



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 737-2020

NEW BRIDGE MANAGEMENT SYSTEM AND RELATED ENGINEERING SERVICES

TABLE OF CONTENTS

PART A - PROPOSAL SUBMISSION

- Form A: Bid/Proposal
- Form B: Prices

PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Enquiries	1
B4. Confidentiality	1
B5. Addenda	2
B6. Substitutes	2
B7. Proposal Submission	3
B8. Proposal (Section A)	4
B9. Prices (Section B)	4
B10. Experience of Proponent and Subcontractors (Section C)	5
B11. Experience of Key Personnel Assigned to the Project (Section D)	5
B12. Project Understanding and Methodology (Section E)	5
B13. Critical Requirements (Section F)	5
B14. Desired Requirements (Section G)	6
B15. Project Schedule (Section H)	6
B16. Disclosure	6
B17. Conflict of Interest and Good Faith	7
B18. Qualification	8
B19. Opening of Proposals and Release of Information	8
B20. Irrevocable Offer	9
B21. Withdrawal of Offers	9
B22. Interviews	9
B23. Negotiations	9
B24. Evaluation of Proposals	9
B25. Award of Contract	11

PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Background	1
D3. Scope of Services	2
D4. Contract Administrator	2
D5. Notices	3

Submissions

D6. Authority to Carry on Business	3
D7. Safe Work Plan	3
D8. Insurance	3

Schedule of Work

D9. Commencement	4
D10. Total Performance	4
D11. Liquidated Damages	5
D12. COVID-19 Schedule Delays	5

Measurement and Payment

D13. Invoices	5
D14. Payment	6
D15. Payment Schedule	6

Warranty

D16. Warranty	6
---------------	---

PART E - SPECIFICATIONS

E1. Applicable Specifications	1
E2. Supply and Installation of Software	1
E3. Data Migration from Existing Sources	13
E4. Training	13
E5. Warranty Maintenance (For 5 Years)	14

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 NEW BRIDGE MANAGEMENT SYSTEM AND RELATED ENGINEERING SERVICES

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, February 12, 2021.

B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

B3.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal, or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator to all Proponents by issuing an addendum.

B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator only to the Proponent who made the enquiry.

B3.5 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the Contract Administrator. Failure to restrict correspondence and contact to the Contract Administrator may result in the rejection of the Proponents Proposal Submission.

B3.6 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B3.7 Any enquiries concerning submitting through MERX should be addressed to:
MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

B4. CONFIDENTIALITY

B4.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

- (a) was known to the Proponent before receipt hereof; or
- (b) becomes publicly known other than through the Proponent; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B4.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposal to the media or any member of the public without the prior written authorization of the Contract Administrator.

B5. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.3 Addenda will be available on the MERX website at www.merx.com.
- B5.4 The Proponent is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.5 The Proponent shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.
- B5.6 Notwithstanding B3, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D4.1.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Proponent shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Proponent who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Proponents. The Proponent requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Proponent may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Proponent bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B24.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. PROPOSAL SUBMISSION

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Bid/Proposal (Section A) in accordance with B8; and
 - (b) Form B: Prices (Section B) in accordance with B9.
- B7.2 The Proposal should also consist of the following components:
- (a) Experience of Proponent and Subcontractors (Section C) in accordance with B10;
 - (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B11;
 - (c) Project Understanding and Methodology (Section E) in accordance with B12;
 - (d) Critical Requirements (Section F) in accordance with B13;
 - (e) Desired Requirements (Section G) in accordance with B14; and
 - (f) Project Schedule (Section H) in accordance with B15.
- B7.3 Further to B7.1 all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.4 Further to B7.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.
- B7.5 Proposal format, including number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their proposed solution
- B7.6 The Proposal shall be submitted electronically through MERX at www.merx.com.
- B7.6.1 Proposals will **only** be accepted electronically through MERX.
- B7.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B24.1(a).
- B7.8 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

B8. PROPOSAL (SECTION A)

- B8.1 The Proponent shall complete Form A: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Proponent is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Proponent is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Proponent is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid/Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.
- B8.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, it shall be signed by the Proponent;
 - (b) if the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Proponent is a corporation, it shall be signed by its duly authorized officer or officers;
 - (d) if the Proponent is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.
- B8.5 If a Proposal is submitted jointly by two or more persons, the word "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

B9. PRICES (SECTION B)

- B9.1 The Proponent shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.1.1 Notwithstanding C12.2.3, prices on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Proposals.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B9.4 Where applicable, payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. EXPERIENCE OF PROPONENT AND SUBCONTRACTORS (SECTION C)

B10.1 Proposals should include details demonstrating the history and experience of the Proponent and Subcontractors in providing similar software, training, and engineering support services for at least three (3) installations of similar complexity, scope and value.

B10.1.1 For each installation listed, the Proponent should submit:

- (a) project owner with telephone number, or the current contact information of a person acting on the project owner's behalf, per project;
- (b) a description of installation, description of services provided, identification of the bridge inspection system used, description of the software's functionality;
- (c) the date of the installation and duration from award of contract to "go live", whether training on software functionality and inspection system was included; and
- (d) approximate cost, and whether the installation is still in use. The installations should have been deemed successful by the owners.

B10.1.2 Where applicable, information should be separated into Proponent and Subcontractor installation listings.

B10.2 The Proposal should include general firm profile information, including years in business, average volume of work, number of employees and other pertinent information for the Proponent and all Subcontractors.

B11. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)

B11.1 Describe your approach to overall team formation and coordination of team members. Include an organizational chart for the Project.

B11.2 Submit the experience and qualifications of the Key Personnel assigned to the Project for projects of similar complexity, scope and value. Include educational background and degrees, professional recognition, job title, years of experience in current position, years of experience in design and years of experience with existing employer. Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B11.1. For each person identified, list at least two comparable projects in which they have played a primary role. If a project selected for a key person is included in B10.1, provide only the project name and the role of the key person. For other projects provide the following: Description of project; Role of the person; Project Owner; Reference information (one current name with telephone numbers per project).

B11.3 For each person identified, list the amount of time expected to be expended for each task. A table listing tasks and personnel hours/levels of efforts is required. Amount of time for each person listed will be factored in to the evaluation.

B12. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)

B12.1 Describe your firm's project management approach during the performance of Services, so that the evaluation committee has a clear understanding of the methods the Proponent will use in the delivery of this Project.

B12.2 Proposals should address the team's understanding of the broad functional and technical requirements, and identify key issues and mitigation plans to deal with the issues.

B12.3 Methodology should be presented in accordance with the Scope of Services identified in D3.

B13. CRITICAL REQUIREMENTS (SECTION F)

B13.1 Proponents should indicate if they will meet and provide a description of how they will meet critical requirements outlined in the following sections:

- (a) Supply and Installation of Software
 - (i) General, in accordance with E2.1;
 - (ii) Required Meetings & Submittals, in accordance with E2.2;
 - (iii) Software and Hardware Requirements, in accordance with E2.3;
 - (iv) User Levels, in accordance with E2.4;
 - (v) Inventory, in accordance with E2.5;
 - (vi) Inspection, in accordance with E2.6;
 - (vii) Work Tracking, in accordance with E2.7;
 - (viii) Level of Service & Sufficiency, in accordance with E2.8;
 - (ix) Bridge Analytics, in accordance with E2.9; and
 - (x) Reports, in accordance with E2.10.
- (b) Training, in accordance with E4.
- (c) Warranty Maintenance (for 5 Years), in accordance with E5.

B14. DESIRED REQUIREMENTS (SECTION G)

B14.1 Proponents should indicate if they will meet and provide a description of how they will meet desired requirements outlined in the following sections:

- (a) Supply and Installation of Software
 - (i) Software and Hardware Requirements, in accordance with E2.3;
 - (ii) Inventory, in accordance with E2.5;
 - (iii) Inspection, in accordance with E2.6;
 - (iv) Work Tracking, in accordance with E2.7;
 - (v) Level of Service & Sufficiency, in accordance with E2.8;
 - (vi) Bridge Analytics, in accordance with E2.9; and
 - (vii) Reports, in accordance with E2.10.
- (b) Data Migration from Existing Sources, in accordance with E3.
- (c) Value Added – provision of functionalities and/or services not specifically mentioned in the RFP.

B15. PROJECT SCHEDULE (SECTION H)

B15.1 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar project management software. The schedule should address each requirement of the Scope of Services. Schedule should indicate “go-live”, data migration, and training dates. The schedule should also indicate dates for submittals, return of reviewed submittals, and for all planned meetings.

B16. DISCLOSURE

B16.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B16.2 The Persons are:

- (a) Stantec Consulting Ltd
- (b) Sixense Solutions Canada Ltd
- (c) Deighton Associates Limited

B17. CONFLICT OF INTEREST AND GOOD FAITH

- B17.1 Further to C3.2, Proponents, by responding to this RFP, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.
- B17.2 Conflict of Interest means any situation or circumstance where a Proponent or Key Personnel proposed for the Work has:
- (a) other commitments;
 - (b) relationships;
 - (c) financial interests; or
 - (d) involvement in ongoing litigation;
- that could or would be seen to:
- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Proposals or award of the Contract; or
 - (ii) compromise, impair or be incompatible with the effective performance of a Proponent's obligations under the Contract.
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the RFP process or the Project; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the RFP process) of strategic and/or material relevance to the RFP process or to the Project that is not available to other proponents and that could or would be seen to give that Proponent an unfair competitive advantage.
- B17.3 In connection with its Proposal, each entity identified in B17.2 shall:
- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Project;
 - (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the RFP process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
 - (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.
- B17.4 Without limiting B17.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Proponent to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.
- B17.5 Without limiting B17.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:
- (a) disqualify a Proponent that fails to disclose a perceived, potential or actual Conflict of Interest of the Proponent or any of its Key Personnel;
 - (b) require the removal or replacement of any Key Personnel proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
 - (c) disqualify a Proponent or Key Personnel proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B17.4 to avoid or mitigate a Conflict of Interest; and

- (d) disqualify a Proponent if the Proponent, or one of its Key Personnel proposed for the Project, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

B17.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

B18. QUALIFICATION

B18.1 The Proponent shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract; and

B18.2 The Proponent and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>

B18.3 The Proponent and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba);

B18.4 The Proponent shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Proponent and of any proposed Subcontractor.

B18.5 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.

B19. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

B19.1 Proposals will not be opened publicly.

B19.2 After award of Contract, the Contract amount and the name of the successful Proponent and their address will be available on the MERX website at www.merx.com.

B19.3 The Proponent is advised any information contained in any Proposal Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B19.3.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Proposal Submission identified by the Proponent as such in accordance with and by

reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B19.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of his/her submission upon written request to the Contract Administrator.

B20. IRREVOCABLE OFFER

B20.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B20.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such until a Contract for the Work has been duly formed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B21. WITHDRAWAL OF OFFERS

B21.1 A Proponent may withdraw his/her Proposal without penalty prior to the Submission Deadline.

B22. INTERVIEWS

B22.1 The Contract Administrator may, in his/her sole discretion, interview Proponents during the evaluation process.

B22.2 The Contract Administrator may, in his/her sole discretion, ask Proponents to provide product demonstrations to given scenarios. Scenarios could include any of the Work outlined in E2. The City expects that the Proponent would be demonstrating a functional version of their proposed system.

B22.3 The Proponent will bear all costs associated with or incurred in the preparation and presentation of its proposal, including, if applicable, costs incurred for interviews or demonstrations.

B23. NEGOTIATIONS

B23.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.

B23.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.

B23.3 If, in the course of negotiations pursuant to B23.2, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

B24. EVALUATION OF PROPOSALS

B24.1 Award of the Contract shall be based on the following evaluation criteria:

- (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: (pass/fail)
- (b) qualifications of the Proponent and the Subcontractors, if any, pursuant to B18: (pass/fail)

- | | | |
|-----|---|-----|
| (c) | Total Bid Price (Section B) | 15% |
| (d) | Experience of Proponent and Subcontractor (Section C) | 5% |
| (e) | Experience of Key Personnel Assigned to the Project (Section D) | 10% |
| (f) | Project Understanding and Methodology (Section E) | 15% |
| (g) | Critical Requirements (Section F) | 30% |
| (h) | Desired Requirements (Section G) | 20% |
| (i) | Project Schedule (Section H) | 5% |
- B24.2 Further to B24.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B24.3 Further to B24.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is qualified.
- B24.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B24.1(a) and B24.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B24.5 Further to B24.1(c), the Award Authority may reject a Proposal as being non-responsive if it exceeds the funds available as shown in D3.3.
- B24.6 Further to B24.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B24.6.1 Further to B24.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B24.7 Further to B24.1(d), Experience of Proponent and Subcontractors will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested, in accordance with B10.
- B24.7.1 Proposals that achieve a score that is less than 80% out of the available 5 points (that being 4.0 points out of 5.0 available points), for Experience of Proponent and Subcontractors (Section C) will be rejected and not considered further in accordance with B24.3.
- B24.8 Further to B24.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the experience and qualifications of the Key Personnel and Subcontractor personnel on Projects of comparable size and complexity, in accordance with B11.
- B24.9 Further to B24.1(f), Project Understanding and Methodology will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization, in accordance with B12.
- B24.10 Further to B24.1(g), Critical Requirements will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization, in accordance with B13.
- B24.11 Further to B24.1(h), Desired Requirements will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization, in accordance with B14.
- B24.12 Further to B24.1(i), Project Schedule will be evaluated considering the Proponent's ability to comply with the requirements of the Project, in accordance with B15.

- B24.13 Notwithstanding B24.1(d) to B24.1(i), where Proponents fail to provide a response to B7.2(a) to B7.2(f), the score of zero may be assigned to the incomplete part of the response.
- B24.14 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B22.
- B24.15 Where references are requested, the reference checks to confirm information provided may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Proponent.
- B24.16 This Contract will be awarded as a whole.

B25. AWARD OF CONTRACT

- B25.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B25.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be qualified, and the Proposals are determined to be responsive.
- B25.2.1 Without limiting the generality of B25.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (d) only one Proposal is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B25.3 Where an award of Contract is made by the City, the award shall be made to the qualified Proponent submitting the most advantageous offer.
- B25.4 The City may, at its discretion, award the Contract in phases.
- B25.5 Further to B25.4 the City reserves the right to negotiate and award future phases to the successful Proponent.
- B25.6 Further to Paragraph 7 of Form A: Bid/Proposal and C4, the City may issue an award letter to the successful Proponent in lieu of execution of Contract Documents
- B25.6.1 The Contract documents as defined in C1.1(o)(ii) in their entirety shall be deemed to be incorporated in and to form a part of the award letter notwithstanding that they are not necessarily attached to or accompany said award letter.
- B25.7 Following the award of contract, a Proponent will be provided with information related to the evaluation of his/her Proposal upon written request to the Contract Administrator.
- B25.8 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Proponent will be paid for all Services rendered up to time of termination.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Supply of Services* (Revision 2020-01-31) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Supply of Services* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Request for Proposal to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Supply of Services*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Supply of Services*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. BACKGROUND

D2.1 The City of Winnipeg Public Works Department, Engineering Division, Bridge Planning and Operations Branch is responsible for the inspection, maintenance, rehabilitation, reconstruction, and management of existing bridges, overpasses, underpasses, underpass pump stations, major culverts, noise attenuation barriers, retaining walls, overhead sign structures, roadside safety crash attenuation barriers, and roadside safety guardrail installations. There are approximately 865 existing structures consisting of 114 bridges and overpasses, 28 underpasses, 5 underpass pump stations, 70 major culverts, 5 noise attenuation barriers, 4 retaining walls, 231 overhead sign structures, 73 roadside safety crash attenuation barriers, and 340 roadside safety guardrail installations. Each structure has a unique structure number associated with it.

D2.2 The City of Winnipeg is also responsible for the planning and design/construction oversight of new structures and the decommissioning of existing structures.

D2.3 The City of Winnipeg conducts load ratings and administers the posting of structures and approves annual and single trip overload vehicle permits.

D2.4 The City of Winnipeg carries out routine and special inspections of its inventory. Routine inspections consist of close up visual examinations of all elements of a bridge to determine condition and maintenance needs. Special inspections may be limited in scope and/or more detailed. Special inspections may not all be formally documented.

D2.5 The City of Winnipeg classifies structures as major and minor based on size, complexity, and importance. The City of Winnipeg generally carries out routine inspections of all major structures on a 2 year cycle and all minor structures on a 3 year cycle. Routine inspections are generally performed by in-house staff.

D2.6 The City of Winnipeg uses an underbridge crane for the inspection of a lot of its major structures where it is practical to use the crane and where access to parts of the structure would be difficult otherwise. The crane is used for routine inspections, special inspections, and for maintenance work.

D2.7 The City of Winnipeg carries out special inspections of its structures on a periodic and on an as needed basis. These include detailed specific defect inspections which may or may not include non-destructive and destructive testing, underwater dive inspections, detailed deck investigations, cable stay bridge force monitoring, load tests, etc.

D2.8 The City of Winnipeg carries out expansion joint and bearing movement monitoring special inspections. These inspections are usually done at the same time routine complete structure inspections are performed.

D2.9 The City of Winnipeg carries out special inspections of accident damages usually immediately after an accident has been reported and after repairs have been made.

D2.10 The City of Winnipeg performs maintenance and undertakes major works on its structures to repair damage or to upgrade the structure. Most of the maintenance is performed by in-house bridge crews. Most of the major works is performed by external contractors and often with external engineering service providers.

- D2.11 The City of Winnipeg currently uses the “Bridge Manager” system to record routine inspections. The system was created in the mid-90's through a partnership of 6 Canadian cities including Winnipeg, Saskatoon, Regina, Lethbridge, Edmonton, and Calgary. The system stores inventory and inspection data for bridges and overpasses, underpasses, and culverts. Inspections are based on a 9 point condition rating. It performs limited bridge management functions. Bridge Manager also stores inventory data and can perform analytics including computing structure ratings, replacement values, and the evaluation of 5 fundamental strategies that include do nothing, reactive, proactive, proactive value added, and like new management strategies to determine the least cost long-term management strategy for a particular structure. It also can consider alternate “what if” strategies.
- D2.12 The City of Winnipeg stores pertinent information on each structure including drawings, specifications, reports, photographs, regulatory agency permits, and other related information in physical and electronic structure files. Electronically archived information is accessed through FileNet, an electronic document management software, and through regular server network drives.
- D2.13 The City of Winnipeg desires a new comprehensive bridge management system (system) that has greater capability that can capture routine inspections better and can also capture special inspections for all of its structures. The City is moving to the quantity-based Ontario Structure Inspection Manual 2008 (OSIM) structural inspection method for applicable structure types. The new bridge management system must be able to capture inventory, inspection, analytics (which can better prioritize work and prepare work programs), and work to do/done tracking consistent with the OSIM method.
- D2.14 A key component desired in the new system is the tracking and prioritizing of recommended work, and the recording of work completed. The ability to produce lists for bridge maintenance and rehabilitations from bridge condition and appraisal indices based on level of service targets and measures and available budgets is also highly desired.
- D2.15 A customized-off-the-shelf (COTS) turn-key implementation is desired with software supply and installation, data migration from existing sources, and training to be completed with approx. 1.5 years of authorization to proceed; and with ongoing support and maintenance for an additional 5 years.
- D2.16 The COTS system may be either an on-premise solution or a cloud-based solution.
- D2.17 Existing information such as structure lists, sample Bridge Manager inventory and inspection reports, and sample FileNet document lists will be available to bidders during the RFP period upon request to the Contract Administrator.

D3. SCOPE OF SERVICES

- D3.1 The Work to be done under the Contract shall consist of the supply and installation of a new bridge management system complete with possible data migration from existing sources, training, and support/maintenance for 5 years.
- D3.2 The major components of the Work are as follows:
- (a) Supply and Installation of Software, as outlined in E2.
 - (b) Data Migration from Existing Sources, as outlined in E3.
 - (c) Training, as outlined in E4.
 - (d) Warranty Maintenance (For 5 years), as outlined in E5.
- D3.3 The funds available for this Contract are \$500,000.

D4. CONTRACT ADMINISTRATOR

- D4.1 The Contract Administrator is:
Darren Burmey, P.Eng., FEC

Bridge Planning & Operations Engineer, City of Winnipeg

Telephone No. 204- 986-5409

Email Address.: dburmey@winnipeg.ca

- D4.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. NOTICES

- D5.1 Except as provided for in C22.4, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid/Proposal.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in, D7.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D4.
- D5.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:
- The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

- D6.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D7. SAFE WORK PLAN

- D7.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D7.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>

D8. INSURANCE

- D8.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;

- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
 - (c) Professional Errors and Omissions Liability Insurance in an amount not less than \$2,000,000 per claim and \$2,000,000 annual aggregate.
- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 The Consultant's Professional Errors and Omissions Liability Insurance shall remain in force for the duration of the Project and for twelve (12) months after Total Performance.
- D8.4 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D8.5 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.
- D8.6 The City shall have the right to alter the limits and/or coverages as reasonably required from time to time during the continuance of this agreement.
- D8.7 All policies shall be taken out with insurers licensed to carry on business in the Province of Manitoba.

SCHEDULE OF WORK

D9. COMMENCEMENT

- D9.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.
- D9.2 The Contractor shall not commence any Work until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the workers compensation coverage specified in C6.14;
 - (iii) the Safe Work Plan specified in D7;
 - (iv) evidence of the insurance specified in D8;
 - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

D10. TOTAL PERFORMANCE

- D10.1 The Contractor shall achieve Total Performance by September 30, 2022.
- D10.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D10.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D11. LIQUIDATED DAMAGES

- D11.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.
- D11.2 The amount specified for liquidated damages in D11.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.
- D11.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.
- D11.4 The amounts specified for liquidated damages in D11.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Total Performance by the days fixed herein for same.
- D11.5 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D12. COVID-19 SCHEDULE DELAYS

- D12.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the health and safety of workers and the public, directives from health authorities and various levels of government and in close consultation with the Contract Administrator.
- D12.2 If the Contractor is delayed in the performance of the Work by reason of the COVID-19 pandemic, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D12.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether COVID-19 will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff, availability of Material or work by others.
- D12.4 For any delay related to COVID-19 and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D12.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D12.5 The Work schedule, including the durations identified in D10 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator.
- D12.6 Any time or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

MEASUREMENT AND PAYMENT

D13. INVOICES

- D13.1 Further to C12, the Contractor shall submit an invoice for each portion of work performed to:
- The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9
- Facsimile No.: 204- 949-0864
Send Invoices to CityWpgAP-INVOICES@winnipeg.ca

Send Invoice Inquiries to CityWpgAP-INQUIRIES@winnipeg.ca

D13.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) date of delivery;
- (c) delivery address;
- (d) type and quantity of work performed;
- (e) the amount payable with GST and MRST shown as separate amounts; and
- (f) the Contractor's GST registration number.

D13.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D14. PAYMENT

D14.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D15. PAYMENT SCHEDULE

D15.1 Further to C12, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

WARRANTY

D16. WARRANTY

D16.1 Notwithstanding C13, Warranty does not apply to this Contract.

PART E - SPECIFICATIONS

E1. APPLICABLE SPECIFICATIONS

- E1.1 These Specifications shall apply to the Work.
- E1.2 Proponents are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6.

E2. SUPPLY AND INSTALLATION OF SOFTWARE

E2.1 General

- (a) This section provides an overview of the requirements for the system. Specific requirements mentioned and not contained in following sections are considered critical requirements.
- (b) A new bridge management system which will assist in the management of the City of Winnipeg Bridge Planning & Operations Branch bridges and overpasses, underpasses, underpass pump stations, major culverts, noise attenuation barriers, retaining walls, overhead sign structures, roadside safety crash attenuation barriers, and roadside safety guardrail installations shall be provided.
- (c) A turn-key customized off-the-shelf (COTS) bridge management system based on a proven system tailored to the needs and requirements of the City of Winnipeg is desired. Background for the needs and requirements are as described in D2 and as confirmed by the Contract Administrator.
- (d) The system shall be called the Winnipeg Bridge Management System (W-BMS), due to the nature of customizations required.
- (e) SI units are to be used. English is to be used in all text in the software, documentation, and training materials.
- (f) The system may be either an on-premise solution resident on a City of Winnipeg server or a cloud-based solution. Installation on up to 12 computers is required. Concurrent usage is a possibility.
- (g) The system shall be capable of storing inventory data and information, and be capable of updating the data and information as modifications or replacements are made to each asset.
- (h) The system shall be able to track the history of each structure.
- (i) The system shall be able to provide links to existing documents that are stored on City of Winnipeg servers and that are called up using FileNet. The system shall be capable of managing and linking in documents from various sources. This data includes inventory information, past inspections, photos, drawings, video, reports etc. The ability to quickly query this information, and produce reports on the inventory is desired.
- (j) The system shall be capable of storing both routine and special inspection data, including recommended remedial works.
- (k) Adoption of a modern, standard, recognized routine quantity-based inspection method such as OSIM is desired. OSIM is to be used for typical bridge assets such as bridges, overpasses, and major culverts. For other assets such as underpasses, underpass pumping stations, noise attenuation barriers, retaining walls, overhead sign structures, roadside safety crash attenuation barriers, and roadside safety guardrail installations the OSIM system is to be applied but modified and simplified as necessary to account for these assets. Description of how those assets will be included shall be disclosed by the proponent in the proposal. Acceptance is subject to approval by the Contract Administrator.
- (l) The system shall be able to track the inspection history of each structure and provide yearly summaries.

- (m) The system shall be capable of tracking work required and done, and updating asset records.
- (n) The system shall be able to track work history of each structure and provide yearly summaries and/or summaries for user defined periods.
- (o) The system shall be able to set and monitor level of service targets for the structures and assess sufficiency.
- (p) The system shall be capable of advanced bridge analytics including performance prediction, element, project, and network level analysis, and program preparation for various budget and condition-based scenarios.
- (q) The proponent shall review existing reference information available during the tender period including structure lists, the latest Bridge Manager user's manual, sample Bridge Manager inventory and inspection reports, FileNet information, and other relevant information. This information is available during the RFP period upon request to the Contract Administrator. Information required during this project but not included in the information provision will be provided during execution of the project.

E2.2 Required Meetings & Submittals

- (a) Required meetings & submittals are considered critical requirements.
- (b) Pre-commencement submittals as indicated in D9.2 shall be accepted prior to commencement of work.
- (c) A kickoff meeting shall be held with the Contract Administrator and the City's team shortly after commencement of work.
- (d) Periodic meetings shall be held at key points with the Contract Administrator and the City's team throughout the project.
- (e) Interim submissions and discussions shall be held at key points for confirmation of data fields, forms, and other customizations specific to the requirements for the City of Winnipeg Bridge Planning & Operations Branch.
- (f) Appropriate user acceptance testing shall be included to confirm acceptable performance of an aspect.
- (g) Brief monthly written project status reports outlining progress to date, expected progress over the next period, and key issues and concerns to be resolved and recommendations shall be submitted on a monthly basis along with payment requests.
- (h) A draft user's manual explaining and illustrating the functionality of the software shall be provided to the Contract Administrator for review and comment/approval at least four (4) weeks prior to installation of the software. The user's manual shall be updated when needed.
- (i) A plan for data migration from existing sources shall be submitted to the Contract Administrator for review and comment/approval at least (2) weeks prior to commencement of data migration work.
- (j) A training plan shall be submitted to the Contract Administrator for review and comment/approval at least two (2) weeks prior to commencement of training activities.
- (k) A draft report documenting the supply and installation of software, data migration, and training that was provided shall be submitted to the Contract Administrator for review and comment/approval at least two (2) weeks prior to attainment of Total Performance and prior to commencement of warranty maintenance period.
- (l) A warranty maintenance report shall be submitted to the Contract Administrator at the end of each of the years of warranty maintenance.

E2.3 Software and Hardware Requirements

- (a) There are both critical and desired requirements under this section.
- (b) Software and hardware critical requirements are as follows:

- (i) City of Winnipeg IT contact person: The City of Winnipeg Contract Administrator will assign an IT contact person to work with the Contractor to liaise with and to assist with the installation of software.
- (ii) Declaration of system type: The system may be either an on-premise solution operating in a networked environment and be resident on a City of Winnipeg server or be a cloud-based solution. The proponent shall declare the system type explicitly in the proposal.
- (iii) Information security requirements for cloud-based systems: The system shall meet the City's requirements for the confidentiality and security of information; including compliance with and ISO/IEC standards 27001, 27002, 27017, and 27018 (or equivalent).
- (iv) Record keeping requirements: To satisfy City of Winnipeg recordkeeping requirements, the system shall:
 - Assign records management actions to users based on roles (e.g., create, read, modify, delete, etc.) (see also E2.4);
 - Provide the functionality of exporting project records and associated metadata into human-readable formats for manual recordkeeping and management in external locations (see also E2.10);
 - Produce a report detailing success or failure during the export process (including identification of those records which generated errors or were not successfully exported;
 - Allow users with appropriate role-based access to permanently delete project records that have been authorized for legal destruction; and
 - Produce a certificate or report of deletion of records and associated metadata.
- (v) Access and privacy information management requirements:
 - The Contractor acknowledges that The Freedom of Information and Protection of Privacy Act ("FIPPA", the "Act") imposes obligations on the City to collect, store, use, disclose, and destroy "personal information", as that term is defined in FIPPA, ("Personal Information") in the strictest of confidence and in accordance with that Act.
 - For the purposes of D6, any reference to "Representatives" shall mean the directors, officers, shareholders, employees, parents, subsidiaries, subcontractors, partners, volunteers, affiliates, insurers, reinsurers, agents, delegates, and other representatives of the Contractor.
 - While this Contract is in effect, and at all times thereafter, the Contractor and its Representatives shall treat as confidential any and all information and materials (regardless of form or medium) acquired by it in the performance of this Contract, or to which it is given access during the course of the performance of the Contract, and any copies thereof (the "Confidential Information"). For the purposes of this Contract, Personal Information shall be considered to be Confidential Information.
 - With respect to Confidential Information provided by the City to the Contract, the Contractor shall be deemed an "information manager", as that term is defined by section 44.1 of FIPPA, and any collection, storage, use, disclosure, or destruction of, or access to (collectively, "Use"), Personal Information by the Contractor or its Representatives shall be done pursuant to the Act.
 - Further to C23, all Confidential Information is and shall remain the property of the City. Neither the Contractor nor its Representatives shall not disclose or appropriate to their own use, or to the use of any third party, all or any part of the Confidential Information without the prior written consent of the City. The Contractor and its Representatives shall not at any time make any public announcement, or press release, nor make any statement of fact or opinion regarding the Contract, the Project, the Services or the Confidential Information without the prior written authorization of the City.
 - Further to C23, while this Contract is in effect and at all times thereafter the Contractor shall: (a) only Use the Confidential Information for the purposes

expressly permitted by the City, and only to the extent necessary to perform its obligations under this Contract; (b) ensure that access to the Confidential Information is only provided or permitted on a “need to know” basis, and that access, when given, shall be the minimum amount necessary to accomplish the task; (c) not disclose or permit the disclosure of the Confidential Information or any copies thereof, whether in whole or in part and in any form or medium, to any third party, including Subcontractors or agents, without the prior written consent of the Contract Administrator; (d) not reproduce any Confidential Information, in whole or in part, in any form or medium, without the express prior written consent of the City; and (e) inform its Representatives of the obligations imposed upon it under this Contract and FIPPA, and shall take whatever steps are necessary to ensure that all of its Representatives comply with those obligations, including (but not limited to) binding said Representatives to terms no less strict than those herein through written confidentiality agreements, if requested.

- Upon request, or upon expiration or termination of this Contract for any reason, the Contractor shall rapidly repatriate to the City a complete, accurate copy of the Confidential Information (in a form satisfactory to the City), and shall thereafter destroy the Confidential Information (including all copies in any form) in a manner which adequately protects the confidentiality of the Confidential Information within two (2) weeks, unless otherwise directed by the City in writing.
- The Contractor shall put into place reasonable security arrangements, including administrative, technical, and physical safeguards that ensure the confidentiality and security of the Confidential Information. The standard of such security arrangements shall be the greater of: (a) the standards the Contractor has in place to protect its own confidential information; or (b) the standards imposed on the Contractor by the City.
- Upon becoming aware of any unauthorized Use of the Confidential Information (a “Confidentiality Breach”), the Contractor shall immediately notify the City in writing, take all reasonable steps to prevent the recurrence of any such Confidentiality Breach, and notify the City of said steps in writing.
- Upon receiving a subpoena or other validly issued administrative or judicial order seeking Confidential Information, the Contractor shall provide the City with prompt notice thereof, deliver a copy of its proposed response to the City, and thereafter be entitled to comply with the demand to the extent permitted or required by law (unless the demand has been time-limited, quashed, or extended). The Contractor shall cooperate with the City in the defense of the demand, if so requested by the City.
- The Contractor and its Representatives shall comply with all directives issued by the City with respect to safeguarding or otherwise ensuring the confidentiality of the Confidential Information, and shall cooperate with the City so that the City can verify that the Contractor has complied, and is complying, with its obligations hereunder.
- If the Contractor is a reseller or distributor, or is otherwise supplying a third party’s product as its proposed System, then the Contractor shall ensure that any such third party product supplied by the Contractor under this Contract and any such third party supplier are compliant with the requirements of this (v). Failure to do so may, at the City’s sole and absolute discretion, be deemed an event of default pursuant to C17.
- The Contractor should have a security information and event management (SIEM) service that logs and monitors all logical access to customer data.
- The Contractor should enforce separation of duties to ensure that audit logs are protected against unauthorized modification and deletion.
- The Contractor should undertake appropriate pre-employment vetting for all staff that have access to customer data.
- The Contractor should perform on-going checks of integrity and conduct of employees during the period of employment.

- When collecting personal information from an individual, there must be a privacy statement/notification included on the collection form worded as follows: (a) Your personal information is being collected in accordance with s.36(1)(b) of The Freedom of Information and Protection of Privacy Act. This information will be used for the purposes of administering and executing the related project, and will not be used or disclosed for any other purposes, except as authorized by law. If you have any questions about the collection of this information, contact the Corporate Access and Privacy Officer by mail to City Clerk's Department, Administration Building, 510 Main Street, Winnipeg MB, R3B 1B9, or by telephone at 311.
- (vi) Architecture: The proponent shall describe in the proposal the overall architecture of the proposed system including diagrams and descriptions as required and not limited to data architecture, application architecture, and security/privacy measures and protocols to ensure compatibility with the City of Winnipeg environment. The system must be able to accommodate multiple users on a shared database.
- (vii) Number of users: The system shall be installed on and shall provide for up to 12 concurrent users.
- (viii) Compatibility: The system shall be compatible with and operable on Microsoft Windows 2019.
- (ix) Additional hardware and software requirements: Proponents shall describe any additional hardware and software requirements or limitations of their proposed systems.
- (x) Date export: Data and/or reports shall be able to be exported into Excel, Word, and PDF files.
- (xi) Backup: The system shall be able to be backed up regularly by the City of Winnipeg.
- (xii) Software installation & performance verification: Software shall be installed on all intended computers and it shall be ensured that it works properly.
- (c) Software and hardware desired requirements are as follows:
 - (i) Field app: An iPhone app that can be used in the field during inspections (see E2.6(c)(vii)).

E2.4 User Levels

- (a) User levels are considered critical requirements.
- (b) The system shall allow multiple users with different access levels and needs to use the system to view, enter, edit, and delete inventory and inspection information, sign off inspections, determine maintenance, repair, rehabilitation, and replacement needs, evaluate and manage risk, and determine priorities and budgets.
- (c) The City of Winnipeg anticipates the following user level categories: Admin, Bridge Manager, Project Manager, Inspection Reviewer, Inspector, Read Only, and Consultant. The rights of the individual user levels are to be coordinated and approved by the Contract Administrator.

E2.5 Inventory

- (a) There are both critical and desired requirements under this section.
- (b) Critical requirements are as follows:
 - (i) Inventory data: Inventory data is the information or data that is to be maintained about each structure.
 - (ii) The system is to store inventory data that encompasses data fields that are stored in the current Bridge Manager system, are present in various Bridge Planning & Operations Branch spreadsheets that will be available for review during the RFP tender period upon request to the Contract Administrator, and are in OSIM inspection forms for each structure and structure type.
 - (iii) The system shall be able to accommodate the following structure types: bridges and overpasses, underpasses, underpass pump stations, major culverts, noise

attenuation barriers, retaining walls, overhead sign structures, roadside safety crash attenuation barriers, roadside safety guardrail installations, and miscellaneous structures.

- (iv) Structures in the system are to be uniquely identified by a “Structure ID” and “Description” consistent with what is currently being used by the City of Winnipeg Bridge Planning & Operations Branch.
- (v) Data fields shall include related fields as indicated in (ii) above and include but not be limited to: Structure ID, Description, ownership, inspection responsibility, maintenance responsibility, location, legal load restriction, vertical clearance restriction, and barrier performance classification. Data shall also be included for roadway, waterway, and railway both on and under each structure.
- (vi) Data fields shall also be established for bridge structures to classify bridges according to bridge length, width, number of spans, maximum span length, span length for each span, structure and material type for each span, and substructure and material type for each foundation unit.
- (vii) Appropriate data fields shall be established for non-bridge structures.
- (viii) Structures shall be classified as either major or minor structures. The system shall flag those structures accordingly.
- (ix) Some structures are insured structures. The system shall flag those structures accordingly.
- (x) **Historical data:** The system shall store historical data for each structure. Minimum fields to include are as identified on the OSIM inspection form. Historical data fields shall include but are not be limited to: year built, year of last major rehab, design code, design load, last OSIM inspection, last underwater inspection, last condition survey, last load rating, load limit (posting), etc. Historical data is to also include the history of routine (OSIM) and special inspections, and work records.
- (xi) **Structure history:** The system shall track the history of the structure and shall be able to be updated to accommodate repairs and rehabilitations which may transform the configuration of an existing structure, decommission a structure, or add new ones.
- (xii) **Load and vertical/horizontal clearance restrictions:** The system shall store a list of legal load restrictions (postings), and vertical and horizontal clearance restrictions. A data field for posted load restrictions (ie. less than 62.5 tonnes) and posted vertical clearance restrictions (ie. less than 4.6 m) shall be included. A spot for notes on administration for the issuance of single trip overweight permits shall be provided.
- (xiii) **Management strategy:** The system shall provide for management strategies that can be declared for individual structures. Level of service targets would then should be consistent with particular management strategies for particular structures. Some structures are very old and do not comply with all current standards but are sufficient for their purpose. Other structures may be newer but may be lacking in some aspects to provide the expected level of service. Structures in poor or very poor condition and/or requires frequent closures for maintenance should be flagged as having a low level of service and sufficiency. Management strategies for City of Winnipeg bridges are as follows:

City of Winnipeg - Management Strategies for Bridges	
1	Showpiece structure, keep good at all times
2	New structure, inspect & undertake new structure PM & RM
3	Annual routine maint. & reactive maint. to keep in good condition
4	Improvement to be made so address and give face lift
5	Proactive maintenance to extend service life
6	Managed care, prioritize work often deferred & undertake monitoring
7	Repairs to address safety issues

8	Reactive repairs until replacement/major rehabilitation
9	Frequent inspections & annual shutdown and maintenance
10	Do nothing (crisis response)
11	P3

- (xiv) Appraisal indices: The system shall provide a summary of appraisal indices. Custom appraisal indices based on level of service aspects for the City of Winnipeg indicated in E2.8 shall be used. The system shall provide for level of service targets, measures, and gaps for each structure. The targets shall factor in management strategy, future demand, importance, and risk. Summary of overall structure condition index (SCI), deck condition rating (DCR), importance index (II), risk index (RI), and sufficiency rating (SI), as applicable, shall be provided.
- (xv) Scheduled improvements: The system shall contain an area for scheduled improvements indicating the work, priority, programmed work year, cost estimate and budget to be used (if known). See also E2.7. The system shall indicate whether structure is scheduled for annual preventative maintenance and what is involved (see E2.7(c)(i)). Annual preventative maintenance shall be kept separate from other scheduled improvements. Additional investigations scheduled shall also be kept separate from other scheduled improvements. A flag shall be provided if the work item is in progress.
- (xvi) Recommended work: The system shall maintain a list of recommended work for each structure along with date work was recommended, the reference inspection report, the associated performance deficiency, maintenance need, urgency, and estimated cost. The list shall include whether the work was completed or cancelled, and the date.
- (xvii) Additional investigations required: The system shall store recommendations for additional investigations including nature of investigation and recommended timing. Additional investigations check items to be in general conformance with OSIM. Final list to be confirmed with the Bridge Planning & Operations Engineer. An item flagged shall be added to scheduled improvements as an upcoming work item.
- (xviii) Element data: The system shall include element data for all elements of each structure. Minimum fields to include related fields on OSIM inspection form including but not limited to: element group, element name, element type, location, material, quantity for inspections, quantity for cost estimation, environmental exposure, and whether there is a protective system or coating present. Classification of structural elements must be consistent with OSIM.
- (xix) Document management: The system shall be able to link to and manage documents to various structures or structure type or the inventory as a whole, if the document is general in nature. Documents may include drawings, specifications/tenders, design reports, construction reports, inspection reports, other reports, letters, memos, meeting minutes, emails, briefing notes, notes to file, other documents, invoices, photographs, videos, permits, certificates, manuals, agreements, etc. The system should support all common document formats including .pdf, .docx, .doc, .xlsx, .xls, .pptx, .ppt, .dwg, .txt, .tiff, .jpg, .bmp, .html, .wav, .mov, .mpeg, .mpg, .mp4, etc. Various attributes for the documents shall be stored. Directories for documents shall be logical and customizable. Data and document migration to be in accordance with E3.
- (xx) Structure lists: The system shall be able to produce an up to date structure list and also maintain an archive of superseded structure lists.
- (xxi) Insured structures list: The system shall maintain a list of insured structures (see (ix)).
- (xxii) Load restricted list: The system shall maintain a list of legally load restricted structures complete with By-Law reference (also see (xii)).
- (xxiii) Vertical clearance restricted list: The system shall maintain a list of vertical clearance restrictions complete with reference documents and official signoff by the Bridge Planning & Operations Engineer (also see (xii)).

- (c) Desired requirements are as follows:
- (i) Structure searchability: The system should have a search feature and be able to search for structures through the use of keywords.
 - (ii) Document searchability: The system should have a search feature and be able to search for documents through use of keywords.
 - (iii) Updating configuration for rehabilitations: The system should be able to update the configuration to account for rehabilitations which change the configuration.
 - (iv) Archiving previous configurations: The system should be able to archive previous structure configurations when the structure was subject to a major rehabilitation and the configuration was modified.
 - (v) GIS mapping: The system should be able to store the location data (i.e. latitude and longitude) for each structure and create GIS maps. Maps created should be able to be created based on structure type, legal load restriction, vertical clearance restriction, bridge condition data, scheduled improvements, outstanding recommended work, completed recommended work, additional investigations required, sufficiency, bridge work program and timing of projects, etc. Maps should be able to be printed or exported.
 - (vi) Cost data: The system should contain cost models which may be used for structure valuations and for costing repair, rehabilitation, or replacement works. The system should incorporate a method for updating costs annually based on inflation.
 - (vii) Structure valuations: The system should include the capability of calculating the valuation of assets on an annual basis. Valuations should be for replacement cost and depreciated cost in accordance with generally accepted accounting practices. The system should be able to value structures by structure type, whether insured, condition, and age range.

E2.6 Inspection

- (a) There are both critical and desired requirements under this section.
- (b) Critical requirements are as follows:
- (i) Inspection: Inspection is the process of observing, examining, and recording the process and results. Its purpose is to review the condition of existing assets to document, and identify required or potential interventions to ensure safety, serviceability, and protect/extend service life.
 - (ii) Routine and special inspections: The system shall be able to accommodate both routine and special inspections. Routine inspections are detailed visual inspections performed to a certain standard such as OSIM that are usually carried out on a periodic ongoing basis. For Winnipeg, the routine inspection system shall be OSIM with modifications/customizations to suit requirements specified herein. Data for routine inspections shall be kept electronically. Special inspections are all other inspections.
 - (iii) Inspection reports: All inspections shall be documented by a report. Each inspection must be identified by a unique identifier that includes the Structure IDs, inspection type and nature, and date. The name of the inspector must be stored with the inspection.
 - (iv) Special inspections: The system shall have a special inspection form which maybe used. It should be similar to the "Casual Inspection Report" form available in reference information that will be provided as indicated in E2.1. It should be possible to add reference documents and recommended work.
 - (v) Inspection schedule for routine inspections: A frequency for routine inspections shall be assigned to each structure (ie. every 2 years for major structures, every 3 years for minor structures, and more frequent for structures in poor condition). A schedule shall be produced to show the date of the last routine inspection and the year of the next inspection due. A person, normally a staff Bridge Technologist, shall be assigned to next inspections. A summary indicating what inspections were performed during the year, if any inspections are outstanding, and what inspections are upcoming shall be able to be produced.

- (vi) Inspection sign offs: Inspection reports are to be sent to a Reviewer and the Bridge Planning & Operations Engineer. Reviewer to provide comments and indicate items from recommended work to be put into "Scheduled Improvements". Bridge Planning & Operations Engineer to be able to comment and input on finalized action. Reviewer to sign off on report. Sometimes multiple iterations are required. When signed off the inspection shall become permanent and a PDF inspection report record shall be generated and put into document storage. The inspection history shall be updated and a copy of the PDF report shall be emailed to the Reviewer and the Bridge Planning & Operations Engineer.
 - (vii) Routine inspections: Routine inspections are to be based on a quantity-based inspection system such as OSIM. OSIM is the desired inspection system for Winnipeg routine inspections. The system shall have an inspection form integral with the software. A replicate Excel inspection form shall be produced and provided.
 - (viii) The routine inspection report form shall have sections generally in accordance with OSIM, including: inventory data, historical data, scheduled improvements, appraisal indices, field inspection information, additional investigations required, overall structure notes, and element data.
 - (ix) Inventory data, historical data, scheduled improvements, and appraisal indices to be pre-populated.
 - (x) Room shall be made on appraisal indices to provide comments on any of the appraisal indices that need commenting on during the inspection.
 - (xi) Field inspection information to be entered in accordance with OSIM.
 - (xii) Additional investigations required to be pre-populated. Inspector should be able to comment and recommend items for addition or deletion.
 - (xiii) Overall structure notes to include inspector's assessment of the capital construction work that may be required, per OSIM.
 - (xiv) Element data to be in general conformance with OSIM. Quantities in varying condition states (ie. excellent, good, fair, poor) to be indicated. Suspected performance deficiencies, maintenance needs, and recommended work to be identified.
 - (xv) The system shall store all new routine inspection data. All past routine inspection data must remain available in the system even as new inspections are added to permit time-series reporting and analysis.
 - (xvi) Calculation of structure condition index (SCI) and deck condition rating (DCR): The system shall be able to after the inspection compute updated values of SCI and DCR as appropriate for the structure type. The formula for SCI shall be disclosed and customizable. The SCI shall be expressed numerically and as: very good, good, fair, poor, or very poor. Expert opinion overrides of SCI and DCR shall be possible.
 - (xvii) Inspection photographs: The system shall be able to store bridge inspection photographs electronically with the inspections. Photographs are to be suitably titled with descriptors to indicate necessary related information including Structure ID, date, and description of item shown.
- (c) Desired requirements are as follows:
- (i) Draft inspection forms for routine inspections: The system should generate draft inspection forms to be completed for the next inspection populated with reference inventory data that can be used by the inspector during an upcoming inspection. The form should be able to be printed out so it can be taken to the field.
 - (ii) Import/export of inspection data: The routine inspection functionality must include the capability to import/export an excel spreadsheet to allow for bulk loading inspection data compiled separate from the system such as when the inspection is performed by an outside consultant.
 - (iii) Special requirements for inspections: The system should flag special requirements for inspections (ie. UBC - underbridge crane, DCZ - designated construction zone signing required, confined entry, etc).

- (iv) Underwater inspections: The system should provide a schedule for underwater special inspections.
- (v) Expansion joint and bearing movement monitoring: The City of Winnipeg currently carries out expansion joint and bearing movement monitoring for many of its structures for many years now. The system should be able to provide a location to such record data or at least to call up such spreadsheets.
- (vi) Inspection history: The system should be able to produce inspection histories for each structure, structure type, and inventory with results according to specific criteria.
- (vii) Field app: The system should have a field app that can assist with recording of the inspection in the field (see also E2.3(c)(i)).

E2.7 Work Tracking

- (a) There are both critical and desired requirements under this section.
- (b) Critical requirements are as follows:
 - (i) Work tracking: The system shall be able to track work to do, work in progress, and work done.
 - (ii) Work to do: The system shall be able to track work to do. Work to do would normally come from routine or special inspections. It may also come from other sources. Work to do may be a result of an analytics exercise (see E2.9). It may also come from a planning exercise utilizing expert judgement of the Bridge Planning & Operations Engineer. The source shall be referenced in the work to do. Work to do shall be classified as a repair (minor rehabilitation), major rehabilitation, or replacement. Work to do may be a further detailed special inspection, or a functional or preliminary design. Work may be carried out by internal bridge crews, hired contractors, or set for tender and project managed by internal staff as a separate consulting assignment and construction contract (this is mainly done for large capital works projects). The associated performance deficiency and/or maintenance need shall be identified on the work to do if applicable. The urgency/priority (ie. recommended timeframe – urgent, 0-6 months, <1 year, 1-2 years, 3-5 years, 6-10 years) shall be identified. Cost estimates shall be provided. The proposed budget to fund the work shall be identified.
 - (iii) Work shall be entered in the “scheduled improvements” or the “additional investigations required”, whichever is applicable, for the structure in question.
 - (iv) Work in progress: Work for “scheduled improvements” or “additional investigations required” shall be flagged when started and would be classified as work in progress. A work in progress query shall generate a useful report.
 - (v) Work done: The system shall be able to log work done. It shall be able to update outstanding work to do/work in progress items if they have been completed. Approximate costs for the works are to be tracked. Work done is to be categorized by structure and structure type for the year the work was performed.
 - (vi) The system shall be able to produce work done history reports by structure and structure type for the year and by repair type (including reactive repair, annual preventative maintenance, programmed maintenance, and capital). Costs shall be included.
 - (vii) Work done then shall be added to the structure history. Work done may have reports or documents that can be added or referenced.
 - (viii) Updates to the structure configuration, condition and appraisal ratings including overall sufficiency shall also be made where it can.
- (c) Desired requirements are as follows:
 - (i) Annual preventative maintenance: The system should track planned annual preventative maintenance and identify such work to do as scheduled improvements (see E2.5(b)(xv)). The system should be able to query and list completed and outstanding annual preventative maintenance.
 - (ii) Work close out: The system should be capable to track open projects and provide for a system of project close out. Major projects are to be flagged for formal close

out. Major project closeout can be interim where a Certificate of Total Performance has been issued for a project and only warranty period work is left, and final where all warranty period work is complete and a Certificate of Acceptance has been issued. Close out should contain a control check off list of items to be archived and a final sign off by the Bridge Planning & Operations Engineer.

E2.8 Level of Service & Sufficiency

- (a) There are both critical and desired requirements under this section.
- (b) Critical requirements are as follows:
 - (i) Sufficiency ratings: The system shall determine sufficiency ratings for each structure on how well they meet level of service targets. Management strategy (see E2.5(b)(xiii)), future demand, importance, and risk shall be factored into the ratings. Sufficiency ratings may be used to determine whether structure rehabilitations or replacements are necessary.
 - (ii) Sufficiency index (SI): The system shall determine a sufficiency Index (SI) that provides an overall rating of how well level of service targets are met. A sufficiency index shall be computed numerically and then translated into high, medium, and low overall ratings for all structures. Sufficiency shall be based on appraisal indices (level of service targets, measures, and gaps/deficits), importance, and risk. Measures for an importance index (II) and a risk index (RI) shall be established. Expert opinion overrides of II, RI, and SI shall be possible.
 - (iii) Level of service aspects: The system shall be able to assess each structure based on relevant level of service aspects for each structure. The system shall have targets, measures, and gaps/deficits.
 - (iv) Level of service targets will depend on the management strategy for a particular structure.
 - (v) City of Winnipeg level of service aspects for bridges are shown in the following table:

City of Winnipeg - Level of Service Aspects for Bridges	
CATEGORY	ASPECT
Condition	Condition (poor or very poor)
	Closed or closed frequently
	Geotechnical/slope stability
	Hydraulics/flood/scour
	Unsafe riding surface
Function	Does not accommodate vehicular traffic
	Does not accommodate truck traffic
	Does not accommodate buses
	Does not accommodate pedestrians
	Does not accommodate bicycles (AT)
	Accessibility
Capacity	Load capacity (posted)
	Vertical clearance (height restricted)
	# of lanes (congestion)
	Lane width & shy distances
	Sidewalk width
	Guardrail performance level
	Roadway geometrics

- (i) For structures that are not bridges or underpasses other suitable level of service/appraisal indices measures shall be developed.
 - (ii) Level of service aspects and targets shall be determined in conjunction with the Bridge Planning & Operations Engineer.
- (c) Desired requirements are as follows:
- (i) Risk profiles: The system should provide risk profiles for individual structures, structure types, and the network as a whole based on likelihood and consequence. Importance and future demand should be factored in. The risk profiles for structures should be plotted graphically.

E2.9 Bridge Analytics

- (a) There are both critical and desired requirements under this section.
- (b) Critical requirements are as follows:
- (i) Bridge analytics: The system shall be capable of bridge analytics to assist in the prioritization of work to evaluate and optimize various bridge and structure repair, rehabilitation, and replacement scenarios for various bridge management strategies against level of service, condition rating, importance, risk, and sufficiency ratings and varying budget constraints.
 - (ii) The system must be capable of deterioration modeling, performance prediction, life cycle cost analysis, incorporating effects of various treatments, element, project, and network level analysis, benefit-cost analysis, and program preparation for various scenarios.
 - (iii) Scenarios to include do nothing, maintain a specific SCI, budget limitation (or various funding levels), and an optimal program.
 - (iv) User defined scenarios are to be included.
 - (v) The system must be able to include level of service improvements which may be coupled with rehabilitations.
 - (vi) The system must be able to generate reports to document the analytics for possible consideration and adoption.
 - (vii) The proponent shall fully describe and provide methodologies and equations and/or diagrams for all bridge analytic operations. Triggers for various treatments, such as addressing all elements in poor condition, shall be fully disclosed. Equations for calculating various indices shall be explicitly disclosed.
 - (viii) Items requiring calibration to local City of Winnipeg conditions shall be done in consultation with the Bridge Planning & Operations Engineer.
- (c) Desired requirements are as follows:
- (i) 5- and 10-year work program reports: The system should be capable of providing 5- and 10-year work program reports based on level of service, condition rating, importance, risk, and sufficiency ratings and varying budget constraints.
 - (ii) Bridge deck management recommendations: The system should provide recommendations for the management of bridge decks based on various scenarios and impacts to DCR.
 - (iii) Sensitivity analysis: The system should include sensitivity analysis accounting for possible variations in interest rate, treatment cost, life cycle cost analysis period, life extension estimates, and deterioration rates.
 - (iv) Remaining service life estimates: The system should provide remaining service life estimates for all its structures.
 - (v) Infrastructure deficit: The system should calculate and report on the infrastructure deficit by structure type and the inventory as a whole.

E2.10 Reports

- (a) There are both critical and desired requirements under this section.
- (b) Critical requirements are as follows:

- (i) Standard and customizable reports: The system shall be able to produce standard and customizable reports that summarizes information for individual structures, structure types, and the entire inventory. Reports by structure type, value, age, condition, importance, risk, sufficiency, etc shall be able to be generated. The proponent shall describe the ability to generate reports on predefined as well as ad hoc queries. The reports shall be able to exported to Excel or Word or PDF.
 - (ii) Inventory reports: The system shall be able to produce standard and customizable inventory reports.
 - (iii) Document indexes: The system shall be able to produce a listing of stored documents.
 - (iv) Inspection reports: The system shall be able to produce standard and customizable inspection reports.
 - (v) Work reports: The system shall be able to produce standard and customizable work to do and work done reports.
 - (vi) Level of service & sufficiency reports: The system shall be able to produce standard and customizable level of service and sufficiency reports.
 - (vii) Analytics reports: The system shall be able to produce standard and customizable analytics reports.
 - (viii) Exporting records and data: Record and data export shall follow E2.3(b)(iv).
- (c) Desired requirements are as follows:
- (i) Dashboards: The system should have dashboard screens that may or may not be customizable to individual users.
 - (ii) Dashboard reports: The system should be capable of producing standard and customizable 1- or 2-page dashboard reports.
 - (iii) Annual reports: The system should be able to produce information for and/or entire annual reports, for a calendar year or customizable period, summarizing the status of the inventory, changes from the past year and/or over the past 5 years showing trends, and documenting work done. The report should contain graphs and charts to quickly illustrate items. The report should be produced in a format to allow manual editing and updating where data was not entered into the system.

E3. DATA MIGRATION FROM EXISTING SOURCES

- E3.1 Data migration for existing sources is considered a desired requirement.
- E3.2 Assistance is to be provided with transfer of existing inventory and inspection information in Bridge Manager and in existing spreadsheets, etc to the new system, if feasible. Describe what can be done and level of effort proposed.
- E3.3 Assistance is to be provided with transfer of existing information in FileNet to the new system, if feasible. Describe what can be done and level of effort proposed.

E4. TRAINING

- E4.1 Training is considered a critical requirement.
- E4.2 Bridge Inventory Setup & Inspection Training
- (a) Training of City of Winnipeg personnel in Winnipeg shall be provided on all aspects of the software and on the inspection system.
 - (b) Training shall be provided to IT personnel on hardware requirements and issues, software installation and updates, and setups for users.
 - (c) Training shall be provided on procedures to setup of new structures in the inventory and the generation of associated reports.
 - (d) Training shall be provided on adding documents, photos, etc to a structure files and the generation of associated reports.

- (e) Training shall be provided on recording and to signing off on routine and special inspections of the various types of structures and the generation of associated reports.
- (f) Training to include office setup and complete in-field inspections of ten (10) bridge and overpass structures, and two (2) each of underpasses, underpass pump stations, major culverts, noise attenuation barriers, retaining walls, overhead sign structures, roadside safety crash attenuation barriers, and roadside safety guardrail installations. Office setup and in-field inspection work to be conducted with select City of Winnipeg staff in attendance. Specific structures and schedule to be verified by the Contract Administrator. Consultant to provide SWP & appropriate PPE. Traffic control will be provided by City forces.
- (g) Training shall be provided on work recommendations and prioritization.
- (h) Provide training for the logging of bridge work completed and the updating of system.
- (i) Training shall be provided on setting up, adjusting and reporting on level of service targets and appraisal indices.
- (j) Training shall be provided for bridge management analytics and generation of associated reports.
- (k) Proposal shall contain outlines and schedules for the proposed training.

E4.3 User's Manual

- (a) A user's manual shall be provided similar to the existing user's manual for Bridge Manager. Documentation of the software to be provided in electronic form along with six (6) hard copies. Electronic form to be accessible from the software.

E5. WARRANTY MAINTENANCE (FOR 5 YEARS)

E5.1 Warranty maintenance is considered a critical requirement.

E5.2 Warranty maintenance is to be provided for 5 years commencing at the attainment of Total Performance, and includes:

- (a) Warranty maintenance will include response within 24 hours to telephone and e-mail questions pertaining to the use of the software
- (b) Warranty maintenance covers correction of malfunctions that prevent the software from performing as documented.
- (c) Updates of the user's manual, as required, shall be included warranty maintenance.
- (d) During the warranty period the Contractor shall maintain a log of all support calls and warranty requests, along with their status and resolution. This log will be provided to the City of Winnipeg upon request and on an annual basis.
- (e) Warranty maintenance shall include two days of annual refresher training in Winnipeg for users, for each of the 5 years. The agenda for annual refresher training for each of the years shall be drafted in collaboration with the Contract Administrator.

E5.3 Enhancements to the software providing other functionalities, or minor customization requests may be completed under a separate agreement.

E5.4 Following the 5-year period for warranty maintenance, the City of Winnipeg may negotiate future maintenance and support with the Contractor.