include sound attenuation, landscaping, an asphalt Active Transportation path network with connections to adjacent communities and parks, and the intersection improvements, roadway realignments and closures identified in Discussion Section B.
3. That the Chief Administrative Officer be delegated the authority to award the multi-year contract for the Design, Build, Financing and Maintenance of the Chief Peguis Trail Extension Project within the Council approved budget, with either an at-grade intersection or a grade separated underpass at Rothesay Street. This authority may not be further delegated.
4. That the Proper Officers of the City be authorized to do all things necessary to implement the foregoing.

Report Summary

Key Issues:

1. Approval of a conceptual design is required for the project to proceed to the detailed design stage and to define the requirements for the upcoming Request for Proposals.
2. The recommended Conceptual Design is a 4-lane divided facility between Henderson Highway and Lagimodiere Boulevard with associated intersection improvements. The recommended Conceptual Design will provide an acceptable level of service for all users of the facility for the foreseeable future. The

recommended Conceptual Design will accommodate widening to six lanes in the future.

3. As a result of the recent financial downturn, the current market conditions may allow for the underpass alternative at Rothesay Street to be constructed within the approved budget.

Implications of the Recommendation(s):

General Implications

None
For the organization overall and/or for other departments
For the community and/or organizations external to the City
X Involves a multi-year contract
Comment(s): Delivered as a DBFM Model it is anticipated that the successful proponent will receive payments over a 30 year period.

Policy Implications

X No
Yes
Comment(s):

Regulatory Implications

X None
Eliminates or reduces regulatory impact
Proposes regulatory impact
Comment(s):

Environmental Implications

X No
Yes
Comment(s):

Human Resources Implications

X No
Yes
Comment(s):

Financial Implications

X Within approved current and/or capital budget
Current and/or capital budget adjustment required
Comment(s): The anticipated payment schedule extends beyond the 5 Year Capital Forecasts.

Report

REASON FOR THE REPORT:

Council approval is required for the Conceptual Design for the Chief Peguis Trail Extension Project for use as design criteria in the Design/ Build/ Finance/ Maintain (DBFM) delivery model process. This is in accordance with the report to proceed with a DBFM delivery model as approved by Council on November 19, 2008.

HISTORY:

Chief Peguis Trail forms the northern portion of the City of Winnipeg's Inner Ring Route. The initial phase of Chief Peguis Trail between Main Street and Henderson Highway was opened in 1990. Since opening traffic volumes on Chief Peguis Trail have grown to approximately 26,000 vehicles per day. The lack of any east-west arterial streets in North Kildonan has led to high traffic volumes on residential streets between Henderson Highway and Lagimodiere Boulevard. The most heavily used being Springfield Road; a residential collector street, which is also serving as the east-west Truck Route in this region. The completion of Phase 2 of Chief Peguis Trail is anticipated to relieve much of the congestion experienced on the east-west residential street network in North Kildonan.

The City of Winnipeg retained UMA Engineering Ltd. to complete a preliminary design study for Phase 2 of the Chief Peguis Trail. The preliminary design included the development of two general conceptual alignments. One alignment included an at-grade signalized intersection at Rothesay Street; the other included a grade separation with Chief Peguis Trail passing below Rothesay Street. The budget requirement of the at-grade intersection alternative is estimated to be $60 Million with Cash to Capital Financing costs of an additional $4 Million. The budget requirement of the underpass alternative is estimated to be $100 Million. The cost of the underpass alternative was substantially higher than anticipated primarily due to the need to relocate trunk sewers and the need to construct structural retaining walls to support the slopes within the narrow right-of-way. Due to the high cost of the underpass alternative the at-grade intersection alternative was used for budgeting purposes and was presented at a Public Open House.

On December 18, 2007, Council approved funding in the 2008 Capital Budget and 2009 to 2013 Five Year Forecast related to the Chief Peguis Trail Extension Project for Cash to Capital for procurement, administration, internal contract works, and property acquisition in 2008 and 2009 and payments in 2010, 2011, 2012, 2013 and beyond intended for a Design/Build/Finance/Maintain Agreement. The 2008 Adopted Capital Budget includes $60 Million to be financed through the Private Public Partnership and $2 Million for Cash to Capital Financing. An additional $2 Millions for Cash to Capital Financing was approved in the 2009 Capital Budget. The amount budgeted is consistent with the estimate for the at-grade signalized intersection alternative at Rothesay Street.

On March 6, 2008 a Public Open House was held to present the preliminary design with the at-grade intersection alternative at Rothesay Street.

On November 19, 2008 Council concurred in the recommendation of the Executive Policy Committee and adopted the following:

1. That the Winnipeg Public Service be authorized to proceed with the Chief Peguis Trail Extension Project based on a Design/Build/Finance/Maintain delivery model and that the Chief Administrative Officer be authorized to approve and issue the Request for Qualifications and the Request for Proposals for the Project.
2. That the Director of Planning, Property and Development be authorized to negotiate the acquisition of land required for the Chief Peguis Trail Extension Project.
3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

On March 5, 2009 a Request for Qualifications (RFQ) was issued with a submission date of May 5, 2009. Upon receipt and review of the submissions up to 3 proponents will be qualified to receive the Request for Proposals (RFP).

DISCUSSION:

A. Public Consultation Program

The Public Consultation Program for the Chief Peguis Trail Extension Project was initiated with prearranged meetings with key stakeholders in order to address general and site-specific issues to aid in the development of a conceptual plan for public presentation. The interview process was supported through email and telephone conversations.

Concept plans were developed and reviewed by the Public Service and area Councillors prior to being unveiled at the Public Open House event held on March 6, 2008.

The Public Open House was attended by more than 500 people with 498 signing the registry and 249 completing the comment sheet provided.

The project was strongly supported with more that 65% of respondents indicating that the project is “needed today”.

The postal code of respondents was mapped to determine where those providing supportive or negative comments were located geographically. Supportive responses were evenly distributed throughout North Kildonan and adjacent communities. Negative responses were generally clustered directly adjacent to, or in close proximity to the proposed facility where the perceived impact of the facility would be greatest. These findings remain consistent with the open house results from the initial study of the “Kildonan Corridor” in 1982.

The most common concerns with the Conceptual Design related to general disagreement to the need for the facility and to the proposed implementation of signalized intersections instead of interchanges or grade-separations along the entire route – with a specific focus on the Rothesay Street location.

Other common issues were related to noise attenuation, influence on property values, the location of the park and ride, and pedestrian safety concerns at signalized intersections.

B. Recommended Conceptual Design

The recommended design for the Chief Peguis Trail Extension from Henderson Highway to Lagimodiere Boulevard includes the following:

- A 4-lane divided facility with at-grade signalized intersections at Henderson Highway, Gateway Road and Lagimodiere Boulevard.
- Sound attenuation berms and walls with associated landscaping.
- An asphalt Active Transportation path network.
- A 200 vehicle paved Transit Park & Ride facility with bus loop near the intersection of Douglas Avenue and Henderson Highway.
- Widening of Gateway Road at the Springfield Road and McLeod Avenue intersections.
- Intersection improvements at Lagimodiere Boulevard and Grassie Boulevard.

An at-grade signalized intersection at Rothesay Street is identified for implementation as the minimum requirement for the Chief Peguis Trail Extension Project. The upcoming Request for Proposals will require the Proponents to provide costs for both an at-grade intersection alternative and a grade separated alternative for the Rothesay Street intersection. The benefits and costs of both alternatives will the be evaluated.

Intersection Improvements, Realignments and Closures

The following intersection improvements, street closures, and terminations will be completed under this project due to significant changes in travel patterns that will result from the completion of the Chief Peguis Trail Extension, or due to incompatibilities with the Chief Peguis Trail alignment. These improvements are shown on the attached Figures 1 and 2, and have been included in the Project Estimate:

1. Closure of Raleigh Street between Donwood Drive and Gilmore Avenue.

   In order to develop an appropriate intersection at Gateway Road and Chief Peguis Trail it is necessary to close Raleigh Street where the right-of-way crosses the Chief Peguis Trail alignment. It is neither practical nor desirable to operate two major intersections in such close proximity to each other on a high-speed facility. The closure of Raleigh is compatible with the long-range plans for

the Northeastern Transit Corridor identified in Plan Winnipeg and with the future development of Gateway Road as a multi-lane divided facility.

2. Termination of Springfield Road on both sides of Chief Peguis Trail.

   To provide appropriate spacing between intersections along Chief Peguis Trail, Springfield Road will be severed on both side of the facility. The concrete pavement east of Gateway Road will remain in place for future servicing of the undeveloped land north of the McLeod Industrial Park. The roadway will be temporarily closed east of Dunits Drive until required for future development. Springfield Road will be terminated with a cul-de-sac west of Spring Valley Road on the north-east side of Chief Peguis Trail.

3. Closure of Molson Street within the Chief Peguis Trail right-of-way and conversion to an Active Transportation path.

   Molson Street functions as a service road for Lagimodiere Boulevard within the Chief Peguis alignment and is incompatible with the proposed intersection at Chief Peguis Trail and Lagimodiere Boulevard. South of Chief Peguis Trail, Molson Street will be terminated with a cul-de-sac. Between the proposed cul-de-sac and the Chief Peguis Trail roadway the alignment can be utilized for an Active Transportation path to connect to the new Lagimodiere Blvd intersection and the main Active Transportation path along the north side of Chief Peguis Trail. Molson Street on the north side of Chief Peguis Trail will be terminated directly south of the last private approach with the closed portion being converted to an Active Transportation path to connect to the new Lagimodiere Boulevard intersection.

4. Closure of McIvor Avenue between Devries Avenue and St. Moritz Road/ Strongberg Drive.

   With the completion of Headmaster Row and associated redirection of Knowles Avenue near Lagimodiere Boulevard, McIvor Avenue is the only remaining residential street connecting directly between Henderson Highway and Lagimodiere Boulevard. Due to this direct connection traffic volumes on McIvor Avenue, upon completion of Chief Peguis Trail, are anticipated to remain substantially higher than the design volume for local residential streets in the City of Winnipeg. With the removal of a section of Raleigh Street south of Gilmore Avenue, additional traffic will be directed to the intersection of McIvor Avenue and Gateway Road. It is expected that a significant portion of this traffic will take the most direct east-west alignment and continue eastward on McIvor Avenue to Lagimodiere Boulevard if this direct connection were to remain open. The closure of the direct connection to Lagimodiere Boulevard will redirect short-cutting traffic to use Chief Peguis Trail or the appropriate collector streets that parallel McIvor Avenue west of Gateway Road.

5. Closure of Douglas Avenue from the cul-de-sac west of Rothesay Street to Gateway Road.

   This section of Douglas Avenue must be closed to accommodate the Chief Peguis Trail pavement and the multi-use path on the north side of the facility. West of cul-de-sac Douglas Avenue must remain open, as properties between Henderson Highway and Rothesay Street have private approaches fronting onto Douglas Avenue and the Park and Ride site access will be from Douglas Avenue.

6. Gateway Road at Springfield Road - Widening of Gateway Road to four lanes.

   The removal of a section of Raleigh Street between Donwood Drive and Gilmore Avenue will result in increased traffic on Gateway Road. Gateway Road will be widened to 4 lanes for approximately 100 metres north and south of the intersection. This widening will increase capacity by providing two full lanes in each direction for north-south travel through the intersection, and will allow through-traffic to by-pass left-turn queues. Due to the poor pavement condition and abandoned spur line crossing immediately south of Springfield Road the work at this intersection will be extended south to include rehabilitation of the Gateway Road pavement between Springfield Road and Burnett Avenue.

7. Gateway Road at McLeod Avenue - Widening of Gateway Road to four lanes.

   Similar to the Springfield Road intersection described above, the closure of Raleigh Street between Donwood Drive and Gilmore Avenue will result in increased traffic at this intersection. Widening to four lanes through the intersection will better accommodate the increased demand and increased traffic from recent commercial/retail development on the east side of Gateway Road.

8. Lagimodiere Boulevard at Chief Peguis Trail - Pavement Reconstruction.

   To accommodate two northbound left turn lanes at this new intersection and due to incompatible grades along the superelevated curve where Chief Peguis Trail will intersect Lagimodiere Boulevard, the curve on Lagimodiere Boulevard must be reconstructed and the relative elevation between the northbound and southbound pavements must be adjusted. The exact limits of the reconstruction works will be determined through the detailed design process.

9. Lagimodiere Boulevard at Grassie Boulevard - Auxiliary lane additions

   The extension of Chief Peguis Trail will introduce additional traffic to this intersection. In order to provide an acceptable level of service an additional southbound left-turn lane on Lagimodiere Boulevard and a westbound right-turn lane on Grassie Boulevard will be constructed.

Park and Ride Site

A Park & Ride facility will provide an opportunity to reduce single-occupant vehicle use and increase Transit ridership. A paved park and ride site will be constructed on the north side of Chief Peguis Trail, east of Henderson Highway with access from Douglas Avenue. The site will accommodate approximately 200 vehicles and will include secured bicycle parking.

The facility will include the following:

- Construction of a paved parking lot with electrical services and lighting.
- Construction of a concrete bus loop to replace the current loop at Henderson Highway and Chief Peguis Trail.
- Reconstruction of Douglas Avenue between Henderson Highway and the Park and Ride entrance to accommodate transit vehicles.
- Construction of a southbound left-turn lane on Henderson Highway at Douglas Avenue.
- Upgrading the intersection control at Henderson Highway and Douglas Avenue from a pedestrian corridor to a half-signal including a westbound Transit Priority signal. The signal would be activated by pedestrians or transit vehicles only. In order to effectively accommodate the high volume of Transit activity anticipated at this intersection and for effective operation of the transit priority signal, non-transit westbound traffic on Douglas Avenue will be required to turn right at Henderson Highway. This measure will also help reduce the amount of short-cutting traffic on Douglas Avenue.

C. Traffic Mitigation Measures

The proponents participating in the Request for Proposals will be required to include a traffic mitigation strategy to be implemented during construction of the Chief Peguis trail Extension. In order to minimize disruption to traffic and Transit activities the following requirements will be identified:

- The existing bus loop on the east side of Henderson Highway must remain in service until completion of the new bus loop and transit priority measures at the Douglas Avenue/Henderson Highway intersection.
- The intersection improvements on Gateway Road at McLeod Avenue, Springfield Road and the new Chief Peguis Trail intersection must be completed prior to the closure and removal of Raleigh Street between Donwood Drive and Gilmore Avenue.

D. Financial Discussion

Procurement costs related to the Design/Build/Finance/Maintain (DBFM) method of procurement are paid for by the City and are in most instances incurred in the earlier stages of the project. These incremental costs include items such as preliminary design,

public consultation, and testing. Amounts of $2.0 Million have been identified in the Capital Budget for the years 2008 and 2009 for these purposes.
Construction costs will be paid for by the successful proponent and ultimately reflected in the City's payments over the period of the agreement. The City's payments for the DBFM agreement will be influenced by the successful proponent's capital structure, borrowing rates and term of the agreement.

The Public service has reviewed various financing scenarios regarding the Recommended Conceptual Design and has determined that amounts forecasted in the 2009 Capital Budget for *Chief Peguis Trail – Henderson Highway to Lagimodiere Blvd*, are sufficient to fund the future payments for the recommended Conceptual Design, based on the DBFM method of procurement.

These payments are forecasted to begin upon completion late in 2011. The analysis has assumed that the forecasted payments beginning in 2011 will continue for a period of 30 years (i.e. – for capital budgets 2011 through 2040).

E. Implementation Schedule

The implementation schedule for the Chief Peguis Trail Extension Project is as follows:

- Issue of Request for Proposals to a maximum of 3 qualified proponents - June 2009
- RFP approximate staged submission and negotiation period - September 2009 to November 2009
- RFP approximate Final Proposal Submission date - January 2010
- Intended DBFM Agreement award date - February 2010
- City's intended Construction Start date - March 2010
- City's intended Construction Completion/Commissioning date - November 2011
- Maintenance Term – 30 years from Commissioning date

Financial Impact Statement

Date: April 23, 2009

Project Name: **First Year of Program** **2009**

Chief Peguis Trail Extension Project Conceptual Design Recommendation

	2009	2010	2011	2012	2013
Capital					
Capital Expenditures Required	$ 4,000,000	$ -	$ 1,353,000	$ 5,415,000	$ 5,415,000
Less: Existing PW Budgeted Costs	4,000,000	-	1,353,000	5,415,000	5,415,000
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
External	-	-	-	-	-
Grants (Identify)	-	-	-	-	-
Reserves, Equity, Surplus, Other	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ 400,000	$ 400,000	$ 400,000	$ 400,000
Less: Incremental Revenue/Recovery	226,415	-	-	-	-
Net Cost/(Benefit)	$ (226,415)	$ 400,000	$ 400,000	$ 400,000	$ 400,000
Less: Existing Budget Amounts	(226,415)	400,000	400,000	400,000	400,000
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Amounts authorized to date and the amounts forecasted in the 2008 and 2009 Capital Budget for the Chief Peguis Trail Project are sufficient to fund the at-grade signalized insection atlerativ at Rothesay Street. No budget increase is required. Our analysis has assumed that the forecasted lease payments beginning in 2011 will continue for a period of 30 years (i.e.for capital budgets 2011 through 2040).

original signed by: Darcy Stewart, CA
Manager of Finance & Administration

IN PREPARING THIS REPORT THERE WAS:

Internal Consultation With and Concurrence By:

Legal Services Division
Corporate Finance
Transit

External Consultation With:

The public consultation process is outlined herein.

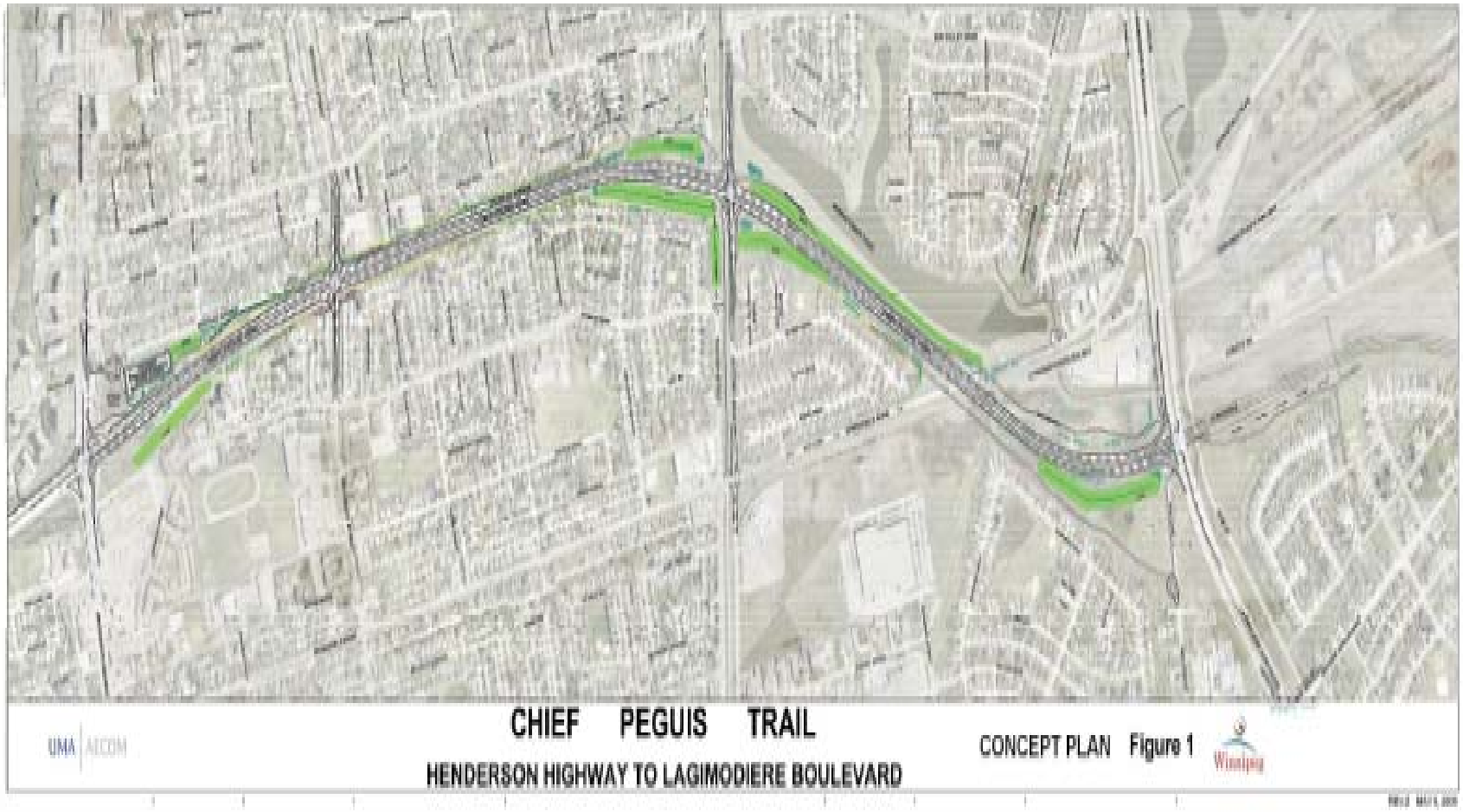
THIS REPORT SUBMITTED BY:

Department: Public Works
Division: Transportation
Prepared by: Neil Myska, P. Eng.
Transportation Facilities Planning Engineer.....986-7774
Processed by: Carol Kawaza, Transportation Clerk.....986-5288
File No. c:\documents and settings\ckawaza\my documents\ris xxxx - chief peguis trail concept recommendation in-camera report.doc

Attach. Figure 1 Chief Peguis Trail Concept Plan
Figure 2 Intersection Improvements


Figure1-Concept-Plan


Figure 2 Intersection Improvements


CHIEF PEGUIS TRAIL
HENDERSON HIGHWAY TO LAGIMODIERE BOULEVARD
CONCEPT PLAN Figure 1
UMA | AECOM



McIVOR AVENUE CLOSURE WEST OF DeVRIES AVENUE



TURNING LANE ADDITIONS ON LAGIMODIERE BOULEVARD AND GRASSIE BOULEVARD



GATEWAY ROAD WIDENING AT McLEOD AVENUE

FIGURE 2

INTERSECTION IMPROVEMENTS NOT SHOWN ON MASTER PLAN