

4. INVENTORY OF EXISTING CONDITIONS

4.1 Existing Roadway Engineering Conditions

4.1.1 EXISTING ROADWAY GEOMETRICS

Along the Riverside Drive study area, there are seven (7) basic existing types of roadway geometry described below and shown on Exhibit 4.1:

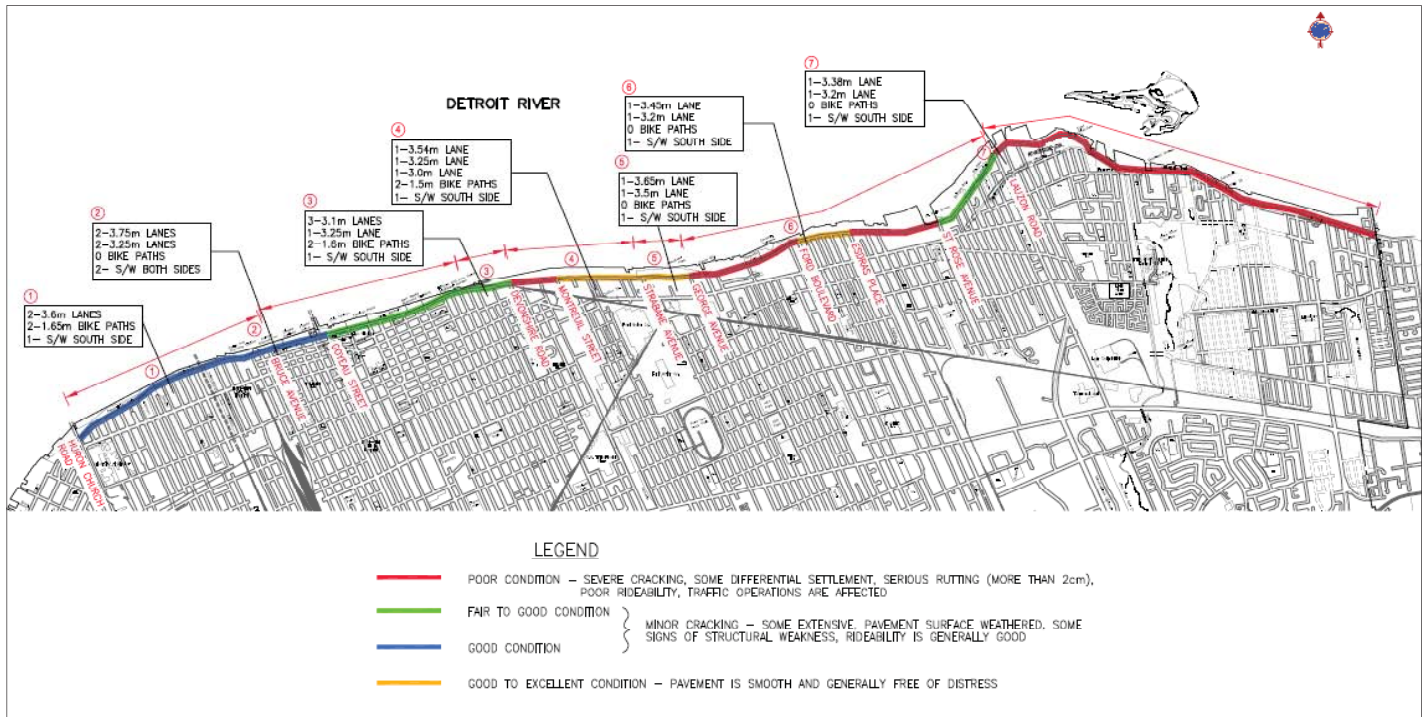
Type	Travel Lanes		Bike Lanes both sides	Sidewalks	Curb	Blvd	ROW Width
	2	4					
1	√		√	South side	Barrier both sides	Grass south side	13.4 m
2		√	None	Both sides	Barrier both sides	None	26.1 m
3		√	√	South side	Barrier both sides	Concrete south side	20.8 m
4	√+ CTL*		√	South side	Barrier both sides	None	21.1.m
5	√		None	South side	North barrier South none	Grass south side	20.1 m
6	√		None	South side	South barrier North none	Grass south side	14.9 m
7	√		None	South side	Roll both sides	None	13.5 m

* CTL – Centre Turn Lane

4.1.2 EXISTING ROADWAY PAVEMENT CONDITION

Existing pavement conditions on Riverside Drive were collected by Stantec Consulting as part of this EA for the seven (7) typical cross sections noted above. Observations and photographs of the area were taken on Monday, June 27, 2005. A summary of these existing conditions observations within the Riverside Drive right-of-way is reported as follows:

EXHIBIT 4.1 – EXISTING ROADWAY PAVEMENT CONDITIONS



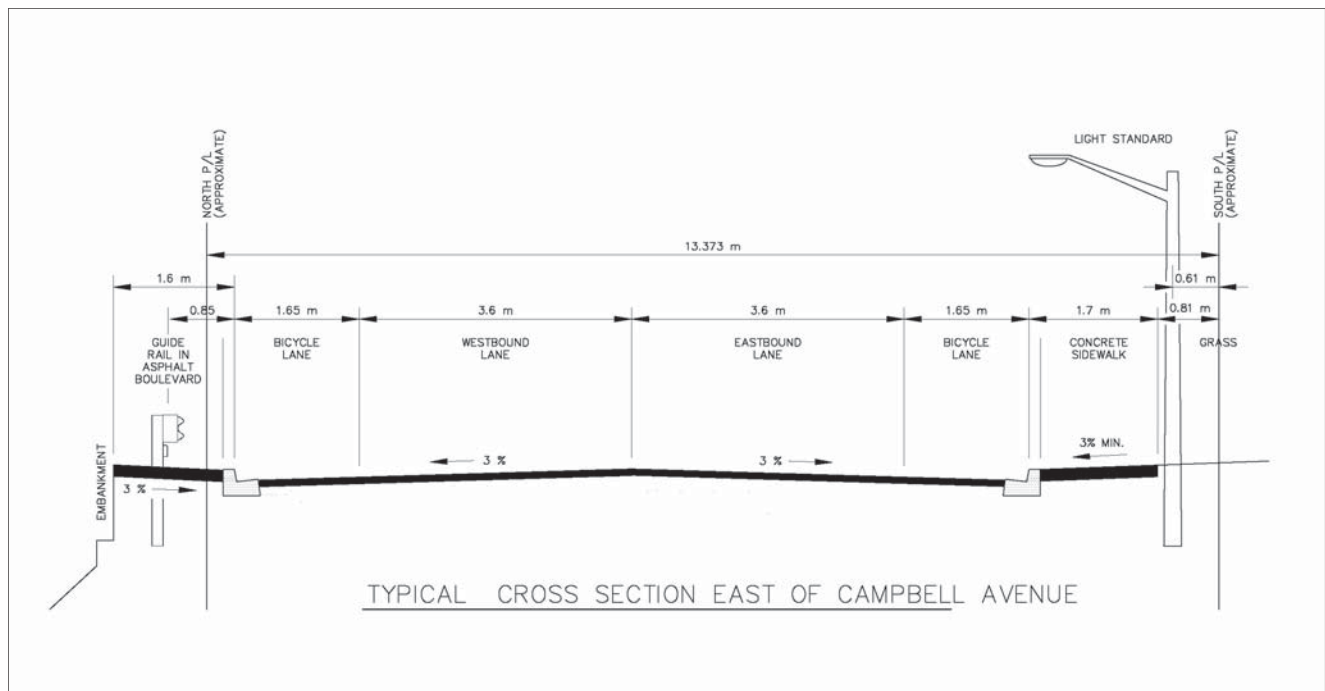
Note: Sections of Riverside Drive between Esdras Place and St. Rose Avenue, and between the Little River bridge and Clover Avenue were resurfaced in 2006. Owing to the lack of curbs and resulting poor drainage, this basic mill and pave resurfacing is expected to have only a 5-7 year lifespan.

TYPICAL CROSS SECTION NO. 1: RIVERSIDE DRIVE WEST (EAST OF CAMPBELL AVENUE)

This two lane cross section, including bicycle lanes and sidewalks as shown in Exhibit 4.2, is generally representative of the section of Riverside Drive from Huron Church Road to Bruce Avenue, with the exception of a one block section between Huron Church Road and Vista Place. This one block is a two lane concrete surface, without bicycle lanes. The section shows moderate to severe cracking and spalling, particularly at the transition point between the concrete and asphalt pavement surface, which occurs just westerly of the Vista Place intersection.

The remainder of the section, from Vista Place to Bruce Avenue, shows some moderate transverse and longitudinal cracking evident in both the east and westbound lanes. The pavement condition is generally good.

EXHIBIT 4.2

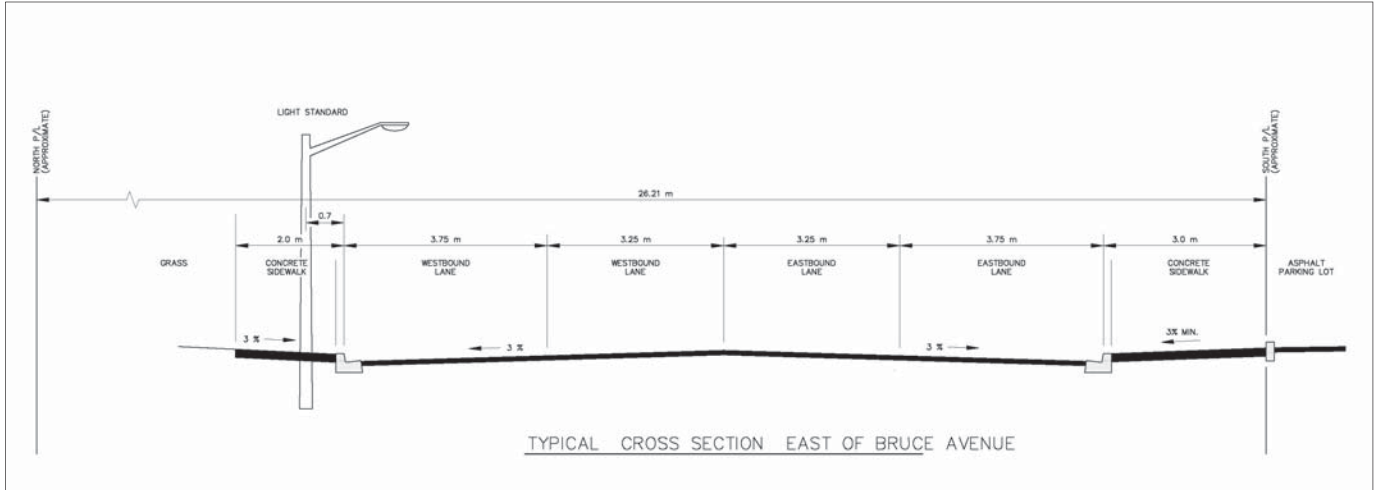


TYPICAL CROSS SECTION NO. 2: RIVERSIDE DRIVE WEST (EAST OF BRUCE AVENUE)

This four lane cross section extends from the intersection of Bruce Avenue easterly to Goyeau Street as concrete pavement, and from Goyeau Street easterly to Devonshire Street as asphalt pavement. Bicycles lanes are currently not included in this section, except for the section east of Lincoln Road. The concrete pavement in this section is in good condition, with some minor crack sealing required. The asphalt pavement in this section shows moderate to severe transverse and wheel track cracking, with some settlement, with fair to good pavement surface conditions. This cross section is shown on Exhibit 4.3.



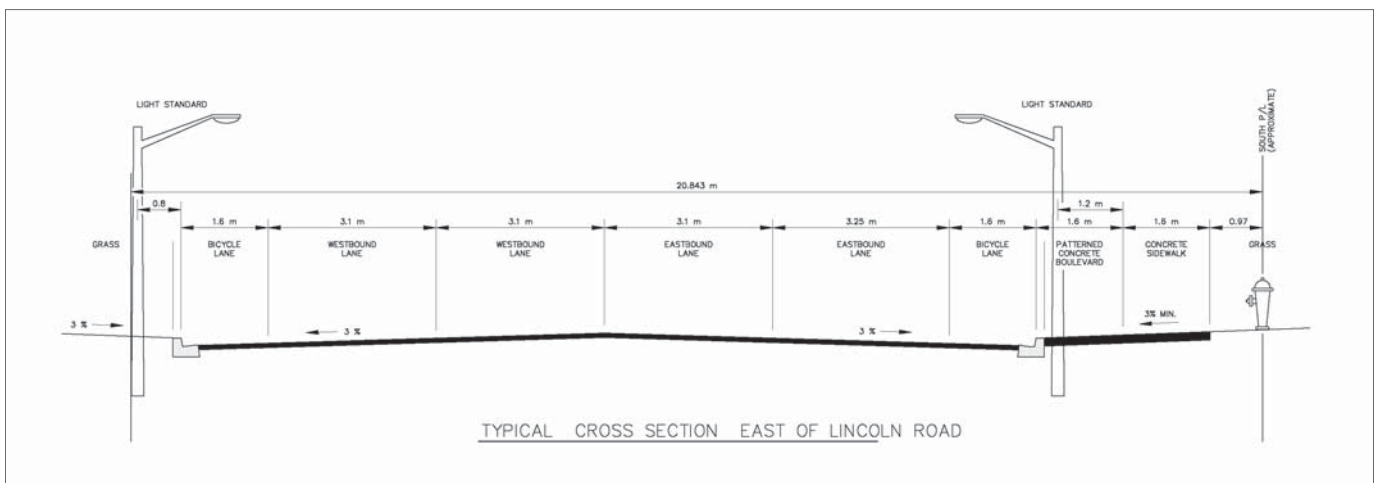
EXHIBIT 4.3



TYPICAL CROSS SECTION NO. 3: RIVERSIDE DRIVE EAST (EAST OF LINCOLN ROAD)

This is also a four lane asphalt cross section which currently includes bicycle lanes. The bicycle lanes begin at the east side of the Lincoln Road intersection, and are indicated in the Exhibit 4.4 cross section. The bicycle lanes extend easterly through this section to Strabane Avenue. The pavement condition in this section is fair to good. The four lane section ends at the intersection of Devonshire Road, where it then becomes a three lane section as described as follows.

EXHIBIT 4.4

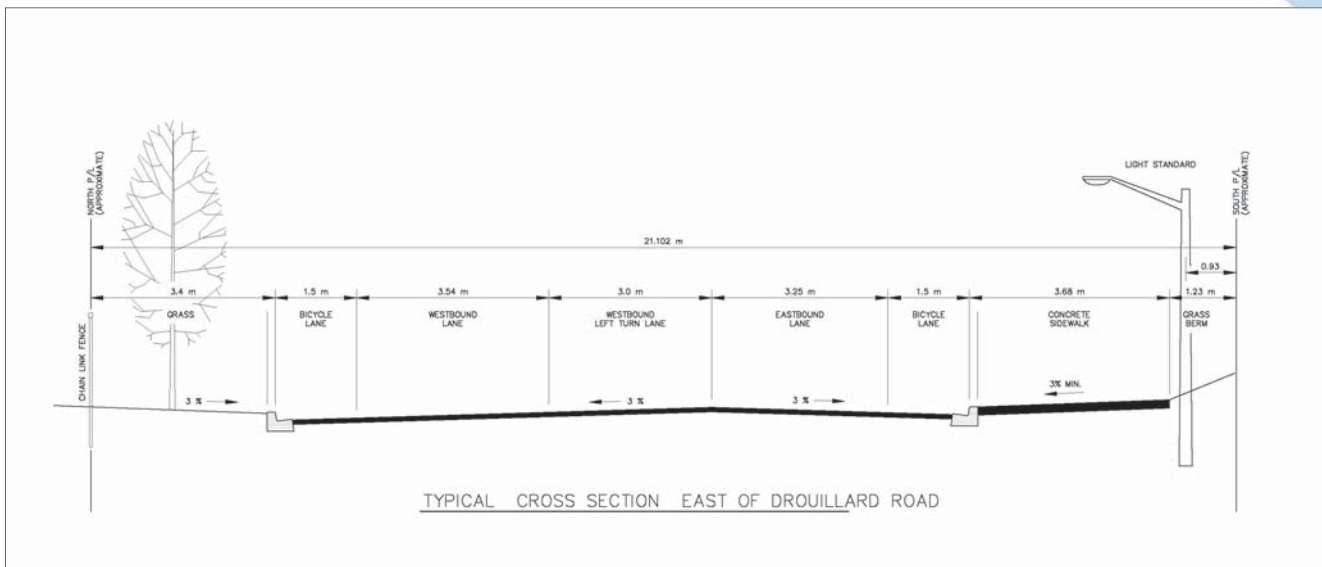


TYPICAL CROSS SECTION NO. 4: RIVERSIDE DRIVE EAST (EAST OF DROUILLARD)

This three lane asphalt cross section extends easterly from Devonshire Road through Cross Section 4 (Drouillard Road), to Strabane Avenue. Bicycle lanes are as indicated in the cross section drawing in Exhibit 4.5.

The pavement section from Devonshire Road easterly to Montreuil Street is in poor condition with significant block and transverse cracking, poor riding surface and some settlement. Pavement condition is poor. The pavement section from Montreuil Street through the cross section easterly to Strabane Avenue has been recently improved and is in good to excellent condition, with no major deficiencies noted.

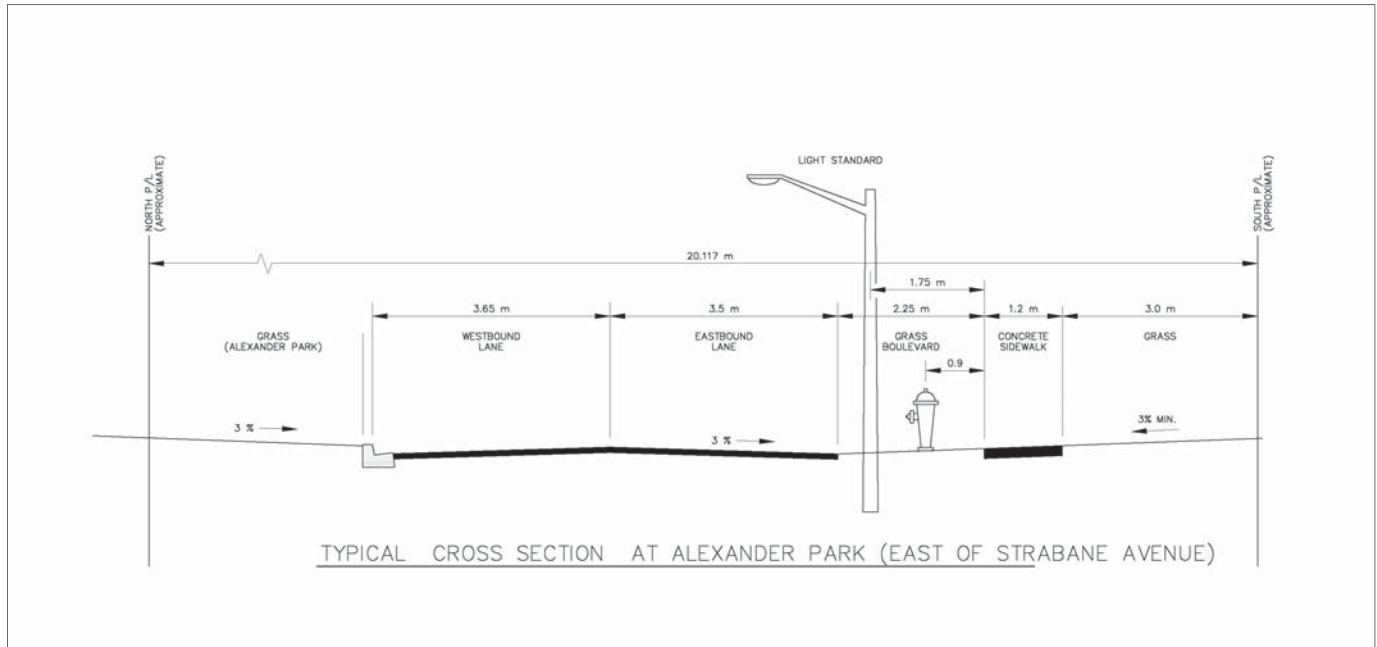
EXHIBIT 4.5



TYPICAL CROSS SECTION NO. 5: RIVERSIDE DRIVE EAST AT ALEXANDER PARK

This two lane asphalt cross section extends from Strabane Avenue easterly to George Avenue. A turning lane for westbound traffic into Alexander Park has been provided. This section has recently been improved and is in good to excellent condition, with no major deficiencies noted. This cross-section is shown on Exhibit 4.6

EXHIBIT 4.6



TYPICAL CROSS SECTION NO. 6: RIVERSIDE DRIVE EAST (WEST OF THOMPSON BOULEVARD)

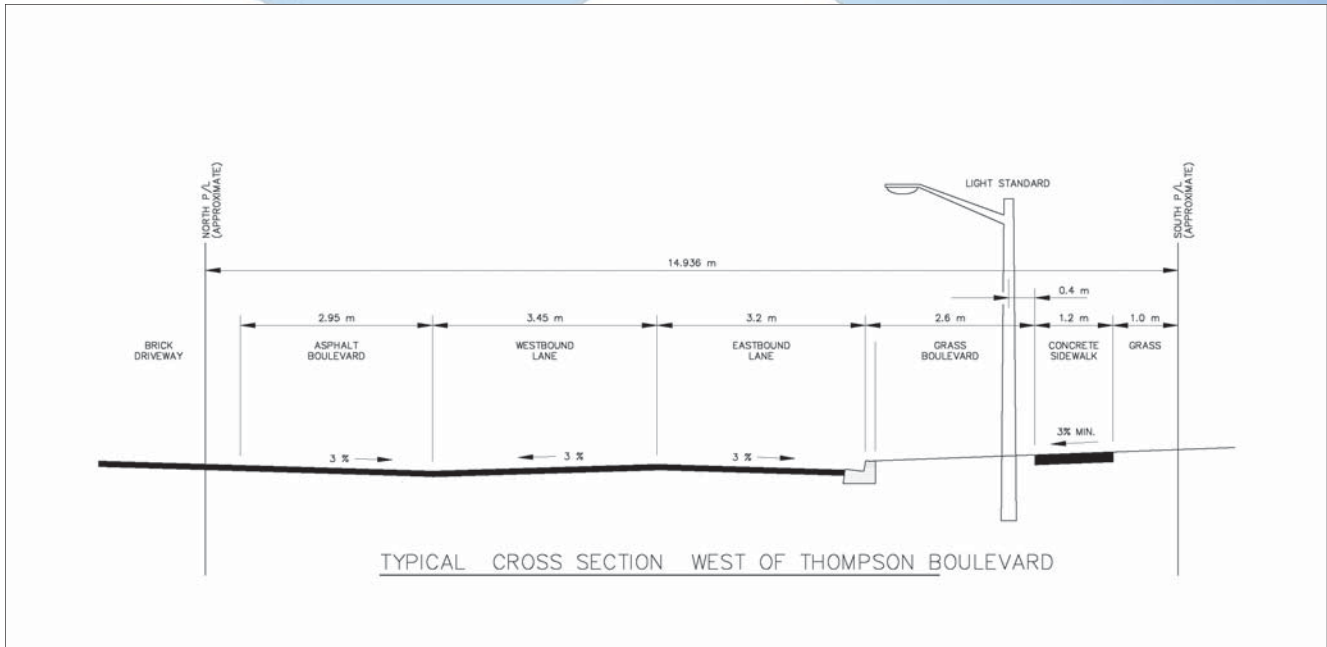
This two lane asphalt cross section is shown on Exhibit 4.7 generally from George Avenue easterly to Lauzon Road. Various pavement conditions exist in this section. The asphalt pavement section from George Avenue to Ford Avenue shows evidence of block cracking, edge cracking and transverse cracking. Pavement condition is poor. The Pillette Road intersection has been reconstructed with concrete pavement, and requires some crack sealing and surface repairs.

The asphalt pavement section from Ford Avenue to Esdras Place has been improved and is in generally good condition. Some minor wheel rutting and wheel track cracking is evident. Overall pavement condition is good.

The asphalt pavement section from Esdras Place to St. Rose Avenue was in poor condition but was resurfaced in 2006 with a basic mill and pave following underground utility improvements. No curb work sidewalk or other improvements were made. The lack of curbs and associated poor drainage are expected to result in a life expectancy for this resurfacing of only 5-7 years. Therefore, this resurfacing is not expected to impact on the ultimate pavement condition rating and improvement scheduling presented in this ESR, although it does provide some short-term implementation scheduling flexibility.

The asphalt pavement section from St. Rose Avenue easterly to Lauzon Road has been improved with a wider platform. Pavement condition is fair to good. Some moderate transverse cracking is evident. Barrier curbing is evident on both sides.

EXHIBIT 4.7

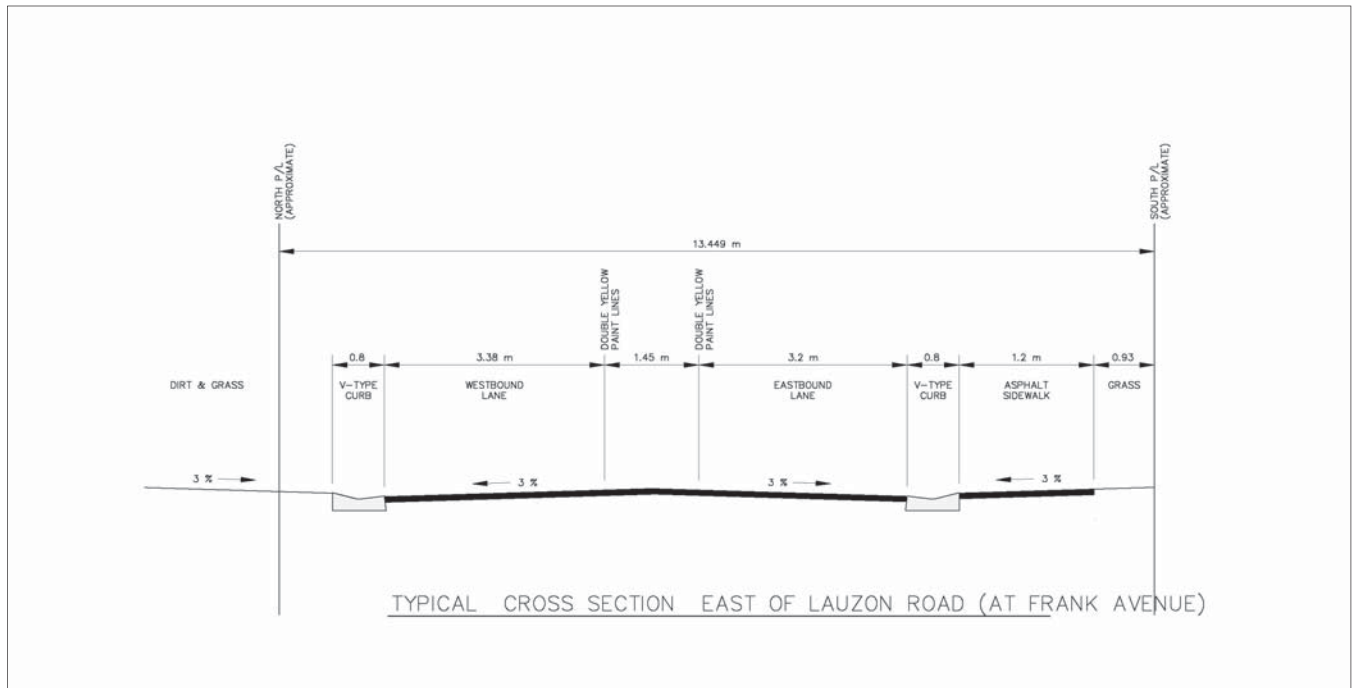


TYPICAL CROSS SECTION NO. 7: RIVERSIDE DRIVE EAST (EAST OF LAUZON ROAD)

This two lane asphalt cross section generally extends from Lauzon Road easterly to the City of Windsor limits. In the section from Lauzon Road to just west of Riverdale, a double yellow painted median is evident, as indicated in the cross section drawing on Exhibit 4.8. The remainder of the section has no painted median, allowing for a wider traveled portion. V-type or rolled “mountable curbs” are evident in this section.

Pavement condition in this section is generally poor, with numerous areas of block and transverse cracking, patching and settlement. The section from the Little River Bridge to Clover Avenue was resurfaced in 2006, but as with the resurfacing between Esdras Place and St. Rose Avenue, the basic mill and pave resurfacing is expected to have only a 5-7 year lifespan.

EXHIBIT 4.8



4.1.3 PLANNED ROADWAY NETWORK IMPROVEMENT OPPORTUNITIES

Since Riverside Drive operates as part of a comprehensive roadway network, it is important to understand what improvements are planned for this network that may have an impact on Riverside Drive. Four types of improvement projects are shown on Exhibit 4.9 to illustrate opportunities for potential traffic pattern diversions away from Riverside Drive as a result of arterial network improvements:

5-Year Planned Project – has all approvals in place and is in the City’s 5-year capital budget for construction:

- Wyandotte/Lauzon intersection improvements; and
- remove rail/road grade separation on Wyandotte Street East immediately east of Walker Road.

Approved – has municipal and/or Environmental Assessment approval:

- extend Wyandotte Street East from Riverdale to Florence;
- extend Wyandotte Street East from Florence to Clover;
- widen Tecumseh Road East from Jefferson to Lauzon Parkway; and
- widen Walker Road from Tecumseh Road to south city border.

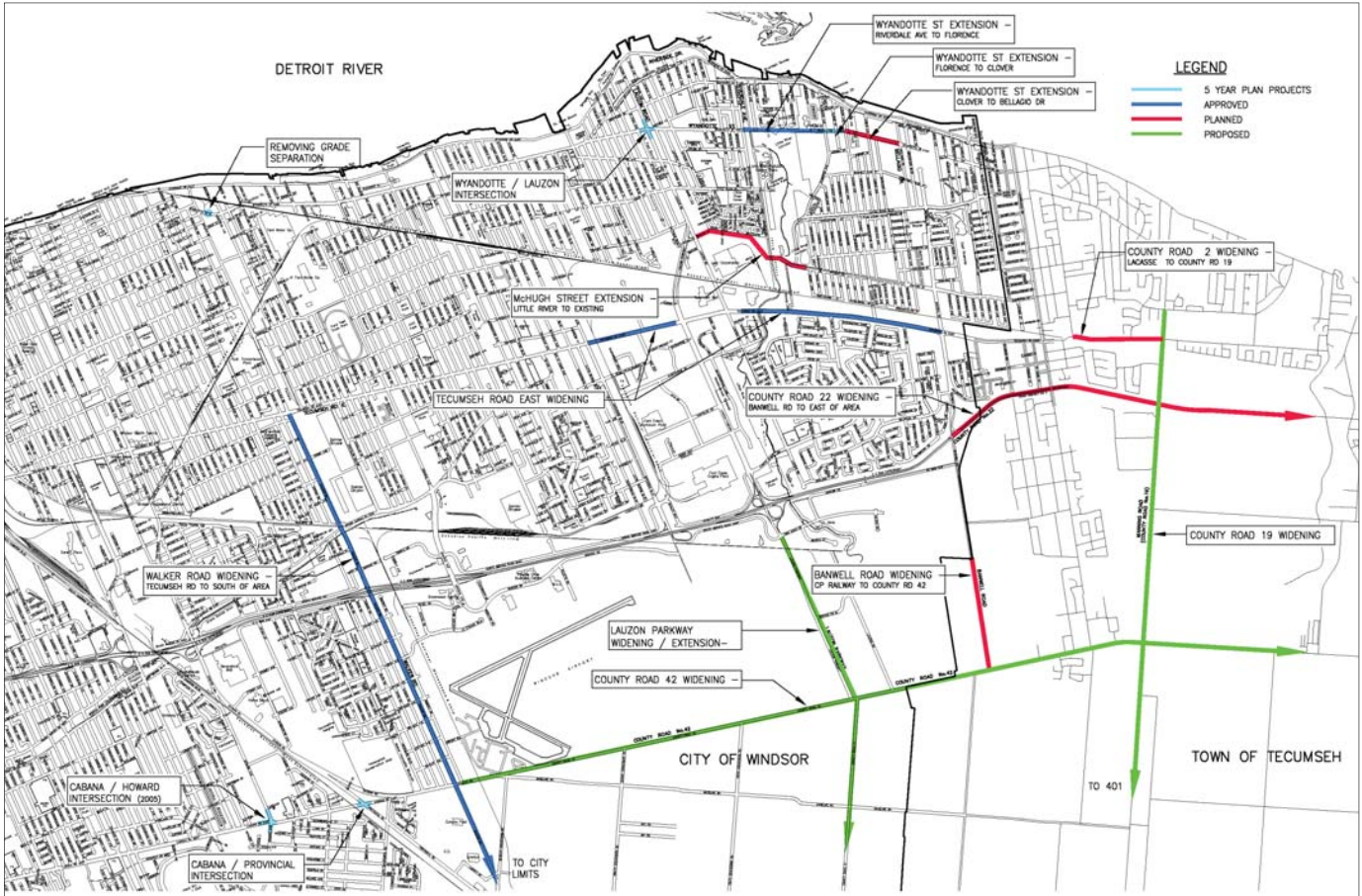
Planned – as recommended in the Windsor Area Long Range Transportation Study (1999):

- extend Wyandotte Street East from Clover to Bellagio Drive;
- extend McHugh Street east to Lesperance Road at McNorton Street;
- widen County Road 2 (Tecumseh Road) from County Road 19 (Manning Road) to Lacasse Blvd.;
- widen County Road 22 from Banwell Road (CR43) east (Environmental Assessment filed); and
- Banwell Road widening from CP rail line to County Road 42.

Proposed – as recommended in the Essex-Windsor Regional Transportation Master Plan:

- widen Division Road/County Road 42 from Walker Road, east to County Road 27 in Essex County;
- widen/extend Lauzon Parkway to Highway 401 (to be determined); and
- widen Manning Road/County Road 19 from Tecumseh Road to Highway 401 (Environment Assessment now underway).

EXHIBIT 4.9 - ROADWAY NETWORK IMPROVEMENTS



4.2 Natural Environment Conditions

Riverside Drive runs parallel and adjacent to the Detroit River, and crosses the main branch of Little River east of Riverdale Avenue. Little River provides warmwater habitat and supports communities of coarse and sport fish in its lower reaches. Within the study area, 21 designated urban parks are located along the north side (N) of Riverside Drive on the riverfront, and three on the south side (S) listed as follows:

- | | | |
|-----------------------------------|--|----------------------------------|
| 1. McKee Park (N) | 10. Proposed Marina (N) (Aylmer to Parent) | 17. St. Rose Beach (N) |
| 2. Assumption (N) | 11. Bert Weeks Fountain and Garden (N) | 18. Bridges Bay (N) |
| 3. Ernest Atkinson (S) | 12. Great Western (N) | 19. St. Paul Pumping Station (N) |
| 4. traith (S) | 13. Joan and Clifford Hatch Wild Flower Garden (N) | 20. Kiwanis Park (S) |
| 5. Centennial (N) | 14. Alexander (N) | 21. Lakeview Park Marina (N) |
| 6. Caron Avenue (N) | 15. Goose Bay(N) | 22. Shanfeild Shores (N) |
| 7. Dieppe Gardens (N) | 16. Reaume/Coventry (N) | 23. Sandpoint Beach (N) |
| 8. Piazza Udine/Civic Terrace (N) | | 24. Stop 26 (N) |
| 9. Festival Plaza (N) | | |

Most of these riverside parks are of significant size and status in the Windsor community. Prominent off-road multi-use trail systems such as the Riverfront Trail and Ganatchio Trail provide connecting linkages between the parkland. There are no designated provincially significant wetlands (PSWs), Areas of Natural or Scientific Interest (ANSIs) or Environmentally Sensitive Areas (ESAs) located within or adjacent to the study area. The Detroit River is designated a Canadian Heritage River.

The natural heritage investigation conducted by LGL Limited for this EA included the following components:

- Collection of background information related to natural heritage features/areas from the Essex Region Conservation Authority (ERCA), the Ministry of Natural Resources (MNR), the County of Essex and City of Windsor;
- A field investigation to identify and confirm the type and geographical extent of aquatic habitat and communities, vegetation and vegetation communities, wildlife and wildlife habitat and designated natural areas;
- Identification of environmental constraints/opportunities based on the sensitivity/significance of natural heritage features in relation to federal, provincial, regional and local municipal legislation, regulations and policies; and
- Evaluation of planning alternatives using natural heritage criteria.

Impact analysis was performed to identify the likelihood and significance of potential adverse effects on natural heritage features/areas, and to identify impact management measures including avoidance, mitigation, enhancement and compensation. Net environmental impacts were considered in the evaluation of planning alternatives.