Exhibit 1 Welcome – Second Open House

Tonight is an opportunity to learn about the Study and ask questions of the Study Team members.

A first Public Open House was held on September 18th, 2013 which presented the Preliminary Preferred Solution for Carp Road to be a Four Lane Road Renewal. That Solution has since been confirmed by the Study Team.

Tonight we are seeking your comments on the work undertaken since the 1st Public Open House:

- Alternative Design Development
- Evaluation of Alternative Designs
- Preliminary Preferred Design

Please identify any issues and concerns that you would like to see addressed during the Study.

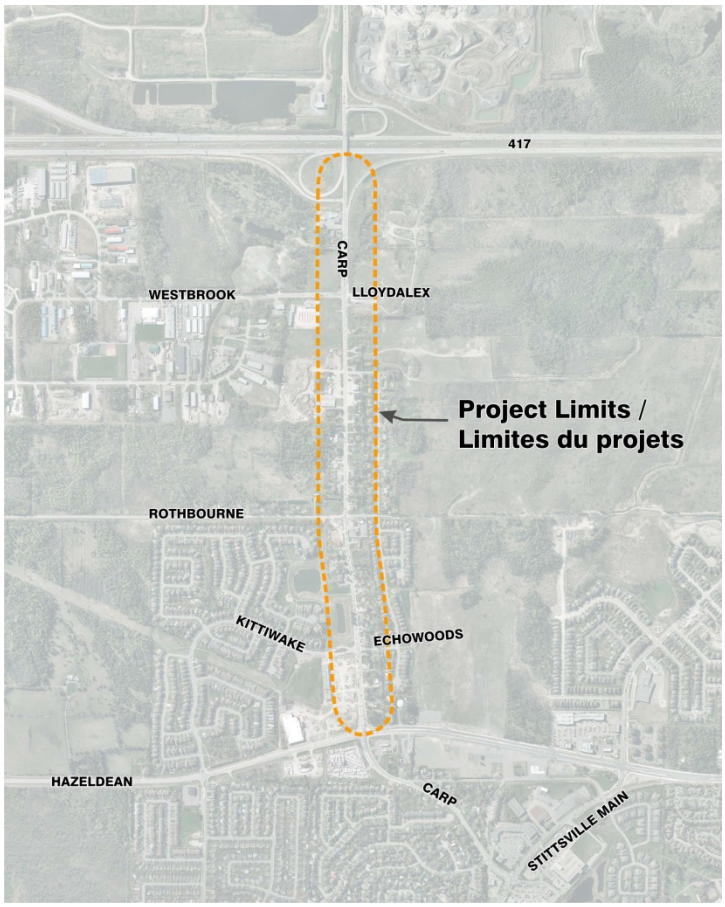


Exhibit 2 Overview and Study Purpose

The City of Ottawa initiated a Class Environmental Assessment Study (Schedule "C" project) for the widening of Carp Road between Highway 417 and Hazeldean Road.

The City's 2013 Transportation Master Plan (TMP) identifies the need for widening of Carp Road between Highway 417 and Hazeldean Road as a Phase 2 project (2020 - 2025).

The widening has been identified to address growing vehicle/traffic demand in the western portion of the Kanata-Stittsville Area.

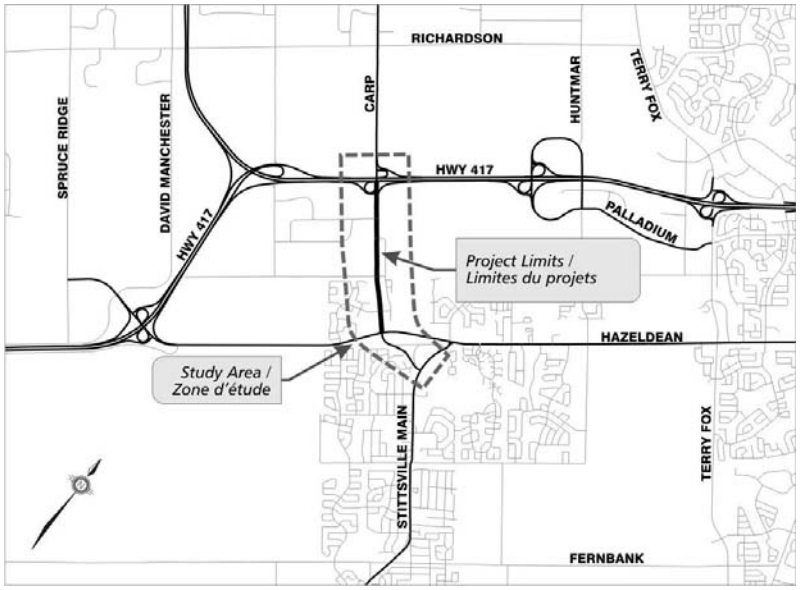


Exhibit 3 Environmental Assessment Process

The Environmental Assessment process consists of five phases and is structured so that each phase builds on the previous one.

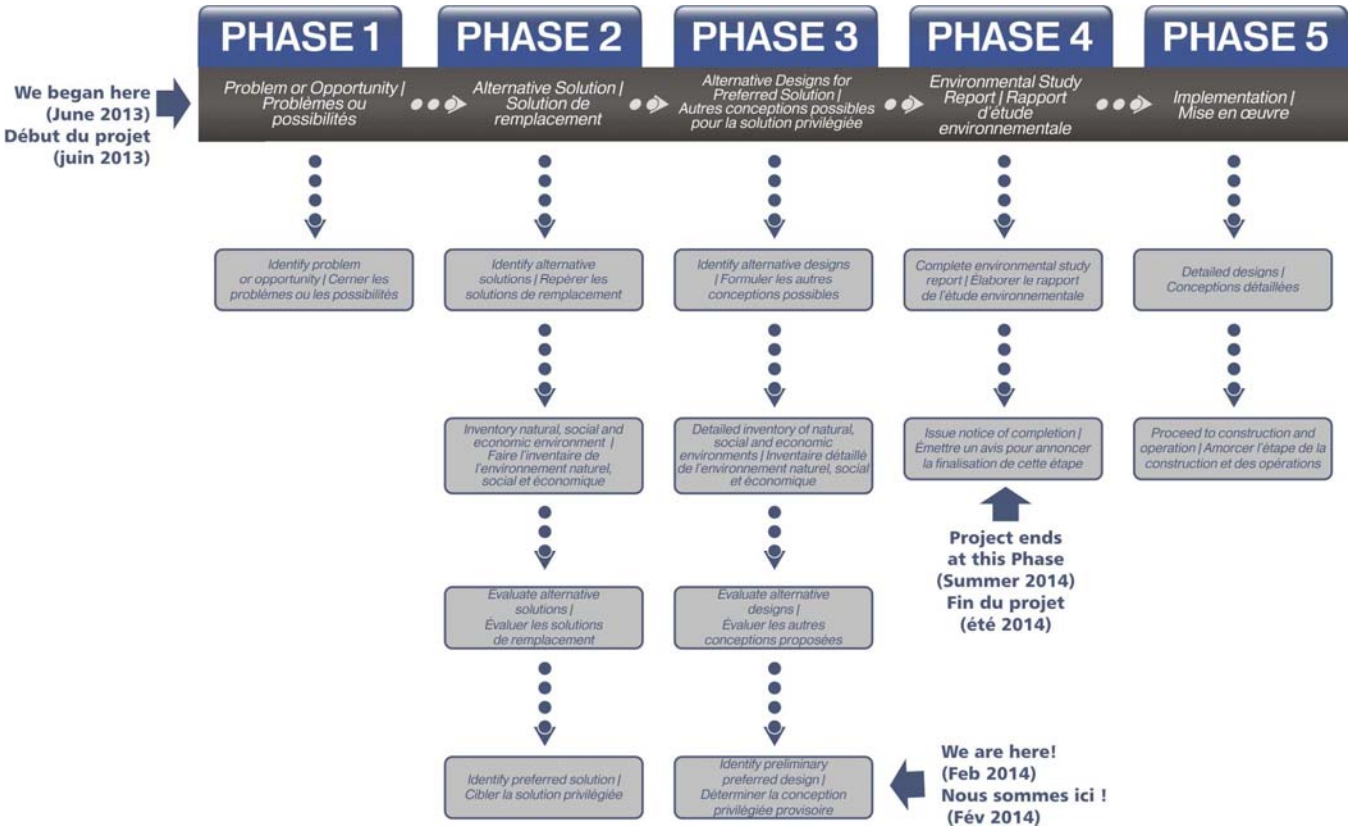


Exhibit 4 Study Schedule
The following are key dates in the study schedule.

	Project Start-Up	June 2013 ~ Juin 2013	Début de l'étude
	Existing Conditions Analysis	Summer 2013 ~ Été 2013	Analyse des conditions actuelles/besoins et possibilités
	Public Open House #1 - Preliminary Preferred Solution	September 2013 ~ Septembre 2013	Séance portes ouvertes no 1 – Solution privilégiée provisoire
We are here	Public Open House #2 - Preliminary Preferred Design	February 2014 ~ Février 2014	Séance portes ouvertes no 2 – Conception privilégiée provisoire
	Public Open House #3 - Recommended Plan	April 2014 ~ Avril 2014	Séance portes ouvertes no 3 – Plan recommandé
	Transportation Committee and Council	May 2014 ~ Mai 2014	Comité des transports et Conseil
	Environmental Study Report on Public Review	June 2014 ~ Juin 2014	Présentation du rapport de l'évaluation environnementale pour examen par le public

Nous sommes ici !

Exhibit 5 Consultation Activities

The success of this Study will be largely dependent on the understanding and endorsement of the stakeholders involved.

Key partners/stakeholders include landowners, business and community associations, institutions, utility companies, regulatory agencies and city departments.

Consultation Groups

Three Consultation Groups have been created to assist the City in advancing the study process meeting at key decision points in the study and include an Agency, Business, and Public Consultation Group.

First Nation Consultation

Consultation with First Nations will be achieved throughout the Study by communications with their identified representative(s).

Special Stakeholder Meetings

Special stakeholder meetings can be held which could be with individual landowners, community associations, local institutions, regulatory agencies, etc. where specific questions/issues arise.

General Public Involvement

Every person who has an interest in the Study will be given the opportunity to learn and participate in the Study through open houses (like tonight), or visiting the City's website.

Master Mailing List

All persons or organizations that express an interest in the Study may be added to the project mailing list and will receive information about the Study as it progresses.

Exhibit 6 Project Need and Opportunities

The findings and conclusions in regards to the need and opportunity for a renewed Carp Road from Hwy 417 to Hazeldean Road are as follows:

- Based on the planned development within the Carp Road capture area, approximately 2,600 and 3,800 new two-way vehicle trips are projected on Carp Road during the weekday morning and afternoon peak hours, respectively;

- With respect to the projected peak hour and average peak period volumes based on the planned development within the vicinity of Carp Road, the widening of Carp Road from two lanes to four lanes is required;

- The analyses take into account the City's TMP and the significant new roadway capacity and mass transit that is planned in Stittsville and Kanata West areas. Notwithstanding that planned infrastructure and shifts in travel behaviour are anticipated, the widening of Carp Road from two to four lanes is needed;

- There exists some traffic movements and safety considerations that warrant the need to improve traffic operations on Carp Road that can be best addressed with a four lane roadway;

- There is an opportunity to provide pedestrian and cycling facilities on Carp Road in accordance with the current policy direction of the City's Official Plan and Transportation Master Plan; and

- There is an opportunity to improve the visual environment and functionality of Carp Road to provide a more pleasing entrance to Stittsville and to encourage new development and redevelopment on lands adjacent to it.

Exhibit 7 Existing Conditions

Existing conditions are inventoried at the onset of all Environmental Assessment studies so that the potential effects of alternatives for the study can be assessed. This information will be updated progressively as investigations continue and additional information becomes available.

Information on all aspects of the environment was collected and analysed in order to:

- Provide an understanding of existing conditions;
- Allow for future predictions of how the proposed project may cause environmental conditions to change;
- Allow for future predictions of how adverse effects can be mitigated and beneficial effects enhanced; and
- Provide a basis for designing monitoring programs.

The following key environmental conditions have been determined at this time. Key factors include:

- The existing Right-of-Way (land owned by the City) throughout the corridor is far less than what is protected for in the City Official Plan (37.5 metres whereas between 22.0 to 30.0 metres exist today);
- There are many individual property accesses along Carp Road;
- There are concerns regarding traffic congestion and safety along the corridor;
- There is an absence of pedestrian and cycling facilities along the corridor;
- There is great potential for intensification and development along Carp Road and in adjacent employment areas and developing communities; and
- There are very few natural heritage features existing within the corridor.

Exhibit 7a Existing Transportation Conditions

Pedestrians

- Sidewalks currently only exist between Hazeldean Road and Kittiwake Drive on the west side of the roadway.
- Pedestrians are presently accommodated on unpaved shoulders throughout the remainder of the corridor.

Cyclists

- On-road bike lanes only exist between Hazeldean Road and Kittiwake Drive in the southbound direction.
- Cyclists are permitted to share the road with motor vehicles throughout the remainder of the corridor including heavy trucks.

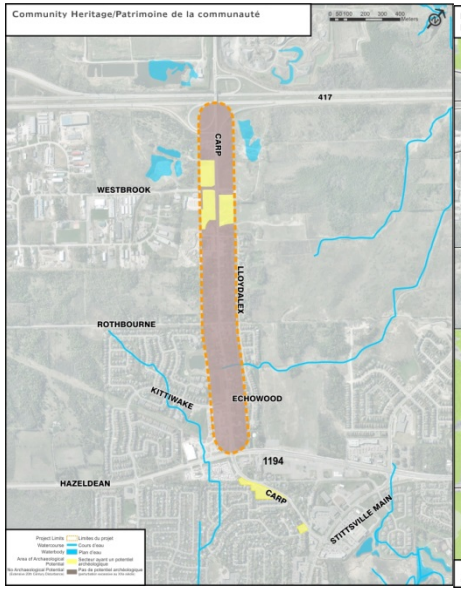
Transit

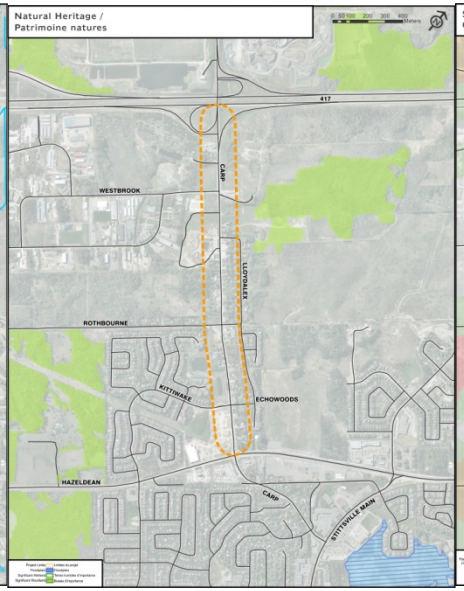
- Transit service in the corridor is provided by two local bus routes #203 and #262.
- An approximately 115 space minor Park and Ride facility is located at the intersection of Carp Road Westbrook Road.

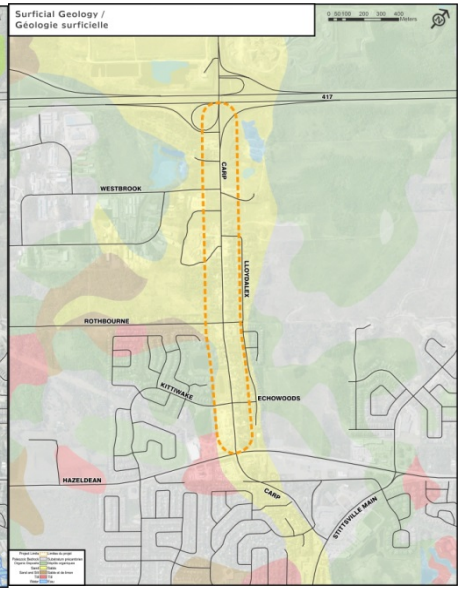
Motor Vehicles

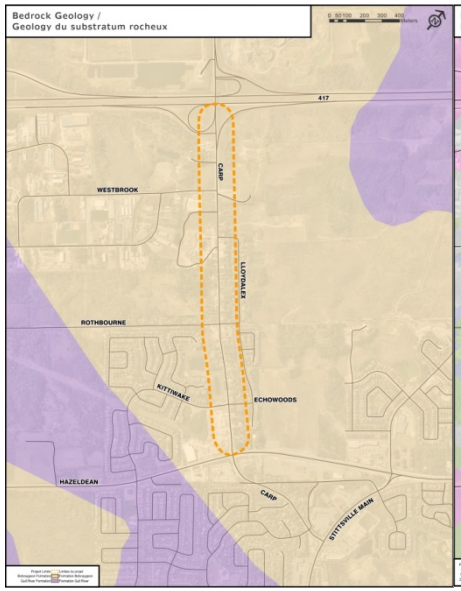
- Carp Road currently carries peak directional volumes of up to approximately 1,200 veh/h during the weekday morning and afternoon peak hours. This peak hour volume exceeds the theoretical directional capacity of a 2-lane facility of approximately 800 - 1,000 veh/h.
- There are also known operational issues within the Corridor, including queuing and delays.
- There are current identified safety risks along the corridor including, slip-around movements using unpaved shoulders to avoid left-turning vehicles/delays at driveways and at intersections. This dangerous manoeuver is due to a lack of auxiliary turns lanes and where left-turn movements are not prohibited by a median barrier.

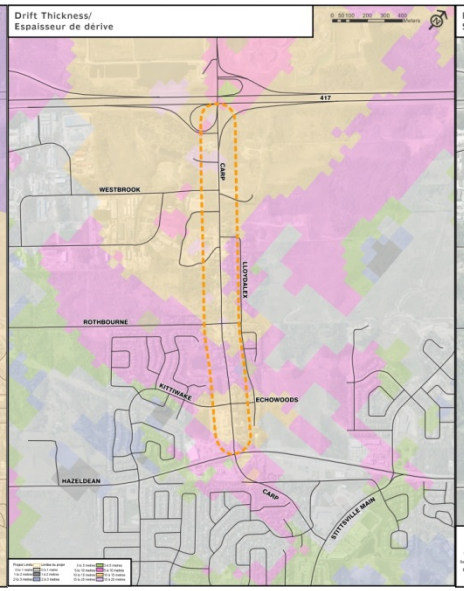
Exhibit 7b Existing Conditions











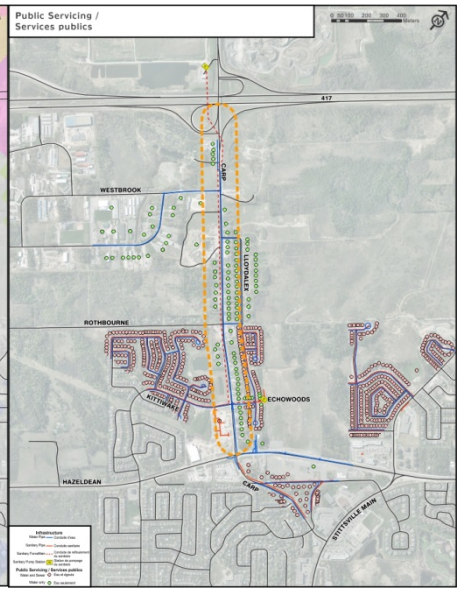
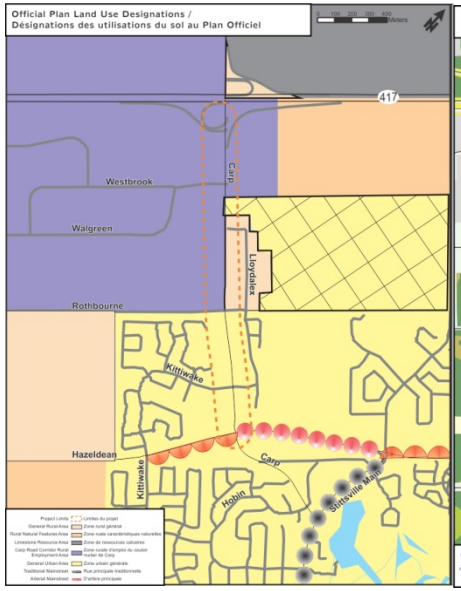
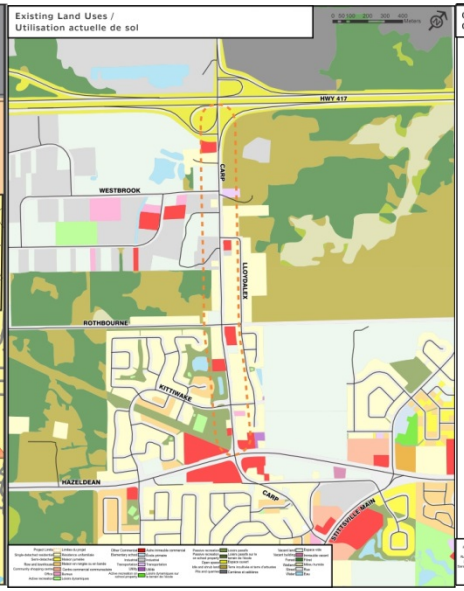
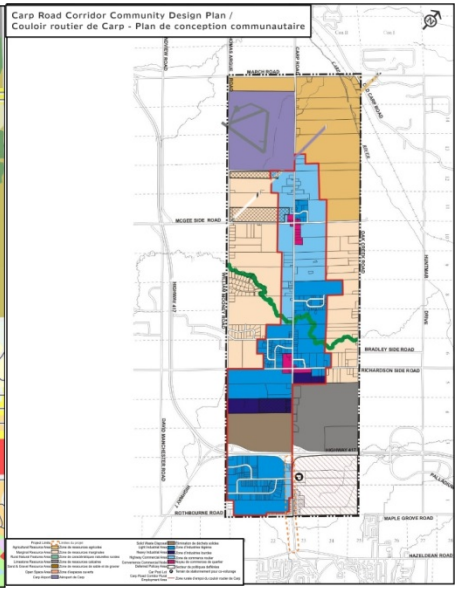
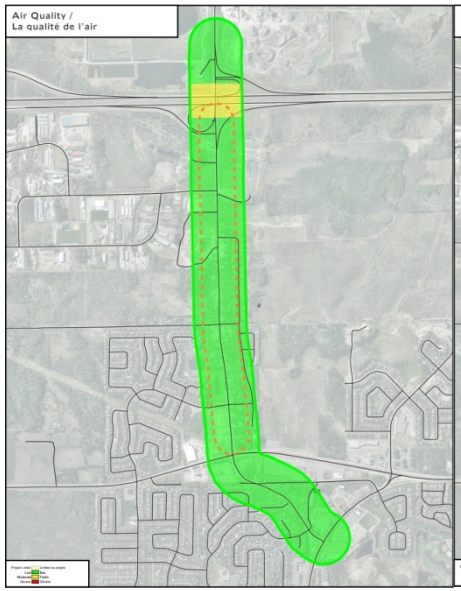


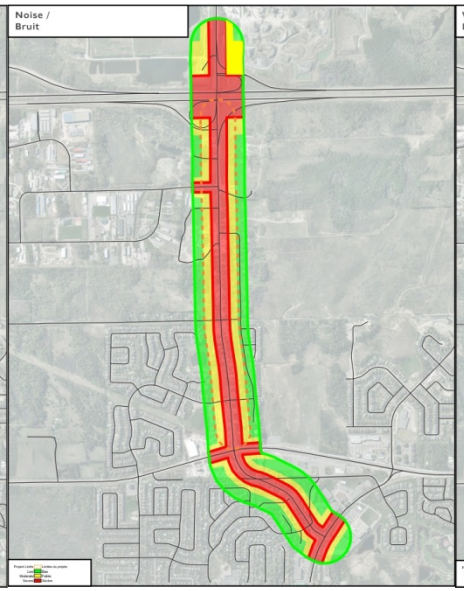
Exhibit 7c Existing Conditions











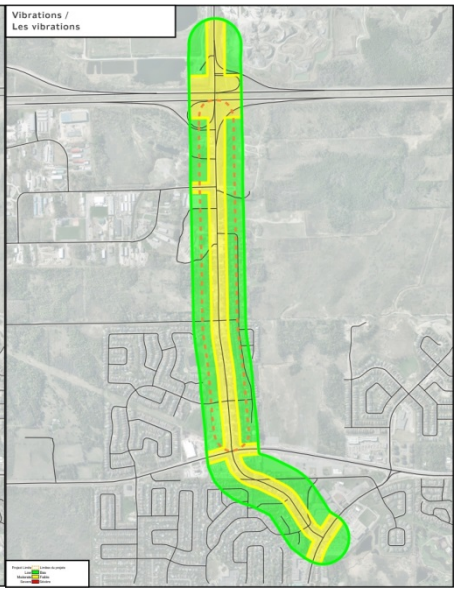


Exhibit 7d Existing Conditions

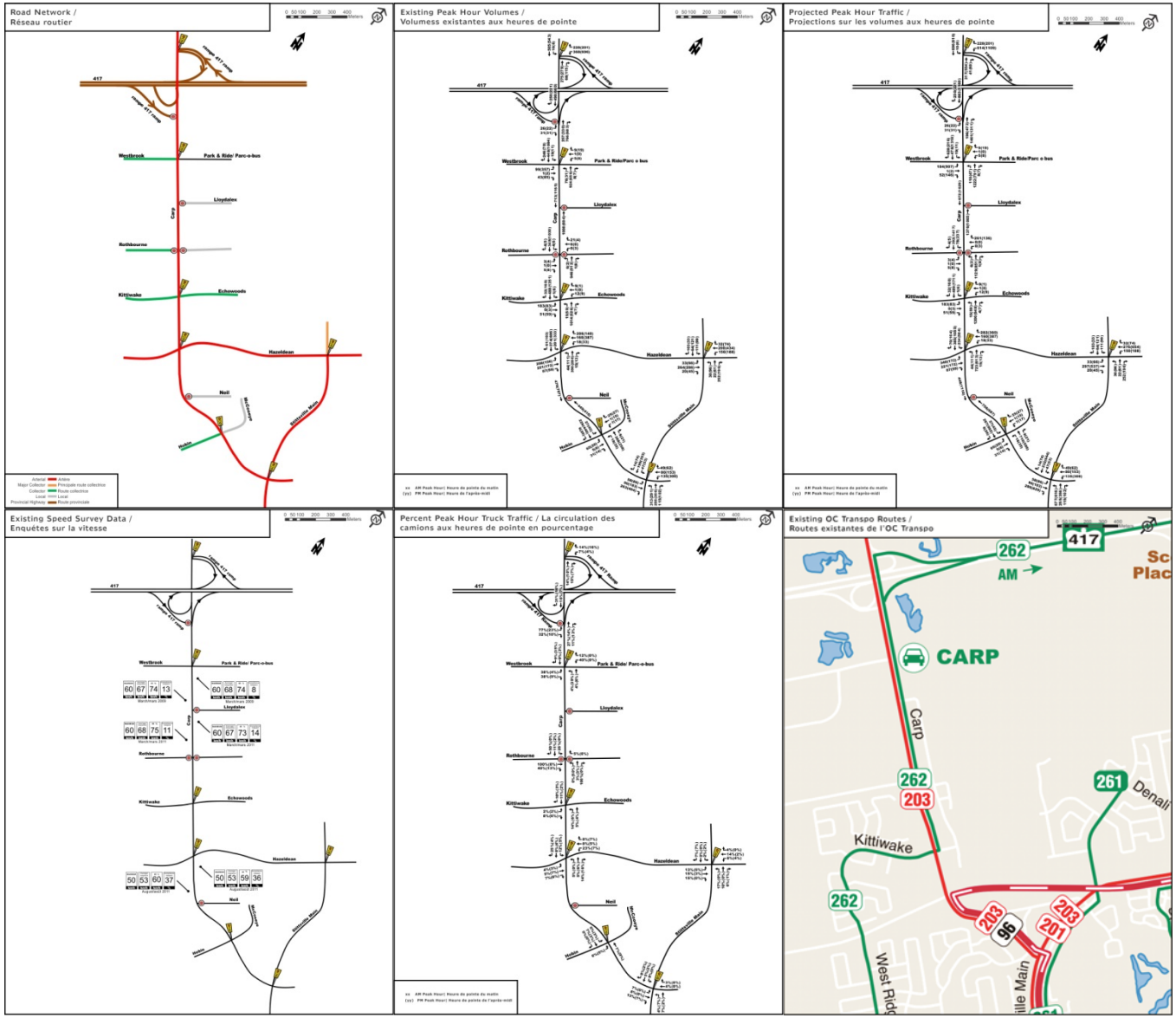


Exhibit 8 Evaluation of Alternative Solutions

The Study Team identified the broadest range of possible solutions for Carp Road subject to a screening process. Alternatives that did not meet the needs and opportunities identified for the project were eliminated which included Localized Improvements, Two-Lane Renewal (with turn- lanes), and Reversible Lanes. Three alternative solutions were subject to further evaluation including:

- Do Nothing (baseline condition)
- Two-Lane Carp Road and New Parallel Road
- Four-Lane Road Renewal

The impact-based analysis ranked each alternative from highest to lowest for a number of criterion used to evaluate the Transportation, Social, Natural, Physical and Economic Environments.

The Preliminary Preferred Solution presented at the 1st Open House reconfirmed the City's 2013 Transportation Master Plan's recommendation for a Four Lane Renewal of Carp Road. Comments received at the 1st Open House can be generalized into the following categories:

- Roadway division (medians) and property access
- Property impacts
- Construction and timing considerations

Widening was identified most often as the Preferred Solution.

Exhibit 9 Confirming the Preferred Solution for Carp Road

Comments received from the consultation groups and the public were used to inform the Study and a Four-Lane Renewal was selected as the Preferred Solution for Carp Road for the following reasons:

- Meets future transportation infrastructure requirements in the area
- Provides for walking and cycling in the corridor
- Provides a good opportunity to enhance visual character and
- Enables long-term development and redevelopment in Stittsville area.

Exhibit 10 Carp Road Widening Design Principles

Given the project need, opportunities and understanding of study area conditions, the following principles provided guidance to the identification and evaluation of alternative designs

Future Capability A preferred design will anticipate the long-term economic growth of Stittsville's residential and employment areas, and provide appropriate transportation capacity to service travel needs.

Mobility A preferred design will provide for all travel modes along and across the corridor, including walking, cycling, bus transit, passenger and heavy vehicles.

Property Implications A preferred design will have the most efficient and compact footprint possible, while providing for transportation needs, in an effort to minimize effects on adjacent private properties (front yards, parking areas, etc) and to minimize the cost of land acquisition.

Site Access A preferred design will provide vehicle access to adjacent properties, recognizing the need for median barrier separation associated with travel speeds and volumes.

Greening A preferred design will improve the visual environment within the right-of-way, providing suitable space and setbacks to support healthy trees, grass, and other low maintenance plantings.

Flexibility A preferred design will provide for some flexibility in implementation, possibly including a phased construction that corresponds to growing travel demands over the planning period.

Exhibit 11 Alternative Designs Cross-Section Development

Various considerations are regarded in the development and evaluation of alternative designs which include:

- What provisions are made for pedestrians?
- Are cyclists accommodated on-road or off-road?
- By what means are intersections controlled?
- What measures are used to manage turning movements and access to properties?
- How and where can the street be greened?
- City policies contained in the City of Ottawa Official Plan and Transportation Master Plan, Ottawa Cycling Plan, Ottawa, Pedestrian Plan, and Regional Road Corridor Design Guidelines.
- Regard for the Carp Road Corridor Community Design Plan.

The following characteristics and components are common to all designs:

- Four travel lanes to urban standards
- Streetscaping elements (street lights, landscaping, etc.) in keeping with the road's designation as an Arterial Road
- Walking and cycling facilities along both sides of the corridor (Except North of Westbrook where these are provided on the west side only)
- Providing controlled intersections at Westbrook, Rothbourne, Kittiwake, and future protection for controlled access at Lloydalex and
- Maintaining signalization of the Hazeldean Road/Carp Road intersection.

The historical centreline has been maintained through the majority of the corridor. A small centreline shift just north and south of Rothbourne Road was designed to manage front yard disruptions on either side of the corridor.

Exhibit 12 Alternative Designs Common Design – North End
The vehicle lane arrangement/boulevard treatment is constant for all alternative designs north of Westbrook Road and within the Ministry of Transportation's controlled access highway limits and includes:

- Four travel lanes
- A multi-use pathway to be provided on the west side of Carp Road and
- Turning restrictions/prohibitions to/from properties.

It is important to note that the draft design within Ministry of Transportation's (MTO) controlled access highway limits will require approval by MTO.

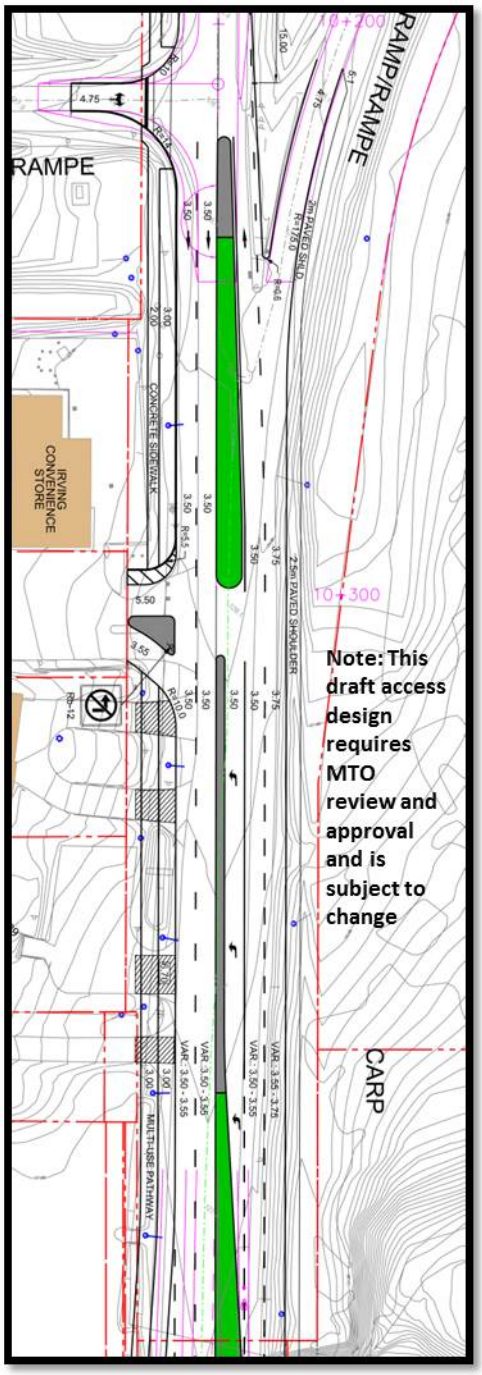


Exhibit 13 Alternative Designs Common Design – South End
The vehicle lane arrangement/boulevard treatment is also constant south of Kittiwake and includes the following characteristics:

- Four travel lanes
- Provision for an additional southbound left-turn lane (double left) at the Carp/Hazeldean intersection
- One south-bound through-lane through the intersection
- Dedicated on-road cycling facility and parallel pedestrian facility within the boulevard on the west side of the road and
- Multi-Use Pathway on the east side of the road.

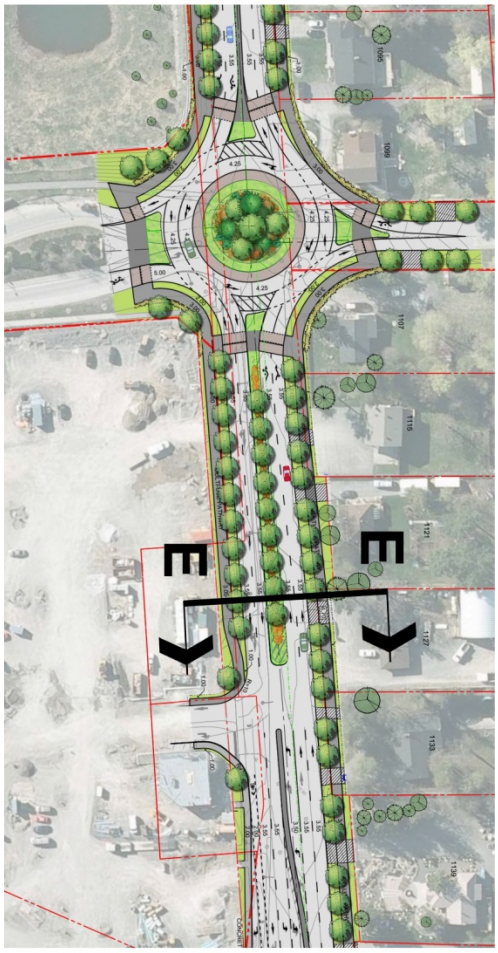


Exhibit 14 Alternative Design #1 – Signalized Intersections, On-Road Cycling Facility, Two-Way Left-Turn Lane
Alternative Design #1 includes the following characteristics:

- Intersection signalization at Westbrook Road, Rothbourne Road, Kittiwake Drive/Echowoods Avenue and future protection for Lloydalex Crescent
- On-Road Bike Lanes
- Boulevard area on both sides of the road used to accommodate a sidewalk and landscaping elements, room for snow storage and utilities
- Centre-lane designed as a two-way left-lane in short-term, full barrier median in the long term and
- Typical corridor width is 36.70 metres between intersections.

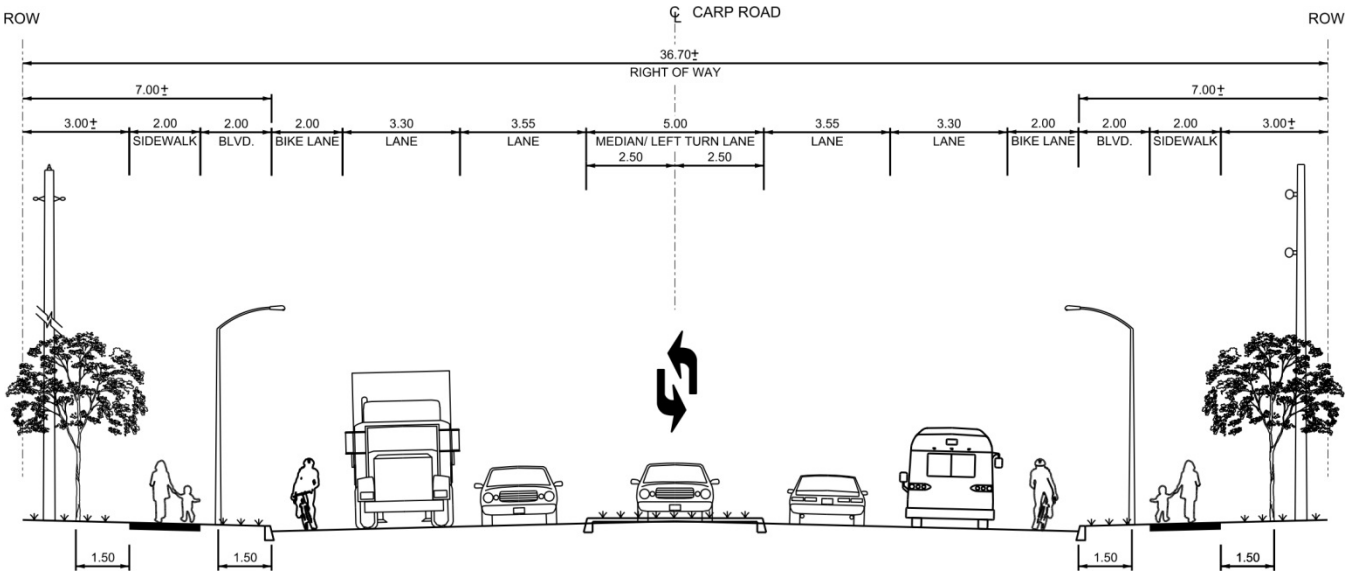
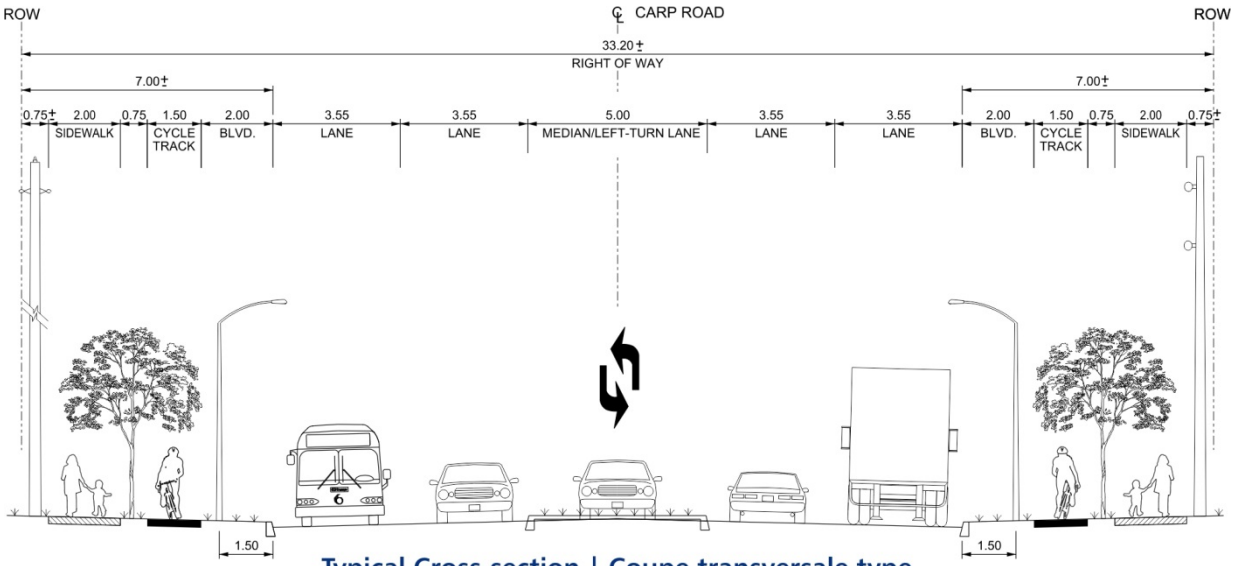


Exhibit 15 Alternative Design #2 Signalized Intersections, Off-Road Cycling, Two-Way Left-Turn Lane

Alternative Design #2 includes the following characteristics:

- Intersection signalization at Westbrook Road, Rothbourne Road, Kittiwake Drive/Echowoods Avenue and future protection for Lloydalex Crescent
- Off-road cycling facility as either a Cycle Track or Multi-Use Pathway
- Boulevard area on both sides of the road used for off-road cycling facility/sidewalk and landscaping elements, room for snow storage and utilities
- Centre-lane designed as a two-way left-lane in short-term, full barrier median in the long term and
- Typical corridor width is 33.20 metres between intersections.

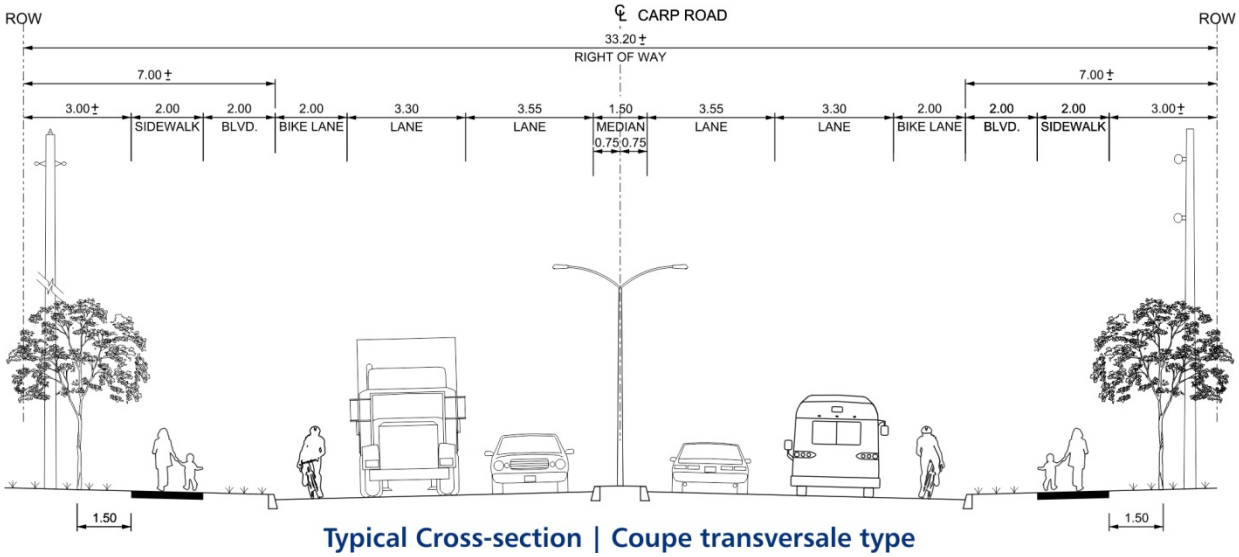


Typical Cross-section | Coupe transversale type

Exhibit 16 Alternative Design 3 Roundabout Intersections, on-Road Cycling, Narrow median

Alternative Design #3 includes the following characteristics:

- Roundabouts at Westbrook Road, Rothbourne Road, Kittiwake Drive/Echowoods Avenue and future protection for Lloydalex Crescent
- 1.5 m narrow median in constrained sections
- On-road cycling facility
- Boulevard area on both sides of the road used to accommodate a sidewalk and landscaping elements, room for snow storage and utilities
- Installation of a raised median at varying widths to minimize impact on adjacent properties and
- Typical corridor width is 33.20 to 36.70 metres between intersections.

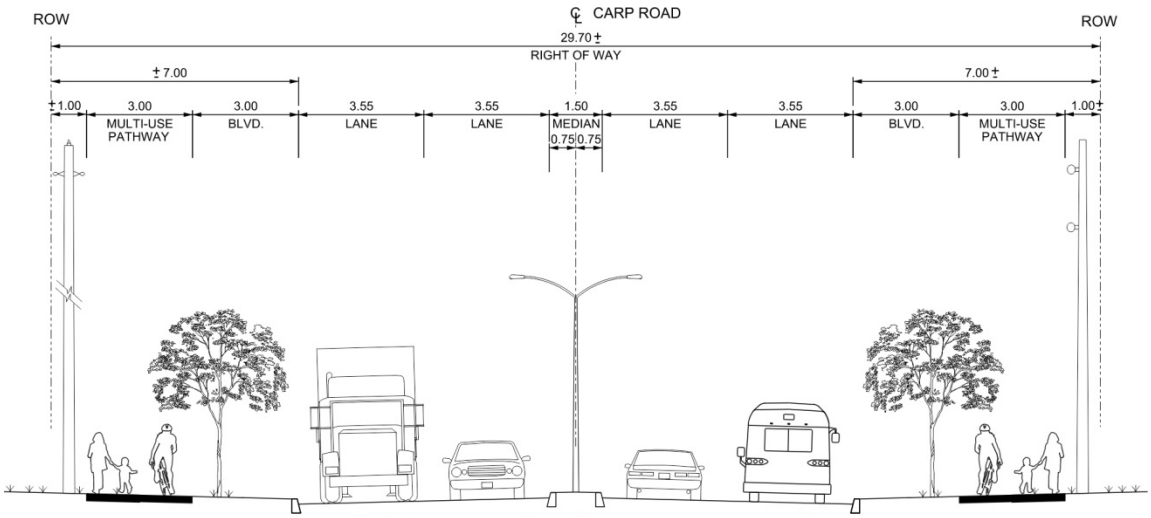


Typical Cross-section | Coupe transversale type

Exhibit 17 Alternative Design 4 Roundabout Intersections, Off-Road Cycling, .Narrow median

Alternative Design #4 includes the following characteristics:

- Roundabouts at Westbrook Road, Rothbourne Road, Kittiwake Drive/Echowoods Avenue and future protection for Lloydalex Crescent
- 1.5 m narrow median in constrained sections
- Off-road cycling facility as a Cycle Track or Multi-Use Pathway
- Boulevard area on both sides of the road used for off-road cycling facility/sidewalk and landscaping elements, room for snow storage and utilities
- Installation of a raised median with varying widths to minimize impact on adjacent properties and
- Typical corridor width is 29.70 to 33.20 metres between intersections.

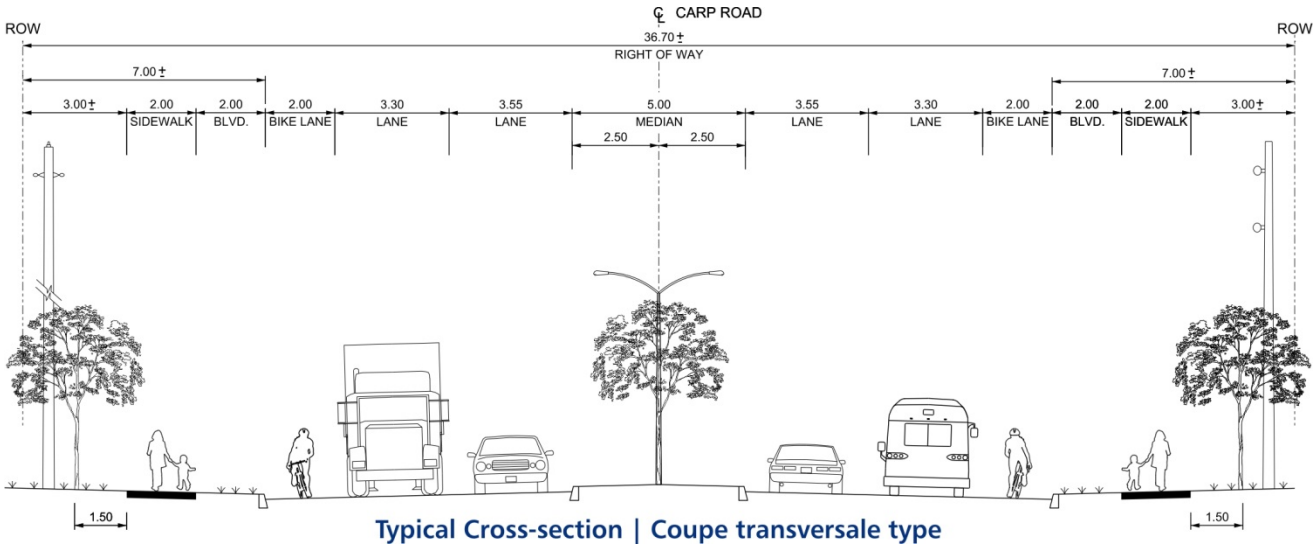


Typical Cross-section | Coupe transversale type

Exhibit 18 Alternative Design 5 Roundabout Intersections, on-Road Cycling, Wide median

Alternative Design #5 includes the following characteristics:

- Roundabouts at Westbrook Road, Rothbourne Road, Kittiwake Drive/Echowoods Avenue and future protection for Lloydalex Crescent
- 5.0 m wide median in most sections
- On-road cycling facility
- Boulevard area on both sides of the road used for sidewalk, landscaping elements, room for snow storage and utilities
- Installation of a raised green median throughout the corridor and
- Typical corridor width is 36.70 metres between intersections.

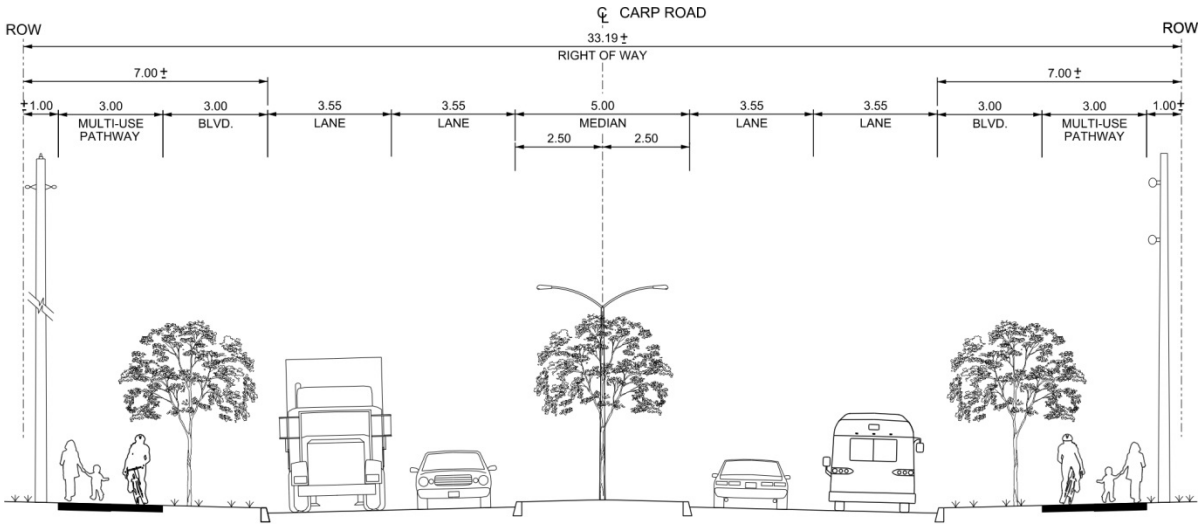


Typical Cross-section | Coupe transversale type

Exhibit 19 Alternative Design 6 Roundabout Intersections, Off-Road Cycling, .Wide median

Alternative Design #6 includes the following characteristics:

- Roundabouts at Westbrook Road, Rothbourne Road, Kittiwake Drive/Echowoods Avenue and future protection for Lloydalex Crescent
- 5.0 m wide median in most sections
- Off-road cycling facility as a Cycle Track or Multi-Use Pathway
- Boulevard area on both sides of the road used for off-road cycling facility/sidewalk and landscaping elements, room for snow storage and utilities
- Installation of a raised green median throughout the corridor and
- Typical corridor width is 33.20 metres between intersections.



Typical Cross-section | Coupe transversale type

Exhibit 21 Evaluation Criteria and Methodology

Three (3) broad groups of criteria were used to analyze the suitability of each alternative design including Socio-Economic, Transportation, and Biophysical Environments. The following 18 criteria, which includes 39 indicators were used in the evaluation.

- Socio-Economic Environment
- Corridor Land Use and Access
- Land Implications
- Building Implications
- Visual Environment
- Sustainable Landscaping
- Community Heritage
- Noise
- Vibration
- Outdoor Air Quality
- Life Cycle Costs
- Transportation Environment
- Pedestrian Convenience, Comfort and Safety
- Cycling Convenience, Comfort and Safety
- Universal Accessibility
- Bus Transit Time and Reliability
- Motor Vehicle Safety and Performance
- Biophysical Environment
- Terrestrial Habitat and Species
- Surface Water and Aquatic Habitat
- Impacted Materials

An evaluation Matrix was used to evaluate the performance of each of the alternative designs giving consideration to project complexity, community interests and the use of a defensible and traceable process.

Exhibit 22 Evaluation Scale

To assist in understanding how the evaluation was conducted the following table details the evaluation scale used. Each design was evaluated on how it performs in meeting each individual indicator ranging from performing very well to failure. The performance was evaluated against its achievement of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines.

Assessment	Rank	Definition
Performs Very Well	4	The alternative is evaluated by subject matter experts to have a highly favourable result in regards to fulfillment of the indicator. The design is expected to result in the achievement of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines, with the performance often exceeding benchmarks.
Performs Well	3	The alternative is evaluated by subject matter experts to have a favourable result in regards to fulfillment of the indictor. The design is expected to result in the achievement of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines.
Performs Adequately	2	The alternative is evaluated by subject matter experts to have an acceptable result in regards to fulfillment of the indicator. The design is expected to result in the achievement of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines, with the performance just meeting or approaching benchmarks.
Performs Poorly	1	The alternative is evaluated by subject matter experts to have an undesirable result in regards to fulfillment of the indicator. There is a risk that the design may fall short of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines.
Fails	0	The alternative is evaluated by subject matter experts to have an unacceptable result in regards to fulfillment of the indicator. The design is not expected to achieve best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines.

Exhibit 23 Evaluation Results
As a general trend, alternatives that provide for off-road cycling facilities were favoured those being Alternatives 2, 4, and 6.

As well, alternatives providing roundabouts (Alternatives 4 and 6) are preferred over the two-way left-turn lane alternatives (1 and 2) which in the long-term would:

- Provide more access limitations in the long-term (May require long-term reconstruction to install a centre median);
- Consume a wider ROW;
- Have a greater capital construction cost; and
- Result in a poor visual environment.

The two most preferred alternatives (4 and 6), employ roundabouts with off-road cycling. The distinction is the width of the median barrier

- Alternative 4 employs a narrow 1.5 m median
- (lesser ROW, reduced property impacts); whereas
- Alternative 6 employs a wide 5.0 m median (greater ROW, more impacts), but greener visual environment.

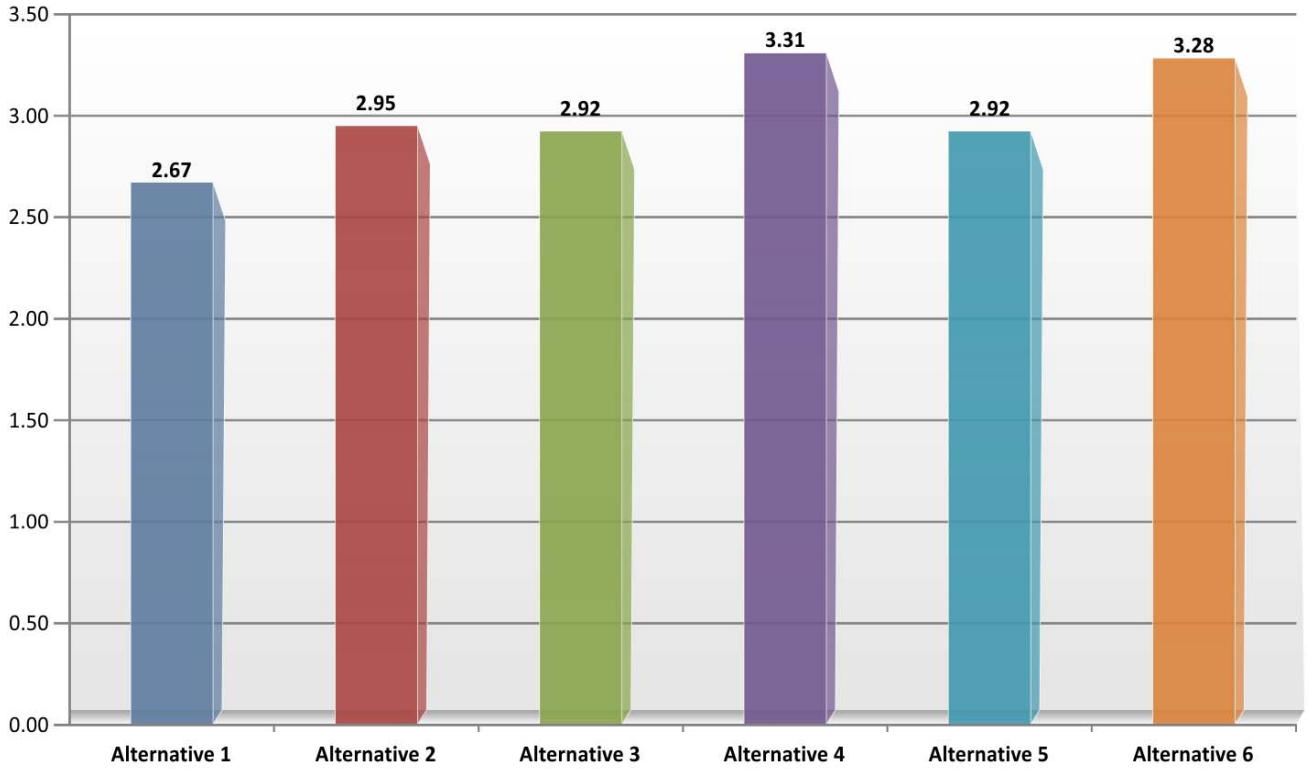


Exhibit 24 Preliminary Preferred Design
Alternative 4 (Roundabouts, Off-Road Cycling, Narrow Median) is being recommended as the Preliminary Preferred Design as it achieves

- The highest average performance across all indicators.
- The highest average performance of indicators within criteria groups Socio-Economic, Transportation, and Biophysical.

Criteria Groups/Indicators	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Socio-Economic Environment	2.63	2.75	2.50	2.75	2.50	2.69
Transportation Environment	2.72	3.17	3.22	3.78	3.22	3.78
Biophysical Environment	2.60	2.80	3.20	3.40	3.20	3.40
Average Across Criteria Groups	**2.65**	**2.91**	**2.97**	**3.31**	**2.97**	**3.29**
Average Score Across Indicators	**2.67**	**2.95**	**2.92**	**3.31**	**2.92**	**3.28**

The Preliminary Preferred Design responds to the study design principles in the following ways

- **Future Capability:** Ample capacity to address long term needs for the long term:
- **Mobility:** Provides well for all modes, including active transportation
- **Property Implications:** Narrowest Right-of-Way requirements, minimizes number of properties impacted
- **Site Access:** Maximizes property access from both directions, for all modes
- **Greening:** Provides for greening along the road edge where its benefits are greatest
- **Flexibility:** The ultimate solution is constructed at day one, to serve long-term needs

Exhibit 26 The Benefits of Roundabouts
What is a Roundabout?
Roundabouts are a type of intersection at which all traffic circulates in a counterclockwise direction, to the right of a central island. All entering vehicles must yield to traffic already in the roundabout

What are the Benefits of Roundabouts?

Roundabouts have a number of benefits over traditional intersections including

Improved Safety Reducing the number of vehicle conflict points and reducing vehicular speeds, in turn, reduces the potential for severe crashes and serious injury.

Reduced Speeds A reduction in speed is necessary to negotiate the roundabout, whereas vehicles may not slow down during the green phase of a traffic signal.

Increased Capacity A high volume of left turning vehicles is better handled by a roundabout than a multi-phased traffic signal.

Fewer Stops and Reduced Delays Delay is significantly reduced by yielding at the entry of a roundabout, rather than stopping and waiting for a green light at a signalized intersection; or waiting
for a gap in the traffic at a stop sign.

Less Idling and Air Pollution Reduced delays mean reduced fuel consumption and improved air quality by reducing emissions.

Reduced Maintenance Costs The roundabout eliminates maintenance and electricity costs associated with traffic signals.

Aesthetically Pleasing There is an opportunity for landscaping within the central island.

Source MTO, 2014, http://www.mto.gov.on.ca/english/engineering/roundabout/#benefits

Exhibit 27 The Benefits of a Multi-Use Pathways

The Preliminary Preferred Design includes multi-use pathways along each side of the corridor. The benefits include:

- Providing a walking route, in each direction, along both sides of the corridor
- Providing a cycling route, in each direction, along both sides of the corridor
- Separating cyclists from vehicles, by a curb and a landscaped boulevard in most situations and
- Economizing on space, where pedestrian and cyclist mobility is provided on a 3m wide facility, thereby reducing land impacts and acquisition requirements.

Also, when bundled with roundabouts, cyclists can cross side streets in both directions across "cross rides", thereby avoiding the need to dismount and walk. Cycle tracks are less-favoured with the Preliminary Preferred design because they are relatively narrow surfaces and cycling can only occur in one direction along the side of the corridor. Multi-use pathways enable bi-directional cycling, thereby increasing flexibility in route choices and decreasing trip lengths.

Exhibit 28 Next Steps

Following this Public Open House

- Your comments on the work-to-date will be reviewed along with input received from the Consultation Groups and a Preferred Design will be confirmed.

- The Consultation Groups will continue to provide review and feedback through the Functional Design process leading to a Recommended Plan.

- The Recommended Plan (Functional Design) and its impact assessment will be presented at a third Public Open House to be held in Spring 2014.

- Information about the project will continue to be posted on the City's website as it becomes available.

Please continue to identify any issues and concerns that you would like see addressed during the study.

Please fill out a Comment-Questionnaire. Leave it in the box provided, or return it to us by fax or mail by 12 March, 2014. Comments can also be submitted by email to

Jabbar.Siddique@ottawa.ca

Additional information on the project can be found on the City's Website at www.ottawa.ca/carproad

Your views and contributions are important to the success of this Study!