



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

RFP NO. 123-2013

**REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR WILKES
RESERVOIR NORTH CELL CONDITION ASSESSMENT**

Proposals shall be submitted to:

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

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 REQUEST FOR PROPOSAL FOR PROFESSIONAL CONSULTING SERVICES FOR WILKES RESERVOIR NORTH CELL CONDITION ASSESSMENT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, June 5 2013.

B2.2 Proposals determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Project Manager 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. SITE INVESTIGATION

B3.1 The Project Manager or an authorized representative will conduct a Site Investigation tour of the Wilkes Reservoir North Cell at 2:00 PM on May 22, 2013.

B3.2 Proponents are required to register for the Site Investigation at least 48 hours in advance by contacting the Project Manager identified in D2.

B3.3 Although attendance at the Site Investigations is not mandatory, the City strongly suggests that Proponents attend.

B3.4 The Proponent shall not be entitled to rely on any information or interpretation received at the Site Investigation unless that information or interpretation is the Proponent's direct observation, or is provided by the Project Manager in writing.

B3.5 Proponents registered for the site visit must provide the Contract Administrator identified in D2 with a Public Safety Verification search obtained not earlier than one (1) year prior to the site visit.

(a) The Public Safety Verification Check may be obtained from BackCheck. Forms to be completed can be found on the website at: <http://www.backcheck.net/>. Note that the check will take between 12 and 48 hours to complete. See Appendix A for further information.

B3.6 CSA approved safety footwear and a hardhat are required for all personnel attending the Site Investigation.

B3.7 Proponents will not be allowed to take pictures at the site investigation. The Proponent may request pictures of specific areas from the Contract Administrator. The pictures will then be issued to all the Proponents registered for the Site Investigation.

B3.8 Proponents are advised that site access is restricted and access to view the Site can only be made under supervision of the City.

B3.9 Proponents are advised that access to the interior of the reservoir will not be available during the Site Investigation due to operational constraints.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Project Manager identified in D2.

B4.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal (RFP), or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify

the Project Manager of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

- B4.3 If the Proponent is unsure of the meaning or intent of any provision therein, the Proponent should request clarification as to the meaning or intent prior to the Submission Deadline.
- B4.4 Responses to enquiries which, in the sole judgment of the Project Manager, require a correction to or a clarification of the RFP will be provided by the Project Manager to all Proponents by issuing an addendum.
- B4.5 Responses to enquiries which, in the sole judgment of the Project Manager, do not require a correction to or a clarification of the RFP will be provided by the Project Manager only to the Proponent who made the enquiry.
- B4.6 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Project Manager in writing.

B5. CONFIDENTIALITY

- B5.1 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 Project Manager. 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.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposals to the media or any member of the public without the prior written authorization of the Project Manager.

B6. ADDENDA

- B6.1 The Project Manager 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.
- B6.2 The Project Manager 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.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgmt/bidopp.asp>
- B6.2.2 The Bidder is responsible for ensuring that it has received all Addenda and is advised to check the Materials Management Division website for Addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

B7. PROPOSAL SUBMISSION

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal (Section A) in accordance with B8; and
 - (b) Form B: Fees (Section B) in accordance with B9.

- B7.2 The Proposal should also consist of the following components:
- (a) Experience of Proponent and Subconsultants (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; and
 - (d) Project Schedule (Section F) in accordance with B13.
- 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, to constitute a responsive Proposal.
- B7.5 Proponents should submit one (1) unbound 8.5" x 11" original (marked "original") including drawings and seven (7) copies (copies can be in any size format) for sections identified in B7.1 and B7.2.
- B7.6 The Proposal shall be limited to a maximum of thirty (30) pages of Project specific material and a maximum of twenty (20) pages of support documentation including curriculum vitae and related information.
- B7.7 Proposals should be presented in the Sections identified above with a minimum font size of 10. 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 team.
- B7.8 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B20.1(a).
- B7.9 The Proposal shall be submitted enclosed and sealed in an envelope/package clearly marked with the RFP number and the Proponent's name and address.
- B7.10 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.11 Proposals shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1
- B7.12 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: Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: 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: Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.

B8.4 Paragraph 11 of Form A: 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 and the corporate seal, if the corporation has one, should be affixed;
- (d) if the Proponent is carrying on business under a name other than its 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: Proposal should be printed 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. FEES (SECTION B)

B9.1 The Proponent shall complete Form B: Fees, making all required entries and summarizing all Fees for the Scope of Services.

- (a) Include a fixed fee for all phases of the work listed in D4.

B9.2 Notwithstanding C1.1(b), Fees shall include costs for out of town travel, related meals and accommodations for the duration of the Project and shall not be considered an Allowable Disbursement.

B9.3 The Fee Proposal shall also include an allowance for Allowable Disbursements as defined in C1.1(b), but shall exclude the costs of any materials testing, soils and hazardous materials investigation during construction.

B9.4 Notwithstanding C10.1, Fees submitted 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.

B9.5 Payments to Non-Resident Consultants are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS (SECTION C)

B10.1 Proposals should include:

- (a) details demonstrating the history and experience of the Proponent and Subconsultants in providing condition assessment services for deteriorated reinforced concrete structures, preferably water bearing, including inspection protocol and criteria development, organization, data collection and analysis, materials testing, survey, recommendations and project management services on up to three condition assessment projects of similar scope, size and complexity.

- B10.2 For each project listed in B10.1(a), the Proponent should submit:
- (a) description of the project;
 - (b) role of the consultant;
 - (c) the project's original contracted cost and final cost;
 - (d) the project's original anticipated schedule and actual project delivery schedule;
 - (e) the project owner;
 - (f) a list of the key issues addressed/discovered during the assessment;
 - (g) a list of the key recommendations made as a result of the assessment;
 - (h) the approximate value of the rehabilitation work recommended by the consultant as a result of the assessment; and
 - (i) reference information (two current names with telephone numbers per project).
- B10.2.1 Where applicable, information should be separated into Proponent and Subconsultant project listings.
- B10.3 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 Subconsultants.
- B11. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)**
- B11.1 Describe your firm's approach to overall team formation and coordination of team members.
- B11.1.1 Include an organizational chart for the Project.
- B11.2 Submit the experience and qualifications of the Key Personnel assigned to the Project for condition assessment projects of comparable scope, size and complexity, including the principals-in-charge, the Consultant's Representative, managers of the key disciplines, key assessment engineer and assessment support team. Include the following information:
- (a) educational background and degrees;
 - (b) professional recognition;
 - (c) job title;
 - (d) years of experience in current position;
 - (e) years of experience in condition assessment of reinforced concrete structures;
 - (f) years of experience with existing employer.
- B11.2.1 Submit the following additional information for the key assessment engineer(s):
- (a) publications in peer reviewed journals pertaining to the condition assessment of deteriorated reinforced concrete structures;
 - (b) awards or other forms of peer recognition in the area of condition assessment of deteriorated reinforced concrete structures; and
 - (c) any other pertinent information demonstrating the key assessment engineer's experience and expertise in the condition assessment of deteriorated reinforced concrete structures.
- B11.3 Roles of each of the Key Personnel assigned to the Project should be identified in the organizational chart referred to in B11.1.1.
- B11.4 For each person identified, list at least two comparable condition assessment projects in which they have played a primary role. Provide the following:
- (a) Description of project;
 - (b) Role of the person;

- (c) Project Owner; and
- (d) Reference information (two current names with telephone numbers per project).

- B11.4.1 Describe at least two comparable condition assessment projects in which the key assessment engineer and/or the project manager have performed the following work:
- (a) Organized the inspection and developed an inspection protocol document;
 - (b) Managed the collection of data;
 - (c) Analysed and interpreted the data; and
 - (d) Provided unequivocal recommendations.

B12. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)

- B12.1 Describe your firm's project management approach and team organization 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 Methodology should be presented in accordance with the Scope of Services identified in D4.
- B12.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project.
- B12.4 Proposals should address:
- (a) the team's understanding of the broad technical requirements;
 - (b) the team's understanding of the constraints that will affect the undertaking of the work;
 - (c) the proposed Project budget;
 - (d) the team's proposed Project methodology with respect to the information provided within this RFP; and
 - (e) any other issue that conveys your team's understanding of the Project requirements.
- B12.5 For each person identified in B11.2, list the percent of time to be dedicated to the Project in accordance with the Scope of Services identified in D4.

B13. PROJECT SCHEDULE (SECTION F)

- B13.1 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar project management software, complete with resource assignments (key designers), durations (weekly timescale) and milestone dates or events. The schedule should address each requirement of the Scope of Services.
- B13.2 The Proponent's schedule should include critical dates for review and approval processes by the City and other organizations anticipated during the design and tendering phases of the Project. Reasonable times should be allowed for completion of these processes.

B14. QUALIFICATION

- B14.1 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 Services in strict accordance with the terms and provisions of the Contract;

(d) have or establish and staff an office in Winnipeg for the duration of the Project.

B14.2 The Proponent and any proposed Subconsultant (for the portion of the Services 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 <http://www.winnipeg.ca/matmgt/debar.stm>

B14.3 The Proponent and/or any proposed Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

(a) have successfully carried out services for the programming, criteria development, inspections, testing, recommendations and management services for condition assessment projects of similar complexity, scope and value; and to those required for this Project;

(b) be fully capable of performing the Services required to be in strict accordance with the terms and provisions of the Contract;

(c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba);

(d) have the knowledge and resources to administer the requirements of The Workplace Safety and Health Act (Manitoba) during the inspection works associated with this Contract;

(e) undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba; and

(f) provide proof satisfactory to the Project Manager the Security Clearances as identified in Appendix A;

B14.4 The Proponent shall submit, within three (3) Business Days of a request by the Project Manager, further proof satisfactory to the Project Manager of the qualifications of the Proponent and of any proposed Subconsultant.

B14.5 The Proponent shall provide, on the request of the Project Manager, full access to any of the Proponent's equipment and facilities to confirm, to the Project Manager's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Services.

B15. OPENING OF PROPOSALS AND RELEASE OF INFORMATION

B15.1 Proposals will not be opened publicly.

B15.2 After award of Contract, the name(s) of the successful Proponent and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B15.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential. However, the Proponent is advised that any information contained in any Proposal may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B15.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its submission upon written request to the Project Manager.

B16. IRREVOCABLE OFFER

B16.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.

B16.2 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 Services until a Contract for the Services has been duly executed as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 10 of Form A: Proposal.

B17. WITHDRAWAL OF OFFERS

B17.1 A Proponent may withdraw its Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B17.1.1 The time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.

B17.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.

B17.1.3 If a Proponent gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Proposal until after the Submission Deadline has elapsed;
- (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal; and
- (c) if the notice has been given by any one of the persons specified in B17.1.3(b), declare the Proposal withdrawn.

B17.2 A Proponent who withdraws its Proposal after the Submission Deadline but before its offer has been released or has lapsed as provided for in B16.2 shall be liable for such damages as are imposed upon the Proponent by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B18. INTERVIEWS

B18.1 The Project Manager may, in his/her sole discretion, interview Proponents during the evaluation process.

B19. NEGOTIATIONS

B19.1 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.

B19.2 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.

B19.3 If, in the course of negotiations pursuant to B19.2 or otherwise, 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.

B20. EVALUATION OF PROPOSALS

- B20.1** 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 Subconsultants, if any, pursuant to B14: (pass/fail)
 - (c) Fees; (Section B) 40%
 - (d) Experience of Proponent and Subconsultants; (Section C) 8%
 - (e) Experience of Key Personnel Assigned to the Project; (Section D) 32%
 - (f) Project Understanding and Methodology; (Section E) 18%
 - (g) Project Schedule. (Section F) 2%
- B20.2** Further to B20.1(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.
- B20.3** Further to B20.1(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 responsible and qualified.
- B20.4** Further to B20.1(c), Fees will be evaluated based on Fees submitted in accordance with B9.
- B20.5** Further to B20.1(d), Experience of Proponent and Subconsultants will be evaluated considering the information provided in response to B10, including but not limited to the following criteria:
- (a) Ability of Proponent to complete the job;
 - (b) Similarity of the Proponent's past projects to this project; and
 - (c) Success of the Proponent on past projects.
- B20.6** Further to B20.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the information provided in response to B11, including but not limited to the following criteria:
- (a) Appropriateness of related years of experience of the Key Personnel;
 - (b) Relevancy of experience of the Key Personnel;
 - (c) Experience and qualifications of the key assessment engineer; and
 - (d) Appropriateness of approach to overall team formation and coordination of team members.
- B20.7** Further to B20.1(f), Project Understanding and Methodology will be evaluated considering the information provided in response to B12, including but not limited to the following criteria:
- (a) The appropriateness of the Project Management Approach;
 - (b) The Methodology, including appropriateness of hours assigned to individual tasks;
 - (c) The Proponent's understanding of the Project and its constraints; and
 - (d) Demonstration of insight beyond the information that was presented in the Request for Proposal.
- B20.8** Further to B20.1(g), Project Schedule will be evaluated considering the information provided in response to B13, including but not limited to the following criteria:
- (a) The completeness of the project schedule; and
 - (b) The appropriateness of the timelines provided.

B20.9 Notwithstanding B20.1(d) to B20.1(g), where Proponents fail to provide complete responses to B7.2(a) to B7.2(d), the score of zero will be assigned to the incomplete part of the response.

B21. AWARD OF CONTRACT

B21.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.

B21.2 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 responsible and qualified, and the Proposals are determined to be responsive.

B21.2.1 Without limiting the generality of B21.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Services;
- (b) the prices are materially in excess of the prices received for similar services in the past;
- (c) the prices are materially in excess of the City's cost to perform the Services, 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.

B21.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.

B21.4 The City may, at its discretion, award the Contract in phases.

B21.5 Notwithstanding Paragraph 6 of Form A: Proposal and C4, the City will issue a Letter of Intent to the successful Bidder in lieu of execution of a Contract.

B21.5.1 The Contract documents as defined in C1.1(n)(ii) in their entirety shall be deemed to be incorporated in and to form a part of the Letter of Intent notwithstanding that they are not necessarily attached to or accompany said Letter of Intent.

B21.6 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(n).

B21.7 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Project Manager.

B21.8 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Consultant 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 Consultant Services* (Revision 2010-10-01) are applicable to the Services of the Contract.
- C0.1.1 The *General Conditions for Consultant 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 Consultant Services*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. PROJECT MANAGER

D2.1 The Project Manager is:

Rob Carroll, P.Eng

Email: rcarroll@winnipeg.ca

Telephone No. 204 986-8409

Facsimile No. 204 224-0032

D2.2 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the City's Project Manager. Failure to restrict correspondence and contact to the Project Manager may result in the rejection of the Proponents Proposal Submission.

D2.3 At the pre-commencement meeting, the Project Manager will identify additional personnel representing the Project Manager and their respective roles and responsibilities for the Services.

D2.4 Proposal Submissions must be submitted to the address in B7.11.

D3. BACKGROUND

D3.1 Wilkes Reservoir is one of three distribution reservoirs servicing the City of Winnipeg. It was originally built as an open cell reservoir in 1960. In 1980 the North Cell was reconstructed as an enclosed reservoir divided into an east and a west cell of 78 ML and 62 ML capacity respectively.

D3.2 Structural problems with the reservoir occurred shortly after commissioning. By 1986 several issues had been identified with the newly constructed reservoir. These issues included:

- (a) Column settlement and roof depressions;
- (b) Roof waterproofing system deterioration;
- (c) Cracking and popouts in hollowcore roof slabs;
- (d) Rusting of exposed reinforcing steel on precast beam bottoms;
- (e) Spalling of precast concrete beam ends;
- (f) Reduced thermal expansion and contraction capabilities; and:
- (g) Diagonal cracking of the exterior wall.

D3.3 Detailed condition assessments of the North Cell were made and rehabilitation work was performed. The results of the assessments and subsequent rehabilitation work are summarized below. The work was completed in 1993.

- (a) Roof Depressions and Column Settlements
 - (i) Column settlements were projected to continue for the expected life of the reservoir;
 - (ii) Load tests indicated that the rate of settlement would increase with additional roof loads;
 - (iii) Three columns were underpinned to prevent further settlement; and
 - (iv) Four columns were extended to remove roof depressions.

- (b) Roof Waterproofing System Deterioration
 - (i) The surface sealer used to protect the exterior surface of the hollowcore slabs wore away within the first year of application and was never reapplied;
 - (ii) Water penetrating the roof and undergoing repeated freeze/thaw cycles was thought to be contributing to several of the issues experienced in the reservoir; and
 - (iii) An insulated protected membrane roof was installed.
- (c) Precast Hollowcore Slab Deterioration
 - (i) Over 60 slabs showed signs of deterioration, including cracking, spalling and popouts;
 - (ii) Testing showed the deterioration was a result of the combination of moisture penetration in the slabs, inadequate air entrainment in the concrete, and the number of freeze/thaw cycles experienced;
 - (iii) Slabs with spalling, popouts or other local defects were sealed to ensure protection of the prestressing strands;
 - (iv) Popouts where the core was exposed were repaired by grouting the core solid for 0.5 metre on both sides of the defect; and
 - (v) 19 slabs were replaced.
- (d) Precast Concrete Roof Beams and Neoprene Bearing Pads
 - (i) Approximately 25% of the beam ends were observed to have some degree of deterioration ranging from minor chips to large spalls;
 - (ii) Bulging of the neoprene bearing pads was also noted. Despite the deterioration, it was noted that the pads would continue perform their function; and
 - (iii) Loose material at the beam ends was removed and the exposed reinforcing steel was coated to protect against corrosion.
- (e) Temperature Movement Capabilities of the Roof System
 - (i) The perimeter expansion joints were found to be filled with grout and polystyrene insulation. These joints were cleaned out;
 - (ii) Masonite bearing strips on lines 1, 9 and 19 replaced with Korolath; and
 - (iii) The beam pocket bulkheads on lines A and N were removed and rebuilt, ensuring 50 millimetres of separation between the beam ends and the bulkheads.
- (f) Beam Pocket Cracks
 - (i) Cracks at the beam pockets in the exterior walls greater than 0.3 millimetres in width were repaired.

D3.4 Additional deterioration was observed in the north east cell during reservoir cleaning in fall of 2011, including new popouts of the hollowcore roof panels.

D4. SCOPE OF SERVICES

D4.1 The Services required under this Contract shall consist of the following phases and as outlined in D5 to D9

- (a) Project Management;
- (b) Documentation Review;
- (c) Inspection Protocol Development;
- (d) Reservoir Inspection; and
- (e) Final Report.

D5. PROJECT MANAGEMENT

D5.1 Plan, organize, secure and manage resources to complete the phases outlined in D6 to D9.

- D5.2 Create and submit a project management plan. The project management plan shall include but not be limited to:
- (a) Work breakdown structure for the project;
 - (b) Project Schedule as submitted under B13:
 - (i) List all project activities and milestones; and
 - (ii) Identify responsibilities, timelines and dependencies for all project activities and milestones;
 - (c) Communication plan;
 - (d) Change management plan:
 - (i) Identify the schedule, quality and budget impacts of any proposed changes;
 - (e) Quality assurance and control plan:
 - (i) Establish appropriate levels of review and approvals for all project deliverables;
 - (f) Risk management plan.
- D5.3 Submit monthly project status reports, including the following:
- (a) Percentage completion of the overall project and of the tasks defined in the Work Breakdown Structure;
 - (b) Budget and actual cost for completed tasks and projected cost for planned tasks; and
 - (c) Any project issues.
- D5.3.1 Monthly project status reports shall be a maximum of two pages and be submitted within three days of months end.
- D5.4 Coordinate regular project meetings and provide minutes. The meetings shall be used to update the City's project manager on the status of the project and to discuss other project management issues.
- D5.5 Provide at least one week notice prior to any site visit or work/shutdown that will require assistance from City personnel.
- D5.6 Carry out other project management activities as required.
- D6. DOCUMENTATION REVIEW**
- D6.1 Review technical reports, drawings, photographs, and other materials regarding the original design and construction of Wilkes Reservoir North Cell and the history of subsequent structural issues in the cell. A list of relevant documents is available in Appendix B.
- D6.1.1 The documents listed in Appendix B are available electronically by request to the Contract Administrator identified in D2.
- D6.2 Submit a summary report. The report should include:
- (a) A summary of the previous investigations and works carried out in Wilkes Reservoir North Cell; and
 - (b) Descriptions of areas of concern with the reservoir identified based on the Documentation Review. These areas of concern shall be investigated in detail during the inspection.
- D7. INSPECTION PROTOCOL DEVELOPMENT**
- D7.1 Prepare a detailed Inspection Protocol, including the following:
- D7.1.1 Identify inspection methods, equipment and technologies to be used
- (a) Consider the following when selecting the equipment to be used during the inspection:

- (i) Under no circumstances will traffic or equipment be permitted on the Wilkes Reservoir structure, embankment slopes, or adjacent valve chambers.
 - (ii) Wilkes Reservoir North Cell is for potable water supply and no contamination by fuel, chemicals, etc. shall be permitted at any time. Fuels or chemicals shall not be used on or within the Wilkes Reservoir structure.
 - (iii) See drawings WIL-23, WIL-24, WIL-27 and B-631 in Appendix D for details on reservoir roof access openings.
 - (b) Consider requirements for lighting and power within the Reservoir Cell during the inspection.
 - (c) Develop a system for identifying location within the Reservoir during the inspection.
 - (i) Location and elevation surveys should be undertaken such that they can be repeated during future inspections.
- D7.1.2 Develop a timeline for the inspection activities, considering the limited allowable duration for the reservoir to be out of service.
- D7.1.3 Coordinate the timing of the inspection with other Water Services Division activities.
- D7.1.4 Plan to address the following areas of concern during the inspection.
- (a) Floor Slab:
 - (i) Characterize slab movement during various levels of water storage;
 - (ii) Determine the extent of voiding beneath the floor slab; and
 - (iii) Inspect the floor slab for cracking.
 - (b) Column Settlement:
 - (i) Inspect for signs of column settlement;
 - (ii) Survey to obtain roof elevations at the column tops; and
 - (iii) Survey to obtain elevations for the column footings.
 - (c) Beam End Spalls:
 - (i) Inspect beam ends for signs of progression of spalls; and
 - (ii) Determine the condition of previously applied protective coatings.
 - (d) Beam Bearing Pads:
 - (i) Determine the condition of the beam bearing pads.
 - (e) Hollowcore Panel Cracking and Popouts:
 - (i) Determine the condition of previous popout repairs;
 - (ii) Determine the condition of panels where cracking and popouts have occurred; and
 - (iii) Inspect for signs of progression of cracking and popouts.
 - (f) Building Envelope:
 - (i) Determine the condition of the roof waterproofing system; and
 - (ii) Determine the condition of the roof insulation.
 - (g) Drainage System:
 - (i) Quantify the volume of water leakage from the reservoir cell;
 - (ii) Determine the source(s) of reservoir leakage; and
 - (iii) Determine the condition of the weeping tile/underdrain system.
 - (h) Additional Items:
 - (i) Identify any additional items to be included in the inspection.
- D7.1.5 Include a Safe Work Plan in the inspection protocol.
- (a) 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>

- D7.2 Submit the inspection protocol for City review at least fifteen (15) working days prior to the start of the inspection.
- (a) Schedule and attend a shutdown protocol review meeting to incorporate City comments and finalize the inspection protocol; and
 - (b) The inspection protocol will be integrated with the City protocol for dewatering the reservoir cell and restoring the reservoir cell to service.

D8. RESERVOIR INSPECTION

- D8.1 Inspect Wilkes Reservoir North Cell as described in the inspection protocol.
- (a) Inspect both the northeast and northwest cells.

D9. FINAL REPORT

- D9.1 Prepare a final report to present the results of the inspection.
- D9.1.1 Provide unequivocal recommendations on future inspection, maintenance and rehabilitation requirements for the reservoir, including:
- (a) An opinion of the remaining life of the reservoir in its current condition;
 - (b) Recommended annual maintenance and inspection activities, including:
 - (i) A detailed annual inspection protocol; and
 - (ii) Standardized approaches to annual maintenance activities.
 - (c) Rehabilitation requirements to obtain another 50 years of operational life from the reservoir, including:
 - (i) Construction methodologies for recommended rehabilitation activities;
 - (ii) A timeline for recommended rehabilitation activities;
 - (iii) Cost estimates for recommended rehabilitation activities; and
 - (iv) Consideration of the construction of a new reservoir cell, either on the site of the existing cell or on the adjacent site to the west, which is under jurisdiction of the Water and Waste Department.
 - (d) Operational considerations; and
 - (e) An economic analysis, including life cycle costing, of all options presented.
- D9.1.2 Include all considerations that led to the recommendations in the report.
- D9.1.3 Include the following as appendices to the report:
- (a) All data collected during the project; and
 - (b) Procedures used to collect the data.

D10. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D10.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D10.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Project Manager.
- D10.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Project Manager;

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

D10.4 A Contractor who violates any provision of D10 may be determined to be in breach of Contract.

SUBMISSIONS PRIOR TO START OF SERVICES

D11. AUTHORITY TO CARRY ON BUSINESS

D11.1 The Consultant 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 Consultant does not carry on business in Manitoba, in the jurisdiction where the Consultant does carry on business, throughout the term of the Contract, and shall provide the Project Manager with evidence thereof upon request.

D12. INSURANCE

D12.1 The Consultant shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.

D12.2 As a minimum, the Consultant shall, without limiting its obligations or liabilities under any other contract with the City, procure and maintain, at its own expense and cost, the following insurance policies:

- (a) Comprehensive or Commercial General Liability Insurance including:
 - (i) an inclusive limit of not less than \$2,000,000 for each occurrence or accident with a minimum \$2,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
 - (ii) all sums which the Consultant shall become legally obligated to pay for damages because of bodily injury (including death at any time resulting therefrom) sustained by any person or persons or because of damage to or destruction of property caused by an occurrence or accident arising out of or related to the Services or any operations carried on in connection with this Contract;
 - (iii) coverage for Products/Completed Operations, Blanket Contractual, Contractor's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, and Non-Owned Automobile Liability;
 - (iv) a Cross Liability clause and/or Severability of Interest Clause providing that the inclusion of more than one Insured shall not in any way affect the rights of any other Insured hereunder in respect to any claim, demand, suit or judgment made against any other Insured; and
 - (v) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Consultant directly or indirectly in the performance of the Services. 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.
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Consultant 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 including:
 - (i) an amount not less than \$5,000,000 per claim and \$5,000,000 in the aggregate.

- D12.2.1 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.
- D12.3 The policies required in D12.2(a) shall provide that the City is named as an Additional Insured thereunder and that said policies are primary without any right of contribution from any insurance otherwise maintained by the City.
- D12.4 The Consultant shall require each of its Subconsultants to provide comparable insurance to that set forth under D12.2(a).
- D12.5 The Consultant shall provide the Project Manager with a certificate(s) of insurance for itself and for all of its Subconsultants, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Services, but in no event later than the date specified in C4.1 for the return of the executed Contract. Such Certificates shall state the exact description of the Services and provide for written notice in accordance with D12.10.
- D12.6 The Consultant may take out such additional insurance as it may consider necessary and desirable. All such additional insurance shall be at no expense to the City.
- D12.7 All insurance, which the Consultant is required to obtain with respect to this Contract, shall be with insurance companies registered in and licensed to underwrite such insurance in the Province of Manitoba.
- D12.8 If the Consultant fails to do all or anything which is required of it with regard to insurance, the City may do all that is necessary to affect and maintain such insurance, and any monies expended by the City shall be repayable by and recovered from the Consultant.
- D12.9 The failure or refusal to pay losses by any insurance company providing insurance on behalf of the Consultant or any Subconsultants shall not be held to waive or release the Consultant or Subconsultants from any of the provisions of the insurance requirements or this Contract. Any insurance deductible maintained by the Consultant or any Subconsultants under any of the insurance policies is solely for their account and any such amount incurred by the City will be recovered from the Consultant as stated in D12.8.
- D12.10 The Consultant shall not cancel, materially alter, or cause any policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the City.

SCHEDULE OF SERVICES

D13. COMMENCEMENT

- D13.1 The Consultant shall not commence any Services until it is in receipt of a notice of award from the City authorizing the commencement of the Services.
- D13.2 The Consultant shall not commence any Services until:
- (a) the Project Manager has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D11;
 - (ii) evidence of the insurance specified in D12;
 - (b) the Consultant has attended a meeting with the Project Manager, or the Project Manager has waived the requirement for a meeting.

D14. SCHEDULE RESTRICTIONS

- D14.1 Shutdown of Wilkes Reservoir North Cell will be scheduled based on a number of factors, including routine maintenance and repair work, water demand, and other factors. The City will endeavour to make the specified time periods available to the consultant to schedule the Work requiring Wilkes Reservoir North Cell to be out of service, without limiting the City's control over the operation of Wilkes Reservoir North Cell to complete other work, maintain adequate system service and maintain the integrity of the infrastructure. The City shall reserve the right to cancel

and/or delay these schedule dates at any time, due to any circumstances that could adversely affect water supply system operation, including but not limited to high water demand, abnormal weather, failures of related water system components and/or security concerns.

- D14.2 The Consultant shall provide a minimum of thirty (30) Working Days notice to the Contract Administrator, in writing, of requiring a shutdown. The City will endeavour to schedule the shutdown as requested, pursuant to D14.1.
- D14.3 The Proponent shall note that portions of the Work requiring a shutdown of Wilkes Reservoir North Cell can only be carried out during the time period prior to May 21 or after September 17 of a given year, unless amended as specified in D14.1.
- D14.3.1 Due to other scheduled works on components of the Water Treatment and Supply system a shutdown period for the North Cell at Wilkes Reservoir will not be available until November 2013.
- D14.4 Further to D14.1, shutdown of Wilkes Reservoir North Cell is limited to a maximum of ten (10) calendar days, measured from the completion of draining Wilkes Reservoir North Cell by City forces to turn over of the system back to the City of Winnipeg for the restoration of Reservoir Operation.

GENERAL REQUIREMENTS

D15. CONDITION, PROTECTION OF AND ACCESS TO RESERVOIR COMPOUNDS AND AQUEDUCTS

- D15.1 Description
- (a) This Section details operating constraints for all work to be carried out in close proximity to the Wilkes Reservoir facility and surrounding piping.
 - (b) Wilkes Reservoir and Hurst Pumping Station are critical components of the City of Winnipeg Water Supply System. Work in close proximity to the Reservoir and surrounding yard piping shall be undertaken with an abundance of caution.
- D15.2 Site Security
- (a) All personnel on Site are required to obtain a Criminal Record Search Certificate and Public Safety Verification Check, as outlined in Appendix A. The Consultant shall submit copies of the Criminal Record Search Certificates to the Contract Administrator identified in D2.
 - (b) The City of Winnipeg will provide one (1) security key to the Consultant, upon receipt of a five hundred dollar (\$500) security deposit cheque. The cheque will be returned upon return of the security key. The Consultant shall provide the name and contact information for the person in charge and responsible for security on Site.
 - (c) The Consultant is required to take measures necessary to secure the work areas when the work areas are vacated. When security personnel and crews are not within visual range of Reservoir access gates, the gates shall be closed.
 - (d) On a daily basis during the course of work, advise the City of Winnipeg Deacon Control Centre at 204-986-4781 as to the status of the site security, and in particular when Consultant staff leave the Site. The Consultant is not required to provide security services when not on Site.
 - (e) Provide a secure temporary site storage compound for all specialized equipment and components, from the time they are delivered to the Site until they are incorporated into the Works. The location of the temporary site storage compound shall be approved by the Contract Administrator.

D15.3 Site Safety

- (a) Install Contractor's locks on City installed lock-out devices on all valve and sluice gates (closed position) prior to the commencement of the inspection.
- (b) The Consultant shall name a primary contact and backup personnel, available on a 24 hour per day basis, with access to lockout keys, in the event of an emergency.

D16. FUTURE WORK

- D16.1 It is anticipated that this condition assessment project will lead to a future rehabilitation project at Wilkes Reservoir.
- D16.2 Any future engineering work resulting from recommendations made as part of this project will be posted as a separate bid opportunity for engineering services.
- D16.3 The future engineering work will not be posted until the Final Condition Assessment Report is finalised and accepted by the Department.

APPENDIX A – SECURITY CLEARANCE

1. SECURITY CLEARANCE

- 1.1 Each individual proposed to perform Work under the Contract shall be required to obtain a Criminal Record Search Certificate from the any of the following;
 - (a) police service having jurisdiction at his/her place of residence; or
 - (b) BackCheck, forms to be completed can be found on the website at: <http://www.backcheck.net/> ; or
 - (c) Core of Commissionaires, forms to be completed can be found on the website at: <http://www.commissionaires.mb.ca/> .
- 1.2 Each individual proposed to perform Work under the Contract shall be required to obtain a Criminal Record Search Certificate from the any of the following;
 - (a) BackCheck, forms to be completed can be found on the website at: <http://www.backcheck.net/>
- 1.3 The original Criminal Record Search Certificate (Form P–253) will be provided by the Winnipeg Police Service to the individual applicant. The original has a validation sticker from the Winnipeg Police Service in the top right hand corner. The applicant shall:
 - (a) Provide the original Criminal Record Search Certificate (Form P–253) to the Contract Administrator.
- 1.4 Prior to the commencement of any Work, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Criminal Record Search Certificate obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform the Work.
- 1.5 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate indicates any convictions or pending charges related to property offences or crimes against another person, will not be permitted to perform any Work.
- 1.6 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- 1.7 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform any Work.

APPENDIX B – RELEVANT DOCUMENTS

The following documents are available electronically by request to the project manager:

1	Soil Mechanics Investigation: Proposed Reservoir & Pumping Station	
	Author: Baracos and Marantz	Soils investigation prior to the construction of the original open cell Wilkes Reservoirs
	Published: 1958	
	Library Call Number: TA 710.4 .C22 W5 1958	
2	Wilkes Avenue Reservoirs No. 1 & 2	
	Author: GWWD	Specification for the construction of the original open cell Wilkes Reservoirs.
	Published: 1959	
	Library Call Number: TA 180 .S658 1959 NO.05	
3	Alternatives Available to Re-Establish Adequate Water Storage at the Wilkes Avenue Reservoir	
	Author: UMA	Report briefly describes problems encountered in the Wilkes Reservoir open cell and outlines a conceptual design for a new closed cell reservoir.
	Published: 1980	
	Library Call Number: TD 395 .H878 1980B	
4	Wilkes Avenue Reservoir Design Notes	
	Author: UMA	Wilkes Reservoir North Cell design calculations and pile driving records.
	Published: 1980	
	Library Call Number: TD 395 .U5 1980	
5	Reconstruct the Wilkes Avenue Reservoir in The City of Winnipeg PD 80-23	
	Author: UMA	Bid Opportunity/Specification for the construction of the enclosed Wilkes Reservoir North Cell
	Published: 1980	
	Library Call Number: TA 180 .S658 1980 NO.02	
6	Correspondence Regarding Problems With the Roof at Wilkes Avenue Water Reservoir from 1981 02 18 to 1983 11 25	
	Author: WWD	Meeting notes and correspondence between the City, UMA Engineering and W.W. Construction regarding problems with the reservoir roof
	Published: 1984	
	Library Call Number: TD 395 .C4832 1984	
7	Wilkes Avenue Reservoir Reconstruction: Misc Photographs	
	Author: WWD	Photos of beam to column connection spalls, roof waterproofing defects and sunken pilecap D14.
	Published: 1982	
	Library Call Number: TD 395 .W5 1982	
8	Wilkes Avenue Reservoir: Record of Waterproofing Defects	
	Author: UMA	Plan view drawings of roof slabs showing where waterproofing was defective.
	Published: 1986	
	Library Call Number: TD 395 .U5 1986	

9	Photos Taken in Wilkes Covered Reservoir	
	Author: WWD	Photos of roof spalling and beam to column connection repairs in Wilkes Reservoir North Cell.
	Published: 1986	
Library Call Number: TD 395 .K589 1986		
10	Wilkes Avenue Reservoir Certification Report (Draft)	
	Author: UMA	Draft report describing the design of the North Cell. Report also lists several Items of Concern with the reservoir and makes recommendations to address these concerns.
	Published: 1986	
Library Call Number: TD 395 .U5 1986A		
11	Wilkes Reservoir Structural Inspection Report No. 1	
	Author: Dillon	Results of a survey and visual inspection of Wilkes Reservoir North Cell
	Published: 1988	
Library Call Number: TD 395 .D5 1988B		
12	Wilkes Reservoir Structural Investigation Report No. 2	
	Author: Dillon	A structural and thermal analysis of the reservoir. The report is divided into four sections: Vertical Load Analysis, Lateral Load Analysis, Stability Analysis and Thermal Analysis.
	Published: 1988	
Library Call Number: TD 395 .D5 1988C		
13	Wilkes Avenue Reservoir Inspection Report: Inspection Photographs	
	Author: Dillon	Photographs taken during Dillon's inspection of the reservoir. Vol 1 contains photos of beam to column connections. Vol 2 continues photos of beam to column connections and also contains photos of roof defects, grout filled perimeter joints, beam pockets and others.
	Published: 1988	
Library Call Number: TD 395 .D5 1988A		
14	Preliminary Report on Beam Bearing Detail at Wilkes Avenue Reservoir	
	Author: WM Slater	A structural analysis of the deteriorated beam ends and neoprene bearing pads.
	Published: 1988	
Library Call Number: TD 395 .S423 1988		
15	Analysis of Temperature Variations of the Concrete Roof Deck of the Wilkes Avenue Reservoir	
	Author: GK Yuill	An analysis to determine the number of freeze/thaw cycles experienced by the uninsulated roof deck and the affect of adding insulation on reducing the number of cycles.
	Published: 1988	
Library Call Number: TD 395 .Y855 1988		
16	Wilkes Reservoir Structural Assessment Report No. 3	
	Author: Dillon	The report describes 12 areas of concern with the reservoir and presents a brief history of each issue. The report also summarizes Dillon's previous investigations.
	Published: 1989	
Library Call Number: TD 395 .D5 1989A		
17	Wilkes Reservoir Predesign Report for Remedial Works Report No. 4	
	Author: Dillon	Report presents recommendations from Dillon on rehabilitation of the reservoir cell.
	Published: 1989	
Library Call Number: TD 395 .D5 1989B		
18	Wilkes Reservoir Certification Report Review	
	Author: Dillon	Dillon's review of UMA's Report: "Wilkes Avenue Reservoir Certification Report (Draft)"
	Published: 1989	
Library Call Number: TD 395 .D5 1989C		

19	Wilkes Reservoir Phase II Construction: Preliminary Design Report	
	Author: UMA	Preliminary design report for remedial works at Wilkes Reservoir
	Published: 1990	
Library Call Number: TD 395 .U5 1990A		
20	Wilkes Reservoir Phase II Construction: Functional Design Report	
	Author: UMA	Functional design report for remedial works at Wilkes Reservoir
	Published: 1990	
Library Call Number: TD 395 .U5 1990B		
21	Construction of the Structural Modifications to the Wilkes Reservoir, Phase II Construction, PD 91-19	
	Author: UMA	Bid Opportunity/Construction Specification for remedial structural works at Wilkes Reservoir North Cell
	Published: 1991	
Library Call Number: TA 180 .S658 1991 NO.01		
22	Contract for the City of Winnipeg, Wilkes Avenue Reservoir, Phase II Construction, Building Envelope, PD 91-249	
	Author: UMA	Bid Opportunity/Construction Specification for remedial building envelope works at Wilkes Reservoir North Cell
	Published: 1991	
Library Call Number: TA 180 .S658 1991 NO.04		
23	Wilkes Avenue Reservoir Phase II Construction Structural Works: Photo Record of Construction	
	Author: UMA	Construction photos of the remedial structural works at Wilkes Reservoir North Cell. Taken from April - October 1991
	Published: 1991	
Library Call Number: TD 395 .U5 1991		
24	Wilkes Avenue Reservoir Phase II Construction: Structural Works: Design Calculations	
	Author: UMA	Construction photos of the remedial structural works at Wilkes Reservoir North Cell. Taken from April - October 1992
	Published: 1991	
Library Call Number: TD 395 .U5 1991A		
25	Roof Loading Calculations for Equipment Movement	
	Author: Wolfrom Muzyk	Loading calculations for the movement of equipment on the roof of Wilkes Avenue Reservoir during remedial building envelope works.
	Published: 1992	
Library Call Number: TD 395 .U5 1992		
26	Wilkes Avenue Reservoir Phase II Construction Functional Design Report Supplemental Information	
	Author: UMA	A series of communications from UMA documenting the work completed and changes in the constructed facility compared to the Functional Design Report
	Published: 1992	
Library Call Number: TD 395 .U5 1990B SUPPL		
27	Wilkes Avenue Reservoir South Cell Rehabilitation Conceptual Design Report	
	Author: KGS	Conceptual design report for the construction of the Wilkes Reservoir South Cell
	Published: 1994	
Library Call Number: TD 395 .K46 1994C		

28	Wilkes Avenue Reservoir South Cell Rehabilitation Functional Design Report	
	Author: KGS	Functional design report for the construction of the Wilkes Reservoir South Cell
	Published: 1995	
Library Call Number: TD 395 .K46 1995C		
29	Wilkes Avenue Reservoir South Cell Rehabilitation: Report on Column Foundation Settlements	
	Author: KGS	An investigation into column settlements in the Wilkes Reservoir South Cell. Report also presents some insight into the cause of the settlements experienced in the North Cell
	Published: 1997	
Library Call Number: TD 395 .K46 1997C		

Template Version: SrC120120228- C RFP

APPENDIX C – PHOTOGRAPHS

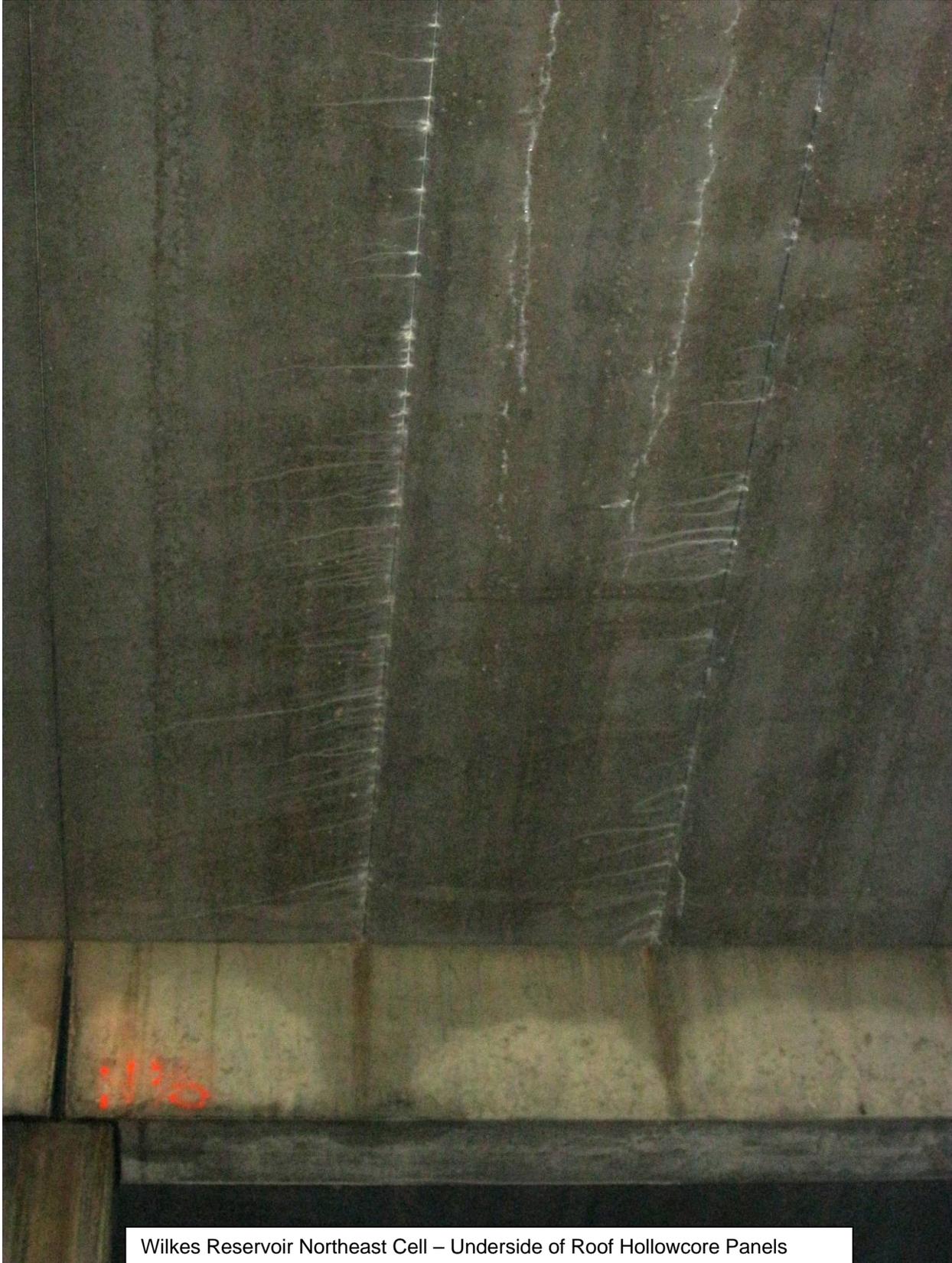
Photographs from October 2011 Site Visit

Template Version: S/C120120228- C RFP



Wilkes Reservoir Northeast Cell – Underside of Roof Hollowcore Panels

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Wilkes Reservoir Northeast Cell – Underside of Roof Hollowcore Panels

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Wilkes Reservoir Northeast Cell – Sunken Pile Cap

Template Version: SlC120120228- C RFP



Wilkes Reservoir Northeast Cell – Floor Slab Movement

Template Version: SiC120120228- C RFP



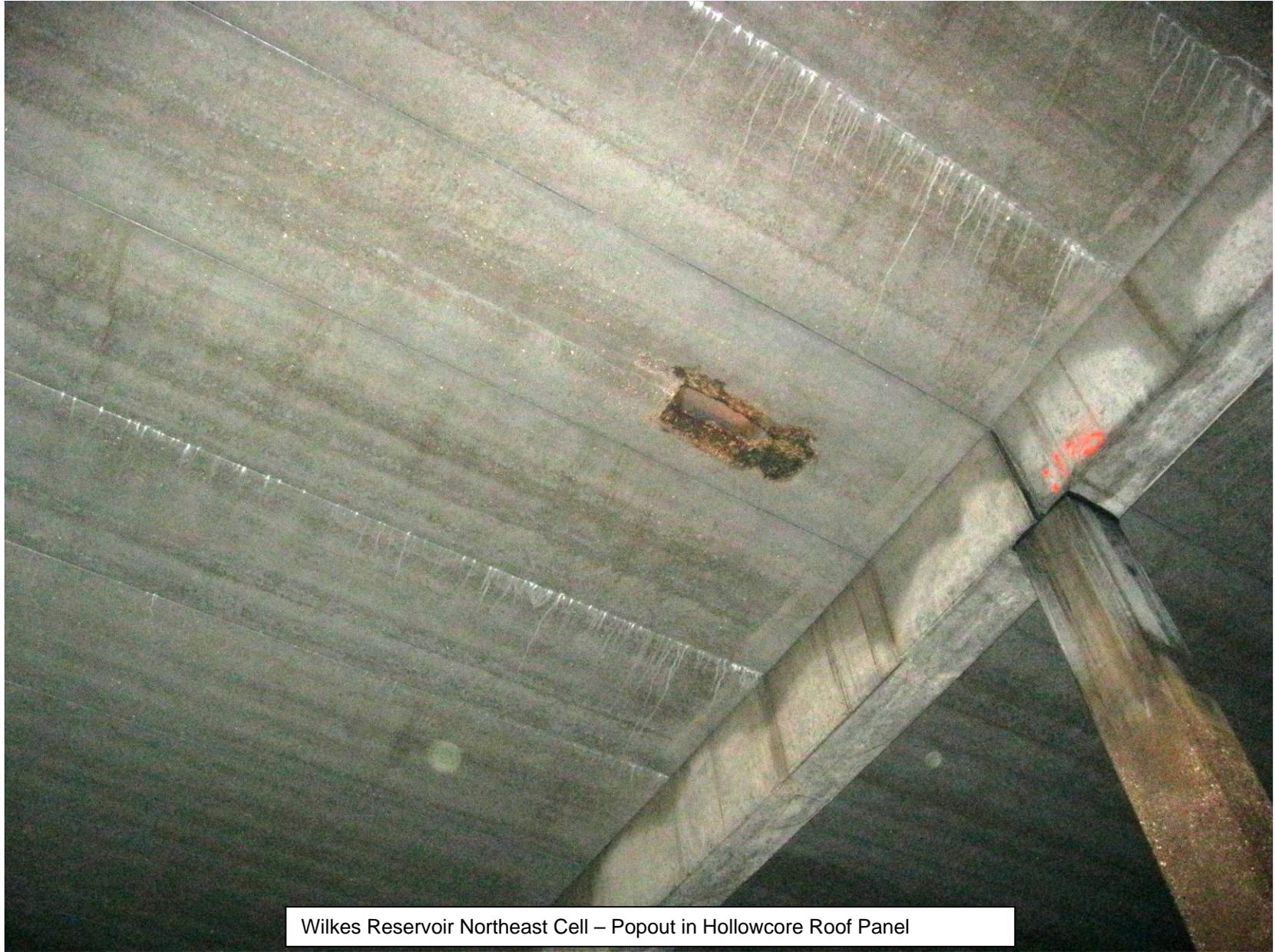
Wilkes Reservoir Northeast Cell – Hollowcore Panel Popouts and Previous Repairs

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Wilkes Reservoir Northeast Cell – Beam End Spall and Protective Coating

Template Version: SlC120120228- C RFP



Wilkes Reservoir Northeast Cell – Popout in Hollowcore Roof Panel

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Wilkes Reservoir Northeast Cell – Crack in Floor Slab along North Wall

APPENDIX D – DRAWINGS FOR REFERENCE

The following drawings are included for reference:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
WIL-1A	Wilkes Avenue Reservoir Reconstruction – Site Plan
WIL-3	Wilkes Avenue Reservoir Reconstruction – General Arrangement
WIL-4	Wilkes Avenue Reservoir Reconstruction – General Sections
WIL-6	Wilkes Avenue Reservoir Reconstruction – Foundation Drainage
WIL-9	Wilkes Avenue Reservoir Reconstruction – Soil Logs
WIL-10	Wilkes Avenue Reservoir Reconstruction – Foundation Plan – Area ‘A’
WIL-14	Wilkes Avenue Reservoir Reconstruction – Pile Cap Details
WIL-16	Wilkes Avenue Reservoir Reconstruction – Reservoir Floor Plan
WIL-19	Wilkes Avenue Reservoir Reconstruction – Wall – Line N
WIL-20	Wilkes Avenue Reservoir Reconstruction – Wall – Lines 1, 19 & A
WIL-21	Wilkes Avenue Reservoir Reconstruction – Divider Wall – Line 9
WIL-23	Wilkes Avenue Reservoir Reconstruction – Roof Plan – Area ‘A’
WIL-24	Wilkes Avenue Reservoir Reconstruction – Roof Plan – Area ‘B’
WIL-27	Wilkes Avenue Reservoir Reconstruction – Roof Access Details
WIL-28	Wilkes Avenue Reservoir Reconstruction – Roof Sections and Details
WIL-29	Wilkes Avenue Reservoir Reconstruction – Roof Sections and Details
WIL-30	Wilkes Avenue Reservoir Reconstruction – Precast Column Details
WIL-31	Wilkes Avenue Reservoir Reconstruction – Precast Beam Details
WIL-45	Wilkes Avenue Reservoir Reconstruction – Valve Operation Schematic
WIL-62	Wilkes Reservoir Phase II Construction – Structural Works – General Plan
WIL 63	Wilkes Reservoir Phase II Construction – Structural Works – Grid A&N Wall Repair Details
WIL-64	Wilkes Reservoir Phase II Construction – Structural Works – Roof Panel Repair and Replacement Details
WIL-65	Wilkes Reservoir Phase II Construction – Structural Works – Miscellaneous Repair Details
WIL-68	Wilkes Reservoir Phase II Construction – Building Envelope – Roof Plan
B-627	Wilkes Ave Reservoir Phase II – Wall/Roof Detail – Lines 1 & 19
B-628	Wilkes Ave Reservoir Phase II – Wall/Roof Detail – Lines A & N
B-629	Wilkes Ave Reservoir Phase II – Typical Expansion Joint Detail
B-631	Wilkes Ave Reservoir Phase II – Details at Roof Access Openings
B-636	Wilkes Ave Reservoir Phase II – Supplementary Foundations at F-4 & L-8
B-638	Wilkes Ave Reservoir Phase II – Hollowcore Crack Repairs
B-639	Wilkes Ave Reservoir Phase II – Typical Hollowcore Spall Repair

APPENDIX E – ADDITIONAL DRAWINGS

The following drawings will be made available electronically to the successful proponent.

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
WIL-1A	Wilkes Avenue Reservoir Reconstruction – Site Plan
WIL-1B	Wilkes Avenue Reservoir Reconstruction – Site Plan
WIL-2	Wilkes Avenue Reservoir Reconstruction – Plan - Formerly North Cell
WIL-3	Wilkes Avenue Reservoir Reconstruction – General Arrangement
WIL-4	Wilkes Avenue Reservoir Reconstruction – General Sections
WIL-5	Wilkes Avenue Reservoir Reconstruction – Demolition
WIL-6	Wilkes Avenue Reservoir Reconstruction – Foundation Drainage
WIL-7	Wilkes Avenue Reservoir Reconstruction – Grading & Backfill
WIL-8	Wilkes Avenue Reservoir Reconstruction – Construction Access Plan
WIL-9	Wilkes Avenue Reservoir Reconstruction – Soil Logs
WIL-10	Wilkes Avenue Reservoir Reconstruction – Foundation Plan – Area ‘A’
WIL-11	Wilkes Avenue Reservoir Reconstruction – Foundation Plan – Area ‘B’
WIL-12	Wilkes Avenue Reservoir Reconstruction – Foundation Plan – Area ‘C’
WIL-13	Wilkes Avenue Reservoir Reconstruction – Foundation Plan – Area ‘D’
WIL-14	Wilkes Avenue Reservoir Reconstruction – Pile Cap Details
WIL-15	Wilkes Avenue Reservoir Reconstruction – Supply Suction Inlet - Plan & Sections
WIL-16	Wilkes Avenue Reservoir Reconstruction – Reservoir Floor Plan
WIL-17	Wilkes Avenue Reservoir Reconstruction – Reservoir Floor Repair - Details
WIL-18	Wilkes Avenue Reservoir Reconstruction – Wall Plan & Details
WIL-19	Wilkes Avenue Reservoir Reconstruction – Wall – Line N
WIL-20	Wilkes Avenue Reservoir Reconstruction – Wall – Lines 1, 19 & A
WIL-21	Wilkes Avenue Reservoir Reconstruction – Divider Wall – Line 9
WIL-22	Wilkes Avenue Reservoir Reconstruction – Overflow Weir - Plan & Sections
WIL-23	Wilkes Avenue Reservoir Reconstruction – Roof Plan – Area ‘A’
WIL-24	Wilkes Avenue Reservoir Reconstruction – Roof Plan – Area ‘B’
WIL-25	Wilkes Avenue Reservoir Reconstruction – Roof Plan – Area ‘C’
WIL-26	Wilkes Avenue Reservoir Reconstruction – Roof Plan – Area ‘D’
WIL-27	Wilkes Avenue Reservoir Reconstruction – Roof Access Details
WIL-28	Wilkes Avenue Reservoir Reconstruction – Roof Sections and Details
WIL-29	Wilkes Avenue Reservoir Reconstruction – Roof Sections and Details
WIL-30	Wilkes Avenue Reservoir Reconstruction – Precast Column Details
WIL-31	Wilkes Avenue Reservoir Reconstruction – Precast Beam Details
WIL-32	Wilkes Avenue Reservoir Reconstruction – Entrance Housing - Plan & Elevations
WIL-33	Wilkes Avenue Reservoir Reconstruction – Entrance Housing Sections
WIL-34	Wilkes Avenue Reservoir Reconstruction –Floor Drain Piping - Plan and Profile

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
WIL-35	Wilkes Avenue Reservoir Reconstruction – Floor Drain Piping - Miscellaneous Details
WIL-36	Wilkes Avenue Reservoir Reconstruction – Washdown Piping - Plan & Misc Details
WIL-37	Wilkes Avenue Reservoir Reconstruction – Floor Plan - Pump Pit
WIL-38	Wilkes Avenue Reservoir Reconstruction – Overflow Piping - Plan/Profile
WIL-39	Wilkes Avenue Reservoir Reconstruction – 1350 Supply/Suction Line - Plan/Profile
WIL-40	Wilkes Avenue Reservoir Reconstruction – 1350 Supply/Suction Line - Overflow Piping - Misc Details
WIL-41	Wilkes Avenue Reservoir Reconstruction – 1200 Interconnection Extension
WIL-42	Wilkes Avenue Reservoir Reconstruction – 1200 Supply Line Extension
WIL-43	Wilkes Avenue Reservoir Reconstruction – 1050 Butterfly Valve in Divider Wall
WIL-44	Wilkes Avenue Reservoir Reconstruction – Electrical
WIL-45	Wilkes Avenue Reservoir Reconstruction – Valve Operation Schematic
WIL-46	Wilkes Avenue Reservoir Reconstruction – Remedial Earthwork
WIL-47	Wilkes Avenue Reservoir Reconstruction – Modifications to Supply Line Extension and East Interconnection Extension
WIL-48	Wilkes Avenue Reservoir Reconstruction – Concrete Slab Repairs
WIL-49	Wilkes Avenue Reservoir Reconstruction – Specification Drawing
WIL-52	Wilkes Avenue Reservoir - Roof Survey Line - Lines 1 to 5 x A to G
WIL-53	Wilkes Avenue Reservoir - Roof Survey Line - Lines 6 to 10 x A to G
WIL-54	Wilkes Avenue Reservoir - Roof Survey Line - Lines 11 to 15 x A to G
WIL-55	Wilkes Avenue Reservoir - Roof Survey Line - Lines 16 to 19 x A to G
WIL-56	Wilkes Avenue Reservoir - Roof Survey Line - Lines 1 to 5 x G to N
WIL-57	Wilkes Avenue Reservoir - Roof Survey Line - Lines 6 to 10 x G to N
WIL-58	Wilkes Avenue Reservoir - Roof Survey Line - Lines 11 to 15 x G to N
WIL-59	Wilkes Avenue Reservoir - Roof Survey Line - Lines 16 to 19 x G to N
WIL-60	Wilkes Avenue Reservoir Reconstruction – Remedial Earthwork
WIL-61	Wilkes Reservoir Phase II Construction – Structural Works – Site Plan & Location Plan
WIL-62	Wilkes Reservoir Phase II Construction – Structural Works – General Plan
WIL-63	Wilkes Reservoir Phase II Construction – Structural Works – Grid A&N Wall Repair Details
WIL-64	Wilkes Reservoir Phase II Construction – Structural Works – Roof Panel Repair and Replacement Details
WIL-65	Wilkes Reservoir Phase II Construction – Structural Works – Miscellaneous Repair Details
WIL-67	Wilkes Reservoir Phase II Construction – Building Envelope – Site Plan & Details
WIL-68	Wilkes Reservoir Phase II Construction – Building Envelope – Roof Plan
WIL-70	Wilkes Reservoir - Aerial Photography 1987
B-627	Wilkes Ave Reservoir Phase II – Wall/Roof Detail – Lines 1 & 19
B-628	Wilkes Ave Reservoir Phase II – Wall/Roof Detail – Lines A & N
B-629	Wilkes Ave Reservoir Phase II – Typical Expansion Joint Detail
B-630	Wilkes Ave Reservoir Phase II – Details at Entrance Building

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
B-631	Wilkes Ave Reservoir Phase II – Details at Roof Access Openings
B-632	Wilkes Ave Reservoir Phase II – Typical Bulkhead Detail
B-634	Wilkes Ave Reservoir Phase II – Wall Expansion Joint at Line G
B-635	Wilkes Ave Reservoir Phase II – Grid Marker Detail
B-636	Wilkes Ave Reservoir Phase II – Supplementary Foundations at F-4 & L-8
B-637	Wilkes Ave Reservoir Phase II – Hollowcore Cutout Repairs
B-638	Wilkes Ave Reservoir Phase II – Hollowcore Crack Repairs
B-639	Wilkes Ave Reservoir Phase II – Typical Hollowcore Spall Repair