



# **WATERFRONT WEST STREETCARS EXTENSION**

## **PARK LAWN STREETCAR LOOP**





# **WHY ARE WE HERE**

- **TO EXPLAIN THE OVERALL TRANSIT PLAN FOR THE CITY**
- **TO EXPLAIN HOW WATERFRONT WEST LINE FITS INTO PLAN**
- **TO PROVIDE BACKGROUND ON THE WATERFRONT WEST STREETCAR EA**
- **TO EXPLAIN THE RATIONALE FOR THE LOOP**
- **TO ADDRESS YOUR CONCERNS RE A NEW LOOP**
- **TO PROVIDE INFORMATION ON THE DESIGN OF THE LOOP**



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## Excerpt from Official Plan

In a mature city like Toronto, the emphasis has to be on using the available road space more efficiently to move people instead of vehicles and looking at how demand for vehicle travel can be reduced in the first place. Reducing car dependency means being creative and flexible in how we manage urban growth. We have to plan in “next generation” terms to make transit, cycling and walking increasingly attractive alternatives to using the car and to move towards a more sustainable transportation system.



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# OFFICIAL PLAN: HIGH ORDER TRANSIT CORRIDORS



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# TRANSIT CITY LIGHT RAIL PLAN



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# OFFICIAL PLAN: HIGH ORDER TRANSIT CORRIDORS



1993 Waterfront West LRT EA Study Area



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# COMPLETING A TRANSIT NETWORK

## Waterfront Streetcar Service: Existing and Proposed



### LEGEND

- Existing Streetcars in Mixed Traffic
- Existing Streetcars in Right-of-Way
- TTC Subway
- - - - - Proposed Streetcars on Right-of-Way
- EA's currently being undertaken - Union Station to Roncesvalles



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## 1993 WATERFRONT WEST LRT

- Approved extension of Harbourfront line from Spadina to Dufferin
- Approved reserved ROW from Humber to Legion
- Approved a new loop on Legion Road



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# TRANSIT DEMAND

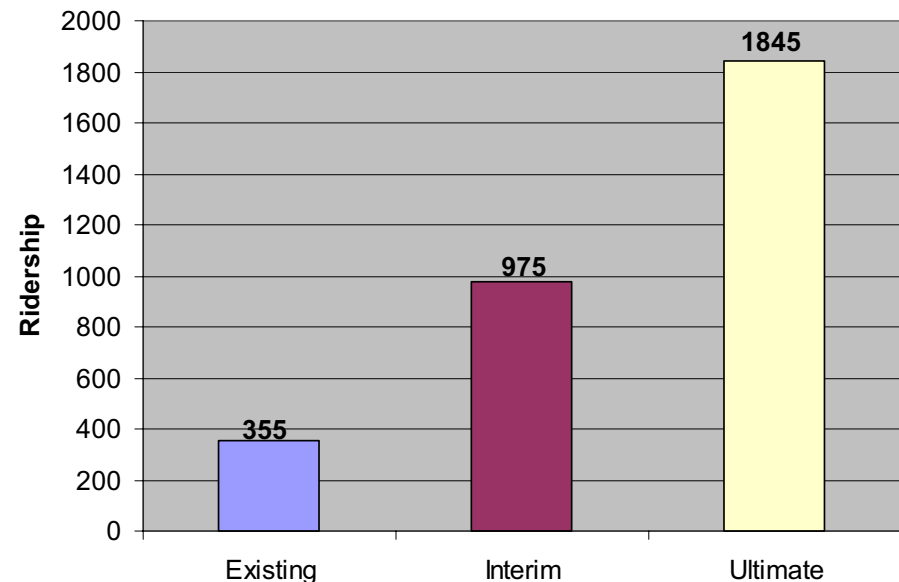
## Interim Future Development

- 4,000 more residential units
- 7,600 m<sup>2</sup> more commercial development

## Ultimate Future Development

- further 2,000 additional residential units
- further 82,500 m<sup>2</sup> additional commercial (incl. 73,400 m<sup>2</sup> of office)

Peak Hour Transit Trips  
Park Lawn / Lake Shore Area



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## SERVICE CONTEXT

- Current Service
  - 501 Queen
    - To Humber every 10 min.
    - To Long Branch every 10 min.
  - 508 Lake Shore
    - Peak service via King to downtown



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## SERVICE CONTEXT

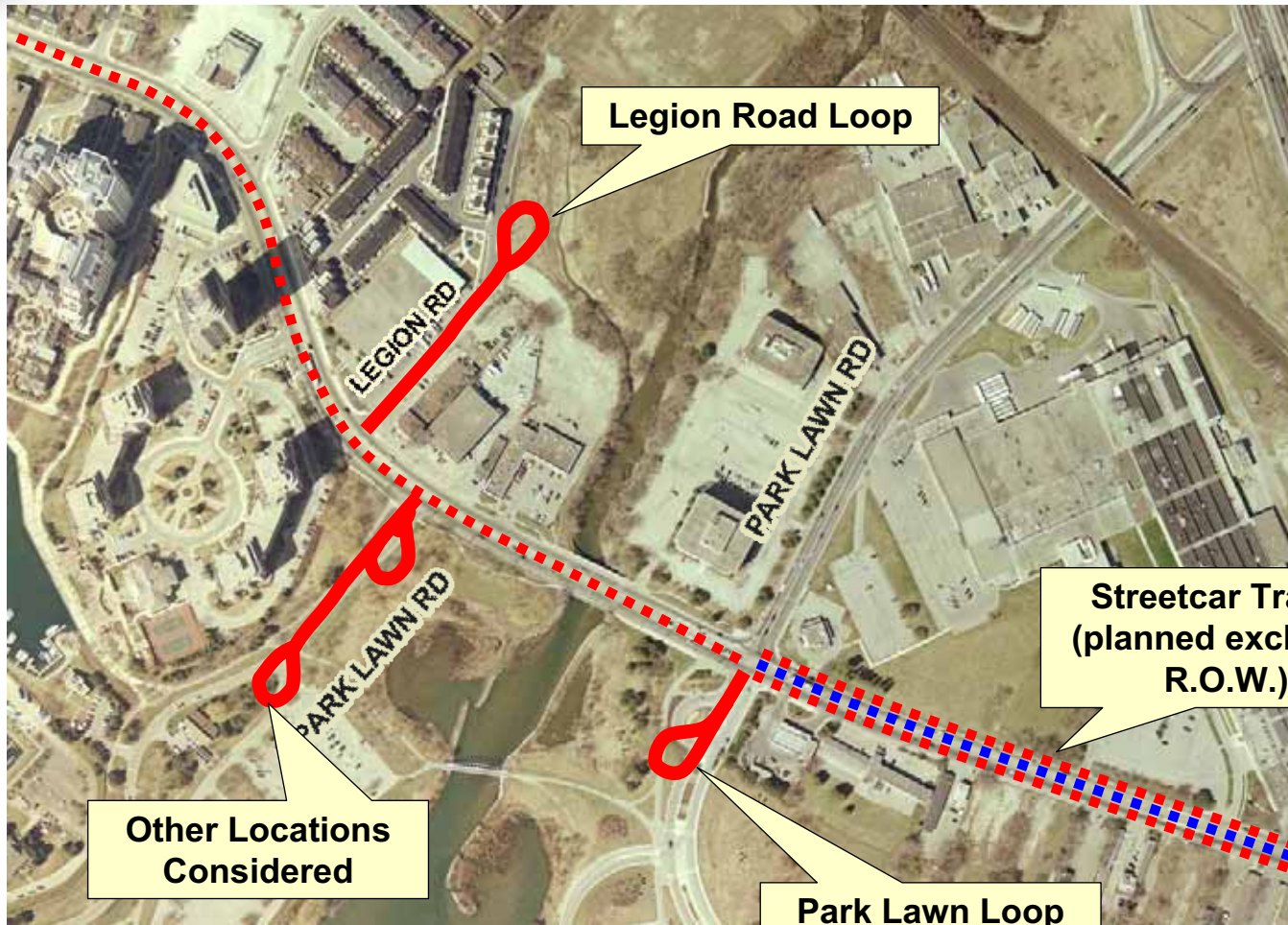
- Interim Service
  - 501 Queen
    - To Park Lawn every 10 min.
    - To Long Branch every 10 min
  - 508 Lakeshore
    - Peak service via King to downtown
- Long Term Service
  - 501 Queen: Neville to Park Lawn, every 5 min.
  - Waterfront West: Long Branch to Union, every 6 min.



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# 2006/07 EA Modification



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## 2006/07 EA Modification

- ❖ The MOE confirmed project was a minor EA modification and required no formal approval (EA Act).
- ❖ Potential effects of the project assessed:
  - Technical
  - Social environment
  - Natural and cultural environments
- ❖ Reasonable measures to mitigate any adverse effects were identified.



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## RESULTS FROM LAST PIC

- ❖ A Public Information Centre (PIC) was held in November 2006
- ❖ Some key comments/issues received at the PIC include:
  - Noise
  - Traffic
  - Location
  - Impact to park (visual, parkland)
- ❖ Comments were addressed by technical assessments in the EA Modification process



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## COMMENTS/ISSUES

- ❖ **NOISE**
- ❖ Assessed by a qualified Noise professional.
- ❖ Considered with and without the streetcar loop.
- ❖ Worse-case scenario accounts for track and streetcar noise. Noise impacts of up to 2.6 dBA expected. Impacts up to 5 dBA are considered acceptable and do not require mitigation.
- ❖ Enhanced plantings, berms and landscape will act to buffer any noise.
- ❖ Modern track lubrication technology minimizes/eliminates track/wheel noise (e.g. Long Branch, Broadview, Dundas)



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## COMMENTS/ISSUES

### ❖ TRAFFIC

- ❖ Analysis completed by a qualified Traffic professional
- ❖ Increased travel demands cannot be addressed by road improvements alone. Enhanced transit is the solution.
- ❖ Minimal additional intersection delay expected. Six (6) streetcars/hour expected to turn.
- ❖ Future dedicated streetcar R.O.W. along Lake Shore will further improve travel conditions.



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## **COMMENTS/ISSUES**

- ❖ **LOCATION OF STREETCAR LOOP**
- ❖ **Park Lawn Loop is very close and convenient to Lake Shore Blvd., more so than a Legion Road Loop**
- ❖ **Provides increased service to high density development.**
- ❖ **Extension of all service west of Park Lawn cannot be justified**
- ❖ **Existing bus loop area to be improved with enhanced landscape, plantings, architecture**



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## COMMENTS/ISSUES

- ❖ **CHANGES TO PARK (VISUAL, PARKLAND)**
- ❖ **All vegetation removed to be replaced at up to 3:1 ratio**
- ❖ **Additional trees to be planted to buffer noise**
- ❖ **Enhanced landscaping, lighting and entrance to the park**
- ❖ **High architectural standards for building, lighting**
- ❖ **TTC working very closely with City Parks staff to ensure acceptable design**



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# Design Influences



Existing Bus Loop – landscape design opportunity



High Quality Centre Median – Looking North



Innovative Structures



Elegant Design Forms in the Landscape



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# Lake Shore Blvd. Edge



- Structure and canopy will be highly visible site from Lakeshore & Marine Parade Drive.
- Structures will also be visible from above from new condos in the area.
- Park Lawn Loop – “Gateway” site into the Humber Bay Park.



Lakeshore & Marine Parade Drive



Existing Multi-Use Trail



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# Overhead – High Park Loop



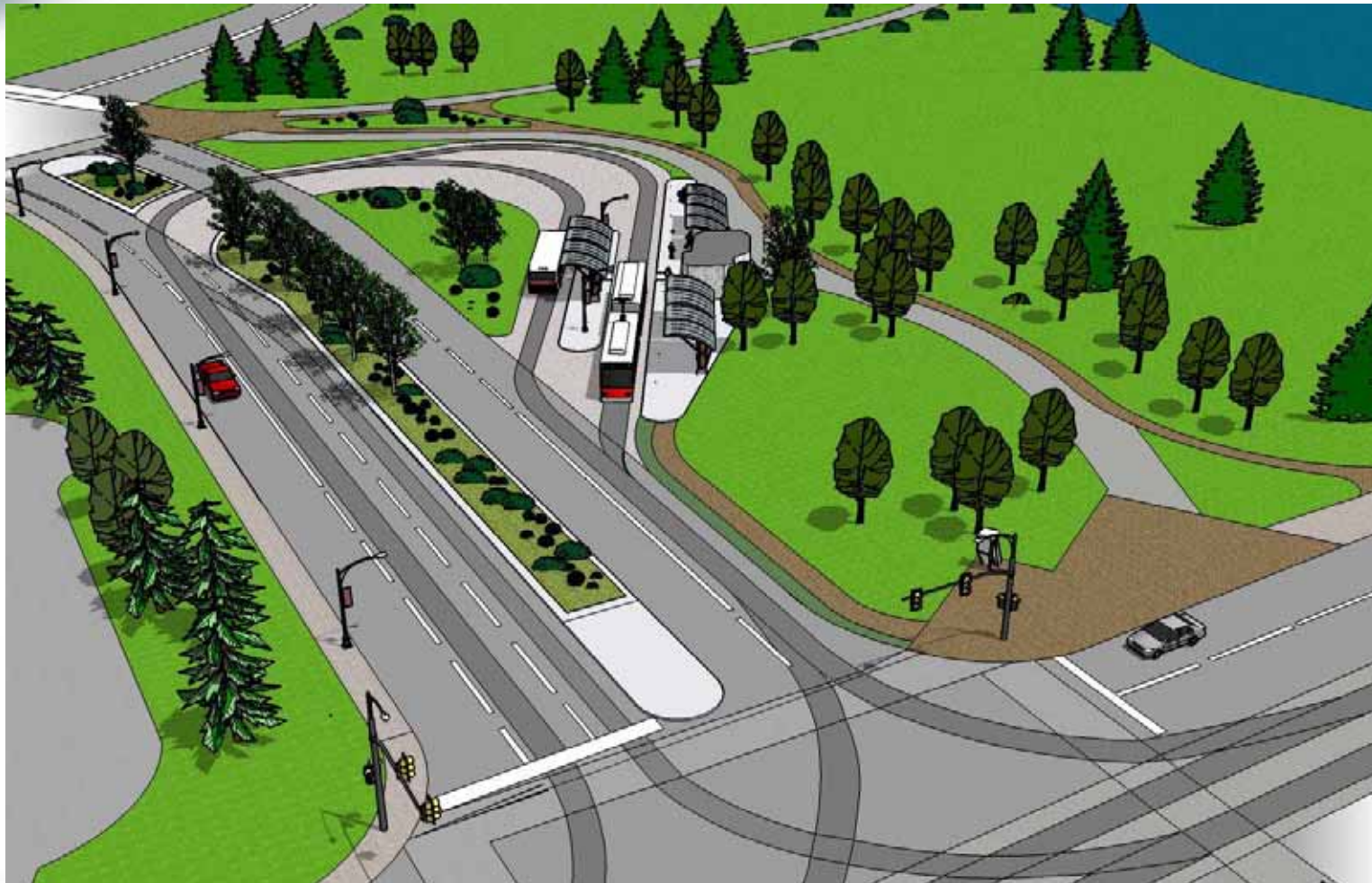
- Integrate overhead with site lighting and structures where possible
- Minimize overhead poles



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# DESIGN CONCEPT



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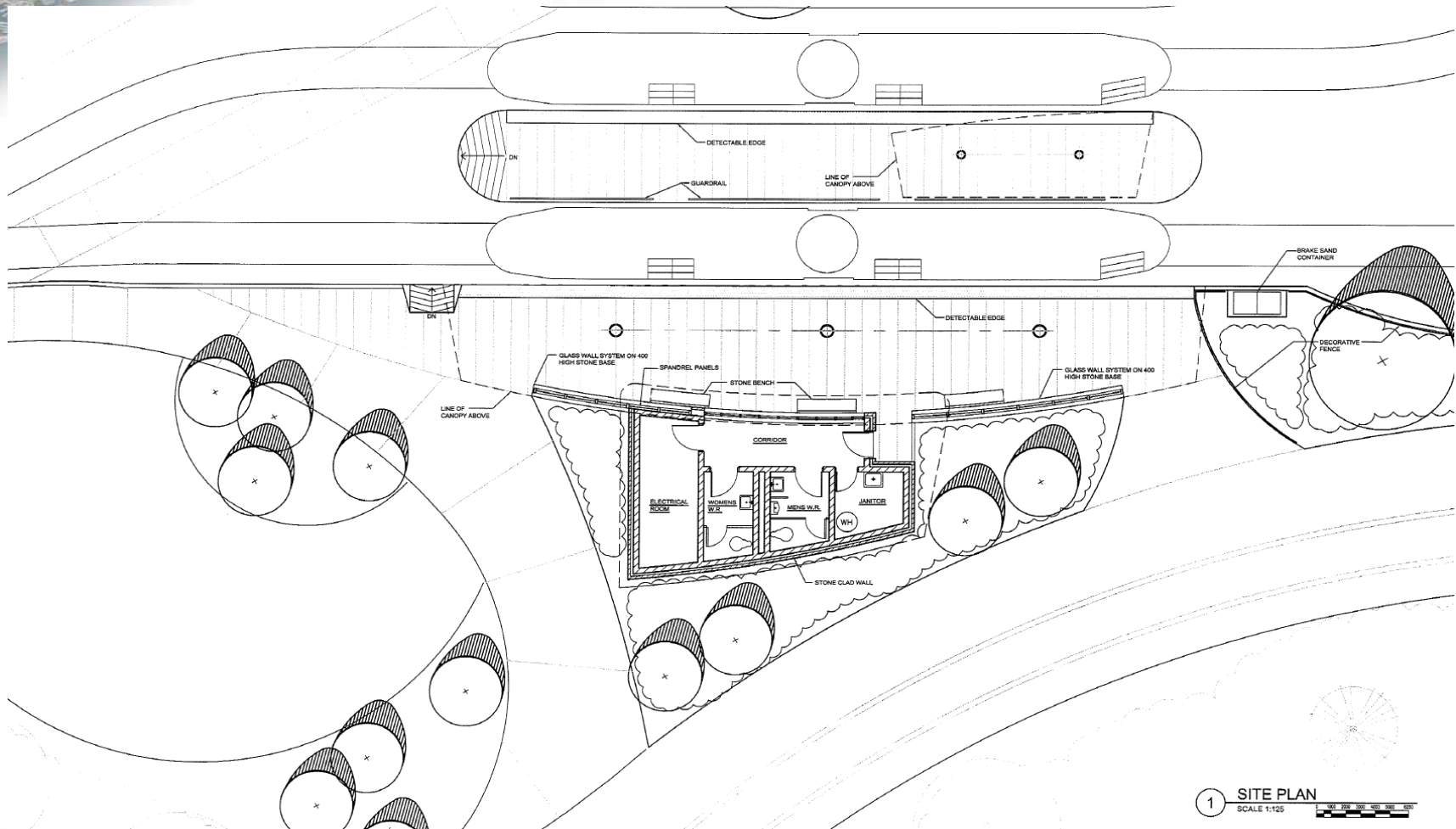
# DESIGN CONCEPT



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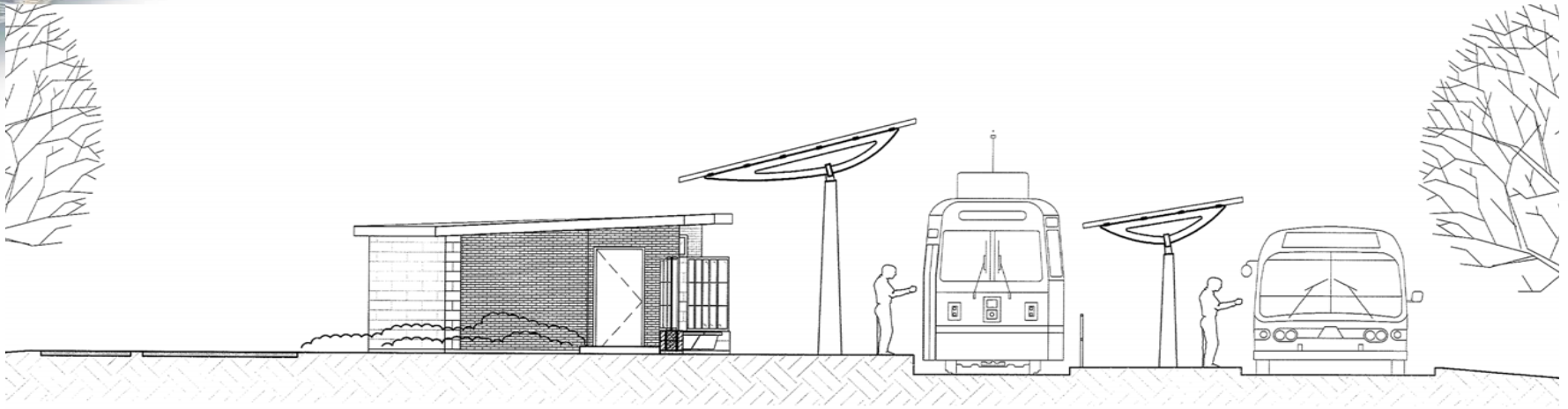
# ARCHITECTURAL CONCEPTS



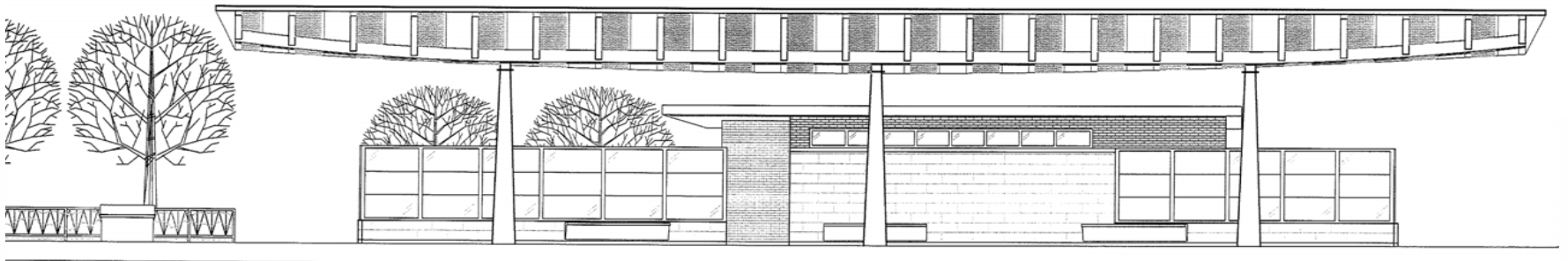
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# ARCHITECTURAL CONCEPTS



3 SECTION THROUGH PLATFORM  
SCALE 1/75



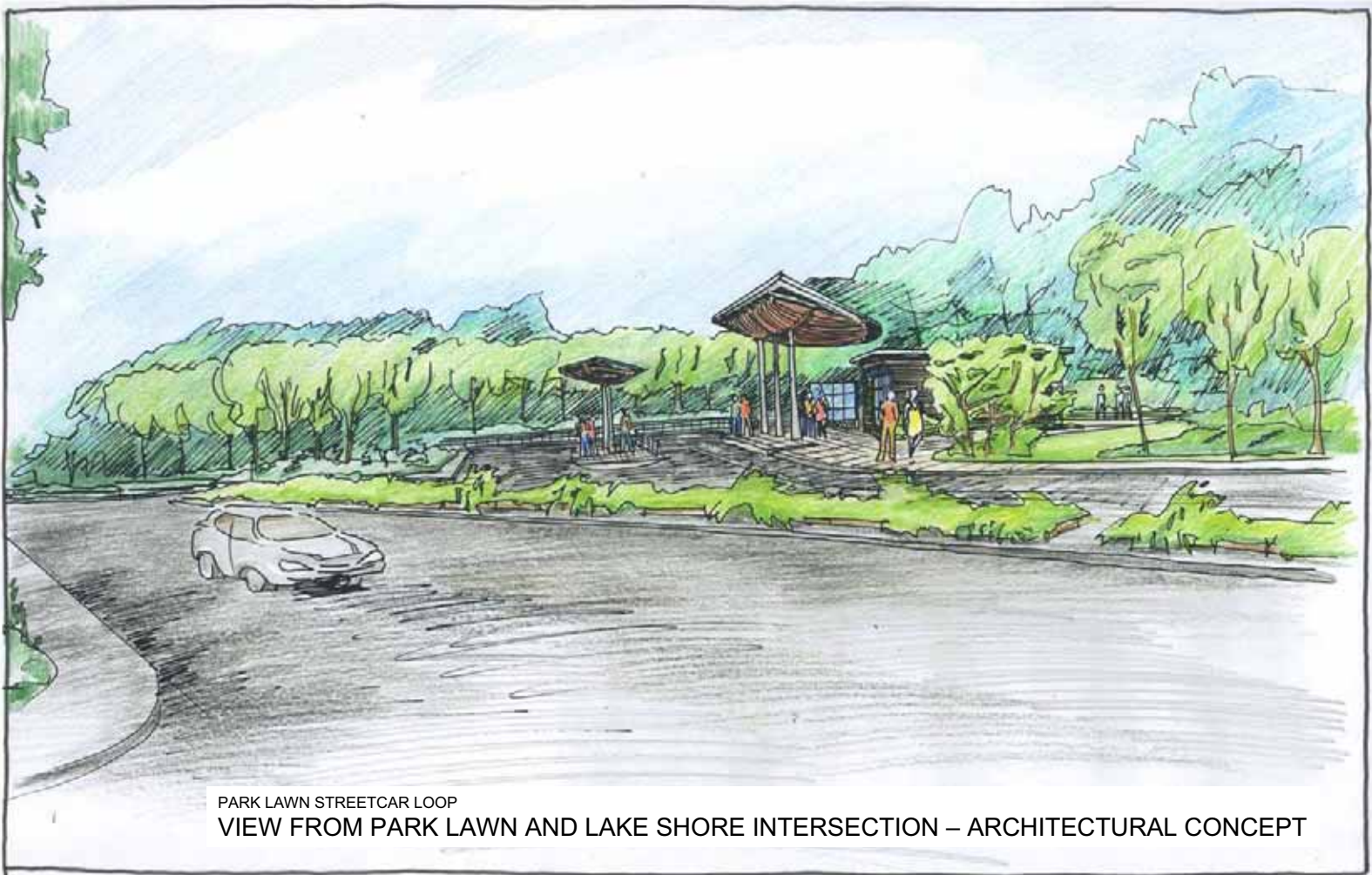
4 TRACK ELEVATION  
SCALE 1/75



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# ARCHITECTURAL CONCEPTS



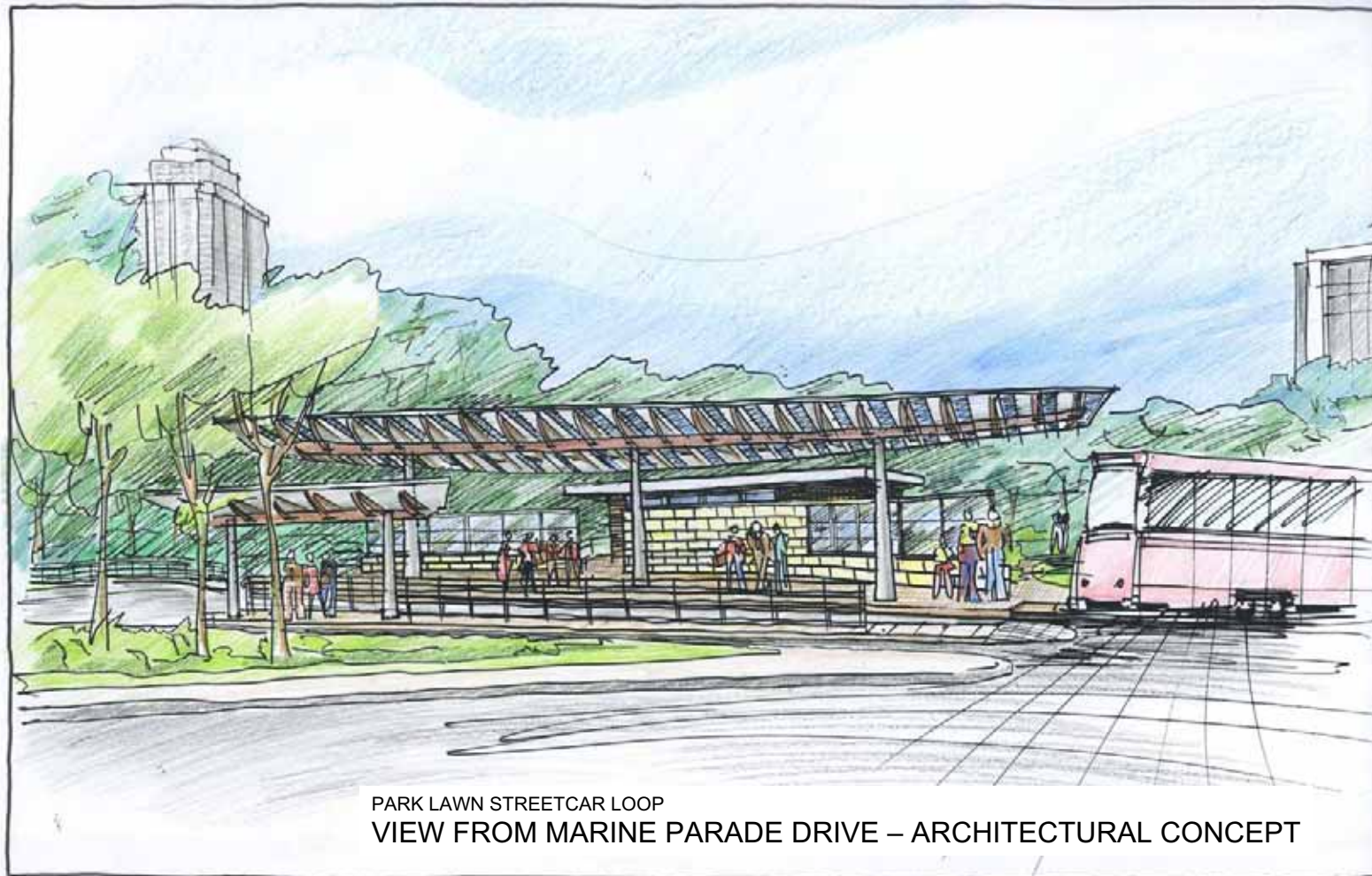
PARK LAWN STREETCAR LOOP  
VIEW FROM PARK LAWN AND LAKE SHORE INTERSECTION – ARCHITECTURAL CONCEPT



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# ARCHITECTURAL CONCEPTS



PARK LAWN STREETCAR LOOP  
VIEW FROM MARINE PARADE DRIVE – ARCHITECTURAL CONCEPT



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# QUESTIONS/COMMENTS



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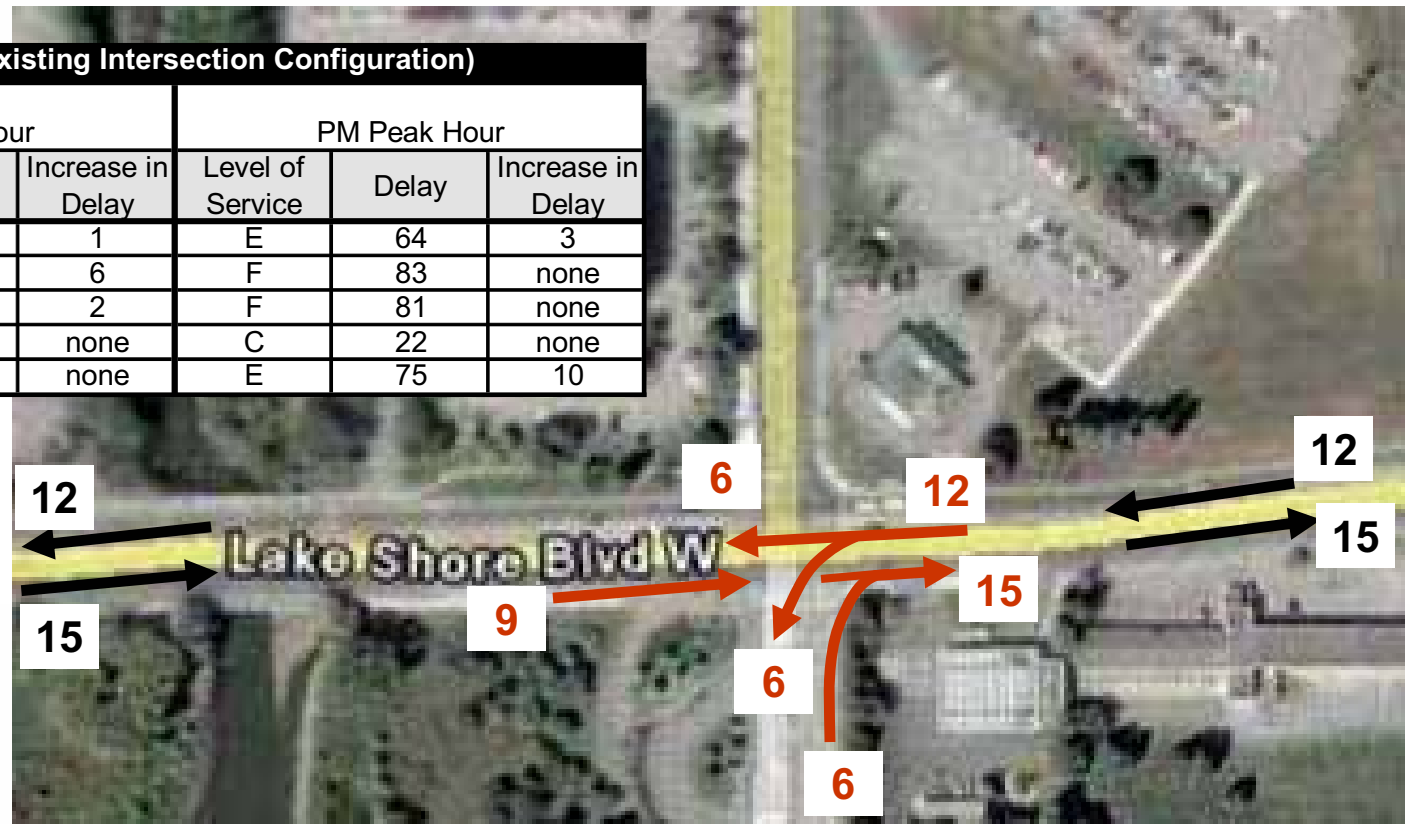


## SHORT TERM (2007) TRAFFIC IMPACTS ON PARK LAWN / LAKE SHORE INTERSECTION

WITH PARK LAWN LOOP (Existing Intersection Configuration)							
Key Movements	Mixed Traffic Operation	AM Peak Hour			PM Peak Hour		
		Level of Service	Delay	Increase in Delay	Level of Service	Delay	Increase in Delay
Overall		D	50	1	E	64	3
SB Lefts		F	82	6	F	83	none
EB Lefts		E	71	2	F	81	none
EB Thru/Right		D	37	none	C	22	none
WB Thru/Left/Right		D	40	none	E	75	10

### Streetcar Left Turns

- 6 left turns/hour
- 1 left turn every 10 minutes
- 1 left every 5 signal cycles
- 1 left turn takes 10 seconds



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# LONG TERM TRAFFIC IMPACTS ON PARK LAWN / LAKE SHORE INTERSECTION

WITH PARK LAWN LOOP (& INTERSECTION IMPROVEMENTS)						
Key Movements \ LRT Operation	AM Peak Hour			PM Peak Hour		
	Level of Service	Delay	Increase in Delay	Level of Service	Delay	Increase in Delay
Overall	D	45	3	D	38	1
SB Lefts	D	53	2	D	61	4
EB Lefts	C	27	none	C	49	none
EB Thru/Right	E	57	6	E	25	1
WB Thru	D	39	none	D	41	1

## Streetcar Left Turns

- 12 left turns/hour
- 1 left turn every 5 minutes
- 2 left every 5 signal cycles
- 1 left turn takes 10 seconds



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# View of Park Lawn Loop



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