



EAST BAYFRONT

COMMUNITY LIAISON COMMITTEE MEETING

AGENDA

Project: TTC-TWRC Waterfront Transit Environmental Assessment

Date: December 7, 2006

Time: 6:00 p.m. – 8:00 p.m.

Location: TWRC – 20 Bay Street, Suite 1310

Item	Presenter	Time
Introductions		6:00 pm
CLC Terms of Reference and Code of Conduct	Pino Di Mascio	6:05 pm
Update on Ministry of Environment Review of Terms of Reference	Bill Dawson	6:10 pm
Coordination with Central Waterfront Design Work	Pino Di Mascio	6:15 pm
Presentation on Evaluation of Planning Alternatives and Initial Observations	Dennis Callan	6:20 pm
Facilitated Discussion	Pino Di Mascio	7:00 pm



MEETING NOTES

PROJECT: TTC-TWRC
East Bayfront Transit Environmental Assessment

MEETING NO: CLC 1

FILE NO.: 6377

DATE: December 7, 2006 **TIME:** 6:00 p.m.

PLACE: TWRC Boardroom, Suite 1310, 20 Bay Street

PRESENT: **Community Liaison Committee (CLC)**
Sylvia Pellmen St. Lawrence Neighbourhood Association
Tracy Dale Central Waterfront Neighbourhood Association
Margaret Samuel Central Waterfront Neighbourhood Association
Braz Menezes York Quay Neighbourhood Association
Sharon Poitras Gooderham and Worts Neighbourhood Association
Tom Davidson Office of Councillor Pam McConnell
John Wilson Task Force to Bring Back the Don
Cynthia Wilkey West Don Lands Committee
Dennis Findlay Port Lands Action Committee
Helen Riley Feet on the Street
David White Waterfront Action
David Fisher Rocket Riders

Project Team (PT)
Bill Dawson TTC Service Planning
Mike Ronson TTC Service Planning
Tim Läspä Transportation Planning
Dennis Callan McCormick Rankin (MRC)
Mike Bricks Ecoplans
Hank Wang McCormick Rankin (MRC)
Alun Lloyd BA Group
John Hillier du Toit Allsopp Hillier (DTAH)
Ayaro Kitta du Toit Allsopp Hillier (DTAH)

Moderator
Pino DiMascio Urban Strategies (USI/TWRC)

PURPOSE: EBF Community Liaison Committee Meeting #1

PROCEEDINGS:

ACTION BY:

1. Introductions

- a) P. DiMascio opened the meeting and welcomed everyone to the first CLC meeting of the EBF Transit EA.
- b) P. DiMascio explained:
 - The breaking up of the previous CLC into a WDL CLC and an EBF CLC
 - This is the first CLC meeting of the “study” phase of the EBF EA
- c) P. DiMascio reviewed the Terms of Reference of the EBF CLC and explained the set up, process, and Code of Conduct of the committee noting that the EBF CLC will run for a full year.
- d) **CLC:** Between the EBF EA, the WDL EA, the Mouth of the Don study, and other TWRC projects/studies, there will be a lot of public workshops/meetings taking place in the future. There is a need to coordinate these meeting dates properly. In response, P. DiMascio described the process by which the large number of projects are being coordinated including the establishment of meeting dates.
- e) **P. DiMascio:** There appears to be a desire from members of this CLC to communicate their ideas and concerns amongst the group. TWRC has not released CLC member contact information due to the need to maintain personal privacy. However, TWRC will send an email to all CLC members to gauge their preference for releasing their contact information to other members of this CLC.

TWRC

2. Update on the ToR

- a) The MOE staff has completed their review of the document through August and October. We expected to hear from the MOE at the end of October but so far they are six weeks behind schedule. As of now, decision is still pending at the Minister of the Environment’s office. As a result of the delay, timing of the next PIC may be affected depending on when the MOE releases it decision on the ToR.

3. Coordination with Central Waterfront Design Work

- a) P. DiMascio touched on the EBF Precinct Plan, the EBF Class EA Master Plan, and the TWRC Design Competition for Central Waterfront.
- b) The West 8 team is currently proceeding with their work. They are undertaking a traffic analysis to determine the impact of two traffic lanes versus four on Queens Quay. Their work has also been extended to east of Bay Street.
- c) P. DiMascio explained that the EBF EA Project Team is currently at the “Planning Alternatives” stage of the EA process. It is hopeful that a “Preferred Planning Alternative” could be chosen by March

PROCEEDINGS:

ACTION BY:

2007.

- d) P. DiMascio explained the reason why the EBF Precinct Plan leaves out the portion east of Parliament Street. At that time, the study team did not have enough information on the “Mouth of the Don” to proceed further. However, the “South Don Lands Innovation” study is now proceeding. As such, TWRC is moving ahead on examining future road network and land use in the EBF east of Parliament Street.
- e) J. Wilson noted that a public meeting was held two nights ago on the “Mouth of Don” study. Two more transit EAs have been initiated recently: Don Mills and Kingston Road. These studies will tie into the future Port Lands Transit EA. An integrated coordination of these EA studies is being taken.
- f) **CLC:** There has to be a similar CLC-type public consultation for the design of the EBF east of Parliament.
- g) **P. DiMascio:** The term “CLC” is an EA terminology. For the design of EBF east of Parliament, stakeholder groups will be formed as part of the consultation process for that study. Public consultation will be broader.
- h) **CLC:** Wants to be sure that the environment issues raised during the Central Waterfront design competition are not compromised to accommodate the EBF Transit EA.
- i) **PT:** Du Toit Allsopp Hillier is involved in both the Central Waterfront Design and the EBF Transit EA. They will ensure that work done by the EBF Transit EA Project Team and the West 8 team are well coordinated.
- j) **CLC:** Because of the number of studies that are being carried out for the entire Eastern Waterfront, the Project Team needs to be aware of the need to integrate all of these studies and the impact of one study on another.

4. Presentation on Evaluation of Planning Alternatives and Initial Observations

- a) D. Callan began his Power Point presentation (available on TWRC web site) and explained the process of this EA study: select a corridor first, select technology(s) next, and then generate design alternatives.
- b) Regarding the “East of Parliament” area, there is the complication of, at this time, not knowing how Parliament Street, Queens Quay, and Cherry Street roads will be connected in that area. There is a “South Don Lands Innovation” study that will be looking into that issue. The Project Team will specify in the EA report that transit design

PROCEEDINGS:

ACTION BY:

“East of Parliament” portion will be adjusted to match the alignments from the South Don Lands study. The two studies are being undertaken in a similar time frame and will be coordinated

- c) The first step of the assessment and evaluation of Planning Alternatives is to determine whether an alternative meets the minimum requirements – the “must haves” set out in the ToR.
- d) Travel demand forecast has been done but it still needs to be refined. However, the Project Team has enough information to proceed with the analysis. The passenger volumes shown are for morning peak hour work trips.
- e) **CLC:** Do those volumes represent “today” or sometime in the future? We need to have an idea of the timeline or the staging that leads to these volumes.
- f) **PT:** The travel demand forecast represents a full, long-term build-out plan. We typically choose the 30-year horizon as the target. There is no definite timeline or staging associated with this particular forecast. EAs do not set out staging plans.
- g) **CLC:** I am concerned about the Don Mills and Kingston Road transit EAs being placed in secondary priority after EBF. This is concerning because there will be a lot of people coming to the waterfront from the east end of Toronto. There should be more emphasis on accommodating people from that part of the city.
- h) **PT:** The future network and demand forecasts include new transit routes on Don Mills and Kingston Road and a Waterfront West service to south Etobicoke.
- i) The Project Team noted that the 4000 plus passengers/hour/direction at 30-year full build-out is about double the peak volume on TTC’s most heavily-used surface route – 504 King Street.
- j) **CLC:** Why do you use the 4000 as the peak demand for Queens Quay? Why not the 5700 at Queens Quay Station?
- k) **PT:** The 5700 at Queens Quay Station is a combination of both the future demands from Port Lands, EBF, plus demands along the existing 509 Harbourfront streetcar. Combined with the spur line along Bremner Boulevard, you get approximately 8000 users once you arrive at Union Station.
- l) **CLC:** What is the volume in the existing tunnel?
- m) **PT:** Just over 2000 passengers per hour per direction, from the 509 Harbourfront West.
- n) **CLC:** Just a note that TTC currently does not operate articulated buses, so perhaps you should recalculate your numbers based on

PROCEEDINGS:

ACTION BY:

standard length (40-foot) buses?

- o) **PT:** TTC would purchase articulated buses if needed in the future. The number of standard 40-foot buses required to carry 4000 plus passengers an hour would be much higher than that for the 60-foot buses. It just does not make sense from an operation standpoint. To meet the forecast demand along Queens Quay East by bus, we would have to purchase articulated buses.
- p) **CLC:** Current TTC express buses do not operate in dedicated ROW, so I wonder whether you can assume that an express service along Lakeshore Boulevard would automatically require a dedicated ROW. I have often travelled along that segment during peak periods – it is only when you get close to Union Station where traffic congestion becomes a problem. I want to see some traffic studies along Lakeshore Boulevard from Cherry Street to Union Station before we can make the conclusion that dedicated ROW is needed for Lakeshore Express.
- q) **PT:** Please note that the forecast demand for Lakeshore Express will materialize only if you provide a service that is (1), faster and more reliable than Queens Quay East, and (2) faster and more reliable than private automobiles in mixed traffic on Lakeshore Boulevard. People will not take Lakeshore Express if it is not better than the service on Queens Quay.
- r) **CLC:** I need to see how an express service on Lakeshore Boulevard could be slower than a local streetcar service on Queens Quay. I want to know the current traffic volumes along Lakeshore.
- s) **CLC:** We should not make the assumption that fast service can only be achieved by dedicated ROW. The real issue here is not dedicated ROW – it is service frequency. Do not rule out buses yet.
- t) **PT:** Speed and reliability are the main issues here – you cannot attract new users to transit if you cannot provide a service that is comparable to cars on a congested road, and it is not possible to provide a fast transit service on a congested road without giving transit a priority ROW over cars.
- u) **PT:** Dedicated ROW is only one element of these alternatives; a fast, convenient, and seamless transit access to Union Subway Station is also required.
- v) **CLC:** I have a problem with these planning assumptions that all east-west travels converge to Union Station. There are many people who want to go to other destinations downtown. There are also people who would only want to travel through Queens Quay to destinations along the waterfront. If I had to transfer at Union Station to get to my destination downtown, that transfer adds to my trip time.

PROCEEDINGS:

ACTION BY:

Number of transfers is another factor in people's trip time. It is not just a dedicated ROW issue.

- w) **CLC:** You have already said that the King streetcar can carry 2000 passengers/hour/direction while in mixed traffic. Can't two mixed-traffic operations (one on Queens Quay and one on Lakeshore Blvd.) carry the forecast total of 4000 passengers per hour?
- x) **PT:** King Streetcar service is very slow because of traffic congestion. The objective is to provide the high quality transit service needed to achieve these passenger volumes, and attract people from their cars. To do this we need a fast and reliable transit service that can only be provided with a dedicated ROW. The 2300 on the Lakeshore Corridor will be achievable only if the Lakeshore Express is faster than Queens Quay. The demand could shift from Lakeshore to Queens Quay if it is faster on Queens Quay.
- y) **CLC:** What about implementing a peak-period only reserved bus lane on Lakeshore Boulevard. Is that possible?
- z) **PT:** It is possible but it would require taking over existing traffic lanes. Traffic enforcement is another issue. The propensity of cars entering a bus-only lane is much higher for a congested downtown arterial such as Lakeshore Boulevard.
- aa) **CLC:** I still have not heard you talk about the Redpath Sugar rail line.
- bb) **PT:** At the Planning Alternatives stage, we are assuming that the Redpath Sugar rail service will remain in the study area. The issue of how to accommodate and maintain service to Redpath Sugar will be dealt with during the Design Alternatives stage.
- cc) **CLC:** Does the ToR allow you to recommend changes to the City's policies? Union Station has a small foot print. Should we not expand its reach to the south? Right now it is difficult to walk from Union Station to Queens Quay and the waterfront. You need to focus on how to provide people with a better connection from Union Station down to the waterfront. It does not make sense to just focus on Union Station and its immediate surrounding streets.
- dd) **PT:** The issue of accessing Union Station is a design issue and so it will be dealt with at the Design Alternatives stage.
- ee) **CLC:** If you consider Union Station only as the subway platform below Bay and Front streets, then I agree there is an access issue. But if you consider Union Station as a bigger entity, then the access issue is not such a big problem.
- ff) **PT:** The issue is not about how to get people to Union Station only. It is about how to get people in EBF to/from all the other destinations

PROCEEDINGS:

ACTION BY:

- in the City by transit as well, and this focuses on subway access.
- gg) **CLC:** I still think you should consider other options for access to Union Station from the south. You have already made an assumption in your mind and dismissed it entirely off the table.
 - hh) **CLC:** There are very few people living on Queens Quay East right now. We are building a brand new community around it in the hope that people will use transit instead of driving their cars. We want to decrease people's dependency on cars and we really have to get that message across. The TWRC has recently delivered a "Great Street" presentation at the city council about the Lakeshore Corridor. Well, Lakeshore Boulevard cannot be a "great street" if there is no transit on it. In the future, people will be living there. Most people who will be living in the Eastern Waterfront will want to go north of Union Station and go elsewhere downtown. Instead of dumping them all at Union Station and forcing them to transfer, we should be using buses to bring these people closer to their destinations downtown. We really have to think more long-term.
 - ii) **CLC:** I think the 400 to 500 m walking distance often used as a measure by TTC is just too long. You cannot force people to walk that distance in order to take transit. Also, I thought the Lakeshore Express does not just stop at Port Lands; I thought it is an actual line that goes up Kingston Road all the way up to Woodbine and beyond? I thought it is a "must" and not just an "option"?
 - jj) **CLC:** I think the access issue at Union Station is an engineering problem that can be overcome.
 - kk) **CLC:** How do you get 8000 people off at Union Station by streetcars? I just cannot see that being possible.
 - ll) **PT:** That is a design issue. There is a concept for multiple streetcar platforms at Union Station.
 - mm) **PT:** Access issue at Union Station is common to both corridor options. It is a design issue. Once a preferred corridor and technology is chosen, then there will be many alternatives for improving access to Union Station.
 - nn) **CLC:** If there is no Lakeshore Express, the people from Port Lands will have packed the streetcars before anyone from EBF can get a seat on them.
 - oo) **CLC:** For people coming from the east, Lakeshore Boulevard is a closer route to Union Station than Queens Quay is. That is the route I would take. Besides, why are we focusing on just Union Station? Why not bring people to other subway stations?
 - pp) **PT:** Lakeshore Corridor does not effectively serve developments in

PROCEEDINGS:

ACTION BY:

- the EBF area, so it does not directly address the purpose of the current study, which is to serve these developments. The recommendation is to retain the Lakeshore Corridor concept as a future possibility so that we do not preclude any future transit plans in the corridor but to not undertake further detailed work on the concept within this study.
- qq) **CLC:** I do not think you should decide the corridor first and then decide on the technology. We need to look at all combinations. How can we screen out a corridor now if we do not know how good each combination will work?
- rr) **CLC:** I do not agree that you would need to build dedicated ROW on Queens Quay either way regardless of the one-corridor or the two-corridor option.
- ss) **PT:** If you can think of advantages associated with the two-corridor option, please give us your comments. CLC
- tt) **CLC:** The community vision for this area has been discussed over the years, and we know transit will help transform it. I hope the Project Team will keep that in mind. There has been too much emphasis on weekday peak period demands and not enough on off peaks and special events. There is a need to address the Union Station access issue and expand its footprint. At the same time, we need to ensure that we do not end up with a project that cannot be achieved and ends up sitting on the shelves. We need a project that is financially and realistically feasible.
- uu) D. Callan continued with the “technology” segment of his presentation.
- vv) The Project Team noted that “Do Nothing” would not provide good transit service for the EBF. For streetcars in mixed traffic, although there would be transit service, it would not help support and shape development in the EBF.
- ww) **CLC:** Can you mix buses and streetcars in the same tunnel?
- xx) **PT:** Yes, but a streetcar-only tunnel is typically narrower than a mixed-vehicle tunnel because buses require wider room to manoeuvre. Buses will also need bigger platform space to load/unload passengers.
- yy) **CLC:** I do not think that ground-borne streetcar vibrations can be potentially eliminated, as you said in your presentation.
- zz) **PT:** It is possible to mitigate ground-borne vibrations due to streetcars. It depends on the design. Houston’s new LRT system is a good example.

PROCEEDINGS:

ACTION BY:

5. Next Steps

- a) Tentatively, submission date for comments has been set for the first week of January.
- b) The Project Team would prefer to present the Preferred Planning Alternative prior to the first PIC sometime in February 2007.
- c) The next CLC meeting has been set tentatively for January 23, 2007.
- d) **CLC:** Who do we email about getting a copy of the background data used in your analysis of Planning Alternatives?
- e) **P. DiMascio:** You can email Andrea.

The foregoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned within 48 hours of receiving these meeting notes at 905-823-8500.

Notes prepared by,
McCormick Rankin Corporation
Hank Wang

File: W:\6k\6377 Waterfront LRT EAS\6377.700 Planning\6377.708 Consultation\EAS\East Bayfront - MRC\EA CLC#1\Meeting Notes - CLC #1 - Final.doc

East Bayfront – Transit EA



Selection of Planning Alternatives December 7, 2006

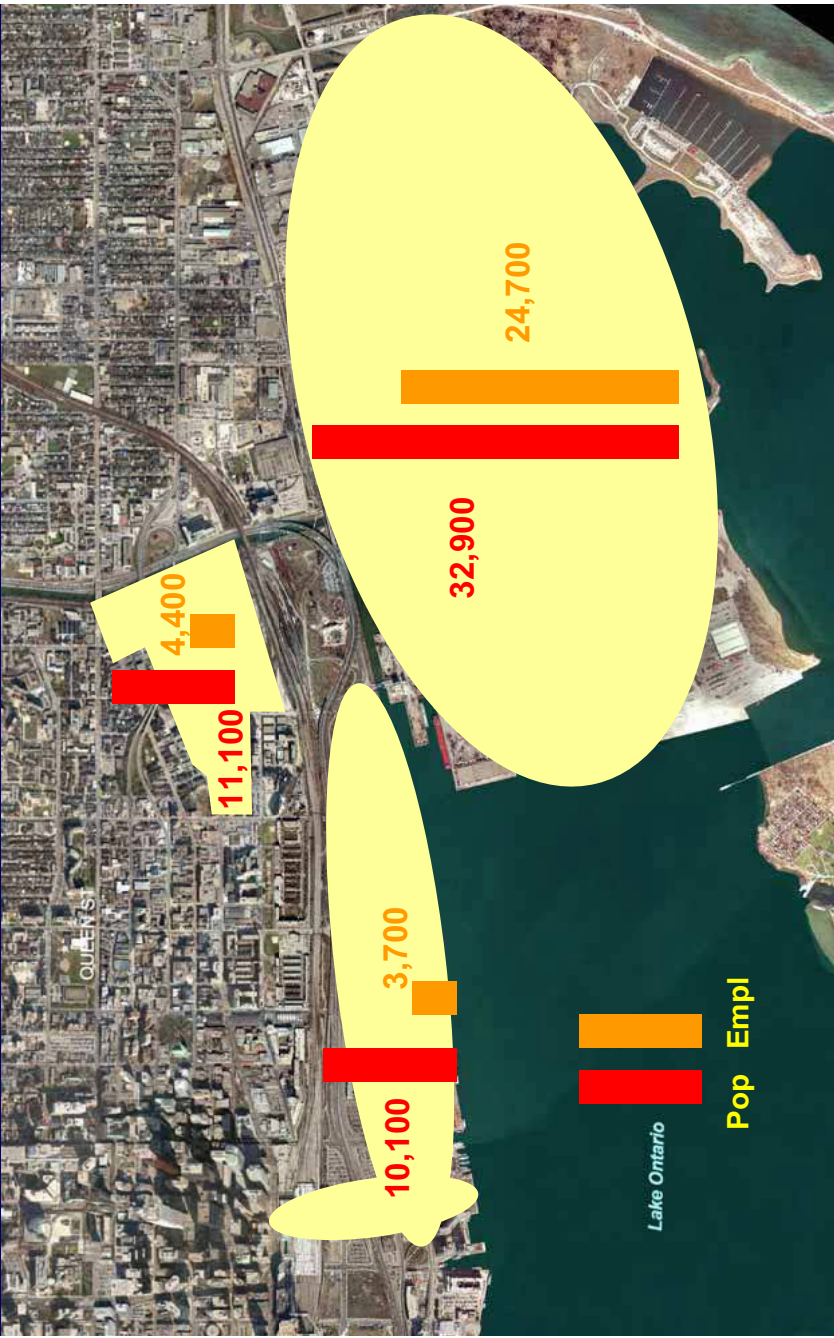


TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Long Range (2030) Population & Employment



Study Area Context



East Bayfront Study Area

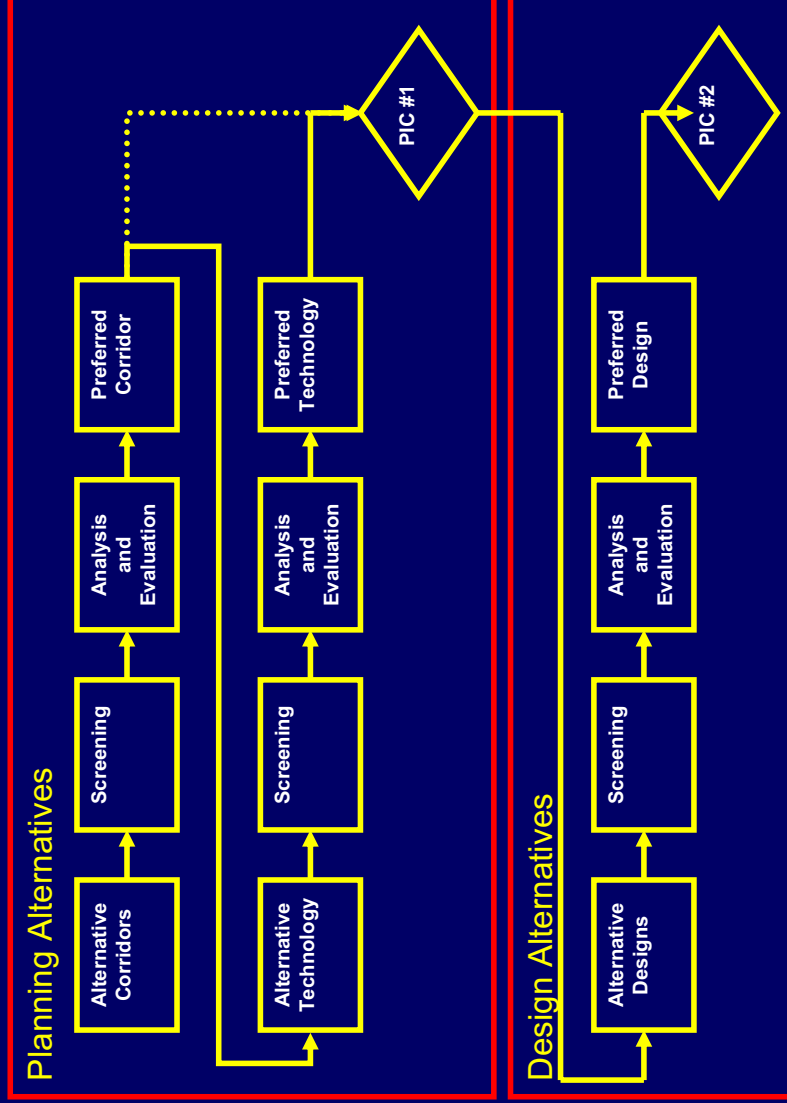


TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Decision Making Process from ToR



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Analysis Criteria

From the Term of Reference.....

Criteria	Required Minimum “The alternative...”	Possible Planning Indicators ¹ “The degree to which the alternative...”
LAND USE		
<i>Local population / employment growth in the study area</i>	Must be capable of accommodating travel demand from forecasted development.	<ul style="list-style-type: none"> Supports future road and transit capacity requirements for forecasted development.



**TTC-TWRC East Bayfront
Environmental Assessment**



**TORONTO WATERFRONT
REVITALIZATION CORPORATION**

Setting Measures

A) Land Use	A1) Local population / employment growth in the study area	A1.1) Supports future road and transit capacity requirements for forecasted development.	ROW width must be able to accommodate the required infrastructure
	A2) City, TWRC, and Provincial Policies	<p>A 2.1) Supports the City's Central Waterfront Secondary Plan (SF) and East Bayfront Class EA Master Plan objectives.</p> <p>A 2.2) Supports the TWRC's Precinct Plan and Sustainability Framework (SF).</p>	<p>New streetcar and some bus routes will operate in exclusive rights-of-way on existing streets (SP Policy P4)</p> <p>A LRT service in the centre median of Queens Quay linking the existing city through East Bayfront to the Port Lands (Pg 36 of the EBF Precinct Plan).</p> <p>Modify ROW and introduce regulation which increase the relative speed of transit travel compared to automobile travel (SF pg 3-16)</p>
		A 2.3) Supports Provincial growth management plans (PGP), policies, and objectives.	<p>Ability to reduce reliance on cars and promotes transit, cycling, and walking - PGP Section 3.2.2(1)(b)</p> <p>Expanding transit service to areas that have achieved, or will be planned so as to achieve, transit-supportive residential and employment densities, together with a mix of residential, office, institutional and commercial development wherever possible - Section 3.2.3(2)(c)</p>



**TTC-TWRC East Bayfront
Environmental Assessment**



**TORONTO WATERFRONT
REVITALIZATION CORPORATION**

Environmental Assessment Process from the ToR

Planning Alternatives:

- Corridors
 - Queens Quay East & North to Union station
 - Queens Quay East (Local) + Lakeshore (Express through)
- Technologies
 - Vehicle Type – Buses or Streetcars
 - Right of Way Treatments – mixed traffic or transit only

Design Alternatives: - platform locations, sidewalks, Union Station connections, bike lanes, urban design / landscape features, on street parking, general purpose traffic lanes, operational needs, etc.



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Alternate Corridors - Queens Quay Only



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Description – Queens Quay

- Queens Quay Only
 - Transit facility along Queens Quay and north to connect with Union Station
 - Accommodates all transit ridership serving East Bayfront as well as Port Lands ridership destined west and to subway

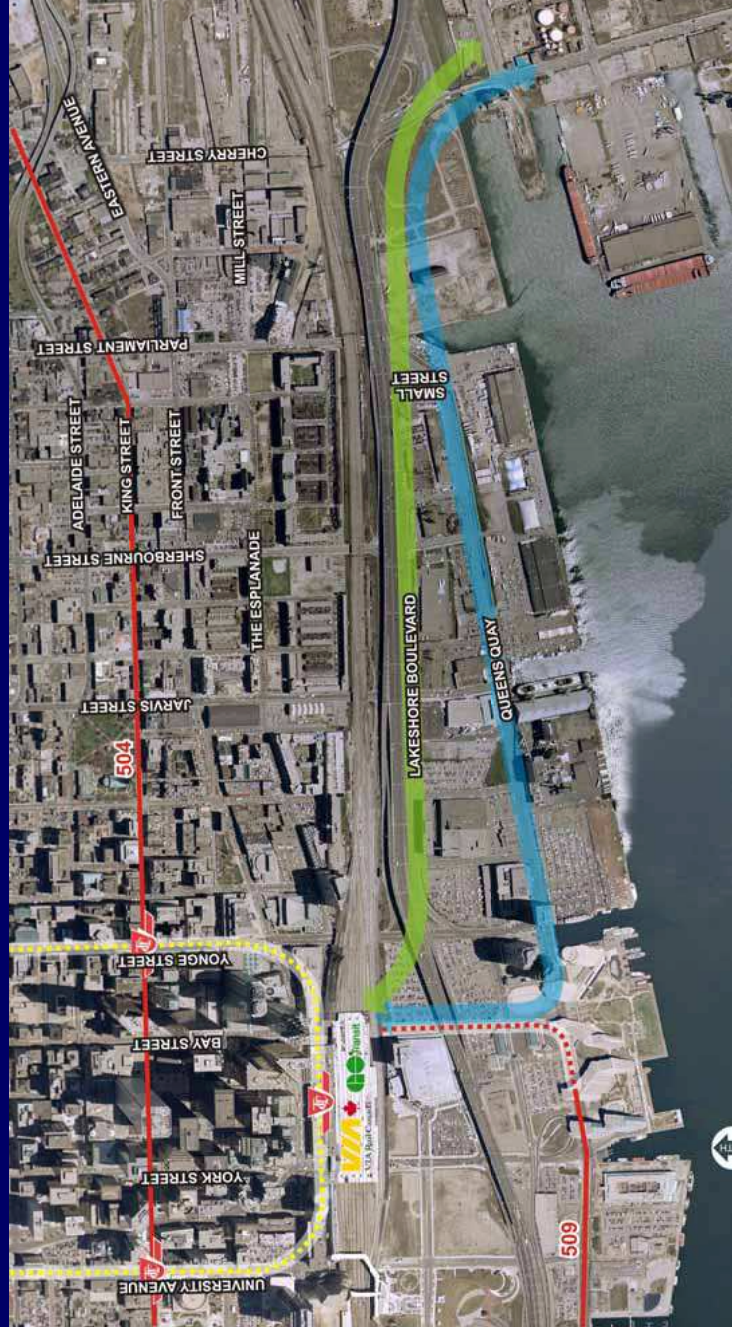


TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Alternate Corridors - Lakeshore Express + QQ Local



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Screening Criteria

Required Minimums from ToR

- Accommodate travel demand
- City's Official Plan policies
- Promotes transit mode splits
- Provides Service to future inhabitants
- Connect to other Waterfront Precincts
- Accommodate people with mobility difficulties



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Criteria		Required MINIMUM "The Alternative.."	OPTION 1: Queens Quay	OPTION 2: Queens Quay Local plus Lakeshore Express
Land Use	Local population / employment growth in the study area	Must be capable of accommodating travel demand from forecast development	Yes	Yes
	City, TWRC, and Provincial Policies	Must meet City's Official Plan Policies and Principles	Yes	Yes
Transportation	Auto Dependence	Must promote transit modal splits at least as good as comparable communities (such as St. Lawrence neighbourhood)	Yes	Yes
	Vehicles	Must provide transit service to majority of future inhabitants within 500m of transit	Yes	Yes
		Barrier free design	Yes	Yes



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Screening Results

- Both corridor options meet minimum requirements



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Step #2 – Corridor Analysis and Evaluation

Planning Alternatives



.....



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Key Issues Affecting the Analysis

- Ridership forecasts
- Physical feasibility



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Accommodation of Future Ridership Demand



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

For Both Corridor Options

- High forecast passenger volumes mean that a separate transit ROW is required on each facility
 - needed to provide fast reliable service
 - achieve City and TWRC objective of non-auto oriented development



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Physical Feasibility of Lakeshore Express



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION



Yonge Street north

- No room for exclusive lanes on north-south access to Union Sta.
- Consistent rider delays if in mixed traffic
- Minimal room for surface access to Union Sta.



Bay Street north



York Street north

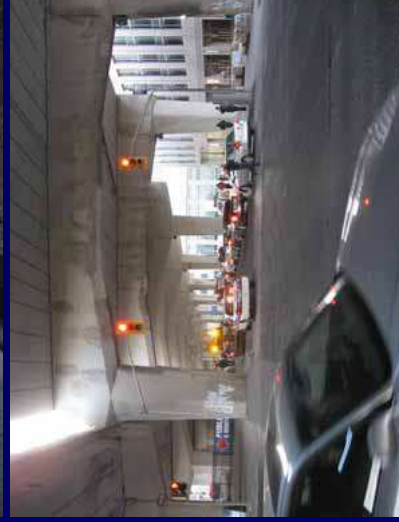


**TTC-TWRC East Bayfront
Environmental Assessment**



**TORONTO WATERFRONT
REVITALIZATION CORPORATION**

- In Lakeshore corridor:
 - Minimal room for required exclusive lanes
- Only way to construct a full “express service” to Union would be to construct an expensive grade-separated facility to Union Station
- Still require exclusive ROW infrastructure on Queens Quay to serve demand



**TTC-TWRC East Bayfront
Environmental Assessment**



**TORONTO WATERFRONT
REVITALIZATION CORPORATION**

Corridor Summary Analysis



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Corridor Summary Analysis

- Both Corridor Options
 - High forecast passenger volumes mean that a separate transit ROW is required for each
 - needed to provide fast reliable service
 - required to achieve City and TWRC objective of non-auto oriented development
 - Surface access to Union Subway Station is problematic
 - no space for surface ROW options
 - expensive grade separation required into Union Station



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

“Queens Quay Only” option

- Advantages
 - Can fully accommodate future forecast ridership
 - Fully serves development in study area and Port Lands
 - Higher frequency service, attracts more transit riders
 - Considerably lower capital cost for one rather than two facilities
 - Lower operating cost associated with one line rather than two
- Disadvantages
 - minimal



TTC-TWRC East Bayfront
Environmental Assessment



“Queens Quay + Lakeshore Express” Option

- Advantages
 - Minimal
- Disadvantages
 - Second corridor not required to serve future demand
 - Considerably more expensive for two corridors
 - Lakeshore does not serve study area development
 - Reduces service frequency on Queens Quay
 - Not feasible to achieve “express” at reasonable cost
 - Will be unused if not “express”



TTC-TWRC East Bayfront
Environmental Assessment



Preferred Corridor Recommendation

- Select Option 1 (Queens Quay only) as the “preferred corridor” option
- Design options will look at:
 - ROW width requirement
 - Location of facility
 - Connection(s) to Union Station
 - Stations
 - Street width and streetscaping
 - Etc.



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Transit Technologies Being Considered



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Alternative Technologies – Buses in Mixed Traffic



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Alternative Technologies – Buses in Dedicated Right of Way



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Alternative Technologies – Streetcars with Platforms in Mixed Traffic

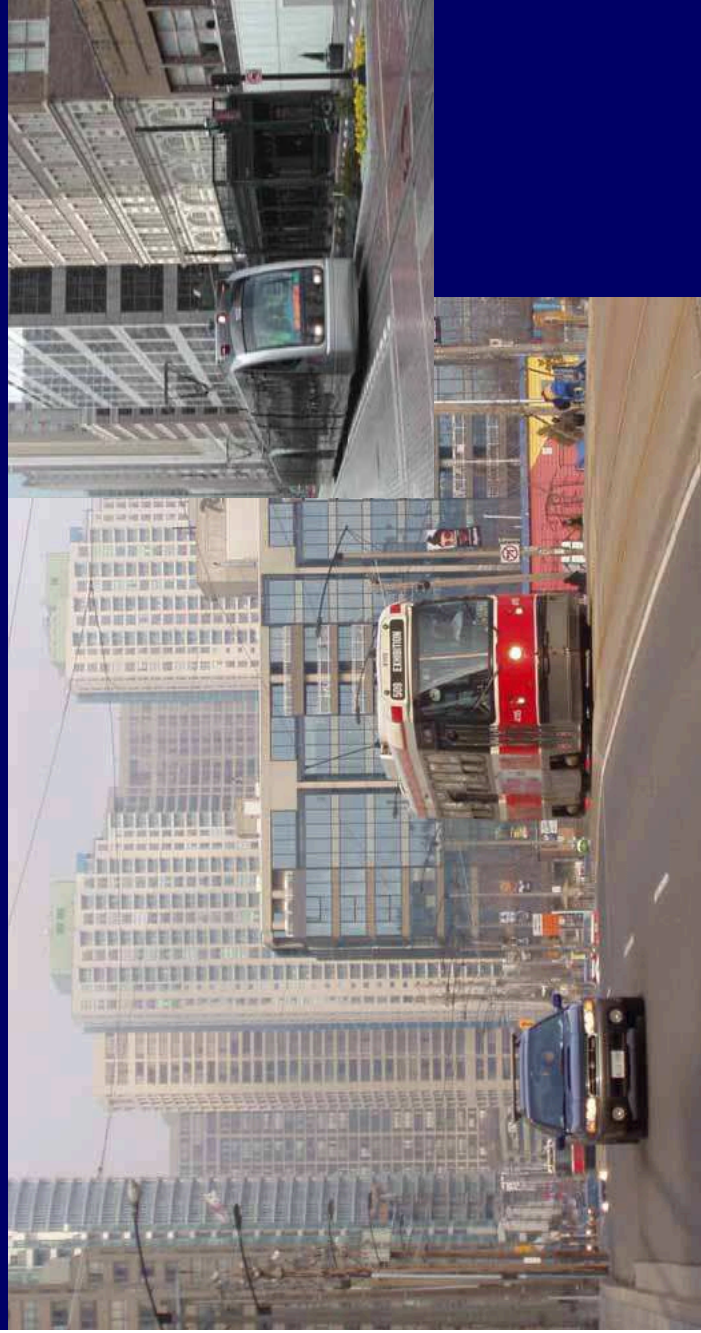


TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Alternative Technologies – Streetcars in Dedicated Right of Way

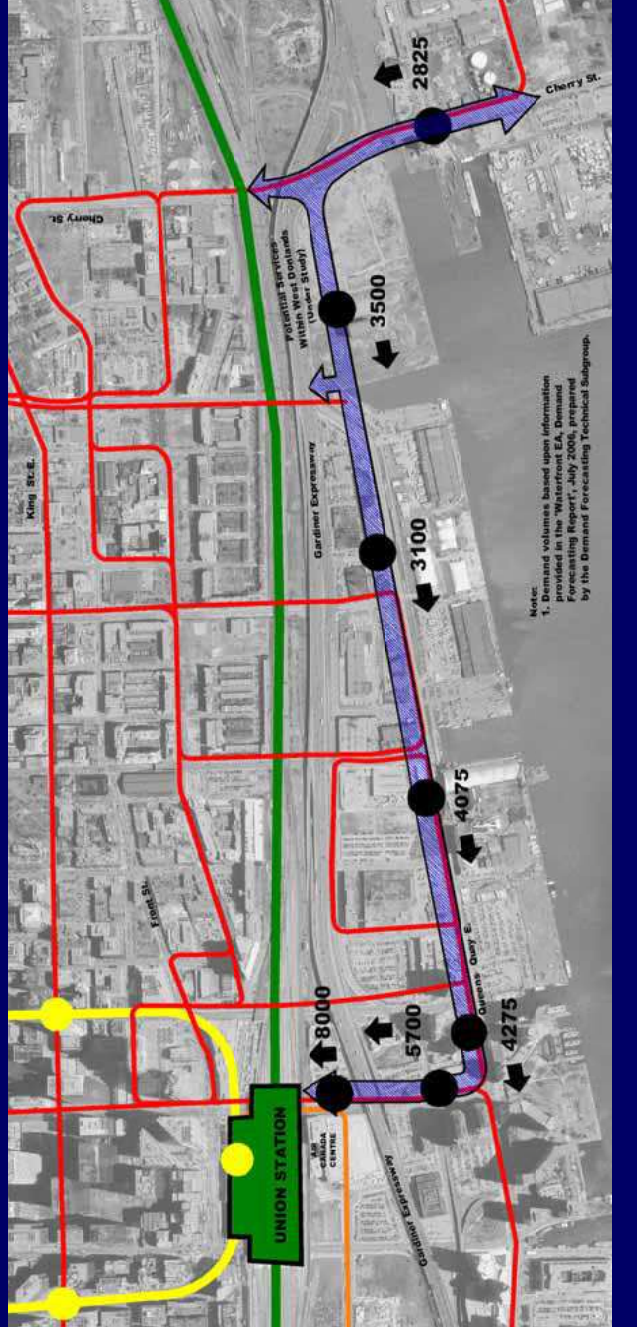


TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Preliminary Ridership – Queens Quay Only



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Vehicle Requirements

- LRT – Approximately 35 streetcars per hour
- Buses (diesel, hybrid or fuel-cell) - Approximately 54 (60') buses or 75 (40') buses per hour
- Cannot be accommodated on surface along north-south streets
- Must be in separate right-of-way

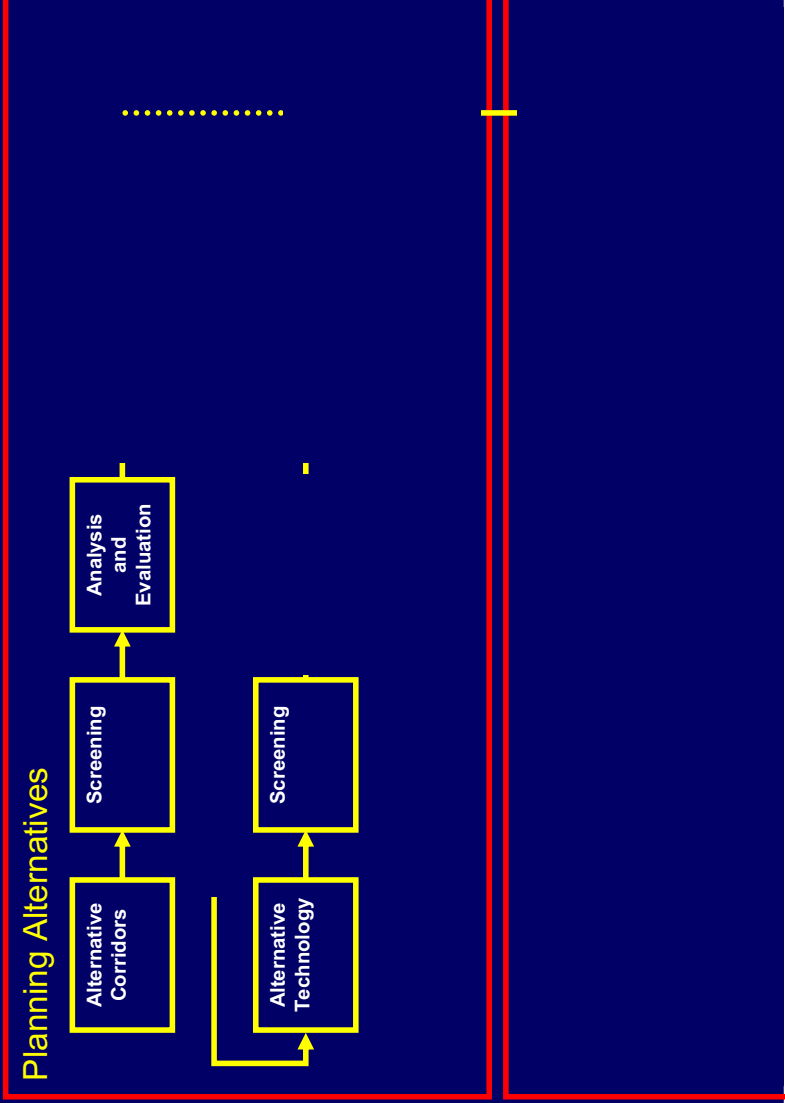


TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Step #3 – Screening of Technologies



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Minimum Requirements ("Technology Musts")

Technology Considered / Minimum Requirement	"Do Nothing"	Streetcar, with platforms in Mixed Traffic	Streetcar, in Dedicated Lanes	Buses in Dedicated Lanes
The alternative must be capable of accommodating travel demand from forecast development.	No	No	Yes	Yes
Must meet City's Official Plan Policies and Principles.	No	Yes	Yes	Yes
Must promote transit modal splits at least as good as comparable communities (such as the St. Lawrence neighbourhood).	No	No	Yes	Yes
Must provide transit service to majority of future inhabitants within 500 m of transit.	No	Yes	Yes	Yes
Must accommodate people with mobility difficulties.	NO	Yes	Yes	Yes
Recommendation:	Not Carried	Not Carried	Carried	Carried



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Some initial observations



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Buses in Dedicated Right of Way

Strengths

- ✓ Service reliability and speed because of dedicated ROW
- ✓ Less ground borne vibration potential

Weaknesses

- ✗ Platform space requirements at Union Station
- ✗ May not be able to adequately handle peak demand
- ✗ May require new tunnel or tunnel reconstruction to provide adequate width for buses (to be investigated)



TTC-TWRC East Bayfront
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Streetcars in Dedicated Right of Way

Strengths

- ✓ Network connectivity
- ✓ Reliability and speed
- ✓ Can adequately handle demand
- ✓ Perceived as a more attractive service
- ✓ Lower operating cost

Weaknesses

- ✗ May be higher capital cost
- ✗ Potential for ground borne vibration



TTC-TWRC East Bayfront
Environmental Assessment



Next Steps

- Continue to refine evaluation – CLC comments by December 21
- Evaluate technology alternatives
- Develop alternative Designs to be considered
- EBF CLC meeting in January 2007
- EBF Public Information Centre No.1 in February 2007



TTC-TWRC East Bayfront
Environmental Assessment

