

Winnipeg Sewage Treatment Program Integrated Management System



Consultant Services Management Plan Minimum Requirements

DOCUMENT NUMBER: CD-CP-PL-01

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1. INTRODUCTION

1.1 Application and Purpose

Upon assignment award the Consultant shall prepare a comprehensive Consultant Services Management Plan (CSMP) detailing the processes that will be applied during the provision of the assigned Services.

The initial Consultant Services Management Plan shall be supplied for approval within one (1) month of assignment award unless specified otherwise in the RFP documents.

As refined planning for some Services may require preceding Services to be underway or completed, a phased submission for those plan components may be acceptable, however, the initial Consultant Services Management Plan submission is expected to cover the complete assignment awarded to a level of detail acceptable by the City that allows a reasonable vision of the assignment delivery.

The Consultant shall update the CSMP to further levels of detail at least two (2) weeks prior to the start of a new Service to ensure that the CSMP is always detailed enough to allow for the minimum controls required in this document.

This Plan should build on the Project Understanding and Methodology and Project Schedule the Consultant provided during the proposal stage.

1.2 Objectives

The Consultant Services Management Plan objective is to provide a detailed plan to identify and track the processes used by the Consultant during the provision of the assigned Services in order to ensure the delivery of Consultant Services as per City requirements. It will be used by the Consultant and the City as a management and control tool.

The present document is not intended to detail exhaustively all project management techniques and aspects, but rather it lists the minimum requirements that the Consultant has to incorporate in the CSMP

1.3 Consultant Services Management Plan (CSMP) Scope

The Consultant Services Management Plan shall encompass the assignment as detailed in the RFP / Bid Opportunity, including, as applicable the following Services:

- (a) Advisory Services
- (b) Project Definition Design
- (c) Preliminary Design
- (d) Detailed Design
- (e) Contract Administration Services (required and optional)
- (f) Commissioning Services
- (g) Additional Services

2. PROCESS MANAGEMENT

The Consultant Services Management Plan shall identify and detail the following processes for the complete assignment as well as for each of the assigned

- (a) Initiating
- (b) Planning
- (c) Executing
- (d) Controlling and Monitoring
- (e) Closing

2.1 Planning Processes

The plan must be specific to the project being worked on and it must include the project controls required by the City.

Planning forms the basis for the Consultants development of the CSMP which will identify the Work Breakdown Structure (WBS) of the assignment deliverables and detail manpower requirements, manpower costs and provide the critical path schedule for the development and issuance of the deliverables.

The CSMP shall, as a minimum, identify for the Services of Section 1.3 the following:

- (a) A WBS that identifies major elements relative to how the assignment will be managed and in terms of tangible and verifiable results (including milestones, critical triggers, deliverables, % completion of design, posting to Materials Management site, etc.)
- (b) The number of the work packages required and description of each;
- (c) List of Drawings/documents planned for each discipline and work package
- (d) Resource requirements, responsibilities, effort, duration, manpower costs and associated disbursements by work package;
- (e) Information required to support the scope of work for each work package
- (f) Schedule requirements for Services relative to each work package;
- (g) Progress meetings
- (h) Presentation/review meeting/ workshops, identifying anticipated City personnel and/or resources required
- (i) Required information inputs, third party inputs
- (j) Reviewers/Verifiers; including constructability aspects
- (k) Reviews and approval
- (l) The type and format of documentation for each work package;
- (m) The timing and sequence in which procurement documentation is to be produced;
- (n) Quality Management elements
- (o) A Risk Management Plan
- (p) Communication management elements

The Consultant shall prepare a detailed schedule for the Services, identifying the critical path using critical path method (CPM) and utilizing MS Project or compatible software. The CPM schedule may be used as the presentation tool for many of the above. Once approved by the Project Manager the schedule shall be

frozen as a baseline for the Services' duration. The schedule shall be updated weekly and submitted to the Project Manager monthly in MS Project native format. Review of the schedule with the Consultant will occur during the designated Consultant Services monthly status review meetings. Should slippage to the baseline occur, the Consultant shall provide the Project Manager with a mitigation strategy to bring the schedule back to baseline.

2.2 Executing Processes

The Consultant shall have detailed in the planning stage how each of the executing processes will be undertaken, taking into account the following City requirements.

2.2.1 Risk Management

Risk Management Plan issued by the Consultant shall be consistent with the Risk Management Process identified by the City, including distinct activities for risk identification and analysis, evaluation, response planning, and control through monitoring and review processes using the risk register as a key management tool.

Criteria for using the risk register are delineated in Use of the Project Risk Register (see Appendix 2).

2.2.2 Quality Management

The Winnipeg Sewage Treatment Program requires for the delivery of Services a quality management approach. Quality Management includes the processes required to ensure that the Services will satisfy the needs for which they are undertaken. It includes all activities that determine the quality policy, objectives and responsibilities. The Consultant shall submit a plan specific to the project detailing how the following quality components will be achieved:

- (b) Quality Planning
- (c) Quality Assurance
- (d) Quality Control

2.2.3 Cost Management

Cost Management for Services includes the processes required to ensure the assignment is completed within the value of award and includes the following aspects:

- (e) Resource Planning
- (f) Resource Costing
- (g) Cost Monitoring

The Plan shall also detail (when applicable) how to achieve and control the cost for the overall project and propose methodology with regard to procurement delivery strategy.

2.2.4 Records Management

To assist in facilitating Records Management the City is developing a Document Management System (DMS) utilizing the performance capabilities of Share Point in a Microsoft 365 environment. The Consultant shall propose a system for managing documentation that includes the following bullets. Once the City DMS is

operational, the Consultant will be required to transfer prior assignment project records into the City DMS and utilize the City DMS for the remainder of the project.

- (h) Issue of documents for review, action or record;
- (i) Reports, Technical Memorandum and other like submissions
- (j) Receipt of Reviewer's comments;
- (k) Issue of "Bid Opportunity" documents;
- (l) Issue of Contract Administration documentation;
- (m) Transmittal of documents to third parties,
- (n) Transmittal of letters and memos;
- (o) Change Management documents, and tracking of their status/history;
- (p) Contractor Submittals for review and response
- (q) Design review and approval process
- (r) Release of documents for use
- (s) Meeting Minutes
- (t) Inspection and QC records
- (u) Verifications and Certifications
- (v) Issuance of Project Turnover Records

The use of the DMS is to be considered in developing the Plan and its detailed document management processes. In particular, for contractors and suppliers' documentation, submittals such as Shop Drawings, Temporary Works drawings, Manufacturers Data sheets, Material test reports, Factory Inspection Tests shall be submitted via DMS c/w a copy of the transmittal sent to the Administrator of the specific Contract. The Consultant's review of such submittals shall be for acceptability and conformance to all applicable design documents and the Consultant shall respond at Contract Administrator level within the defined time frame of 10 business days unless otherwise specified. All submittals shall be accompanied by a transmittal identifying the sender, recipient, date of transmission, expected date of return as well as the content description.

2.3 Controlling and Monitoring Processes

Processes must be measured regularly to identify variances from plan. The CSMP shall include high level details of the following processes:

- (a) Scope Change Management
- (b) Design Review and Approval
- (c) Release of Documents for Use
- (d) Design Control
- (e) Performance Reporting
- (f) Cost Control
- (g) Consultant Invoicing.

The CSMP shall be updated to capture changing conditions as the Project evolves. Some City standard forms and formats, which the Consultant shall use for the above processes, are referenced in the Appendices.

2.3.1 Scope Change Management

A Change Control System defines the procedures by which the assignment's scope may be changed. It includes the documents, tracking system and approval processes necessary to authorize change to the assignment.

The Consultant's scope change management process shall take into account all the requirements of contract documents including the requirements of the General Conditions and in the Contract Administration Manual, which is found in the Appendix 2

2.3.2 Design Review and Approval

All design deliverable documents require review and approval. The Design Review and Approval Process shall be defined in the Consultant's quality management plan and shall address the following:

- (h) Engineering Practice Reviews
- (i) Inter-discipline coordination (IDC)
- (j) Design Verification / Peer review
- (k) Operability and Maintainability review
- (l) Constructability and cost reviews
- (m) Design Certification
- (n) City of Winnipeg reviews

All documents must undergo the Consultant's planned internal review processes before issuance to the City (note: approval of any document by the City does not limit the liability of the Consultant). The transmittal of documents by the Consultant shall include a transmittal letter listing what is being transmitted, for what purpose it is being transmitted, and the names of all reviewers of the submittal along with the subject matter reviewed by each reviewer. All calculations (including those using computerized software) shall include the initials of the person performing the calculations and the reviewer.

The CSMP's schedule shall detail the applicable review and approval elements. Unless noted otherwise, Design submissions shall be made to the Project Manager at:

- (a) 30% design completion or Preliminary Design;
- (b) 60% design completion; and
- (c) 95% design completion.

Documents to be presented or reviewed in a meeting or workshop shall be issued a minimum of ten working days prior to the presentation. Comments and/or decisions made reached and recorded at the applicable meeting shall be incorporated into the documents and shall be re-issued for approval.

For any document, the City requires a minimum of fifteen (15) working days for review or approval.

2.3.3 Release of Documents for Use

There are a number of milestone stages where the Consultant's documents are required to be released for use. As documents move through the creation, checking, review, comment, verification, certification and approval processes for

each stage, the Consultant shall provide for tracking and monitoring the document movement through these processes. These processes shall be defined in the Consultant's quality management plan and shall anticipate the use of the City DMS (Microsoft SharePoint Online). The process of releasing documents for use shall be managed through the DMS. City approval is required prior to releasing any documents for use.

2.3.4 Design Control

The Consultant is required to use the P&ID(s) as the primary and sole interface document(s) to generate and automatically update equipment/instruments and piping line lists.

The Consultant must provide a strategy and the tools for the control of the documentation, including the change management control requirements, for process and instrumentation/electrical equipment during the complete design and construction cycle, from the beginning of design phase to start of operation and maintenance.

2.3.5 Performance Reporting

Performance reporting involves collecting and disseminating performance information in order to provide stakeholders with information about how the resources are being used to achieve assignment objectives. This process includes status reporting which identifies where the assignment is at, progress reporting which describes what has been accomplished and forecast reporting which predicts when the assignment is expected to complete. Work progress and costs have to be measured in parallel.

For the assigned Services, the Consultant shall submit monthly performance reports to the Project Manager so that it may be reviewed at monthly status review meetings. Should deviation to the baseline occur the Consultant shall provide the Project Manager with a mitigation strategy to bring the performance in line with baseline plan.

This obligation will be expanded to include contractor performance if the consultant services assignment includes contract administration services, as detailed in the City Contract Administration Manual. (See reference in Appendix 2)

2.3.6 Cost Control

Cost control includes monitoring cost performance to detect variances from plan and ensuring changes are recorded accurately.

When the assignment scope includes Contract Administration, cost control includes the measurement of the performance of Contract Administration where applicable.

The Consultant shall continually control cost and shall use Earned Value Analysis (EVA) reporting and Estimate at Completion (EAC) forecasting measured against baseline cost. Consultant Services are further detailed in the following section.

2.3.7 Consultant Services Invoicing

Consultant Services monthly progress invoicing documents shall be presented in order to allow close control of the works performed and those forecasted.

The minimum information to be presented on the monthly summary of fees is

based on the detailed task structure of the proposal. The proposal must be filled with horizontal indication of assignments referred to as phases and their respective sub assignments, and with vertical information related to Previous values at month N-1, current values achieved during the month N, Total value at the end of month N, base line value and percentage of Total value over baseline.

For the purpose of control and validation of work performed, the Consultant shall develop a further level of details with indication of the components of work within each sub assignment as identified in WBS. A matrix format with indication of personnel, discipline, rates and time assigned and provision for time spent up to and within the current month and forecast total time and costs for each work component will be developed by the Consultant. This development is to be submitted to the City Project Manager for approval with the issue of the CSMP.

Once all monthly detailed sheets are approved by the City Project Manager, the monthly summary of fees will be validated and will support the invoices to be issued by the Consultant in accordance with the Invoice Template that the City will transmit at award.

In order to reduce the time for review, the documents shall be prepared and submitted in both paper and electronic versions in native format.

Invoicing for Services which exceeds individual fee amounts at task level will not be approved or payable without the prior written approval of the Project Manager or unless indicated otherwise in the RFP.

2.4 Services Closeout and Turnover Packages

Closeout processes consist of verifying and documenting the results of the services for their entire assignment to formalize their acceptance. This includes the collection and turnover of all records generated and described in detail in the CSMP.

When establishing the closeout processes, the Consultant must, in coordination with the Project Manager, take into account the general requirements for the overall project and all other contracts contributing to the project delivery.

Note: In regard to the Project closeout, Turnover documentation shall include as a minimum the following:

- (a) As-built Drawings
- (b) O&M manuals c/w associated warranty documentation
- (c) Area Manuals
- (d) Standard Operating Procedures
- (e) Operational Data including Asset Data schedules (Active and Decommissioned)
- (f) Commissioning turn over documentation including Training Documentation and Records

3. PROJECT MANAGEMENT REQUIREMENTS

3.1 Communication Management

Communication management provides the critical links among people, ideas and information that are necessary for success.

The Consultant will include a communication plan, as part of the CSMP. The plan shall identify all interfaces (organizational, technical and interpersonal) and the roles and responsibilities of each stakeholder. It will identify who needs what information, when it will be needed and how it will be given.

The Plan shall use forms and templates specific for the project the Consultant shall develop in conjunction with the City of Winnipeg for facilitating communication and will integrate the use of the City DMS.

3.1.1 Consultant Services Monthly Status Review Meetings

The Consultant shall conduct monthly status review meetings and present monthly status reports. The meeting will include key management personnel from both the Consultant and City of Winnipeg. The Consultant shall record minutes.

The monthly status report shall contain as minimum:

- (b) Assignment Status
- (c) Cost performance
- (d) Schedule performance
- (e) Quality performance
- (f) Risk review

3.1.2 Weekly Meetings (Or at frequency identified in the RFP)

The Consultant shall conduct weekly design team meetings and record minutes. The weekly meetings will be attended by at least one City of Winnipeg representative unless otherwise agreed by the Project Manager. As a minimum, the weekly meeting will review the following:

- (g) Recap of past week progress (including man hours and cost)
- (h) Two week look ahead of planned activities (including man hours and forecast)
- (i) Review of issues
- (j) Decisions required and made

During construction and commissioning phases similar types of meetings shall be conducted and the Consultant shall be required to attend either as lead or as participant. Optimization of the project meetings may be proposed by the Project Manager.

3.1.3 Workshops

The Consultant shall provide outlines and methods including participants and projected costs for each workshop and shall be approved by the Project Manager prior to undertaking arrangement of the workshops.

When applicable, the following workshops shall be included and follow the City procedures:

- (k) [CD-PD-PC-01 HAZOP Procedure](#)
- (l) [CD-CP-PC-01 CHAIR Procedure](#)
- (m) [CD-CP-PC-02 Value Engineering Procedure](#)

3.2 Documentation Submission Requirements

The Consultant shall base submittals on the following requirements:

- (a) Form [CD-CP-TO-05 Project Documentation Requirement sheet](#) (Appendix 3) specifies for each category, the quantity and format of document copies to be submitted to the City by the Consultant.
- (b) Drawing submission status codes shall be as defined in the DMS
- (c) Official submission status will be the electronic file submission through the City DMS. Hard copy submissions without a corresponding electronic DMS submission will not be recognized as an official submission.
- (d) The hard copy sets shall be delivered as directed by the City Project Manager.
- (e) Prior to any submission the Consultant shall confirm with the City Project Manager the required format(s) and quantities of the submission.
- (f) The Consultant shall contact the Project Manager for direction on requirements for any submittals not identified.
- (g) All sets of documents should be collated and fastened or bound as appropriate in view of the size and use of the documents.
- (h) Unless otherwise specified, the standard format for electronic submission of documents and drawings to be uploaded in the DMS is an unrestricted searchable electronic Adobe .pdf file.
- (i) Other native file(s), in addition to those noted in Form [CD-CP-TO-05 Project Documentation Requirement sheet](#), shall be provided by the Consultant if requested by the Project Manager.

APPENDICES

The versions of the documents listed in the appendices are representative of the type of documentation to be used for the Project. They allow the Consultant to assess with sufficient accuracy the principles and the magnitude of any work associated with their use for the purpose of quotation.

Applicable revisions of the documents will be transmitted to the Consultant for use at award stage.

APPENDIX 1: RELEVANT TEMPLATES FROM INTEGRATED MANAGEMENT SYSTEM

- a) Tool [CD-CP-TO-01 Standard Operating Procedure Template](#)
- b) Tool [CD-CP-TO-02 SYNERGEN Asset List](#)
- c) Tool [CD-CP-TO-03 Shop Drawings Template](#)
- d) Tool [CD-CP-TO-04 Area Manual template](#)

APPENDIX 2: RELEVANT MANAGEMENT DOCUMENTS

- a) Reference Document [PG-RC-RF-06 DMS File Structure and Definitions](#)
- b) Procedure [PG-RM-PC-01 Use of the Project Risk Register](#)
- c) Procedure [CD-PM-PC-01 Contract Administration Manual](#)

1. APPENDIX 3: AVAILABLE PROJECT SPECIFIC DOCUMENTS

- a) Tool [CD-CP-TO-05 Project Documentation Requirement sheet](#)
- b) [Form CD-PM-TO-06 Request For Information \(form\)](#)
- c) [Form CD-PM-TO-26 Cost Report](#)
- d) [Form CD-PM-TO-27 Consultant Scope Change Order](#)
- e) [Form CD-PM-TO-30 Travel Authorization Form](#)
- f) [Form CD-PM-TO-34 Consultant Progress Estimate](#)
- g) [Form CD-PM-TO-37 Action Issue Item List.xlsx](#)

**Winnipeg Sewage Treatment Program
 Consultant Services Management Plan –
 SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT
 Please note that this is not from a real project!**

Consultant: XYZ Consultants, Inc.	Project Name: EEWPCC Pump Replacement	Consultant Project Manager: Todd Fzzzzz
Consultant Project No. 2014-1893	Winnipeg Project Manager: H.R Ross	Date & Status: October xx, 2014 DRAFT

Consultant Approvals:

Principal-In-Charge: Name: <u> R.T. Jacobs </u> Signature: _____ Date: _____
Project Manager: Name: <u> Todd Fzzzzz </u> Signature: _____ Date: _____

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LIST OF ATTACHMENTS

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HYPERLINKED DOCUMENTS

1. INTRODUCTION

XYZ Consultants is providing the final design, bidding, and construction administration services in accordance with City's Letter of Intent which includes Attachments (LOI) (i.e. Attachments include: RFP; Proposal; Results of any negotiations, etc.)(For the purposes of this Sample CSMP the Letter of Intent with Attachments is referred to as the LOI) to replace the three constant speed plunger type sludge pumps in the primary clarifier area to three variable speed rotary lobe type pumps complete with new starters and suction and discharge valves to allow remote operation. Suction and discharge piping will be revised as necessary to allow proper installation and operation of the new rotary lobe pumps. The controls will also be updated to allow the variable speed operation of the new pumps to be paced off the influent flow meter with remote adjustable settings by the operator. The City is also requesting an overhead door be installed in the building where there is a brick/block wall now which will require Architectural, structural, electrical and lighting, I&C services and some civil site work including drainage, pavement etc.

XYZ Consultants will use existing as-built drawings as the base plans which are to be updated as necessary by XYZ Consultants. Due to the nature of the work and as per the LOI, design submittals will include:

- 10% Submittal = Project Definition
- 30% Submittal = Preliminary Design
- 60% Submittal = 60% of Bid Opportunity Documents
- 95% Submittal = Detailed Design = 95% of Bid Opportunity Documents
- 100% without P. Eng. Stamps = all City comments incorporated and ready for bid
- 100% with P.Eng. Stamps = Bid Opportunity Documents (Issue for Construction Drawings)

The supply, delivery and installation of the pumps will be put out to tender by the City of Winnipeg; however, XYZ Consultants will prepare the tender documents using the City's template for such work. XYZ Consultants will also provide assistance during the bid period as detailed the LOI. Once the construction contract is awarded to a contractor, XYZ Consultants will provide Contract Administration Services including commissioning and 1-year on-call warranty services as defined in the LOI.

2. PROCESS MANAGEMENT

As agreed to at the project kick-off meeting, this Consultant Services Management Plan is detailed for the Project Management and Definition Phases and will be updated 2 weeks prior to commencement of subsequent phases of the work.

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2.1 Work Breakdown Structure

There will be multiple work packages as indicated in the attached CPM schedule; however, the Primary WBS Nos. along with the reference to the LOI, the location where the work will primarily be performed and the responsible professionals and reviewers are indicated in Table 2.1 Work Breakdown Structure (WBS).

2.2 Preliminary List of Deliverables

At this stage of the project, we have prepared a preliminary list of deliverables (i.e. documents and drawings) per phase in the Tables 2.2 through 2.9. As the work becomes more defined we will provide a more detailed list of deliverables.

2.3 Preliminary List of Drawings and Technical Documents

Table 2.10 Preliminary List of Drawings and Technical Documents are attached hereto.

2.4 Cost Breakdown

Resources requirements, responsibilities, effort, duration, manpower costs and disbursements by work package are shown on Table 2.11 which was initially prepared for and included in the Proposal and has been subsequently subdivided by work packages and is attached hereto.

2.5 Information Required

The following is an initial list of information required; additional items may be required as the work progresses. When requesting information from the City, XYZ Consultants will use the City's "Request for Information" form [CD-PM-TO-06](#) and track the progress of RFIs using the City's RFI Log [CD-PM-TO-10 RFI Log](#)

- As-built drawings
 - Pump area
 - Discharge piping for hydraulic calculations
 - Electrical
 - I&C
 - Structural
- Existing O&M Manuals
- Sludge Pump Flow Requirements – (average, peak and seasonal)
- Electrical Standards
- I&C Standards
- Shut down constraints
- Work Hours for Installation LOI
- Operators' Constraints

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3. PROJECT IMPLEMENTATION

3.1 Preliminary CPM Schedule

Schedule requirements for each work package are included in the attached Microsoft Project CPM schedules. There is a summary CPM Schedule and a more detailed CPM schedule attached hereto.

XYZ Consultant's schedule submission includes the following:

- Major Deliverable submission dates identified in the RFP and/or Proposal;
- Major activities for own forces differentiated by process area and discipline;
- Major Sub-consultant activities differentiated by process area and discipline;
- Identification of design and engineering phases, (definition, conceptual, preliminary and detailed);
- Start and Completion Dates for each phase;
- Identification of Critical Path Activities;
- Durations attached to each deliverable and supporting activities;
- Trigger Points, Milestones and key decision points;
- Activities identifying "owners review" for each design related submission; and
- Activities representing Presentations, meetings and workshops;

We believe sufficient time has been allocated for review of milestones with internal City Managers, include (Operations, Engineering, Water Services, Environmental Services and IT) as required.

The schedule is realistic and confirms that XYZ Consultants have a good understanding of its scope and the degree of effort required for each deliverable. The schedule is structured such that it demonstrates we are organized with respect to managing the sub-consultants. This can be seen through identification and integration of sub consultant deliverables within the schedule.

3.2 Progress Meetings

Progress meetings during the design phase will be held at the City offices at 1199 Pacific Ave., Winnipeg, Manitoba, R3E3S8 at 9:00am, the 2nd and 4th Thursday of the month.

- XYZ Consultants will have the Project Manager at each meeting and will produce notes of each meeting within 5 business days for review by the City.
- Design engineers may be present when XYZ Consultants deem appropriate based on the status of the work and any prevailing questions or as requested by the City. Staff from

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outside of Winnipeg will participate in these Progress Meetings as appropriate by phone.

The second meeting each month will be designated as the Monthly Meeting. At the Monthly meeting XYZ Consultants will present a status report including activities of the previous month, anticipated work in the coming month, outstanding issues to be resolved, review of the risk register, scope changes (if any), updated CPM Schedule, percent complete, cost to date, and the draft invoice to review with the City's PM. The Preliminary Agenda for the meetings will be as shown in Sample Meeting Agenda attached hereto with specific details added as required and be forwarded to the City PM at least 3 working days prior to the meeting date. XYZ Consultants will discuss City's attendance and City resource requirements with the City PM prior to the sessions.

During those weeks when a progress meeting is not scheduled the XYZ Consultant PM will originate a call to the City PM to provide a verbal update of the work in progress.

3.3 Third Party Inputs

Third party inputs are not required for this project. *(NOTE: Third party services might include highway, water department, Manitoba Hydro, cable companies, gas company, etc)*

3.4 Reviews and Approval

The reviews and approvals will be performed by the Reviewers/verifiers listed in the Work Breakdown Structure in Table in 2.1. Each drawing or calculation will be initialed by the Responsible Professional and the reviewer/verifier prior to submitting to the City. Please note that reviews will be only for establishing that the work is satisfactory for the applicable submittal. Unless specifically required by P.Eng guidelines or the City, only the Bid Opportunity documents and modifications thereto will be sealed.

3.5 Submittals

- **Format and documentation** for each work package: XYZ Consultants will follow the City's Project Documentation Requirement sheet [CD-CP-TO-05](#) attached hereto.
- **The timing and sequencing** in which procurement documentation is to be produced: Please see the attached CPM Schedule provided under **3.1**.

3.6 Communications

Official communications will be between the City PM and XYZ Consultant's PM. Each submittal will include a transmittal letter listing what is being transmitted, for what purpose it is being transmitted, and, as appropriate, the names of any reviewers of the submittal along with the subject matter reviewed by each reviewer. During the project implementation, other avenues of communications may

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need to be established but they will be established by agreement between the City PM and XYZ Consultant's PM.

3.7 Quality Management

Quality Management is tied to our project schedule. Table 3.2 Quality Planning Schedule provides the City with the quality planning schedule we will implement in performing QA/QC activities.

The Document Tracking Matrix (attached) will be used throughout the project to track the location of documents and utilized in Project Closing as a check that all documents have been returned to the City and newly created documents have been properly filed.

3.8 Risk Management

The Risk register included as part of the RFP issued by the City will be updated during the Project Definition phase. A Risk & Opportunity Workshop will be held with the City upon submittal of the 60% documents and will build upon the risk register. The Risk Management workshop will follow project risk procedures of the City in [PG-RM-TO-02](#) Risk Project Statement Form.

4. CONTROL & MONITORING

4.1 Cost Monitoring

XYZ Consultants will maintain the attached Progress Estimate Cost Monitoring form (Attached hereto), indicating the overall approximate percent complete per task, which will be updated for and reviewed at each Progress Meeting. At the monthly meetings, XYZ consultants will bring their own more detailed analysis (format not defined by the City) of the overall percent complete. The percentages indicated in Table 4.1, are a check on progress and are not to be used to justify or deny progress payments and amounts and numbers on the forms are generally rounded.

The monthly invoices shall be Time & Material in accordance with the detailed requirements of the LOI.
NOTE to User: The monthly invoice must follow the agreed to payment language and supporting documentation in the LOI and may not always be Time & Material as in this example.)

4.2 Scope Change Management

Scope Change Management: Upon realization by XYZ Consultants of a scope change XYZ's PM will notify the City PM in writing of the pending scope change using the City's "Contemplated Change Notice" form [CD-PM-TO-03](#).

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4.3 Schedule Management

XYZ Consultant's schedule has been primarily developed from the Work Breakdown Structure indicated above and identifies all of the deliverables contained within the RFP and associated XYZ Consultant's proposal. We will be reviewing the schedule with the City at each progress meeting and updating the schedule at least 2 weeks prior to the commencement of the subsequent phase. Any scope changes will be reflected in an updated schedule; however, without a scope change the completion date will not change.

5.0 CLOSEOUT AND TURNOVER

5.1 Documentation received from the City

A matrix of all documentation received from the City of Winnipeg - Water & Waste Department will be maintained (See attached Documentation Matrix) by XYZ Consultants and include who received the documentation, who it was transmitted from, the date of transmittal, and if it needs to be returned to the City upon Closeout. When the documentation is returned to the City the date it was returned, by whom and to whom it was returned to will be recorded.

5.2 Documentation Generated During the Project

Submission Requirements: All submittals will be in accordance with the requirements of Paragraph 3.2 Consultant Services Management Plan Minimum Requirements as herein stated:

Submittals will be in accordance with the following requirements:

- (a) Form CD-CP-TO-05 Project Documentation Requirement sheet (Appendix 3) specifies for each category, the quantity and format of document copies to be submitted to the City by the Consultant.
- (b) Drawing submission status codes shall be as defined in the DMS
- (c) Official submission status will be the electronic file submission through the City DMS. Hard copy submissions without a corresponding electronic DMS submission will not be recognized as an official submission.
- (d) The hard copy sets shall be delivered as directed by the City Project Manager.
- (e) Prior to any submission the Consultant shall confirm with the City Project Manager the required format(s) and quantities of the submission.
- (f) The Consultant shall contact the Project Manager for direction on requirements for any submittals not identified.

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- (g) All sets of documents should be collated and fastened or bound as appropriate in view of the size and use of the documents.
- (h) Unless otherwise specified, the standard format for electronic submission of documents and drawings to be uploaded in the DMS is in native format and an unrestricted searchable electronic Adobe .pdf file.
- (i) Other native file(s), in addition to those noted in Form CD-CP-TO-05 Project Documentation Requirement sheet, shall be provided by the Consultant if requested by the Project Manager.

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LIST OF ATTACHMENTS:

The following attachments are those which are not a standard from of the City of Winnipeg.

- Table 2.1 Work Breakdown Structure (WBS)
- Table 2.2 Project Management Phase – Deliverables
- Table 2.3 Project Definition Phase - Deliverables
- Table 2.4 Preliminary Design (30%) Phase – Deliverables
- Table 2.5 Detailed Design (60%) Phase – Deliverables
- Table 2.6 Detailed Design (95%) Phase – Deliverables
- Table 2.7 Bid Phase – Deliverables
- Table 2.8 Construction Phase – Deliverables
- Table 2.9 Closeout Phase – Deliverables
- Table 2. 10 - Preliminary List of Drawings and Technical Documents
- Table 2.11 – Cost Breakdown by Work Package. (From Proposal and as modified during LOI negotiation)
- Sample Minimum Meeting Agenda Topics & Meeting Minutes
- Document Tracking Matrix
- Cost Monitoring Form
- CPM Schedule - Summary
- CPM Schedule – Detailed

Hyperlinked Documents:

- [CD-PM-TO-06](#) Request For Information
- [CD-PM-TO-10 RFI Log](#)
- [CD-CP-TO-05](#) Project Documentation Requirement Sheet
- [PG-RM-TO-02](#) Risk Project Statement Form
- [CD-PM-TO-03](#) Contemplated Change notice

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ATTACHMENTS

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Table 2.1 Work Breakdown Structure (WBS)

Primary WBS No.	Contract Ref Item No.	Description	Location	Responsible Professional*	Reviewer/ Verifier**
1	TBD	Project Management (includes Interdiscipline Coordination; approval of documents for release; Scope Changes)	Winnipeg	Todd F., P.Eng	R.T. Jacobs, P.Eng., Principal In-Charge
2	TBD	Project Definition (10%+-)	Winnipeg	Todd F., P.Eng	Harry P., P.Eng
3	TBD	Preliminary Design (30%)	Fort Conner	Todd F., P.Eng	Harry P., P.Eng
4	TBD	Detailed Design (60 & 95%)	Fort Conner	Todd F., P.Eng	Harry P., P.Eng
5	TBD	Bidding Services (100%)	Winnipeg	Todd F., P.Eng	Harry P., P.Eng
6	TBD	Contract Administration Services	Winnipeg	Paul Q., P. Eng	Todd F., P.Eng
7	TBD	Commissioning Services	Winnipeg	Steve R., P.Eng	Todd F., P.Eng
8	TBD	Additional Services	TBD	Todd F., P.Eng	R.T. Jacobs, P.Eng., Principal In-Charge
9	TBD	Project Closeout	Winnipeg	Todd F., P.Eng	R.T. Jacobs, P.Eng., Principal In-Charge

Notes: * Responsible Professional for each disciplines' work will be the P.Eng stamping the documents (In this case the Key Personnel listed in RFP); however their work will have the oversight by the senior staff listed above; ** Reviewers/Verifiers are specialists in their field performing quality checks of the documents. ***City's Letter of Intent which includes Attachments (LOI) (i.e. Attachments include: RFP; Proposal; Results of any negotiations, etc.)

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Table 2.2 PROJECT MANAGEMENT PHASE – DELIVERABLES

Deliverables	Description	Type	Format	Comments
Draft Invoice	For approval		pdf	Within 30 days
Draft Financial Report	For approval		pdf	Within 30 days
Invoices	Monthly		pdf	For each phase
Financial	Monthly		pdf	For each phase
CSMP	Consultant Services Management Plan	Report	Word & pdf	Draft within 30 days then once approved, 2 weeks prior to next phase
Monthly project status review meetings	Organize, chair, record meeting minutes	Distribute agendas & minutes	Word & pdf	For each phase
Monthly Project Status Reports	Status of work	Report	Word & pdf	For each phase
Initial & semi-annual cash flow forecasts	Projected expenditures on project	Report with projection by month	Word & pdf	March & October for semi-annual forecasts
Weekly Meetings	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf	For each phase
Workshop - Risk	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf and Risk Register	Update risk register in each phase
Workshop – CHAIR	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf	Chair 1 in Project Definition Phase. CHAIR 2 & 3 after 95% submittal
Workshop - HAZOP	Organize, chair, record meeting minutes	Meeting Minutes	Word & pdf	HAZOP after 95% submittal
Workshop – Value Engineering	Organize	VE Report	Word & pdf	Formal VE Not Applicable to this project (include in review sessions)
Invoices	Monthly Invoices	Invoice	Word & pdf	Will come directly from Finance

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				Department to City
Cash Flow Forecasts	Quarterly	Spreadsheet	Excel & pdf	Due in March & September each year

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Table 2.3 PROJECT DEFINITION PHASE - DELIVERABLES

Deliverable	Description	Type	Format	Comments
Verification of City Requirements	Listing of City Requirements	Technical Memo	Word & pdf	For verification
Notifications	Requests for Information	RFI Form	Uses City RFI Format	Uses City RFI Format
Meeting Minutes			pdf and native formats	See PM Responsibilities above
Workshops			pdf and native formats	See PM Responsibilities above
Technical Memorandums (including Business Cases)			pdf and native formats	Each section of the PD Report a Technical Memorandum. An Executive Summary with the Technical Memorandums attached will comprise the PD Report
Draft PD Documents (60% complete)	Draft Project Definition documents	Report	pdf and native formats	Bound submittal
Risk & Opportunity Workshop	Risk register prior to workshop	Matrix	Excel Matrix and notes from Workshop in Word & pdf	
Final PD Documents (100% complete)	Project Definition documents	Report	pdf and native formats	Bound submittal
Drawings	Drawings to support PD Documents	Appended to Report	.pdf	5 drawings may be appended to the PD Report
Comment Log	Word document to be support all revised submittals by Consultant	Transmitted with revised documents	Word & pdf	

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Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
Outline and list of drawings for the Preliminary Design Phase Report	As part of the appendices to the Project Definition Report	Report	pdf and native formats	
Presentation of PD Report to City	Power Point		Power Point	
Phase Documentation	Submittal of phase documentation required for phase closeout	TBD	pdf and native formats	

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Table 2.4 PRELIMINARY DESIGN PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

Deliverable	Description	Type	Format	Comments
Preliminary Design report at 60% complete				
HAZOP workshop & technical memo				
CHAIR Workshop & Technical memo				
Risk & Opportunity Workshop				
Comment Log	Word document to be support all revised submittals by Consultant	Transmitted with revised documents	Word & pdf	
Draft Preliminary Design Report	Word document to be support all revised submittals by Consultant		Word & pdf	
Preliminary Design Report (100%)	Word document to be support all revised submittals by Consultant		Word & pdf	
Cost Estimate (Draft)	Based on unit costs and area costs appropriate for this level of design	Draft Transmitted with 10 days of submittal of draft Preliminary Design Report	Excel Document with transmittal letter	
Cost Estimate (Revised)	Based on unit costs and area costs appropriate for this level of design	Revised Cost Estimate to be transmitted with 10 days of submittal of 100%	Excel Document with transmittal letter	

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		Preliminary Design Report		
Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
Phase Documentation	Submittal of phase documentation required for phase closeout	TBD	pdf and native formats	

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Table 2.5 DETAILED DESIGN (60%) PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

Deliverable	Description	Type	Format	Comments
Comment Log	Word document to be support all revised submittals by Consultant	Transmitted with revised documents	Word & pdf	
Value Engineering				
Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase

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Table 2.6 DETAILED DESIGN (95%) PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

Deliverable	Description	Type	Format	Comments
Comment Log	Word document to be support all revised submittals by Consultant	Transmitted with revised documents	Word & pdf	
Risk Register & Workshop Minutes				
HAZOP Workshop & Technical Memo				
Chair Workshops & Technical Memos				
Opex Adjustment Model				
Asset Data Schedule				
De-Commissioned Assets Schedule				
Capital Replacement Plan				
Spares				
Cost Estimate				
95% Submittal				
Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
100% Submittal with Comment Log Completed				
Phase	Submittal of	TBD	pdf and native	

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Documentation	phase documentation required for phase closeout		formats	

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Table 2.7 BID PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

Deliverable	Description	Type	Format	Comments
Bid Opportunity Documents				
Minutes of Site Meeting with Bidders				
Response to Questions				
Addendas				
Bid Evaluation				
Conformed Documents				
Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
Phase Documentation	Submittal of phase documentation required for phase closeout	TBD	pdf and native formats	

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Table 2.8 CONSTRUCTION PHASE – DELIVERABLES

(To be updated 2 weeks prior to phase start date)

Deliverable	Description	Type	Format	Comments
Daily Reports				
Responses to Contractor RFIs				
Reviews of Contractor Requests for Modifications/ Substitutions				
Accepted Third Party testing Reports				
Updated Opex Adjustment Model				
Updated Asset Data Schedule				
Certification of Contractor's Monthly Payment Applications				
Evaluation of Contractor Change Requests				
Approved Contractor Submittals				
Approved Construction Change Orders				
Commissioning Plan				
Warranties				
Training Documentation				
O&M Manuals				
As-builts				

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Update of CSMP	As necessary		Word, excel, Microsoft project, pdf as necessary	Due two weeks prior to authorization to proceed into next phase
Phase Documentation	Submittal of phase documentation required for phase closeout	TBD	pdf and native formats	

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**Table 2.9 CLOSEOUT PHASE – DELIVERABLES
 (To be updated 2 weeks prior to phase start date)**

Deliverable	Description	Type	Format	Comments
Revised As-Builts				
Revised O&M Manuals				
Revised Standard Operating Procedures				
Certification of Acceptance				
Phase Documentation	Submittal of phase documentation required for phase closeout	TBD	pdf and native formats	

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TABLE 2.10 - Preliminary List of Drawings & Documents (subject to change as the work proceeds)

(Document and Drawing Nos. to follow City Numbering System)

Drawing No. (To Follow City Numbering System)	Document No. (To Follow City Numbering System)*	Title	10% (Project Definition Report)	30%	60%	95%	100% (w/o P.Eng stamps)	Bid Opportunity* *
		DOCUMENTS:						
		CSMP	Y	-	-	-	-	-
		CSMP - Updates	N	Y	Y	Y	N	Y
		Monthly Progress Report	Y	Y	Y	Y	Y	Y
		Invoices	Y	Y	Y	Y	Y	Y
		Monthly Financial Reports	Y	Y	Y	Y	Y	Y
		CPM Schedules	Y	Y	Y	Y	Y	Y
		Insurance Certificates	Y	Y	Y	Y	Y	Y
		Meeting Agendas	Y	Y	Y	Y	Y	Y
		Meeting Minutes	Y	Y	Y	Y	Y	Y
		Design Criteria	Y	Y	N** *	N** *	N***	N***
		Design Calculations		Y	Y	Y	N***	N***
		Equipment Selection Business Case	Y	N	N** *	N** *	N***	N***
		Cost Estimate		Y	Y	Y	N***	Y
		CHAIR Documentatio	Y	N	N	Y/Y	N	N

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		n (Sessions 1, 2, and 3)						
		HAZOP Documentation			Y			
		Value Engineering Documentation			Y			
		RFIs	As Required					
		Change Order Requests	As Required					
		Geotechnical Report	Y					
		Survey	Y					
		Risk & Opportunity Assessment	Y	Y	Y	Y	Y	N
		Project Definition Report (Draft/Revisions & Final)	Y					
		Preliminary Design Report (Draft/Revisions & Final)		Y				
	Design Drawings:							
	Individual Drawings to be listed							
		Title Page & Index		Y	Y	Y		Y
		Civil / Site						
		Architectural						
		Piping, Equipment & Structural Demolition		Y	Y	Y		Y
		Electrical and I&C Demolition		Y	Y	Y		Y

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		Equip Layout New Pumps Plan And Sections		Y	Y	Y		Y	
		New Pumps Details		N	N	Y		Y	
		Structural		N	N	Y		Y	
		Electrical – One line & MCC#4 Modifications		Y	Y	Y		Y	
		I&C P&ID		Y	Y	Y		Y	
		I&C Details		N	N	Y		Y	
SPECIFICATIONS:									
	Individual specification sections to be listed				Y	Y	Y	Y	
					Y	Y	Y	Y	
						Y	Y	Y	Y
						Y	Y	Y	Y
						Y	Y	Y	Y
						Y	Y	Y	Y
						Y	Y	Y	Y
						Y	Y	Y	Y
						Y	Y	Y	Y
						Y	Y	Y	Y
BID OPPORTUNITY DOCUMENTS:									
						Y	Y	Y	
CONTRACT ADMINISTRATION PHASE SERVICES									
Drawing No. (To Follow City Numbering System)	Document No. (To Follow City Numbering System)*	Title							
CONTRACT DOCUMENTS:									

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		OTHER DOCUMENTS:						
		Contractor Progress Payments						
		RFIs						
		Change Order Requests						
		Construction Schedule						
		Asset Data Sheets						
		O&M Manuals						
		SOPs						
		Training Documents						
		Certificate of Substantial Performance						
		Certificate of Final Performance						
		Warranty Documents						

*Documents are to be submitted in accordance with the LOI and agreed to submittal schedule.
 **Bid Opportunity documents to be sealed by the Responsible Professional indicated in Table 2.1
 (a)
 *** All Work Pkgs. to be resubmitted when changes occur.

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Table 3.1 Cost Breakdown by Work Package

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Table 3.2 – Quality Planning Schedule

Submission	Closing Date for Submittal for QA/QC Session*	Internal QA/QC Session Date	Submittal Date to City	Receipt of City Comments	Respond to City Comments	Sign Off by City
10%	March 15th	+ 3 days (March 18 th)	+ 1 week (March 25 th)	+ 3 weeks (April 15 th)	+ 2 weeks (April 29 th)	+ 3 Weeks (May 20 th)
30%	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 3 Weeks
60%	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 3 Weeks
95%	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 3 Weeks
Bid Opportunity Documents	TBD	+ 3 days	+ 1 week	+ 3 weeks	+ 2 weeks	+ 3 Weeks

Notes: * Dates to be established upon approval of base schedule
 The QA/QC sessions are held in XYZ Consultants' Offices and are to be attended by the Reviewer/Verifier identified in Table 2.1 WBS structure table.

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**Sample Minimum Meeting Agenda Topics
&
Meeting Minutes**

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PROGRESS MEETING NO. XX

SAMPLE - MINIMUM AGENDA TOPICS & MEETING MINUTES

PROJECT NAME:

BID OPPORTUNITY NO.:

Meeting Date: October 31, 2014

In Attendance:

WWD Staff:

Consultant:

Recorded by:

AGENDA ITEM	TOPIC	DISCUSSION	ACTION REQUIRED BY:	ACTION REQUIRED WHEN
1	Safety			
2	Previous Period Activities			
3	Anticipated Work Next Period			
4	Outstanding Issues to be resolved			
5	New Issues to be Discussed			
6	Review of Risk Register			
7	CPM Review			
8	Schedule Mitigation Steps			
9	Percent Complete			
10	Cost to Date			
11	Draft Invoice Review (At Monthly Meetings)			
12	Round Table			
13	Wrap-Up			
14	Next Meeting Date/Time /Location			
15				

ATTACHMENTS:

END OF MEETING AGENDA / MINUTES

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Document Tracking Matrix

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Project No. _____ ; Bid Opportunity No. _____

PROJECT NAME: _____

DOCUMENT TRACKING MATRIX

DOCUMENT TRACKING MATRIX

Line No.	Document No.	Document Name	City Original To-Be-Returned (Y/N)	Document Submittal / Received Date	Action Needed*	Action Taken**	Date Action Taken	Date Approved or Returned to City	Comments

Notes:

*Action Needed = “I” For Information; “RC” For Review & Comment; “RA” For Review and Approval

**Action Taken = “RF” Returned to City for File; “R/C” Returned with Comments; “R/A” Returned with Approval

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Table 4.1 Cost Monitoring

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Notes to Project Managers: (The example Table 4.1 follows the project for this sample CSMP; however, the principles are based on the City's Asset Management Project Management Manual, Final Draft, and Version 2.0, dated April 22, 2014)

The above example in Table 4.1 is for the Consultant's Project Definition and Preliminary Design phases of the project sample project. The sample is constructed according to the WBS rolled up to the first level. For a particular project, the City may want the consultant to have further breakdown of lower levels of the WBS for the project but it should be consistent with their internal accounting systems so as not to impart undue effort to create separate manual accounting. In all cases the consultant should have further breakdown of the Earned Value percent complete for each WBS. There could also be a line for Allowable Disbursements.

The above example is completed as follows:

- **Planned Value:** The budget cost of the work scheduled (BCWS) is entered as planned for each task. This must include the work package level detail in the time increments to be monitored and controlled.
- **Actual Cost of the Work Completed (ACWC):** Actual costs are based on the most current information available, which in many cases may be consultant or contract billings.
- **Earned Value (EV):** An earned value estimate is entered for each item for each time increment based on a bonafided estimate of the work completed. The example is structured in terms of percent completed. Backup documentation is required to support the percent complete (see attached sample)
- **Estimate to Complete (ETC):** The estimate to complete is a bonafided estimate of the amount of work remaining to be needed to complete each work package for each time increment. The value is reported in terms of cost estimates to complete, but the basis for estimating would normally be in terms of working time. Where the Estimate to Complete indicates the Estimate at Completion is overrunning the contract amount and the Scope of Work has not changed, the Consultant should provide a mitigation plan to bring the project back in line with the amount without modifying the Scope of Services. (This is often done by the Consultant's salaried staff working overtime on a project and/or the Consultant not billing for some work of its non-salaried staff; therefore, the City does not incur additional costs.)
- **Estimate at Completion (EAC):** The estimate at completion is calculated from the addition of the accumulated ACWC and ETC.

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Earned Value Backup Documentation - Sample

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**WATER POLLUTION CONTROL FACILITY UPGRADE
NUTRIENT REMOVAL UPGRADE
PROJECTS 1 THRU 6 (Not Including Construction Phase Services)
CWSRF 3209**

STATUS OF CONSULTANT'S WORK AS OF July 30, 2010

Project No.	Description	Lump Sum Fee	% of Total Project	% Complete of Line Item	% Complete of Each Project	Earned Value	Comments
		\$				\$	
1	ACTIFLO, Generator, Primary Power	\$382,584					
	Additional Design Services	\$81,000					
	Total Project #1 Design Services =	\$463,584	100	89	89	\$412,590	
	Design Development Phase (Assume Work Commenced at 20% Level)						
	30 to 40% Design		15	100	15	\$69,538	
	Update Basis of Design Report		4	100	4	\$18,543	
	Cost estimate		3	100	3	\$13,908	
	Project Schedule		5	100	5	\$23,179	
					0	\$0	
	Discipline Package Development				0	\$0	
	80% Submittal						
	80% Level Plans		15	100	15	\$69,538	
	80% Level Specs		15	100	15	\$69,538	
	Update Basis of Design Report		5	100	5	\$23,179	
	Update Cost Estimate		4	100	4	\$18,543	
	Develop MOPO		5	100	5	\$23,179	
	Develop QA/QC Program		3	100	3	\$13,908	
	Finalize Design and & Obtain Approvals to Bid		8	100	8	\$37,087	
	Develop Bid Packages and Assist with Solicitation				0	\$0	
	Electrical & Instrumentation		3	60	1.8	\$8,345	
	Gen Civil and Concrete		3	60	1.8	\$8,345	
	Sole Source - ACTIFLO process		2	65	1.3	\$6,027	
	SoleSource other Equip		1	60	0.6	\$2,782	
	Assist with Award of Discipline Contracts				0	\$0	
	Electrical & Instrumentation		3	0	0	\$0	
	Gen Civil and Concrete		3	0	0	\$0	
	Sole Source - ACTIFLO process		1	50	0.5	\$2,318	
	SoleSource other Equip		1	0	0	\$0	
	Finalize Project Schedule Based on Sub-Contract Awards		1	100	1	\$4,636	
	TOTALS FOR PROJECT 1		100		89	\$412,590	
2	Aeration Tank Upgrade	\$253,281	100	34.2	34.2	\$86,622	
	Design Development Phase (Work Commencing at 0% Level)						
	Preliminary Design Memo		36	85	30.6	\$77,504	
	30 to 40% Design		5	40	2	\$5,066	
	Update Basis of Design Report		2	40	0.8	\$2,026	
	Cost Estimate		2	40	0.8	\$2,026	
	Project Schedule		1	0	0	\$0	
					0	\$0	
	Discipline Package Development				0	\$0	
	80% Submittal						
	80% Level Plans		15	0	0	\$0	
	80% Level specs		15	0	0	\$0	
	Update Basis of Design Report		2	0	0	\$0	
	Update Cost Estimate		2	0	0	\$0	
	Develop MOPO		1	0	0	\$0	
	Develop QA/QC Program		1	0	0	\$0	
	Finalize Design and & Obtain Approvals to Bid		4	0	0	\$0	
	Develop Bid Packages and Assist with Solicitation				0	\$0	
	Electrical & Instrumentation		2	0	0	\$0	

		SCADA		2	0	0	\$0
		Gen Civil and Concrete		2	0	0	\$0
		SoleSource other Equip		1	0	0	\$0
	Assist with Award of Discipline Contracts				0		\$0
		Electrical & Instrumentation		2	0	0	\$0
		SCADA		2	0	0	\$0
		Gen Civil and Concrete		1	0	0	\$0
		SoleSource other Equip		1	0	0	\$0
	Finalize Project Schedule Based on Sub-Contract Awards			1	0	0	\$0
	TOTALS FOR PROJECT 2			100		34.2	\$86,622
3	Bio-P removal	(Apply Total % Complete for Project 2 - if Project 3 is a Go)	\$65,958	100	0	0	\$0
4	Aeration Tank Structural Wall Evaluation		\$17,000	100	10	10	\$1,700
5	Energy Audit Fall Brook, RAS, Screw Pumps		\$25,000	100	0	0	\$0
6	Eval Life Cycle Cost for Bio-P Improvements		\$16,738	100	30	30	\$5,021
	TOTALS FOR PROJECTS 1-6		\$841,561				\$505,933

ACTIFLO, GENERATOR, AND PRIMARY POWER - SPECIFICATIONS

DIVISION	SECTION NUMBER	TITLE	WEIGHT (as % of total specs)	APPRX % Complete of spec section	Apprx % Complete of Overall specs	Comments (Notes to Self)
	0	Bidding and Contract Requirements	5	95	4.75	
	1	General Requirements	5	100	5	
	2	Site Work	5	100	5	
	3	Concrete	5	100	5	
	4	Masonry	5	100	5	
	5	Metals	5	100	5	
	6	Wood and Plastics	5	100	5	
	7	Thermal & Moisture	5	100	5	
	8	Doors and Windows	5	100	5	
	9	Finishes	5	100	5	
	10	Specialities	5	100	5	
	11	Equipment	10	100	10	
	12	XXXXXXXX	5	100	5	
	13	Special Construction	5	100	5	
	14	Conveying Systems	5	100	5	
	15	Mechanical	5	100	5	
	16	Electrical	7	100	7	
	17	Instrumentation and Controls	8	95	7.6	
	TOTALS		100		99.35	

**WATER POLLUTION CONTROL FACILITY UPGRADE
NUTRIENT REMOVAL UPGRADE
PROJECT #1**

STATUS OF DRAWINGS SUBMITTED June 2, 2010

Number of Drawings	DWG NO. in Submittal	TITLE	WEIGHT (as % of total plans)	APPRX % Complete of Dwg	Apprx % Complete of Overall Plans	Comments (Notes to Self)
1	Title	Title	0.25	100	0.25	
2	G-1	Drawing Index	0.5	100	0.5	
3	C-1	General Civil Notes, legend & Abbreviations	0.75	100	0.75	
4	C-2	Site Key Plan	1	100	1	
5	C-3	Existing Conditions and Demolition Plan	1.5	100	1.5	
6	C-4	Site Layout Plan I	0.75	100	0.75	
7	C-5	Site Layout Plan II	0.75	100	0.75	
8	C-6	Site Grading Plan	1	100	1	
9	C-7	Site Piping Plan	1.5	100	1.5	
10	C-8	Civil Details I	0.75	100	0.75	
11	C-9	Civil Details II	0.75	100	0.75	
12	C-10	Erosion Control & Sedimentation Plan	1.5	100	1.5	
13	C-11	Compensatory Storage	1.5	100	1.5	
14	A-1	Architectural Notes, Legend & Abbreviations	0.75	100	0.75	
15	A-2	Lower Level Plan & Elev	1	100	1	
16	A-3	Floor Plan	1.5	100	1.5	
17	A-4	Elevations	1	100	1	
18	A-5	Sections	1	100	1	
19	A-6	Roof Plans & Details	1	100	1	
20	A-7	Schedules & Details	1	100	1	
21	A-8	Details	1	100	1	
22	A-9	Electrical Room Modifications	1	100	1	
23	S-1	Structural Notes	0.75	100	0.75	
24	S-2	ACTIFLO Process Tank - Base Plan	2.25	100	2.25	
25	S-3	ACTIFLO Process Tank - Top Plan	2.25	100	2.25	
26	S-4	ACTIFLO Process Tank - Roof Plan	2.5	100	2.5	
27	S-5	ACTIFLO Process Tank - Section and Details I	2	100	2	
28	S-6	ACTIFLO Process Tank - Section and Details II	1.5	100	1.5	
29	S-7	ACTIFLO Process Tank - Section and Details III	1.5	100	1.5	
30	S-8	Generator Pad Plan & Detail	1	100	1	
31	S-9	Junction Structure 5A Plan & Sections	1	100	1	
32	S-10	Typical Structural Details I	1	100	1	
33	S-11	Typical Structural Details II	1	100	1	
34	PR-1	General Civil Notes Abbreviations & Legend	1	100	1	Check if for this project
35	PR-2	Process Flow Diagram I	1.5	100	1.5	
36	PR-3	Hydraulic Profile I	2	100	2	

**WATER POLLUTION CONTROL FACILITY UPGRADE
NUTRIENT REMOVAL UPGRADE
PROJECT #1**

STATUS OF DRAWINGS SUBMITTED June 2, 2010

Number of Drawings	DWG NO. in Submittal	TITLE	WEIGHT (as % of total plans)	APPRX % Complete of Dwg	Apprx % Complete of Overall Plans	Comments (Notes to Self)
37	PR-4	ACTIFLO Process Tank Elevation Plan I	2	100	2	
38	PR-5	ACTIFLO Process Tank Elevation Plan II	2	100	2	
39	PR-6	ACTIFLO Process Tank Sections I	2	100	2	
40	PR-7	ACTIFLO Process Tank Sections II and Chemical Feed Building	2	100	2	
41	PR-8	Structure 5A Plan and Sections	1	100	1	
42	PR-9	Existing Process Building Demolition Plan	1.75	100	1.75	
43	PR-10	Process Building First Floor Demo Plan	1.75	100	1.75	
44	PR-11	Process Building Partial Basement Plan I	1.75	100	1.75	
45	PR-12	Process Building Partial Basement Plan II	1.75	100	1.75	
46	PR-13	Process Building Modification Sections	1.75	100	1.75	
47	PR-14	Main Pipe Gallery Tunnel Chemical Piping Demo & Modifications	1	100	1	
48	PR-15	Primary Gallery Chemical Piping Demo	1	100	1	
49	PR-16	Primary Gallery Chemical Piping Modifications	1	100	1	
50	PR-17	Chemical Feed Schmatics I	1	100	1	
51	PR-18	Chemical Feed Schmatics II & Misc Process Details	1	100	1	
52	PR-19	Misc. Process Details II	1	100	1	
53	M-1	Mechanical Plan	0.75	100	0.75	
54	M-2	Chemical Feed Building Mech . Plan & Process Bldg Demo notes	0.75	100	0.75	
55	P-1	Process Building Basement Plumbing Plan	1	100	1	
56	P-2	Process Building First Floor Plumbing Plan	0.5	100	0.5	
57	P-3	Chemical Feed Building Plumbing Plan, Notes	0.5	100	0.5	
58	I-1	Instrumentation Notes and Legend	0.75	100	0.75	
59	I-2	Network Diagram	0.75	95	0.7125	
60	I-3	Instrumentation Loops I	0.75	95	0.7125	
61	I-4	Instrumentation Loops II	0.75	95	0.7125	
62	I-5	Instrumentation Loops III	0.75	95	0.7125	

**Winnipeg Sewage Treatment Program
Consultant Services Management Plan –
SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT
Please note that this is not from a real project!**

- CPM Schedule – Summary

DRAFT

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September			May			January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5		
1		1	Project Management	1308 days?	Wed 4/1/15	Fri 4/3/20												
2		1.1	Initiation	27 days?	Wed 4/1/15	Thu 5/7/15												
3		1.1.1	Kick-Off Meeting	27 days?	Wed 4/1/15	Thu 5/7/15												
11		1.2	Planning	23 days	Thu 4/2/15	Tue 5/5/15												
16		1.2.5	Re-evaluateProject Tear	2 days	Thu 4/2/15	Mon 4/6/15												
18		1.2.6	Re-evaluate project schedule	19 days	Thu 4/2/15	Wed 4/29/15												
23		1.3	Execution	1308 days?	Wed 4/1/15	Fri 4/3/20												
29	↻	1.3.6	Monthly Progress Meetings	1266 days	Fri 5/15/15	Fri 3/20/20												
89	↻	1.3.7	Status Meetings	1286 days	Fri 5/1/15	Fri 4/3/20												
150		1.4	Controlling & Monitoring	1289 days	Wed 4/1/15	Mon 3/9/20												
153		1.5	Closing	26 days	Mon 2/3/20	Mon 3/9/20												
160		2	Project Definition (PD)	157 days?	Wed 4/1/15	Thu 11/5/15												
161		2.1	Initiation	10 days	Wed 4/1/15	Tue 4/14/15												
163		2.2	Planning	1 day?	Wed 4/1/15	Wed 4/1/15												
166		2.3	Execution	107 days	Wed 4/1/15	Thu 8/27/15												
167		2.3.1	Investigations	0 days	Wed 4/1/15	Wed 4/1/15												
170		2.3.2	Business Cases	30 days	Wed 4/1/15	Tue 5/12/15												
175		2.3.4	Workshops	17 days	Wed 5/27/15	Thu 6/18/15												
184		2.4	Controlling & Monitoring	5 days?	Fri 8/21/15	Thu 8/27/15												
188		2.5	Closing	55 days	Fri 8/21/15	Thu 11/5/15												
193		3	Preliminary Design Phase	116 days	Tue 7/28/15	Tue 1/5/16												
194		3.1	Initiation	1 day?	Thu 8/20/15	Fri 8/21/15												
196		3.2	Planning	60 days	Wed 7/29/15	Tue 10/20/15												
201		3.3	Execution	90 days	Fri 8/28/15	Thu 12/31/15												
203		3.3.2	Workshops	10 days	Fri 10/9/15	Thu 10/22/15												
210		3.4	Controlling & Monitoring	1 day?	Fri 1/1/16	Fri 1/1/16												
214		3.5	Closing	20 days	Fri 1/1/16	Thu 1/28/16												
219		4	Detailed Design	251 days?	Fri 1/1/16	Mon 12/19/16												
220		4.1	Initiation	1 day?	Fri 1/1/16	Mon 1/4/16												
222		4.2	Planning	40 days	Tue 1/5/16	Mon 2/29/16												
227		4.3	Execution	170 days	Tue 3/1/16	Mon 10/24/16												
241		4.4	Controlling & Monitoring	5 days?	Tue 9/20/16	Mon 9/26/16												
245		4.5	Closing	50 days	Tue 10/11/16	Mon 12/19/16												
251		5	Bidding Services (To Be Revised 2 Weeks Prior to Start Date)	246 days?	Tue 5/24/16	Tue 5/2/17												
252		5.1	Initiation	1 day	Wed 10/12/16	Wed 10/12/16												
254		5.2	Planning	122 days	Tue 5/24/16	Wed 11/9/16												
259		5.3	Execution	63 days	Thu 10/13/16	Mon 1/9/17												

Project: EEWPC Sludge Pumps
Date: Fri 10/31/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
270		5.4	Controlling & Monitoring	30 days?	Tue 12/20/16	Mon 1/30/17										
275		5.5	Closing	96 days	Tue 12/20/16	Tue 5/2/17										
282		6	Contract Administration Services (To be defined 2 weeks prior to Start Date)	630 days	Tue 3/14/17	Mon 8/12/19										
288		7	Commissioning Services (To be defined 2 weeks prior to start date)	120 days	Tue 4/9/19	Mon 9/23/19										
294		8	Additional Services (To be defined when preparing scope of additional services)	1 day?	Wed 4/1/15	Wed 4/1/15										
300		9	Project Closeout (To be defined 2 weeks prior to start date)	120 days	Tue 9/24/19	Mon 3/9/20										

Project: EEWPC Sludge Pumps
Date: Fri 10/31/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

**Winnipeg Sewage Treatment Program
Consultant Services Management Plan –
SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT
Please note that this is not from a real project!**

- CPM Schedule – Detailed

DRAFT

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
1		1	Project Management	1308 days?	Wed 4/1/15	Fri 4/3/20										
2		1.1	Initiation	27 days?	Wed 4/1/15	Thu 5/7/15										
3		1.1.1	Kick-Off Meeting	27 days?	Wed 4/1/15	Thu 5/7/15										
4		1.1.1.1	Receipt of Notice to Proceed	0 days	Wed 4/1/15	Wed 4/1/15										
5		1.1.1.2	Develop Internal Project Number	3 days	Wed 4/1/15	Fri 4/3/15										
6		1.1.1.3	Attend Kick-off Meeting	1 day	Wed 4/1/15	Wed 4/1/15										
7		1.1.1.4	Prepare & Distribute Meeting Minutes	1 day?	Thu 4/2/15	Thu 4/2/15										
8		1.1.1.5	City Review Period	15 days	Fri 4/3/15	Thu 4/23/15										
9		1.1.1.6	Finalize minutes based on comments	10 days	Fri 4/24/15	Thu 5/7/15										
10		1.1.1.7	Hold Internal Kick-Off Meeting	1 day	Wed 4/1/15	Wed 4/1/15										
11		1.2	Planning	23 days	Thu 4/2/15	Tue 5/5/15										
12		1.2.1	Prepare & Submit Draft Invoice for City Approval	5 days	Wed 4/8/15	Tue 4/14/15										
13		1.2.2	City Review Period	15 days	Wed 4/15/15	Tue 5/5/15										
14		1.2.3	Prepare & Submit Draft Financial Report for City Approval	5 days	Wed 4/8/15	Tue 4/14/15										
15		1.2.4	City Review Period	15 days	Wed 4/15/15	Tue 5/5/15										
16		1.2.5	Re-evaluate Project Team	2 days	Thu 4/2/15	Mon 4/6/15										
17		1.2.5.1	Notify City of any changes from	2 days												
18		1.2.6	Re-evaluate project schedule	19 days	Thu 4/2/15	Wed 4/29/15										
19		1.2.6.1	Notify City of any changes from	2 days	Thu 4/2/15	Mon 4/6/15										
20		1.2.6.2	City Review Period	15 days	Tue 4/7/15	Mon 4/27/15										
21		1.2.6.3	Finalize schedule based on City comments and use as	2 days	Tue 4/28/15	Wed 4/29/15										
22		1.2.7	Finalize internal project plan	3 days	Thu 4/30/15	Mon 5/4/15										
23		1.3	Execution	1308 days?	Wed 4/1/15	Fri 4/3/20										
24		1.3.1	Prepare & Submit CSMP	30 days	Tue 4/7/15	Tue 5/19/15										
25		1.3.2	Finalize CSMP based on City comments	15 days	Wed 5/20/15	Tue 6/9/15										
26		1.3.3	Submit Monthly Invoices	1263 days	Wed 4/1/15	Fri 1/31/20										

Project: EEWPC Sludge Pumps
Date: Fri 10/31/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
27		1.3.4	Sumit Monthly Financial Reports	1263 days	Wed 4/1/15	Fri 1/31/20										
28		1.3.5	<New Task>													
29		1.3.6	Monthly Progress Meetings	1266 days	Fri 5/15/15	Fri 3/20/20										
89		1.3.7	Status Meetings	1286 days	Fri 5/1/15	Fri 4/3/20										
150		1.4	Controlling & Monitoring	1289 days	Wed 4/1/15	Mon 3/9/20										
151		1.4.1	Control & Monitor as per CSMP													
152		1.4.2	Initialize internal QA/QC procedures													
153		1.5	Closing	26 days	Mon 2/3/20	Mon 3/9/20										
154		1.5.1	Input all charges against project	5 days	Sat 2/1/20	Thu 2/6/20										
155		1.5.2	Send final Invoice to City	1 day	Fri 2/7/20	Fri 2/7/20										
156		1.5.3	Collect all files & archive	26 days	Mon 2/3/20	Mon 3/9/20										
157		1.5.4	Close project when final invoice paid	20 days	Mon 2/10/20	Fri 3/6/20										
158		1.5.5	Notify Insurance Company when project	1 day	Mon 3/9/20	Mon 3/9/20										
159		1.5.6	Notify City that project is closed	0 days	Mon 3/9/20	Mon 3/9/20										
160		2	Project Definition (PD)	157 days?	Wed 4/1/15	Thu 11/5/15										
161		2.1	Initiation	10 days	Wed 4/1/15	Tue 4/14/15										
162		2.1.1	Verify City requirements with City in Tech Memo	10 days	Wed 4/1/15	Tue 4/14/15										
163		2.2	Planning	1 day?	Wed 4/1/15	Wed 4/1/15										
164		2.2.1	Create Scope/budget/schedule statement for PD													
165		2.2.2	Submit RFIs as needed													
166		2.3	Execution	107 days	Wed 4/1/15	Thu 8/27/15										
167		2.3.1	Investigations	0 days	Wed 4/1/15	Wed 4/1/15										
168		2.3.1.1	Geotechnical Report (N/A)	0 days												
169		2.3.1.2	Survey (N/A)	0 days												
170		2.3.2	Business Cases	30 days	Wed 4/1/15	Tue 5/12/15										
171		2.3.2.1	Draft & Submit Number of sludge	10 days	Wed 4/1/15	Tue 4/14/15										
172		2.3.2.2	City review of Business Case	15 days	Wed 4/15/15	Tue 5/5/15										

Project: EEWPC Sludge Pumps
Date: Fri 10/31/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
173		2.3.2.3	Revise Business Case based on City's Comments	5 days	Wed 5/6/15	Tue 5/12/15										
174		2.3.3	Prepare & Submit Draft PD Report	40 days	Wed 4/1/15	Tue 5/26/15										
175		2.3.4	Workshops	17 days	Wed 5/27/15	Thu 6/18/15										
176		2.3.4.1	Risk & Oppportunity Assessment	1 day	Wed 5/27/15	Wed 5/27/15										
177		2.3.4.2	Perform CHAIR 1 Workshop	1 day	Thu 5/28/15	Thu 5/28/15										
178		2.3.4.3	City Review of 60%, Risk and CHAIR	15 days	Fri 5/29/15	Thu 6/18/15										
179		2.3.5	Revise PD & re-submit based on City	30 days	Fri 6/19/15	Thu 7/30/15										
180		2.3.6	Obtain City approval of PD (with comments if applicable)	15 days	Fri 7/31/15	Thu 8/20/15										
181		2.3.7	Prepare & review with City Class 5 cost est	15 days	Wed 5/27/15	Tue 6/16/15										
182		2.3.8	City Review of Class 5 es	15 days	Wed 6/17/15	Tue 7/7/15										
183		2.3.9	Revise Class 5 cost est based on comemnts and re-submit	5 days	Fri 8/21/15	Thu 8/27/15										
184		2.4	Controlling & Monitoring	5 days?	Fri 8/21/15	Thu 8/27/15										
185		2.4.1	Weekly calls to City PM													
186		2.4.2	Status meetings as per CSMP													
187		2.4.3	Presentation of Approved PD to City	5 days	Fri 8/21/15	Thu 8/27/15										
188		2.5	Closing	55 days	Fri 8/21/15	Thu 11/5/15										
189		2.5.1	Close out all charges to PD Phase	30 days	Fri 8/21/15	Thu 10/1/15										
190		2.5.2	Initiate final PD phase invoice	5 days	Fri 10/2/15	Thu 10/8/15										
191		2.5.3	Submit all phase documentation to City	15 days	Fri 8/21/15	Thu 9/10/15										
192		2.5.4	Followup to assure retainage & retainage has been paid	20 days	Fri 10/9/15	Thu 11/5/15										
193		3	Preliminary Design Phase	116 days	Tue 7/28/15	Tue 1/5/16										
194		3.1	Initiation	1 day?	Thu 8/20/15	Fri 8/21/15										

Project: EEWPC Sludge Pumps
Date: Fri 10/31/14

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
195		3.1.1	Receipt of written authorization from City to Proceed													
196		3.2	Planning	60 days	Wed 7/29/15	Tue 10/20/15										
197		3.2.1	Verify design constraints with City at Phase kick-off meeting and	5 days	Fri 8/21/15	Thu 8/27/15										
198		3.2.2	City Review Period	15 days	Fri 8/28/15	Thu 9/17/15										
199		3.2.3	Revise minutes as needed and	5 days	Fri 9/18/15	Thu 9/24/15										
200		3.2.4	Update CSMP	5 days	Fri 9/25/15	Thu 10/1/15										
201		3.3	Execution	90 days	Fri 8/28/15	Thu 12/31/15										
202		3.3.1	Prepare & Submit Prelim Design Draft to	30 days	Fri 8/28/15	Thu 10/8/15										
203		3.3.2	Workshops	10 days	Fri 10/9/15	Thu 10/22/15										
204		3.3.2.1	Value Engineering	10 days	Fri 10/9/15	Thu 10/22/15										
205		3.3.3	Prepare & Submit Class 5 Cost Est to City	10 days	Fri 10/9/15	Thu 10/22/15										
206		3.3.4	City Review Period	15 days	Fri 10/23/15	Thu 11/12/15										
207		3.3.5	Revise and resubmit PD to City	15 days	Fri 11/13/15	Thu 12/3/15										
208		3.3.6	Revise and resubmit Class 5 Cost Est to City	5 days	Fri 12/4/15	Thu 12/10/15										
209		3.3.7	Obtain City approval of Preliminary design (with conditions, if any)	15 days	Fri 12/11/15	Thu 12/31/15										
210		3.4	Controlling & Monitoring	1 day?	Fri 1/1/16	Fri 1/1/16										
211		3.4.1	Weekly calls to City PM													
212		3.4.2	Status meetings as per CSMP													
213		3.4.3	Presentation of Approved Prelim Design	1 day	Fri 1/1/16	Fri 1/1/16										
214		3.5	Closing	20 days	Fri 1/1/16	Thu 1/28/16										
215		3.5.1	Close out all charges to Prelim Design Phase	20 days	Fri 1/1/16	Thu 1/28/16										
216		3.6	Initiate final Prelim Design phase invoice	10 days	Fri 1/29/16	Thu 2/11/16										
217		3.7	Submit all phase documentation to City	15 days	Fri 1/29/16	Thu 2/18/16										
218		3.8	Followup to assure retainage & retainage has	20 days	Fri 2/12/16	Thu 3/10/16										
219		4	Detailed Design	251 days?	Fri 1/1/16	Mon 12/19/16										

Project: EEWPC Sludge Pumps
Date: Fri 10/31/14

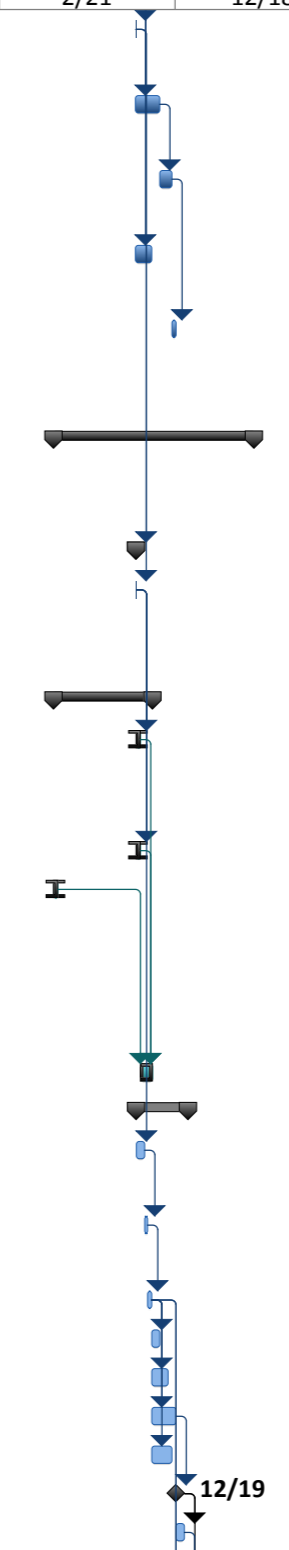
Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
220		4.1	Initiation	1 day?	Fri 1/1/16	Mon 1/4/16										
221		4.1.1	Receipt of written authorization to													
222		4.2	Planning	40 days	Tue 1/5/16	Mon 2/29/16										
223		4.2.1	Verify design constraints with City at Phase kick-off meeting and	5 days	Tue 1/5/16	Mon 1/11/16										
224		4.2.2	City Review Period	15 days	Tue 1/12/16	Mon 2/1/16										
225		4.2.3	Revise minutes as needed and	5 days	Tue 2/2/16	Mon 2/8/16										
226		4.2.4	Update CSMP	15 days	Tue 2/9/16	Mon 2/29/16										
227		4.3	Execution	170 days	Tue 3/1/16	Mon 10/24/16										
228		4.3.1	Prepare & Submit 60% Submittal	60 days	Tue 3/1/16	Mon 5/23/16										
229		4.3.2	City Review Period	15 days	Tue 5/24/16	Mon 6/13/16										
230		4.3.3	Perform HAZOP Workshop & followup	5 days	Tue 5/24/16	Mon 5/30/16										
231		4.3.4	City Review Period	15 days	Tue 5/31/16	Mon 6/20/16										
232		4.3.5	Revise 60% submittal based on HAZOP and City comments (if	10 days	Tue 6/21/16	Mon 7/4/16										
233		4.3.6	Prepare and Submit 95% Submittal	40 days	Tue 7/5/16	Mon 8/29/16										
234		4.3.7	Final Review by City	15 days	Tue 8/30/16	Mon 9/19/16										
235		4.3.8	CHAIR 2 and 3 Workshops & followup	10 days	Tue 9/20/16	Mon 10/3/16										
236		4.3.9	City Review of CHAIR 2 and 3	15 days	Tue 10/4/16	Mon 10/24/16										
237		4.3.10	Prepare and Submit Class 3 Cost Estimate	15 days	Tue 8/30/16	Mon 9/19/16										
238		4.3.11	City Review Period	15 days	Tue 9/20/16	Mon 10/10/16										
239		4.3.12	Revise Class 3 Est if needed	15 days	Tue 9/20/16	Mon 10/10/16										
240		4.3.13	Bring 95% to 100% Bid ready documents	15 days	Tue 9/20/16	Mon 10/10/16										
241		4.4	Controlling & Monitoring	5 days?	Tue 9/20/16	Mon 9/26/16										
242		4.4.1	Weekly calls to City PM													
243		4.4.2	Status meetings as per CSMP													
244		4.4.3	Presentation of Approved Design to City	5 days	Tue 9/20/16	Mon 9/26/16										
245		4.5	Closing	50 days	Tue 10/11/16	Mon 12/19/16										

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Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
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Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

ID	Task Mode	WBS	Task Name	Duration	Start	Finish	January			September		May		January		Septem
							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
246		4.5.1	Obtain approval of detailed design from	1 day	Tue 10/11/16	Tue 10/11/16										
247		4.5.2	Close out all charges to Final Design Phase	30 days	Tue 10/11/16	Mon 11/21/16										
248		4.5.3	Initiate final Final Design phase invoice	15 days	Tue 11/22/16	Mon 12/12/16										
249		4.5.4	Submit all phase documentation to City	20 days	Tue 10/11/16	Mon 11/7/16										
250		4.5.5	Follow up to assure all invoices and retainage if any is paid	5 days	Tue 12/13/16	Mon 12/19/16										
251		5	Bidding Services (To Be Revised 2 Weeks Prior to Start Date)	246 days?	Tue 5/24/16	Tue 5/2/17										
252		5.1	Initiation	1 day	Wed 10/12/16	Wed 10/12/16										
253		5.1.1	Written receipt of authorization to proceed from City	1 day	Wed 10/12/16	Wed 10/12/16										
254		5.2	Planning	122 days	Tue 5/24/16	Wed 11/9/16										
255		5.2.1	Hold Phase kick-off meeting and distribute minutes	5 days	Thu 10/13/16	Wed 10/19/16										
256		5.2.2	Verify City Constraints	5 days	Thu 10/13/16	Wed 10/19/16										
257		5.2.3	Review procedures with City and Team for document control and communications during bid phase	5 days	Tue 5/24/16	Mon 5/30/16										
258		5.2.4	City Review Period	15 days	Thu 10/20/16	Wed 11/9/16										
259		5.3	Execution	63 days	Thu 10/13/16	Mon 1/9/17										
260		5.3.1	Final checking of Bid Opportunity Documents	10 days	Thu 10/13/16	Wed 10/26/16										
261		5.3.2	Mark as Bid Opportunity Documents and Stamp	3 days	Thu 10/27/16	Mon 10/31/16										
262		5.3.3	Post Bid opportunity	5 days	Tue 11/1/16	Mon 11/7/16										
263		5.3.4	Hold Site meeting	10 days	Tue 11/8/16	Mon 11/21/16										
264		5.3.5	Respond to Questions	20 days	Tue 11/8/16	Mon 12/5/16										
265		5.3.6	Bid period	30 days	Tue 11/8/16	Mon 12/19/16										
266		5.3.7	Issue Addendums	25 days	Tue 11/8/16	Mon 12/12/16										
267		5.3.8	Open Bids	0 days	Mon 12/19/16	Mon 12/19/16										
268		5.3.9	Evaluate bids	10 days	Tue 12/20/16	Mon 1/2/17										



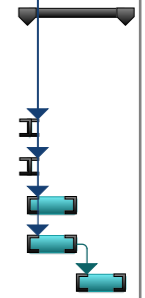
Project: EEWPC Sludge Pumps Date: Fri 10/31/14	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
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							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
269		5.3.10	Issue Engineer's recommendation of bids	5 days	Tue 1/3/17	Mon 1/9/17										
270		5.4	Controlling & Monitoring	30 days?	Tue 12/20/16	Mon 1/30/17										
271		5.4.1	Maintain list of potential bidders	30 days	Tue 12/20/16	Mon 1/30/17										
272		5.4.2	Maintain list of addendums	30 days	Tue 12/20/16	Mon 1/30/17										
273		5.4.3	Weekly calls to City PM													
274		5.4.4	Status meetings as per CSMP													
275		5.5	Closing	96 days	Tue 12/20/16	Tue 5/2/17										
276		5.5.1	City Award period	60 days	Tue 12/20/16	Mon 3/13/17										
277		5.5.2	Obtain copy of Letter of Award to Contractor with conditions, if any	1 day	Tue 3/14/17	Tue 3/14/17										
278		5.5.3	Close out all charges to phase	30 days	Wed 3/15/17	Tue 4/25/17										
279		5.5.4	Final Phase Invoice to City	15 days	Wed 3/15/17	Tue 4/4/17										
280		5.5.5	Submit all phase documentation to City	20 days	Wed 3/15/17	Tue 4/11/17										
281		5.5.6	Follow-up to assure final invoice and retainage has been paid	20 days	Wed 4/5/17	Tue 5/2/17										
282		6	Contract Administration Services (To be defined 2 weeks prior to Start Date)	630 days	Tue 3/14/17	Mon 8/12/19										
283		6.1	Initiation	20 days	Tue 3/14/17	Mon 4/10/17										
284		6.2	Planning	20 days	Tue 3/14/17	Mon 4/10/17										
285		6.3	Execution	540 days	Tue 3/14/17	Mon 4/8/19										
286		6.4	Controlling & Monitoring	540 days	Tue 3/14/17	Mon 4/8/19										
287		6.5	Closing	90 days	Tue 4/9/19	Mon 8/12/19										
288		7	Commissioning Services (To be defined 2 weeks prior to start date)	120 days	Tue 4/9/19	Mon 9/23/19										
289		7.1	Initiation	20 days	Tue 4/9/19	Mon 5/6/19										
290		7.2	Planning	30 days	Tue 4/9/19	Mon 5/20/19										
291		7.3	Execution	60 days	Tue 4/9/19	Mon 7/1/19										
292		7.4	Controlling & Monitoring	90 days	Tue 4/9/19	Mon 8/12/19										
293		7.5	Closing	30 days	Tue 8/13/19	Mon 9/23/19										
294		8	Additional Services (To be defined when preparing scope of additional services)	1 day?	Wed 4/1/15	Wed 4/1/15										

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							11/4	9/1	6/29	4/26	2/21	12/18	10/15	8/12	6/9	4/5
295		8.1	Initiation													
296		8.2	Planning													
297		8.3	Execution													
298		8.4	Controlling & Monitoring													
299		8.5	Closing													
300		9	Project Closeout (To be defined 2 weeks prior to start date)	120 days	Tue 9/24/19	Mon 3/9/20										
301		9.1	Initiation	5 days	Tue 9/24/19	Mon 9/30/19										
302		9.2	Planning	5 days	Tue 9/24/19	Mon 9/30/19										
303		9.3	Execution	60 days	Tue 9/24/19	Mon 12/16/19										
304		9.4	Controlling & Monitoring	60 days	Tue 9/24/19	Mon 12/16/19										
305		9.5	Closing	60 days	Tue 12/17/19	Mon 3/9/20										



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**Winnipeg Sewage Treatment Program
Consultant Services Management Plan –
SAMPLE for SMALL (<\$10 Million) CAPITAL PROJECT
Please note that this is not from a real project!**

DRAFT