

6. EVALUATION OF ALTERNATIVE SOLUTIONS

6.1 Evaluation Methodology

Using the types of solutions retained from Section 5 of this ESR for further consideration in this EA, a series of location-specific design concepts are presented in Section 7 of this document to address the problems and opportunities identified along Riverside Drive. A standard “Reasoned Arguments” evaluation methodology was applied to each design alternative to compare the alternatives, and identify which would perform the best on Riverside Drive and therefore should be considered as part of the preferred planning solution. A “Reasoned Argument” approach describes the advantages and disadvantages of each alternative in response to the following 10 evaluation criteria. These descriptions provide the rationale on why a preferred alternative is selected.

Goal	Criterion
Protect and Enhance the Social Environment	<ol style="list-style-type: none"> 1. Maximize road user safety for all modes 2. Minimize impacts on abutting private property 3. Maintain cultural character of Riverside Dr.
Protect and Enhance Natural Environment	<ol style="list-style-type: none"> 4. Minimize removal of existing street trees 5. Minimize impacts on abutting public parkland
Enhance and Improve Traffic Conditions	<ol style="list-style-type: none"> 6. Reduce traffic speed 7. Divert traffic volume 8. Improve intersection operations
Maximize Cost-Effectiveness	<ol style="list-style-type: none"> 9. Minimize property acquisition cost 10. Minimize capital cost

These criteria have been weighted equally, as it is extremely difficult in complex EAs to reach a consensus amongst all the involved stakeholders on what are the most important, compared to the least important criterion. The results of the Reasoned Arguments evaluation are presented in Exhibits 6.1, 6.2 and 6.3.

The results of the Reasoned Arguments, evaluation of alternatives solutions are presented in Exhibits 6.1, 6.2 and 6.3.

6.2 Description of Preferred Planning Solution

The evaluation of various improvement measures that the public and project team identified for Riverside Drive shows that the following measures should form the preferred planning solution, and be incorporated into the design concepts presented in Section 7 of this ESR:

- Maintain the two and four travel lane cross-sections of Riverside Drive with no addition or reduction of travel lanes, providing:
 - two lanes west of Caron Avenue;
 - four lanes from Caron to Devonshire Road;
 - three lanes from Devonshire to Walker Road (2 eastbound and 1 westbound)
 - two lanes from Walker Road to Strabane Avenue with left turn lanes at strategic intersections and a landscaped centre median; and
 - two lanes east of Strabane Avenue;
- Include two marked and coloured exclusive bike lanes 1.5 m wide on each side of the paved surface;
- Include barrier curbs along the entire length of Riverside Drive, with consideration of high curbs on the curved section from Lauzon Road to Riverdale Avenue;
- Reconstruct paved road surfaces and south sidewalk in sections rated in poor condition from:
 - Devonshire Road to Montreuil Avenue;
 - George Avenue to Ford Blvd.;
 - Esdras Place to St. Rose Avenue; and
 - Lauzon Road to east city boundary.
- Add 37 nodes at 37 locations on Riverside Drive, mainly at intersections but with a small number of mid-block locations serving parkland access (see Section 7) to enhance pedestrian crossing safety and act as traffic calming features. Seven (7) are planned as N-1 primary nodes at existing signalized intersections with a raised and coloured pavement surface, pedestrian crossing markings and associated streetscaping. Twenty-one (21) are planned as N-2 secondary nodes with a coloured surface across the entire intersection and pedestrian crossing markings at a pedestrian intersection signal (IPS). Nine (9) are planned as N-3 tertiary nodes with a raised median island/pedestrian refuge and associated landscaping;
- Install six (6) traffic circles in a progression from Rossini Boulevard to Eastlawn Blvd. as traffic calming and streetscape features;
- Add a north side sidewalk along sections of Riverside Drive abutting major riverfront parkland where the parkland does not include a nearby pathway parallel to the Drive as described in Section 7;
- Construct the pedestrian promenade along the north side of Riverside Drive between Huron Church Road and Lincoln Road as adopted by Windsor City Council as part of the Central Riverfront Implementation Plan (CRIP); and
- Implement traffic capacity and operational improvements on Wyandotte Street East to accommodate

more traffic that is attracted from Riverside Drive and diverted to Wyandotte as a preferred through route. These improvements would be part of a separate Environmental Assessment process, but are proposed to include:

- i) an assessment of traffic signal warrants and synchronization along Wyandotte Street East to facilitate improved traffic progression;
- ii) implementation of peak period parking restrictions along strategic sections of Wyandotte Street East to enhance the roadway capacity during these periods (i.e. 7-9 A.M and 4-6 P.M.) based on further peak period traffic analysis;
- iii) a plan to provide additional off-street parking in areas with peak period parking restrictions; and
- iv) the extension of Wyandotte Street and McHugh Street further east into the East Riverside area as planned in the East Riverside Planning Area Secondary Plan.