City Clerk's Department • Bureau du Greffier

September 20, 2018

Re: Request for access to information under Part 2 of *The Freedom of Information and Protection of Privacy Act*: Application Number 18 06 539

On July 30, 2018, I wrote to you to let you know that we had received authorization from the Manitoba Ombudsman's office for a further extension in order to complete the required third party consultation for your request for the following:

> *Please provide a copy of the proponent's proposal (excluding 'Section B- Fees') that has been selected by the City of Winnipeg in response to RFP No. 329-2017 and used as the basis for a contract to provide professional consulting services that are now underway for the preliminary design of Route 90 widening between Taylor Avenue and Ness Avenue. Please provide records as they become available.*

That consultation is complete and your request for access is granted in part, with severing under the following exceptions to disclosure:

Disclosure harmful to a third party's privacy

17(1) The head of a public body shall refuse to disclose personal information to an applicant if the disclosure would be an unreasonable invasion of a third party's privacy.

Disclosures deemed to be an unreasonable invasion of privacy

17(2) A disclosure of personal information about a third party is deemed to be an unreasonable invasion of the third party's privacy if

(e) the personal information relates to the third party's employment, occupational or educational history

Determining unreasonable invasion of privacy

17(3) In determining under subsection (1) whether a disclosure of personal information not described in subsection (2) would unreasonably invade a third party's privacy, the head of a public body shall consider all the relevant circumstances including, but not limited to, whether

(i) the disclosure would be inconsistent with the purpose for which the personal information was obtained.

Disclosure harmful to a third party's business interests

18(1) The head of a public body shall refuse to disclose to an applicant information that would reveal

(b) commercial, financial, labour relations, scientific or technical information supplied to the public body by a third party, explicitly or implicitly, on a confidential basis and treated consistently as confidential information by the third party; or

(c) commercial, financial, labour relations, scientific or technical information the disclosure of which could reasonably be expected to

(i) harm the competitive position of a third party

Disclosure harmful to security of property

26 The head of a public body may refuse to disclose information to an applicant if disclosure could reasonably be expected to harm or threaten the security of any property or system, including a building, a vehicle, an electronic information system, or a communications system.

After reviewing the record and considering the third party's representations, we determined that these sections applied to the information severed in the enclosed pages. Section 17(1) is a mandatory, general exception intended to protect the privacy of third parties. In this record, it was applied in combination with section 17(2)(e) to sever the employment, occupational and educational history of individuals. The responsive record includes Table D2 Team Member Experience (7 pages) and Appendix A Curricula Vitae (271 pages); however, since section 17(2)(e) applies to the entirety of both, copies of these pages are not enclosed. Section 17(1) was also applied in combination with section 17(3)(i) to sever an individual's signature. Section 18(1)(b), and 18(1)(c)(i) are mandatory exceptions intended to protect a third party's business interests where the information was provided by the third party on the basis of confidentiality and where the information, if disclosed, would harm the third party's competitive position. In addition to these sections, we have chosen to sever city mobile phone numbers under section 26, a discretionary exception intended to protect the security of the public body's communication system.

Pages 10-19 of the responsive records contain sections that are small and in a light coloured font. I was able to find a clearer version of those pages and have enclosed copies of them for your use.

Section 59(1) of the *Act* provides that you may make a complaint about this decision to the Manitoba Ombudsman. You have 60 days from the receipt of this letter to make a complaint on the prescribed form to the Manitoba Ombudsman (mail: 750-500 Portage Avenue, Winnipeg, MB, R3C 3X1; telephone: 204-982-9130 or, in Manitoba, toll-free 1-800-665-0531).

If you have any questions, please call me at (204) 986-3141.

Sincerely,

Denise Jones
Access and Privacy Coordinator

Winnipeg

PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR

PRELIMINARY DESIGN OF ROUTE 90 WIDENING BETWEEN TAYLOR AVENUE AND NESS AVENUE

AUGUST 8, 2017 | 12:00 NOON | RFP NO. 329-2017

PREPARED FOR: THE CITY OF WINNIPEG

ORIGINAL

wsp

August 8, 2017

The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

Attention: Vaibhav Banthia, M.Sc., P.Eng., CIM, Bridge Projects Engineer

Dear Sir:

RE: Request for Proposal No. 329-2017 | Proposal for Professional Consulting Services for Preliminary Design of Route 90 Widening between Taylor Avenue and Ness Avenue

Route 90 is a primary north-south transportation corridor in west Winnipeg; currently extending from the North Perimeter Highway (PTH 101) at PTH 7, south to the South Perimeter Highway (PTH 100). It is an important economic transportation route, a major truck route, and is the northern terminus of the Mid-Continent Trade Corridor. The facility is a major arterial serving a high volume of local, regional, and international traffic.

WSP's project team members have provided planning, public engagement, functional, preliminary and detailed design services, as well as project management services for numerous similar projects for the City of Winnipeg – including the earlier Preliminary Design Study for this section of Route 90. We have also undertaken work on Route 90 to the south of the study area, including a number of development projects along Route 90. We believe that this experience will be invaluable in assisting the City of Winnipeg with the current assignment.

We have the people, the knowledge, and the process to deliver the Route 90 Widening Preliminary Design project for the City of Winnipeg.

Thank you for your time and consideration of our submission. We look forward to working with the City on this important project, and would be pleased to meet with you at your convenience to discuss any aspect of our submission. If you have any questions regarding the information provided, please do not hesitate to contact the undersigned or our proposed Project Manager, Grantley King, at 204.272.2013, or at Grantley.King@wsp.com.

Yours truly,
WSP Canada Group Limited

17(1)+17(3)(i)

Richard Tebinka, P.Eng.
Manager, Manitoba Transportation

WSP ref.: P17-M1004-74

111-93 Lombard Avenue
Winnipeg, MB, Canada R3B 3B1

Tel. +1 204 943-3178
Tel. +1 204 943 4948
wsp.com

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COPYRIGHT NOTICE

SECTION A

FORM A: PROPOSAL

SECTION B

FEES

FORM A: PROPOSAL
(See B7)

1. Contract Title

REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR PRELIMINARY DESIGN OF ROUTE 90 WIDENING BETWEEN TAYLOR AVENUE AND NESS AVENUE

2. Proponent

WSP Canada Group Limited
Name of Proponent (Legal Name)

Usual Business Name of Proponent as it appears on Invoice (if different from above)

111 - 93 Lombard Avenue
Street

Winnipeg	Manitoba	R3B 3B1
City	Province	Postal Code

Grantley.King@wsp.com
Email Address of Proponent

(204) 943-4948
Facsimile Number

(Mailing address if different)

Street or P.O. Box

City	Province	Postal Code

GST Registration Number (if applicable)

	Province	Postal Code

The Proponent is:

(Choose one)

- [ ] a sole proprietor
- [ ] a partnership
- [x] a corporation

carrying on business under the above name.

3. Contact Person

The Proponent hereby authorizes the following contact person to represent the Proponent for purposes of the Proposal.

Grantley King, P.Eng., PMP	Senior Project Manager, Transportation
Contact Person	Title
(204) 272-2013	(204) 943-4948
Telephone Number	Facsimile Number

4. Definitions

All capitalized terms used in the Contract shall have the meanings ascribed to them in the General Conditions.

5. **Offer**

The Proponent hereby offers to perform the Services in accordance with the Contract for the Fees, in Canadian funds, set out in response to B8 Fees.

6. **Execution of Contract**

The Proponent agrees to execute and return the Contract no later than seven (7) Calendar Days after receipt of the Contract, in the manner specified in C4.1.

7. **Commencement of the Work**

The Proponent agrees that no Services shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Services.

8. **Contract**

The Proponent agrees that the Request for Proposal in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Proposal.

9. **Addenda**

The Proponent certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:

No. 1 Dated July 11, 2017

10. **Time**

This offer shall be open for acceptance, binding and irrevocable for a period of ninety (90) Calendar Days following the Submission Deadline.

11. **Signatures**

The Proponent or the Proponent's authorized official or officials have signed this

8 day of August, 20 17.

Signature of Proponent or
Proponent's Authorized Official or Officials

17(1)+17(3)(i)

Richard Tebinka, P.Eng., Manager, Manitoba Transportation

(Print here name and official capacity of individual whose signature appears above)

(Print here name and official capacity of individual whose signature appears above)

SECTION C

EXPERIENCE OF PROPONENT & SUBCONSULTANTS

SECTION D

EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT

SECTION C – EXPERIENCE OF PROPONENT & SUBCONSULTANTS

WSP will be the lead consultant responsible for providing all functions relating to project management, transportation planning and analysis; land use planning; roadway, land drainage, utility and structural design; the road safety audit; construction staging and scheduling; cost estimating; the environmental assessment; and the project delivery method assessment. WSP has partnered with specialist subconsultant firms to enhance our capabilities and address specific project needs. Our partners for this project are:

- **KGS Group Consulting Engineers (KGS)** will be responsible for the land drainage, geotechnical, and hydraulics work.
- **HTFC Planning & Design (HTFC)** 18(1)(b), 18(1)(c)(i)
- **Faithful+Gould (F+G)** will be responsible for the value engineering facilitation.
- **Barnes & Duncan (B&D)** 18(1)(b), 18(1)(c)(i)
- **Industrial Technology Centre (ITC)** will be responsible for sound attenuation analysis.
- **First Person Strategies (FPS)** will be responsible for public engagement.
- **Watt Consulting Group (Watt)** will be responsible for the bicycle facility safety audit.
- **Probe-Research (PR)** will be responsible for the statistically significant survey.

Our Project Team members have provided planning, design, public engagement, and project management services for the previous Route 90 study as well as numerous similar projects, including on the City of Winnipeg's (City) Marion Street Functional Design Study, and Chief Peguis Trail Extension West projects. A description of our team's firms and relevant projects is provided in **Tables C1** through **C9** (tabloid inserts) that follow. Each table includes:

- Firm profile, including years in business (year established), average volumes of work, total staff, and office address
- Three projects of similar complexity, scope and value for each firm identified above

SECTION D – EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT

The key personnel assigned to the project have been identified in **Figure D1 | Organization Chart** (tabloid insert); these named key team members will not be substituted without written permission from the City's Project Manager. Curricula vitae for each key personnel are attached in Appendix A. **Table D2 | Staff Experience** (tabloid insert) provides the following information for each key team member:

- Name and biography brief
- Current job title
- Role Title and description
- Education and certifications
- Years of experience in current position
- Years of experience in design
- Years of experience with existing employer
- Two relevant projects where they performed a comparable role
- One reference per project

TABLE C1 | WSP – PROPONENT

WSP provides clients with comprehensive engineering, planning, geomatics, and program / project management services across a broad range of market sectors. With strong client relationships and solid industry knowledge, we help our clients capitalize on opportunities, understand and address challenges, identify and manage risks, and navigate relevant regulatory systems.

Our Winnipeg offices have over **170 employees** consisting of project managers, engineers, planners, technicians, and support staff who provide planning, design, and contract administration services for public and private sector clients. Our local Transportation group is made up of 50 engineers and technicians. WSP has been providing consulting engineering services to the City for **over 50 years**. 18(1)(b), 18(1)(c)(i)

WSP is one of the world's leading professional services firms providing integrated solutions across many disciplines. WSP has become the preeminent Canadian engineering firm with offices in Canada from coast to coast. Our company has a combined staff of 36,500 (more than 7,500 across Canada) in 40 countries. WSP is COR-certified (Certificate #25411-08), is in good standing with the Workers Compensation Board of Manitoba, and registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba. Listed below are WSP's project examples which demonstrate our recent experience on similar projects.

The WSP team has extensive experience providing services for large transportation projects of similar size and complexity to the Route 90 Widening. WSP (formally known as MMM Group Limited) completed the 2012 Route 90 Preliminary Design Study, with many of the same subconsultants as our current proposed team. We are leaders and innovators in the disciplines of: Transportation Planning; Roadway Geometrics; Structural Design; Road Safety; Value Engineering; Environmental & Regulatory; and Project Delivery. Our Project Delivery experience has included conventional Design – Bid – Build to Design-Build and Public-Private-Partnerships (P3). WSP has extensive experience with P3 project execution – we have provided leadership to P3 consortia, and support services to public or private owners as functional designers, independent certifiers, project / program managers, or independent engineers. With this broad experience we understand the complexities of execution from various perspectives.

YEAR ESTABLISHED (KEY DATES)	• 1959: G.B.G.M. Ltd and Les Consultants Dupuis, Côté Inc., begin operating in Quebec City • 1993: The merged firms rebrand to GENIVAR and embark on acquiring other firms • 2012: GENIVAR and WSP join forces, and rebrand under WSP • 2014: Parsons Brinckerhoff and Focus Corporation become part of WSP • 2015: MMM Group, SPL Consultants, and Levelton become part of WSP • 2017: All firms now identified as WSP and a new brand is launched	
PARTNERSHIP, CORPORATE, ETC.	Corporation	
ANNUAL AVERAGE VOLUME OF WORK	18(1)(b), 18(1)(c)(i)	
TOTAL STAFF	170 – Winnipeg; 36,500 globally	
	HEAD OFFICE	**LOCAL OFFICE**
Address	1600 René-Lévesque Blvd. W., 16th Floor	111 - 93 Lombard Avenue
City / Postal Code	Montréal, QC H3H 1P9	Winnipeg, MB R3B 3B1
Telephone • Fax	+1 (514) 340-0046 • +1 (514) 340-1337	(204) 943-3178 • (204) 943-4948

WSP PROJECT – ROUTE 90 PRELIMINARY DESIGN & PUBLIC CONSULTATION STUDY; TAYLOR AVENUE TO NESS AVENUE

PROJECT DESCRIPTION & ROLE	The City retained a multidisciplinary study team led by WSP (MMM Group) to provide preliminary design and public engagement services for Route 90 (Kenaston Boulevard) from Taylor Avenue to Ness Avenue. The project explored options to widen the existing four lane divided roadway to six lanes to better accommodate current and forecast traffic volumes and to recommend a preferred design option based on technical merits, cost-benefit considerations, neighbourhood impacts, and public feedback. The study considered improvements for all modes of transportation, including transit and pedestrian / cycling movements (including addressing school-age children crossing Route 90), on the corridor and connecting links. Some of the issues addressed during the study included short-cutting between Kenaston Boulevard and Wellington Crescent, access to the West Wolseley neighbourhood and between Route 90 and Portage Avenue, and an improved connection for eastbound Portage traffic to Route 90 and St. James Street. The study also involved extensive public consultation, including a website, stakeholder meetings, open houses, and presentations. | Role | Transportation Planning; Preliminary Road Design; Traffic Operational Analysis; Transit Operations Review; Road Safety Review; Public Engagement; Pedestrian and Cycling Facilities; Noise Analysis and Mitigation; Access Management; Structural Review; Field Survey; Drainage And Utilities; Signage; Neighbourhood Traffic Review; Environmental Review; Landscape Architecture; Universal Design Review; Property Appraisals and Costs; Cost Estimates	**CLIENT / OWNER**	City of Winnipeg
		PROJECT COST	**Original / Final** 18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	**Anticipated Start / End** 2008 / 2009
			Actual Start / End 2008 / 2012 (included almost a two year review period by City staff)
		REFERENCES	**Reference #1** Luis Escobar • t: (204) 986-5895
			Reference #2 Stephen Chapman • t: (204) 986-5028

WSP PROJECT – MARION STREET WIDENING & GRADE SEPARATION

PROJECT DESCRIPTION & ROLE	WSP led a multidisciplinary team to investigate options for a continuous six-lane divided Route 115 from Rue Des Meurons to the Dugald Road Overpass, including a grade separation of the CPR track. Marion Street is a major east-west corridor that combines local and commuter use with truck traffic, and provides access to and from downtown Winnipeg. Marion Street experiences peak period traffic congestion in part due to delays at the Marion Street / Archibald Street intersection caused by geometric deficiencies, and also due to rail traffic at the Marion Street at-grade crossing of the CPR Emerson subdivision. Safety is also a concern as Marion Street is a four-lane undivided roadway with a number of direct access points and heavy truck traffic. The study aimed to identify ways to reduce congestion and train delays; improve connections to east Winnipeg; improve safety and connectivity; and incorporate new or enhanced transit, bicycle, and pedestrian facilities. The project included extensive public engagement, including a website, public survey, stakeholder meetings, and open houses. | Role | Public Engagement; Transportation Planning; Traffic Operational Analysis; Pedestrian and Cycling Facilities; Transit Review; Landscape Architecture; Traffic Simulation Modelling; Traffic Signals Analysis; Access Management; Drainage and Utilities; Property Appraisals and Costs; Preliminary Road Design; Cost Estimates; Structural Review; Construction Staging	**CLIENT / OWNER**	City of Winnipeg
		PROJECT COST	**Original / Final** 18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	**Anticipated Start / End** 2013 / 2014
			Actual Start / End 2013 / 2016
		REFERENCES	**Reference #1** Luis Escobar • t: (204) 986-5895
			Reference #2 Scott Suderman • t: (204) 986-6963

WSP PROJECT – SEASONS OF TUXEDO SHOPPING CENTRE DEVELOPMENT

PROJECT DESCRIPTION & ROLE	WSP assisted the joint-venture developers with the functional planning and site design for the development of a new regional shopping centre that consists of several large retail stores, including IKEA and an outlet mall. WSP was involved at all stages of the project, from the initial site planning to detailed design and construction. A major component of the project included the widening of Kenaston Boulevard (Taylor to south of Lowson) from four lanes to six lanes, the widening of Sterling Lyon Parkway from two lanes to four lanes, and significant intersection improvements at Sterling Lyon Parkway and Kenaston Boulevard. A number of WSP staff that are included in this proposal worked on this study and/or have worked on projects for other developments within the Seasons of Tuxedo area. These WSP staff are very familiar with the study area and have a good understanding of the stakeholders and potential design issues that will need to be considered as part of this study. Other key components of the project included:	**CLIENT / OWNER**	Fairweather Properties and IKEA Canada
		PROJECT COST	**Original / Final** 18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	**Anticipated Start / End** 2009-2014
			Actual Start / End 2009-2014
		REFERENCES	**Reference #1** Michael Nozick • t: (204) 888-4422

	• Planning approvals including an amendment to OurWinnipeg, rezoning, subdivision, and site-specific variances • The design and contract administration of off-site extensions of the wastewater sewer and water mains to service the site • Approvals for the off-site works from the City of Winnipeg and CN Rail • Transportation impact study for the entire site, including an analysis of weekday and weekend traffic operations • The functional on-site layout of the access and circulation roadways, including three, two-lane roundabouts • Functional design for the parking lots for the mall and retail mid-box zone • Detailed design and contract administration for the installation of on-site underground services, roads, parking lots and site lighting • Coordination with other consultants for the layout and installation of geothermal heating fields below the parking lots • Utility coordination | Role | Planning Approvals / Variances; Transportation Planning; Functional Design; Environmental Review; Pedestrian and Cycling Facilities; Utility and Services Review; Rail Crossing Assessments	**Reference #2**	Colin Chopp • t: [redacted] (off-site works)

WSP PROJECT – PORT MANN / HIGHWAY 1 IMPROVEMENT

PROJECT DESCRIPTION & ROLE	The Port Mann / Highway 1 project was a major upgrade to BC's Lower Mainland transportation network and included a new Fraser River crossing and upgrades / widening to 37 km of highway. As part of this work, eight existing bridges and six existing retaining walls were identified for rehabilitation and functional upgrades to accommodate one additional traffic lane in each direction. All construction was to be completed without any day-time lane closures. WSP (MMM Group), in joint venture with Hatch Mott MacDonald, led the design and delivery of the project's entire 18(1)(b), onshore works component, which represents nearly 18(1)(b) of the project's overall cost. The onshore element of the project included widening 37 km of freeway, which involves laying 1,500,000 m² of new pavement and 800,000 m² of overlay; **upgrading 11 major freeway interchanges, replacing 34 freeway bridges and rehabilitating a further eight bridges**; construction of over 20 lightweight fill embankments; and more than 80 retaining walls together with construction of over 200 culverts and 750,000 m² of ground improvements. There are also environmental compensation works, hundreds of utility relocations and protections, and signage and lighting works. All of this project activity occurred between the McGill Interchange in Vancouver and 216 Street in Langley, which is the most congested element of Highway 1 in British Columbia. The project required a complete redesign of the complex Cape Horn Interchange at the west end of the Port Mann Bridge to simplify the interchange and improve safety and efficiency for all traffic movements. Key criteria successfully addressed include: soft soils where settlement and seismic induced liquefaction were mitigated; the design of the whole alignment within a three-dimensional digital model; and the completion of the design within budget and ahead of the construction schedule. One unique aspect to this project was the need to design in a complex urban environment. The project was not only the busiest highway corridor in BC, but also one of its most dense urban transportation networks. Over 125,000 vehicles use Highway 1 to cross the Fraser River each day. The project traversed network links and municipal crossings, as well as multiple railway and public transit lines. This narrow, constrained corridor runs parallel to and regularly intersects every utility: electrical, lighting, fibre optic, gas, oil, drainage, and municipal services. The project's success required an integrated and collaborative approach between the design team, the DBJV and project stakeholders. Each of the more than 100 individual utility relocations and protection designs required proactive design communication. With limited lane closures and low tolerance for public delay, the project called for over 340 traffic detours. The design and construction teams worked closely to develop innovative staging concepts that used temporary structures and re-purposed existing components through construction. Designated team members for our current proposal were involved in the Port Mann project. | Role | Design Management; Base Mapping and Survey; Transportation Planning; Environmental; Design; Geotechnical Design; Drainage Design; Public and Private Utility Relocation and Protection Design; Highway Design; Structural Design; Pavement Design; Guide Signage and Lighting Design; Railroad Design; Materials Engineering; Construction Inspection and Certification	**CLIENT / OWNER**	British Columbia Ministry of Transportation and Infrastructure (BCMoTI) / Transportation Investment Corporation of British Columbia (TI Corp). This was a Design-Build project, as such our client was Kiewitt.
		PROJECT COST	**Original / Final** — 18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	**Anticipated Start / End** — 2008 / 2015
			Actual Start / End — 2008 / 2015
		REFERENCES	**Reference #1** — Edmund Lee, P.Eng. • t: +1 (778) 945-6053
			Reference #2 — Gerry Fleming • t: +1 (604) 315-1174
			Awards include: 2013 BC Deputy Minister's Consulting Engineers Award Excellence in Design and Contract Preparation, Roads; 2014 Consulting Engineers of British Columbia Lieutenant Governor's Award of Excellence; 2014 Consulting Engineers of British Columbia, Award of Excellence, Transportation & Bridges.

WSP PROJECT – AGASSIZ-ROSEDALE BRIDGE & ROSEDALE OVERHEAD

PROJECT DESCRIPTION & ROLE	WSP's Vancouver Office was retained by BC MoTI to complete functional, preliminary, and detailed design for the rehabilitation, seismic retrofit, and widening to the Agassiz-Rosedale Bridge and the Rosedale Overhead. These two bridges are key components of the Highway 9 link across the Fraser River, connecting the TransCanada and Lougheed Highways in the heart of Fraser Valley east of Metro Vancouver. The proposed functional improvements require deck widening to accommodate wider shoulders for cyclists, a re-configured wider sidewalk for pedestrians and new traffic barriers. The Agassiz-Rosedale Bridge is classified as a "Lifeline" bridge, which need to be seismically upgraded in accordance with the new CSA-S6-14 bridge code. Designated team members for our current proposal were involved in the Agassiz-Rosedale project. | Role | Functional Design; Preliminary Design; Project Management; Construction Services; Seismic Upgrading; Rehabilitation; Materials Engineering	**CLIENT / OWNER**	British Columbia Ministry of Transportation and Infrastructure (BCMoTI)
		PROJECT COST	**Original / Final** — 18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	**Anticipated Start / End** — 2015 / 2020
			Actual Start / End — 2015 / Ongoing
		REFERENCES	**Reference #1** — Bill Szto • t: +1 (604) 527-3120
			Reference #2 — Valerie Fabick • t: +1 (778) 945-6071

TABLE C2 | KGS GROUP CONSULTING ENGINEERS – SUBCONSULTANT

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

TABLE C3 | HTFC PLANNING & DESIGN – SUBCONSULTANT

HTFC is the largest landscape architecture and planning firm in Manitoba, delivering innovative solutions since its inception in **1969**. 18(1)(b), 18(1)(c)(i) With over **30 professionals**, HTFC has the resources to meet aggressive deadlines, and address a broad range of landscape and urban design issues. HTFC has extensive experience in the design and planning of large-scale transportation, greenway, and walk / cycle projects in Winnipeg and other centres, with specific expertise in walkable communities, accessible landscape design, public communications, Crime Prevention Through Environmental Design (CPTED) and Complete Streets. Listed below are HTFC's project examples which demonstrate their recent experience on similar projects.

HTFC worked with WSP on the 2012 Route 90 Preliminary Design Study and are therefore familiar with the landscape design/public realm components of the project. HTFC also assisted with the public engagement, including producing renderings for use at public events.

YEAR ESTABLISHED	18(1)(b), 18(1)(c)(i)
PARTNERSHIP, CORPORATE, ETC.	Corporation
ANNUAL AVERAGE VOLUME OF WORK	18(1)(b), 18(1)(c)(i)
TOTAL STAFF	30
	HEAD / LOCAL OFFICE
Address	500-115 Bannatyne Avenue East

City / Postal Code	Winnipeg, MB R3B 0R3
Telephone • Fax	(204) 944-9907 • (204) 957-1467

HTFC PROJECT – DISRAELI CORRIDOR REHABILITATION & PRELIMINARY DESIGN

PROJECT DESCRIPTION & ROLE	This project examined options to rehabilitate the Disraeli bridge and corridor extending from Main Street to Hespeler Avenue, with an emphasis on reintegration with the Point Douglas and Elmwood communities, and improved pedestrian and cycling facilities. HTFC's responsibilities included visual assessment, an accessibility audit, and preliminary design of streetscapes, bridge sidewalks, architectural features, pedestrian links, lighting, and plantings. HTFC was an active participant in all stakeholder and open house events, and was retained to prepare key open house graphics and presentation drawings describing a variety of bridge cross-section alternatives. | Role | Visual Assessment; Preliminary Design (streetscapes, sidewalks, architectural features, pedestrian links, lighting, and plantings); Accessibility Audit; Graphics and Drawings for Open House; Public Engagement Participation	CLIENT / OWNER	City of Winnipeg
		PROJECT COST	Original / Final
		PROJECT SCHEDULE	Anticipated Start / End
			Actual Start / End
		REFERENCES	Reference #1: Brad Neirinck • t: (204) 986-7950
			Reference #2: Darren Burmey • t: (204) 986-5409

18(1)(b), 18(1)(c)(i)

HTFC PROJECT – MARION STREET WIDENING & GRADE SEPARATION

PROJECT DESCRIPTION & ROLE	See Table C1 for project description. HTFC services included site analysis and assessment of development impacts, open house planning, walk / bike planning, generation of alternatives, and weighing and application of evaluation criteria. Work included preliminary design drawings and descriptions to illustrate the landscape architectural treatment of streetscape, interchanges, walk / bike facilities, buffers, and lighting. | Role | Site Analysis; Assessment of Development Impacts; Open House Planning; Pedestrian and Cycling Facilities; Generation and Evaluation of Alternatives; Preliminary Design Drawings	CLIENT / OWNER	WSP / City of Winnipeg
		PROJECT COST	Original / Final
		PROJECT SCHEDULE	Anticipated Start / End
			Actual Start / End
		REFERENCES	Reference #1: Luis Escobar • t: (204) 986-5895
			Reference #2: Scott Suderman • t: (204) 986-6963

18(1)(b), 18(1)(c)(i)

HTFC PROJECT – PROVENCHER PAIRED BRIDGES PROJECT

PROJECT DESCRIPTION & ROLE	The reconstruction of the Provencher Bridge was a contentious, politically charged project that required the design team to satisfy multiple factions, and anticipate urban redevelopment directions within the rapidly transforming Forks and Waterfront Drive district. In the end the project has become an icon for Winnipeg's renewal and has garnered many local and international awards. HTFC's responsibilities included conceptual design, urban planning, heritage interpretation, universal design review, and detailed design of the pedestrian and vehicular bridge landings. In addition to detailed design and contract administration for the bridge landings and dock, HTFC co-authored the interpretive plan with Gaboury Prefontaine Perry architects, designed the bicycle and pedestrian network, prepared a detailed accessibility audit, and worked with the engineering team on road alignments and streetscape for Pioneer and Water Avenues. Through the course of the project, the firm's role was extended to oversee the approval process through various municipal and provincial authorities. | Role | Conceptual design; urban planning; heritage interpretation; universal design review; detailed design of the pedestrian and vehicular bridge landings. With Gaboury Prefontaine Perry architects, co-authored the heritage interpretive plan; designed the bicycle and pedestrian network; prepared a detailed accessibility audit; worked with the engineering team on road alignments and streetscape for Pioneer and Water Avenues. Role was extended to oversee the approval process through various municipal and provincial authorities	CLIENT / OWNER	City of Winnipeg
		PROJECT COST	Original / Final
		PROJECT SCHEDULE	Anticipated Start / End
			Actual Start / End
		REFERENCES	Reference #1: Brad Neirinck • t: (204) 986-7950
			Reference #2: Paul Jordan • t: (204) 987-4362

18(1)(b), 18(1)(c)(i)

TABLE C4 | FAITHFUL+GOULD – SUBCONSULTANT

F+G is a wholly-owned subsidiary of W.S. Atkins, plc, which in turn is owned by SNC-Lavalin. F+G averages **£205M annually** under Atkins Worldwide as a whole. We have been providing quality support services and constructive expertise to the public and private sectors for nearly 70 years (**established in 1947**). F+G has a team of **540 experts** across North America (2,450 worldwide). Our integrated project and program management consultancy services help clients across every sector, and in every part of the world. F+G has performed over 700 Value Engineering (VE) studies over the last 30 years. Listed below are F+G's project examples which demonstrate their recent experience on similar projects.

YEAR ESTABLISHED	1947	
PARTNERSHIP, CORPORATE, ETC.	Faithful+Gould is wholly-owned subsidiary of W.S. Atkins, plc, which in turn is owned by SNC-Lavalin	
ANNUAL AVERAGE VOLUME OF WORK	£205M under Atkins Worldwide as a whole	
TOTAL STAFF	541 in North America and 2,449 Worldwide for Faithful+Gould	
	HEAD OFFICE	CANADIAN OFFICE
Address	500-115 Bannatyne Avenue East	100 King Street West, Suite 3700
City / Postal Code	Winnipeg, MB R3B 0R3	Toronto, ON M5X 1C9
Telephone • Fax	(204) 944-9907 • (204) 957-1467	+1 (416) 644-5098 • +1 (416) 644-8801

F+G PROJECT – CHIEF PEGUIS TRAIL EXTENSION

PROJECT DESCRIPTION & ROLE	Project involved an independent technical review of plans submitted by the consultant team for the extension of Chief Peguis Trail from Main Street to Brookside Boulevard. This included a review of the roadway geometrics, traffic operations, transportation forecasts, bridge structures at the two interchanges, environmental assessment, and noise forecasts and mitigation strategies. Functional and preliminary design plans were prepared, with a value engineering and risk management workshop after completion of the functional design. | Role | Value Engineering and Risk Facilitation, Draft and Final Reports	CLIENT / OWNER	City of Winnipeg (subconsultant to WSP)	
		PROJECT COST	Original / Final	$41,960 (F+G fee) / $40,500
		PROJECT SCHEDULE	Anticipated Start / End	May 2017 / June 2017 (F&G Scope)
			Actual Start / End	May 2017 / June 2017 (F&G Scope)
		REFERENCES	Reference #1	Scott Suderman • t: (204) 986-6963
			Reference #2	Blake Kibbins • t: [redacted]

F+G PROJECT – WILLIAM R. CLEMENT PARKWAY EXTENSION

PROJECT DESCRIPTION & ROLE	Project investigated the extension of William R. Clement from Grant to McGillivray, and Sterling Lyon from east of McCreary to west of Charleswood. The options underwent traffic operations analysis, traffic signal warrant analysis, and traffic simulation modelling, and were evaluated based on criteria including traffic accommodation, safety, land requirements, environmental impact, property impacts, cost, staging, etc. Grade separation options were also developed. The recommended options were designed to the functional and preliminary design level, with a value engineering workshop after completion of the functional design. | Role | Value Engineering and Risk Facilitation, Draft and Final Reports	CLIENT / OWNER	City of Winnipeg (subconsultant to WSP)	
		PROJECT COST	Original / Final	$17,700 (F+G fee) • $17,700
		PROJECT SCHEDULE	Anticipated Start / End	May 2016 / June 2016 (F&G Scope)
			Actual Start / End	May 2016 / June 2016 (F&G Scope)
		REFERENCES	Reference #1	Shima Rezazadeh [redacted]
			Reference #2	Scott Suderman • t: (204) 986-6963

F+G PROJECT – HIGHWAY 400, FROM HIGHWAY 89 TO JUNCTION OF HIGHWAY 11

PROJECT DESCRIPTION & ROLE	VE Study on the widening of Highway 400 along a 30 km section from 1 km south of Highway 89 to the junction at Highway 11. The purpose of the project was to address traffic operations, capacity, and safety needs of Highway 400 within the Town of Innisfil, City of Barrie, and Township of Springwater, in the County of Simcoe. | Role | Value Engineering and Risk Facilitation, Draft and Final Reports	CLIENT / OWNER	Ministry of Transportation, Ontario (subconsultant to WSP)	
		PROJECT COST	Original / Final	$25,500 (F+G Fee) / $25,500
		PROJECT SCHEDULE	Anticipated Start / End	September 2016 / October 2016 (F&G Scope)
			Actual Start / End	September 2016 / October 2016 (F&G Scope)
		REFERENCES	Reference #1	Rob Vandenberg • t: +1 (416) 235-5483
			Reference #2	Peter Dorton • t: +1 (416) 235-4280

TABLE C5 | BARNES & DUNCAN – SUBCONSULTANT

18(1)(b), 18(1)(c)(i)

[redacted]

18(1)(b), 18(1)(c)(i)

[redacted]

TABLE C6 | INDUSTRIAL TECHNOLOGY CENTRE – SUBCONSULTANT

ITC was established in 1979 and has been a Special Operating Agency of the Province of Manitoba since 1996. ITC provides services that contribute to technology-based economic development for the benefit of Manitoba. ITC is Standards Council of Canada-accredited, ISO 9001 registered, and CLAS certified. ITC's annual average volume of work in engineering is $0.9M (overall is $2M) and has a total of 18 staff. With over 30 years' experience, ITC provides engineering, technical, advisory, and information services in many sectors, including aerospace, transportation, health, energy, environment, general manufacturing, architecture, and construction. For each project example provided, specific similarities to the Route 90 Widening Project includes:

- The noise assessment mapped current traffic patterns and associated traffic-induced noise surrounding current transportation route. Changes to the roadways and projected increased traffic levels were introduced and the increases in noise level were mapped. Possible mitigation for noise increases were investigated and compared, and noise and rail noise surrounding current transportation route.
- Current noise levels were measured and existing noise sources through the primarily residential neighborhood were determined. Existing residences and noise sources, including traffic and rail generated noise were modelled and compared to measured noise values. The design for the roadway extension was integrated into the model and the resultant noise levels were mapped. Mitigation measures were modelled and the resultant sound levels were calculated.

YEAR ESTABLISHED	1979 – Special Operating Agency in 1996
PARTNERSHIP, CORPORATE, ETC.	Special Operating Agency of the Province of Manitoba
ANNUAL AVERAGE VOLUME OF WORK	Engineering ($1M this year), whole company ($2M)
TOTAL STAFF	Engineering (7), ITC (18)
	HEAD OFFICE
Address	200 – 78 Innovation Drive
City / Postal Code	Winnipeg, MB R3T 6C2
Telephone • Fax	(204) 480-3333 • (204) 480-0357

ITC PROJECT – PTH 59 / PTH 101 & PTH 59 / PRR 202 INTERCHANGE & RELATED ROADWAY UPGRADES

PROJECT DESCRIPTION & ROLE	This project involves the functional design of an interchange at PTH 59 / PTH 101, an AT grade separated crossing of PTH 101 at the Gateway-Raleigh corridor, and an upgraded intersection at PTH 59 / PR 202. WSP prepared a functional design report and was subsequently retained to act as Owner's Engineer. ITC prepared noise forecasts and mitigation strategies. | Role | Environmental Noise Monitoring and Assessment, Noise Mitigation Design, Ground Vibration Monitoring	CLIENT / OWNER	Manitoba Infrastructure (subconsultant to WSP)	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i) [redacted]
		PROJECT SCHEDULE	Anticipated Start / End	18(1)(b), 18(1)(c)(i) [redacted]
			Actual Start / End	18(1)(b), 18(1)(c)(i) [redacted]
		REFERENCES	Reference #1	Richard Tebinka • t: (204) 272-2003
			Reference #2	Jim Lukashenko • t: (204) 272-2025

ITC PROJECT – WILLIAM R. CLEMENT PARKWAY EXTENSION

PROJECT DESCRIPTION & ROLE	This project investigated the extension of the William R. Clement Parkway from Grant Avenue to McGillivray Boulevard. The study included functional and preliminary design for Phase I (from Grant Avenue to an extension of Sterling Lyon Parkway) and functional design for the balance of	CLIENT / OWNER	City of Winnipeg (subconsultant to WSP)	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i) [redacted]

	the corridor. Grade separation options for the CN Mainline, Eldridge Avenue, and Harte Trail were developed. Options were also developed for an east-west connection from Shaftesbury Avenue to PTH 100. The options developed underwent traffic operations analysis, traffic signal warrant analysis, and traffic simulation modelling, and were evaluated based on a variety of criteria including traffic accommodation, safety, land requirements, environmental impact, property impacts, cost, staging, accommodation for dog parks, etc. Based on the results of the analyses, the recommended options were designed to the preliminary design level. The study also included an investigation of potential park-and-ride locations and ensured that design accommodated transit needs. ITC prepared noise forecasts and mitigation strategies. | Role | Environmental Noise Monitoring and Assessment; Noise Mitigation Design	PROJECT SCHEDULE	Anticipated Start / End	18(1)(b), 18(1)(c)(i)
			Actual Start / End	18(1)(b), 18(1)(c)(i)
		REFERENCES	Reference #1	Richard Tebinka • t: (204) 272-2003
			Reference #2	Jaime Lacoste • t: (204) 259-5427

ITC PROJECT – CENTREPORT CANADA WAY (CCW)

PROJECT DESCRIPTION & ROLE	CCW is a $150M Design-Build project comprising the construction of new roadway, two interchanges, and nine bridge structures near Winnipeg's Richardson International Airport. The new route connects the Perimeter Highway (PTH 101) and Inskter Boulevard. The first stage of the CCW roadway development includes an overpass of the CPR Glenboro line, construction of an interchange between the PTH 101 and the CCW, an overpass of the existing CPR Carberry Subdivision, Omand's Creek, an existing drainage channel, and a future reserve for a relocated CNR Oak Point rail line. WSP was retained to complete the functional design, and was subsequently engaged as the Owner's Engineer for this Design-Build contract. WSP retained ITC to conduct noise assessments and mitigation along residential lands on the south side of Saskatchewan Avenue and the east side of the Perimeter Highway. | Role | Environmental Noise Monitoring and Assessment; Noise Mitigation Design	CLIENT / OWNER	Manitoba Infrastructure (subconsultant to WSP)	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	Anticipated Start / End	June 2009 / July 2009 (ITC scope)
			Actual Start / End	June 2009 / July 2009 (ITC scope)
		REFERENCES	Reference #1	Don McRitchie • t: (204) 232-0248
			Reference #2	Richard Tebinka • t: (204) 272-2003
		AWARDS: 2010 CEM Award of Merit for the Procurement of Design Build Grade Separations of CCW		

TABLE C7 | FIRST PERSON STRATEGIES – SUBCONSULTANT

Based in Winnipeg, First Person Strategies (FPS) leverages front line experience navigating high profile, high stakes issues to help organizations improve outcomes with stakeholders, and keep pace with the expectations of an increasingly informed media and public. FPS combines strategic insights gleaned from navigating tough public issues with a background in professional writing, publishing, facilitation, stakeholder relations and social media. As a result, we've developed a robust toolkit of fully managed, innovative, customizable, and battle tested tactics to successfully engage and communicate with stakeholders and the public and support project success: interactive platforms, social media campaigns, storytelling, video, photo voice, pop-ups, advisory committee and workshop facilitation, community competitions and more.
FPS received an Honourable Mention for the 2016 "Organization of the Year Award" from IAP2 Canada. This award recognizes the application of the IAP2 core values, vital aspects of an organization, and how they are embedded into decision-making that features public participation.

YEAR ESTABLISHED	2013
PARTNERSHIP, CORPORATE, ETC.	Joint Venture
ANNUAL AVERAGE VOLUME OF WORK	18(1)(b), 18(1)(c)(i)
TOTAL STAFF	5-7
	HEAD / LOCAL OFFICE
Address	402-460 Main Street
City / Postal Code	Winnipeg, MB R3B 1B6
Telephone • Fax	(204) 818-6958 • N/A

FPS PROJECT – ARLINGTON STREET BRIDGE OVER THE CPR YARDS REPLACEMENT PRELIMINARY DESIGN

PROJECT DESCRIPTION & ROLE	The century old Arlington Bridge is nearing the end of its useable life and must be replaced. The preliminary design seeks to build on the work done in the functional design but challenge the outcomes to ensure the City is proceeding in the best and most efficient way. Design includes the bridge itself, and the Arlington Street corridor from McDermot to Selkirk. Key aspects of the design where public and stakeholder input is being sought includes use of surplus lands, public art and heritage considerations, safety, and key connections / networks to and from corridor for all modes. FPS is the "Public" lead for a team led by Stantec for the preliminary design of a new Arlington Street Bridge. This high profile project bears direct relevance and similarity to the preliminary design of Route 90 widening – property impacts, multiple stakeholders, including a significant requirement for indigenous and property owner engagement; project advisory committee; a sophisticated communications strategy to manage the high-profile and potentially controversial nature of the project; and a need to build on (not duplicate) public engagement completed in previous phases. | Role | FPS's scope includes strategy and management of all engagement activities and public-facing communications. Innovative approaches on this project have included creation of extensive video and graphics and community partnering with advisory members to maximize community buy in, awareness and understanding of key issues. FPS group facilitation of the advisory committee has resulted in their endorsement of the engagement process and key design decisions including roadway design	CLIENT / OWNER	City of Winnipeg	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	Anticipated Start / End	2016 / 2017
			Actual Start / End	2016 / Ongoing
		REFERENCES	Reference #1	18(1)(b), 18(1)(c)(i)
			Reference #2	

FPS PROJECT – SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS

PROJECT DESCRIPTION & ROLE	FPS is the Communications and Public Engagement Expert on a team led by Plenary Group for the design and construction of this high-profile public-private-partnership (P3) project. The project will help accommodate anticipated population growth in southwest Winnipeg that is expected to	CLIENT / OWNER	Plenary Group	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)

increase traffic on Pembina Highway by 40% by 2030. It includes the design and construction of Stage 2 of the transitway (7.6 km), addition of active transportation infrastructure, renewal and expansion of the Pembina Highway Underpass, and connections to key destinations (University of Manitoba and Investors Group Field). These features and others (e.g. sound wall, access issues, high-profile property requirements (Kapyong Barracks for Route 90, Parker Lands for Rapid Transit) and a significant requirement for ongoing stakeholder relations, bear direct relevance to the preliminary design of the Route 90 widening.

Scope of work for this complex, high-profile project included development of a comprehensive communications plan for effective team communication with the public, stakeholders, relevant City departments, and media on a range of considerations, stakeholder communication strategy, delivery of annual public information sessions, and updates to the project webpage.

| Role | Facilitator for bi-weekly communications team meetings, provide ongoing communication and engagement strategy, and creates content to support greater public understanding of the benefits of the project, and local and construction impacts, therefore the information provided is specific to their component of the projects.

PROJECT SCHEDULE	Anticipated Start / End	2016 / 2020
	Actual Start / End	2016 / Ongoing
REFERENCES	Reference #1	18(1)(b), 18(1)(c)(i)
	Reference #2	

FPS PROJECT – FPS – DOWNTOWN PROTECTED BIKE LANE SYSTEM

PROJECT DESCRIPTION & ROLE

Fort / Garry Preliminary Neighbourhood Consultation (516-2015): FPS was the Public Engagement Expert and Advisor on a multidisciplinary study team led by WSP for the City's downtown walk bike projects in 2015 and 2016. Downtown active transportation projects are controversial and high-profile, and FPS's strategy included engagement and relationship building with a variety of stakeholders, interests and impacts, and proactive tactics to address previous concerns from the Mayor's Office and key stakeholders and ensure a robust, defensible engagement process. This included innovative tactics (e.g. some of the first pop-up engagement events ever conducted by the City); multiple, and carefully documented attempts to engage top tier stakeholders directly along affected routes; a sophisticated communications strategy to manage the high-profile and potentially controversial nature of the project; and a substantial reporting component on the engagement process and results.

Downtown Pavement Renewals, Protected Bike Lanes & Streetscaping Construction (995-2016): Subsequently, FPS was the Public Communications Lead on the Preliminary and Detailed Design, Contract Administration, and Post Construction Services for the resulting construction project. Completing the new downtown bike lane will include a full renewal of Garry Street / Notre Dame Avenue, and upgrades on Princess Street and Arthur Street that will be completed in phases. Construction will take place from 2017 through the 2019 construction season. Scope of work included a continued focus on proactive, regularly scheduled stakeholder communications to address potential questions and concerns and mitigate associated risks to schedule and budget.

| Role | Advice on public engagement strategy, key messaging, develop content and contribute to reporting on engagement activities. FPS was then part of the successful team led by AECOM for the Preliminary and Detailed Design, Contract Administration and Post Construction Services for the implementation of the subsequent Garry Street cycling facility from Assiniboine to Notre Dame. As Public Communications lead for the team, FPS's role includes strategic advice on stakeholder engagement and public communications, and the development of key messages and communications materials.

CLIENT / OWNER	City of Winnipeg	
PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)
PROJECT SCHEDULE	Anticipated Start / End	Preliminary consultation: 2015-2016; construction: 2017-2019
	Actual Start / End	Preliminary consultation achieved 2016; construction ongoing
REFERENCES	Reference #1	18(1)(b), 18(1)(c)(i)
	Reference #2	

TABLE C8 | WATT CONSULTING GROUP – SUBCONSULTANT

Watt Consulting Group Ltd. has provided innovative transportation planning and engineering services to Canadian communities for over 30 years. Our offices in Calgary, Edmonton, Lloydminster, Victoria, the Lower Mainland and the Okanagan consist of a mix of engineers, planners, and technical staff operating in a collaborative working environment. Watt Consulting Group is employee owned and operated, making our ownership team personally involved with our clients and their projects. Our team works to understand the local communities we work with to create site specific solutions that fit with the local environment.

We strive to integrate sustainability, health, and equity into all projects, and are regarded for action-oriented outcomes that lead communities on a path to positive change. Our areas of expertise include transportation planning and engineering for corridors and networks, traffic safety, bicycle corridor and network design, pedestrian facilities, signal timing plans, streetscape and complete street design, railway crossings, network analysis, traffic operations, and traffic management during construction. We are constantly striving to provide each client with the highest level of technical and professional service.

YEAR ESTABLISHED	1983	
PARTNERSHIP, CORPORATE, ETC.	Corporate (Limited)	
ANNUAL AVERAGE VOLUME OF WORK	18(1)(b), 18(1)(c)(i)	
TOTAL STAFF	90	
	HEAD OFFICE	LOCAL OFFICE (DOING WORK)
Address	#310-3016 5th Avenue NE	#201-791 Goldstream Avenue
City / Postal Code	Calgary, AB T2A 6K4	Victoria, BC V9B 2X5
Telephone • Fax	+1 (403) 273-9001 • +1 (403) 273-3440	+1 (250) 388-9877 • +1 (250) 388-9879

WATT PROJECT – WINNIPEG ROAD SAFETY AUDIT

PROJECT DESCRIPTION & ROLE

Undertake design safety audits for a series of bicycle facilities including:

- Keewatin Street: Burrows Avenue to Inkster Boulevard, bi-directional pathway
- McDermot Avenue: Arlington Street to Furby Street, protected bike lanes (bi-directional bike facility adjacent to one-way roadway)
- Sherbrook Street: Cumberland Avenue to McDermot Avenue, protected bike lane (northbound)
- Transcona Trail Extension: Panet Road (north of Mission Street) to Regent Avenue West (east of Peguis Street) running adjacent to CN and CEMR rail lines, multi-use pathway

CLIENT / OWNER	City of Winnipeg	
PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)
PROJECT SCHEDULE	Anticipated Start / End	
	Actual Start / End	
REFERENCES	Reference #1	Ryan Cunningham • t 26

	| Role | Road Safety Audits with a focus on bicycles		Reference #2	Scott Suderman • t: (204) 986 - 6963

WATT PROJECT – 2015 WALK BIKE PROJECTS: DOWNTOWN BIKE LANE SYSTEM; WEST ALEXANDER PEDESTRIAN AND CYCLING CORRIDOR

PROJECT DESCRIPTION & ROLE	Provided bicycle design guidance for a number of configurations and route alignment options, including geometric requirements, pavement markings, and signalization considerations (including bicycle signals). Accommodation of pedestrians, transit, accessible parking, loading zones, motor vehicles, and driveways were all incorporated. Key conflict zones were identified and addressed, as well as connections to other bikeway facilities. We also assessed and ranked the various options using evaluation criteria that included safety, pedestrian and cycling environment, vehicular operations (by mode, including parking), and construction and maintenance. The review resulted in the identification of preferred configurations and alignments, along with key geometric and traffic control characteristics for the routes. | Role | Cycling Experts, Design, Peer Review	CLIENT / OWNER	WSP (MMM) / City of Winnipeg	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	Anticipated Start / End	
			Actual Start / End	
		REFERENCES	Reference #1	Scott Suderman • t: (204) 986-6963
			Reference #2	Chirs Baker •26

WATT PROJECT – PANDORA TWO-WAY CYCLE TRACK

PROJECT DESCRIPTION & ROLE	Development of preliminary and detailed design drawings for the City's first two-way cycle track facility. Design assessment included reviewing Dutch junctions, raised cycle tracks, types of separation, and width of the cycle track. Roadway capacity, bus stop locations and facilities were also assessed to provide a balance for all users along the corridor including parking. Following the assessment of design features, the City determined that the key features to suit the community included a physical separation at bus stops, near intersections and painted buffers between the cycle track and parking. Landscaping and beautification elements were added where possible through the addition of significant bicycle parking, trees, and sidewalk patterns. To provide protection for cyclists at the seven signalized intersections along the corridor, bicycle signals will be designed to be added along with protected right-turn signals to separate right turning vehicles from through bicycles on the cycle track. Bicycle boxes will be provided for southbound bicycles on the north-south roads. | Role | Designers, Signal Timing, Construction Services, Inspections	CLIENT / OWNER	City of Victoria	
		PROJECT COST	Original / Final	18(1)(b), 18(1)(c)(i)
		PROJECT SCHEDULE	Anticipated Start / End	
			Actual Start / End	
		REFERENCES	Reference #1	Tim Hewett • t: (250) 361-0306
			Reference #2	Keith Kresse • t: (250) 361-0300

TABLE C9 | PROBE RESEARCH INC. – SUBCONSULTANT

Probe Research Inc. is a dynamic market and public opinion research firm committed to providing accurate and reliable professional research services. Whether you are involved in business, government or non-profit organizations, our research experts can provide you with scientifically based information to guide you and your organization. Our goal is to help our customers make better decisions based on verifiable facts and to be able to:

- Understand even the most subtle characteristics of their marketplace, including market size and competitive opportunities.
- Receive guidance and direction for the development of policies, products and services.
- Monitor shifts in key public or consumer attitudes on products, brands and services.
- Steer clear of potential disasters, including communications failures and expensive business missteps.

Probe is a non-partisan research company that does not conduct polls on behalf of political parties. We offer unmatched quality in research consulting services by providing accurate and insightful research, at affordable rates in a timely manner. This combination of objectivity, flexibility, cost-effectiveness and timeliness sets Probe Research in a class by itself.

Probe Research assisted WSP with the 2012 Route 90 Preliminary Design Study, conducting statistically significant surveys for different focus areas regarding the proposed transportation improvements.

YEAR ESTABLISHED	1994
PARTNERSHIP, CORPORATE, ETC.	Corporation
ANNUAL AVERAGE VOLUME OF WORK	$1M
TOTAL STAFF	8
	HEAD / LOCAL OFFICE
Address	850 – 125 Garry Street
City / Postal Code	Winnipeg, MB R3C 3P2
Telephone • Fax	(204) 926-6565 • (204) 926-6566

PR PROJECT – DANIEL MCINTYRE WARD RECREATION NEEDS STUDY

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

FIGURE D1 | ORGANIZATION CHART

CITY PROJECT MANAGER
Vaibhav Banthia

PROJECT PRINCIPAL
Richard Tebinka

PROJECT MANAGER
Grantley King

QC / QA
Kenn Rosin

Public Engagement
Michelle Kuly Holland | Lead
Katie Krahn
Etoile Stewart
David Leibl

Statistically Significant Survey
Scott MacKay | Lead

Land Use Planning
David Jopling | Lead
Bryan Ward
Brittany Shewchuk
Ryan Segal

Transportation Coordinator
Kerra Mruss

Traffic Operations & Transit
Ishtiyaq Gull | Lead
Ken Wimble
Rick Vince
Jaime Lacoste

Walking & Cycling
David McLaughlin | Lead
Jason Neudorf
Greg Propp

Road Safety Audit
Geoff Millen | Lead
Damir Bjelica
Tom Leung

Bicycle Facility Safety Audit
Mike Skene | Lead

Sound Attenuation
Michael Thomlinson | Lead
Tom Manson

Road Design / Construction Staging
Vilko Maroti | Lead
Scott Minty
Trevor Parker
Maury Steindel
Michael Spack

Utilities / Water Mains
Bob Hinkelman | Lead
Ruben Enns
Myron Samsin

Drainage
Ray Offman | Lead
Elena Margulets-Shatsky
Dave White

Pavement Design
Craig Rowbotham | Lead
Elena Margulets-Shatsky

Public Realm / Universal Design
Glen Manning | Lead

Land Survey
18(1)(b), 18(1)(c)(i)

Structures Coordinator
Jim Lukashenko

Bridge Structure Design / Rehabilitation
Keith Holmes | Lead
Reza Saedi
Waan Chui
Edmund Ho
Colin Paterson

Bridge Inspections & Testing
Edmund Ho | Lead
Oliver Gepraegs
Michelle Wadelius
Katy Harris
Damien O'Brien

Bridge Survey
Chris Beaugrand | Lead

Hydraulics
Dave Brown | Lead
Melissa Haresign

Geotechnical Design
David Anderson | Lead
Rob Kenyon
Kazi Rahman

Environment
Darren Keam | Lead
Valerly Tyshchuk
Erin Haatvedt
Laura Gallagher

Regulatory Requirements
Danette Sahulka | Lead
Brian Moons

Value Engineering
Scot McClintock | Lead

Value for Money
Jeff Seider | Lead
Razi Chagla

WSP
KGS
HTFC PLANNING & DESIGN
FAITHFUL & GOULD
BARNES & DUNCAN
ITC
FIRST PERSON STRATEGIES
WATT CONSULTING GROUP
PROBE RESEARCH
KEY TEAM MEMBERS
* Described in proposal bids

SECTION E

PROJECT UNDERSTANDING & METHODOLOGY

SECTION E – PROJECT UNDERSTANDING & METHODOLOGY

5.1 PROJECT UNDERSTANDING

5.1.1 PROJECT BACKGROUND

18(1)(b), 18(1)(c)(i)

[redacted]

Winnipeg

wsp

DRAWING E1 | STUDY AREA MAP

18(1)(b), 18(1)(c)(i)

5.1.2 PROJECT ISSUES & CONSIDERATIONS

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

TABLE E2 | Route 90 Engagement Goals

ROUTE 90 ENGAGEMENT GOALS	OUR STRATEGY
Broad awareness of the project, and its importance	• 18(1)(b), 18(1)(c)(i)
Meaningful information	•
Representative participation and a demonstrated diversity of voices	•
Multiple, convenient ways to participate	• •
Respectful, transparent dialogue	•

TABLE E3 | Route 90 Success Factors

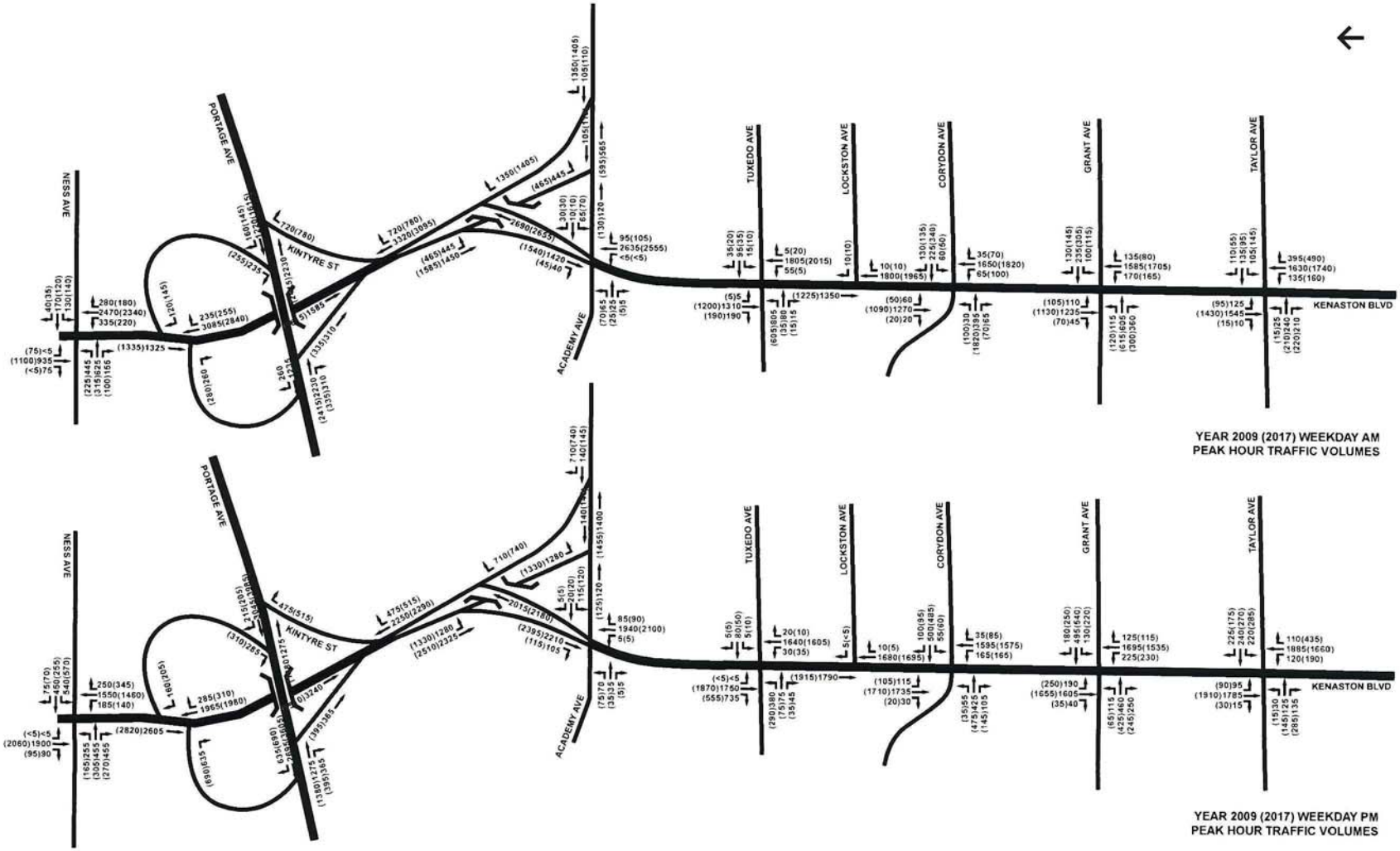
ROUTE 90 SUCCESS FACTORS	OUR PLAN
Internal alignment on engagement needs and strategy	• 18(1)(b), 18(1)(c)(i)
Nimble internal processes responsive to emerging issues	• •
Establish credibility for process and resulting design with key stakeholders, influencers	•
Accountability to input received	•
Honest, strong stakeholder relationships that set the stage for future projects	•

18(1)(b), 18(1)(c)(i)

Winnipeg

wsp

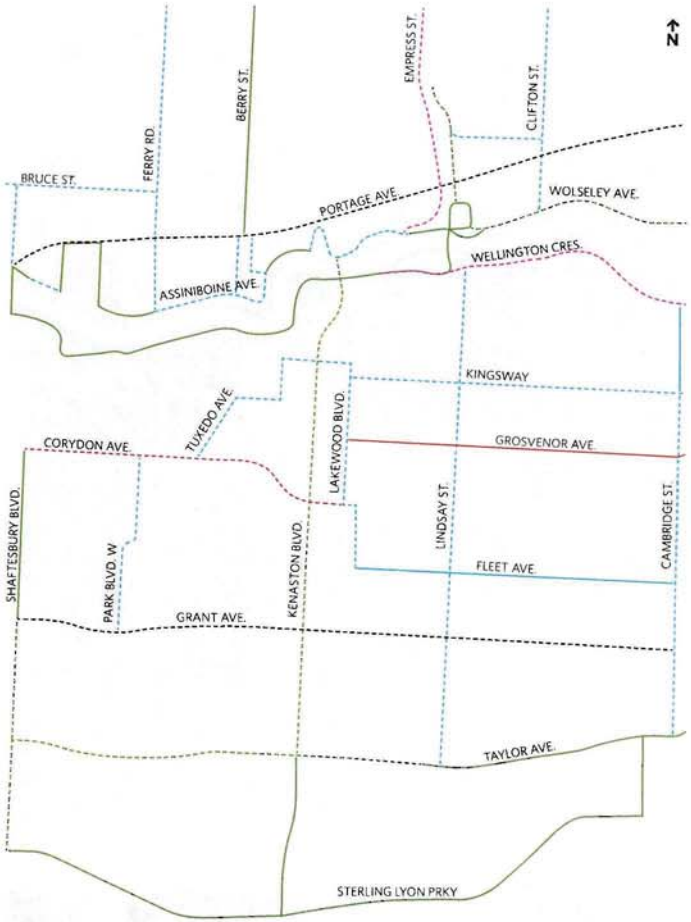
DRAWING E4 | PEAK HOUR TRAFFIC VOLUMES



DRAWING E5 | COMPARISON OF ACTIVE TRANSPORTATION RECOMMENDATIONS FROM 2012 STUDY AND PCS

A. Recommended Active Transportation Facilities of the 2012 Study

Existing Bike Route
Existing Multi-use Pathway
Bike Path
Cycle Track
Multi-use Pathway
Bike Boulevard
Bike Route
Bike Lane
Sharrows



B. Pedestrian and Cycling Strategies Recommendations overlaid on the 2012 Study Recommendations

PROPOSED	EXISTING	
		OFF-STREET PATH
		NEIGHBOURHOOD GREENWAY
		PAINTED BICYCLE LANE
		CORRIDOR STUDY
		PROTECTED BIKE LANE

18(1)(b), 18(1)(c)(i)

5.1.3 POSSIBLE GEOMETRIC & STRUCTURAL IMPROVEMENTS

18(1)(b), 18(1)(c)(i)

DRAWING E6 | PEDESTRIAN AND CYCLING OVERPASS OF ROUTE 90

18(1)(b), 18(1)(c)(i)

DRAWING E7 | POSSIBLE GEOMETRIC AND STRUCTURAL IMPROVEMENTS 1 9

18(1)(b), 18(1)(c)(i)

DRAWING E8 | POSSIBLE GEOMETRIC AND STRUCTURAL IMPROVEMENTS 10

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

5.2 METHODOLOGY

18(1)(b), 18(1)(c)(i)

5.2.1 PROJECT INITIATION

18(1)(b), 18(1)(c)(i)

FIGURE E9 | CONCEPTUAL PROJECT WORKFLOW

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

5.2.2 FUNCTIONAL DESIGN

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

5.2.3 PRELIMINARY DESIGN

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

[redacted]

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

[redacted]

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

[redacted]

18(1)(b), 18(1)(c)(i)

5.3 DELIVERABLES

18(1)(b), 18(1)(c)(i)

5.4 KEY MEETINGS

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

5.5 ASSUMPTIONS

18(1)(b), 18(1)(c)(i)

5.6 CITY REQUIREMENTS

The following activities and services to be provided by the City have been identified:

- The City will provide background information within two weeks of receiving the initial data request.
- The City will conduct any identified required additional traffic counts.
- The City's review period for technical materials will be two weeks.
- The City's review period for public engagement materials will be four weeks.
- A City point person will coordinate all required City reviews and approvals, with one round of edits and changes.
- The City will coordinate advertising booking and one registered mail to landowners.
- The City will ensure that the independent road safety audit will be completed within one month.
- The City will provide traffic control for the under-bridge crane.

5.7 TEAM MEMBER AVAILABILITY

Table E10 lists the percent of available time (%AT) and percent of time to be dedicated to the Project (%DP) for each team member identified in Form P: Person Hours.

5.8 FORM P: PERSON-HOURS

Table E11 shows **Form B: Person Hours** which provides a detailed breakdown of the hourly rates and estimated time for each individual and each task. The table also includes Type 1 and Type 2 disbursements; however, Type 2 disbursements have not been included in the Fee proposal.

TABLE E10 | TEAM MEMBER AVAILABILITY

18(1)(b), 18(1)(c)(i)

SECTION F

PROJECT SCHEDULE

SECTION G

PROJECT MANAGEMENT & QUALITY CONTROL / ASSURANCE

SECTION F – PROJECT SCHEDULE

Our proposed schedule is based on the stated award date of August 31, 2017 and submission of the final preliminary design report by18(1)(b), 18(1)(c)(i)

Based on the information in the RFP, we have developed a draft work breakdown structure and schedule for the project shown in **Figure F1**. Upon award of the contract, one of the first tasks will be to review the schedule with the City and develop it in more detail. This will include detailing the required review time of documentation for the City team. As a result of this meeting, the WSP Project Team will then create a master project schedule that captures the needed activities using Microsoft Project (MS Project) – a tool that breaks down the project into manageable sub-entities, and communicates timing and interdependency of all tasks to project participants. It identifies and will be used to track milestones and performance indicators, as well as target dates for the preparation, submission, review, and adjustment of all project deliverables. It will also be used to guide the analysis of risk associated with critical project stages.

Once reviewed and approved, the master project schedule will become the baseline against which we will track progress on the project. Progress will be obtained every two weeks for project controls and earned value purposes; however, the schedule will be updated monthly. The schedule is a critical reference document and is often the focus of Project Team meetings and monthly status reports. The WSP Project Team will monitor deviations from the schedule and recommend potential alternatives (such as additional resources, sequencing, methods of production and implementation, or fast-track alternatives) to accelerate delivery and minimize schedule impacts without increasing costs unnecessarily.

Actual progress can differ from the planned progress for many reasons. The Discipline Leads are responsible for identifying the causes of schedule deviation and trends at the task level and for correcting the deviations. Deviations that are beyond a Discipline Lead's capabilities to resolve will be brought to the WSP Project Manager's attention. Changes to the schedule will be formally requested using the internal Scope Change Request Form.

SECTION G – PROJECT MANAGEMENT & QUALITY CONTROL / ASSURANCE

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

18(1)(b), 18(1)(c)(i)

TABLE C1 | WSP PROPONENT

WSP provides clients with comprehensive engineering, planning, geomatics, and program / project management services across a broad range of market sectors. With strong client relationships and solid industry knowledge, we help our clients capitalize on opportunities, understand and address challenges, identify and manage risks, and navigate relevant regulatory systems.

Our Winnipeg offices have over **170 employees** consisting of project managers, engineers, planners, technicians, and support staff who provide planning, design, and contract administration services for public and private sector clients. Our local Transportation group is made up of 50 engineers and technicians. WSP has been providing consulting engineering services to the City for **over 50 years**. [redacted]

WSP is one of the world's leading professional services firms providing integrated solutions across many disciplines. WSP has become the preeminent Canadian engineering firm with offices in Canada from coast to coast. Our company has a combined staff of 36,500 (more than 7,500 across Canada) in 40 countries. WSP is COR-certified (Certificate #25411-08), is in good standing with the Workers Compensation Board of Manitoba, and registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba. Listed below are WSP's project examples which demonstrate our recent experience on similar projects.

The WSP team has extensive experience providing services for large transportation projects of similar size and complexity to the Route 90 Widening. WSP (formally known as MMM Group Limited) completed the 2012 Route 90 Preliminary Design Study, with many of the same subconsultants as our current proposed team. We are leaders and innovators in the disciplines of: Transportation Planning; Roadway Geometrics; Structural Design; Road Safety; Value Engineering; Environmental & Regulatory; and Project Delivery. Our Project Delivery experience has included conventional Design – Bid – Build to Design-Build and Public-Private Partnerships (P3). WSP has extensive experience with P3 project execution – we have provided leadership to P3 consortia, and support services to public or private owners as functional designers, independent certifiers, project / program managers, or independent engineers. With this broad experience we understand the complexities of execution from various perspectives.

YEAR ESTABLISHED (KEY DATES)	• 1959: G.B.G.M. Ltd and Les Consultants Dupuis, Côté Inc., begin operating in Quebec City • 1993: The merged firms rebrand to GENIVAR and embark on acquiring other firms • 2012: GENIVAR and WSP join forces, and rebrand under WSP • 2014: Parsons Brinckerhoff and Focus Corporation become part of WSP • 2015: MMM Group, SPL Consultants, and Levelton become part of WSP • 2017: All firms now identified as WSP and a new brand is launched	
PARTNERSHIP, CORPORATE, ETC.	Corporation	
ANNUAL AVERAGE VOLUME OF WORK	[redacted]	
TOTAL STAFF	170 – Winnipeg; 36,500 globally	
	HEAD OFFICE	LOCAL OFFICE
Address	1600 René-Lévesque Blvd. W., 16th Floor	111 - 93 Lombard Avenue
City / Postal Code	Montréal, QC H3H 1P9	Winnipeg, MB R3B 3B1
Telephone • Fax	+1 (514) 340-0046 • +1 (514) 340-1337	(204) 943-3178 • (204) 943-4948

WSP PROJECT ROUTE 90 PRELIMINARY DESIGN & PUBLIC CONSULTATION STUDY; TAYLOR AVENUE TO NESS AVENUE

PROJECT DESCRIPTION & ROLE	The City retained a multidisciplinary study team led by WSP (MMM Group) to provide preliminary design and public engagement services for Route 90 (Kenaston Boulevard) from Taylor Avenue to Ness Avenue The project explored options to widen the existing four lane divided roadway to six lanes to better accommodate current and forecast traffic volumes and to recommend a preferred design option based on technical merits, cost-benefit considerations, neighbourhood impacts, and public feedback. The study considered improvements for all modes of transportation, including transit and pedestrian / cycling movements (including addressing school-age children crossing Route 90), on the corridor and connecting links. Some of the issues addressed during the study included short-cutting between Kenaston Boulevard and Wellington Crescent, access to the West Wolseley neighbourhood and between Route 90 and Portage Avenue, and an improved connection for eastbound Portage traffic to Route 90 and St. James Street. The study also involved extensive public consultation, including a website, stakeholder meetings, open houses, and presentations. | Role | Transportation Planning; Preliminary Road Design; Traffic Operational Analysis; Transit Operations Review; Road Safety Review; Public Engagement; Pedestrian and Cycling Facilities; Noise Analysis and Mitigation; Access Management; Structural Review; Field Survey; Drainage And Utilities; Signage; Neighbourhood Traffic Review; Environmental Review; Landscape Architecture; Universal Design Review; Property Appraisals and Costs; Cost Estimates	CLIENT / OWNER	City of Winnipeg
		PROJECT COST	Original / Final: [redacted]
		PROJECT SCHEDULE	Anticipated Start / End: 2008 / 2009
			Actual Start / End: 2008 / 2012 (included almost a two year review period by City staff)
		REFERENCES	Reference #1: Luis Escobar • t: (204) 986-5895
			Reference #2: Stephen Chapman • t: (204) 986-5028

WSP PROJECT MARION STREET WIDENING & GRADE SEPARATION

PROJECT DESCRIPTION & ROLE	WSP led a multidisciplinary team to investigate options for a continuous six-lane divided Route 115 from Rue Des Meurons to the Dugald Road Overpass, including a grade separation of the CPR track. Marion Street is a major east-west corridor that combines local and commuter use with truck traffic, and provides access to and from downtown Winnipeg. Marion Street experiences peak period traffic congestion in part due to delays at the Marion Street / Archibald Street intersection caused by geometric deficiencies, and also due to rail traffic at the Marion Street at-grade crossing of the CPR Emerson subdivision. Safety is also a concern as Marion Street is a four-lane undivided roadway with a number of direct access points and heavy truck traffic. The study aimed to identify ways to reduce congestion and train delays; improve connections to east Winnipeg; improve safety and connectivity; and incorporate new or enhanced transit, bicycle, and pedestrian facilities. The project included extensive public engagement, including a website, public survey, stakeholder meetings, and open houses. | Role | Public Engagement; Transportation Planning; Traffic Operational Analysis; Pedestrian and Cycling Facilities; Transit Review; Landscape Architecture; Traffic Simulation Modeling; Traffic Signals Analysis; Access Management; Drainage and Utilities; Property Appraisals and Costs; Preliminary Road Design; Cost Estimates; Structural Review; Construction Staging	CLIENT / OWNER	City of Winnipeg
		PROJECT COST	Original / Final: [redacted]
		PROJECT SCHEDULE	Anticipated Start / End: 2013 / 2014
			Actual Start / End: 2013 / 2016
		REFERENCES	Reference #1: Luis Escobar • t: (204) 986-5895
			Reference #2: Scott Suderman • t: (204) 986 6963

WSP PROJECT SEASONS OF TUXEDO SHOPPING CENTRE DEVELOPMENT

PROJECT DESCRIPTION & ROLE	WSP assisted the joint-venture developers with the functional planning and site design for the development of a new regional shopping centre that consists of several large retail stores, including IKEA and an outlet mall. WSP was involved at all stages of the project, from the initial site planning to detailed design and construction. A major component of the project included the widening of Kenaston Boulevard (Taylor to south of Lowson) from four lanes to six lanes, the widening of Sterling Lyon Parkway from two lanes to four lanes, and significant intersection improvements at Sterling Lyon Parkway and Kenaston Boulevard. A number of WSP staff that are included in this proposal worked on this study and/or have worked on projects for other developments within the Seasons of Tuxedo area. These WSP staff are very familiar with the study area and have a good understanding of the stakeholders and potential design issues that will need to be considered as part of this study. Other key components of the project included:	CLIENT / OWNER	Fairweather Properties and IKEA Canada
		PROJECT COST	Original / Final: [redacted]
		PROJECT SCHEDULE	Anticipated Start / End: 2009-2014
			Actual Start / End: 2009-2014
		REFERENCES	Reference #1: Michael Nozick • t: (204) 888-4422

- Planning approvals including an amendment to OurWinnipeg, rezoning, subdivision, and site-specific variances
- The design and contract administration of off-site extensions of the wastewater sewer and water mains to service the site
- Approvals for the off-site works from the City of Winnipeg and CN Rail
- Transportation impact study for the entire site, including an analysis of weekday and weekend traffic operations
- The functional on-site layout of the access and circulation roadways, including three, two-lane roundabouts
- Functional design for the parking lots for the mall and retail mid-box zone
- Detailed design and contract administration for the installation of on-site underground services, roads, parking lots and site lighting
- Coordination with other consultants for the layout and installation of geothermal heating fields below the parking lots
- Utility coordination

| Role | Planning Approvals / Variances; Transportation Planning; Full Environmental Review; Pedestrian and Cycling Facilities; Utility and Services Review; Rail Crossing Assessments

Reference #2	Colin Chopp • t: [redacted] off-site works)

WSP PROJECT PORT MANN / HIGHWAY 1 IMPROVEMENT

PROJECT DESCRIPTION & ROLE

The Port Mann / Highway 1 project was a major upgrade to BC's Lower Mainland transportation network and included a new Fraser River crossing and upgrades / widening to 37 km of highway. As part of this work, eight existing bridges and six existing retaining walls were identified for rehabilitation and functional upgrades to accommodate one additional traffic lane in each direction. All construction was to be completed without any day-time lane closures. WSP (MMM Group), in joint venture with Hatch Mott MacDonald, led the design and delivery of the project's entire [redacted] onshore works component, which represents nearly [redacted] of the project's overall cost.

The onshore element of the project included widening 37 km of freeway, which involves laying 1,500,000 m² of new pavement and 800,000 m² of overlay; upgrading 11 major freeway interchanges, replacing 34 freeway bridges and rehabilitating a further eight bridges; construction of over 20 lightweight fill embankments; and more than 80 retaining walls together with construction of over 200 culverts and 750,000 m² of ground improvements. There are also environmental compensation works, hundreds of utility relocations and protections, and signage and lighting works. All of this project activity occurred between the McGill Interchange in Vancouver and 216 Street in Langley, which is the most congested element of Highway 1 in British Columbia.

The project required a complete redesign of the complex Cape Horn Interchange at the west end of the Port Mann Bridge to simplify the interchange and improve safety and efficiency for all traffic movements. Key criteria successfully addressed include: soft soils where settlement and seismic induced liquefaction were mitigated; the design of the whole alignment within a three-dimensional digital model; and the completion of the design within budget and ahead of the construction schedule.

One unique aspect to this project was the need to design in a complex urban environment. The project was not only the busiest highway corridor in BC, but also one of its most dense urban transportation networks. Over 125,000 vehicles use Highway 1 to cross the Fraser River each day. The project traversed network links and municipal crossings, as well as multiple railway and public transit lines. This narrow, constrained corridor runs parallel to and regularly intersects every utility: electrical, lighting, fibre optic, gas, oil, drainage, and municipal services. The project's success required an integrated and collaborative approach between the design team, the DBJV and project stakeholders. Each of the more than 100 individual utility relocations and protection designs required proactive design communication. With limited lane closures and low tolerance for public delay, the project called for over 340 traffic detours. The design and construction teams worked closely to develop innovative staging concepts that used temporary structures and re-purposed existing components through construction. Designated team members for our current proposal were involved in the Port Mann project.

| Role | Design Management; Base Mapping and Survey; Transportation Planning; Environmental Design; Geotechnical Design; Drainage Design; Public and Private Utility Relocation and Protection Design; Highway Design; Structural Design; Pavement Design; Guide Signage and Lighting Design; Railroad Design; Materials Engineering; Construction Inspection and Certification

CLIENT / OWNER	British Columbia Ministry of Transportation and Infrastructure (BCMoTI) / Transportation Investment Corporation of British Columbia (TI Corp). This was a Design-Build project, as such our client was Kiewit.	
PROJECT COST	Original / Final	[redacted]
PROJECT SCHEDULE	Anticipated Start / End	2008 / 2015
	Actual Start / End	2008 / 2015
REFERENCES	Reference #1	Edmund Lee, P.Eng • t +1 (778) 945 6053
	Reference #2	Gerry Fleming • t: +1 (604) 315-1174

Awards include: 2013 BC Deputy Minister's Consulting Engineers Award Excellence in Design and Contract Preparation, Roads; 2014 Consulting Engineers of British Columbia Lieutenant Governor's Award of Excellence; 2014 Consulting Engineers of British Columbia Award of Excellence, Transportation & Bridges.

WSP PROJECT AGASSIZ ROSEDALE BRIDGE & ROSEDALE OVERHEAD

PROJECT DESCRIPTION & ROLE

WSP's Vancouver Office was retained by BC MoTI to complete functional, preliminary, and detailed design for the rehabilitation, seismic retrofit, and widening to the Agassiz-Rosedale Bridge and the Rosedale Overhead. These two bridges are key components of the Highway 9 link across the Fraser River, connecting the TransCanada and Lougheed Highways in the heart of Fraser Valley east of Metro Vancouver. The proposed functional improvements require deck widening to accommodate wider shoulders for cyclists, a re-configured wider sidewalk for pedestrians and new traffic barriers. The Agassiz-Rosedale Bridge is classified as a "lifeline" bridge, which need to be seismically upgraded in accordance with the new CSA S6-14 bridge code. Designated team members for our current proposal were involved in the Agassiz-Rosedale project.

| Role | Functional Design; Preliminary Design; Project Management; Construction Services; Seismic Upgrading; Rehabilitation; Materials Engineering

CLIENT / OWNER	British Columbia Ministry of Transportation and Infrastructure (BCMoTI)	
PROJECT COST	Original / Final	[redacted]
PROJECT SCHEDULE	Anticipated Start / End	2015 / 2020
	Actual Start / End	2015 / Ongoing
REFERENCES	Reference #1	Bill Szto • t: +1 (604) 527-3120
	Reference #2	Valerie Fabick • t: +1 (778) 945-6071

TABLE C2 | KGS GROUP CONSULTING ENGINEERS – SUBCONSULTANT

[redacted]

[redacted]

[redacted]

TABLE C3 | HTFC PLANNING & DESIGN – SUBCONSULTANT

HTFC is the largest landscape architecture and planning firm in Manitoba, delivering innovative solutions since its inception in **1969**. [redacted]. With over **30 professionals**, HTFC has the resources to meet aggressive deadlines, and address a broad range of landscape and urban design issues. HTFC has extensive experience in the design and planning of large-scale transportation, greenway, and walk/ cycle projects in Winnipeg and other centres, with specific expertise in walkable communities, accessible landscape design, public communications, Crime Prevention Through Environmental Design (CPTED) and Complete Streets. Listed below are HTFC's project examples which demonstrate their recent experience on similar projects.

HTFC worked with WSP on the 2012 Route 90 Preliminary Design Study and are therefore familiar with the landscape design/public realm components of the project. HTFC also assisted with the public engagement, including producing renderings for use at public events.

YEAR ESTABLISHED	[redacted]
PARTNERSHIP, CORPORATE, ETC.	Corporation
ANNUAL AVERAGE VOLUME OF WORK	[redacted]
TOTAL STAFF	30
	HEAD / LOCAL OFFICE
Address	500-115 Bannatyne Avenue East

City / Postal Code	Winnipeg, MB R3B 0R3
Telephone • Fax	(204) 944-9907 • (204) 957-1467

HTFC PROJECT DISRAELI CORRIDOR REHABILITATION & PRELIMINARY DESIGN

PROJECT DESCRIPTION & ROLE

This project examined options to rehabilitate the Disraeli bridge and corridor extending from Main Street to Hespeler Avenue, with an emphasis on reintegration with the Point Douglas and Elmwood communities, and improved pedestrian and cycling facilities.

HTFC's responsibilities included visual assessment, an accessibility audit, and preliminary design of streetscapes, bridge sidewalks, architectural features, pedestrian links, lighting, and plantings. HTFC was an active participant in all stakeholder and open house events, and was retained to prepare key open house graphics and presentation drawings describing a variety of bridge cross section alternatives.

| Role | Visual Assessment; Preliminary Design (streetscapes, sidewalks, architectural features, pedestrian links, lighting, and plantings), Accessibility Audit; Graphics and Drawings for Open House; Public Engagement Participation

CLIENT / OWNER	City of Winnipeg	
PROJECT COST	Original / Final	[redacted]
PROJECT SCHEDULE	Anticipated Start / End	[redacted]
	Actual Start / End	[redacted]
REFERENCES	Reference #1	Brad Neirinck • t: (204) 986-7950
	Reference #2	Darren Burmey • t: (204) 986-5409

HTFC PROJECT MARION STREET WIDENING & GRADE SEPARATION

PROJECT DESCRIPTION & ROLE

See Table C1 for project description.

HTFC services included site analysis and assessment of development impacts, open house planning, walk / bike planning, generation of alternatives and weighing and application of evaluation criteria. Work included preliminary design drawings and descriptions to illustrate the landscape architectural treatment of streetscape, interchanges, walk / bike facilities, buffers, and lighting.

| Role | Site Analysis; Assessment of Development Impacts; Open House Planning; Pedestrian and Cycling Facilities; Generation and Evaluation of Alternatives; Preliminary Design Drawings

CLIENT / OWNER	WSP / City of Winnipeg	
PROJECT COST	Original / Final	[redacted]
PROJECT SCHEDULE	Anticipated Start / End	[redacted]
	Actual Start / End	[redacted]
REFERENCES	Reference #1	Luis Escobar • t: (204) 986-5895
	Reference #2	Scott Suderman • t: (204) 986-6963

HTFC PROJECT PROVENCHER PAIRED BRIDGES PROJECT

PROJECT DESCRIPTION & ROLE

The reconstruction of the Provencher Bridge was a contentious, politically charged project that required the design team to satisfy multiple factions, and anticipate urban redevelopment directions within the rapidly transforming Forks and Waterfront Drive district. In the end the project has become an icon for Winnipeg's renewal and has garnered many local and international awards.

HTFC's responsibilities included conceptual design, urban planning, heritage interpretation, universal design review, and detailed design of the pedestrian and vehicular bridge landings. In addition to detailed design and contract administration for the bridge landings and dock, HTFC co-authored the interpretive plan with Gaboury Prefontaine Perry architects, designed the bicycle and pedestrian network, prepared a detailed accessibility audit, and worked with the engineering team on road alignments and streetscape for Pioneer and Water Avenues. Through the course of the project, the firm's role was extended to oversee the approval process through various municipal and provincial authorities.

| Role | conceptual design; urban planning; heritage interpretation; universal design review; detailed design of the pedestrian and vehicular bridge landings; With Gaboury Prefontaine Perry architects, co-authored the heritage interpretive plan, designed the bicycle and pedestrian network; prepared a detailed accessibility audit; worked with the engineering team on road alignments and streetscape for Pioneer and Water Avenues; Role was extended to oversee the approval process through various municipal and provincial authorities

CLIENT / OWNER	City of Winnipeg	
PROJECT COST	Original / Final	[redacted]
PROJECT SCHEDULE	Anticipated Start / End	[redacted]
	Actual Start / End	[redacted]
REFERENCES	Reference #1	Brad Neirinck • t: (204) 986-7950
	Reference #2	Paul Jordan • t: (204) 987-4362

TABLE C4 | FAITHFUL+GOULD – SUBCONSULTANT

F+G is a wholly-owned subsidiary of W.S. Atkins, plc, which in turn is owned by SNC-Lavalin. F+G averages **£205M annually** under Atkins Worldwide as a whole. We have been providing quality support services and constructive expertise to the public and private sectors for nearly 70 years (**established in 1947**). F+G has a team of **540 experts** across North America (2,450 worldwide). Our integrated project and program management consultancy services help clients across every sector, and in every part of the world. F+G has performed over 700 Value Engineering (VE) studies over the last 30 years. Listed below are F+G's project examples which demonstrate their recent experience on similar projects.

YEAR ESTABLISHED	1947	
PARTNERSHIP, CORPORATE, ETC.	Faithful+Gould is wholly-owned subsidiary of W.S. Atkins, plc, which in turn is owned by SNC-Lavalin	
ANNUAL AVERAGE VOLUME OF WORK	£205M under Atkins Worldwide as a whole	
TOTAL STAFF	541 in North America and 2,449 Worldwide for Faithful+Gould	
	HEAD OFFICE	CANADIAN OFFICE
Address	500-115 Bannatyne Avenue East	100 King Street West, Suite 3700
City / Postal Code	Winnipeg, MB R3B 0R3	Toronto, ON M5X 1C9
Telephone • Fax	(204) 944-9907 • (204) 957-1467	+1 (416) 644-5098 • +1 (416) 644-8801

F+G PROJECT CHIEF PEGUIS TRAIL EXTENSION

PROJECT DESCRIPTION & ROLE	Project involved an independent technical review of plans submitted by the consultant team for the extension of Chief Peguis Trail from Main Street to Brookside Boulevard. This included a review of the roadway geometrics, traffic operations, transportation forecasts, bridge structures at the two interchanges, environmental assessment, and noise forecasts and mitigation strategies. Functional and preliminary design plans were prepared, with a value engineering and risk management workshop after completion of the functional design. | Role | Value Engineering and Risk Facilitation; Draft and Final Reports	**CLIENT / OWNER**	City of Winnipeg (subconsultant to WSP)	
		PROJECT COST	Original / Final	$41,960 (F+G fee) / $40,500
		PROJECT SCHEDULE	Anticipated Start / End	May 2017 / June 2017 (F&G Scope)
			Actual Start / End	May 2017 / June 2017 (F&G Scope)
		REFERENCES	Reference #1	Scott Suderman • t: (204) 98 66963
			Reference #2	Blake Kibbins • t: [redacted]

F+G PROJECT WILLIAM R. CLEMENT PARKWAY EXTENSION

PROJECT DESCRIPTION & ROLE	Project investigated the extension of William R. Clement from Grant to McGillivray, and Sterling Lyon from east of McCreary to west of Charleswood. The options underwent traffic operations analysis, traffic signal warrant analysis, and traffic simulation modelling, and were evaluated based on criteria including traffic accommodation, safety, land requirements, environmental impact, property impacts, cost, staging, etc. Grade separation options were also developed. The recommended options were designed to the functional and preliminary design level, with a value engineering workshop after completion of the functional design. | Role | Value Engineering and Risk Facilitation; Draft and Final Reports	**CLIENT / OWNER**	City of Winnipeg (subconsultant to WSP)	
		PROJECT COST	Original / Final	$17,700 (F+G fee) • $17,700
		PROJECT SCHEDULE	Anticipated Start / End	May 2016 / June 2016 (F&G Scope)
			Actual Start / End	May 2016 / June 2016 (F&G Scope)
		REFERENCES	Reference #1	Shima Rezazadeh • t: [redacted]
			Reference #2	Scott Suderman • t: (204) 986-6963

F+G PROJECT HIGHWAY 400, FROM HIGHWAY 89 TO JUNCTION OF HIGHWAY 11

PROJECT DESCRIPTION & ROLE	VE Study on the widening of Highway 400 along a 30 km section from 1 km south of Highway 89 to the junction at Highway 11. The purpose of the project was to address traffic operations, capacity, and safety needs of Highway 400 within the Town of Innisfil, City of Barrie, and Township of Springwater, in the County of Simcoe. | Role | Value Engineering and Risk Facilitation; Draft and Final Reports	**CLIENT / OWNER**	Ministry of Transportation, Ontario (subconsultant to WSP)	
		PROJECT COST	Original / Final	$25,500 (F+G Fee) / $25,500
		PROJECT SCHEDULE	Anticipated Start / End	September 2016 / October 2016 (F&G Scope)
			Actual Start / End	September 2016 / October 2016 (F&G Scope)
		REFERENCES	Reference #1	Rob Vandenberg • t: +1 (416) 235-5483
			Reference #2	Peter Dorton • t: +1 (416) 235-4280

TABLE C5 | BARNES & DUNCAN – SUBCONSULTANT

[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]
		[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]
	[redacted]	[redacted]

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	
		[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
			[redacted]	[redacted]

[redacted]

TABLE C6 | INDUSTRIAL TECHNOLOGY CENTRE – SUBCONSULTANT

ITC was established in 1979 and has been a Special Operating Agency of the Province of Manitoba since 1996. ITC provides services that contribute to technology-based economic development for the benefit of Manitoba. ITC is Standards Council of Canada-accredited, ISO 9001 registered, and CLAS certified. ITC's annual average volume of work in engineering is $0.9M (overall is $2M) and has a total of 18 staff. With over 30 years' experience, ITC provides engineering, technical, advisory, and information services in many sectors, including aerospace, transportation, health, energy, environment, general manufacturing, architecture, and construction. For each project example provided, specific similarities to the Route 90 Widening Project includes:

- The noise assessment mapped current traffic patterns and associated traffic-induced noise surrounding current transportation route. Changes to the roadways and projected increased traffic levels were introduced and the increases in noise level were mapped. Possible mitigation for noise increases were investigated and compared, and noise and rail noise surrounding current transportation route.
- Current noise levels were measured and existing noise sources through the primarily residential neighborhood were determined. Existing residences and noise sources, including traffic and rail generated noise were modelled and compared to measured noise values. The design for the roadway extension was integrated into the model and the resultant noise levels were mapped. Mitigation measures were modelled and the resultant sound levels were calculated.

YEAR ESTABLISHED	1979 – Special Operating Agency in 1996
PARTNERSHIP, CORPORATE, ETC.	Special Operating Agency of the Province of Manitoba
ANNUAL AVERAGE VOLUME OF WORK	Engineering ($1M this year), whole company ($2M)
TOTAL STAFF	Engineering (7), ITC (18)
	HEAD OFFICE
Address	200 – 78 Innovation Drive
City / Postal Code	Winnipeg, MB R3T 6C2
Telephone • Fax	(204) 480-3333 • (204) 480-0357

ITC PROJECT PTH 59 / PTH 101 & PTH 59 / PRR 202 INTERCHANGE & RELATED ROADWAY UPGRADES

PROJECT DESCRIPTION & ROLE	This project involves the functional design of an interchange at PTH 59 / PTH 101, an AT grade separated crossing of PTH 101 at the Gateway-Raleigh corridor, and an upgraded intersection at PTH 59 / PR 202. WSP prepared a functional design report and was subsequently retained to act as Owner's Engineer. ITC prepared noise forecasts and mitigation strategies. | Role | Environmental Noise Monitoring and Assessment; Noise Mitigation Design; Ground Vibration Monitoring	CLIENT / OWNER	Manitoba Infrastructure (subconsultant to WSP)
		PROJECT COST	Original / Final [redacted]
		PROJECT SCHEDULE	Anticipated Start / End [redacted]
			Actual Start / End [redacted]
		REFERENCES	Reference #1 Richard Tebinka • t: (204) 272-2003
			Reference #2 Jim Lukashenko • t: (204) 272-2025

ITC PROJECT WILLIAM R. CLEMENT PARKWAY EXTENSION

PROJECT DESCRIPTION & ROLE	This project investigated the extension of the William R. Clement Parkway from Grant Avenue to McGillivray Boulevard. The study included functional and preliminary design for Phase I (from Grant Avenue to an extension of Sterling Lyon Parkway) and functional design for the balance of	CLIENT / OWNER	City of Winnipeg (subconsultant to WSP)
		PROJECT COST	Original / Final [redacted]

	the corridor. Grade separation options for the CN Mainline, Eldridge Avenue, and Harte Trail were developed. Options were also developed for an east-west connection from Shaftesbury Avenue to PTH 100. The options developed underwent traffic operations analysis, traffic signal warrant analysis, and traffic simulation modelling, and were evaluated based on a variety of criteria including traffic accommodation, safety, land requirements, environmental impact, property impacts, cost, staging, accommodation for dog parks, etc. Based on the results of the analyses, the recommended options were designed to the preliminary design level. The study also included an investigation of potential park-and-ride locations and ensured that design accommodated transit needs. ITC prepared noise forecasts and mitigation strategies. | Role | Environmental Noise Monitoring and Assessment; Noise Mitigation Design	PROJECT SCHEDULE	Anticipated Start / End	[redacted]
			Actual Start / End	[redacted]
		REFERENCES	Reference #1	Richard Tebinka • t: (204) 272-2003
			Reference #2	Jaime Lacoste • t: (204) 259-5427

ITC PROJECT – CENTREPORT CANADA WAY (CCW)

PROJECT DESCRIPTION & ROLE	CCW is a $150M Design-Build project comprising the construction of new roadway, two interchanges, and nine bridge structures near Winnipeg's Richardson International Airport. The new route connects the Perimeter Highway (PTH 101) and Inskter Boulevard. The first stage of the CCW roadway development includes an overpass of the CPR Glenboro line, construction of an interchange between the PTH 101 and the CCW, an overpass of the existing CPR Carberry Subdivision, Omand's Creek, an existing drainage channel, and a future reserve for a relocated CNR Oak Point rail line. WSP was retained to complete the functional design, and was subsequently engaged as the Owner's Engineer for this Design-Build contract. WSP retained ITC to conduct noise assessments and mitigation along residential lands on the south side of Saskatchewan Avenue and the east side of the Perimeter Highway. | Role | Environmental Noise Monitoring and Assessment; Noise Mitigation Design	CLIENT / OWNER	Manitoba Infrastructure (subconsultant to WSP)	
		PROJECT COST	Original / Final	[redacted]
		PROJECT SCHEDULE	Anticipated Start / End	June 2009 / July 2009 (ITC scope)
			Actual Start / End	June 2009 / July 2009 (ITC scope)
		REFERENCES	Reference #1	Don McRitchie • t: (204) 232-0248
			Reference #2	Richard Tebinka • t: (204) 272-2003
		AWARDS: 2010 CEM Award of Merit for the Procurement of Design Build Grade Separations of CCW		

TABLE C7 | FIRST PERSON STRATEGIES – SUBCONSULTANT

Based in Winnipeg, First Person Strategies (FPS) leverages front line experience navigating high profile, high stakes issues to help organizations improve outcomes with stakeholders, and keep pace with the expectations of an increasingly informed media and public. FPS combines strategic insights gleaned from navigating tough public issues with a background in professional writing, publishing, facilitation, stakeholder relations and social media. As a result, we've developed a robust toolkit of fully managed, innovative, customizable, and battle tested tactics to successfully engage and communicate with stakeholders and the public and support project success: interactive platforms, social media campaigns, storytelling, video, photo voice, pop-ups, advisory committee and workshop facilitation, community competitions and more.

FPS received an Honourable Mention for the 2016 "Organization of the Year Award" from IAP2 Canada. This award recognizes the application of the IAP2 core values in all aspects of an organization and how they are embedded into decision-making that features public participation.

YEAR ESTABLISHED	2013
PARTNERSHIP, CORPORATE, ETC.	Joint Venture
ANNUAL AVERAGE VOLUME OF WORK	[redacted]
TOTAL STAFF	5-7
	HEAD / LOCAL OFFICE
Address	402-460 Main Street
City / Postal Code	Winnipeg, MB R3B 1B6
Telephone • Fax	(204) 818-6958 • N/A

FPS PROJECT ARLINGTON STREET BRIDGE OVER THE CPR YARDS REPLACEMENT PRELIMINARY DESIGN

PROJECT DESCRIPTION & ROLE	The century old Arlington Bridge is nearing the end of its useable life and must be replaced. The preliminary design seeks to build on the work done in the functional design but challenge the outcomes to ensure the City is proceeding in the best and most efficient way. Design includes the bridge itself, and the Arlington Street corridor from McDermot to Selkirk. Key aspects of the design where public and stakeholder input is being sought includes use of surplus lands, public art and heritage considerations, safety, and key connections / networks to and from corridor for all modes. FPS is the "Public" lead for a team led by Stantec for the preliminary design of a new Arlington Street Bridge. This high profile project bears direct relevance and similarity to the preliminary design of Route 90 widening – property impacts, multiple stakeholders, including a significant requirement for indigenous and property owner engagement; project advisory committee; a sophisticated communications strategy to manage the high-profile and potentially controversial nature of the project; and a need to build on (not duplicate) public engagement completed in previous phases. | Role | FPS's scope includes strategy and management of all engagement activities and public-facing communications. Innovative approaches on this project have included creation of extensive video and graphics and community partnering with advisory members to make more community buy in, awareness and understanding of key issues. FPS group facilitation of the advisory committee has resulted in their endorsement of the engagement process and key design decisions including roadway design.	CLIENT / OWNER	City of Winnipeg	
		PROJECT COST	Original / Final	[redacted]
		PROJECT SCHEDULE	Anticipated Start / End	2016 / 2017
			Actual Start / End	2016 / Ongoing
		REFERENCES	Reference #1	[redacted]
			Reference #2	[redacted]

FPS PROJECT SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS

PROJECT DESCRIPTION & ROLE	FPS is the Communications and Public Engagement Expert on a team led by Plenary Group for the design and construction of this high-profile public-private-partnership (P3) project. The project will help accommodate anticipated population growth in southwest Winnipeg that is expected to	CLIENT / OWNER	Plenary Group	
		PROJECT COST	Original / Final	[redacted]

	increase traffic on Pembina Highway by 40% by 2030. It includes the design and construction of Stage 2 of the transitway (7.6 km), addition of active transportation infrastructure, renewal and expansion of the Pembina Highway Underpass, and connections to key destinations (University of Manitoba and Investors Group Field). These features and others (e.g. sound wall, access issues, high-profile property requirements (Kapyong Barracks for Route 90, Parker Lands for Rapid Transit) and a significant requirement for ongoing stakeholder relations, bear direct relevance to the preliminary design of the Route 90 widening. Scope of work for this complex, high-profile project included development of a comprehensive communications plan for effective team communication with the public, stakeholders, relevant City departments, and media on a range of considerations, stakeholder communication strategy, delivery of annual public information sessions, and updates to the project webpage. | Role | Facilitator for bi-weekly communications team meetings, provide ongoing communication and engagement strategy, and creates content to support greater public understanding of the benefits of the project, and localized construction impacts, therefore the information provided is specific to their component of the projects.	PROJECT SCHEDULE	Anticipated Start / End	2016 / 2020
			Actual Start / End	2016 / Ongoing
		REFERENCES	Reference #1	[redacted]
			Reference #2	[redacted]

FPS PROJECT – FPS – DOWNTOWN PROTECTED BIKE LANE SYSTEM

PROJECT DESCRIPTION & ROLE	**Fort / Garry Preliminary Neighbourhood Consultation (516-2015):** FPS was the Public Engagement Expert and Advisor on a multidisciplinary study team led by WSP for the City's downtown walk bike projects in 2015 and 2016. Downtown active transportation projects are controversial and high-profile, and FPS's strategy included engagement and relationship building with a variety of stakeholders, interests and impacts, and proactive tactics to address previous concerns from the Mayor's Office and key stakeholders and ensure a robust, defensible engagement process. This included innovative tactics (e.g. some of the first pop-up engagement events ever conducted by the City); multiple, and carefully documented attempts to engage top tier stakeholders directly along affected routes; a sophisticated communications strategy to manage the high-profile and potentially controversial nature of the project; and a substantial reporting component on the engagement process and results. **Downtown Pavement Renewals, Protected Bike Lanes & Streetscaping Construction (995-2016):** Subsequently, FPS was the Public Communications Lead on the Preliminary and Detailed Design, Contract Administration, and Post Construction Services for the resulting construction project. Completing the new downtown bike lane will include a full renewal of Garry Street / Notre Dame Avenue, and upgrades on Princess Street and Arthur Street that will be completed in phases. Construction will take place from 2017 through the 2019 construction season. Scope of work included a continued focus on proactive, regularly scheduled stakeholder communications to address potential questions and concerns and mitigate associated risks to schedule and budget. | Role | Advice on public engagement strategy, key messaging, develop content and contribute to reporting on engagement activities. FPS was then part of the successful team led by AECOM for the Preliminary and Detailed Design, Contract Administration and Post Construction Services for the implementation of the subsequent Garry Street cycling facility from Assiniboine to Notre Dame. As Public Communications lead for the team, FPS's role includes strategic advice on stakeholder engagement and public communications and the development of key messages and communications materials.	CLIENT / OWNER	City of Winnipeg	
		PROJECT COST	Original / Final	[redacted]
		PROJECT SCHEDULE	Anticipated Start / End	Preliminary consultation: 2015-2016; construction: 2017-2019
			Actual Start / End	Preliminary consultation achieved 2016; construction ongoing
		REFERENCES	Reference #1	[redacted]
			Reference #2	[redacted]

TABLE C8 | WATT CONSULTING GROUP – SUBCONSULTANT

Watt Consulting Group Ltd. has provided innovative transportation planning and engineering services to Canadian communities for over 30 years. Our offices in Calgary, Edmonton, Lloydminster, Victoria, the Lower Mainland and the Okanagan consist of a mix of engineers, planners, and technical staff operating in a collaborative working environment. Watt Consulting Group is employee owned and operated, making our ownership team personally involved with our clients and their projects. Our team works to understand the local communities we work with to create site specific solutions that fit with the local environment.

We strive to integrate sustainability, health, and equity into all projects, and are regarded for action-oriented outcomes that lead communities on a path to positive change. Our areas of expertise include transportation planning and engineering for corridors and networks, traffic safety, bicycle corridor and network design, pedestrian facilities, signal timing plans, streetscape and complete street design, railway crossings, network analysis, traffic operations, and traffic management during construction. We are constantly striving to provide each client with the highest level of technical and professional service.

YEAR ESTABLISHED	1983	
PARTNERSHIP, CORPORATE, ETC.	Corporate (Limited)	
ANNUAL AVERAGE VOLUME OF WORK	[redacted]	
TOTAL STAFF	90	
	HEAD OFFICE	LOCAL OFFICE (DOING WORK)
Address	#310-3016 5th Avenue NE	#201-791 Goldstream Avenue
City / Postal Code	Calgary, AB T2A 6K4	Victoria, BC V9B 2X5
Telephone • Fax	+1 (403) 273-9001 • +1 (403) 273-3440	+1 (250) 388-9877 • +1 (250) 388-9879

WATT PROJECT WINNIPEG ROAD SAFETY AUDIT

PROJECT DESCRIPTION & ROLE	Undertake design safety audits for a series of bicycle facilities including: • Keewatin Street: Burrows Avenue to Inkster Boulevard, bi-directional pathway • McDermot Avenue: Arlington Street to Furby Street, protected bike lanes (bi-directional bike facility adjacent to one-way roadway) • Sherbrook Street: Cumberland Avenue to McDermot Avenue, protected bike lane (northbound) • Transcona Trail Extension: Panet Road (north of Mission Street) to Regent Avenue West (east of Peguis Street) running adjacent to CN and CEMR rail lines, multi-use pathway	CLIENT / OWNER	City of Winnipeg	
		PROJECT COST	Original / Final	[redacted]
		PROJECT SCHEDULE	Anticipated Start / End	[redacted]
			Actual Start / End	[redacted]
		REFERENCES	Reference #1	Ryan Cunningham • t: [redacted]

	| Role | Road Safety Audits with a focus on bicycles		Reference #2	Scott Suderman • t: (204) 986 - 6963

WATT PROJECT 2015 WALK BIKE PROJECTS: DOWNTOWN BIKE LANE SYSTEM; WEST ALEXANDER PEDESTRIAN AND CYCLING CORRIDOR

PROJECT DESCRIPTION & ROLE	Provided bicycle design guidance for a number of configurations and route alignment options, including geometric requirements, pavement markings, and signalization considerations (including bicycle signals). Accommodation of pedestrians, transit, accessible parking, loading zones, motor vehicles, and driveways were all incorporated. Key conflict zones were identified and addressed, as well as connections to other bikeway facilities. We also assessed and ranked the various options using evaluation criteria that included safety, pedestrian and cycling environment, vehicular operations (by mode, including parking), and construction and maintenance. The review resulted in the identification of preferred configurations and alignments, along with key geometric and traffic control characteristics for the routes. | Role | Cycling Experts; Design; Peer Review	CLIENT / OWNER	WSP (MMM) / City of Winnipeg	
		PROJECT COST	Original / Final	[redacted]
		PROJECT SCHEDULE	Anticipated Start / End	[redacted]
			Actual Start / End	[redacted]
		REFERENCES	Reference #1	Scott Suderman • t: (204) 986-6963
			Reference #2	Chirs Baker • t: [redacted]

WATT PROJECT PANDORA TWO WAY CYCLE TRACK

PROJECT DESCRIPTION & ROLE	Development of preliminary and detailed design drawings for the City's first two-way cycle track facility. Design assessment included reviewing Dutch junctions, raised cycle tracks, types of separation, and width of the cycle track. Roadway capacity, bus stop locations and facilities were also assessed to provide a balance for all users along the corridor including parking. Following the assessment of design features, the City determined that the key features to suit the community included a physical separation at bus stops, near intersections and painted buffers between the cycle track and parking. Landscaping and beautification elements were added where possible through the addition of significant bicycle parking, trees, and sidewalk patterns. To provide protection for cyclists at the seven signalized intersections along the corridor, bicycle signals will be designed to be added along with protected right-turn signals to separate right turning vehicles from through bicycles on the cycle track. Bicycle boxes will be provided for southbound bicycles on the north-south roads. | Role | Designers; Signal Timing; Construction Services; Inspections	CLIENT / OWNER	City of Victoria	
		PROJECT COST	Original / Final	[redacted]
		PROJECT SCHEDULE	Anticipated Start / End	[redacted]
			Actual Start / End	[redacted]
		REFERENCES	Reference #1	Tim Hewett • t: (250) 361-0306
			Reference #2	Keith Kresse • t: (250) 361-0300

TABLE C9 | PROBE RESEARCH INC. – SUBCONSULTANT

Probe Research Inc. is a dynamic market and public opinion research firm committed to providing accurate and reliable professional research services. Whether you are involved in business, government or non-profit organizations, our research experts can provide you with scientifically based information to guide you and your organization. Our goal is to help our customers make better decisions based on verifiable facts and to be able to:

- Understand even the most subtle characteristics of their marketplace, including market size and competitive opportunities.
- Receive guidance and direction for the development of policies, products and services.
- Monitor shifts in key public or consumer attitudes on products, brands and services.
- Steer clear of potential disasters, including communications failures and expensive business missteps.

Probe is a non-partisan research company that does not conduct polls on behalf of political parties. We offer unmatched quality in research consulting services by providing accurate and insightful research, at affordable rates in a timely manner. This combination of objectivity, flexibility, cost-effectiveness and timeliness sets Probe Research in a class by itself.

Probe Research assisted WSP with the 2012 Route 90 Preliminary Design Study, conducting statistically significant surveys for different focus areas regarding the proposed transportation improvements.

YEAR ESTABLISHED	1994
PARTNERSHIP, CORPORATE, ETC.	Corporation
ANNUAL AVERAGE VOLUME OF WORK	[redacted]
TOTAL STAFF	8
	HEAD / LOCAL OFFICE
Address	850 – 125 Garry Street
City / Postal Code	Winnipeg, MB R3C 3P2
Telephone • Fax	(204) 926-6565 • (204) 926 6566

PR PROJECT – DANIEL MCINTYRE WARD RECREATION NEEDS STUDY

[redacted]

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