RESOLUTION NO. 2380

A RESOLUTION OF THE CITY OF WILSONVILLE ACTING IN ITS CAPACITY AS ITS LOCAL CONTRACT REVIEW BOARD AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH MURRAY, SMITH AND ASSOCIATES TO PROVIDE ENGINEERING AND CONSULTING SERVICES FOR THE WASTEWATER COLLECTION SYSTEM PROJECTS.

WHEREAS, the adopted City FY 2012-13 Budget includes funding for the preparation of a Waste Water Collection System Master Plan and other Waste Water Projects; and

WHEREAS, the City solicited Requests for Qualifications for professional consulting services and received six responses; and

WHEREAS, following screening and evaluation, three of the six firms were interviewed; and

WHEREAS, from these interviews, in a competitive selection process based on qualifications gleaned from the interviews which included the firms proposed approach to the project, Murray, Smith and Associates was selected as the firm best qualified to provide the certain professional services for the referenced project; and

WHEREAS, Wilsonville Code Section 2.314(10) (b) states: "The City Council shall adopt by resolution and the contracting officer shall follow the Oregon Attorney General's Model Public Contracting Rules (Division 35, Consultant Selection: Architectural and Engineering Personal Services Contracting), for screening and selection of persons to perform architectural and engineering personal services contracts for public improvement projects. Provided, however, any provisions in WC 2.310-2.314 for exemptions will also apply and shall take precedent over the Division 35 Model Rules as the Board of Contracting Officer may determine."; and

WHEREAS, Section 2.310(3)(f) of the Wilsonville Code defines personal service contracts as "A contract for "personal services" calls for specialized skills, knowledge and resources in the application of highly technical or scientific expertise, or the exercise of professional, artistic or management discretion or judgment. Qualifications and performance history, expertise, knowledge and creativity, and the ability to exercise sound professional

judgment are typically the primary considerations when selecting a personal services Contractor, with price being secondary."; and

WHEREAS, Section 2.312 of the City Code states, "The Council is hereby designated as a Local Contract Review Board and, relative to contract concerns for the City, shall have all the powers granted to the State Public Contract Review Board."; and

WHEREAS, Section 2.314(1) of the City Code states, "All public contracts shall be based upon competitive bids or proposals . . ."; and

WHEREAS, Section 2.310(3) (g) of the City Code defines public contracts as "Any agreement for the purchase, lease or sale by the City of personal property, public improvements or services other than agreements which are for personal services."; and

WHEREAS, Section 2.314(14) of the City Code states "…all personal services contracts for which the fee is anticipated to exceed $50,000 will be awarded based on a competitive selection process."; and

WHEREAS, a competitive process was utilized as described above to select the proposed design professionals; and

WHEREAS, Murray, Smith Associates has extensive and valuable experience which can be utilized in completing the Waste Water Collection System Projects; and

WHEREAS, after reviewing the fees associated with providing the requested professional services, staff has determined that the fees for services as proposed by Murray, Smith Associates for the project are fair and reasonable; and

NOW, THEREFORE, THE CITY OF WILSONVILLE RESOLVES AS FOLLOWS:

1. The City Council serving in the role of Local Contract Review Board adopts the above recitals as findings and incorporates them by reference as if fully set forth herein.

2. The City Council serving in its role as Local Contract Review Board does hereby approve and authorize the execution of a Professional Services Agreement for completion of the Waste Water Collection System Projects in the amount of $326,383 between the City of Wilsonville and Murray, Smith and Associates, a copy of which is attached hereto and incorporated herein.

3. This resolution shall be effective upon adoption.

ADOPTED by the City of Wilsonville at a regular meeting thereof this 1st day of October, 2012 and filed with the Wilsonville City Recorder this date.

_____
TIM KNAPP, MAYOR

ATTEST:

_____
Sandra C. King, MMC, City Recorder

SUMMARY OF VOTES:

Mayor Knapp

Councilor Starr

Councilor Núñez

Councilor Goddard

Attachment : City of Wilsonville Professional Services Agreement w/ Scope & Cost attachments

CITY OF WILSONVILLE
PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement ("Agreement") is made and entered into on this _____ day of October, 2012 ("Effective Date") by and between the **City of Wilsonville**, a municipal corporation of the State of Oregon (hereinafter referred to as the "City"), and **Murray, Smith and Associates, Inc.** (hereinafter referred to as "Consultant").

RECITALS:

WHEREAS, the City requires services which Consultant is capable of providing, under terms and conditions hereinafter described; and

WHEREAS, Consultant represents that Consultant is qualified to perform the services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Consultant is prepared to provide such services as the City does hereinafter require.

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT:

Section 1. Term

The term of this Agreement shall be from the Effective Date until all services required to be performed hereunder ("Services") are completed and accepted, unless earlier terminated in accordance herewith. Consultant shall diligently perform the Services according to the requirements and deliverable dates identified in the Scope of Services, attached hereto as **Exhibit A** and incorporated by reference herein. Except in the event of an extension of time, agreed to in writing by the City, all Services must be completed no later than **February 28th, 2013.**

Section 2. Consultant's Services

2.1. Consultant will perform professional engineering services for the analysis, planning, permitting, and design of the City's wastewater collection system, as more particularly described in the Scope of Services, attached hereto as **Exhibit A** and incorporated by reference herein, for the Wastewater Collection System Project ("Project").

2.2. All written documents, drawings, and plans submitted by Consultant in conjunction with the Services shall bear the signature, stamp, or initials of Consultant's authorized Project Manager. Any documents submitted by Consultant which do not bear the signature, stamp, or initials of Consultant's authorized Project Manager, will not be relied upon by the City. Interpretation of plans and answers to questions regarding the Services or Scope of Services given by Consultant's Project Manager may be verbal or in writing, and may be relied upon by the City, whether given verbally or in writing. If requested by the City to be in writing, Consultant's Project Manager will provide such written documentation.

2.3. Consultant will not be responsible for damages, be in default, or be deemed to be in default by reason of delays in performance due to reasons beyond Consultant's reasonable control, including but not limited to strikes, lockouts, severe acts of nature, or other unavoidable delays or acts of third parties not under Consultant's direction and control ("Force Majeure"). In the case of the happening of any Force Majeure event, the time for completion of the Services will be extended accordingly by the City, in writing. Lack of labor, supplies, materials, or the cost of any of the foregoing shall not be deemed a Force Majeure event.

2.4. The existence of this Agreement between the City and Consultant shall not be construed as the City's promise or assurance that Consultant will be retained for future services beyond the Scope of Services described herein.

2.5. Consultant shall maintain the confidentiality of any confidential information that is exempt from disclosure under state or federal law to which Consultant may have access by reason of this Agreement. Consultant warrants that Consultant's employees assigned to work on the Services provided in this Agreement shall be clearly instructed to maintain this confidentiality. All agreements with respect to confidentiality shall survive the termination or expiration of this Agreement.

Section 3. City's Responsibilities

3.1. The scope of the City's responsibilities, including those of the City's Project Manager, are also set forth in the Scope of Services. The City will designate a Project Manager to facilitate day-to-day communication between Consultant and the City, including timely receipt and processing of invoices, requests for information, and general coordination of City staff to support the Project.

3.2. The City hereby certifies that sufficient funds are available and authorized to finance the Compensation Amount set forth in **Section 4** of this Agreement.

Section 4. Compensation

4.1. Except as otherwise set forth in this **Section 4**, the City agrees to pay Consultant a not to exceed price of _Three Hundred Twenty Six Thousand Three Hundred and Eighty Three DOLLARS ($326,383.00) for performance of the Services ("Compensation Amount") identified in **Exhibit A**. Any compensation in excess of the Compensation Amount will require express written agreement by the City and Consultant. Any Tasks identified within **Exhibit A or B** as a Contingency Task shall require written authorization (email is acceptable) from the City Project Manager before consultant shall perform services against that Task. Without such authorization(s) the Non Contingency Not To Exceed Compensation amount is reduced to Two Hundred Forty Seven Thousand Five Hundred and Fifty Seven DOLLARS ($247,557).

4.2. During the course of Consultant's performance, if the City or its Project Manager specifically requests Consultant to provide additional services that are beyond the Scope of Services described on **Exhibit A**, Consultant shall provide such additional services and bill the City at the hourly rates outlined on Consultant's Rate Schedule, as set forth in **Exhibit C**. Compensation above the amount shown in **Subsection 4.1** above requires a written Change Order, executed in compliance with the provisions of **Section 19**.

4.3. Unless expressly set forth on Consultant's Rate Schedule as a reimbursable expense item that is not included in the fixed Compensation Amount of **Subsection 4.1**, or as an additional

charge for which a written Change Order has been approved, in accordance with **Subsection 4.2** and the requirements of **Section 19**, Consultant shall only be entitled to the Compensation Amount specified in **Subsection 4.l**.

4.4. Except for amounts withheld by the City pursuant to this Agreement, Consultant will be paid for Services for which an itemized invoice is received by the City within thirty (30) days of receipt, unless the City disputes such invoice. In that instance, the undisputed portion of the invoice will be paid by the City within the above timeframe. The City will set forth its reasons for the disputed claim amount and make good faith efforts to resolve the invoice dispute with Consultant as promptly as is reasonably possible.

4.5. The City will be responsible for the direct payment of required fees payable to governmental agencies, including but not limited to plan checking, land use, zoning, and all other similar fees resulting from this Project, that are not specifically covered by **Exhibit A**.

4.6. Consultant's per hour compensation rates shown within **Exhibits B and C** are all inclusive and include, but are not limited to, salaries or wages plus fringe benefits and contributions, including payroll taxes, workers' compensation insurance, liability insurance, profit, pension benefits, and similar contributions and benefits, technology and/or software charges, office expenses, and all other indirect and overhead charges. Unless otherwise documented, all Direct Costs including subcontractor costs shall be charged at cost, without markup. Consultant's per hour compensation rates and direct cost rates shown within **Exhibits B and C** are fixed values for the duration of this Agreement, unless otherwise negotiated in writing between the City and Consultant subsequent to this Agreement.

Section 5. City's Project Manager

The City's Project Manager is Mike Ward. The City shall give Consultant prompt written notice of any redesignation of its Project Manager. The City's Project Manager can be reached by telephone at 503 570-1546 and via email at ward@ci.wilsonville.or.us.

Section 6. Consultant's Project Manager

Consultant's Project Manager is Matt Hickey. In the event that Consultant's designated Project Manager is changed, Consultant shall give the City prompt written notification of such redesignation. Consultant's Project Manager will not be changed without the written consent of the City, which consent shall not be unreasonably withheld. In the event the City receives any communication from Consultant that is not from Consultant's designated Project Manager, the City may request verification by Consultant's Project Manager, which verification must be promptly furnished. The Consultant's Project Manager can be reached by telephone at (503) 225-9010 and via email at MLH@msa-ep.com.

Section 7. Project Information

Except for confidential information designated by the City as information not to be shared, Consultant agrees to share Project information with, and to fully cooperate with, those corporations, firms, contractors, public utilities, governmental entities, and persons involved in or associated with the Project. No information, news, or press releases related to the Project, whether made to representatives of newspapers, magazines, or television and radio stations, shall be made without the written authorization of the City's Project Manager.

Section 7.1. Duty to Inform

If, at any time during the performance of this Agreement or any future phase of this Agreement for which Consultant has been retained, Consultant becomes aware of actual or potential problems, faults, or defects in the Project or Scope of Services, or any portion thereof; or of any nonconformance with federal, state, or local laws, rules, or regulations; or if Consultant has any objection to any decision or order made by the City with respect to such laws, rules, or regulations, Consultant shall give prompt written notice thereof to the City's Project Manager. Any delay or failure on the part of the City to provide a written response to Consultant shall neither constitute agreement with nor acquiescence to Consultant's statement or claim, nor constitute a waiver of any of the City's rights.

Section 8. Consultant Is Independent Contractor

8.1. Consultant is an independent contractor for all purposes and shall be entitled to no compensation other than the Compensation Amount provided for under **Section 4** of this Agreement. Consultant will be solely responsible for determining the manner and means of accomplishing the end result of Consultant's Services. The City does not have the right to control or interfere with the manner or method of accomplishing said Services. The City, however, will have the right to specify and control the results of Consultant's Services so such Services meet the requirements of the Project.

8.2. Consultant may request that some consulting Services be performed on the Project by persons or firms other than Consultant, through a subcontract with Consultant. Consultant acknowledges that if such Services are provided to the City pursuant to a subcontract(s) between Consultant and those who provide such services, Consultant may not utilize any subcontractor(s), or in any way assign its responsibility under this Agreement, without first obtaining the express written consent of the City, which consent may be given or denied in the City's sole discretion. For all Services performed under subcontract to Consultant, as approved by the City, Consultant shall only charge the compensation rates shown on an approved Rate Schedule. Rate Schedules for named or unnamed subcontractors, and Consultant markups of subcontractor billings, will only be recognized by the City as set forth in Consultant's Rate Schedule, unless documented and approved, in writing, by the City pursuant to a modification to Consultant's Rate Schedule, per **Section 19** of this Agreement. In all cases, processing and payment of billings from subcontractors is solely the responsibility of Consultant.

8.3. Consultant shall be responsible for, and defend, indemnify and hold the City harmless against, any liability, cost, or damage arising out of Consultant's use of such subcontractor(s) and subcontractor's negligent acts, errors, or omissions. Unless otherwise agreed to, in writing, by the City, Consultant shall require that all of Consultant's subcontractors also comply with and be subject to the provisions of this **Section 9** and meet the same insurance requirements of Consultant under this Agreement.

8.4. Consultant shall make prompt payment for any claims for labor, materials, or services furnished to Consultant by any person in connection with this Agreement, as such claims become due. Consultant shall not permit any liens or claims to be filed or prosecuted against the City on account of any labor or material furnished to or on behalf of Consultant. If Consultant fails, neglects, or refuses to make prompt payment of any such claim, the City may pay such claim to the subcontractor furnishing the labor, materials, or services and offset the amount of the payment against funds due or to become due to Consultant under this Agreement. The City may also recover any such amounts directly from Consultant.

8.5. Should Consultant elect to utilize employees on any aspect of this Agreement, Consultant must comply with all wage and hour laws. Consultant shall make all required workers' compensation and medical care payments on time. Consultant shall be fully responsible for payment of all employee withholdings required by law, including but not limited to taxes, including payroll, income, Social Security (FICA), and Medicaid. Consultant shall also be fully responsible for payment of salaries, benefits, taxes, Industrial Accident Fund contributions, and all other charges on account of any employees. Consultant shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167. All costs incident to the hiring of assistants or employees shall be Consultant's responsibility. Consultant shall defend, indemnify, and hold the City harmless from claims for payment of all such expenses. Unless otherwise expressly set forth on **Exhibit B** as a reimbursable expense item, specific costs associated with items set forth in this subsection shall be deemed as fully and conclusively included in the rate upon which Consultant's Compensation Amount is based.

8.6. No person shall be discriminated against by Consultant or any subcontractor in the performance of this Agreement on the grounds of sex, gender, race, color, creed, marital status, age, disability, or national origin. Any violation of this provision shall be grounds for cancellation, termination, or suspension of the Agreement, in whole or in part, by the City.

Section 9. Indemnity and Insurance

9.1. Consultant acknowledges responsibility for liability arising out of the performance of this Agreement, and shall defend, indemnify, and hold the City harmless from any and all liability, settlements, loss, costs, and expenses in connection with any action, suit, or claim resulting or allegedly resulting from Consultant's negligent acts, omissions, errors, or willful or reckless misconduct provided pursuant to this Agreement, or from Consultant's failure to perform its responsibilities as set forth in this Agreement. The review, approval, or acceptance by the City, its Project Manager, or any City employee of documents or other work performed, prepared, or submitted by Consultant shall not be considered a negligent act, error, omission, or willful misconduct on the part of the City, and none of the foregoing shall relieve Consultant of its responsibility to perform in full conformity with the City's requirements, as set forth in this Agreement, and to indemnify the City as provided above and to reimburse the City for any and all costs and damages suffered by the City as a result of Consultant's failure to adhere to the standards of performance and care described in **Subsection 10.2**. Consultant shall defend the City (using legal counsel reasonably acceptable to the City) against any claim that alleges negligent acts, omissions, errors, or willful or reckless misconduct by Consultant.

9.2. Consultant's Standard of Care and Insurance Requirements.

9.2.1. Standard of Care: In the performance of professional services, Consultant agrees to use at least that degree of care and skill exercised under similar circumstances by reputable members of Consultant's profession practicing in the Portland metropolitan area. Consultant will re-perform any services not meeting this standard without additional compensation. Consultant's re-performance of any services, even if done at the City's request, shall not be considered as a limitation or waiver by the City of any other remedies or claims it may have arising out of Consultant's failure to perform in accordance with the applicable standard of care of this Agreement and within the prescribed timeframe.

9.2.2. Insurance Requirements: Consultant shall maintain insurance acceptable to the City in full force and effect throughout the term of this Agreement. Such insurance shall

cover all risks arising directly or indirectly out of Consultant's activities or work hereunder.

The policy or policies of insurance maintained by Consultant shall provide at least the following limits and coverages:

9.2.2.1. *Commercial General Liability Insurance*. Consultant shall obtain, at Consultant's expense, and keep in effect during the term of this Agreement, Comprehensive General Liability Insurance covering Bodily Injury and Property Damage on an "occurrence" form (1996 ISO or equivalent). This coverage shall include broad form Contractual Liability insurance for the indemnities provided under this Agreement. The following minimum insurance amounts must be carried and maintained at all times:

Coverage	*Limit*
General Aggregate	$2,000,000
Products-Completed Operations Aggregate	2,000,000
Each Occurrence	2,000,000
Fire Damage (any one fire)	50,000
Medical Expense (any one person)	10,000

9.2.2.2. *Professional Errors and Omissions Coverage*. Consultant agrees to carry Professional Errors and Omissions Liability insurance on a policy form appropriate to the professionals providing the Services hereunder with a limit of no less than $2,000,000 per claim. Consultant shall maintain this insurance for damages alleged to be as a result of errors, omissions, or negligent acts of Consultant. Such policy shall have a retroactive date effective before the commencement of any work by Consultant on the Services covered by this Agreement.

9.2.2.3. *Business Automobile Liability Insurance.* If Consultant will be using a motor vehicle in the performance of the Services herein, Consultant shall provide the City a certificate indicating that Consultant has business automobile liability coverage for all owned, hired, and non-owned vehicles. The Combined Single Limit per occurrence shall not be less than $1,000,000.

9.2.2.4. *Workers' Compensation Insurance*. Consultant and all employers providing work, labor, or materials under this Agreement that are subject employers under the Oregon Workers' Compensation Law shall comply with ORS 656.017, which requires them to provide workers' compensation coverage that satisfies Oregon law for all their subject workers or employees that are exempt under ORS 656.126. Out-of-state employers must provide Oregon workers' compensation coverage for their workers who work at a single location within Oregon for more than thirty (30) days in a calendar year. Consultants who perform work without the assistance or labor of any employee need not obtain such coverage. This shall include Employer's Liability Insurance with coverage limits of not less than $500,000 each accident.

9.2.2.5. *Insurance Carrier Rating.* Coverages provided by Consultant must be underwritten by an insurance company deemed acceptable by the City. The City

reserves the right to reject all or any insurance carrier(s) with a financial rating that is unacceptable to the City.

9.2.2.6. *Certificates of Insurance*. As evidence of the insurance coverage required by this Agreement, Consultant shall furnish a Certificate of Insurance to the City. This Agreement shall not be effective until the required certificates and the Additional Insured Endorsements have been received and approved by the City. Consultant agrees that it will not terminate or change its coverage during the term of this Agreement without giving the City at least thirty (30) days' prior advance notice.

9.2.2.7. *Additional Insured Endorsements*. The City will be named as an additional insured with respect to Consultant's liabilities hereunder in insurance coverages. The following is included as additional insured: The City of Wilsonville, its elected and appointed officials, officers, agents, employees, and volunteers. Except professional liability and workers' compensation coverage, all policies shall provide an Additional Insured Endorsement.

9.2.3. The coverage provided by these policies shall be primary, and any other insurance carried by the City is excess. Consultant shall be responsible for any deductible amounts payable under all policies of insurance. In the event a dispute arises between the City and Consultant for which Consultant has obtained insurance, the maximum amount that may be withheld by the City for all such claims shall be no more than the amount of the applicable insurance deductible. Insurance policies must be "Occurrence" policies. Consultant will be required to maintain such policies in full force and effect through any warranty period.

Section 10. Warranty (Intentionally Deleted)

Section 11. Early Termination; Default

11.1. This Agreement may be terminated prior to the expiration of the agreed upon terms:

11.1.1. By mutual written consent of the parties;

11.1.2. By the City, for any reason, and within its sole discretion, effective upon delivery of written notice to Consultant by mail or in person; and

11.1.3. By Consultant, effective upon seven (7) days' prior written notice in the event of substantial failure by the City to perform in accordance with the terms through no fault of Consultant, where such default is not cured within the seven (7) day period by the City. Withholding of disputed payment is not a default by the City.

11.2. If the City terminates this Agreement, in whole or in part, due to default or failure of Consultant to perform Services in accordance with the Agreement, the City may procure, upon reasonable terms and in a reasonable manner, services similar to those so terminated. In addition to any other remedies the City may have, both at law and in equity, for breach of contract, Consultant shall be liable for all costs and damages incurred by the City as a result of the default by Consultant, including, but not limited to, all costs incurred by the City in procuring services from others as needed to complete this Agreement. This Agreement shall be in full force to the extent not terminated by written notice from the City to Consultant. In the event of a default, the

City will provide Consultant with written notice of the default and a period of ten (10) days to cure the default. If Consultant notifies the City that it wishes to cure the default but cannot, in good faith, do so within the ten (10) day cure period provided, then the City may elect, in its sole discretion, to extend the cure period to an agreed upon time period, or the City may elect to terminate this Agreement and seek remedies for the default, as provided above.

11.3. If the City terminates this Agreement for its own convenience not due to any default by Consultant, payment of Consultant shall be prorated to, and include the day of, termination and shall be in full satisfaction of all claims by Consultant against the City under this Agreement.

11.4. Termination under any provision of this section shall not affect any right, obligation, or liability of Consultant or the City that accrued prior to such termination. Consultant shall surrender to the City items of work or portions thereof, referred to in **Section 16**, for which Consultant has received payment or the City has made payment. The City retains the right to elect whether or not to proceed with actual construction of the Project.

Section 12. Suspension of Work

The City may suspend, delay, or interrupt all or any part of the work for such time as the City deems appropriate for its own convenience by giving written notice thereof to Consultant. An adjustment in the time of performance or method of compensation shall be allowed as a result of such delay or suspension unless the reason for the delay is within Consultant's control. The City shall not be responsible for work performed by any subcontractors after notice of suspension is given by the City to Consultant. Should the City suspend, delay, or interrupt the work and the suspension is not within Consultant's control, then the City shall extend the time of completion by the length of the delay.

Section 13. Subcontractors and Assignments

13.1. Unless expressly identified in **Exhibit A or B** of this Agreement, or subsequently approved by the City, and subject to **Section 9** of this Agreement, Consultant shall neither subcontract with others for any of the work prescribed herein, nor assign any of Consultant's rights acquired hereunder, without obtaining prior written approval from the City. Work may be performed by persons other than Consultant, provided Consultant advises the City of the names of such subcontractors and the work which they intend to perform, and the City specifically agrees in writing to such subcontracting. Consultant acknowledges such services will be provided to the City pursuant to a subcontract(s) between Consultant and subcontractor(s) and no privity of contract exists between the City and the subcontractor(s). Unless otherwise specifically provided by this Agreement, the City incurs no liability to third persons for payment of any compensation provided herein to Consultant. Any attempted assignment of this Agreement without the written consent of the City shall be void. Except as otherwise specifically agreed, all costs for services performed by others on behalf of Consultant shall not be subject to additional reimbursement by the City.

13.2. The City shall have the right to enter into other agreements for the Project, to be coordinated with this Agreement. Consultant shall cooperate with the City and other firms, engineers or subcontractors on the Project so that all portions of the Project may be completed in the least possible time and within normal working hours. Consultant shall furnish other engineers, subcontractors and affected public utilities, whose designs are fitted into Consultant's design, detail drawings giving full information so that conflicts can be avoided.

Section 14. Access to Records

The City shall have access, upon request, to such books, documents, receipts, papers, and records of Consultant as are directly pertinent to this Agreement for the purpose of making audit, examination, excerpts, and transcripts for a period of four (4) years, unless within that time the City specifically requests an extension. This clause shall survive the expiration, completion, or termination of this Agreement.

Section 15. Property of the City

15.1. Originals or certified copies of the original work forms, including but not limited to documents, drawings, tracings, surveying records, mylars, papers, diaries, inspection reports, and photographs, performed or produced by Consultant under this Agreement shall be the exclusive property of the City and shall be delivered to the City prior to final payment. Any statutory or common law rights to such property held by Consultant as creator of such work shall be conveyed to the City upon request without additional compensation. Upon the City's approval, and provided the City is identified in connection therewith, Consultant may include Consultant's work in its promotional materials. Drawings may bear a disclaimer releasing Consultant from any liability for changes made on the original drawings and for reuse of the drawings subsequent to the date they are turned over to the City.

15.2. Consultant shall not be held liable for any damage, loss, increased expenses, or otherwise, caused by or attributed to the reuse by the City or its designees of all work performed by Consultant pursuant to this Agreement without the express written permission of Consultant.

Section 16. Laws of Oregon

This Agreement shall be governed by the laws of the State of Oregon. All contractual provisions required by ORS Chapter 279A and 279C to be included in public agreements are hereby incorporated by reference and shall become a part of this Agreement as if fully set forth herein.

Section 17. Adherence to Law

Consultant shall adhere to all applicable federal and state laws, including but not limited to laws, rules, regulations, and policies concerning employer and employee relationships, workers' compensation, and minimum and prevailing wage requirements. Any certificates, licenses, or permits that Consultant is required by law to obtain or maintain in order to perform work described on **Exhibit A**, shall be obtained and maintained throughout the term of this Agreement.

Section 18. Modification/Change Orders

Any modification of the provisions of this Agreement shall not be enforceable unless reduced to writing and signed by both the City and Consultant. A modification is a written document, contemporaneously executed by the City and Consultant, which increases or decreases the cost to the City over the agreed Compensation Amount in **Section 4** of this Agreement, or changes or modifies the Scope of Services or the time for performance. No modification shall be binding or effective until executed, in writing, by both Consultant and the City. In the event Consultant receives any communication of whatsoever nature from the City, which communication Consultant contends gives rise to any modification of this Agreement, Consultant shall, within five (5) days after receipt, make a written request for modification to the City's Project Manager in the form of a Change Order. Consultant's failure to submit such written request for modification in the form of a Change Order shall be the basis for refusal by the City to treat said communication as a basis for modification or to allow such modification. In connection with any

modification to this Agreement affecting any change in price, Consultant shall submit a complete breakdown of labor, material, equipment, and other costs. If Consultant incurs additional costs or devotes additional time on Project tasks, the City shall be responsible for payment of only those additional costs for which it has agreed to pay under a signed Change Order. To be enforceable, the Change Order must describe with particularity the nature of the change, any delay in time the Change Order will cause, or any increase or decrease in the Contract Price. The Change Order must be signed and dated by both Consultant and the City before the Change Order may be implemented.

Section 19. Notices

Any notice required or permitted under this Agreement shall be in writing and shall be given when actually delivered in person or forty-eight (48) hours after having been deposited in the United States mail as certified or registered mail, addressed to the addresses set forth below, or to such other address as one party may indicate by written notice to the other party.

To City:	City of Wilsonville Engineering Division Attn: Mike Ward 29799 SW Town Center Loop East Wilsonville OR 97070
To Consultant:	Murray, Smith and Associates, Inc. Attn: Matt Hickey 121 SW Salmon, Suite 900 Portland OR 97204-2919

Section 20. Integration

This Agreement, including all exhibits attached hereto, contains the entire and integrated agreement between the parties and supersedes all prior written or oral discussions, representations, or agreements. In case of conflict among these documents, the provisions of this Agreement shall control.

Section 21. Miscellaneous; General

21.1. Time of the Essence. The parties agree that time is of the essence of this Agreement.

21.2. Attorney Fees. In the event any suit, action, arbitration, or other proceeding, of any nature whatsoever, is instituted to interpret or enforce any provision of this Agreement, or with respect to any dispute relating to this Agreement, including, without limitation, any action in which a declaration of rights is sought or an action for rescission, the prevailing party shall be entitled to recover from the losing party its reasonable attorneys, paralegals, accountants, and other experts fees and all other fees, costs and expenses actually incurred and reasonably necessary in connection therewith, as determined by the judge or arbitrator at trial or arbitration, as the case may be, or on any appeal or review, in addition to all other amounts provided by law. This provision shall also cover costs and attorney fees related to or with respect to proceedings in Federal Bankruptcy Courts, including those related to issues unique to bankruptcy law.

21.3. Nonwaiver. Any failure to enforce any provision of this Agreement will not be deemed a waiver of the right to enforce that provision or any other provision of this Agreement.

21.4. Severability. If any provision of this Agreement is found to be void or unenforceable, it is the intent of the parties that the rest of the Agreement shall remain in full force and effect, to the greatest extent allowed by law.

21.5. Entire Agreement. This Agreement, including all documents attached to this Agreement and all documents incorporated by reference herein, represents the entire agreement between the parties.

21.6. Authority. Each party signing on behalf of Consultant and the City hereby warrants actual authority to bind their respective party.

The CONSULTANT and the CITY hereby agree to all provisions of this Agreement.

CONSULTANT:	CITY:
MURRAY, SMITH AND ASSOCIATES, INC.	CITY OF WILSONVILLE
By:_____	By:_____
(Print Name)_____	(Print Name)_____
As Its:_____	As Its: _____
Employer I.D. No._____	

APPROVED AS TO FORM	ATTESTED TO:
_____	_____
Barbara A. Jacobson, Assistant City Attorney City of Wilsonville, Oregon	Sandra C. King, MMC, City Recorder City of Wilsonville, Oregon

EXHIBIT A – SCOPE OF SERVICES

WORK PLAN

FOR

CITY OF WILSONVILLE

WASTEWATER COLLECTION SYSTEM PROJECTS

INTRODUCTION:

THE WORK PLAN OUTLINED BELOW IS FOR PHASE I OF THE WASTEWATER COLLECTION SYSTEM PROJECTS. THE OVERALL PROJECT IS DIVIDED INTO THREE PHASES. THE PHASE GENERALLY INCLUDES THE FOLLOWING:

- PHASE I INCLUDES BASIN PLANNING, HYDRAULIC MODELING, CAPACITY ANALYSIS AND CONCEPTUAL DESIGNS FOR THREE KEY SEWER COLLECTION SYSTEM PIPING ELEMENTS AND THE MEMORIAL PARK PUMP STATION AND EVALUATION OF 3 OTHER PUMP STATIONS;
- PHASE II INCLUDES FINAL DESIGN FOR THE COLLECTION SYSTEM ELEMENTS AND A MEMORIAL PARK SEWAGE PUMP STATION
- PHASE III INCLUDES COLLECTION SYSTEM MASTER PLANNING FOR THE ENTIRE CITY INCLUDING THE CHARBONNEAU AREA.

TO EVALUATE THE EXISTING FACILITIES AND DEVELOP CONCEPTUAL DESIGNS FOR THE VARIOUS COLLECTION SYSTEM ELEMENTS IN PHASE I, CERTAIN SYSTEM ANALYSES TRADITIONALLY INCLUDED WITH MASTER PLANNING WORK WILL BE REQUIRED FOR SPECIFIC COLLECTION SYSTEM SUBBASINS DURING THIS INITIAL PHASE. SINCE THE PHASE I WORK WILL BE COMPLETED PRIOR TO THE OVERALL WASTEWATER SYSTEM MASTER PLAN, A NUMBER OF TASKS INCLUDED IN PHASE I INCLUDE MASTER PLANNING RELATED TASKS. THIS PLANNING WORK CONDUCTED UNDER PHASE I WILL BE BASED ON CITY SPECIFIED CRITERIA AND FURTHER DEVELOPED TO BE READILY INCORPORATED INTO THE OVERALL MASTER PLANNING CONDUCTED IN PHASE III.

PHASE I INCLUDES THE FOLLOWING ELEMENTS:

- DATA COLLECTION AND ANALYSIS, MODEL DEVELOPMENT AND CONCEPTUAL DESIGNS FOR THE BOECKMAN CREEK SEWER UPGRADE AND ACCESS IMPROVEMENTS
- DATA COLLECTION AND ANALYSIS, MODEL DEVELOPMENT AND CONCEPTUAL DESIGNS FOR THE MEMORIAL DRIVE SEWER HIGHWAY CROSSING
- DATA COLLECTION AND ANALYSIS, MODEL DEVELOPMENT AND CONCEPTUAL DESIGNS FOR THE KINSMAN ROAD SEWER EXTENSION
- SITING EVALUATION AND CONCEPT DEVELOPMENT FOR A NEW MEMORIAL PARK PUMP STATION
- EVALUATION OF TWO SMALL EXISTING PUMP STATIONS

THE CITY DESIRES TO SEPARATE THE VARIOUS ELEMENTS IN PHASE I INTO SEPARATE WORK ITEMS. THE WORK PLAN IS CONFIGURED TO REFLECT THIS. THERE ARE A NUMBER OF TASKS THAT ARE COMMON TO ALL OF THE ELEMENTS IN PHASE I AND ARE OUTLINED IN ELEMENT I -- GENERAL.

EXHIBIT A – SCOPE OF SERVICES

RELATIVE TO THE ALLOCATION OF CITY BUDGETS, IT IS UNDERSTOOD THAT THE COSTS ASSOCIATED WITH THESE GENERAL TASKS WILL BE ALLOCATED TO EACH OF THE OTHER ELEMENTS AND PRORATED BASED ON VALUE OF EACH OF TASKS AS PRESENTED IN THE FEE ESTIMATE SPREADSHEET (TO FOLLOW).

ELEMENT I – GENERAL

TASK 1 - PROJECT MANAGEMENT

Under this task, project management will be provided to see that the City's project goals are met and with respect to budgets, schedule and final products. Work includes project work planning, monthly progress reports, updated schedules, agenda preparation and minutes for various project meetings. Subtasks include:

SUBTASK 1A – GENERAL PROJECT MANAGEMENT

A. Project Kick-off Meeting and Project Schedule – Conduct a project kick-off meeting with City staff to collect all relevant information, and identify known problems, concerns and interests. Review work program, end products and key milestones. Included in the kick-off meeting is a review of the final project schedule, milestones and key delivery dates.
B. Progress Reports and Billings – Prepare and submit for review and City approval, monthly progress reports and invoices for work completed.
C. Subconsultant Coordination – Coordinate subconsultant work as required.

SUBTASK1B – MEETINGS

Progress/Work Meetings – Schedule and attend progress meetings at appropriate intervals throughout the project to report on the work and receive City input. For budgeting purposes it is anticipated there will be one two hour meeting every two weeks for a period of approximately 4 months. It is anticipated the project manager will attend along with the Principal-in-Charge or one of the design leads.

SUBTASK 1C – QA/QC

Quality Assurance/Quality Control (QA/QC) – Provide in-house reviews and checking of various interim and final work products.

TASK 2 – DATA COLLECTION AND REVIEW

Under this task, relevant data will be collected and the specific wastewater sewer subbasins will be reviewed including urban growth expansion area basins. Also under this task, current and prior planning will be evaluated and general planning criteria reviewed. Detailed subtasks are as follows:

A. Information Compilation and Review – Compile and review currently available data and information relative to the waste water sewer system. Anticipated information items include prior City studies, plans and reports as outlined in subtask B below, as well as available planning guidance documents and design standards, operation and maintenance reports, inspection records, pump station data, flow monitoring data, record drawings, mapping and GIS information, land use information, population forecast data and other pertinent information.

B. Current Plan Evaluations and General Planning Criteria Review – Included in this subtask is a review and evaluation of existing previous and related waste water system master plans, reports, studies, codes, regulations, etc. It is anticipated that the following documents will be included in this evaluation work:
    - Sewer collection system maintenance reports and pipe inspection videos
    - City of Wilsonville Sanitary Sewer Plan Update
    - City of Wilsonville, Comprehensive Plan
    - City of Wilsonville Water System Master Plan
    - OAR 660 Division 11, Public Facilities Planning
    - Urban Growth Boundary expansion study areas
    - Wilsonville zoning map
    - City of Wilsonville collection and trunk sewer system GIS and AutoCad map showing rim and invert elevations and pipe sizes

TASK 3 – PLANNING CRITERIA ANALYSIS

Under this task a summary of project-specific planning criteria regarding land use, population, and waste water collection performance requirements will be developed. Anticipated subtasks include:

SUBTASK 3A – PLANNING CRITERIA DEVELOPMENT

A. *Population and Land Use* – Obtain and review prior evaluations and descriptions of the study area boundary relative to the proposed Phase I waste water facilities planning. Include City land use and population forecasts for build-out of the Urban Planning Areas (UPA). It is anticipated that population and land use data from recently completed water master plan will be used where possible.

B. Planning Criteria, Population Projections and Regulatory Requirements – Under this subtask project-specific planning criteria regarding waste water collection and conveyance requirements will be determined. Sub-elements include:

1. Planning Criteria – Identify planning criteria that are specifically applicable to the waste water planning. Confirm planning service area and build-out assumptions with City staff. Work with City staff to establish waste water and I/I unit flow rates for existing and new development, and I/I increases due to system degradation. Establish existing and future development status for all tax lots within the Phase I planning service area and link the tax lots to pipes. It is anticipated that planning data from recently completed water master plan will be used where possible.

2. Determine Design Storm Frequency – Work with City staff to determine the design storm frequency that will be used as the level of service for the conveyance system. Determine latest directives from EPA and DEQ regarding possible higher level of service.

3. Population Forecasts – Population forecasts will be identified for "build-out" based on information and projections provided by the City's Community Development Department. It is anticipated that population data from the recently completed water master plan will be used where possible.

4. Equivalent Dwelling Units and Tax Lot Review – Calculate the total number of existing equivalent dwelling units (EDUs) in each basin, identify from City-supplied records the total number of waste water sewer connections, including a breakdown of the residential, commercial, and industrial services, and present estimates of future EDU projections. Also, tax lots will be flagged for redevelopment or development based on existing build-out and planning guidance provided by the City. The model will incorporate GIS information so land use assumptions can be populated at the tax lot level and then incorporated in to the waste water system modeling. It is anticipated that data regarding EDU's in the various basins generated during the recently completed water master plan will be used where possible.

5. Regulatory Requirements and Planning Basis – Review all applicable regulatory requirements that must be met for recommended improvements for waste water collection and conveyance. The anticipated regulations include those applicable to surface and storm water discharges, erosion control, groundwater protection, and wetland or waterway impacts. Work under this task will primarily involve the establishment of planning criteria for planning work in the subject basins. Evaluate City code regarding sewer surcharging and determine if the City will accept some surcharging in certain conditions when allowing some surcharging will result in significant cost savings.

SUBTASK 3B -- FLOW MONITORING ANALYSIS AND RECOMMENDATIONS

A. Under this subtask, the existing flow monitoring data will be evaluated to determine if the data is reasonably accurate and if more flow monitoring data is needed. It is

understood the City has data from pump stations and flow monitors for a period of 5 years. Data from 7 monitoring stations with electronic data have been collected since May 2012. Pump station records have also been collected along with the flow monitoring data. Accuracy review will include evaluation of monitors in the same basin and determine if data is consistent within the basin. Also, the data for flow monitors will be plotted on a scatter graph to assess whether the data is consistent among the various meters relative to the storm events during the monitoring. The data will be correlated to the storm events that occurred during the flow monitoring to determine if the 5 year storm was captured with the monitoring and asses relative accuracy of the various meters. Data from storm events will be used in the calibration of the model. A time series will be developed for each flow monitor and rainfall gauge site to identify periods of both dry and wet weather flow suitable for model calibration. WWTP flows time series will be queried in Access to quickly identify yearly and monthly and daily maximum flows. This task will identify any significant gaps for recommending placing additional flow monitors. This task will also include evaluation of the suitability of the model network GIS data for use as the starting point for the hydraulic model.

B. Based on the review of the existing data, recommendations will be made relative to placement of and numbers of additional flow meters. It is anticipated recommendations will be provided for approximately 5 meter locations. The monitoring plan will focus on un-monitored areas and areas with I/I rates greater than approximately 2,000 gallons per acre per day based on current flow data available.

C. Deliverable: Technical memorandum summarizing analysis and recommendations.

SUBTASK 3C – MODEL CALIBRATION AND CHARACTERIZATION

This task will include calibrating the model to the dry weather flows by scaling the applied dry weather flow estimates to match the flow monitoring data. The model will also be calibrated to the wet weather flow by adjusting the model parameters until satisfactory agreement is seen between the measured and simulated wet weather flow at each flow monitor location.

Model characterization will include acquiring or generating a design storm suitable for use with the model, based on input from the City or using the 24 hour rainfall intensity value from DEQ. From this data a synthetic hyetograph will be generated. Characterization will include defining and running any relevant future conditions scenarios that incorporate combinations of population increase and expansion of the service area. The dry weather and wet weather calibrated flows will then be adjusted based on these scenarios.

SUBTASK 3D – ADDITIONAL FLOW MONITORING (CONTINGENCY TASK)

Under this subtask, based on recommended additional flow monitoring stations, the same analysis conducted under Subtask 3B would be conducted assuming 5 additional flow monitoring stations.

ELEMENT II – BOECKMAN CREEK (HIGH SCHOOL) INTERCEPTOR AND ACCESS ROAD

This element includes basin and flow analysis for the Boeckman Creek Interceptor, pipe capacity analysis and alternatives review relative to improvements to the interceptor. This element also includes development of preliminary concepts associated with access improvements to and along the sewer line route.

TASK 1 – BASIN ANALYSIS AND MODEL DEVELOPMENT

SUBTASK 1A -- BASIN SPECIFIC I&I ANALYSIS AND FLOW MONITORING ANALYSIS

A. Develop Approach for Additional Flow Monitoring – To obtain I&I data during the wet weather months, early on in the master planning work, MSA's team will develop a monitoring approach for additional flow monitoring in the basin. A brief technical memorandum will summarize the recommendations for additional flow monitoring.

B. I&I Review – MSA will evaluate the existing waste water collection system to identify I&I flows and significant I&I problems in the High School Interceptor Basin. Based on evaluations completed earlier flow monitoring data, I&I rates will be applied to the various subbasins for the purpose of determining peak design flows.

C. Flow Measurements – The data obtained from the additional flow monitoring recommendations described above will be evaluated to identify sub-basins that are contributing the relatively largest I&I rates. The flow data will also be used to provide the necessary information to better direct additional fieldwork, if needed, including flow monitoring to be performed by the City.

D. I&I Summary – The results of the I&I review and flow measurements will be compiled into a database that summarizes the flow data and develops I&I flow factors by sub-basin and the system as a whole. These flow factors, which are expressed on a flow rate, pipe size, and pipeline reach length basis, will be used to characterize the nature of the I&I for modeling purposes. Develop flows and I&I estimates at specific points on the interceptor.

SUBTASK 1B -- BASIN SPECIFIC WASTE WATER CHARACTERIZATION AND FORECASTING

Under this subtask, existing and future wastewater flows and I&I will be characterized. Flows will be forecast for UGB build-out. Work under this task will be specific to the basin and will build on modeling work conducted under Element I above. Work under

this task will include the following:

A. Waste Water Evaluations – At least five years of historical records of flow obtained from City WWTP will be evaluated. The records will be tabulated in spreadsheet and graphical form to show averages, minimum and maximum (peak) flows. The City will collect and compile data from City records in accordance with instructions and in formats as prepared by MSA.

B. Flow Forecasts – Waste water flow forecasts for Frog Pond and Advanced Road development areas and for the High School Interceptor and Wilsonville Road Interceptor will be developed based on the established population projections and planning criteria. Flow projections will include peak hourly flow rates. The forecasts will also be quantified on a per capita flow and per acres basis based on City criteria. These forecasts will consider the data from recent water master plan, the land uses as identified in the City's current planning documents.

SUBTASK 1C -- BASIN MODEL DEVELOPMENT

A. This task will include developing a skeleton hydraulic model for this (High School Interceptor) basin representing the main sewer lines in the basin using InfoSWMM software. MSA will develop the calibrated model of the existing collection system for the basin including evaluation of the basin under existing conditions. The model development will be based on using current flow monitoring data where possible to reduce the areas of the City requiring modeling and modeling will be based on reviews with City staff regarding current planning criteria, system configuration, operations and system characterization.

Modeling will provide a snap shot of the ability of the collection system to convey existing and future flows. The design storm will be applied to the calibrated basin model for existing and future conditions. The model results will be summarized in tables for pipes (peak flow, design full-pipe flow) and nodes (maximum HGL, minimum freeboard). The model results tables may be linked to GIS data to produce characterization maps.

B. Model Calibration – This task will include calibrating the model for this basin relative to the available flow monitoring data and pump station run time data. The actual measured flows will be compared to theoretical flows generated based on existing and proposed development and established flow development criteria.

SUBTASK 1D -- GIS MAPPING UPDATES (CONTINGENCY TASK)

If modifications to the GIS mapping are required in the preparation of the hydraulic model, this optional task is included to budget for potential engineering time to complete such modifications. For budgeting purposes, it is anticipated that up to 20 hours will be spent on this task. If additional time is required, MSA will notify the City, and suggest additional budgeted time to complete this task.

TASK 2 – PIPE EVALUATIONS

SUBTASK 2A – PIPE CAPACITY ANALYSIS

Under this task, the capacity of the sewer main paralleling the creek will be evaluated based on design flows developed in the Task 1 above, analysis criteria, downstream conditions and slope and size of the piping.

The updated model will be run to determine relative capacities and the percentage of capacity taken up by I&I and identify potential restrictions and system improvement needs using the HGL approach described above.

This task will include running the model under 4 scenarios 1) current system configuration 2) with projected flows from new development, 3) run the model under scenario 1 with assumed I&I reductions included and 4) run model under scenario 2 with assumed reductions in I&I. The evaluation of existing piping will be completed considering both current and forecasted flows resulting from infill development and new service areas.

After these model runs are completed, a GO/NO GO determination will be made as to the need to upsize the various pipeline segments of the High School Interceptor and Wilsonville Road Sub-Interceptor to achieve needed future capacity

SUBTASK 2B -- PIPE CONDITION ASSESSMENT AND EVALUATION (CONTINGENCY TASK)

If the capacity analysis conducted in Task 2A above shows the pipes have adequate capacity, a pipe condition assessment including review of existing sewer inspection videos will be conducted to determine the condition and the potential for rehabilitation of the sewer main. Alternatives relative to rehabilitation of the sewer main will be conducted in Task 6.

TASK 3 – PERMITTING AND ENVIRONMENTAL REVIEW

Under this task, an appropriately scaled environmental impact review will be conducted to identify significant environmental issues and/or fatal flaws with the various project alternatives under consideration. The review will consider a number of relevant factors including but not limited to: land use, noise, air quality, wetland and vegetation, water quality, and cultural resources. The following subtasks will be performed:

A. Environmental Screening – The purpose of this subtask is to identify and screen the various conveyance alternatives being considered for this element and to determine those alternatives that are feasible for meeting the regulatory requirements and design criteria previously established. This task will also include obtaining existing, readily available, published information and/or readily available information that can be secured from agencies within the project time frame regarding existing environmental conditions. This information will be used to identify environmental constraints and opportunities for development of alternatives.

B. Environmental Evaluations – Since local, state and/or federal agency permitting may be required, the environmental review should be conducted in anticipation of permitting requirements. In cooperation with City staff and other agency staff, the project team will conduct environmental evaluations of the various project alternatives potentially including but not necessary limited to the following: ability to meet present and future regulatory requirements, environmental impacts to surface water and groundwater, land use and zoning, flood plain and wetlands, vegetation, cultural resources, location relative to other facilities and service areas, traffic and access, soils and seismic hazards, site availability for purchase or long-term lease, impacts on public services and utilities, biological resources, air quality and noise. The evaluations will be documented in the report. Preparation of a formal NEPA environmental assessment is not included in this scope.

C. Permit Review – Under this subtask review of and identification of required permits will be conducted. Permits may include Corp/DSL wetland permits, Wilsonville permits relative to sensitive environmental areas and tree impacts, and City of Wilsonville permits associated with work in roadway rights-of-way.

TASK 4 – TOPOGRAPHIC SURVEY (CONTINGENCY TASK)

Topographic survey will be used as needed to confirm existing conditions required to develop concepts. A manhole invert and rim survey and limited topographic survey was recently completed for the Boeckman Creek Sewer. Additional survey may include additional limited topographic survey as needed to develop concepts for access to the sewer line and/or improvements to the road grade along the sewer line associated with a proposed access road. For budgeting purposes it is anticipated survey control has been established in the area of the project and can readily be used to conduct surveys as needed for this project.

TASK 5 – GEOTECHNICAL REVIEW

The purpose of the geotechnical services is to collect and review existing geotechnical and geologic information, conduct limited geotechnical field explorations, conduct preliminary geotechnical assessments, develop conceptual geotechnical recommendations and alternatives, and assess the needs for additional geotechnical explorations and evaluations in the subsequent phases for final design. It is anticipated site right of entry and/or permits will be coordinated and obtained by the City. It is anticipated that no archaeological or environmental clearances or permits will be necessary for field exploration.

For Phase I, limited geotechnical investigations may be conducted to evaluated conditions to a level needed to develop concepts and preliminary cost estimates. Geotechnical investigations will include the following:

- Investigation of existing available geotechnical data in the area of the project. This may include recent boring and available soil mapping.
- Conduct hand augering in the soil along the existing sewer line to determine condition relative to the proposed access road along the sewer route. Hand augers will be conducted to a depth of approximately 10 feet below ground surface. It is anticipated that up to 4 hand augers will be completed

- Geotechnical investigations will include a brief summary of the findings and recommendations relative to the propose sewer main and access road improvements.

TASK 6 – CONCEPT DEVELOPMENT

SUBTASK 6A -- ALTERNATIVES ANALYSIS

The purpose of this task is to identify potential waste water conveyance alternatives for the subject basin and select the most viable alternatives for further analysis. Anticipated subtasks include:

A. Collection System Analysis and Improvements – Based upon the previously completed analysis of the collection system and the ultimate service area of the system, improvements to the sewer main to provide the required ultimate capacity will be recommended. These improvements will include pipe rehabilitation, gravity sewer upsizing or a parallel pipe. The alternatives will be evaluated using the system model.

B. Waste Water System Improvements and Sewer Line Access Alternatives Workshop – Under this subtask, the MSA team will meet with City staff and key stakeholders to review the potential sewer system improvement and potential access alternatives.

C. Alternatives Development – Under this subtask, a description of each alternative will be prepared. For each alternative, preliminary sizing of the major components will be accomplished and the advantages and disadvantages of each identified. Based upon discussions with the City and including the environmental review as described under Task 3, these potential alternatives will be screened to select an alternatives for each to receive further detailed analysis.

D. Under this task, the alternative that is technically sound, protective of the environment, respective of the surrounding community, and cost-effective in conveying waste water and meet City goals and objectives, will be selected. This selection will be a collaborative process involving the City and interested residents. The selected alternative will be described in further detail and will include a capital cost estimate. A schematic of the selected preferred alternative will be prepared.

SUBTASK 6B – SEWER MAIN ACCESS CONCEPT DEVELOPMENT

Work under this subtask includes development of concepts for improving access to the Boeckman Creek Interceptor. Access concepts may be relative to the proposed pipe improvements. Access concepts will be coordinated with the City Parks Department as the Park Department is planning a new trail along this route and will be coordinated with a scour analysis to be completed by others at the bridge on Wilsonville Road. The proposed access road will be designed to carry a 30 ton vac truck. The concept development will include a plan view of the

proposed access illustrated on available aerial photos, a typical cross section of the access road based on geotechnical recommendations and preliminary cost estimates.

Up to 4 access location will be evaluated. This include the following:

1) A point near Boeckman Road that may include a crossing of small side drainage.
2) A point on the east side of the creek just south of Boeckman Road through a nearby neighborhood.
3) A point on the east side of the creek through the apartment complex.
4) A point near Wilsonville Road on the west side of the creek. Access to be coordinated with the bridge creek scour work.

Work under this subtask will also include evaluating the feasibility relative to each access point including a field visit, evaluating required easements, grades and constructability relative to access by a ¾ ton utility truck and a 30 ton vacuum truck.

This task may also include topographic survey to determine grades or other key feasibility evaluation information relative to access.

SUBTASK 6C -- DRAFT CONCEPTUAL DESIGN REPORT

Under this subtask, a report documenting the results of the work will be prepared, including illustrations of existing facilities and proposed concepts and preliminary cost estimates. A draft report will be prepared for review and comment by the City. Five copies of the report will be delivered to the City. Upon City authorization, a final report incorporating all comments will be prepared.

TASK 7 – PUBLIC INVOLVEMENT (CONTINGENCY TASK)

As an optional task, MSA proposes assisting the City with public meetings as may be needed. If the City elects to include this task in the work program, it is anticipated that two public meetings will be conducted, one to review the findings and conclusions related to conveyance alternatives and a second to review the recommendations of the study. A summary of the public participation will be included in the report as an appendix. MSA will also meet with City staff and other agencies as necessary during the course of the study to review progress and develop consensus on the study recommendations. Upon completion of the draft report, MSA will make a presentation to the City Council to review key findings and recommendations. A similar presentation will be made on the final report.

It addition to assistance with public meetings the MSA team will, upon request, provide web site enhancements. Possible web site enhancements may include map-based comment tracking or on-line surveys. A proposed budget has been include in the fee estimate spreadsheet for these potential web site enhancements ($2,750).

TASK 8 – FINAL CONCEPTUAL DESIGN REPORT

Under this subtask, the final conceptual design report will be prepared and 5 copies provided to the City along with electronic files of the report and conceptual plans. Files will be provided to the City in Word, Excel, AutoCAD or other appropriate electronic format.

ELEMENT III – HIGHWAY CROSSING AT MEMORIAL DRIVE

TASK 1 – BASIN ANALYSIS AND MODEL DEVELOPMENT

SUBTASK 1A – BASIN SPECIFIC I&I ANALYSIS AND FLOW MONITORING ANALYSIS – See Subtask 1A in Element II above.

SUBTASK 1B – BASIN SPECIFIC WASTE WATER CHARACTERIZATION AND FORECASTING -- See Subtask 1B in Element II above.

SUBTASK 1C – BASIN MODEL DEVELOPMENT -- See Subtask 1C in Element II above.

SUBTASK 1D – GIS MAPPING UPDATES (CONTINGENCY TASK) -- See Subtask 1D in Element II above.

TASK 2 – PIPE EVALUATIONS

SUBTASK 2A – PIPE CAPACITY ANALYSIS

Under this task, the capacity of both pipe lines under the freeway will be evaluated using the hydraulic model based on design flows developed in the Task 1 above, analysis criteria, downstream conditions and slope and size of the pipes. Each pipe will be evaluated independently for full flow, and jointly for some level of split flow. Alternative to address pipe capacity will be evaluated in Task 6.

SUBTASK 2B – PIPE CONDITION ASSESSMENT AND EVALUATION (CONTINGENCY TASK)

If the capacity analysis conducted in Task 2A above shows the existing pipes have adequate capacity, a pipe condition assessment will be conducted to determine the condition and the potential for rehabilitation of the pipes. Alternatives relative to rehabilitation of the pipes will be conducted in Task 6.

TASK 3 – PERMITTING AND ENVIRONMENTAL REVIEW

Under this task, a review of potential permits that will be required will be conducted to identify significant permitting issues and/or fatal flaws with the various project alternatives under consideration. The review will consider a number of relevant factors including but not limited to: land use, noise, air quality, wetland and vegetation, water quality, and cultural resources. The following subtasks will be performed:

A. Environmental Screening – As project area for this element does not include wetlands, trees or other environmental concerns, it is anticipated that environmental screening will not be applicable to this task.

B. Environmental Evaluations – As project area for this element does not include wetlands, trees or other environmental concerns, it is anticipated that environmental evaluations will not be applicable to this task. Preparation of a formal NEPA environmental assessment is not included in this scope.

C. Permit Review – Under this item review of and identification of required permits will be

conducted. Permits may include ODOT permits for working in the ODOT right-of-way, and City of Wilsonville permits associated with work in roadway rights-of-way.

TASK 4 – TOPOGRAPHIC SURVEY (CONTINGENCY TASK)

Topographic survey will be conducted as needed to confirm existing conditions required to develop concepts. Survey may include limited topographic survey as needed to develop concepts for survey of manhole rims and inverts to confirm pipe slopes and provide information relative to cost for upgrades. For budgeting purposes it is anticipated survey control has been established in the area of the project and can readily be used to conduct surveys as needed for this project.

Proposed budget for this task assumes the ODOT right-of-way needs to be tied to the survey that may be conducted for this element.

TASK 5 – GEOTECHNICAL REVIEW

Limited geotechnical investigations may be conducted to evaluated conditions to a level needed to develop concepts and preliminary cost estimates. Geotechnical investigations will include the following:

- Investigation of existing available geotechnical data in the area of the project. This may include review of recent borings and available soil mapping.
- Geotechnical investigations will include a brief summary of the findings and recommendations relative to a potential boring under the freeway or feasibility of pipe bursting as may be required.

TASK 6 – CONCEPT DEVELOPMENT

SUBTASK 6A -- ALTERNATIVES ANALYSIS

See Subtask 6A in Element II. It is anticipated that up to three alternatives for this element will be reviewed and this may include pipe replacement or pipe rehabilitation. Pipe replacement may include parallel boring under the freeway, replacement or sliplining of one or both pipes in their existing casings if the casings have additional space for a larger pipe.

SUBTASK 6B – DRAFT CONCEPTUAL DESIGN REPORT -- See Subtask 6C in Element II.

TASK 7 – PUBLIC INVOLVEMENT – N/A

TASK 8 – FINAL CONCEPTUAL DESIGN REPORT -- See Task 8 in Element II.

ELEMENT IV – KINSMAN ROAD SEWER MAIN

TASK 1 – BASIN ANALYSIS AND MODEL DEVELOPMENT

SUBTASK 1A – BASIN SPECIFIC I&I ANALYSIS AND FLOW MONITORING ANALYSIS -- See Subtask 1A in Element II. The United Disposal Interceptor north of Barber Street and the Burns West subinterceptor west of Boberg Road will be evaluated as these combined flows will determine the future pipe sizing north of Barber Street.

SUBTASK 1B – WASTE WATER CHARACTERIZATION AND FORECASTING FOR THE BASIN – See Subask 1B in Element II.

SUBTASK 1C – BASIN MODEL DEVELOPMENT – See Subtask 1C in Element II.

SUBTASK 1D – GIS MAPPING UPDATES (CONTINGENCY TASK) -- See Subtask 1D in Element II

TASK 2 – PIPE EVALUATIONS

SUBTASK 2A – PIPE CAPACITY ANALYSIS – See Subtask 2A in Element II

SUBTASK 2B – PIPE CONDITION ASSESSMENT (CONTINGENCY TASK) – See subtask 2B in Element II

TASK 3 – PERMITTING AND ENVIRONMENTAL REVIEW

Under this task, an appropriately scaled environmental impact review will be conducted to identify significant environmental issues and/or fatal flaws with the various project alternatives under consideration. The review will consider a number of relevant factors including but not limited to: land use, noise, air quality, wetland and vegetation, water quality, and cultural resources. The following subtasks will be performed:

A. Environmental Screening – The purpose of this subtask is to identify and screen the various conveyance alternatives being considered for this element and to determine those alternatives that are feasible for meeting the regulatory requirements and design criteria previously established. This task will also include obtaining existing, readily available, published information and/or readily available information that can be secured from agencies within the project time frame regarding existing environmental conditions. This information will be used to identify environmental constraints and opportunities for development of alternatives. As previous environmental permitting has been conducted in the project area, environmental screening will consist of review of previous submitting environmental permits to determine how a new sewer main will impact further permitting needs. This is based on the assumption that a proposed sewer main will parallel the proposed 48-inch waterline in the project area. If a proposed sewer main alignment is outside the area adjacent to the waterline, additional environmental screening may be required outside this scope of work.

B. Environmental Evaluations – Since local, state and/or federal agency permitting may be required, the environmental review should be conducted in anticipation of permitting requirements. In cooperation with City staff and other agency staff, the project team will conduct environmental evaluations of the various project alternatives potentially including but not necessary limited to the following: ability to meet present and future regulatory requirements, environmental impacts to surface water and groundwater, land use and zoning, flood plain and wetlands (wetland delineation completed previously by others), vegetation, cultural resources, location relative to other facilities and service areas, traffic and access, soils and seismic hazards, site availability for purchase or long-term lease, impacts on public services and utilities, biological resources, air quality and noise. The evaluations will be documented in the report. Preparation of a formal NEPA environmental assessment is not included in this scope. Similar to item "A." above, review of previously submitted environmental permits for the area will be conducted.

C. Permit Review – Under this subtask review of and identification of required permits will be conducted. Permits may include Corp/DSL wetland permits, BPA permits, Wilsonville permits relative to sensitive environmental areas and tree impacts and City of Wilsonville permits associated with work in roadway rights-of-way.

TASK 4 – TOPOGRAPHIC SURVEY (CONTINGENCY TASK)

Topographic survey will be conducted as needed to confirm existing conditions required to develop concepts. A topographic survey has been completed along the proposed Kinsman Road alignment and can be used to evaluate alternatives that include sewer piping along this route. Additional survey may include additional limited topographic survey as needed to develop concepts for access to the sewer line and manhole rim and invert survey to confirm conditions. For budgeting purposes it is anticipated survey control has been established in the area of the project and can readily be used to conduct surveys as needed for this project.

TASK 5 – GEOTECHNICAL REVIEW

Geotechnical investigations have been conducted along the proposed Kinsman Road utility and roadway alignment. As such, geotechnical engineering will include review of existing data.

- Conduct a site visit.
- Conduct review of existing available geotechnical data in the area of the project. This may include recent borings and available soil mapping.
- Geotechnical engineering will include a brief summary of the findings and recommendations relative to the propose sewer main.

TASK 6 – CONCEPT DEVELOPMENT

SUBTASK 6A -- ALTERNATIVES ANALYSIS

See Subtask 6A in Element II. Alternatives for this element may include pipe replacement or pipe rehabilitation. Pipe replacement may include a pipe in the proposed easement parallel to the proposed 48" waterline. If the pipe has capacity to convey future flows, the pipe may be rehabilitated. The alternatives will include evaluation of the 15" sewer from United Disposal and Burns West to determine if that can be effectively rerouted to avoid upsizing a portion of the 27" Kinsman trunk line.

SUBTASK 6B -- DRAFT CONCEPTUAL DESIGN REPORT – See Subtask 6C in Element II

TASK 7 – PUBLIC INVOLVEMENT – N/A

TASK 8 – FINAL CONCEPTUAL DESIGN REPORT – See task 8 in Element II

ELEMENT V – PUMP STATION EVALUATIONS

ELEMENT V-A – MEMORIAL PARK PUMP STATION CONCEPTUAL DESIGN

The general scope of the preliminary design study is to:

- Conduct field visits to document the current configuration of the pump station;
- Conduct an initial evaluation of the station to determine if it can be modified in-place to protect it from further flooding;
- Perform a topographic survey of the pump station and relevant site features;
- Analyze operational and maintenance data;
- Estimate existing and future influent flow rates to the pump station;
- Assess current pumping capacity of the pump station and force main;
- Assess the condition of the existing station components and document deficiencies;
- Recommend alternatives for improvements to meet capacity, reliability and redundancy requirements and correct identified deficiencies;
- Research permitting requirements for recommended upgrades;
- Prepare a project cost estimate and recommended implementation schedule for the recommended work.
- Prepare a preliminary design report with appropriate illustrations

TASK 1 – BASIN ANALYSIS

Under this task, the existing peak hourly influent flows to the pump station under current conditions will be estimated, and peak flows under future conditions will be forecast. The pump station does not have a flow meter, and other methods to estimate influent flows will be required. Analysis of the basin feeding into this pump station will be completed as part of the work in Element II. Review of previous analysis relative to the pump station will be conducted as part of this task in Element V. Some additional areas, contribute to this pump station and will be evaluated as part of this Task.

SUBTASK 1A – I&I ANALYSIS AND FLOW MONITORING REVIEW

Analysis of the basin feeding into this pump station will be completed as part of the work in Element II. Review of previous analysis relative to the pump station will be conducted as part of this task in Element V.

SUBTASK 1B – BASIN SPECIFIC WASTEWATER CHARACTERIZATION AND FORECASTING

Service Area Analysis – Develop map of current pump station service area, using City-provided mapping data. Review service area map with City staff to verify accuracy.

Analyze Pump Station Records – Analyze records of pump station run times over a 3 year period. Document averages and peak events. Review operations and maintenance logs.

Current Influent Flow Rates - Estimate current influent flow rates to the pump station using the pump runtime data, factory pump curves, and results of the pump station flow test.

Future Influent Flow Rates – Using City-provided information regarding developable land within the service area, estimate future influent flow rates to the pump station at buildout.

Prepare conceptual design report section summarizing influent flow analysis methodology and findings, with figures as necessary.

Analysis of the basin feeding into this pump station will be completed as part of the work in Element II. Review of previous analysis relative to the pump station will be conducted as part of this task in Element V.

SUBTASK 1C – BASIN MODEL DEVELOPMENT

Review the wastewater flow model and data used to develop wastewater flows based on findings of service area analysis.

Analysis of the basin feeding into this pump station will be completed as part of the work in Element II. Review of previous analysis relative to the pump station will be conducted as part of this task in Element V.

SUBTASK 1D – GIS MAPPING UPDATES (CONTINGENCY TASK) -- See Subtask 1D in Element II

TASK 2 – PUMP STATION FACILITY EVALUATION

The pump station evaluation will be conducted in a phased approach relative to potential alternatives to address flooding of the pump station. Based on preliminary analysis GO/NO GO decisions will be made prior to proceeding with review of additional alternatives. Prepare a detailed description and evaluation of the existing pump station facility, including pump station equipment, force main, influent sewers, site improvements, and adjacent topography. Work under this task will include:

2.1 Pump Station Capacity - Estimate the overall firm capacity of the entire pump station facility, using hydraulic calculations and other data collected. Compare the firm capacity of the facility to the current peak hourly influent flow and the forecasted future peak flow at buildout. Identify critical capacity limitations at the pump station. If the pump station wet well and other elements such as pumps and electrical equipment have capacity to convey future flows, the potential to flood proof the pump station will be evaluated. This item (2.1) will consist of a cursory review of the pump station and include approximately 4 hours of engineering time.

2.2 Existing Station Description and Evaluation - Review the station as-built drawings, specifications, shop drawings and other available information. Conduct a site visit with City staff. Document the existing facilities and design capacities including pumps, wet well, influent sewer, discharge piping, force main, pump control system, electrical service, backup power system, hydrogen sulfide control system, if any, station alarm and telemetry system, flow metering, and other relevant station features.

2.3 Evaluation of Potential for Flood Proofing -- Based on information gathered and observations taken during the site visit, the existing pump station will be evaluated as to whether it can cost effectively be "flood proofed". This refers to upgrading the existing pump station at its current location in a manner that protects it from damage due to potential flooding. This will include preliminary evaluation relative to the size of the wet well to accommodate potentially larger pumps and the future design flows, evaluation of the existing building and the area around the building to determine if the structure can be upgraded or surrounded by a wall to protect it from flood waters, permitting issues and the feasibility of maintenance access during normal operations and during a flood event. If the facility can be flood proofed, then the alternatives analysis relative to siting a new pump station will be still be conducted to estimate the preliminary costs for the purpose of comparing to the flood proofing alternative.

2.4 Force Main System Curve -- Prepare a system head curve for future flows for the existing force main for predesign analysis purposes, using field-verified data where available. Assume 2 hours for this evaluation.

2.5 Pump Station Flow Test -- Perform a station pump station flow test to estimate current capacity of the existing pumps, with City staff present to operate the facility. City staff will furnish and install pressure gauges necessary for the test. Assume 2 hours for this evaluation.

2.6 Pump Station Hydraulic Profile – Create a hydraulic profile of the pump station and force main facility using field-verified data and City-provided mapping. Profile shall include upstream and downstream influent sewers, structures and facilities within the pump station's influence. Assume 2 hours for this evaluation.

2.7 Prepare preliminary design report section which describes the pump station and force main facilities, including capacities and condition, with figures as necessary. This report will include documentation of the preliminary analysis relative to flood proofing the existing pump station and preliminary cost estimates for this alternative if it is feasible.

TASK 3 – PUMP STATION CONDITION ASSESSMENT (CONTINGENCY TASK)

Under this task, an assessment of the condition of the existing pump station will be performed based on the evaluations completed in the prior tasks. If it is feasible to flood proof the pump station as discussed in Task 2 above, this task will be conducted to determine the extent of the upgrades required to keep the pump station at its current location and improve it for continued use. Specifically, the following subtasks will be performed:

3.1 Pump Station Condition - Based upon the site inspection and discussions with City operations staff, document the apparent condition of the existing station and any operational problems or conditions of relevance to this study. Identify those pump station components that appear to have less than a 20-year service life.

3.2 Prepare preliminary design report section summarizing the current condition, with figures as necessary.

3.3 Meet with City staff to discuss review comments of the submitted preliminary draft report sections.

Deliverable: Draft report section will be submitted to the City for review and comments.

TASK 4 – PERMITTING AND ENVIRONMENTAL REVIEW

Work under this task will include identifying permitting requirements and issues relative to permitting. Determine and describe permitting constraints for the pump station alternatives. Meet with City of Wilsonville Planning Department to identify local development requirements regarding the pump station property and adjacent affected areas. Contact Oregon Department of Environmental Quality to identify regulatory requirements regarding constructing a overflow for the pump station.

TASK 5 – TOPOGRAPHIC SURVEY (CONTINGENCY TASK)

5.1 Topographic Survey - Work under this task will include conducting topographic surveys as needed in the development of pump station concepts for the selected pump station alternative. Perform topographic surveying to locate existing locations and grades of existing site improvements, including the pump station, vaults, equipment, and other underground and above-ground structures; upstream manholes and influent sewers within approximately 250 feet; adjacent stormwater facilities and watercourses; other design control points; and other existing features that affect the designs. Confirm the pertinent easement, property, and right-of-way line locations. For budgeting purposes it is anticipated survey control has been established in the area of the project and can readily be used to conduct surveys as needed for this project.

5.2 Site Mapping - Prepare a site map of the existing pump station and other surveyed facilities. Elevations will be coordinated with the City's datum.

Deliverable: A site map will be submitted to the City in both paper and AutoCAD format.

TASK 6 – ALTERNATIVE ANALYSIS

SUBTASK 6A – REVIEW ALTERNATIVES RELATIVE TO FLOOD PROOFING THE EXISTING PUMP STATION (CONTINGENCY TASK)

If it is found that it is practicable to flood proof the pump station based on work completed under the existing pump station, this subtask will be performed to compare this alternative to other potential sites for the pump station. The comparisons for this subtask will generally be based on cost and preliminary findings relative to cost and other key issues relative to siting the pump station at a new location. This subtask will include a cursory review of the other siting options to develop budget level cost estimates.

SUBTASK 6B – REVIEW ALTERNATIVES RELATIVE TO SITING A NEW PUMP STATION

If it is found it is not practicable to flood proof the pump station, this subtask will be conducted to evaluate up to three alternatives for the pump station location. The previous siting evaluation conducted by the City will reviewed prior to beginning work on this task. This task will include developing alternative evaluation criteria with the City and develop and importance factor for each. The various selection criteria will be evaluated, multiplied by the importance factor and summed to determine a composite score for each alternative. Preliminary cost estimates will be prepared and be a primary evaluation criterion relative to alternative evaluation.

TASK 7 – DRAFT CONCEPTUAL DESIGN REPORT

Under this subtask, a report documenting the results of the work will be prepared, including illustrations of existing facilities and proposed concepts for improvements. The site plan showing, at a conceptual level, will include the following:

- Access
- Existing property limits
- Development code setbacks
- Environmental constraints (stream setbacks, etc.), if any
- Building expansion limits, if required
- Property expansion limits, if required
- Other significant site improvements

A draft report will be prepared for review and comment by the City. Five copies of the report will be delivered to the City. Upon City authorization, a final report incorporating all comments will be prepared.

TASK 8 – PUBLIC INVOLVEMENT (CONTINGENCY TASK)– See Task 7 in Element II.

TASK 9 – GEOTECHNICAL INVESTIGATIONS

For this Element, limited geotechnical investigations may be conducted to evaluated conditions to a level needed to develop concepts and preliminary cost estimates. Geotechnical investigations will include the following:

Explore the sites by drilling one boring to 30-feet deep at the proposed new Memorial Park pump station. A vibrating wire piezometer will be installed at the proposed Memorial Park pump station for groundwater level measurements. It is anticipated the field exploration will be completed in one day. Observation of borehole drilling, sample collection, and the preparation of descriptive geologic logs of the soil and rock materials encountered will be performed by a geologist/engineer from Shannon & Wilson. The boring logs will present an interpretation of soil and rock materials encountered in each bore hole and the depths of material changes. Sample collection depths and groundwater level (if encountered) will also be noted on the logs. Soil and rock classifications on the boring logs will be in general accordance with ASTM D2488. Disturbed samples (ASTM D1586) and/or undisturbed samples (ASTM D1587) obtained from the borings will be transported to our soil laboratory for additional classification and testing. We understand that traffic control will not be required for the field explorations. It is anticipated that the drilling cuttings can be left onsite at locations approved by the City. Soil and groundwater

contamination is not anticipated; however, if soil samples or cuttings appear to be contaminated, work will stop immediately and the City will be notified and asked for instructions on how to proceed. Abandonment of all borings will be performed in accordance with Chapter 690, Division 240, of the Oregon Administrative Rules (OAR), Construction and Maintenance of Monitoring Wells, Geotechnical Holes, and Other Holes in Oregon, (OWRD, revised January 2, 2009).

Laboratory Testing. Laboratory testing will be conducted on disturbed and undisturbed soil samples obtained from the explorations to characterize preliminary subsurface conditions. The laboratory testing may consist of determination of moisture content, Atterberg Limits, and grain size distribution. The laboratory testing will be performed in accordance with the ASTM standards.

Preliminary Geotechnical Engineering Evaluation. Due to the preliminary nature of Phase One, our evaluation will include feasibility study of the proposed facilities at the planned locations, assessment of viable design and construction alternatives, identification of potential geotechnical constraints with regard to foundation support, service road subgrade stabilization, slope stability, construction methods, and constructability.

Preliminary Geotechnical Engineering Report. We will prepare a preliminary geotechnical engineering report summarizing our exploration findings, laboratory testing results, our conceptual conclusion and geotechnical engineering recommendations for design and construction of the proposed facilities, and additional field exploration and engineering analyses necessary for the final design. The report will be submitted as electronic files accompanied by three hard copies.

TASK 10 – CONCEPTUAL DESIGN REPORT

Under this subtask, based on the City's comments regarding the draft conceptual design report, a final report documenting the results of the work will be prepared, including illustrations of existing facilities, proposed concepts for improvements and conceptual level cost estimates.

ELEMENT V-B – PUMP STATION EVALUATIONS

This Element includes evaluations of Charbonneau, Town Center Loop and River Village pump stations relative to capacity and condition and evaluation of design flows as described below.

TASK 1 – NOT USED

TASK 2 – TOWN CENTER LOOP PUMP STATION (SMALL, DEFINED NUMBER OF LOTS TRIBUTARY TO THIS PS)

The Town Center Loop pump station is a small pump station that serves Bullwinkles and some other commercial properties. There are very low flows to this station. The City may desire to replace existing pumps with submersible pumps to improve operations and reduce maintenance. The analysis for this pump station is review of the condition of the pump station and operations

and maintenance evaluation to assess the capacity of the pump station relative to the design flows from the basin.

SUBTASK 2A – BASIN ANALYSIS –

Work under this subtask will include the following:

- I&I assessment for collection system based on pumping records and line condition assessments and video records
- Since the basin is built out, existing flow rates will be used to evaluate future flows from the basin.

SUBTASK 2B – WASTEWATER CHARACTERIZATION AND FORECASTING

Work under this subtask will include only limited review of the basin characteristics including population and service area.

SUBTASK 2C – BASIN MODEL DEVELOPMENT

Work under this task will include development of the hydraulic model for the basin using InfoSWMM software and available GIS data of the sewer system. For budgeting purposes it is anticipated the GIS data is reasonably accurate relative to development of the model and no revisions to the GIS data is required. As this basin is very small with limited services, minimal modeling is anticipated to be required.

SUBTASK 2D – PUMP STATION CAPACITY ANALYSIS AND CONDITION ASSESSMENT

Estimate the overall firm capacity of the entire pump station facility, using hydraulic calculations and other data collected. Compare the firm capacity of the facility to the current peak hourly influent flow and the forecasted future peak flow at buildout. Identify critical capacity limitations at the pump station.

Review the station as-built drawings, specifications, shop drawings and other available information. Conduct a site visit with City staff. Document the existing facilities and design capacities including pumps, wet well, influent sewer, discharge piping, force main, pump control system, electrical service, backup power system, hydrogen sulfide control system, if any, station alarm and telemetry system, flow metering, and other relevant station features.

Prepare a system head curve for future flows for the existing force main for predesign analysis purposes, using field-verified data where available. Assume 2 hours for this evaluation.

Pump Station Flow Test -- Perform a station pump station flow test to estimate current capacity of the existing pumps, with City staff present to operate the facility. City staff will furnish and install pressure gauges necessary for the test. Assume 2 hours for this evaluation.

Pump Station Hydraulic Profile – Create a hydraulic profile of the pump station and force main facility using field-verified data and City-provided mapping. Profile shall include upstream and downstream influent sewers, structures and facilities within the pump station's influence. Assume 2 hours for this evaluation.

Pump Station Condition - Based upon the site inspection and discussions with City operations staff, document the apparent condition of the existing station and any operational problems or conditions of relevance to this study. Identify those pump station components that appear to have less than a 20-year service life.

SUBTASK 2F – TECHNICAL MEMORANDUM

Prepare a brief technical memorandum that summarizes the findings and recommendations relative to the pump station assessment. The memo will include a figure showing the basin, as-builts of the pump station and conceptual level cost estimates to improve the station. Five copies of the technical memorandum will be provided to the City.

TASK 3 – RIVER VILLAGE PUMP STATION

The River Village pump station is a small station and the City will require it to be replaced once future development occurs. As such, a condition assessment will not be conducted. The focus of this task will be to evaluate the future flows to determine the capacity requirements for future replacement of the station.

SUBTASK 3A – BASIN ANALYSIS (WHAT CAN BE SERVED)

This subtask will include evaluation of the pump station service area to determine the designs flows based on future development and determine pump station upsizing requirements.

SUBTASK 3B – WASTEWATER CHARACTERIZATION AND FORECASTING

This basin will be considered to be entirely residential therefore, work under this subtask will include only limited review of the basin characteristics including population density and service area.

SUBTASK 3C – BASIN MODEL DEVELOPMENT

As this basin is very small with limited services, minimal modeling will be required.

SUBTASK 3D – PUMP STATION CAPACITY ANALYSIS – No pump station capacity analysis will be conducted as this pump station will be removed as development occurs.

SUBTASK 3E – PUMP STATION CONDITION ASSESSMENT -- No pump station condition assessment will be conducted as this pump station will be removed as development occurs.

SUBTASK 3F – TECHNICAL MEMORANDUM

This subtask will include preparation of a brief technical memorandum that summarizes the findings of the basin analysis to determine the future flows to the pump station and the required sizing to accommodate the flows. The memorandum will include a vicinity map for the pump station and the service area, preliminary cost estimates and recommendations regarding sizing requirements. Five copies of the technical memorandum will be provided to the City.

Exhibit B

CITY OF WILSONVILLE
WASTEWATER COLLECTION SYSTEM PROJECTS
PROPOSED FEE ESTIMATE 9/19/2012

	LABOR CLASSIFICATION (HOURS)												ESTIMATED FEES								
	Principal Eng. IV $179 Helton	Principal Eng. IV $179 Bowers	Senior Engineering Associate $160 Hickey	Senior Engineering Associate $160 Carr	Senior Engineering Associate $160 McTeague	Professional Engineer VI $130 Besaw	Professional Engineer V $122 Marcyan	Professional Engineer IV $115 Martinez	Engineering Designer I $93 Leman	Tech. III $115 Kuhlman	Admin. I $65 Razalenti	Total Hours	Labor	Subconsultants DJC	S&W	SWCA	JLA	HDJ	Expenses	Total
Element I – General																					
Task 1 – Project Management																					
Subtask 1A -- General Project Management			52				8				6	66	$ 9,686						$ 97	$ 9,783	
Subtask 1B -- Meetings		8	28	24	24		8					92	$ 14,568						$ 146	$ 14,714	
Subtask 1C -- QA/QC	4	10										14	$ 2,506						$ 25	$ 2,531	
Task 2 – Data Collection and Review		2	6	2	2	8	12	16	8		4	60	$ 7,306						$ 73	$ 7,379	
Task 3 – Planning Criteria Analysis													$ -							$ -	
Subtask 3A -- Planning Criteria Development		2	8	2	2	8	12	12				46	$ 6,162	$ 594					$ 62	$ 6,818	
Subtask 3B -- Flow Monitoring Analysis and Recommendations		2	8			82	6	2				100	$ 13,260	$ 1,500					$ 133	$ 14,893	
Subtask 3C -- Model Calibration and Characterization			2			35	2					39	$ 5,114	$ 485					$ 51	$ 5,650	
Subtask 3D -- Additional Flow Monitoring (Contingency)			4			30	2					36	$ 4,784						$ 48	$ 4,832	
Element 1 Subtotal	4	24	108	28	28	163	50	30	8	0	10	453	$ 63,386	$ 2,579	$ -	$ -	$ -	$ -	$ 634	$ 66,599	
Element II – Boeckman Creek Interceptor and Access Road																					
Task 1 – Basin Analysis and Model Development and Model Development																					
Subtask 1A -- Basin Specific I&I Analysis and flow monitoring analysis		1	1		4	2	11	4	4			27	$ 3,413	$ 297					$ 34	$ 3,744	
Subtask 1B -- Basin Specific Waste Water Characterization and Forecasting		1	1		4	2	15	4				27	$ 3,529						$ 35	$ 3,564	
Subtask 1C -- Basin Model Development		1	1		4	4	7	4				21	$ 2,813	$ 445					$ 28	$ 3,286	
Subtask 1D -- GIS Mapping Updates (Contingency)			1			5	1					7	$ 932						$ 9	$ 941	
Task 2 – Pipe Evaluations													$ -						$ -	$ -	
Subtask 2A -- Pipe Capacity Analysis			1		4	4	4	12				25	$ 3,188						$ 32	$ 3,220	
Subtask 2B -- Pipe Condition Assessment and Eval (Contingency Task)		1	1		2		7	12	16			39	$ 4,381						$ 44	$ 4,425	
Task 3 – Permitting and Environmental Review			2				4	15	4			25	$ 2,905			$ 2,933			$ 29	$ 5,867	
Task 4 – Topographic Survey (Contingency Task)			1				1	6	2	2		12	$ 1,388					$ 3,500	$ 46	$ 4,934	
Task 5 – Geotechnical Review			1				1	4				6	$ 742		$ 3,047				$ 7	$ 3,796	
Task 6 – Concept Development													$ -						$ -	$ -	
Subtask 6A -- Alternatives Analysis		2	6		7	6	22	15	8			66	$ 8,371	$ 297					$ 84	$ 8,752	
Subtask 6B -- Access Road Concept Development		2	4		2		9	16	8	10		51	$ 6,150					$ 2,500	$ 222	$ 8,872	
Subtask 6C -- Draft Conceptual Design Report		1	4		5	4	18	4	4		2	42	$ 5,297	$ 149					$ 53	$ 5,499	
Task 7 – Public Involvement (Contingency Task)		2	12		2		8	2		16		42	$ 5,644				$ 6,050		$ 312	$ 12,006	
Task 8 – Final Conceptual Design Report		1	2		6	4	13	6	4	12	2	50	$ 6,137						$ 253	$ 6,390	
												0	$ -						$ -	$ -	
Element 2 Subtotal	0	12	38	0	40	31	121	104	50	40	4	440	$ 54,890	$ 1,188	$ 3,047	$ 2,933	$ 6,050	$ 6,000	$ 1,189	$ 75,297	
Element III – Highway Crossing At Memorial Drive																					
Task 1 – Basin Analysis and Model Development and Model Development													$ -						$ -	$ -	
Subtask 1A -- Basin Specific I&I Analysis and flow monitoring analysis		1	2			2	7	2	4			18	$ 2,215	$ 297					$ 22	$ 2,534	
Subtask 1B -- Basin Specific Waste Water Characterization and Forecasting		1	4			2	5	2				14	$ 1,919						$ 19	$ 1,938	
Subtask 1C -- Basin Model Development		1	2			4	5	4				16	$ 2,089	$ 297					$ 21	$ 2,407	
Subtask 1D -- GIS Mapping Updates (Contingency Task)			1			5	1					7	$ 932						$ 9	$ 941	
Task 2 – Pipe Evaluations													$ -						$ -	$ -	
Subtask 2A -- Pipe Capacity Analysis			2			4	10	6	4			26	$ 3,122						$ 31	$ 3,153	
Subtask 2B -- Pipe Condition Assessment and Evaluation (Contingency)		1	2		2		7	12	8			32	$ 3,797						$ 38	$ 3,835	
Task 3 – Permitting and Environmental Review			1				9		4			14	$ 1,630			$ -			$ 16	$ 1,646	
Task 4 – Topographic Survey (Contingency Task)			1				1	6	2	2		12	$ 1,388					$ 7,000	$ 46	$ 8,434	
Task 5 – Geotechnical Review			1				1	4				6	$ 742		$ 1,650				$ 7	$ 2,399	
Task 6 – Concept Development													$ -						$ -	$ -	
Subtask 6A -- Alternatives Analysis		2	6		2	4	16	6	4			40	$ 5,172	$ 297					$ 52	$ 5,521	
Subtask 6B -- Draft Conceptual Design Report		1	6		2	4	16	4	4	8	2	47	$ 5,813	$ 149					$ 186	$ 6,148	
Task 7 – Public Involvement (N/A)												0	$ -						$ -	$ -	
Task 8 – Final Conceptual Design Report		1	6		2	4	9	4	4	4	2	36	$ 4,499						$ 109	$ 4,608	
													$ -						$ -	$ -	
Element 3 Subtotal	0	8	34	0	8	29	87	50	34	14	4	268	$ 33,318	$ 1,040	$ 1,650	$ -	$ -	$ 7,000	$ 557	$ 43,565	
Element IV – Kinsman Road Sewer Main																					
Task 1 – Basin Analysis and Model Development and Model Development													$ -						$ -	$ -	
Subtask 1A -- Basin Specific I&I Analysis and flow monitoring analysis		2	4			3	10	4	4			27	$ 3,440	$ 297					$ 34	$ 3,771	
Subtask 1B -- Basin Specific Waste Water Characterization and Forecasting		1	4			6	8	2				21	$ 2,805						$ 28	$ 2,833	
Subtask 1C -- Basin Model Development		1	4			6	6	4				21	$ 2,791	$ 297					$ 28	$ 3,116	
Subtask 1D -- GIS Mapping Updates (Contingency)			1			5	1					7	$ 932						$ 9	$ 941	
Task 2 – Pipe Evaluations													$ -						$ -	$ -	
Subtask 2A -- Pipe Capacity Analysis			4			4	2	4	4			18	$ 2,236						$ 22	$ 2,258	
Subtask 2B -- Pipe Condition Assessment and Eval (Contingency Task)		1	2		2		6	13	12			36	$ 4,162						$ 42	$ 4,204	
Task 3 – Permitting and Environmental Review			1				3	4	4			12	$ 1,358			$ 4,000			$ 14	$ 5,372	
Task 4 – Topographic Survey (Contingency Task)			2					6	2	2		12	$ 1,426					$ 3,500	$ 46	$ 4,972	
Task 5 – Geotechnical Review			2					4				6	$ 780		$ 1,650				$ 8	$ 2,438	
Task 6 – Concept Development													$ -						$ -	$ -	
Subtask 6A -- Alternatives Analysis		1	8		2	4	8	15				38	$ 5,000	$ 297					$ 50	$ 5,347	
Subtask 6B -- Draft Conceptual Design Report		1	6		2	4	18	3	2	8	2	46	$ 5,756	$ 149					$ 186	$ 6,091	
Task 7 – Public Involvement (N/A)												0	$ -						$ -	$ -	
Task 8 – Final Conceptual Design Report		3	6		2	2	16	6	2	4	2	43	$ 5,495						$ 119	$ 5,614	
												0	$ -						$ -	$ -	
Element 4 Subtotal	0	10	44	0	8	34	78	65	30	14	4	287	$ 36,181	$ 1,040	$ 1,650	$ 4,000	$ -	$ 3,500	$ 586	$ 46,957	
Element V – Pump Station Evaluations													$ -						$ -	$ -	
Element V-A – Memorial Park Pump Station Conceptual Design													$ -						$ -	$ -	
Task 1 – Basin Analysis													$ -						$ -	$ -	
Subtask 1A – I&I Analysis and Flow Monitoring Review		1	1	2		3	8					15	$ 2,025	$ 297					$ 20	$ 2,342	
Subtask 1B – Basin Specific Wastewater Characterization and Forecasting			1	2		3	6					12	$ 1,602						$ 16	$ 1,618	
Subtask 1C – Basin Model Development		1	1	2		4	5					13	$ 1,789	$ 297					$ 18	$ 2,104	
Subtask 1D -- GIS Mapping Updates (Contingency)			1			5	1					7	$ 932						$ 9	$ 941	
Task 2 – Pump Station Facility Evaluation	2	1	2	6			2	8	4			25	$ 3,353						$ 34	$ 3,387	
Task 3 – Pump Station Condition Assessment (Contingency Task)	2	1	2	6			1	8	2			22	$ 3,045						$ 30	$ 3,075	
Task 4 – Permitting and Environmental Review		1	1	2			8	6	8			26	$ 3,069			$ 4,000			$ 31	$ 7,100	
Task 5 – Topographic Survey (Contingency Task)			2	2				6	2	4		16	$ 1,978					$ 6,600	$ 84	$ 8,660	
Task 6 – Alternative Analysis																					
Subtask 6A – Alternatives Analysis (Flood Proofing)(Contingency Task)	2	1	4	6			6	18	4	6	0	47	$ 6,001						$ 156	$ 6,157	
Subtask 6B -- Alternatives Analysis (Siting)	2	2	4	8			4	16	8	8	2	54	$ 6,758						$ 196	$ 6,954	
Task 7 – Draft Conceptual Design Report	1	1	4	6		2	3	16	4	6	2	45	$ 5,616						$ 152	$ 5,768	
Task 8 – Public Involvement (Contingency Task)		2	4	8			2	8				24	$ 3,442				$ 6,050		$ 34	$ 9,526	
Task 9 – Geotechnical Investigations			1				3	4				8	$ 986		$ 4,400				$ 10	$ 5,396	
Task 10 – Final Conceptual Design Report	2	1	2	6		4	15	7	4	8	2	51	$ 6,394						$ 192	$ 6,586	
Element V-A Subtotal	11	12	30	56	0	21	64	97	36	32	6	365	$ 46,988	$ 594	$ 4,400	$ 4,000	$ 6,050	$ 6,600	$ 982	$ 69,614	
Element V-B – Other Pump Station Evaluations																					
Task 1 – Charbonneau Pump Station (Budget for Task Not Approved)													$ -						$ -	$ -	
Task 2 – Town Center Loop Pump Station													$ -						$ -	$ -	
Subtask 2A -- Basin analysis			1	2		2	3	5				13	$ 1,681						$ 17	$ 1,698	
Subtask 2B -- Wastewater characterization and forecasting			1	2		3	2	5				13	$ 1,689						$ 17	$ 1,706	
Subtask 2C -- Basin model development			1	2		6	2	5				16	$ 2,079						$ 21	$ 2,100	
Subtask 2D -- Pump station capacity analysis			1	2			2	8				13	$ 1,644						$ 16	$ 1,660	
Subtask 2E -- Pump station condition assessment			2	4				12				18	$ 2,340						$ 23	$ 2,363	
Subtask 2F -- Technical memorandum	1	1	2	8		2	12	8		8	1	43	$ 5,587						$ 184	$ 5,771	
Task 3 – River Village Pump Station													$ -						$ -	$ -	
Subtask 3A -- Basin analysis			1	2		2	2	2				9	$ 1,214						$ 12	$ 1,226	
Subtask 3B -- Wastewater characterization and forecasting			2	2		2	2	2				10	$ 1,374						$ 14	$ 1,388	
Subtask 3C -- Basin model development			1	2		4	5	2				14	$ 1,840						$ 18	$ 1,858	
Subtask 3D -- Pump station capacity analysis (N/A)												0	$ -						$ -	$ -	
Subtask 3E -- Pump station condition assessment (N/A)												0	$ -						$ -	$ -	
Subtask 3F -- Technical memorandum	1	1	3	4		2	6	10		6	2	35	$ 4,440						$ 140	$ 4,580	
Element V-B Subtotal	2	2	15	30	0	23	36	59	0	14	3	184	$ 23,888	$ -	$ -	$ -	$ -	$ -	$ 463	$ 24,351	
TOTAL - ALL TASKS	17	68	269	114	84	301	436	405	158	114	31	1997	$ 258,651	$ 6,441	$ 10,747	$ 10,933	$ 12,100	$ 23,100	$ 4,411	$ 326,383	
Total Without Contingency Tasks	13	59	228	92	76	251	391	368	108	82	31	1639	$ 213,469	$ 6,441	$ 10,747	$ 10,933	$ -	$ 2,500	$ 3,447	$ 247,537	
Total - Contingency Tasks	4	9	41	22	8	50	45	97	50	32	0	358	$ 45,162	$ -	$ -	$ -	$ 12,100	$ 20,600	$ 964	$ 78,826	

Exhibit C

MSA

2012 SCHEDULE OF CHARGES

Personnel:

Labor will be invoiced by staff classification at the following hourly rates, which are valid from January 1, 2012 to December 31, 2012. After this period, the rates are subject to adjustment.

Senior Principal Engineer	$187.00
Principal Engineer IV	179.00
Senior Consultant	176.00
Principal Engineer III	173.00
Senior Managing Engineer	170.00
Principal Engineer II	168.00
Managing Engineer	163.00
Principal Engineer I	160.00
Senior Engineering Associate	160.00
Senior Supervising Engineer	156.00
Supervising Engineer	152.00
Senior Engineer	144.00
Professional Engineer VII	137.00
Professional Engineer VI	130.00
Professional Engineer V	122.00
Professional Engineer IV	115.00
Engineering Designer IV	115.00
Professional Engineer III	108.00
Engineering Designer III	108.00
Engineering Designer II	101.00
Engineering Designer I	93.00
Technician III	115.00
Technician II	102.00
Technician I	89.00
Administrative III	82.00
Administrative II	73.00
Administrative I	65.00

Project Expenses:

Expenses incurred in-house that are directly attributable to the project will be invoiced at actual cost. These expenses include the following:

Mileage	Current IRS Rate
Postage and Delivery Services	At Cost
Printing and Reproduction	At Cost
Travel, Lodging and Subsistence	At Cost

Outside Services:

Outside technical, professional and other services will be invoiced at actual cost plus 10 percent to cover administration and overhead.