

September 2, 2005

Ms. Ulli Watkiss
City Clerk
City of Toronto
Toronto City Hall
100 Queen Street West
Toronto, Ontario
M5H 2N2

Dear Ms. Watkiss:

At its meeting on Wednesday, August 31, 2005, the Commission considered the attached report entitled, "Streetcar Right-of-Way on Fleet Street Modification to Environmental Assessment."

The Commission adopted Recommendation Nos. 1 and 3 contained in the report, as listed below:

"1. Request that the City of Toronto:

- a) Endorse the modification to the environmental assessment for the Waterfront West Light Rail Transit Line, as described in the attached report, to allow the implementation of a reserved right-of-way for streetcars on Fleet Street when the tracks on that roadway are reconstructed in 2006; and
- b) Request that the Ministry of the Environment permit the modification to the original environmental assessment, as described in the attached report;"

"3. Forward this report to the City of Toronto Works Committee and Deputy Mayor Pantalone."

The Commission approved an amendment to Recommendation No. 2 by striking out the word "Note" and replacing in lieu thereof the words "Advise the Ontario Ministry of the Environment and Toronto Council", so such Recommendation reads as follows:

"2. Advise the Ontario Ministry of the Environment and Toronto Council that a streetcar right-of-way on Fleet Street:

- a) Is preferred over the original approved alignment for a streetcar right-of-way in the middle of Lake Shore Boulevard;
- b) Will replace the only section of the 509 HARBOURFRONT streetcar line that is still operating in mixed-traffic and will protect service on that route, and on the corresponding section of 511 BATHURST streetcar route, from traffic delays resulting from major events at Exhibition Place and from the future developments planned in this area;

- c) Is estimated to cost roughly \$3 million over and above the cost of simply reconstructing the existing 800 metres of streetcar tracks on Fleet Street; and
- d) Is already included in the secondary plan for the Central Waterfront area and, therefore, has already been endorsed in principle by City Council;”

The Commission also approved a motion that a public meeting with local residents be convened in the Fall of 2005 concerning this matter.

The foregoing is forwarded to City of Toronto Council through the City Works Committee for consideration of the Commission’s requests embodied in Recommendation Nos. 1a) and 1b) noted above.

Sincerely,

Vincent Rodo
General Secretary
1-16
Attachment

Similar letter sent to:

Deputy Mayor J. Pantalone, City of Toronto

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: AUGUST 31, 2005

SUBJECT: STREETCAR RIGHT-OF-WAY ON FLEET STREET
MODIFICATION TO ENVIRONMENTAL ASSESSMENT

RECOMMENDATIONS

It is recommended that the Commission:

1. Request that the City of Toronto:
 - a) Endorse the modification to the environmental assessment for the Waterfront West Light Rail Transit line, as described in the attached report, to allow the implementation of a reserved right-of-way for streetcars on Fleet Street when the tracks on that roadway are reconstructed in 2006; and
 - b) Request that the Ministry of the Environment permit the modification to the original environmental assessment, as described in the attached report;
2. Note that a streetcar right-of-way on Fleet Street:
 - a) Is preferred over the original approved alignment for a streetcar right-of-way in the middle of Lake Shore Boulevard;
 - b) Will replace the only section of the 509 HARBOURFRONT streetcar line that is still operating in mixed-traffic and will protect service on that route, and on the corresponding section of 511 BATHURST streetcar route, from traffic delays resulting from major events at Exhibition Place and from the future developments planned in this area;
 - c) Is estimated to cost roughly \$3 million over and above the cost of simply reconstructing the existing 800 metres of streetcar tracks on Fleet Street; and
 - d) Is already included in the secondary plan for the Central Waterfront area and, therefore, has already been endorsed in principle by City Council; and
3. Forward this report to the City of Toronto Works Committee and Deputy Mayor Pantalone.

FUNDING

Sufficient funds for this work are included in Program 1.2 Surface Track under the Reserved Transit Lane on Fleet Street project which is in the “Improvement” category. The project is outlined on pages 87-89 of the TTC’s 2005-2009 Capital Program which was approved by City of Toronto Council on February 23, 2005.

BACKGROUND

Streetcars are presently operating in mixed traffic on most of Fleet Street between Bathurst Street and Strachan Avenue. The secondary plan for the Toronto Central Waterfront area designates a reserved right-of-way for streetcars on Fleet Street, and staff propose to implement this right-of-way when the streetcar tracks are reconstructed in 2006.

A streetcar right-of-way was already approved by Toronto Council and the Ministry of the Environment for the Lake Shore Boulevard/Fleet Street corridor in 1995 as a result of the TTC’s Waterfront West Light Rail Transit (WWLRT) Environmental Assessment Study. However, the design now being proposed for the right-of-way is significantly different than that approved in the WWLRT study, and this change requires a modification to the original Waterfront West LRT Environmental Assessment.

The attached report details the reasons for the change in the design and the process that was followed in order to support the recommendation to modify the original environmental assessment.

DISCUSSION

The WWLRT Environmental Assessment study originally recommended that a streetcar right-of-way be built in the middle of a widened Lake Shore Boulevard, from Portland Street to the vicinity of the existing Lake Shore/Fleet “cross-over” intersection that is approximately midway between Bathurst Street and Strachan Avenue. At that point, the right-of-way would shift to the north side of Lake Shore Boulevard, along the south side of Gore Park. When that study was being conducted, the City of Toronto had planned to eliminate the eastern section of Fleet Street – between Bathurst Street and the “cross-over” intersection.

Previous Modification to the WWLRT Environmental Assessment

When planning the 509 HARBOURFRONT streetcar line in 1999, the environmental assessment was modified to allow the streetcar right-of-way on Queens Quay to be extended west of Portland Street, to Bathurst Street, and then via Bathurst Street to connect with the existing streetcar tracks on Fleet Street.

The Need for a Further Modification to the Originally-Approved Design

The previous modification to the WWLRT environmental assessment study did not address the design issues related to a future streetcar right-of-way west of Bathurst Street. When the 509 HARBOURFRONT line was constructed, the design of the Fleet/Lake Shore/Bathurst intersection required that eastbound streetcars on Fleet Street be provided with a reserved right-of-way on the approach to Bathurst Street. Other than on the approach to Bathurst Street, streetcars on Fleet Street operate in mixed-traffic.

The City no longer plans to eliminate the eastern section of Fleet Street and consolidate it with Lake Shore Boulevard and current plans call for the streetcar operation to remain on Fleet Street. The existing streetcar tracks on Fleet Street are scheduled for reconstruction in 2006, which provides the opportunity to create an exclusive right-of-way on Fleet Street as part of that project, at a relatively low additional cost. This will achieve the objectives of the original WWLRT by protecting the streetcars operating on this roadway from delays associated with increases in traffic congestion that will result from the significant future developments in this area.

The purpose of this covering report, and the attached detailed report, is to officially document and convey the proposed environmental assessment modification to the Ministry of the Environment, and to request the Ministry of the Environment to allow this modification.

JUSTIFICATION

The modified design for the construction of an exclusive streetcar right-of-way on Fleet Street, between Bathurst Street and Strachan Avenue, achieves the objectives of the original WWLRT and can be implemented, at a relatively modest additional cost, when the existing streetcar tracks on Fleet Street are reconstructed in 2006.

July 27, 2005

11-55-42

Attachment: Report entitled, "*Streetcar Right-of-Way on Fleet Street -- Modification to Environmental Assessment*"

STREETCAR RIGHT-OF-WAY ON FLEET STREET
MODIFICATION TO ENVIRONMENTAL ASSESSMENT

AUGUST, 2005



INTRODUCTION

The secondary plan for Toronto's Central Waterfront area designates a separate right-of-way for streetcars on Fleet Street. The City's development plans for this area require very high modal splits to transit, and this is one of several transit rights-of-way in the Central Waterfront area that are considered essential to ensure that transit service is fast and reliable, and separated from delays due to general traffic congestion.

There is already approval for streetcars in their own right-of-way in the Fleet/Lake Shore corridor as a result of the environmental assessment for Waterfront West LRT (WWLRT), which was approved in 1995. However, the design that is now being recommended for a streetcar right-of-way on Fleet Street is significantly different than the design that was approved in the WWLRT environmental assessment study.

This change in the recommended design requires a modification to that environmental assessment, following the process that has been developed for this purpose in consultation with the Ministry of the Environment.

This report discusses and documents the reasons for the design change, the alternatives that were considered, the environmental effects of the new design, and the consultation process that has taken place.

BACKGROUND

Original Design

The WWLRT Environmental Assessment Study recommended a streetcar right-of-way in the middle of Queens Quay, from Bay Street to Portland Street, then via Portland Street to the middle of Lake Shore Boulevard. As shown in Exhibit 1, when the WWLRT environmental assessment study was completed, the City of Toronto had planned to eliminate the eastern half of Fleet Street, between Bathurst Street and the existing Lake Shore/Fleet Street "cross-over" intersection. The environmental assessment study recommended that the streetcar right-of-way be constructed in the middle of a widened Lake Shore Boulevard, from Portland Street to the "cross-over" intersection, at which point the streetcar right-of-way would shift to the north side of the street, along the south side of Gore Park.

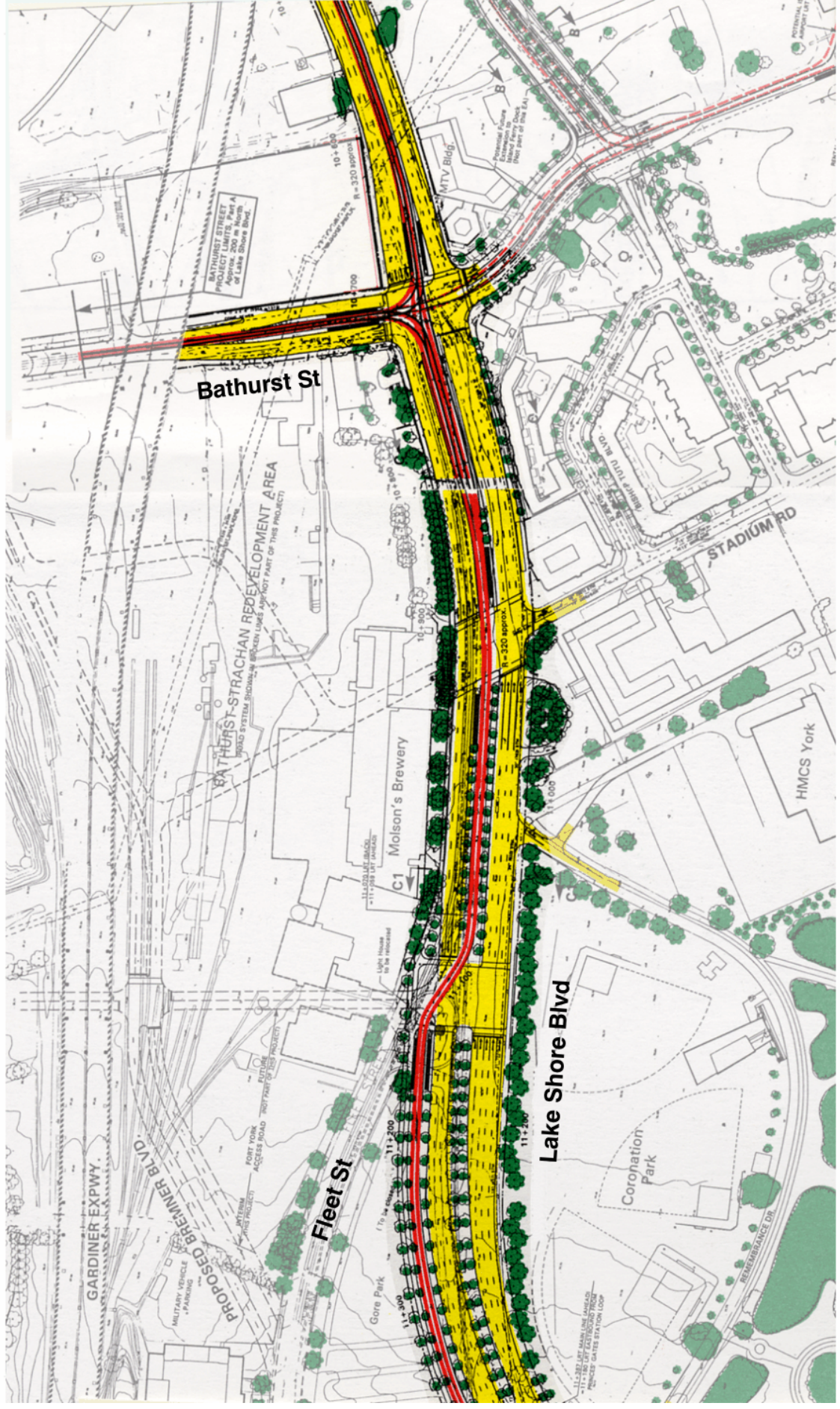
Previous Modification to the WWLRT Environmental Assessment

When planning the 509 HARBOURFRONT streetcar line, City Council obtained approval from the Ministry of the Environment to modify the original WWLRT Environmental Assessment to extend the streetcar right-of-way on Queens Quay west of Portland Street, to Bathurst Street, and then via Bathurst Street to connect with the existing streetcar tracks on Fleet Street. The associated TTC staff report was entitled "*Queens Quay Streetcar Connection – Modification to Environmental Assessment*", and was initially submitted to the Commission at its meeting on March 23, 1999.

Exhibit 1

Previously Approved Streetcar Right-of-Way

The original design included elimination of Fleet St, west of Bathurst St, and the streetcar right-of-way in the middle of a widened Lake Shore Blvd and along the south side of Gore Park.



Need for a Further Modification to the Original WWLRT Design

The City of Toronto no longer plans to consolidate the eastern portion of Fleet Street with Lake Shore Boulevard. For this reason, there is not sufficient space available to widen this section of Lake Shore Boulevard to incorporate a streetcar right-of-way, as originally recommended. It is also preferred, from a customer perspective, to retain the streetcar service on Fleet Street because this keeps that transit service closer to the majority of future development and transit customers in this area.

The design issues related to a reserved right-of-way on Fleet Street were not included in the previous modification to the WWLRT Environmental Assessment. Therefore, a further modification is required before this new streetcar right-of-way can be constructed. This modification will address the section between Bathurst Street and Strachan Avenue. There is already a dedicated streetcar right-of-way between Strachan Avenue and the Exhibition Place streetcar loop. The original WWLRT environmental assessment included a routing between Strachan Avenue and Dufferin Street via Ontario Place; however, based on a review of current conditions, that stage of the project is not warranted at this time.

DISCUSSION

1.0 Process for Further Modifying the EA-Approved Design

The following process has been established, in consultation with the Ministry of the Environment, for making changes to a previous environmental assessment study:

1. explain the need for the modification to the design;
2. identify the alternative designs that were considered, and how they differ from the original recommendation;
3. identify the net environmental benefits or disbenefits of each alternative design;
4. consult with the public and affected agencies; and
5. submit a report on the above steps to the Ministry of Environment.

2.0 Existing Conditions on Fleet Street

Fleet Street is a four-lane road extending approximately 800 metres from Bathurst Street to Strachan Avenue, with streetcar tracks in the middle two traffic lanes. There are two streetcar routes – 509 HARBOURFRONT and 511 BATHURST – operating on Fleet Street. This is the only section of the 509 HARBOURFRONT route that is not in a reserved right-of-way.

In the eastbound direction, both lanes are available for use by all traffic from Strachan Avenue to just west of the Fleet Street/Lake Shore “crossover” signals. Exhibit 2 shows a view of Fleet Street looking east from Strachan Avenue.

Exhibit 2
Fleet Street – Looking East from Strachan Avenue



Just west of the “cross-over” intersection, the eastbound median lane becomes a dedicated streetcar lane and general traffic is required to merge into the adjacent curb lane. Exhibit 3 shows a view of Fleet Street looking east toward the Fleet Street/Lake Shore Boulevard “crossover” intersection. Pavement markings are used to channel eastbound autos out of the median lane and plastic bollards are used to delineate the streetcar lane from the general traffic lane. The eastbound dedicated streetcar lane continues from this point to Bathurst Street.

Exhibit 3

Fleet Street – Looking East to the Lake Shore/Fleet “Cross-over” Intersection



With reference to Exhibit 4, immediately west of Bathurst Street, general traffic is prohibited from using the westbound streetcar lane for the length of the westbound streetcar platform. Beyond the platform, the median lane becomes a mixed traffic lane and the majority of westbound vehicles merge into this lane in order to make the “left turn” onto westbound Lake Shore Boulevard at the Fleet Street/Lake Shore Boulevard West “cross-over” signals.

Exhibit 4

Fleet Street – Looking West from the Westbound Platform at Bathurst Street.



3.0 Alternative Designs for a Streetcar Right-of-Way West of Bathurst Street

Four alternative designs were evaluated for a streetcar right-of-way west of Bathurst Street, including the “Do Nothing” option.

Option 1. Do Nothing, i.e. reconstruct the tracks in their existing location and continue the current mixed-traffic operation on the majority of Fleet Street:

- As mentioned previously, the City’s development plans for this area are premised on a very high percentage of trips being made by transit. Experience has shown that, in order to achieve such high modal splits to transit, transit service must be fast and reliable, and competitive with the private automobile. The only way to ensure this high quality of transit service is to separate it from the delays due to traffic congestion, both the existing congestion following major events at Exhibition Place, and the increasing traffic that will accompany the significant developments planned for this area. For this reason, the “Do Nothing” option, which retains some mixed-traffic operations for streetcars on Fleet Street, is not recommended.

Option 2. Construct the streetcar right-of-way in the middle of Lake Shore Boulevard as originally recommended:

- This original option is no longer feasible. The previous design for a streetcar right-of-way in the middle of Lake Shore Boulevard was premised on a significant widening of that roadway, and this widening was only possible by eliminating the eastern portion of Fleet Street. Given the current plans to retain Fleet Street, the only way that a streetcar right-of-way could be considered on Lake Shore Boulevard would be to convert two of its general traffic lanes to streetcar lanes west of Bathurst Street. This reduction in traffic capacity would result in a very significant “bottleneck” on this major roadway.

Option 3. Construct the streetcar right-of-way along the south side of Fleet Street, leaving a two-lane roadway along the north side of Fleet for general traffic:

- A streetcar right-of-way on the south side of Fleet Street has the benefit of not requiring restrictions to the left-turns to/from the unsignalized intersections planned on the north side of Fleet Street. This option would likely require the complete reconstruction of Fleet Street. However, the principal concern with this option is that it requires non-conventional traffic operation at signalized intersections and this could create confusion for motorists. This is discussed further in the following section.

Option 4. Construct the right-of-way in the centre two lanes of Fleet Street:

- This option would result in a “conventional” right-of-way operation, consistent with the operation on the rest of the 509 HARBOURFRONT route. Left turns on Fleet Street would be restricted to those intersections where there are traffic signals and separate left turn lanes provided. It would not require reconstruction of the entire roadway and is less expensive than Option 3.

4.0 Evaluation of Options - Recommendation for a Streetcar Right-of-Way in the Middle of Fleet Street

As there are significant residential developments planned for the lands to the north of Fleet Street, transit customers are best-served by leaving the streetcar tracks on Fleet Street because this places the streetcar service as close as possible to the majority of future transit customers in this area. A streetcar right-of-way on Lake Shore Boulevard could be accomplished by converting two general traffic lanes to streetcar lanes, but this would create very significant traffic problems and take the streetcar service further from the majority of future transit customers. For these reasons, Option 2 is not recommended.

A streetcar right-of-way could be implemented on Fleet Street with relatively minor impacts on traffic capacity. A streetcar right-of-way on the south side of Fleet Street was considered, but it would result in an unconventional design, from a traffic operations perspective, and this could be confusing for motorists at certain locations. One particular example relates to eastbound motorists on Lake Shore Boulevard who are making the “cross-over” movement onto Fleet Street. At present, these motorists make the “left-turn” from Lake Shore Boulevard into the single eastbound traffic lane on Fleet Street, which is the only lane available to them. However, as illustrated in Exhibit 5, if the two southerly lanes on Fleet Street were reserved for streetcars,

these motorists would be required to access the third traffic lane to their left. City and TTC staff believe that it would be difficult to clearly guide eastbound motorists on Lake Shore Boulevard into that appropriate eastbound traffic lane on Fleet Street.

As a result, Option 3 was rejected, and it is recommended that the streetcar right-of-way be constructed in the middle two lanes on Fleet Street as per Option 4. This would leave a single traffic lane on either side of the streetcar right-of-way, and result in an operation similar to the reserved right-of-way already in place on the rest of the route. Left turns would be allowed from Fleet Street only at intersections where there are traffic signals and separate left-turn lanes.

The preferred design for the streetcar right-of-way itself is similar to the design planned for St. Clair Avenue, which was developed in consultation with representatives of the Police Services and Emergency Services (Fire and Ambulance). As shown in Exhibit 6, the preferred design for the streetcar right-of-way would be to construct the streetcar tracks on a raised median that is 6 inches higher than the adjacent traffic lanes. This would discourage traffic from travelling along the tracks, but the right-of-way would be designed so that it permits Police, Fire and Ambulance vehicles to enter onto, or cross, the right-of-way when necessary. In those areas where it is not possible to have the streetcar tracks raised -- for example, on the approach to a signalized intersection where the tracks must be at the same level as other traffic -- a raised curb would be constructed adjacent to the streetcar tracks to separate the streetcar right-of-way from the general traffic lanes.

There may be locations where the preferred design is not feasible. City staff are considering creating a new signalised intersection on Fleet Street, as an extension of the existing signalised intersection on Lake Shore Boulevard at Stadium Road. In this event, this new intersection would be so close to Bathurst Street on the east, and the "cross-over" intersection on the west, that there would not be enough distance to create an elevated median for the streetcar tracks. The tracks would have to remain at street level, with some form of curbing on either side that could be mounted by emergency vehicles.

The preferred right-of-way design on Fleet Street does not preclude the construction of the approved WWLRT environmental assessment recommendation for a streetcar alignment between Strachan Avenue and Dufferin Street, via Ontario Place, should it be warranted in the future.

5.0 Effects of the Requested Modification

5.1 Transit Benefits

Reserved rights-of-way for transit are required to ensure that transit services in the waterfront area of the City of Toronto are fast and reliable, and sufficiently competitive with the private automobile during peak traffic conditions. This is the only way of accomplishing the very high modal splits to transit that the development plans in this area are based on.

Exhibit 5

Lake Shore Blvd and Fleet St “Cross-Over” Movement

with Streetcar Right-of-Way on South Side of Fleet St

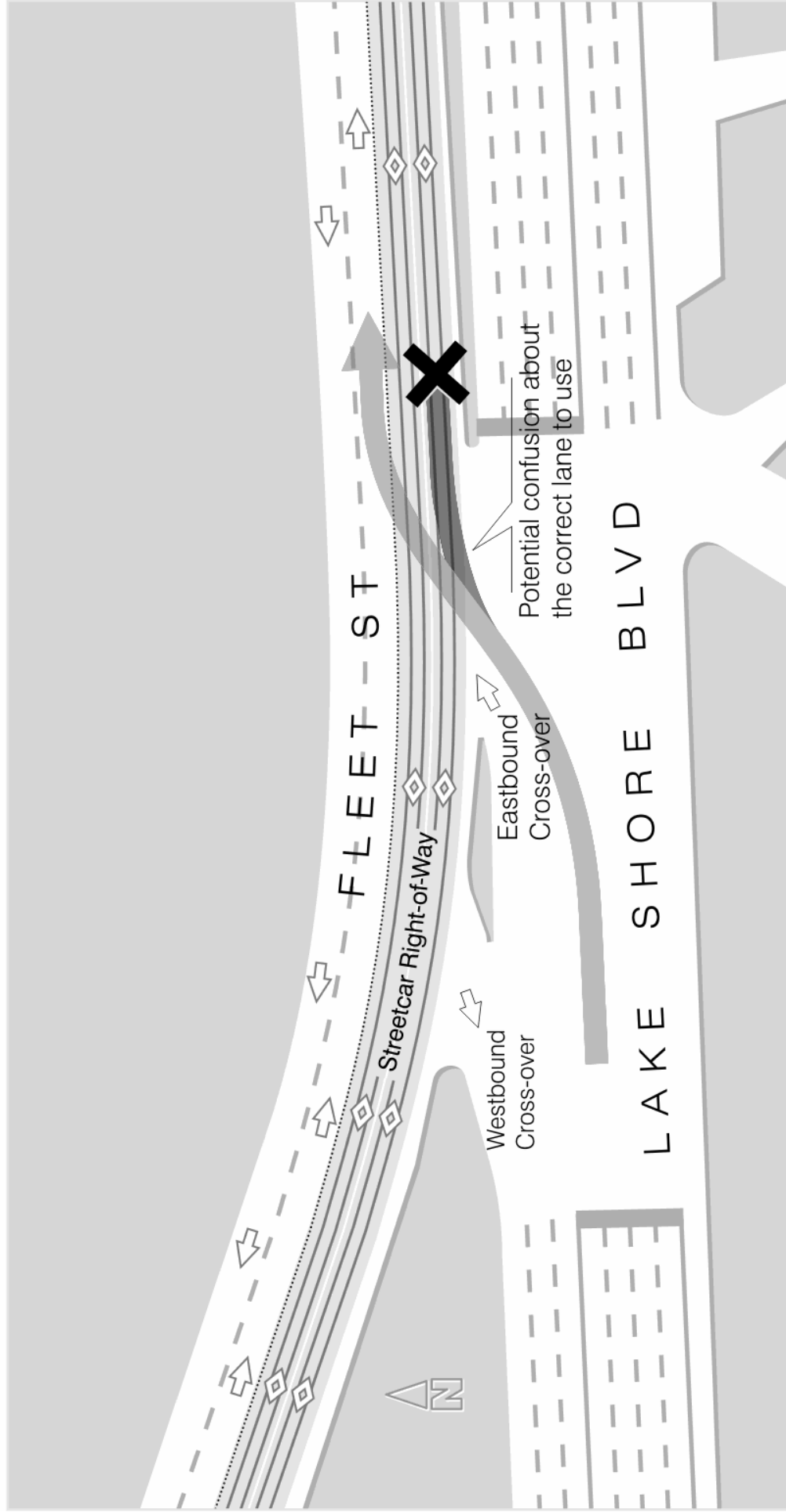
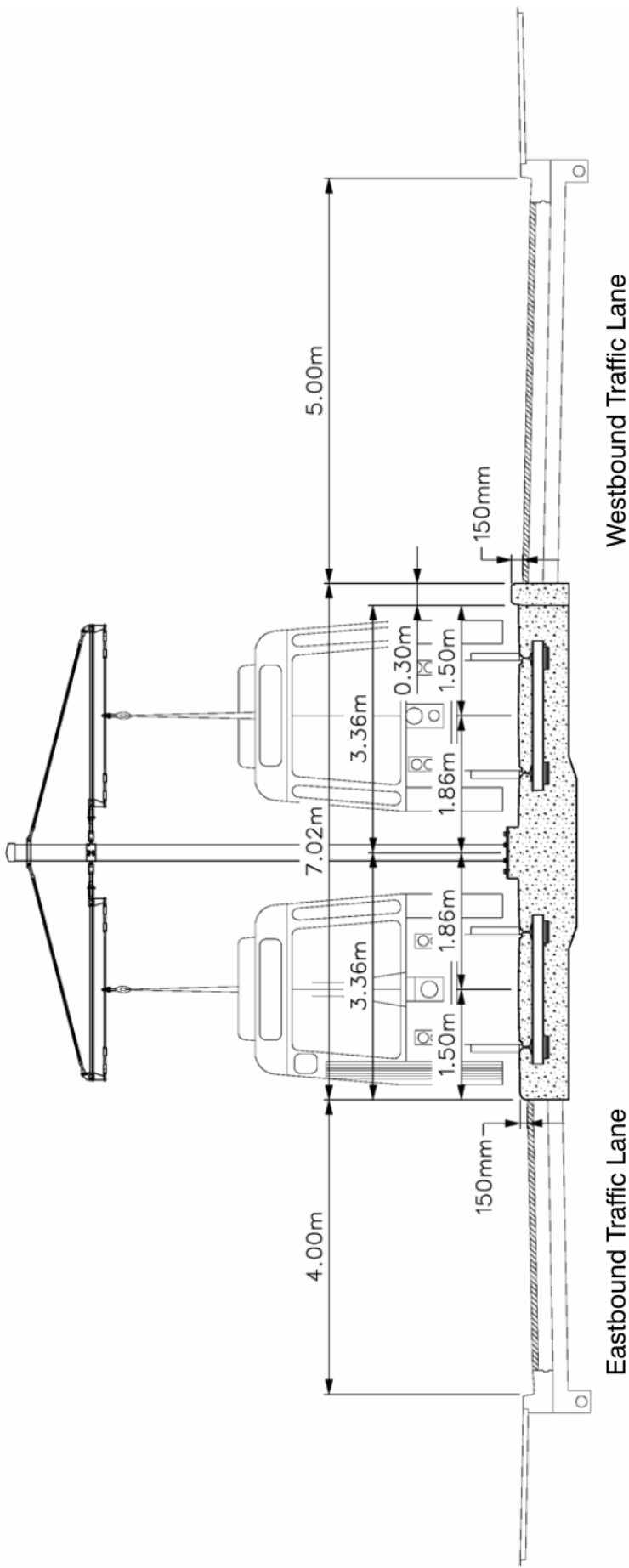


Exhibit 6

Streetcar Right-of-Way on Fleet St - Typical Cross-Section



In addition, because the majority of the development in the study area will be to the north of Fleet Street, a streetcar right-of-way on that roadway will be closer to the majority of future transit customers compared to the original recommendation for a right-of-way in the middle of Lake Shore Boulevard and along the south of Gore Park.

In general terms, improving transit service has a beneficial environmental effect, as it requires lower per-person energy use compared to the automobile and reduces the number of automobile trips on city roadways.

5.2 Road Widening

The City prefers that a single traffic lane, adjacent to a streetcar right-of-way, be five metres wide so that, in the event that a vehicle stops at the curb, there is still sufficient width available in the lane for a following car to pass it. The traffic lanes on Fleet Street are not wide enough to accommodate a streetcar right-of-way and five-metre traffic lanes on each side, in addition to streetcar platforms at transit stops. For this reason, the roadway must be widened at certain locations. To reduce the amount of road widening that would be required on Fleet Street, the following features are incorporated in the design, and these are reflected in the plan in Exhibit 7.

i. Reduced Lane Width in the Eastbound Direction:

It was agreed that the eastbound traffic lane could be reduced to four metres and that cars would be required to mount the streetcar median in the event that a car stops illegally, or breaks down, in that lane.

ii. Elimination of the Westbound “left-turn” Movement from Fleet onto Lake Shore

The initial design of the streetcar right-of-way at the “cross-over” intersection, incorporated a through traffic lane, 3.3 metres wide, and a left-turn lane, 3.0 metres wide, to the right of the streetcar right-of-way. The left turn lane was added to allow westbound motorists to continue to make the “left turn” movement from Fleet Street onto westbound Lake Shore Boulevard on a left turn advanced green signal phase, while streetcars are stopped. However, the study examined the alternative of prohibiting the westbound left turn movement from Fleet Street onto Lake Shore at this intersection, and having these motorists continue to either the Fort York or Strachan intersection to make their left turns there. With this alternative, only a single 5-metre-wide through traffic lane would be needed for westbound traffic on Fleet Street at the “cross-over” intersection, which would reduce the amount of road widening required at this location by 1.3 metres. This alternative would have the added benefit, from an urban design perspective, of allowing the closure of half of the very wide opening between Fleet and Lake Shore – that portion now used for the westbound left turn movement.

Based on an analysis of future traffic volumes projected for this area, there would be sufficient capacity at the Fort York and Strachan intersections to accommodate this additional westbound left-turning traffic, but those motorists who were no longer able to make the left turn at the “cross-over” would have their travel time increase by as much as one minute during peak traffic conditions.

Exhibit 7a

Streetcar Right-of-Way on Fleet St at Strachan Ave

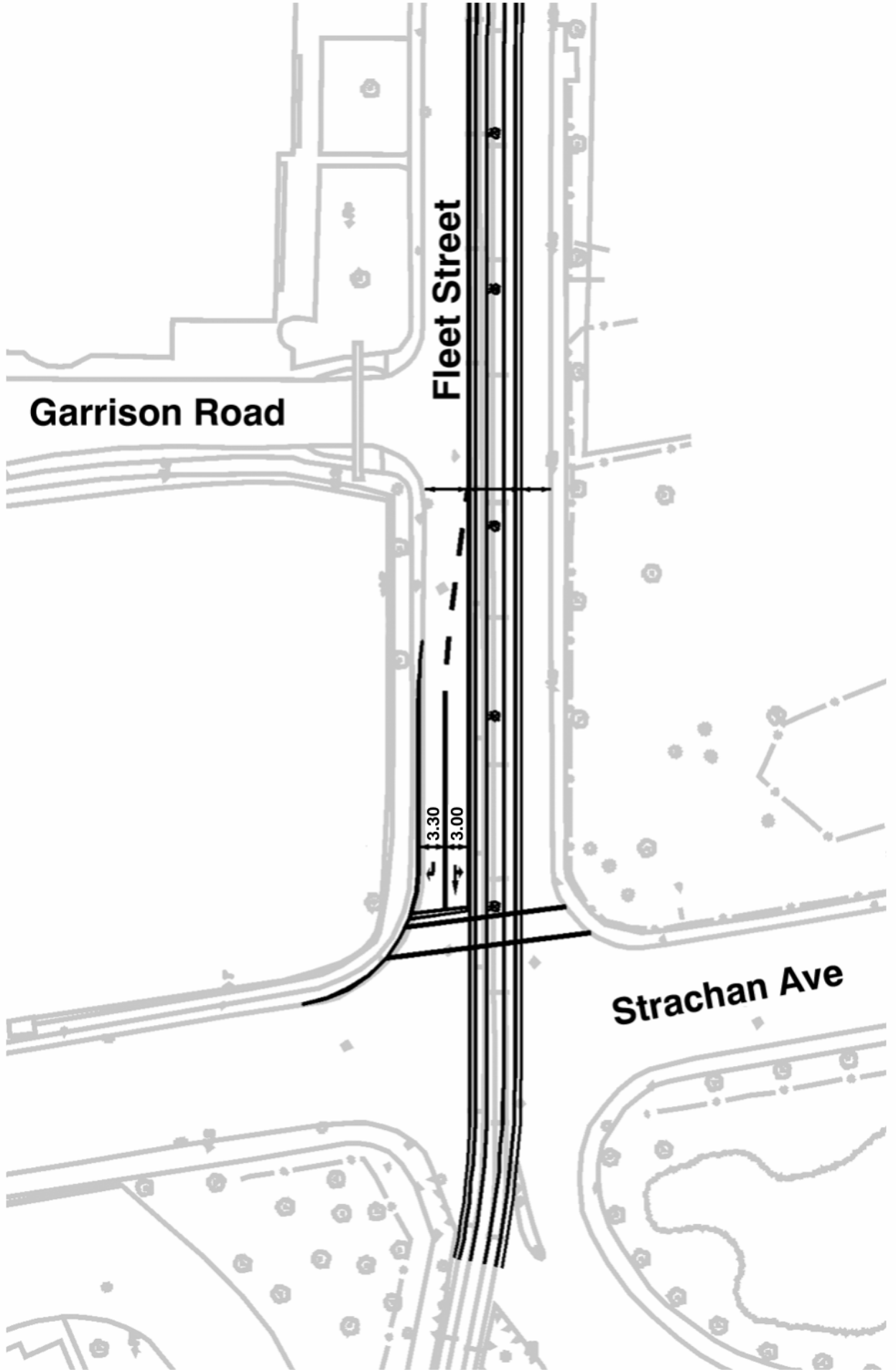


Exhibit 7b

Recommended Streetcar Right-of-Way on Fleet St at Fort York Blvd

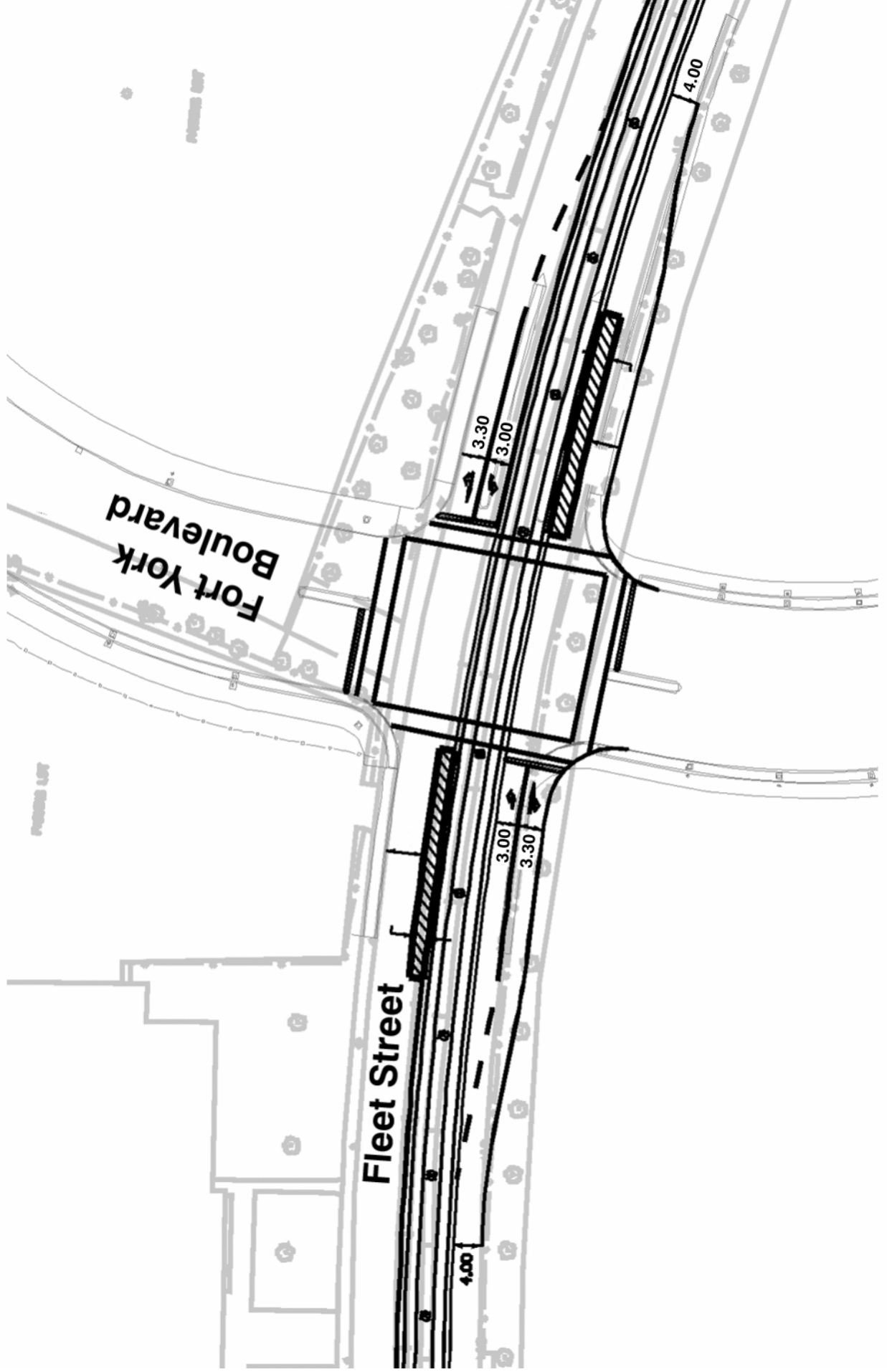
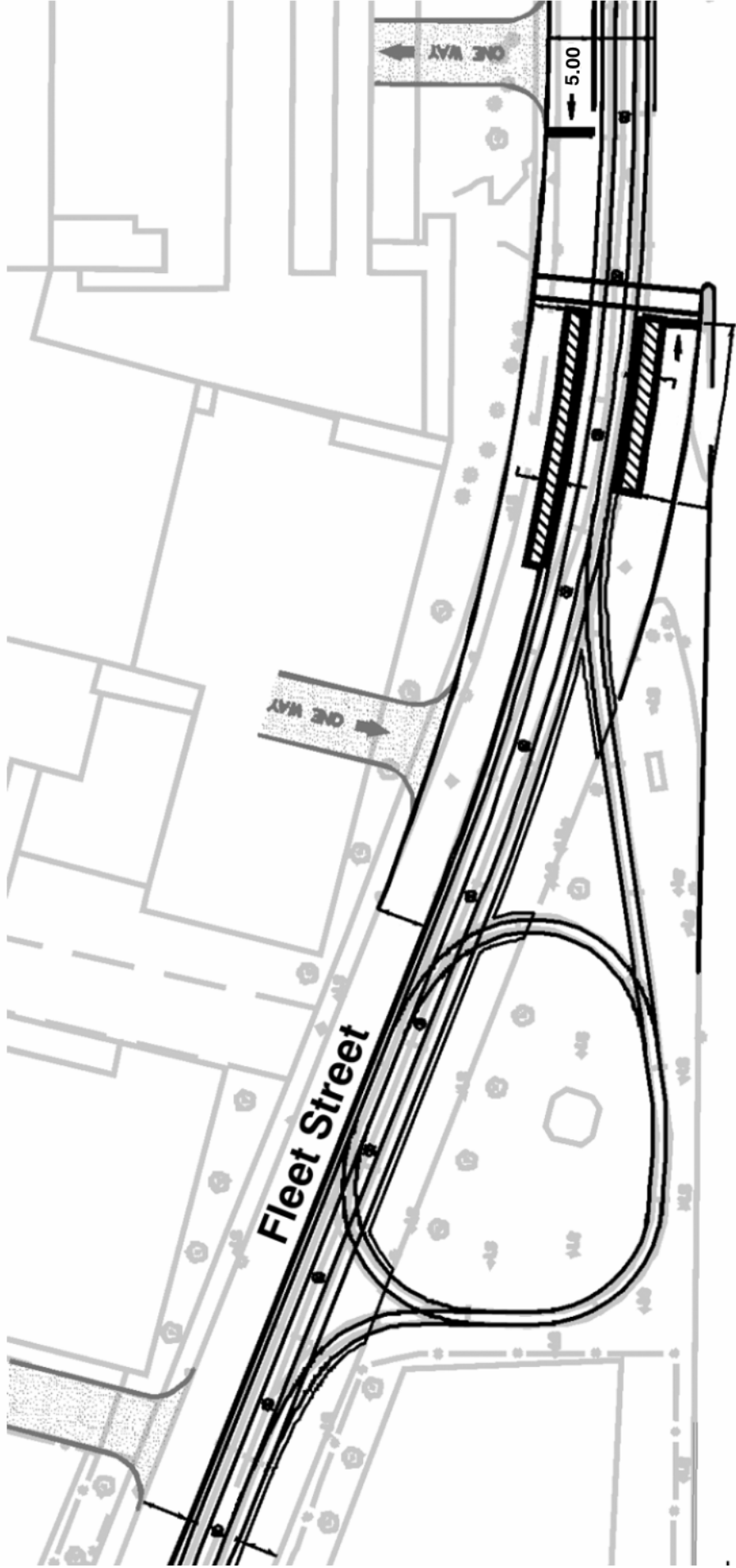


Exhibit 7c

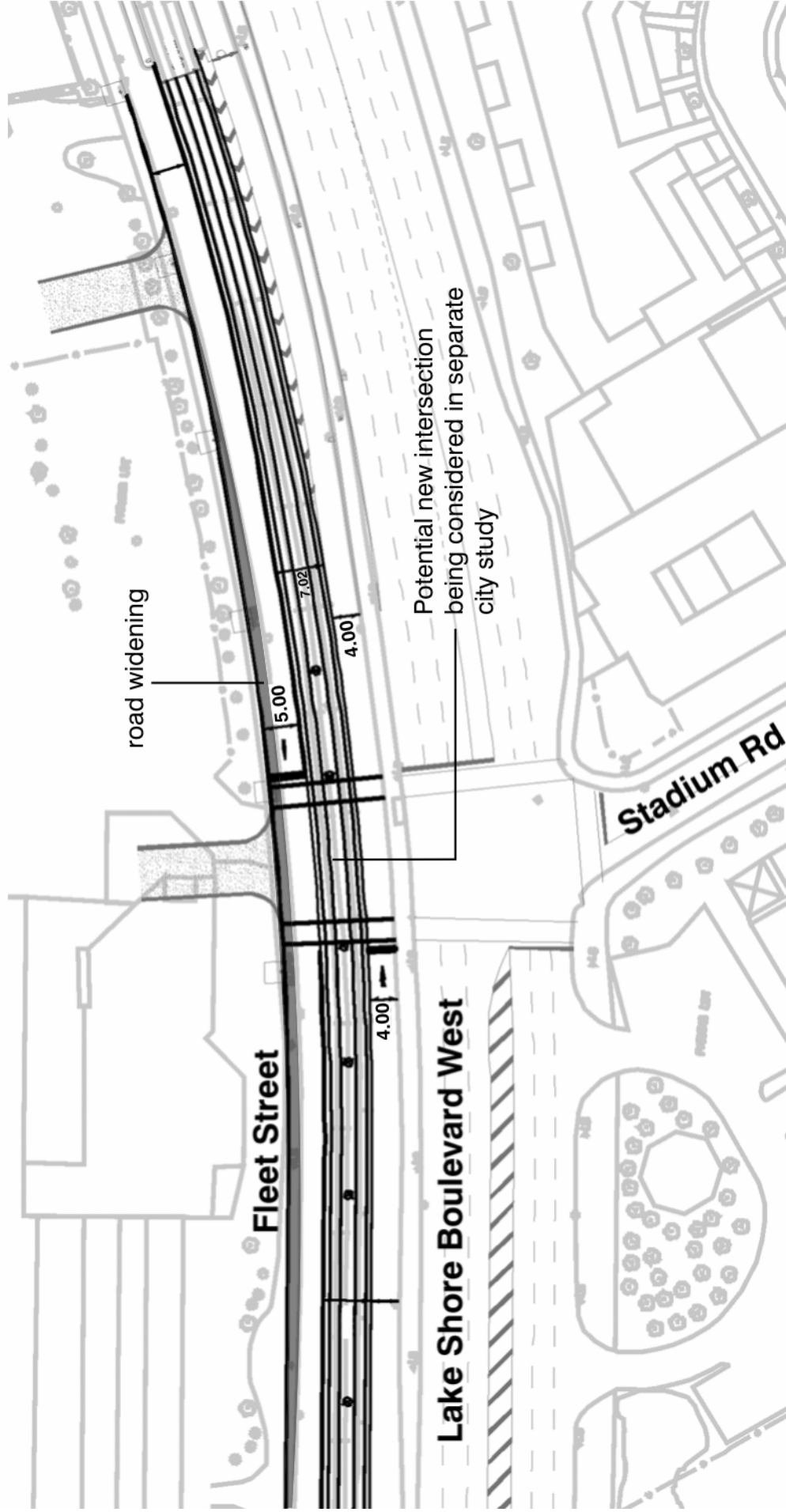
Recommended Streetcar Right-of-Way on Fleet St at "Cross-Over"



Lake Shore Boulevard West



Recommended Streetcar Right-of-Way on Fleet St at Stadium Rd



Given the City's goal of making Fleet Street less suburban and a more "pedestrian-friendly" area, City staff agree that the added delay to left-turning traffic is an acceptable trade-off in order to reduce the amount of road widening on Fleet Street, and to permit the closure of the west half of the very wide cross-over intersection. As a result, the road widening, on the north side of Fleet Street, east of the cross-over, can be reduced to approximately 2-to-2.5 metres at the widest point.

Widening is also required at the Fort York intersection to accommodate the left-turn lanes and streetcar platforms at that intersection. The concept plan shown in Exhibit 7(b) shows all of the widening at Fort York on the south side of Fleet Street, however, the alignment, and some of the widening, will likely be shifted to the north during detailed design to avoid impacting the existing trees on the south side of the road.

A very minor widening may be required to incorporate the recommended addition of a separate right turn lane on the westbound approach to Strachan Avenue.

5.3 Traffic Effects

There are three signalised intersections affected by this project. They are:

- the Lake Shore/Fleet "cross-over" intersection;
- the Fort York/Fleet intersection; and
- the Strachan/Fleet intersection.

A detailed summary of the traffic analysis for these three intersections is provided in Appendix 1. These analyses are based on the City's estimates of future traffic volumes on Fleet Street, and consider two scenarios: with no change to the existing streetcar/traffic operations on Fleet Street and with the recommended streetcar right-of-way design in place. The latter scenario is presented with and without the westbound crossover movement allowed.

As indicated in the traffic analysis, there is sufficient capacity to accommodate the anticipated growth in traffic volumes on Fleet Street with this streetcar right-of-way. The most significant traffic impact resulting from the recommended streetcar right-of-way design is the increase in delay to westbound left-turning traffic at the Fort York intersection in the p.m. peak hour, when future left-turning motorists will experience an average delay of 74 seconds, compared to an average 22 second delay if no changes were made to Fleet Street. However, most of this extra delay is due to the decision to prohibit westbound left turns from Fleet onto Lake Shore at the "cross-over" intersection in favour of the urban design objectives in this area.

5.4 Mitigation of Noise and Vibration Effects

Streetcar operation on Fleet Street is an existing condition which causes noise and vibration. The TTC's current design for streetcar track construction reduces noise and vibration levels relative to the design that was used when the original tracks were built on Fleet Street. This includes:

- continuous welded rail, which eliminates noise due to streetcars passing over joints in the rail.
- encasing the rails in a special rubber "boot" which isolates the rail from the crossties and the surrounding concrete.

- use of steel crossties, embedded in concrete and isolated with neoprene bearing pads, to further reduce any ground-borne vibration

5.5 Access to Unsignalized Intersections with Fleet Street

The reserved streetcar right-of-way in the centre of Fleet Street would require the prohibition of left turns into, and out of, driveways and intersections on Fleet Street where there are no traffic signals. The Council of the former City of Toronto had approved left turn prohibitions between Fort York and Bathurst Street during the development approval process in order to reduce the effects of future development traffic on the streetcar operation on Fleet Street. There are now five planned public roadways intersecting Fleet Street between Fort York Boulevard and Bathurst Street that will have left turn prohibitions.

West of Fort York Boulevard, the streetcar right-of-way would require left turn prohibitions at Garrison Road and the access to the Armouries. However, U-turns would be permitted from the eastbound left turn lane on Fleet Street at Fort York Boulevard to allow those motorists to turn back and access those locations.

6.0 Capital Costs

The marginal cost of constructing this right-of-way, over and above those costs that must be incurred in any event to reconstruct the existing tracks and track bed, are estimated at roughly \$3 million. This will be confirmed in greater detail during detailed design. The costs reflect the following additional work;

- widening Fleet Street on the north side from just west of the “cross-over” intersection to about midway to Bathurst Street, including removing the hydro poles that are immediately adjacent to the roadway and burying the hydro wires
- closing and landscaping the west section of the “cross-over” intersection, and building streetcar platforms on Fleet Street
- widening at the Fort York intersection to incorporate left turn lanes
- possible minor widening on the approach to Strachan to add a left turn lane
- an elevated trackbed or curbing where required to create the right-of-way

7.0 Consultation

On June 10, 2005, TTC and City of Toronto staff met with area landowners/developers to discuss the planned streetcar right-of-way on Fleet Street. The following were represented at the meeting:

- Wittington Properties Limited
- Plazacorp Developments
- Malibu Developments
- H&R Developments

There was general acceptance of the design, as proposed; however, some concerns were raised about the limited access to the development roadways on the north side of Fleet Street between Fort York Boulevard and Bathurst Street. City staff indicated that the existing Section 37 agreements already include a prohibition of left-turns between Fleet Street and these roadways, and these prohibitions would apply even if there was no change in the existing

streetcar operation on Fleet Street. However, City staff agreed to consider allowing access across the streetcar tracks onto the one-way (northbound) public roadway that is planned to intersect Fleet Street at the signalised “cross-over” intersection, shown in Exhibit 7(c). Because there is not enough room to build a separate left turn lane on Fleet Street at this location, eastbound left turns must be prohibited from Fleet Street even though the intersection is signalised. However, it would be possible to allow the eastbound motorists on Lake Shore Boulevard that are making the cross-over movement onto Fleet Street to have the option of making the left turn across Fleet Street and onto this roadway. Given that City staff may allow this left turn movement from Lake Shore Boulevard, the streetcar tracks will not be raised through the cross-over intersection.

Public Meeting of June 21, 2005:

A public meeting was held on June 21, 2005 at the Harbourfront Community Centre, 627 Queens Quay West. It was held at the same time as the public meeting for a separate, but related, class environmental assessment study, “*Infrastructure Improvements in the Fort York and Railway Lands West Neighbourhoods*”. A single, combined meeting was considered to be more convenient for those members of the public who would be interested in both studies.

The proposed design for a streetcar right-of-way on Fleet Street was generally well-received, however, as a result of this meeting and related discussions, there are two significant modifications that staff have been asked to consider:

1. Southerly relocation of Fleet Street between Fort York and Strachan.

Staff were asked to consider a southerly relocation of that section of Fleet Street, west of Fort York Boulevard so that it was no longer adjacent to the Armouries site. The main justification given was that there is the potential for future development of this area to include a school at the Armouries site and that, by moving Fleet Street, and the streetcar tracks, to just north of Lake Shore Boulevard, the existing park could be integrated with the school without the need for students to cross a road.

Response:

TTC staff advised that such a major change to the street system in this area was outside of the context of the current design modification process, however, it was agreed that the idea would be discussed with the City Planners responsible for this area (who were also in attendance). In those subsequent discussions, City Planning staff advised that they had looked at options for the streets in this area such as that being suggested and had concluded that they would leave the street in its current location.

2. Close the eastbound traffic lane on Fleet Street between Fort York Boulevard and the cross-over intersection.

A suggestion was received that there is no clear need for the above section of Fleet Street. Eastbound traffic on Fleet Street, once through Fort York Boulevard, are not permitted to turn left onto any of the five planned development roadways intersecting Fleet Street from the north. Similarly, there are no right-turn opportunities. This being the case, such a motorist can only be destined to northbound Bathurst Street and he or she could access Bathurst Street by turning left onto Fort York Boulevard. Therefore, the eastbound traffic

lane, between Fort York Boulevard and the cross-over intersection could be eliminated and replaced with park land.

Response:

TTC and City staff agree that this suggestion has merit. The Class Environmental Assessment being conducted by the City entitled, "*Infrastructure Improvements in the Fort York and Railway Lands West Neighbourhoods*", includes an examination of measures to calm or reduce the traffic on Fleet Street, and this aspect of the study already includes consideration of eliminating short sections of traffic lanes on that roadway. This suggestion will be considered as part of that study; the decision to close sections of traffic lanes on Fleet Street can be made independent of the streetcar right-of-way project.

8.0 Summary and Conclusion

In the originally-approved design for the approved Waterfront West LRT (WWLRT), the eastern section of Fleet Street was to have been eliminated so that Lake Shore Boulevard could be widened, west of Bathurst Street, to incorporate a median streetcar right-of-way without any reduction in the number of lanes available for through traffic. However, since the City of Toronto now plans to retain Fleet Street, the original design is no longer feasible.

The streetcar tracks on Fleet Street are being reconstructed in 2006 and it is recommended that a reserved streetcar right-of-way be built on Fleet Street as part of that project. The recommended design for a streetcar right-of-way on Fleet Street can be constructed at a relatively low additional cost, can accommodate future increases in traffic volumes as this area develops, and is in keeping with City Planning's objective to create a more urban environment on this street. This revised design keeps the streetcar right-of-way as close as possible to the future developments, and the majority of transit customers, expected in this area.

This modification to the original WWLRT environmental assessment was explained to the landowners on the north side of Fleet Street and a separate meeting was held to explain it to the general public. There was general acceptance of the proposal.

The discussion documented in this report is intended to provide the Ministry of the Environment with the appropriate justification to support the proposed modification to the approved Environmental Assessment for the Waterfront West LRT.

Attachment: Appendix 1 – Analyses of Intersection Operation on Fleet Street

APPENDIX 1 – ANALYSES OF INTERSECTION OPERATION ON FLEET STREET

Fleet Street/Manitoba Drive at Strachan Avenue Intersection Performance – Future Traffic Volumes

		Existing Mixed Traffic Operation		ROW with Westbound Crossover		ROW without Westbound Crossover	
		v/c	Delay Sec.	v/c	Delay Sec.	v/c	Delay Sec.
AM Peak Hour							
Eastbound	Left	0.01	19	0.01	19	0.01	19
	Through						
	Right						
Westbound	Left	0.46	24	0.47	26	0.71	34
	Through						
	Right						
Northbound	Left	0.59	22	0.62	24	0.62	24
	Through						
	Right						
Southbound	Left	0.51	20	0.53	22	0.53	22
	Through						
	Right						
Eastbound	Streetcar	0.14	23	0.11	23	0.11	23
Westbound	Streetcar	0.46	24	0.11	23	0.11	23
PM Peak Hour							
Eastbound	Left	0.01	20	0.01	20	0.01	20
	Through						
	Right						
Westbound	Left	0.06	19	0.06	21	0.55	30
	Through						
	Right						
Northbound	Left	0.46	20	0.48	22	0.48	22
	Through						
	Right						
Southbound	Left	0.55	22	0.57	24	0.57	24
	Through						
	Right						
Eastbound	Streetcar	0.14	23	0.14	23	0.14	23
Westbound	Streetcar	0.06	19	0.14	23	0.14	23

Fleet Street at Fort York Boulevard Intersection Performance – Future Traffic Volumes

		Existing Mixed Traffic Operation		ROW with Crossover		ROW without Westbound Crossover	
		v/c	Delay Sec.	v/c	Delay Sec.	v/c	Delay Sec.
AM Peak hour							
Eastbound	Left	0.59	27	0.65	37	0.65	37
	Through	0.04	16	0.05	20	0.05	20
	Right						
Westbound	Left	0.55	26	0.59	34	0.89	66
	Through	0.05	16	0.06	20	0.73	35
	Right						
Northbound	Left	0.00	8	0.00	15	0.00	15
	Through	0.48	12	0.73	25	0.73	25
	Right						
Southbound	Left	0.00	8	0.00	15	0.00	15
	Through	0.20	9	0.30	18	0.30	18
	Right						
Eastbound	Streetcar	0.59	27	0.06	20	0.06	20
Westbound	Streetcar	0.55	26	0.06	20	0.06	20
PM Peak Hour							
Eastbound	Left			0.00	26	0.00	26
	Through	0.04	16	0.05	19	0.05	19
	Right						
Westbound	Left	0.39	22	0.50	36	0.88	74
	Through	0.11	17	0.12	20	0.58	28
	Right						
Northbound	Left	0.00	8	0.00	13	0.00	13
	Through	0.40	11	0.55	19	0.55	19
	Right						
Southbound	Left	0.00	8	0.00	13	0.00	13
	Through	0.43	11	0.59	20	0.59	20
	Right						
Eastbound	Streetcar	0.04	16	0.08	20	0.08	20
Westbound	Streetcar	0.39	22	0.08	20	0.08	20

Fleet Street at Lake Shore Boulevard West Crossover Intersection Performance – Future Traffic Volumes

		Existing Mixed Traffic Operation		ROW with Westbound Crossover		ROW without Westbound Crossover	
		v/c	Delay Sec.	v/c	Delay Sec.	v/c	Delay Sec.
AM Peak Hour							
Eastbound	Through	0.07	16	0.04	16	0.04	16
Westbound	Left	0.49	14	0.50	14	NA	NA
	Through	0.01	0	0.05	16	0.73	29
Eastbound	Streetcar	0.04	16	0.04	16	0.04	16
Westbound	Streetcar	0.01	0	0.04	16	0.04	16
PM Peak Hour							
Eastbound	Through	0.05	7	0.02	7	0.02	7
Westbound	Left	0.95	93	0.83	73	NA	NA
	Through	0.04	0	0.05	7	0.31	9
Eastbound	Streetcar	0.08	20	0.08	20	0.08	20
Westbound	Streetcar	0.95	93	0.08	20	0.08	20