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Memorandum

To/Attention Project Steering Committee **Date** January 14, 2014
From Don Drackley, IBI Group **Project No** 33537
Cc **Steno** dd
Subject: **TRENT RIVER CROSSING AND ARTERIAL ROAD NETWORK EA
TECHNICAL REPORT: CONCLUSIONS ON EVALUATING FINAL
ALTERNATIVES**

Methodology - How Evaluation Conclusions were Made

In early 2013, the County of Northumberland retained IBI Group to complete the Municipal Class Environmental Assessment (EA) presented to County and Municipality of Trent Hills council in late 2009 by the consultant at that time, AECOM. At that time, the preferred approach for long term Trent River crossing capacity was to build a new two-lane bridge across the Trent River between Alma Street and Second Street, and then later replace the two-lane Bridge Street bridge when required as a result of aging structural conditions and new engineering codes.

This recommendation met with some public opposition, most notably from the downtown Business Improvement Association (BIA) concerned about traffic diversion and associated business loss, and from residential property owners along the Alma St./Second St. corridor concerned about property impacts. As a result, two additional engineering feasibility studies were conducted, confirming that twinning the existing Bridge Street bridge and then replacing the existing bridge when required was also a viable alternative from purely a structural and traffic engineering perspective.

With this new engineering information, the County in early 2013 retained IBI Group to “re-commence” and complete the EA process with two final river crossing alternatives:

Alternative 1 - twin/replace the existing Bridge Street bridge (the 1 bridge / 1 x 3 lane option); or

Alternative 2 - construct a new two lane bridge from Alma Street to Second Street, and replace the existing two lane Bridge Street bridge (the 2 bridges / 2 x 2 lane option).

The methodology proposed by IBI Group to evaluate these finalist alternatives conforms to the following key requirements of environmental assessment planning used in the Municipal Class EA Process in Ontario:

- **Be Consultative** – Notice of EA Recommencement was widely circulated in the Campbellford area in January 2013, and since then the Project Team has endeavoured to respond whenever possible to numerous comments and communications from the public, stakeholders and involved external agencies.

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- **Evaluate Reasonable Alternatives** – The 2009 Draft ESR prepared by AECOM considered a variety of river crossing solutions in the Campbellford area. Most were screened out from further consideration because they did not solve the root problem, namely to provide adequate river crossing capacity for the Campbellford urban community.
- **Consideration of Impacts on All Aspects of the Environment** – Although providing adequate long term river crossing capacity in Campbellford is a key study requirement, other important considerations have also been evaluated. This includes Social Environment considerations, the Cultural Environment of the community, the Natural Environment and the Economic Environment including the project cost.
- **Conduct a Systematic Evaluation** – IBI Group, having not been involved in the previous EA work presented in and after 2009, conducted the evaluation summarized in this technical report systematically, objectively and with no pre-conceived outcome. Our study conclusions are those of IBI Group only.
- **Provide Clear, Traceable Documentation** – This technical report highlights the evaluation of finalist alternatives process. References are made to 2009 evaluations, those conducted after that and more detailed technical information that has been added to the project file since then dealing with:
 - Traffic conditions and forecasts by IBI Group;
 - Municipality of Trent Hills Official Plan land use designations in Campbellford;
 - Emergency Response input;
 - Rental Housing Impact Study, TWC Consulting Inc., August 2013;
 - Bridge Street Bridge Building Impacts, Heritage Resources Consulting, November 2013;
 - Archaeological Works (Archeoworks) at the Bridge Street bridge crossing;
 - Fish & Fish Habitat Assessment Report, LGL Limited, March 2013; and
 - Noise Impact on the downtown area (RWDI, June 2013).

At the project Steering Committee meeting on June 28, 2013, IBI Group presented preliminary findings from our initial and preliminary evaluation of the two finalist Campbellford river crossing alternatives. Although still a work-in-progress, IBI Group had identified a number of preliminary findings on the main advantages and disadvantages of these two finalists. Some stakeholder representatives have since interpreted IBI Group's initial comments at the June 28th meeting as being our formal conclusions. They were not, and were only intended to provide an early indication of our observations.

Our evaluation conclusions are now presented in this technical report.

Planning Horizons

One of the challenges for this project is the requirement for a "long-term plan". The initial traffic forecasts and analysis show that Alternative 1 (Bridge Street) can provide a good Level-of-Service for crossing traffic over the next 20 years. This would involve a twinned/replaced single river crossing on Bridge Street with one travel lane/direction and centre turn lane as designed by GENIVAR. However, since the project requires a longer term plan, the question is what happens beyond 20 years into a longer term planning horizon?

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The definition of “long term” for this project can involve various planning horizons: 20 years, 30 years, and 40-50 years. To limit confusing timelines and simplify the terminology, this analysis considers two main time-frames:

- **Long-Term** - up to 30 years (2043); and
- **Very Long Term** - beyond 30 years.

During and these periods, the following important expectations are made for the community:

- Campbellford will continue to be a strategic river crossing location for local, County and regional eastern Ontario auto and commercial goods movement traffic;
- According to Province of Ontario forecasts, Central-East Ontario’s average annual population and employment is projected to grow by 0.6% and 1.0% respectively from 2010 to 2031. This area includes Northumberland County;¹
- Future river crossing demands at Campbellford will be influenced by newly emerging travel trends involving alternative fuel sources, use of Active Transportation (cycling and walking) for local trip-making, travel costs and associated travel demand management involving how and when people travel); and,
- Following on the goal of a prosperous community, over a 40-50 year planning horizon motorized traffic volumes by evolving technologies across the Trent River, and on the associated arterial road network, will continue to grow at a modest rate in response to local and regional population and employment growth, overall regional economic growth and resulting local land use changes.

Traffic Analysis

Evaluation of the two finalist river crossings alternatives being addressed for the Environmental Assessment has used 22 criteria in the following six categories:

1. Transportation
2. Social Environment
3. Cultural Environment
4. Natural Environment
5. Economic Environment
6. Engineering & Construction Cost

These evaluation categories show that traffic / transportation was not the only consideration used in comparing the pros and cons of the two finalist alternatives. Based on earlier direction provided by the project Steering Committee, these categories and the associated evaluation criteria were also not weighted in terms of level of importance. Each is considered to be equally important for the evaluation process.

Since the overall project goal involves the County road system in Campbellford, long term traffic conditions had to first be forecast for the evaluation process at 20, 30 and 40 year horizons. The main objective of the analysis was to determine whether the two finalist alternatives operate well for the very long term. Compound traffic growth of 1% per year, as determined through the 20-year analysis, was carried forward to develop these 30 and 40-year horizons.

¹ Highway 7 Corridor Transportation Study, MTO, 2013

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The basic conclusions of this analysis are that Alternative 1 (Bridge Street Twinning/Replacement) will operate well for the 30 year long term. However, in the very long term, there would be a need for some additional capacity and operational improvements. This could involve Bridge Street widening for added travel and turn lanes, removal of parking along Bridge Street and other streets and other intersection widening along Bridge Street.

In comparison, Alternative 2 is expected to operate well for the very long term beyond 30 years without additional changes to Bridge Street. This is mainly because river crossing traffic is split between two bridges.

Further Considerations for Evaluation

An Environmental Assessment can be an iterative process, allowing for new information to be considered as part of the evaluation of alternatives. For this project, the Project Team considered a number of issues associated with the preliminary “work in progress” evaluation information presented at the June 28th Steering Committee meeting. In doing this, our objective was to improve the evaluation process and make it as balanced as possible. This has resulted in the following additions being made to the evaluation now presented in this current technical report:

- consider truck traffic and Active Transportation (cycling and walking);
- use directional route signage and community marketing for through vs. local traffic;
- source water protection at the existing bridge crossing;
- commercial goods movement management through the community;
- emergency response input received July 26th from the Fire Department;
- impacts on affordable rental housing units (TWC Consulting, August 2013);
- impacts on existing buildings located on both sides of the Bridge Street bridge (Heritage Resource Consulting, July 2013 as revised October 2013);
- updating of designated and listed heritage properties in Campbellford by the Municipality of Trent Hills;
- traffic diversion from Bridge Street resulting from traffic congestion;
- community growth as per the Trent Hills Official Plan;
- long term redevelopment opportunities in impacted areas of the community;
- staged capital cost updates for each of the two river crossing alternatives;
- traffic analysis for the 30 year and 40+ year planning horizons; and
- removal of any double-counting of some impacts in the evaluation.

IBI Group subsequently reviewed the evaluation process being used, and came to the conclusion that the project Steering Committee’s selection of the best transportation solution for the community needs to first be based on the overall project goal and the associated problem/opportunity being addressed by this project.

Overall Project Goal

It is important that this project focus back on its overall goal, as set by County Council on July 18, 2012 and incorporated into the November 2012 Steering Committee Terms of Reference as follows:

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*“To develop a **realistic, attainable, cost-effective, long-term** plan for the transportation system in Campbellford which will support an attractive prosperous community”*

The three key aspects of this goal are:

1. County Council must be able to support the plan, making it **realistic and attainable**;
2. The plan must be **cost-effective**, meaning the cost must provide the most benefit to the community. This does not necessarily equate to the lowest cost; and
3. The plan must be **long-term**, meaning it must be capable of meeting the transportation needs of a stable, prosperous community within the functional lifespan of the river crossing (bridge) infrastructure being provided.

In attempting to meet this goal, we observe that most responses to the project over the past five years have been understandably focused on impacts on the existing Campbellford community as it is today, and not how the project will impact this community in the future. This highlights the inherent challenge that has always faced this project, namely to address:

the natural friction between what has been, what is and what will be

Problem / Opportunity Statement

Problem - Prior to 2013, this project was focused on one basic problem, namely the provision of needed river crossing and associated arterial road network capacity in Campbellford over a 20 year planning horizon to approximately the year 2029. Since then, the Steering Committee has asked that the river crossing solution be expanded to address “*so that the planning of the community can proceed for the next 40-50 years without jeopardizing public and private sector business decision-making.*”² This is an important addition to the study scope since it requires the study to consider very long term impacts on the Campbellford community.

Opportunity - An opportunity also exists for the community to be provided with river crossing and associated arterial road network improvements to support Campbellford as an attractive and prosperous community, including support for the downtown and other local businesses. Once again, this opportunity extends well beyond a 20 year planning horizon into the Campbellford community up to 50 years from now. This involves longer-term Vision planning.

In addition, there are other opportunities associated with the river crossing and arterial road network that are equally important, including:

- effective emergency response;
- provision of river crossing redundancy in the event of an emergency and for bridge maintenance and repair;
- provision of cycling and walking routes;
- the attractiveness and ease of navigation through the community for visitors and through trips;
- access to planned growth area; and
- maintaining an ample supply of downtown parking.

² Terms of Reference, Completion of Campbellford Bridge and Arterial Road Network Environmental Assessment, County of Northumberland, August 14, 2012

Evaluation of Alternatives

The updated traffic analysis described above provides input to one of the key criteria of the EA – the road needs and expected traffic operations over a very long term horizon. However, all criteria including costs were evaluated as part of this report, with the results presented in the Appendix evaluation table.

The Appendix provides a Reasoned Arguments type of evaluation that compares the pros (advantages) and cons (disadvantages) of the two final alternatives against each of the 22 evaluation criteria. It is intended to provide an objective, traceable response to each criterion for each alternative prepared by IBI Group, with our following conclusion to be considered by the Steering Committee in deciding on a preferred alternative based on the project goal.

Evaluation Conclusions

Evaluation work undertaken by IBI Group for this project is based on the very long term planning horizon established for this project, well beyond the original 20 years to a longer term 40-50 year horizon. Over this time, the most important questions now facing the completion of this Environmental Assessment are;

- 1) what river crossing capacity will be needed in Campbellford over the very long term to efficiently move people and goods through the community;
- 2) where, how and when should this capacity be provided; and
- 3) how will provision of this capacity impact the community.

The answer to these questions is complex, involving varied and sometimes competing interests that have been considered in the evaluation. Based on our research conducted for this project over the past five months, IBI Group has concluded that Alternative 2 with construction of a new two lane bridge from Alma Street to Second Street, plus replacement of the existing two lane Bridge Street bridge when required, provides the best opportunity to meet the goal of this project, namely to provide a plan that is realistic, attainable and cost-effective over the next 40-50 years.

The rationale for this conclusion is summarized in the following table that highlights the preferred river crossing alternative (√) for each of the project’s 22 evaluation criteria. This summary table also shows criteria where there is no comparative advantage or disadvantage between the two finalist alternative, and so the evaluation is neutral (-).

Following the summary table, the main pros and cons of each alternative that led to the evaluation summary are itemized, and further described in the report Appendix.

√ Preferred Alternative

- Neutral

CRITERIA	Alternative 1 Twin/Replace Existing Bridge Street Bridge with Modified 3-Lane Bridge	Alternative 2 New 2-Lane Second/Alma Bridge & Replace Existing 2-Lane Bridge Street Bridge
GROUP 1: TRANSPORTATION		
1.1 Traffic Operations		√
1.2 Provision of Emergency Access		√

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1.3 Change to Existing Road Function	√	
Preferred – Transportation		√
GROUP 2: SOCIAL ENVIRONMENT		
2.1 Residential Property Displacement (not including heritage)	√	
2.2 Below Market Residential Housing Displacement		√
2.3 Residential Traffic Intrusion	√	
2.4 Potential for Urban Design Improvements		√
2.5 Access to New Development		√
2.6 Change to Traffic Noise	√	
Preferred – Social Environment	–	–
GROUP 3: CULTURAL ENVIRONMENT		
3.1 Direct Displacement of Built Heritage Resources	√	
3.2 Indirect Disruption of Built Heritage Resources	–	–
3.3 Disruption of Cultural Heritage Landscapes	√	
Preferred – Cultural Environment	√	
GROUP 4: NATURAL ENVIRONMENT		
4.1 Source Water Protection		√
4.2 Displacement/Disruption of Natural Heritage Features	–	–
Preferred – Natural Environment		√
GROUP 5: ECONOMIC ENVIRONMENT		
5.1 Displacement of Existing Business Space		√
5.2 Impact on Downtown Business		√
5.3 Commercial Goods Movement		√
5.4 New Business Development Opportunities		√
Preferred – Economic Environment		√
GROUP 6: ENGINEERING & CONSTRUCTION COST		
6.1 Bridge Construction Cost	–	–

6.2 Associated Road Capital Cost	—	—
6.3 Total Staged Cost	—	—
6.4 Amount of Property Acquisition / Resale Potential		√
Preferred – Engineering & Construction Cost		√
PREFERRED ALTERNATIVE		√

PREFERRED ALTERNATIVE 2

Second St. / Alma St. Crossing with Existing Bridge 2-Lane Replacement (2 bridge / 2 x 2 lanes)

IBI Group has concluded that this alternative is preferred primarily for five important reasons:

1. It provides the best transportation solution for the movement of people and goods across the Trent River in Campbellford for the very long term. During the next 40-50 years, it provides the best traffic operations through the community, with river crossing redundancy that benefits traffic flow, emergency response, goods movement, bridge maintenance and overall roadway network level-of-service;
2. It provides access to planned growth areas in south and east Campbellford over the next 40-50 years;
3. The community's water source intake is located upstream of the new river crossing, which protects the source from any spill into the river from the new bridge. For the existing Bridge St.t bridge located upstream of the source, a runoff collection system can be installed either before or as part of the eventual bridge replacement included as part of Alternative 2;
4. Traffic conditions and level-of-service through the downtown is improved by avoiding congestion. This alternative provides an alternative route for through traffic including diverted heavy truck traffic, resulting in traffic conditions that are more conducive to the downtown business environment especially along Bridge St. No need to enhance the Bridge Street capacity is expected over the next 40-50 years through downtown changes such as removing on-street parking or widening Bridge Street; and
5. According to the project goal, a cost-effective solution is needed. Engineering and costing information provided by the previous consultant work updated to 2013 levels suggests that the capital costs for river crossing and associated road works between the two finalist alternatives are very comparable. Furthermore, there will be property acquisition costs either for commercial/residential buildings currently abutting the Bridge Street bridge in Alternative 1, or residential property associated with the Second/Alma alignment in Alternative 2. However, in the case of the Second/Alma alignment, opportunities would be available to resell and reuse these acquired properties for alternative uses more compatible with traffic changes created by a Second/Alma crossing. In comparison, Alternative 1 Twin/Replace has the potential for unforeseen costs associated with significant utility relocation/replacement costs.

Given these major advantages (pros) of Alternative 2, the following disadvantages (cons) are recognized and also need to be considered by the Steering Committee. They focus on the social and cultural environment impacts as follows:

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1. Impacts to the residential character of Second St. from Saskatoon Ave. to Ranney St., and Simpson St. from Alma St. to Bridge St. resulting from river crossing-related traffic intrusion and associated building and land use changes over the long term. Similar changes have already taken place along Alma St. in proximity to the Canadian Tire location;
2. Impacts on and changes to designated and listed heritage properties along Second St. and at the Second St./Saskatoon St. intersection; and
3. Noise impacts on these properties from increased Second/Alma traffic volumes and heavy truck traffic;

Given this, the Steering Committee needs to consider whether the pros (advantages) of two river crossings in the very long term are worth the cons (disadvantages). The main pros and cons of this alternative are summarized as follows with details provided in the Appendix evaluation chart:

Main Pros:

- Meets both long and very long term transportation needs without twinning existing bridge;
- Provides river crossing redundancy for emergency response, maintenance and repair;
- Long term replacement of Bridge St. bridge as 2 lanes would avoid displacement of abutting commercial/residential buildings;
- Maintains historic river crossing location and waterscape views;
- Provides opportunities for residential redevelopment in the Second St. area and business opportunities at the Alma St/Grand Rd node over the long term;
- Provides road access to designated growth areas east of the river;
- Preserves heritage property and landscapes in the downtown;
- Water source protection on Bridge St. bridge may be required irrespective of the existing bridge replacement;
- Disruption to aquatic features are minor;
- Opens new business opportunities at Grand/Alma node;
- Traffic diversion from Bridge St. in the downtown is expected to mainly involve through trips, and the downtown environment is improved with reduction of truck traffic diverted using route signage

Main Cons:

- Adds traffic volume on roads approaching the new crossing (Simpson St., Alma St., Second St. and Cockburn St.);
- Traffic control, roadway and structural improvements required along Simpson St., Alma St., Second St. and Cockburn St.;
- Up to 8 residential properties could be displaced on Second St. between Saskatoon and Front;
- Existing residential areas along the new crossing approaches will experience traffic intrusion, increased traffic noise and visual impacts from retaining walls along the east bridge approach between the river and Front Street;
- Possible displacement of built heritage houses for continued residential use along the east and west approaches to a Second/Alma crossing, and disruptive effects on associated cultural landscapes;
- Impact on downtown business from closing existing Bridge St. bridge for one year to replace in +/- 30 years; and
- Splitting of traffic volumes on two bridges and resulting reduction in Bridge Street traffic volumes; and
- The estimated \$28 M cost of this alternative includes added cost for improvements to access roads, and could increase with additional utility relocation/replacement costs.

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for “Local-Downtown” traffic;

- Two river crossings better serve heavy truck goods movement through the community than one bridge;
- Riverfront property on Bridge St. and along Grand Rd. remains available for redevelopment;
- Total estimated cost to build a 2 lane Second/Alma bridge and replace the existing 2 lane Bridge St. bridge is \$28 M. This includes a 10% conservative cost saving for less complex 2 lane Bridge St. bridge replacement, and is similar to the Twin/Replace Existing Bridge Alternative. This cost savings is conservative and could be higher as bridge rehabilitation is a complex process;
- On-street parking removal along Bridge Street will not be required;
- Future widening of Bridge Street and intersections is not required; and
- Provides better access for pedestrians and cyclists with two river crossings in the community.

ALTERNATIVE 1

Twin/Replace Existing Bridge Street Bridge Only (1 bridge / 1 x 3 lanes)

The existing bridge twinning and replacement as detailed by the GENIVAR Feasibility Report, 2012 is expected to be feasible³ in terms of solving river crossing capacity and operational needs specifically at this crossing over the long term (30 years), but not beyond.

Under this alternative, traffic conditions along Bridge Street will operate well for the next 30 years. However, beyond that timeframe, the Bridge Street corridor would deteriorate back to conditions similar to today, with long queues and delays. In order to address traffic operations at that time, further capacity enhancements would be needed, and would likely include parking removal and some intersection improvements at the following locations:

- Bridge Street westbound parking removal, from Doxsee Street to Front Street (along north side of street);
- Bridge Street eastbound parking removal, Canrobert Street to Grand Road (along south side of street);
- Grand Road northbound parking removal (4-5 spaces);
- Front Street southbound parking removal (4-5 spaces);

³ IBI Group scope of services on this project does not include a Peer Review of the 2012 GENIVAR report

- An additional northbound right-turn bay for Bridge Street and Grand Road (widening into existing park space).

The parking removal could be during peak hours. These changes, though required after 2043, may affect the character and operating characteristics of Bridge St. as the community's "main street".

Therefore, the Steering Committee's consideration of this alternative should focus on whether this long-term (30-year) timeframe is sufficient "without jeopardising public and private sector business decision making", as quoted from the project Terms of Reference.

The main pros and cons of this alternative are summarized as follows with details provided in the Appendix evaluation chart:

Main Pros:

- Continues use of existing Bridge St. arterial corridor with no functional changes required to other streets;
- No single family residential properties displaced;
- Maintaining adequate traffic capacity on the Bridge St corridor would discourage shortcutting onto alternative routes;
- Provides opportunities to improve/redevelop Bridge/Front and Bridge/Queen intersections;
- Provides river crossing access for planned residential development in east Campbellford;
- Maintains historic river crossing location and waterscape views;
- Water source protection on Bridge St. bridge may be required irrespective of the existing bridge replacement;
- Disruption to aquatic features is minor;
- Maintains Bridge St. as the primary east-west travel route through Campbellford for downtown business access; and
- Estimated capital cost to twin and replace Bridge St. bridge is similar to Second/Alma and Bridge Replacement.

Main Cons:

- In 30 years additional improvements to the Bridge St. bridge will be required such as intersection widening and removal of on-street parking to maintain traffic operations;
- Limits emergency response to one river crossing impacted by traffic Level-of-Service congestion and disruptions;
- If adequate Bridge St. capacity is not maintained, traffic diversion to alternative routes will occur in the community;
- Displaces below-market rental housing supply abutting the Bridge St. bridge;
- Amount of surplus land available for redevelopment at the existing Bridge St. bridge intersections will be limited by the spatial needs of the bridge twinning;
- No improved access to designated growth areas south of Second St.;
- Displaces existing business space abutting Bridge St. bridge;
- Commercial vehicle congestion expected across the Bridge St. bridge beyond 30 years; and
- Once the intersections are congested, traffic is expected to divert to adjacent residential streets to avoid congested intersections.

APPENDIX - Reasoned Arguments Evaluation Pros and Cons

EVALUATION CRITERIA	FACTORS	TWIN EXISTING BRIDGE on North Side & REPLACE EXISTING BRIDGE (1 Bridge / 1 x 3 Lane Option)	NEW SECOND ST./ALMA ST. BRIDGE & REPLACE EXISTING BRIDGE (2 Bridge / 2 x 2 Lane Option)
1. TRANSPORTATION			
1.1 Traffic Operations	Ability to provide traffic operations and associated Level-of-Service to serve existing and future travel demands for the next 30 years by autos, commercial vehicles, cyclists and pedestrians within the community with minimal negative impacts.	<p><u>Pros</u> – Provides adequate crossing and turning movement capacity at the river for the next 30 years (to 2043). Includes capacity for cyclist and pedestrian traffic in the multi-use lane. Retains CR 30/Bridge St. and CR 8/Centre St. as the main east-west arterial route through Campbellford.</p> <p><u>Cons</u> – 4 lanes on the Bridge St. bridge will not meet very long term transportation needs without other Bridge St. capacity enhancements. Beyond 2043 (30 years), additional improvements will be needed such as extended parking restrictions and road widening to ensure adequate Bridge St. bridge and road operations.</p>	<p><u>Pros</u> - The 2-bridge capacity will accommodate very long term river crossing needs for the next 40-50 years as required by this project. Diverting some river crossing traffic relieves Bridge St., and the new crossing would provide more flexible, redundant routing for drivers, cyclists and pedestrians. It provides a new direct road link between CR 8/Centre St., CR 30/Grand Rd. and CR 30 Bridge St. The close proximity of the 2 bridges provides opportunity to divert approximately 50% of river crossing traffic to the new crossing.⁴ Directional signage can be used on the Bridge St. approach route for “Local Downtown” traffic, and on the Second/Alma crossing signed as “Campbellford via Second Street” for through traffic.</p> <p><u>Cons</u> – Traffic volumes would increase on approach roads to the new crossing. West of Grand Rd., some river crossing traffic would either follow the Alma St. and Simpson St. collectors where upgrades would be required, or a new arterial road link extending to CR 30 along the abandoned rail corridor. East of the river, the Second St. collector would require upgrades (i.e. geometry, right-of-way, intersection traffic control) to accommodate</p>

⁴ Draft Environmental Study Report, AECOM, 2009

EVALUATION CRITERIA	FACTORS	TWIN EXISTING BRIDGE on North Side & REPLACE EXISTING BRIDGE (1 Bridge / 1 x 3 Lane Option)	NEW SECOND ST./ALMA ST. BRIDGE & REPLACE EXISTING BRIDGE (2 Bridge / 2 x 2 Lane Option)
			traffic growth to CR 8/Centre St.
1.2 Provision of Emergency Access (as per Fire Dept. input)	Ability to provide required emergency response and access to the Campbellford Fire Hall by Trent Hills Fire Department staff.	<p><u>Pros</u> – Provides emergency response across the river as long as a good Level-of-Service is provided along Bridge St. and its intersections. This would include improved EMS warning signals on the bridge for better visibility</p> <p><u>Cons</u> – Emergency response and access to the Fire Hall remain limited to one river crossing with no crossing redundancy. Any incident blocking two or more lanes of traffic would disrupt access to and from the Fire Hall and associated emergency response timing.</p>	<p><u>Pros</u> – Provides improved river crossing capacity redundancy and response route choice within Campbellford in response to traffic conditions and response location.</p> <p><u>Cons</u> – None noted from an emergency response or fire hall access perspective.</p>
1.3 Change to Existing Road Function	The Trent Hills Official Plan classifies all public roads in Campbellford based on road function. Reclassification may be required if the road function changes as a result of changes to the arterial road network. A change in jurisdiction for example from a Municipal road to a County road may also be required.	<p><u>Pros</u> – Continues to utilize the existing Bridge St. arterial corridor with no functional changes expected to other streets in Campbellford.</p> <p><u>Cons</u> – Maintaining the existing Bridge St. corridor through Campbellford with a single river crossing places much of the area’s traffic growth and associated impacts on that arterial road.</p>	<p><u>Pros</u> – Maintains the function of the designated Second St. collector road east of the river and the designated Alma St. and Simpson St. collectors to the west. Reclassification to arterial roads would not be required since the route would only connect County Roads and the river crossing.</p> <p><u>Cons</u> - West of the river, Alma St. and Simpson St. would require traffic control, roadway and structural improvements to function as a link to a new river crossing.</p> <p>A new road extension from CR 30 to Alma St. along the abandoned rail corridor is an alternative connection opportunity, but currently contains the Trans Canada Trail, and is designated as part of the Urban Greenland System in the Draft Official Plan Schedule 6: Land Use. Similar road improvements would be required east of the river on the Second St. collector extending to CR 8/Centre St.</p>

EVALUATION CRITERIA	FACTORS	TWIN EXISTING BRIDGE on North Side & REPLACE EXISTING BRIDGE (1 Bridge / 1 x 3 Lane Option)	NEW SECOND ST./ALMA ST. BRIDGE & REPLACE EXISTING BRIDGE (2 Bridge / 2 x 2 Lane Option)
2. SOCIAL ENVIRONMENT			
2.1 Residential Property Displacement (not including heritage – see Criteria 3.1)	Removal of residential units as a direct result of the river crossing and associated arterial road network changes (does not include partial property acquisition for example for potential street widening, or visual impacts on residential properties).	<p><u>Pros</u> – No single family residential property displaced.</p> <p><u>Cons</u> – None from a residential property displacement perspective (see impact on Below Market Rental Housing next).</p>	<p><u>Pros</u> – No advantages compared to Twinned/Replaced Bridge alternative, except that houses acquired on Second St. could be available for resale and conversion to alternative uses such as retailing or offices.</p> <p><u>Cons</u> – West of the river, 120 Grand Rd. owned by the Municipality would be displaced by improvements to the Grand Rd./ Alma St./bridge intersection. No other property along Alma St. or Simpson Street would be displaced, although some minor acquisition of strips of property frontage for potential road widening may be required depending on the final road design.</p> <p>East of the river, the 2009 AECOM Draft Environmental Study Report recommends that 5 of the 8 homes on Second St. between Saskatoon Ave. and Front St. be acquired, although they could be resold and converted to alternative uses as noted under pros. This is in response the impacts of retaining walls and associated access closures to houses along this section of Second St.</p>
2.2 Displacement of Below Market Rental Housing Units	Sub-criterion to 2.1 specifically for removal of below market rental units (not to be double counted with 2.1).	<p><u>Pros</u> – None since the GENIVAR twinning/replacement design requires removal of all existing rental units on the north and south sides of the Bridge St. bridge.</p> <p><u>Cons</u> – According to a report entitled <i>Rental Housing Impact of Proposed Bridge Expansion in Campbellford</i> prepared by Tim Welch Consulting Inc. dated August 2013, up to 46</p>	<p><u>Pros</u> – No below market rental housing units are impacted by this alternative. Impacts on the existing apartment units near the east side retaining walls (116 Saskatoon Ave./Garshell Apts, 111 Front St. S, 112 Front St. S) would be limited to some visual proximity impacts from the walls.</p> <p><u>Cons</u> – None as long as all involved rental</p>

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		<p>rental units in seven properties next to the existing Bridge St. could be lost through bridge widening. Also, the County's report entitled "10 Year Housing and Homelessness Study" conducted by Tim Welch Consulting Inc. does not include the possible loss of these 46 rental units at the bridge. Instead, this removal would add to the number of units required for social housing in Campbellford. Therefore, any removal of the rental housing units at the Bridge St. bridge would have a significant social impact on the community, and would need to be addressed through future affordable and social housing plans.</p>	<p>housing units are maintained to acceptable standards.</p>
<p>2.3 Residential Traffic Intrusion</p>	<p>Potential for traffic diversion (see Criterion 1.1) onto minor streets resulting from the river crossing and related arterial road network changes.</p>	<p><u>Pros</u> – Maintaining adequate traffic operations on the Bridge St. corridor will help prevent traffic intrusion on other alternative routes. Also, alternative routes are limited to access the existing single river crossing.</p> <p><u>Cons</u> – Although there is only one river crossing location, there are alternative routes for traffic through the community to access that bridge or completely avoid (bypass) the community, such as on 5th Line W and Bannon Rd. Inadequate river crossing capacity within Campbellford could encourage increased use of these alternative bypass routes.</p>	<p><u>Pros</u> – none</p> <p><u>Cons</u> – Traffic diversion to a new Second/Alma crossing would result in a noticeable increase in traffic volume in front of existing residential properties along Second St., Alma St. and Simpson St. An alternative route linking the west side of a Second/Alma crossing to CR 30 using the abandoned rail corridor is a sub-option owing to natural environment impacts on the Trout Creek Flood Plain area and associated urban greenlands. East of the river, no alternative connections south of Second St. were considered feasible owing to the existing land use pattern including multi-unit residential, greenlands and parkland, plus the river and canal alignments in this area.</p>

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2.4 Potential for Urban Design Improvements	Potential to enhance/create new public spaces and/or private development opportunities.	<p><u>Pros</u> – Provides opportunities for improvement to the Bridge St./Front St. and Bridge St./Queen St. intersections. <u>Cons</u> –Potential property redevelopment opportunities on surplus land in the vicinity of the existing Bridge St. bridge intersections will be limited by amount of property required for bridge twinning, especially on the north side.</p>	<p><u>Pros</u> – A Saskatoon Ave. flyover for a new Second/ Alma crossing could provide residential redevelopment opportunities on the impacted properties on Second St, including potential multi-unit residential projects. On the west side of the river, the new bridge could intersect with CR 30/Grand Rd. at a major community gateway entrance at that location into the Campbellford community. <u>Cons</u> – none.</p>
2.5 Access to New Development	Potential to serve future land use as designated by the Official Plan.	<p><u>Pros</u> – Improvements to the Bridge St. corridor would serve river crossing needs of future residential development in east Campbellford between First St. N and Burnbrae Rd. E as per the Official Plan. <u>Cons</u> – No access provided to the designated Residential Area south of Second St.</p>	<p><u>Pros</u> – Provides road access and river crossing capability for the designated Residential Area south of Second St., the Burnbrae Rd. business area and designated Residential Areas located east of Centre St/CR 8 and west of Simpson St. <u>Cons</u> – None.</p>
2.6 Change in Traffic Noise	Change in traffic noise levels on noise sensitive receivers compared to existing ambient noise levels.	<p><u>Pros</u> – Expanded Environmental Noise Assessment conducted in 2013 concludes that forecasted traffic volumes over a twinned Bridge St. bridge would not warrant any noise mitigation for nearby properties including the apartment buildings owing to the level of background downtown noise. <u>Cons</u> – None. No noise-sensitive receivers in the Bridge St. corridor.</p>	<p><u>Pros</u> – No noise impacts on properties along Second St. displaced by a Second/Alma crossing (see Criterion 2.1) since there would be no longer any residences. <u>Cons</u> - Existing noise-sensitive area remains in proximity to a Second/Alma crossing along Saskatoon Ave., Frank St. and Front St. The Environmental Noise Assessment conducted in 2009 in this area concludes that although warrants for noise mitigation were identified, such mitigation is not feasible in the area. The same conclusion applies to the noise – sensitive area on the west side of the river north of Alma St. and west of Grand Rd.</p>

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3. CULTURAL ENVIRONMENT			
3.1 Direct Displacement of Built Heritage Resources (BHR)	Removal of designated BHR buildings.	<p><u>Pros</u> – The 2012 GENIVAR design requires the removal of up to 7 buildings on the north and south sides of the existing Bridge St. bridge (4-6, 8-10, 12 and 16 Bridge St. W, 2 and 6 Front St. N and 29 Bridge St. E.) However, none of these buildings are designated or listed as heritage properties by the Municipality of Trent Hills.</p> <p><u>Cons</u> – According to the November 2013 Cultural Heritage Assessment, twinning the Campbellford bridge on its north side (to provide 4 lanes) as proposed by GENIVAR in 2012 would significantly impact adjacent heritage resources. Four building in the River Block on the NE corner of the Bridge St/Queen St intersection would be removed (#16, #12, #8-10 and #4-6 Bridge St. W). At the Bridge St/Front St intersection, #2 Front St. N would also have to be removed, as well as the abutting building to the north (#6 Front St. N) if the structures cannot be separated.</p>	<p><u>Pros</u> – A combined Bridge St. bridge replacement and Second/Alma bridge would not require any heritage property displacement in the downtown, including the 7 properties that would be required to widen the existing bridge. Also, while the Cultural Heritage Assessment Report by Untermann McPhail Associates (April 2009) recognizes the built heritage value of some houses along Second St. impacted by the Second/Alma river crossing, some would qualify for financial compensation rather than acquisition and demolition. This includes #4, #17 (designated under OHA), #93 and #94 Second St., as well as #116 and #120 Grand Rd. on the west side of the river, the latter now owned by the Municipality. The 2009 AECOM Environmental Study Report identifies these and 2 other properties (#109 Saskatoon Ave. and #9 Second St.) for acquisition to accommodate a connection to a Second/Alma bridge.</p> <p><u>Cons</u> – 10 properties abutting Second St. are identified by the Municipality as heritage properties. Four of these heritage properties between Saskatoon Ave. and Front St. S would be directly impacted by the Second St. ramp to a new Second/Alma bridge.</p>
3.2 Indirect Disruption of Built Heritage Resources (BHR)	Disruption of a built heritage setting while maintain the building.	<p><u>Pros</u> – The historic river crossing location along Bridge St. would remain in place. Other heritage properties would, possibly along with green space and increased access to the river,</p>	<p><u>Pros</u> – A combined Bridge St replacement and Second/Alma bridge would not add to heritage property disruption specifically in the downtown.</p>

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		<p>become the anchors at the approaches to the new bridge.</p> <p><u>Cons</u> - The existing bridge would, over time, lose its current superstructure and its existing mass would be doubled. As a result, the cultural heritage landscape of the Campbellford river crossing would be changed with the bridge twinning. The eastern and western commercial cores would also lose heritage fabric, but their relationship with the river crossing would remain unimpaired.</p>	<p><u>Cons</u> - The 2009 Cultural Heritage Assessment concluded that a Second/Alma river crossing would have the potential for “<i>high disruption effects</i>” to cultural heritage resources. This includes along the impacted section of Second St., as well as the Trent River waterscape and the former Trent River railway bridge piers.</p>
<p>3.3 Disruption of Cultural Heritage Landscapes (CHL)</p>	<p>Disruption to the visual quality and appearance of streetscapes and waterscapes (not including built heritage – buildings).</p>	<p><u>Pros</u> - Twinning and replacing the Bridge St. bridge at its current location will have no impact on current landscape and waterscape views. If the new bridge mirrors the slender arching design of the existing one, the viewsheds from Old Mill Park and the Cenotaph will not be significantly changed.</p> <p><u>Cons</u> - The portions of viewsheds that would be impacted are those from the downtown commercial properties that now anchor the north and south sides of the river crossing, and would need to be removed to twin the existing bridge. However, these structures are in disrepair and impose a negative appearance to the downtown. With the widening of the bridge, however, other heritage structures such as the former Harris Feed and Flour Mill, a designated heritage building, and the former Campbellford/Queens Hotel would replace them.</p>	<p><u>Pros</u> – Over time, the Bridge Street crossing has remained the constant physical link between the both sides of the community. Maintaining this physical link on Bridge St. in either crossing alternative retains the related river crossing heritage landscape.</p> <p><u>Cons</u> - The 2009 Cultural Heritage Assessment has most of the cultural impacts of a Second/Alma crossing as being impacts to Cultural Heritage Landscapes (CHL) compared to current conditions. This includes streetscapes along Alma St., Saskatoon Ave., Frank St. and Second St., plus the Trent River waterscape itself which is part of the Trent-Severn Waterway National Historical Site.</p> <p>Adding a second Trent River crossing 400 metres from the existing heritage crossing will impact the watershed views in downtown Campbellford. Whether this impact is positive or negative will vary with the viewer.</p>

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4. NATURAL ENVIRONMENT			
4.1 Source Water Protection	Potential threat to potable water source and mediation requirements.	<p><u>Pros</u> – Current source water protection legislation and stormwater management guidelines would require collection and management of bridge runoff as part of twinning and replacing the existing Bridge St. bridge. Mitigating the source water impact potential created by direct bridge drainage into the Trent River can be accomplished in two basic ways:</p> <ol style="list-style-type: none"> 1. Extend the existing water inlet approximately 160m north of its current location to be upstream of the bridge; or 2. Install a drainage collection system on the bridge to direct runoff into the stormwater sewer system with flow control into the river. <p>Either approach can also be accomplished independent of, or as part of a Bridge St. bridge twinning and replacement. Since mitigating the existing bridge water source impact potential may be required irrespective of bridge works, it therefore should not be included as part of a bridge twinning/replacement cost.</p> <p><u>Cons</u> – None</p>	<p><u>Pros</u> – Provincial legislation to protect source water will require action by the Municipality. Replacement of the existing Bridge St. bridge is common to each alternative, so the advantages of such protection should apply equally to each alternative.</p> <p><u>Cons</u> – None</p>
4.2 Displacement / Disruption of Natural Heritage Features	Impacts on aquatic and terrestrial species and habitat.	<p><u>Pros</u> – Twinning and reconstructing the existing Bridge St. bridge at its current location on a combination of new and existing piers is expected to have minor disruptions to aquatic features. This is mainly because the existing fish habitat in the area is fairly uniform with limited in-stream structure and diversity, and</p>	<p><u>Pros</u> – Same as Twin/Replace Existing Bridge alternative.</p> <p><u>Cons</u> – Same as Twin/Replace Existing Bridge alternative. An in-water construction timing restriction may also be required for a Second/Alma crossing.</p>

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		<p>with a probable “moderate” sensitivity overall. The Trent River stream bed is primarily bedrock and both shores are lined with a concrete shore wall. Both crossing areas are highly urbanized and disturbed, with little terrestrial habitat potential.</p> <p><u>Cons</u> - A May 15 to June 30 in-water construction timing restriction may be required for the existing bridge twinning/replacement. A HADD/no HADD screening will be carried out to confirm this and if a <i>Fisheries Act</i> authorization will be required.</p>	
5. ECONOMIC ENVIRONMENT			
5.1 Displacement of Existing Business Space	Removal of existing business operation, with associated reduction in assessment (excluding heritage resources).	<p><u>Pros</u> – None.</p> <p><u>Cons</u> – The existing bridge twinning would displace existing business space on the ground floors of buildings abutting the north side.</p>	<p><u>Pros</u> – Additional business development opportunities could be available at the Grand Rd./Alma St. intersection on 120 Grand Rd. property acquired by the Municipality.</p> <p>Replacement of the existing bridge with a new 2-lane bridge would not displace existing business space on the ground floor of buildings abutting the north side.</p> <p><u>Cons</u> – None</p>
5.2 Impact on Downtown Business	Impact on downtown business exposure and accessibility that can reduce business viability and new investment.	<p><u>Pros</u> - Maintaining Bridge St.as the primary east-west travel route in Campbellford through the downtown provides continued visibility and accessibility for downtown business. This in turn supports the retention and growth of viable businesses in the downtown.</p> <p><u>Cons</u> – The visibility and accessibility to downtown business can be negatively impacted by traffic congestion along Bridge St. and its</p>	<p><u>Pros</u> – The traffic diversion rate of approximately 50% from the Bridge St. bridge to a Second/Alma crossing established in the 2009 AECOM study is carried forward. This would reduce traffic volumes on Bridge St. through the downtown, but this is expected to largely involve through trips including heavy trucks. This in turn could improve the downtown environment in terms of less traffic and a more pedestrian-friendly business</p>

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		<p>intersections. If the concentration of all future traffic growth along Bridge St. results in reduced level of service operations, this can impact the visibility and especially accessibility required by downtown businesses.</p>	<p>character.</p> <p>Retention of local business traffic in the downtown could also be encouraged with route signage for Bridge St. as the “Local-Downtown” route and Second/Alma as the “Through” route. It is recognized that 2 of the 5 basic requirements of successful retailing are visibility and accessibility (the others being cost competitiveness, customer service and comfortable environment). Both can be preserved in this two bridge alternative by avoiding traffic congestion on Bridge St. in the downtown, especially if this congestion results in traffic diverting to alternative routes.</p> <p><u>Cons</u> – There could be negative impacts on downtown business from the two bridge alternative if the traffic level of service along Bridge St. deteriorates (which is not forecast to occur over the very long term with two bridges).</p>
<p>5.3. Commercial Goods Movement</p>	<p>Ability to serve the movement of trucks within and through the community with minimal associated impacts.</p>	<p><u>Pros</u> – Twinning the Bridge St. bridge would provide adequate turning queue lengths for commercial vehicles turning off and on the bridge to meet forecasted 20 year demand.</p> <p><u>Cons</u> – Traffic volumes and intersection Level-of-Service on Bridge St. is forecast to decline beyond 20 years to again create commercial vehicle congestion crossing the river.</p>	<p><u>Pros</u> – Provision of 2 east-west cross-town routes across the Trent River provides an opportunity to divert through truck traffic, with no business in the downtown, away from the area. Furthermore, a Second/Alma route could be designated a Truck Route to manage truck movements through the community.</p> <p><u>Cons</u> – Effective management of truck and no-truck routes would require active and consistent OPP enforcement.</p>
<p>5.4 New Business Development</p>	<p>Ability to serve the transportation needs of</p>	<p><u>Pros</u> - Remnant property on the north side of a twinned Bridge St bridge could remain available</p>	<p><u>Pros</u> – Property on the north side of a replaced 2-lane Bridge St. bridge could be available for</p>

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Opportunity in the Community	new businesses in designated areas of the community.	<p>for new business development at each end. Maintaining Bridge St. as the main east-west route through the community would provide the business visibility and accessibility needed to attract new business in the core.</p> <p><u>Cons</u> – The Bridge St. bridge corridor would provide limited arterial access to the community’s Mixed Use Area designated in the Official Plan, with most of this area accessed by Collector and Local streets.</p>	<p>riverfront business redevelopment. Furthermore, a Second/Alma crossing would provide access to the designated Mixed Use Area on the south side of Second St., the Burnbrae Rd. business area to the east and the new commercial node at the commercial node at the corner of Alma St and Grand Rd. This enhanced access and exposure can stimulate new business development in these areas, possibly extending to more commercial redevelopment activity along Grand Rd.</p> <p><u>Cons</u> – Downtown visibility and accessibility along Bridge St. will need to not only be maintained, but enhanced through the use of effective route signage and downtown marketing. This will be needed to attract through trips to the downtown that could otherwise bypass businesses in this area. The resulting roadway travel patterns in Campbellford would include an alternative Second/Alma route across the river and through the community mainly for trips that would have a low to no chance of doing business in the core.</p>
6. ENGINEERING & CONSTRUCTION COST			
6.1 Bridge Construction Cost (Structural Only)	Estimated cost of river crossing structure only (excluding road network changes and property acquisition).	<p>According to the 2012 Trent River Crossing Feasibility Report prepared by GENIVAR, the Class C preliminary cost estimate to construct a preferred Modified 3 Lane twinning and replacement of the existing Bridge St. is:</p> <p>Stage 1 Twinning: \$12.0 Million Stage 2 Replacement: <u>\$12.7 Million</u></p>	<p>According to the 2009 Draft Environmental Study Report prepared by AECOM, the estimated cost of a new 2 lane bridge structure extending from the Grand Rd./Alma St. intersection to Second St. near Frank St. with a left turn lane at the west abutment was: \$11.6 Million (AECOM, 2009 \$)</p>

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		<p>Total Structural Cost: \$24.7 Million</p> <p>These cost estimates were prepared by GENIVAR using a full market description of the structural work, construction/design experience and market conditions in 2012. It does not include costs of utility relocation or replacement, any associated business impact costs or any associated property redevelopment.</p> <p>IBI Group concluded that the 2012 unit costs used by GENIVAR are appropriate to also use as a 2013 estimate.</p>	<p>This estimate was prepared using 2009 benchmark construction costs associated with the bridge and retaining walls including sidewalks and railings. It included the structural works, approach works, retaining walls and Design/Contract Administration. It did not include the cost of property acquisition.</p> <p>However, owing to the preliminary nature of these cost estimates, it is recommended that the higher estimate of \$11.6 Million be used for evaluation and comparison purposes, and increased by 10% to reflect 2013 costs to: \$12.8 Million (2013)</p>
6.2 Associated Road Capital Cost	Estimated cost of physical and traffic operation changes to existing road network to serve river crossing.	<p>The 2012 GENIVAR feasibility report estimated that the cost to modify roadways, traffic signals and building removal for the Stage 1 existing Bridge St. bridge twinning would be: \$1.8 Million</p> <p>This does not include any utility relocation or improvements to property associated with building removal adjacent to the bridge. For example, any fibre optics cable relocation at the bridge could cost up to \$1 M, to be determined by the utility company. In that case, the road costs for this alternative may be closer to that for Alternative 2. The estimated road costs would also be associated only with the Stage 1 works, with no further roadway costs required for the Stage 2 replacement of the existing bridge.</p>	<p>The 2009 AECOM Draft Environment Study Report estimated that for a new Second/Alma bridge crossing, associated benchmark road network changes would cost \$1.9 M in 2009 \$. This included roadworks, retaining walls and traffic signals, plus a 7.5% contingency, Design/Contract Administration and utility relocation.</p> <p>IBI Group recommends that to reflect 2013 \$ and the relatively extensive retaining wall work required over Saskatoon Ave. and other associated road works on Second St., this cost be double to: \$3.8 Million</p>

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6.3 Total Staged Cost	Total bridge and road capital investment over 40-50 planning horizon excluding property acquisition and utility relocation	<u>Stage 1 Year 0-10:</u> Twin Existing Bridge (2 lanes): \$12.0 M Roadway Costs: <u>\$ 1.8 M</u> Total: \$13.8 M		<u>Stage 1 Year 0-10:</u> Second/Alma Crossing Bridge (2 lanes): \$12.8 M Roadway Costs: <u>\$ 3.8 M</u> Total: \$16.6 M	
		Year 10-20:	\$0 M	Year 10-20:	\$0 M
		<u>Stage 2 Year 20+:</u> Replace Existing Bridge (total 4 lanes)	\$12.7 M	<u>Stage 2 Year 20+:</u> Replace Existing Bridge (2 lanes) GENIVAR \$12.7 estimate with 10% reduction for simplified one-stage replacement construction.	\$11.4 M
		TOTAL COST	\$26.5 M	TOTAL COST	\$28.0 M
		ANNUAL 40-50 YEAR INVESTMENT	\$0.55 - \$0.66 M	ANNUAL 40-50 YEAR INVESTMENT	\$0.64 - \$0.69 M
6.4 Amount of Property Acquisition / Resale Potential	Amount of property to be acquired (not including cost). It is strongly advised that estimated costs of property acquisition or impact compensation not be included in an Environmental Assessment evaluation of alternatives because; 1) they will be determined through negotiations between a project proponent and impacted property owners, and 2)	The Modified 3-Lane Bridge concept developed by GENIVAR for a twinned/replaced bridge requires acquisition and removal of #4-8 Front St. N on the southwest corner of the Bridge St./Front St. intersection, two properties on the northwest corner if they cannot be separated and 5 properties on the north side of the bridge terminals. The bridge twinning would limit the amount of surplus property that may be available for resale and reuse.		Up to 8 of the existing residential properties located on Second St. between Saskatoon Ave. and Front St. may need to be acquired as a result of property impacts created by a Second St. ramp connection to a new bridge. They would offer the potential for resale for alternative uses. West of the river, strips of property front on Alma St. and Simpson St. may be required to provide sufficient collector road width on these connecting streets. Location and width of such acquisition would be confirmed at the detailed design stage.	

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	providing such estimates can prejudice the negotiation process.		