

RESOLUTION No. 2016-3324

A RESOLUTION TO AUTHORIZE THE CITY MANAGER TO ENTER INTO A PROFESSIONAL SERVICES AGREEMENT WITH KELLER ASSOCIATES TO COMPLETE THE UPDATE TO THE WASTEWATER MASTER PLAN.

RECITALS:

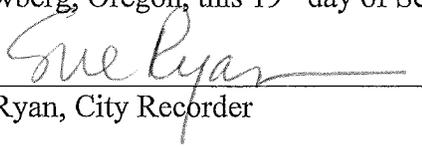
1. The City of Newberg's existing Wastewater Master Plan is ten years old. The Master Plan should be updated every ten years.
2. The Master Plan will help staff determine the needs of the City's wastewater system for the next 20 years.
3. The City advertised the project in the Daily Journal of Commerce and received two qualified proposals through the Request for Proposals process.
4. Keller Associates was selected as the most qualified consultant per ORS. 279C.110.
5. Keller Associates submitted a detailed proposal outlining the scope of work with a reasonable cost breakdown included in Exhibit "A" and by this reference incorporated.

THE CITY OF NEWBERG RESOLVES AS FOLLOWS:

1. The City Council, acting as contract review board for the City, does hereby authorize the City Manager to enter into a Professional Services Agreement with Keller Associates to complete the update to the Wastewater Master Plan in the amount of \$299,480.
2. The City Attorney will modify and approve all contracts and agreements as to form and content.
3. The City Manager is authorized to amend the Professional Services Agreement up to ten (10) percent of the original contract amount.

➤ **EFFECTIVE DATE** of this resolution is the day after the adoption date, which is: September 20, 2016.

ADOPTED by the City Council of the City of Newberg, Oregon, this 19th day of September, 2016.


Sue Ryan, City Recorder

ATTEST by the Mayor this 20th day of September, 2016.

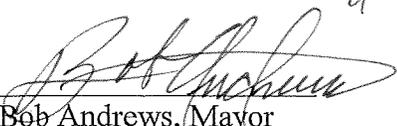

Bob Andrews, Mayor

EXHIBIT A

SCOPE OF WORK for Wastewater Master Plan Update

between
City of Newberg (City)
and
Keller Associates, Inc. (Consultant)

Background

The City of Newberg desires an update to their Wastewater System Master Plan. The plan is intended to update previous planning efforts which include the 2007 Facility Plan, the evaluation of the collection system included in the 2007 Sewerage Master Plan Update, and the more recent 2015 Inflow and Infiltration Study. The plan is intended to reflect current growth projections and reflect recent upgrades to the treatment plant as well as a renewed focus to reduce excessive infiltration and inflow. This scope of work outlines the tasks of the consultant team.

Project Scope

TASK 1: Project Management

1.1 Consultant Responsibilities

- 1.1.1 Provide overall management of the Wastewater System Master Plan Update.
- 1.1.2 Provide monthly project updates.
- 1.1.3 Develop and maintain project schedule.
- 1.1.4 Project budget assumes 12-month schedule.

1.2 Deliverables

- 1.2.1 Monthly project updates.

TASK 2: Project Meetings

2.1 Consultant Responsibilities

- 2.1.1 Set the project meeting agenda and provide minutes.
- 2.1.2 For budgeting purposes, it is assumed that a total of nine (9) project meetings. These include: Kickoff meeting, four (5) additional Technical Advisory Committee (TAC) meetings, and four (4) Citizen's Advisory Committee (CAC) meetings. The Oregon Department of Environmental Quality (DEQ) will not be participating in these committees. CAC meetings are anticipated to occur the same day as TAC meetings. The Consultant's Sub-Consultant will participate in only one of the CAC meetings.

2.2 Owner Responsibilities

- 2.2.1 Provide meeting space for all project meetings.
- 2.2.2 Provide advertising where required. Identify CAC members and coordinate with CAC members.

2.3 Deliverables

- 2.3.1 Project meeting agendas and minutes.

TASK 3: Data Collection

3.1 Consultant Responsibilities

- 3.1.1 Complete a field tour of existing facilities on the same day as the kickoff meeting.
- 3.1.2 Prepare requests for information, including but not limited to: facility record drawings, GIS mapping, pump curves, operations and maintenance information, SCADA records, winter-time water consumption data (spatially allocated in City's GIS), previous reports, previous computer model(s), related master plans, DMRs, and plant maintenance and conditions information.
- 3.1.3 Work with City to identify priority locations to complete CCTV inspections, night time monitoring, continuous flow monitoring, and smoke testing.
- 3.1.4 Review and summarize inspection logs and ratings for all pipelines and manholes inspected for this project.
- 3.1.5 Provide flow monitoring for up to eight (8) locations for a period of two to three weeks at each location.
- 3.1.6 Identify approximately 20-30 locations to "spot check" sewer invert/rim elevations.
- 3.1.7 Provide smoke testing for one week. This is anticipated to cover between 50,000 and 90,000 linear feet of collection system mainline, depending on field conditions and I/I challenges encountered.
- 3.1.8 The Consultant will contract with a third party who will provide cleaning and CCTV inspection services. The extent of the third party will be used for cleaning and inspection services depends on the extent of the work completed by the City maintenance department crews. The third party will provide PACP ratings in spreadsheet format with unique pipe identifier consistent with the City's existing GIS.

3.2 Owner Responsibilities

- 3.2.1 Provide information requested in the RFIs in a timely manner.
- 3.2.2 Provide field support and equipment for activities including survey "spot checks", traffic control and confined space entry for smoke testing and flow monitoring activities.
- 3.2.3 Provide public notification as the City deems necessary, including a press release and door hangars in the areas identified for smoke testing by Consultant.
- 3.2.4 City will handle emergency services notification and communication prior to and during the smoke testing.
- 3.2.5 City will handle interaction with residents and businesses during data collection.
- 3.2.6 CCTV inspection services when city staff workload allows. For City completed CCTV inspections, provide PACP ratings in spreadsheet format with unique pipe identifier consistent with the City's existing GIS.
- 3.2.7 Provide daily rainfall data (15 minutes intervals) in electronic format for time period of continuous flow monitoring.

3.3 Assumptions

- 3.3.1 Consultant can reasonably rely on information provided by City without the need for independent verification. Review of CCTV logs will not include review of video footage, but will be limited to the PACP summary report information.
- 3.3.2 The budget for third party CCTV inspection services is limited to \$10,000.
- 3.3.3 Schedule assumes that information requested by the City is generally provided within two weeks of the request.
- 3.3.4 Smoke testing assumes 1 Consultant staff for 40 hours.
- 3.3.5 Smoke testing will be scheduled and completed during the dry season (schedule assumes August 2017) when there is little to no rainfall anticipated and there has been little to no rainfall for an extended time period.

3.4 Deliverables

- 3.4.1 Two (2) RFIs.

TASK 4: Planning Criteria

4.1 Consultant Responsibilities

- 4.1.1 Utilize Portland State University populations for residential growth projections for 5-year, 10-year, and 20-year planning periods. Approximate a build-out growth projection of the study area. Coordinate with City on location, phasing, and type of new growth.
- 4.1.2 Review historical data to determine existing design flow rates. Provide flow projection estimates based on growth assumptions and input from City.
- 4.1.3 Review historical data to characterize wastewater loadings and project future loadings based on growth assumptions and input from City.
- 4.1.4 Review and summarize current, pending and future regulatory requirements and planning criteria that may influence operation, maintenance, and capital improvements of the existing wastewater system.

4.2 Owner Responsibilities

- 4.2.1 Identify where the 20-year growth will occur. Provide input on growth rates for commercial and industrial uses. Provide input on land use and housing density information (people per dwelling unit and dwelling units per acre).
- 4.2.2 Provide any correspondence related to current, pending or future regulatory requirements.
- 4.2.3 Provide input on Owner-specific planning criteria, including redundancy and resiliency.
- 4.2.4 Review and comment on draft documents in a timely manner.

4.3 Assumptions

- 4.3.1 The study area will correspond to the current Urban Growth Boundary.
- 4.3.2 The TAC and CAC will not change the planning assumptions once they have been developed and approved by the group.
- 4.3.3 Plant load growth will be based on City provided growth rate.
- 4.3.4 Consultant will use general knowledge of regulatory conditions for summarizing future requirements.

4.4 Deliverables

- 4.4.1 Draft write-up summarizing the planning criteria, including future flows/wastewater characteristics. The final master plan report to have City's comments incorporated.

TASK 5: Collection System Conditions Assessment

5.1 Consultant Responsibilities

- 5.1.1 Visit each lift station facility to assess existing deficiencies and complete pump station flow tests.
- 5.1.2 The Consultant will incorporate summary flow monitoring, smoke testing, and PACP ratings into the City's existing GIS database.
- 5.1.3 Update pump station run time data and analysis. Analyze flow monitoring data, night-time monitoring data, summary CCTV results, and smoke testing data.
- 5.1.4 Utilizing the prioritization criteria established in the 2015 I/I study, update the prioritized list of sewer pipeline replacement/rehabilitation projects to reflect additional data gathered as part of this study.
- 5.1.5 Estimate potential reductions in flow resulting from I/I activities. Compare this information with the estimated operating cost to convey and treat the water.
- 5.1.6 Prepare planning level cost estimates for replacement/rehabilitation projects assuming a unit cost per foot based on open cut technologies.
- 5.1.7 Provide recommendations for operational and administrative practices (including inspection, pump maintenance, CCTV inspection and pipeline cleaning, staff levels) to preserve facilities and address preventable system deficiencies. Also provide recommendations for ongoing I/I reduction program.

5.2 Owner Responsibilities

- 5.2.1 Provide personnel to assist in lift station condition assessments and testing.
- 5.2.2 Provide a list of known collection system issues and planned improvements.
- 5.2.3 Review and comment on draft documents in a timely manner.

5.3 Assumptions

- 5.3.1 I/I investigations are anticipated to follow a similar process employed in the previous I/I study that included evaluations of data and prioritization of subsequent and more detailed field investigations. This will involve an updated pump station and flow analysis to assist in targeting additional flow monitoring, night-time observations, smoke testing, and CCTV work with the objective to identify specific projects that reduce risks of pipe failure and excessive I/I.

5.4 Deliverables

- 5.4.1 Draft write-up summarizing pump station capacities and recommended collection system replacement budgets for the wastewater collection system. Final report to have City's comments incorporated.

TASK 6: Evaluate Collection System's Existing & Future Hydraulic Performance

6.1 Consultant Responsibilities

- 6.1.1 Update the existing computer model to reflect existing conditions. As part of the update, complete a spot check of rim/invert elevations using information provided by the City. Add new trunklines to the model.
- 6.1.2 Use winter-time water consumption data to estimate dry weather flows. Allocation infiltration and inflow for each basin utilizing available pump run time, flow monitoring, and SCADA data.
- 6.1.3 Calibrate the existing model to available flow data.
- 6.1.4 Evaluate the existing collection system hydraulic capacity.
- 6.1.5 Project future loads based on City input on the type and distribution of growth within the study area.
- 6.1.6 Evaluate potential deficiencies resulting from existing, 20-year growth, and buildout scenarios.

6.2 Owner Responsibilities

- 6.2.1 Provide a copy of the previous sewer collection model and current GIS.
- 6.2.2 Provide field checks if necessary, including surveying.
- 6.2.3 Review and comment on draft documents in a timely manner.

6.3 Assumptions

- 6.3.1 Computer modeling will be limited to existing pump stations and trunklines previously modeled, plus up to two miles of existing trunklines not previously modeled (using data available in the GIS, record drawings, or survey provided by City), and future trunkline extensions.

6.4 Deliverables

- 6.4.1 Updated model of the collection system.
- 6.4.2 Draft write-up for the model development, calibration, and existing system evaluation. Master Plan to have City's comments incorporated.

TASK 7: Develop Recommended Collection System Alternatives

7.1 Consultant Responsibilities

- 7.1.1 Evaluate alternative improvements to correct existing and anticipated future deficiencies. These may include parallel pipelines, replacement pipelines, flow rerouting, inter-basin pumping, infiltration/inflow reduction, pumping facility upgrades, and maintenance recommendations.
- 7.1.2 Evaluate the potential for consolidating existing trunklines and displacing existing lift stations.
- 7.1.3 Evaluate two or three options to minimize future construction in Hess Creek and provide improved access to the existing Hess Creek trunkline.
- 7.1.4 In addition to capital costs for comparable alternatives, consider non-capital factors such as operations, maintenance, sustainability, and impacts to adjoining lands.
- 7.1.5 Recommend phasing and provide planning level cost estimates for the recommended alternatives.

7.2 Assumptions

- 7.2.1 The chosen alternatives will be prioritized based on need and benefit to the Owner to address existing and 20 year projected needs.
- 7.2.2 Cost estimating will be AACE Class 5

7.3 Owner Responsibilities

- 7.3.1 Provide input on cost of easements and installation costs for recent sewer improvement projects.
- 7.3.2 Review and comment on draft documents in a timely manner.

7.4 Deliverables

- 7.4.1 Draft write-up summarizing recommended improvement alternatives. Master plan to have City's comments incorporated.

TASK 8: Assess Existing Wastewater Treatment Plant

8.1 Consultant Responsibilities

- 8.1.1 Data request information pertaining to existing facility will be reviewed.
- 8.1.2 A Plant Condition Assessment Site Visit will be completed. During an 8 hour site visit the following will be completed:
 - 8.1.2.1 Use generally accepted guidelines for useful life of equipment.
 - 8.1.2.2 Use City provided historical data to establish installation date for major mechanical and electrical equipment and associated structural components.
 - 8.1.2.3 Interview plant operations and maintenance staff to learn of any documented or undocumented operations and/or maintenance issues.
 - 8.1.2.4 Perform visual assessment of major mechanical and electrical equipment to determine adjustment of service life based on visual assessment
 - 8.1.2.5 Major mechanical equipment will include items visible without in water work or confined space entry.
 - 8.1.2.6 Major mechanical items will include critical control valves or gates used to control process operation.
 - 8.1.2.7 Major electrical equipment will include motors, MCCs, switchgear, and communications equipment.
 - 8.1.2.8 Structural components will include equipment pads, buildings, structures and pipe supports.
 - 8.1.2.9 As part of the plant conditions evaluation, HDR will tour the plant's buildings and generally assess their predicted remaining lifespan and existing corrosion issues.
 - 8.1.2.10 Consider redundancy of mechanical or electrical equipment during site assessment.
- 8.1.3 Update the hydraulic profile and process model plant. Include evaluation of carbonaceous process operation vs. nitrification mode.
- 8.1.4 Evaluate the outfall and appurtenant structures for hydraulic performance and document the presence of erosion or scour.
- 8.1.5 Summarize existing plant deficiencies using plant data to compare actual performance to expected performance.

8.2 Assumptions

- 8.2.1 Condition assessment efforts will not include evaluations of recent improvements including: influent pump station (existing and new), headworks, dewatering facility, the septage/RV receiving station.
- 8.2.2 Condition assessment will not include portions of the facility that are not in use, including the existing belt filter press and the DAFT structure.
- 8.2.3 Condition assessment efforts associated with the oxidation ditches and equalization basin will be focused on mechanical and electrical equipment. Structural evaluation of these facilities will be performed by others.
- 8.2.4 The outfall inspection and condition assessment will be performed by field observation and CCTV inspection. No confined space entry or in-water work will be performed. City CCTV inspection of outfall pipeline will be conducted prior to the end of September 2016.
- 8.2.5 Visual Hydraulics model will be used for plant hydraulics and Biowin model process evaluation. HDR will use existing models developed as part of the previous facility upgrade.

8.3 Owner Responsibilities

- 8.3.1 Provide personnel to guide us on a tour of the plant.
- 8.3.2 Provide operations and maintenance staff for interviews during site visit.
- 8.3.3 Provide list of known issues and currently planned capital improvements.
- 8.3.4 Review and comment on draft documents in a timely manner.
- 8.3.5 City will CCTV the outfall.

8.4 Deliverables

- 8.4.1 Draft evaluation write-up of the existing wastewater treatment plant. Master Plan to have City's comments incorporated.

TASK 9: Develop Recommended Treatment Plant Improvement Alternatives

9.1 Consultant Responsibilities

- 9.1.1 Model future 20-year process and hydraulic conditions of selected alternative.
- 9.1.2 Develop a list of treatment plant improvement alternatives focused on improving effluent water quality, vulnerability, safety and redundancy.
- 9.1.3 Provide up to three pre-screened alternatives to evaluate, for each unit process.
- 9.1.4 Work with Owner's staff to identify the preferred alternative, and recommend phasing and provide cost estimates for the recommended alternatives.
- 9.1.5 Document WWTP recommended improvements in memorandum.

9.2 Assumptions

- 9.2.1 The chosen alternatives will be prioritized based on need and benefit to the Owner to address existing and 20 year projected needs.
- 9.2.2 Visual Hydraulics model will be used for plant hydraulics and Biowin model process evaluation. HDR will use existing models developed as part of the previous facility upgrade.
- 9.2.3 Cost estimating will be AACE Class 5

- 9.2.4 Reuse system impacts will be considered and coordinated with Water master planning effort.

9.3 Owner Responsibilities

- 9.3.1 Assist in pre-screening the alternatives.
- 9.3.2 Review and comment on draft documents in a timely manner.

9.4 Deliverables

- 9.4.1 Draft write-up for the recommended treatment plant improvement alternatives. Master Plan to have City's comments incorporated.

TASK 10: Capital Improvement Plan (CIP) and System Development Charges

10.1 Consultant Responsibilities

- 10.1.1 Develop tables and figures representing planning level costs for recommended projects in 2017 dollars.
- 10.1.2 Develop phasing for projects in CIP. Coordinate phasing based upon the timing of project needs. Adjust the value of each capital project for assumed inflation over the six-year time period. CIP to include pipeline and manhole replacement and major facility replacement budgets.
- 10.1.3 For each of the Priority 1 CIP projects, prepare individual project summary sheets, up to 18.
- 10.1.4 Develop SDC update for City based on planned future projects. The following activities will be completed as part of the SDC development.
 - 10.1.4.1 Determination of System Planning Criteria – The first step of determining the system planning criteria, involves calculating the amount of wastewater capacity required by a single-family residential customer. The City's Master Plan will provide the planning basis for the definition of the ERUs. This will provide a clear linkage between customer growth, total customer demands and the infrastructure needed to serve (accommodate) the new demands.
 - 10.1.4.2 Determination of Equivalent Residential Unit Equivalents – Once the system planning criteria is determined, the number of ERUs can be determined. A review will be undertaken of the number of current ERUs on the City's system. For purposes of this study, the number of future ERUs will be projected based on future demand projections prepared within the Master Plan.
 - 10.1.4.3 Calculation of System Components – Given the number of ERUs, a component by component analysis is undertaken to determine the portion of the wastewater SDC attributable to each component in dollars per ERU. The calculation of the component SDC includes existing assets, planned future assets from the Master Plan, and the debt issued to pay for historical assets. Existing assets (reimbursement component) will be escalated to current dollar values using a cost index (e.g., the Construction Cost Index for the 20 cities metropolitan areas compiled by the ENR) and then depreciated using a simple straight-line method based on the useful life of each historical asset, respectively. The future assets from the Master Plan will need to be reviewed to determine the proportion of each project which will provide additional capacity. This additional capacity is SDC eligible and considered in the

“improvement” component of the SDC. Once the total costs of the existing and future infrastructure and debt service are determined, they are divided by the respective number of ERUs the infrastructure will serve. This results in the determination of the cost per ERU for the specific infrastructure component (e.g. treatment, collection, pumping, etc.). This overall SDC methodology provides for both a “reimbursement” and “improvement” component for the City’s system development charge.

- 10.1.4.4 Determination of Any Credits – The last step in the calculation of the SDC is the determination of any credits. This is generally a calculation to assure that customers are not paying twice – once through an SDC and again within their rates. This study will review the need for any debt service credits. After any credits are applied, the result is a cost-based SDC which is linked to the Wastewater Master Plan.
- 10.1.4.5 Written Reports – Upon completion of the study, a written report will be developed which summarizes the study’s findings, conclusions and recommendations. An electronic (PDF) version of the report will be provided to the City for review and comment. Any comments or corrections from the City will be incorporated into the final report. Five (5) copies of the final report will be provided to City along with an electronic copy of the report.
- 10.1.4.6 Public Presentations – As a part of this study, one public presentation will be provided to discuss the study’s findings, conclusions and recommendations. Meetings will be scheduled at a mutually convenient time and HDR will be responsible for the development of all handouts. Any additional meetings provided will be on a time and material cost.
- 10.1.5 Where existing reserve funds are determined to be insufficient to finance needed improvements, estimate the annual debt obligation required to finance Priority 1 improvements.
- 10.1.6 Project changes in annual O&M expenses for the six-year period. Estimate impacts to the current O&M budgets from changes in the levels of service or other changes in the O&M expenses resulting from the Priority 1 capital projects.

10.2 Owner Responsibilities

- 10.2.1 Work with Consultant to select project prioritization criteria.
- 10.2.2 Provide renewal and replacement project funding.
- 10.2.3 Provide estimated number of future equivalent residential units (ERU).
- 10.2.4 Review and comment on draft documents in a timely manner.

10.3 Assumptions

- 10.3.1 The CIP will include phasing of recommended improvements and will include a 6-year forecast of expenses for Priority 1 improvements. Phasing will assume a traditional design/bid/build project delivery approach. Forecasted costs will include inflation of construction costs
- 10.3.2 Information will be presented as tables and figures summarizing recommended improvements. Planning level costs in 2017 dollars will be prepared for projects.
- 10.3.3 A rate study is not included as part of this scope of work.
- 10.3.4 Budget assumes up to 18 project summary sheets.

- 10.3.5 Project for expanding maintenance yard will be included in collection system CIP with 50% of cost allocated to the sewer system. Cost estimate to be provided by Owner.
- 10.3.6 Since Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over the City's and other contractor's methods of determining prices, or over competitive bidding or market conditions, the Consultant cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost prepared by the Consultant.

10.4 Deliverables

- 10.4.1 Draft write-up of the CIP. Master Plan to have City's comments incorporated.
- 10.4.2 Summary table of the estimated impact to the City's SDC.
- 10.4.3 Attendance at one public presentation of the study.

TASK 11: Plan Documentation & Adoption

11.1 Consultant Responsibilities

- 11.1.1 Compile draft write-ups for the various planning elements outlined in the previous tasks into a Master Plan report that also addresses comments from the Owner's staff.
- 11.1.2 An executive summary will be included as part of the plan. The executive summary will provide a high level review of the important elements of the plan.
- 11.1.3 Appendices will be created that include all pertinent supporting documentation.
- 11.1.4 Prepare for and attend one public meeting to present the report findings to the City Council.
- 11.1.5 Comments from City will be incorporated into the final planning document.

11.2 Owner Responsibilities

- 11.2.1 Review and comment on draft planning document in a timely manner.
- 11.2.2 Provide public notice and forum for public meeting.
- 11.2.3 Pay agency review fees.

11.3 Assumptions

- 11.3.1 No environmental information document will be included as part of this master plan.
- 11.3.2 The master plan will not be submitted to DEQ.

11.4 Deliverables

- 11.4.1 An electronic copy (PDF format) of the draft master plan.
- 11.4.2 Four hard copies (3 Ring Binders) and two electronic copies (PDF format) of the final master plan.

TASK 12: Contingency Reserve & Optional Tasks – As provided in the project budget up to fifteen thousand dollars (\$15,000) has been set aside for additional services not included in the above tasks. These services must be authorized by the City Engineer. Services may include, but are not limited to the following: computer model training, night-time flow monitoring, and additional planning related activities.

Project Budget

The Consultant will be compensated based on a lump sum basis using the following breakdown of expenses. Expenses incurred under Task 12, Management Reserve will be completed on a time and material basis as approved by the City Engineer.

Task	Billing Basis	Budget
Task 1: Project Management	LS	\$ 22,780
Task 2: Project Meetings	LS	\$ 20,060
Task 3: Data Collection	LS	\$ 43,460
Task 4: Planning Criteria	LS	\$ 15,690
Task 5: Collection System Conditions Assessment	LS	\$ 52,670
Task 6: Evaluate Collection System's Existing & Future Hydraulic Performance	LS	\$ 30,250
Task 7: Develop Recommended Collection System Alternatives	LS	\$ 22,690
Task 8: Assess Existing Wastewater Treatment Plant	LS	\$ 29,190
Task 9: Develop Recommended Treatment Plant Improvement Alternatives	LS	\$ 24,980
Task 10: Summary of Findings and Recommendations	LS	\$ 29,430
Task 11: Plan Documentation & Adoption	LS	\$ 8,280
Total Project Budget		\$299,480
Task 12: Contingency Reserve & Optional	T&M	\$ 15,000
Total Consultant Budget		\$314,480

LS = Lump Sum

T&M = Time and Materials

Project Schedule

In coordination with the City, the Consultant may adjust planning activities and schedules to accommodate scheduling needs, with the target completion date of December 2017. The schedule assumes that requested information is provided by the City within the timeframes indicated in the scope of work, and that City reviews are generally completed within one week. In order to accommodate to meet the project deadlines, it is assumed that smoke testing and CCTV work will be completed by the end of August 2017.