TORONTO STAFF REPORT

December 13, 2005

To: Works Committee

From: Gary Welsh, General Manager, Transportation Services

Subject: Scarlett Road/CP Rail Bridge Class Environmental Assessment Study (York South – Weston and Parkdale – High Park)

Purpose:

To report on the findings and recommendations of the Scarlett Road/CP Rail Bridge Class Environmental Assessment (EA) Study and request authority to file the Environmental Study Report (ESR) in the public record in accordance with the requirements of the Municipal Class Environmental Assessment.

Financial Implications and Impact Statement:

Funding in the amount of $14.85 million has been recommended for this project in the Transportation Services Division 5-Year Capital Works Program in the years 2007-2009. A cost sharing arrangement will be negotiated for some aspects of the grade separation between the City of Toronto and CP Rail at time of implementation.

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

Recommendations:

It is recommended that:

(1) the Environmental Study Report for the Scarlett Road/CP Rail Bridge Class Environmental Assessment Study, which recommends replacement of the existing bridge and widening of Scarlett Road under the structure, be adopted;

(2) authority be granted to the General Manager of Transportation Services to file the Environmental Study Report for the Scarlett Road/CP Rail Bridge Class Environmental Assessment with the City Clerk and to give notification of such filing in accordance with the requirements of the Municipal Class Environmental Assessment process; and

(3) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

Background:

Scarlett Road is a north-south minor arterial extending from Dundas Street West to Dixon Road. Prior to 1912, Scarlett Road crossed the CP Rail tracks at-grade and intersected with Dundas Street approximately opposite the present day location of Gooch Avenue. St. Clair Avenue West also crossed the CP Rail tracks at grade and intersected with Dundas Street West, at a shallow angle, east of Scarlett Road.

With the construction of the CP Rail underpass in 1912, Scarlett Road was shifted west to its present alignment, so that the roadway and level crossing could remain in operation during construction. St. Clair Avenue West was diverted to its present location, along the north side of the CP Rail tracks and a new intersection with Scarlett Road was constructed while Dundas Street West was diverted to the south of its previous location.

The present configuration of the roads in the Study Area is very similar to what was constructed in 1912. With increasing volumes of automobile traffic, Scarlett Road, St. Clair Avenue West and Dundas Street West have all been widened to four basic lanes. However, Scarlett Road through the underpass remains two lanes wide, one in each direction. The restricted width and height through the underpass and the short distance between the Dundas Street West and St. Clair Avenue West intersections on Scarlett Road have caused a restriction of movements through the underpass as well as safety concerns for all users.

In November 2001, Transportation Services completed the Scarlett Road/CP Rail Grade Separation Feasibility Study that identified the operational and safety problems associated with the CP Rail bridge and adjacent intersections. The study also identified potential solutions, ranging from minor operational improvements to bridge replacement with major intersection improvements. At its meeting held on February 13, 14 and 15, 2002, City Council adopted, as amended, Clause No. 16 of Report No. 2 of the Works Committee, entitled “Scarlett Road/CP Rail Grade Separation Feasibility Study”, and, in so doing, resolved that any changes to the road network and/or CP Rail Bridge must provide acceptable access to the Warren Park Community south of Dundas Street West. Based on the results of this study, Transportation Services Division staff committed to undertake a Class EA Study for the replacement of the CP Rail bridge over Scarlett Road, between Dundas Street West and St. Clair Avenue West

Comments:

Study Process

The Scarlett Road/CP Rail Bridge Class Environmental Assessment Study has been completed according to the requirements for a Schedule ‘C’ project under the Municipal Class Environmental Assessment (the Class EA). 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 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 of the project, and monitoring of impacts, in accordance with the terms of the EA approval. The Scarlett Road/CP Rail Bridge 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, Technical Services, Fire Services, City Planning and the Toronto Transit Commission (TTC).

Public Consultation

Public involvement is an integral and ongoing part of the study process for the Scarlett Road/CP Rail Bridge Class EA Study. The public consultation requirements of the Class EA were met and surpassed. Two Public Information Centres (PIC) were held for this study. Individual meetings were also held with two area ratepayers groups.

The first PIC was held on June 2, 2004 to review the problem statement, the preliminary development of alternatives and the proposed factors for analysis. Approximately 26,300 notices were mailed to residences and businesses in the study area notifying them of the PIC. Also, newspaper notices were placed in the York Guardian and Annex Guardian/Bloor West Villager on May 21 and May 28, 2004. Approximately 73 residents attended this meeting. Overall, there was common recognition of the problem being addressed and the need to make improvements in the area. Concerns were expressed by the community about potential impacts on adjacent homes and businesses in the area as well as connections to Gooch Avenue. Alternatives focused on traffic operations at the intersections of St. Clair Avenue West and Dundas Street West with Scarlett Road and on the best cross-section at these intersections and under the rail structure.

At the request of local residents and their Councillors, separate meetings were held with the ratepayers groups representing the neighbourhoods north and south or the CP Rail tracks. The Warren Park Ratepayers meeting was held on October 7, 2004 with a total attendance of 18 people. The Foxell Ratepayers meeting was held on October 12, 2004 with a total attendance of 13 people. At both meetings, information was presented describing the work that had been undertaken following the first PIC, including a preview of the preliminary preferred design that would be presented at the second PIC. In all, both ratepayers groups were satisfied with the preliminary preferred design and indicated that their concerns from the first PIC had been addressed.

The evaluation of alternative designs and the preliminary preferred design were presented at the second PIC, which was held on November 9, 2004. Approximately 26,300 notices were delivered to residences and businesses in the surrounding area. In addition, newspaper notices were placed in the York Guardian and Annex Guardian/Bloor West Villager on October 29 and November 5, 2004 and notices were mailed directly to approximately 200 individuals who asked to be placed on the study mailing list. The meeting was attended by approximately 42 members of the public. For the most part, members of the public that attended the ratepayers meetings held in October 2004 did not attend the second PIC. The general consensus of this meeting was that the preliminary preferred design was the best alternative and that construction should proceed in the near future.

A full description of the public consultation program can be found in Chapter 2 as well as Appendices A, B and C of the ESR.

Environmental Assessment Findings

(1) Identification of the Problem or Opportunity

The Study Area, illustrated in Exhibit 1-1 of the ESR, extends from Royal York Road in the west to Jane Street in the east, and from Eglinton Avenue West in the north to Bloor Street West in the south. Existing conditions in the immediate area of the Scarlett Road/CP Rail Bridge and the existing cross section on Scarlett Road under the bridge are shown on the attached Figure Nos. 1 and 2 respectively.

A review of existing and projected future transportation conditions in the Study Area identified a number of concerns with respect to capacity, operations and safety in the immediate vicinity of Scarlett Road/ Dundas Street West/ St. Clair Avenue West and the CP Rail Bridge. Some of the main concerns are as follows:

- Substandard horizontal and vertical clearances through the underpass create a number of undesirable impacts, including restricted visibility for motorists and resulting safety concerns for both motorists and pedestrians, and the inability of larger vehicles, such as fire trucks, to pass through the underpass;
- The physical restriction of southbound left turns from Scarlett Road to Dundas Street West results in traffic diversions within the Study Area and u-turn manoeuvres from the

southbound right-turn channel at Dundas Street West which have been the cause of several collisions;

- The availability of only a single traffic lane per direction on Scarlett Road through the underpass, in combination with the close spacing and configuration of the Scarlett Road intersections with St. Clair Avenue West and Dundas Street West, results in significant traffic operations constraints. There is insufficient capacity to accommodate existing traffic demand for the following movements:
  - eastbound left turn at Scarlett/Dundas (a.m. and p.m. peak hours);
  - westbound left turn at Scarlett/St. Clair (p.m. peak hour);
  - northbound through/right turn at Scarlett/St. Clair (p.m. peak hour);
  - southbound left turn at Scarlett/St. Clair (a.m. peak hour);
- The narrow sidewalks with raised barriers on both sides and the lack of illumination create inadequate and unpleasant conditions for pedestrians; and
- The current width of Scarlett Road through the underpass does not allow for the provision of future bicycle lanes as proposed in the Toronto Bike Plan.

A full description of the analysis of existing and projected future conditions can be found in Chapter 3 of ESR.

(2) Identification and Evaluation of Alternative Solutions

To address the problems described above, five alternatives were generated and evaluated. A brief description of these alternatives and the 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 no improvements to the road network or CP Rail Structure.

Alternative 2: Remove Bridge and Close Scarlett Road

This alternative would involve the removal of the CP Rail Structure and closure of Scarlett Road between St. Clair Avenue West and Dundas Street West.

Alternative 3: Transportation Demand Management

Transportation Demand Management (TDM) involves the implementation of measures to reduce the number of vehicles on the roadway. Four TDM measures consistent with the study goals were included in this alternative as follows:

1. Increased transit use;
2. promoting carpooling;
3. promoting flexible work hours; and
4. increased cycling and walking.

Alternative 4: Transportation System Management

Transportation Systems Management (TSM) measures are minor physical and/or operational modifications to improve the safety and capacity of the existing road network. TSM measures are generally short-term improvements to the road network within the Study Area. There were ten TSM measures identified as described in Section 5 of the ESR.

Alternative 5: Bridge Replacement/Road Improvement

The replacement of the CP Rail Structure/Road Improvement alternative would improve operations and safety at the grade separation and provide added improvements to operations for the Study Area's road network. This alternative would include improvements to sidewalks, lanes, sight distances, lateral/vertical clearances and dedicated bike lanes.

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

- Transportation Service: This criteria considered accessibility, safety, traffic operations and capacity, railway operations, transit operations and traffic patterns;
- Natural and Social Environment: this criteria considered property impacts, noise levels, surface drainage and stormwater management, soil impacts, existing vegetation and air quality;
- Economic and Cultural Environment: this criteria considered impacts on industrial/commercial development and the effect on archaeology and heritage;
- Engineering: This criteria considered construction costs and impacts to utilities and major services.

Based on the results of the analysis and evaluation of the alternative solutions, and on input from technical agencies, the public, property owners and interest groups, Alternative 5, bridge replacement/road improvement, in addition with the promotion of TSM and TDM measures was identified as the recommended option.

A full description of the evaluation of the alternative solutions can be found in Chapter 5 of the ESR.

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

In the next phase of the Class EA study, alternative designs were developed and evaluated for the proposed replacement of the CP Rail Bridge and improvement of adjacent intersections on Scarlett Road. Three main considerations were used to develop the alternatives as described below.

Intersection Lane Configuration Alternatives

Three alternatives were considered for the reconfiguration of the Scarlett Road intersections with St. Clair Avenue West and Dundas Street West, in conjunction with the replacement of the CP Rail Bridge. Each alternative adds incremental traffic movement and/or capacity improvements to the preferred solution and all alternatives include improvements to pedestrian facilities and the addition of bicycle lanes. The intersection configuration alternatives are:

- Alternative A1: Add one northbound lane through the bridge to alleviate the northbound capacity restriction at the St. Clair Avenue West intersection;
- Alternative A2: Add one northbound lane and one southbound lane through the bridge, introducing the southbound left-turn movement at Dundas Street West; and
- Alternative A3: Add one northbound and one southbound auxiliary lane through the bridge and construct eastbound dual left-turn lanes on Dundas Street West to increase the capacity of the critical eastbound to northbound movement.

All alternatives also include the addition of an acceleration lane for southbound right-turning motorists and the removal of the westbound right-turn channel at the Scarlett Road and Dundas Street West intersection.

Alternatives for Access to Gooch Avenue

Gooch Avenue is a local street located on the south side of Dundas Street West, immediately east of Scarlett Road. It is one of two connections between Dundas Street West and the residential neighbourhood located to the south, in the Humber River valley. Three alternatives were identified for providing access to Gooch Avenue as follows:

- Alternative B1 restricts access to Gooch Avenue to right-in/right-out by median barrier on Dundas Street West;
- Alternative B2 retains the same Scarlett Road alignment as Alternative 1, but provides full access at Gooch Avenue through an offset signalized intersection; and
- Alternative B3 includes a realignment of Scarlett Road to intersect directly with Gooch Avenue, providing full access at Gooch Avenue through a signalized intersection.

Alternatives for Protecting for Future Streetcar Service

The Toronto Transit Commission (TTC) requested that the CP Rail Bridge be designed to allow for passage of streetcars in anticipation of a potential future need for a westerly extension of the St. Clair Avenue West streetcar service. A full environmental assessment study would be required prior to implementation of any such extension.

There are two alternatives for accommodating streetcars through the Scarlett Road/CP Rail Bridge:

- Alternative C1, a shared right-of-way, would include:
    - Building the bridge to accommodate future streetcar tracks in two centre traffic lanes;
    - Accommodation within a two span bridge;
    - Use of transit priority signals to facilitate safe streetcar movements between St. Clair Avenue West and Dundas Street West; and
- Alternative C2, an exclusive right-of-way, would include:
    - Building the bridge with a separate centre span to accommodate potential future streetcar service in exclusive lanes;
    - A three-span bridge to limit structure depth and maintain vertical clearance;
    - Dedicated transit signals to accommodate safe streetcar movements between St. Clair Avenue West and Dundas Street West.

Evaluation of Alternative Designs

The alternative designs were evaluated using similar criteria to those identified for the evaluation of alternative transportation solutions. The evaluation demonstrates that all design alternatives improve physical, operational and safety conditions over the existing bridge and intersection conditions by:

- Improving restricted sight distances, median widths, and lane widths;
- Increasing vertical and horizontal clearances and removing barriers under the bridge;
- Accommodating future transit access through the bridge; and
- Providing improved pedestrian and cyclist facilities, including wider sidewalks, lighting and dedicated bike lanes.

Alternative A3 was chosen as the preferred intersection lane configuration alternative as it provides better overall performance than Alternative A2 and reduces the potential for southbound queuing through the pedestrian cross over on Scarlett Road at Bernice Crescent relative to Alternative 1. Alternative A3 will also improve future operations relative to the Do Nothing alternative.

Alternative B2 was chosen as the preferred alternative for access to Gooch Avenue as it provides full accessibility for existing and future movements, better serving the local communities in the Study Area than Alternative B1, and at a significantly lower cost and with fewer potential safety concerns than Alternative B3.

Alternative C1 was identified as the preferred alternative for protecting for future streetcar service. It provides the required accessibility in a more cost effective way than Alternative C2 due to reduced structure and roadway widths. It also results in fewer overall impacts to properties on Scarlett Road than would result from a dedicated streetcar right-of-way.

A detailed description of the evaluation of alternative designs for the preferred solution is provided in Chapter 6 of the ESR.

Recommended Design

The Recommended Design, illustrated in cross section and plan in the attached Figure Nos. 3 and 4 respectively, includes the following features:

1. a new two-span, through plate girder rail bridge, with minimum vertical clearance of 5.0 m above Scarlett Road;
2. two new auxiliary traffic lanes under the bridge, including a southbound left-turn lane at Dundas Street West and a northbound through/right lane at St. Clair Avenue West, as well as a bicycle lane and sidewalk on each side;
3. horizontal and vertical clearances designed to accommodate potential future streetcar service in shared lanes, and to permit other larger vehicles, such as buses and fire trucks, to travel through the underpass;
4. full traffic control signal protected access for Gooch Avenue at Dundas Street West through an offset intersection with Scarlett Road, including a westbound left-turn lane;
5. dual eastbound left-turn lanes on Dundas Street West at Scarlett Road; and
6. an acceleration lane for the southbound to westbound channelized right turn from Scarlett Road to Dundas Street West.

The estimated cost of the major elements of the recommended design is approximately $9.45 million. Additional costs for utility relocations and property acquisition will be negotiated and finalized during detailed design. A cost sharing agreement for some structural elements will also be negotiated with CP Rail. Funding in the amount of $14.85 million has been recommended for this project in the Transportation Services Division 5-Year Capital Works Program in the years 2007-2009.

Resolution of Public Concerns

Throughout the public consultation process a wide variety of valuable comments were received from the general public and adjacent property owners which assisted in the development and evaluation of the alternatives. The primary concerns identified through the consultation process and the resolution of these concerns is summarized below:

1. Acceptable access to/from Gooch Avenue – At the first PIC the community raised concerns that one of the options didn't provide adequate access to/from Gooch Avenue and that this same issue was raised during the Feasibility Study. This option was included for comparison to other options and was not selected as the Recommended Design. During our Ratepayers meeting and second PIC the community was happy with the selected design as it addressed their concerns.
2. Increase in truck traffic with new clearances under railway – Residents north of the railway corridor were concerned that truck traffic would increase on Scarlett Road because the increase in vertical clearance under the bridge would make it a shorter route for trucks. A detailed traffic analysis determined most trucks already have pre-determined routes and most likely would not change. Also, Scarlett Road has an existing truck by-law with restrictive times prohibiting trucks.

3. Safety for all users – Sight lines will be improved and greater clearances will be provided under the rail structure in the way of wider traffic lanes/sidewalks and the addition of illumination.
4. Construction schedule and access during construction – The construction is expected to take approximately one year but vehicular traffic will be maintained throughout the duration except for occasional weekend closures.
5. Delay in implementation of project: Residents and businesses asked why it would take until 2009 to tentatively start this project. The priority of infrastructure requirements is re-evaluated and prioritized on an annual basis. This means projects can either be brought forward or deferred to a later date depending on the availability of budget funds, current needs and coordination with other stakeholders (such as utilities or railway authorities).

Property Impacts

Some permanent property acquisition is required to construct the Recommended Design as follows:

- Approximately 649.8 square metres of property is required from CP Rail for the widening of Scarlett Road and Dundas Street West;
- Approximately 28.1 square metres of property is required from the Loblaws food store at 3671 Dundas Street West to accommodate the relocation of the southern sidewalk; and
- Approximately 80.7 square metres of property is required from the residential towers at 3725 and 3735 Dundas Street West for the relocation of the southern sidewalk and a TTC transit shelter.

None of these proposed property acquisitions would involve impacts on existing buildings or any other significant facilities.

Other commercial properties in the immediate vicinity have their accessibility impacted but the severity of the impacts may be resolved with alternative mitigative actions which will be examined during the detailed design process. The properties in question and the nature of the impacts to be resolved are described below.

1. 10 Scarlett Road (sign shop)

   Due to the fact the elevation of Scarlett Road will be lowered approximately 0.9 metres at the foot of the driveway leading to the overhead door of this property, the resulting driveway slope would be too steep to be used. In discussions with the owner it was suggested that it could be feasible to relocate the garage door to the south side of the building at cost to be determined during detailed design.

2. 2700 & 2710 St. Clair Avenue West

   2710 St. Clair Avenue West is currently a furniture business and has loading door accessed from Scarlett Road. With the proposed road grades, the driveway to the loading

door and the front entrance will change, potentially requiring building modifications or discontinuing the use of the loading door.

2700 St. Clair Avenue West is currently rented out for various commercial outlets. Along the frontage of this property, St. Clair Avenue West is proposed to be lowered by approximately 1.0 metre. To meet new road grades, modifications will be required for the parking areas and individual unit entrances. In the worst case some parking spaces would be eliminated and steps would be installed at entrances.

3. 17-19 Scarlett Road (bakery)

   All the parking for this property is located within the Scarlett Road right-of-way and deemed as public highway. The property owner pays the City for permit parking spaces. The new alignment of Scarlett Road shifts east from its current position to accommodate the additional width at the bridge. The new road design causes an increase to the grades of the parking lot and driveway and also decreases the current lot size by as many as four spaces. In this worst case, eight parking spaces would still be available for customer parking.

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, design and construction of the Recommended Design may proceed.

Conclusions:

A Class EA study was undertaken to identify and evaluate alternative solutions for the traffic capacity, operational and safety concerns along Scarlett Road at the CP Rail bridge between Dundas Street West and St. Clair Avenue West.

The evaluation of a reasonable range of alternative solutions to address these concerns resulted in the recommendation to replace the existing CP Rail Bridge. Analysis and evaluation of a number of alternative designs for the bridge replacement, which included public and agency input, resulted in the following Recommended Design:

1. a new two-span, through plate girder rail bridge, with minimum vertical clearance of 5.0 m above Scarlett Road;
2. two new auxiliary traffic lanes under the bridge, including a southbound left-turn lane at Dundas Street West and a northbound through/right lane at St. Clair Avenue West, as well as a bicycle lane and sidewalk on each side;
3. horizontal and vertical clearances designed to accommodate potential future streetcar service in shared lanes, and to permit other larger vehicles, such as buses and fire trucks to travel through the underpass;

4. full traffic control signal protected access to and from Gooch Avenue at Dundas Street West through an offset intersection with Scarlett Road, including a westbound left-turn lane;
5. dual eastbound left-turn lanes on Dundas Street West at Scarlett Road; and
6. an acceleration lane for the southbound to westbound channelized right turn from Scarlett Road to Dundas Street West.

A Notice of Completion of the Environmental Study Report must now be issued in the public record in accordance with the requirements of the Municipal Class Environmental Assessment.

Funding in the amount of $14.85 million has been recommended for this project in the Transportation Services Division Capital Works Program for 2007-2009. A cost sharing arrangement will be negotiated for some aspects of the grade separation between the City of Toronto and CP Rail, and a final cost estimate will be submitted for Council approval prior to project implementation.

Contact:

John P. Kelly, P. Eng
Manager, Infrastructure Planning
Transportation Services Division
Telephone : (416) 392-8340
Fax : (416) 392-4808
E-mail : jkelly@toronto.ca

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

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List of Attachments:

Scarlett Road/CP Rail Bridge Environmental Study Report
Figure No. 1: Existing Conditions (wc05036tim.Fig1)
Figure No. 2: Existing Scarlett Road Cross Section (wc05036tim.Fig2&3)
Figure No. 3: Recommended Scarlett Road Cross Section (wc05036tim.Fig2&3)
Figure No. 4: Recommended Design (wc05036tim.Fig4)

Figure No. 1: Existing Conditions

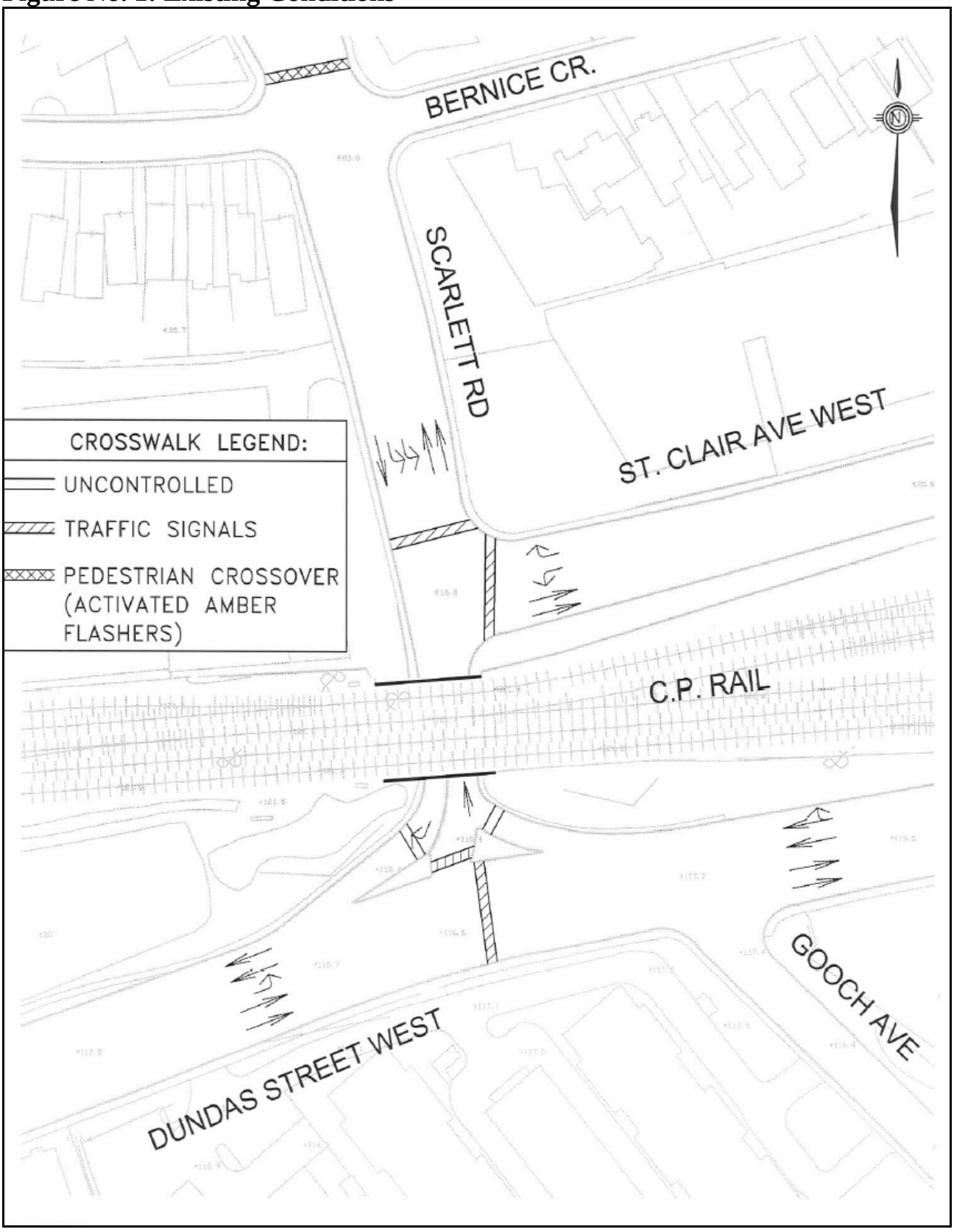

Figure No. 2: Existing Scarlett Road Cross Section
All dimensions shown in metres

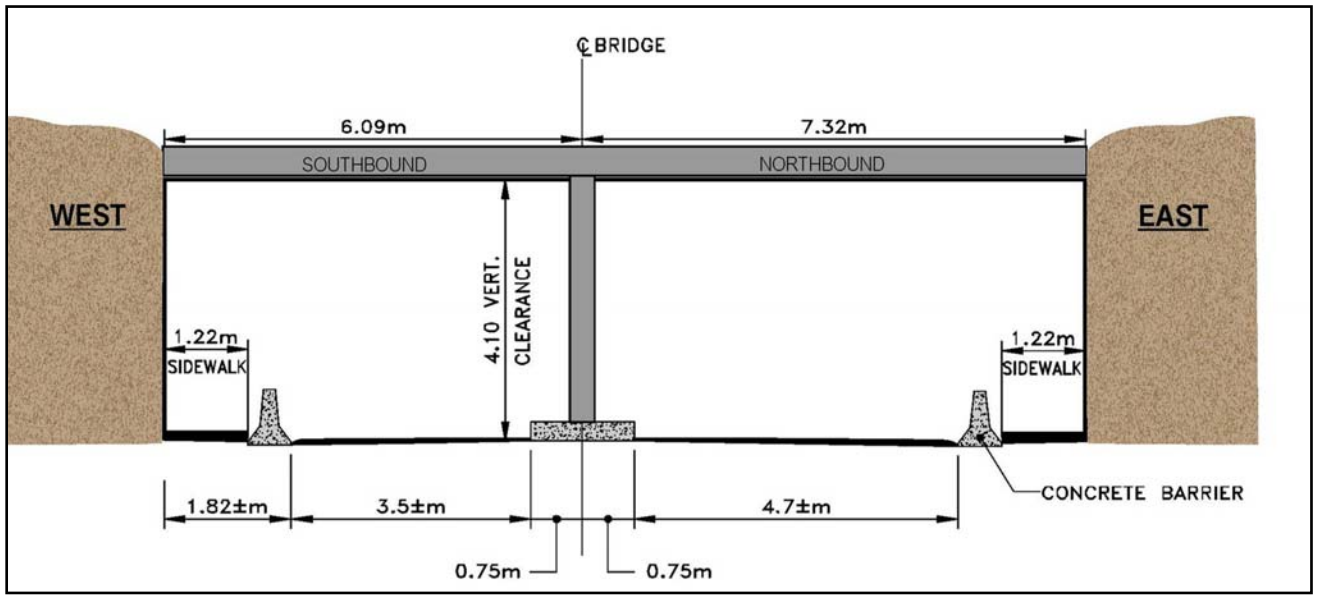

Figure No. 3: Recommended Scarlett Road Cross Section
All dimensions shown in metres

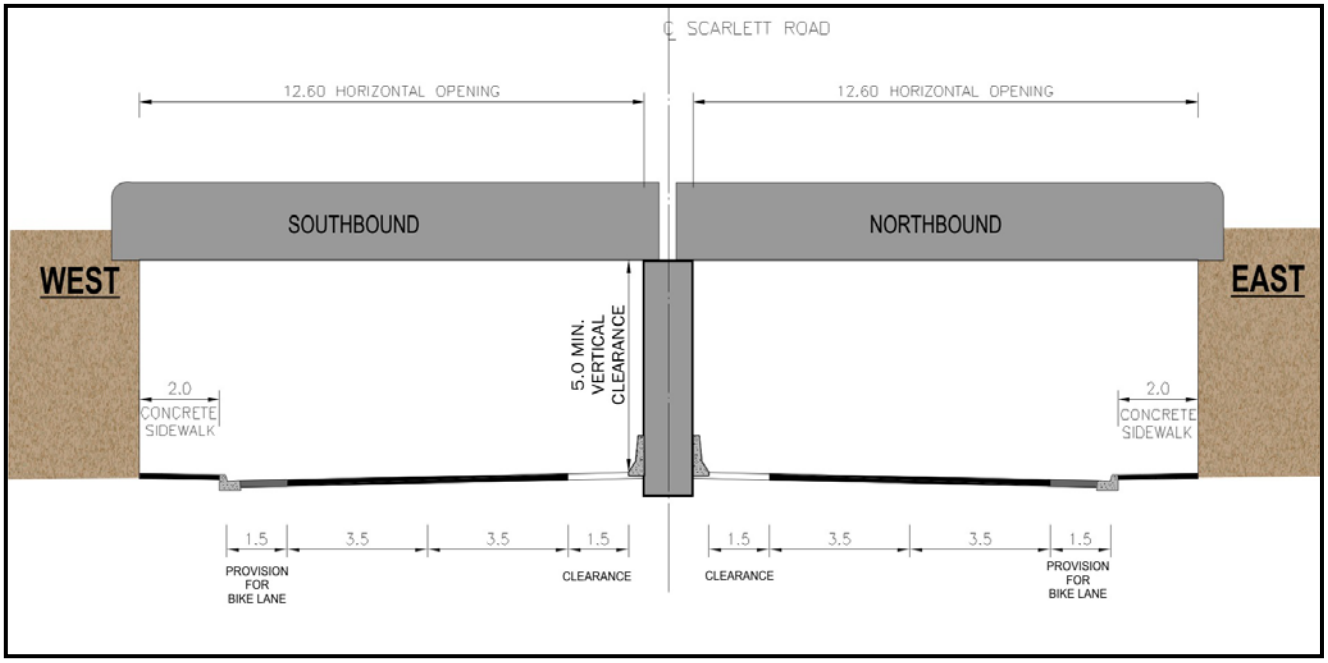

Figure No. 4: Recommended Design