

## ENGINEERING SERVICES AGREEMENT

**THIS ENGINEERING SERVICES AGREEMENT** (“Agreement”) is entered into between the **CITY AND COUNTY OF DENVER** (the "City"), a municipal corporation of the State of Colorado, and **WILSON & COMPANY, INC., ENGINEERS & ARCHITECTS** (the "Consultant"), a Kansas corporation licensed to do business in the State of Colorado, whose address is 4401 Masthead Street NE, Suite 150, Albuquerque, New Mexico, 87109, each a “Party” and collectively, the “Parties.”

### **SECTION 1 – ENGAGEMENT**

**1.01 Engagement.** The City engages the Consultant to furnish professional engineering design services in the 48<sup>th</sup> Avenue Corridor Storm Outfall System in Globeville (the “Project”), as set forth in this Agreement. The Consultant accepts such engagement upon, subject to and in accordance with the terms, conditions and provisions of this Agreement.

**1.02 Line of Authority for Contract Administration.** The City's Executive Director of the Department of Transportation and Infrastructure ("Director") is the City's representative responsible for authorizing and approving the work performed under this Agreement. The Director hereby designates the City Engineer as the Director’s authorized representative for the purpose of designating one or more representatives to act as Project Manager for the purpose of issuing written Notice to Proceed and to administer, coordinate and approve the work performed by the Consultant under this Agreement. The Project Manager shall be responsible for the day-to-day administration, coordination and approval of work performed by the Consultant, except for approvals which are specifically identified in this Agreement as requiring the Director’s approval. The Director expressly reserves the right to designate another authorized representative to perform on the Director’s behalf by written notice to the Consultant.

**1.03 Independent Contractor.** The Consultant is an independent contractor retained to perform professional or technical services for limited periods of time. Neither the Consultant nor any of its employees are employees or officers of the City under Chapter 18 of the Denver Revised Municipal Code, or for any purpose whatsoever.

**1.04 Scope of Consultant’s Authority.** The Consultant shall have no authority to act on behalf of the City other than as expressly provided in this Agreement. The Consultant is not authorized to act as a general agent for or to undertake, direct or modify any contracts on behalf of the City. The Consultant lacks any authority to bind the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City’s Charter and the Denver Revised Municipal Code (“Code”).

### **SECTION 2 – CONSULTANT’S SERVICES**

**2.01 General.** The Consultant shall provide professional design services for the Project in accordance with the terms and conditions of this Agreement (the “Services”). The Consultant's basic Services shall consist of all of those services described in this Agreement and in **Exhibit A**.

#### **2.02 Professional Responsibility.**

- (a) All of the Services performed by the Consultant under this Agreement shall be performed in accordance with the standards of care, skill and diligence provided by competent professionals who perform work of a nature similar to the Services described in this Agreement.

- (b) The Consultant agrees to strictly conform to and be bound by written standards, criteria, budgetary considerations and memoranda of policy furnished to it by the City and further agrees to design each project in compliance with applicable laws, statutes, codes, ordinances, rules and regulations, and industry standards.
- (c) All professional services, plans and specifications and other work, or deliverables provided under this Agreement for the Project shall be adequate and sufficient for the proper construction of the Project and its intended purpose.
- (d) All drawings, specifications and other products shall be prepared so the Project, when constructed in accordance with such drawings and specifications, is in compliance with all applicable laws, statutes, codes, ordinances, and rules and regulations of the City, the State of Colorado (the "State"), and the Federal government.
- (e) Any design changes required by changes in such applicable laws, statutes, codes, ordinances or rules and regulations of the City, the State or the Federal government, which are enacted after the City's acceptance of Construction Documents, defined herein, will be outside the scope of the Consultant's basic Services and basic fee, and will be compensated for approval as an additional service, subject to the additional services budget for that project.
- (f) The Consultant shall prepare the plans, specifications and other materials for the Project ("Construction Documents") in a format that complies with all City requirements as well as all state and federal requirements for the Project. No funds will be paid to the Consultant for the preparation of contract documents in a form other than that considered usual and customary by the City's Department of Transportation and Infrastructure. It shall be the responsibility of the Consultant to contact the reviewing agencies and determine the acceptable format for the final documents. No documents will be considered final until approved by the City, even though any responsible Federal and State agencies have approved such documents.
- (g) The City reserves the right to proceed with the construction of the Project using either the City's standard general contractor bidding approach, on-call contractors or using construction management techniques. The Consultant agrees to organize its Construction Documents for either construction technique and to coordinate the Construction Documents into selected bid packages, as appropriate. The City will notify the Consultant prior to the completion of the design development design phase which method will be used and the amount of work or the limits of construction to be included in the proposed bid package(s).
- (h) The reports, studies, drawings and specifications and other products prepared by the Consultant under this Agreement, when submitted by the Consultant to the Director and the user agency for any identified phase of the Project, must represent a thorough study and competent solution for the Project as per usual and customary professional standards and shall reflect all architectural and engineering skills applicable to that phase of the Project.
- (i) The responsibilities and obligations of the Consultant under this Agreement shall not be relieved or affected in any respect by the presence on the site of any agent, consultant or subconsultant, or an employee of the City.
- (j) The Consultant shall provide all professional services required by the City in defending all claims against the City, which relate in any way to alleged default hereunder, errors or omissions of the Consultant or its subconsultants, without additional compensation.

**2.03 Program and Budget.**

- (a) The Consultant agrees to review the City's program and budget for the Project and further agrees, unless it has timely notified the City that the Project cannot be accomplished within such budget, to accomplish the Project within the intent of the program and established budget. Should the Consultant determine that the Project cannot be accomplished within the established budget, the Consultant shall immediately notify the City, in writing, so that the Project scope or Project budget can be reviewed and modified if necessary.
- (b) The term "Project Construction Cost" shall mean the estimated cost to the City of actually constructing the Project, but such cost shall not include any Consultant's or special consultant's fees or reimbursements or the cost of equipment installed by the City under separate contract, unless the Consultant is required by the City to prepare drawings and specifications for such equipment. The initial Project Construction Cost has been provided to the Consultant.
- (c) The Consultant agrees to design the Project within the estimated Project Construction Cost for the Project.

**2.04 Coordination and Cooperation.**

- (a) The Consultant agrees to perform under this Agreement in such a manner and at such times that the City or any Contractor who has work to perform, or contracts to execute, can do so without unreasonable delay.
- (b) Coordination with the City and other involved agencies shall be a continuing work item through all phases of each assigned project. Such coordination shall consist of regular progress and review meetings with the City, and other user agencies or as otherwise directed by the City. Such coordination may also include field and office reviews of plans and documents as required during the development of the design for any specific project. The Consultant shall document all such conferences and distribute notes to the City.

**2.05 Personnel Assignments.**

- (a) The key professional personnel identified in **Exhibit B** will be assigned by the Consultant or its subconsultants to perform the Services required under this Agreement, as appropriate.
- (b) The Consultant's Services shall be diligently performed by the regular professional and technical staff of the Consultant. In the event the Consultant does not have as part of its regular staff certain professional consultants, then such Services shall be performed, with City approval, by practicing professional consultants outside of the employ of the Consultant.
- (c) The Consultant agrees, at all times during the term of this Agreement, to maintain on its payroll or to have access to through outside subconsultants, professional design personnel and technicians in sufficient strength and experience to meet the requirements of the City. Such personnel and technicians shall be of the classifications referenced in **Exhibit B**. The hourly rates specified therein include all costs except those specifically referenced as reimbursables in the appropriate hourly rate schedule.

- (d) Prior to designating an outside professional to perform subconsultant work, the Consultant shall submit the name of such subconsultant, together with a resume of training and experience in work of like character and magnitude of the project being contemplated, to the City and receive prior approval in writing before allowing such subconsultant to perform any Services on the Consultant's behalf.
- (e) It is the intent of the Parties hereto that all key professional personnel be engaged to perform their specialty for all such Services required by this Agreement and that the Consultant's and, to the extent applicable, any subconsultant's key professional personnel be retained for the life of this Agreement to the extent practicable and to the extent that such Services maximize the quality of work performed hereunder.
- (f) If the Consultant or a subconsultant, if applicable, decides to replace any of its key professional personnel, the Consultant shall notify the Director in writing of the desired change. No such changes shall be made until replacement personnel are recommended by the Consultant and approved in writing by the Director, which approval shall not be unreasonably withheld.
- (g) If, during the term of this Agreement, the Director determines that the performance of approved key personnel or a subconsultant is not acceptable, the Director shall notify the Consultant and give the Consultant an allowable amount of time that the Director considers reasonable to correct such performance. Thereafter, the Director may require the Consultant to reassign or replace such key personnel. If the Director notifies the Consultant that certain of its key personnel or a subconsultant should be replaced, the Consultant will use its best efforts to replace such key personnel or a subconsultant within ten (10) days from the date of the Director's notice, or as soon as reasonably practicable thereafter.
- (h) Neither the Consultant nor any subconsultant shall have other interests which conflict with the interests of the City, including being connected with the sale or promotion of equipment or material which may be used on the Project, or any portion thereof, to which they may be assigned, and the Consultant shall make written inquiry of all of its subconsultants concerning the existence of a potential for such conflict. In unusual circumstances, and with full disclosure to the City of such conflict of interest, the City, in its sole discretion, may grant a written waiver to the particular Consultant or subconsultant for such a conflict relating to the Project, or any portion thereof.
- (i) Actions taken by the City under this Article shall not relieve the Consultant of its responsibility for contractual or professional deficiencies, errors or omissions.
- (j) The Consultant shall submit to the Director a list of any additional key professional personnel who will perform work under this Agreement within thirty (30) days after this Agreement has been executed by the Consultant, together with complete resumes and other information describing their ability, skill and experience to perform the tasks which may be assigned. Such additional personnel must be recommended by the Consultant and approved by the Director before they are assigned to a specific portion of the Project.
- (k) The Director shall respond to the Consultant's written notice regarding replacement of key professional personnel within fifteen (15) days after the Director receives the list of changes. If the Director or the Director's designated representative does not respond within that time, the proposed changes shall be deemed to be tacitly approved.

**2.06 Basic Services – General.**

- (a) These Services shall be diligently performed by the regular professional and technical staff of the Consultant. In the event the Consultant does not have as part of its regular staff certain professional consultants, then such consulting services shall be performed, with City approval, by practicing professional subconsultants outside of the employ of the Consultant.
- (b) Prior to designating an outside professional to perform work or Services under this Agreement, the Consultant shall submit the name of such professional, together with a resume of training and experience in work of like character and magnitude as the Project being contemplated, to the City and receive prior approval in writing.
- (c) All professional consultants and subconsultants must be retained for the life of the Project to the extent practicable, except that acceptable replacements may be substituted with prior written approval from the City as set out in Section 2.05.
- (d) The Consultant's basic Services for the Project shall consist of the phases described below and shall include, but not be limited to, architectural, structural, mechanical, civil and electrical engineering services appropriate to the Project for each phase.
- (e) The Consultant shall obtain written authorization from the City before proceeding with each phase of the Project.
- (f) Nothing in this Agreement shall be construed as placing any obligation on the City to proceed with any Project phase beyond the latest phase authorized in writing by City.
- (g) The responsibilities and obligations of the Consultant under this Agreement shall not be relieved or affected in any respect by the presence on the site of any agent, consultant, subconsultant, or employee of the City.

**2.07 Basic Services - Phase Specific.** In the interest of tracking progress towards completion of all work items necessary to complete the Project specified herein, the required basic Services that must be performed on the Project have been separated into phases. As applicable for the Project, the Consultant shall satisfactorily complete all work necessary to complete each Project phase as specifically set out in **Exhibit A.**

**2.08 Additional Services.**

- (a) If the Consultant performs services in addition to its basic Services, as a result of material changes in the Project or due to other circumstances beyond the Consultant's control, and if such additional service(s): (1) are pre-approved in writing; (2) will not cause the total compensation payable to the Consultant to exceed the Maximum Contract Amount; and (3) are not occasioned by any neglect, breach or default of the Consultant, then the Consultant will be reimbursed its pre-approved cost for performance of such additional service(s).
- (b) Before providing any such additional services, the Consultant first shall file with the City, and secure the City's written approval of, a complete description of the proposed additional services including an estimate of the maximum cost of any and all such services, on the basis set out in **Exhibits A and B**, of rates per hour, per day, or other basis of cost. Such description shall also include a statement from the Consultant that the maximum cost of such additional services will not cause the total amount payable to the Consultant under this Agreement to exceed the Maximum Contract Amount. In no

event shall any form of authorization or pre-approval of additional services be deemed valid or binding upon either the City or the Consultant if the maximum cost of such additional services would cause the aggregate amount payable under this Agreement to exceed the Maximum Contract Amount. Payment for additional services shall not, in any event, exceed the cost estimated by the Consultant and approved in writing by the City.

- (c) The cost of such additional service shall be deemed to be the lesser of the estimated maximum cost or:
  - 1. The actual time card cost of all design personnel including principal designer's time at the rates as set out in **Exhibit B**;
  - 2. The actual cost to the Consultant for other necessary outside services, such as structural, mechanical or electrical engineering performed by independent consultants; and
  - 3. The Consultant's actual reproduction cost for drawings.
- (d) The Consultant shall maintain an accurate and acceptable cost accounting as to all such additional expenses and shall make available to the City all records, canceled checks and other disbursement media to substantiate any and all requests for payment for additional services.
- (e) Payment to the Consultant for such additional services shall not, in any event, exceed the maximum additional services amount set forth in Section 3.

**2.09 Surveying and Testing.**

- (a) The Consultant shall obtain all necessary surveying, tests and reports to properly design and administer the construction of the Project, including, but not limited to, soils and hazardous materials testing. The Consultant shall be responsible for the accuracy, adequacy and content of such tests, surveying and reports.
- (b) The Consultant and its appropriate subconsultant shall review all survey and test results reports and shall follow the recommendation of the soils engineer or other subconsultant unless, in the exercise of appropriate professional judgment, the Consultant or appropriate subconsultant discovers, or should in the exercise of professional judgment discover, factors indicating the report or results are not reliable.
- (c) If any such inadequacy or any inconsistency, based upon such exercise of professional judgment, is noted the Consultant and/or its appropriate subconsultant shall report such inconsistency or inadequacy promptly to the City and require such inadequacy or inconsistency to be addressed by the soils engineer, testing laboratory or land surveyor before any further use is put to the data.
- (d) The Consultant shall require all surveying, engineering and testing entities it selects to carry and maintain Workers' Compensation Coverage, Comprehensive Auto Liability and Property Damage Insurance, General Commercial Liability and Property Damage Insurance and Professional Errors and Omissions coverage as required by the City's Office of Risk Management which will adequately protect the interests of the City and third parties from the acts and omissions of the testing entity.
- (e) The amount of surveying or testing, the cost, and the types of reports required must be approved by the Director prior to the Consultant actually ordering any such work to be accomplished. Such approvals by the City shall be for purposes of compensation

only and shall not relieve the Consultant of any responsibility for determining the scope and amount of surveying and testing necessary for the design of the project.

- (f) It is understood and agreed that this Agreement does not include the investigation, sampling, testing, planning, abatement design, and remediation management of asbestos or other hazardous waste material. Should the presence of asbestos or other hazardous waste material be known to exist on a specific project or if the Consultant shall observe the presence of asbestos or hazardous waste material on any project site during its performance of services under this Agreement, the Consultant shall notify the City in writing immediately.
- (g) Payment to the Consultant for such surveying, testing, and abatement shall not exceed the surveying and testing budget set forth in the project specific proposal for each project.

**2.10 Compliance with M/WBE Requirements.**

- (a) This Agreement is subject to Article III, Divisions 1 and 3 of Chapter 28, Denver Revised Municipal Code (“D.R.M.C.”), designated as §§ 28-31 to 28-40 and 28-51 to 28-90 (the “MWBE Ordinance”) and any Rules or Regulations promulgated pursuant thereto. The contract goal for MWBE participation established for this Agreement by the City’s Division of Small Business Opportunity (“DSBO”) is 15%.
- (b) Under § 28-68 D.R.M.C., the Consultant has an ongoing, affirmative obligation to maintain for the duration of this Agreement, at a minimum, compliance with its originally achieved level of MWBE participation upon which this Agreement was awarded, unless the City initiates a material alteration to the scope of work affecting MWBEs performing on this Agreement through contract amendment, or other contract modifications, or as otherwise described in § 28-70 D.R.M.C. The Consultant acknowledges that:
  - (1) If directed by DSBO, the Consultant is required to develop and comply with a Utilization Plan in accordance with § 28-63 D.R.M.C. Along with the Utilization Plan requirements, the Consultant must establish and maintain records and submit regular reports, as directed by DSBO, which will allow the City to assess progress in complying with the Utilization Plan and achieving the MWBE participation goal. The Utilization Plan is subject to modification by DSBO.
  - (2) If contract modifications are issued under the Agreement, the Consultant shall have a continuing obligation to immediately inform DSBO in writing of any agreed upon increase or decrease in the scope of work of such contract, upon any of the bases discussed in § 28-70, D.R.M.C., regardless of whether such increase or decrease in scope of work has been reduced to writing at the time of notification.
  - (3) If amendments or other contract modifications are issued under the contract that include an increase in the scope of work of this Agreement, which increases the dollar value of the contract, whether or not such change is within the scope of work designated for performance by an MWBE at the time of contract award, such amendments or modifications shall be immediately submitted to DSBO for notification purposes.
  - (4) Those amendments or other modifications that involve a changed scope of work that cannot be performed by existing project subconsultants are subject to the original goal. The Consultant shall satisfy the goal with respect to such changed

scope of work by soliciting new MWBEs in accordance with § 28-70, D.R.M.C. The Consultant must also satisfy the requirements under §§ 28-64 and 28-73, D.R.M.C., with regard to changes in scope or participation. The Consultant shall supply to the DSBO Director all required documentation described in §§ 28-64, 25-70, and 28-73 D.R.M.C., with respect to the modified dollar value or work under the contract.

- (5) For contracts of one million dollars (\$1,000,000.00) and over, the Consultant is required to comply with § 28-72, D.R.M.C., as applicable, regarding prompt payment to MWBEs. Payment to MWBE subcontractors shall be made by no later than thirty-five (35) days after receipt of an MWBE subcontractor invoice.
- (6) Failure to comply with these provisions may subject the Consultant to sanctions set forth in § 28-76 of the MWBE Ordinance. Should any questions arise regarding DSBO requirements, the Consultant should consult the MWBE Ordinance or may contact the Project's designated DSBO representative at (720) 913-1999.

### **SECTION 3 – COMPENSATION, PAYMENT, AND FUNDING**

The City shall compensate the Consultant for its service performed and expenses incurred under this Agreement as follows.

**3.01 Fee for basic services.** The City agrees to pay the Consultant, as full compensation for its basic Services rendered hereunder, a fee not to exceed **TWO MILLION FOUR HUNDRED TWO THOUSAND EIGHT HUNDRED THIRTEEN DOLLARS AND ZERO CENTS (\$2,402,813.00)**, in accordance with the billing rates and fee proposed in **Exhibits A and B**. The amounts budgeted for phases may be increased or decreased, and the amounts allocated for Services and expenses adjusted, upon written approval of the Director or his/her designee, and subject to the Maximum Contract Amount stated in this Section 3.

**3.02 Reimbursable Expenses.** Except for those reimbursable expenses specifically identified in **Exhibit B**, or approved in writing by the City as reasonably related to or necessary for the Consultant's Services, all other expenses shall be included in the Consultant's fee and will not be reimbursed hereunder. The maximum amount to be paid for all reimbursable expenses under this Agreement is **TWELVE THOUSAND SEVENTY-EIGHT DOLLARS AND ZERO CENTS (\$12,078.00)** unless an additional amount is approved by the Director or his/her designee in writing, subject to the Maximum Contract Amount stated herein. Unless this Agreement is amended in writing according to its terms to increase the Maximum Contract Amount, any increase in the maximum amount of reimbursable expenses will reduce the Consultant's maximum fee amount accordingly.

**3.03 Additional Services.** If pre-approved additional services are performed by the Consultant, the City agrees to pay the Consultant for such additional services in accordance with Section 2.08. The maximum amount to be paid by the City for all additional services under this contract is **EIGHTY-FIVE THOUSAND DOLLARS AND ZERO CENTS (\$85,000.00)**.

**3.04 Invoicing and Payment.** The City will make monthly progress payments for all Services performed under this Agreement based upon the Consultant's monthly invoices. Such invoices shall be in a form acceptable to the City and shall include detail of the time worked by the Consultant's own personnel, billings from subcontractors, and all other information necessary to assess the Consultant's progress. Invoices shall be accompanied by documentation of expenses for which reimbursement is sought, and all other supporting documentation required by the City. The City's Prompt Payment Ordinance, §§ 20-107 to 20-118, D.R.M.C., applies to invoicing and payment under this Agreement. Final Payment to the Consultant shall not be made until after the Project is accepted, and all certificates of completion, record drawings and reproducible copies are delivered to the City, and the Agreement is otherwise fully performed



by the Consultant. The City may, at the discretion of the Director, withhold reasonable amounts from billing and the entirety of the final payment until all such requirements are performed to the satisfaction of the Director. However, no deductions shall be made from the Consultant's compensation on account of penalty, liquidated damages or other sums withheld from payments to contractor(s). For contracts of one million dollars (\$1,000,000.00) and over, the Consultant is required to comply with the Consultant Prompt Payment provisions under § 28-72, D.R.M.C., with regard to payments by the Consultant to MWBE subcontractors. The Consultant shall make payment by no later than thirty-five (35) days from receipt by the Consultant of the subcontractor's invoice.

### **3.05 Maximum Contract Amount.**

- (a) Notwithstanding any other provision of the Agreement, the City's maximum payment obligation will not exceed **TWO MILLION FOUR HUNDRED NINETY-NINE THOUSAND EIGHT HUNDRED NINETY-ONE DOLLARS AND ZERO CENTS (\$2,499,891.00)** (the "Maximum Contract Amount"). The City is not obligated to execute an Agreement or any amendments for any further services, including any services performed by Consultant beyond that specifically described in **Exhibit A**. Any services performed beyond those set forth therein are performed at Consultant's risk and without authorization under the Agreement.
- (b) The City's payment obligation, whether direct or contingent, extends only to funds appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement. The City does not by the Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years, and the Agreement does not and is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.
- (c) The Consultant understands and agrees that the provision of any services by the Consultant, which would cause the total amount payable to the Consultant to exceed the amount of previously appropriated and encumbered funds, is strictly prohibited. In the event the continuation of Services by the Consultant would cause the amount payable to the Consultant to exceed such amounts, the Consultant agrees to give to the Project Manager at least two (2) weeks' notice of the exhaustion of available funds. In the event additional funds are not made available within such two (2) week period, the Consultant agrees to stop providing Services until such time as additional funds are appropriated and encumbered for the purposes of this Agreement, and amounts which remain available for payment to the Consultant

## **SECTION 4 – TERM AND TERMINATION**

### **4.01 Term.**

The Agreement will commence upon on the date that this agreement is mutually executed by the Parties, and will expire three (3) years from the date of such mutual execution. Subject to the Executive Director's prior written authorization, the Consultant shall complete any Services in progress as of the expiration date and the term of the Agreement will extend until the Services are completed or earlier terminated by the Director.

### **4.02 Termination.**

- (a) Nothing herein shall be construed as giving the Consultant the right to perform the Services contemplated under this Agreement beyond the time when its Services become unsatisfactory to the Director.

- (b) The Director may terminate this Agreement for cause at any time if the Consultant's Services become unsatisfactory, in the sole discretion of the Director. The City shall have the sole discretion to permit the Consultant to remedy the cause of a contemplated termination for cause without waiving the City's right to terminate the Agreement.
- (c) In the event of a termination for cause, or in the event the Consultant becomes unable to serve under this Agreement, the City may take over work to be done under this Agreement and prosecute the work to the completion by contract or otherwise, and the Consultant shall be liable to City for all reasonable cost in excess of what the City would have paid the Consultant had there been no termination for cause.
- (d) The City may, for convenience, cancel and terminate this Agreement by giving not less than thirty (30) days' prior written notice to the Consultant, which notice shall state the date of cancellation and termination.
- (e) If the Consultant's services are terminated, postponed or revised, or if the Consultant shall be discharged before all the work and Services contemplated have been completed, or if the project is, for any reason, stopped or discontinued, the Consultant shall be paid only for the portion of work or Services that has been satisfactorily completed at the time of such dismissal, termination, cancellation, postponement, revision or stoppage.
- (f) All drawings, specifications, and other documents relating to the design or administration of Services completed or partially completed shall be delivered by the Consultant to the City in the event of any dismissal, termination, cancellation, postponement, revision or stoppage.
- (g) In the event of any dismissal, termination, cancellation, postponement, revision or stoppage, the Consultant shall cooperate in all respects with the City. Such cooperation shall include, but not be limited to, delivery of drawings, specifications, and other documents referred to herein, and assisting the City during a transition to another Consultant, if applicable.

## **SECTION 5 – GENERAL PROVISIONS**

### **5.01 City's Responsibilities.**

- (a) The City shall provide available information regarding its requirements for each phase of the Project, including related budgetary information, and shall cooperate fully with the Consultant at all times. However, the City does not guarantee the accuracy of any such information and assumes no liability therefore. The Consultant shall not assume liability for relying upon inaccurate information provided to it by the City, except to the extent that the Consultant reasonably should have determined that such information was inaccurate and taken reasonable steps to promptly remedy or correct such inaccurate information. The Consultant shall notify City in writing of any information or requirements provided by the City which the Consultant believes to be inaccurate or inappropriate to the design or construction of the Project.
- (b) If the City observes or otherwise becomes aware of any fault or defect in the Project or non-conformance with Construction Documents, it shall give prompt notice thereof to Consultant.

### **5.02 Ownership of Documents.**

- (a) The City shall have title and all intellectual and other property rights, in and to all phased and final design documents, and all data used in the development of the same, including the results of any tests, surveys or inspections at the Project site, and all photographs, drawings, drafts, studies, estimates, reports, models, notes and any other materials or work products, whether in electronic or hard copy format, created by the Consultant pursuant to this Agreement, in preliminary and final forms and on any media whatsoever (collectively, the "Documents"), whether the Project for which the Documents were created is completed or not. The Consultant shall identify and disclose, as requested, all such Documents to the City.
- (b) To the extent permitted by the U.S. Copyright Act, 17 USC §§ 101, *et seq.*, as the same may be amended from time to time, the Documents are a "work made for hire," and all ownership of copyright in the Documents shall vest in the City at the time the Documents are created. To the extent that the Documents are not a "work made for hire," the Consultant hereby assigns and transfers all right, title and interest in and to the Documents to the City, as of the time of the creation of the Documents, including the right to secure copyright, patent, trademark, and other intellectual property rights throughout the world and to have and to hold such copyright, patent, trademark, and other intellectual property rights in perpetuity.
- (c) The Consultant shall provide (and cause its employees and subcontractors to provide) all assistance reasonably requested in securing for the City's benefit any patent, copyright, trademark, service mark, license, right or other evidence of ownership of such Documents, and shall provide full information regarding the Documents and execute all appropriate documentation in applying for or otherwise registering, in the City's name, all rights to such Documents.
- (d) The Consultant agrees to allow the City to review any of the procedures used in performing the work and services hereunder, and to make available for inspection the field notes and other documents used in the preparation for and performance of any of the services performed hereunder.
- (e) The Consultant shall be permitted to retain reproducible copies of all of the Documents for the information and reference, and the originals of all of the Documents, including all CAD disks, shall be delivered to the City promptly upon completion thereof, or if authorized by the City's Project Manager, upon termination or expiration of this Agreement.

**5.03 Taxes and Licenses.** The Consultant shall promptly pay, when they are due, all taxes, excises, license fees and permit fees of whatever nature applicable to the work and services which it performs under this Agreement, and shall take out and keep current all required municipal, county, State or Federal licenses required to perform its services under this Agreement. The Consultant shall furnish the Director, upon request, duplicate receipts or other satisfactory evidence showing or certifying to the proper payment of all required licenses and/or registrations and taxes. The Consultant shall promptly pay all owed bills, debts and obligations it incurs performing work under this Agreement and shall not allow any lien, verified claim, mortgage, judgment or execution to be filed against land, facilities or improvements owned or beneficially owned by the City as a result of such bills, debts or obligations.

**5.04 Consultant's Records.** Records of the Consultant's direct personnel, consultant and reimbursable expenses pertaining to this Project and records of accounts between the City and the Consultant shall be kept on a generally recognized accounting basis. The Consultant agrees that any duly authorized representative of the City, including the City Auditor, shall, until the expiration of three (3) years

after the final payment under this Agreement, have access to and the right to examine any books, documents, papers and records of the Consultant, involving transactions related to this Agreement.

**5.05 Assignment and Subcontracting.** The City is not obligated or liable under this Agreement to any party other than the Consultant named herein. The Consultant understands and agrees that it shall not assign or subcontract with respect to any of its rights, benefits, obligations or duties under this Agreement except upon prior written consent and approval of the City to such assignment or subcontracting. Any attempt by the Consultant to assign or subcontract its rights hereunder without such prior written consent of the City shall, at the option of the City, automatically terminate this Agreement and all rights of the Consultant hereunder. Such consent may be granted or denied at the sole and absolute discretion of the City. In the event any such subcontracting shall occur, with the City's approval, such action shall not be construed to create any contractual relationship between the City and such subcontractor, and the Consultant named herein shall in any and all events be and remain responsible to the City according to the terms of this Agreement.

**5.06 No Discrimination in Employment.** In connection with the performance of work under this contract, the Consultant agrees not to refuse to hire, nor to discharge, promote or demote, nor to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender identity or gender expression, marital status, or physical or mental disability; and further agrees to insert the foregoing provision in all subcontracts hereunder.

**5.07 Insurance.**

- (a) **General Conditions:** The Consultant agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. The Consultant shall keep the required insurance coverage in force at all times during the term of the Agreement, or any extension thereof, during any warranty period. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as A-VIII" or better. Each policy shall require notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, the Consultant shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. The Consultant shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Consultant. The Consultant shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.
- (b) **Proof of Insurance:** The Consultant may not commence services or work relating to the Agreement prior to placement of coverages required under this Agreement. The Consultant certifies that the certificate of insurance attached as **Exhibit C**, an ACORD certificate or alternative approved in advance by the City's Risk Management Office, complies with all insurance requirements of this Agreement. The City requests that the City's contract

number be referenced on the Certificate. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of the Consultant's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.

- (c) **Additional Insureds:** For Commercial General Liability, Auto Liability and Excess Liability/Umbrella (if required), the Consultant's and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.
- (d) **Waiver of Subrogation:** For all coverages required under this Agreement, the Consultant's insurer shall waive subrogation rights against the City.
- (e) **Subcontractors and Subconsultants:** All subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of the Consultant. The Consultant shall include all such subconsultants as additional insured under its policies (with the exception of Workers' Compensation) or shall ensure that all such subcontractors and subconsultants maintain the required coverages. The Consultant agrees to provide proof of insurance for all such subcontractors and subconsultants upon request by the City.
- (f) **Workers' Compensation/Employer's Liability Insurance:** The Consultant shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. The Consultant expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Consultant's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement, and that any such rejections previously effected, have been revoked as of the date the Consultant executes this Agreement.
- (g) **Commercial General Liability:** The Consultant shall maintain a Commercial General Liability insurance policy with limits of \$1,000,000 for each occurrence, \$1,000,000 for each personal and advertising injury claim, \$2,000,000 products and completed operations aggregate, and \$2,000,000 policy aggregate.
- (h) **Automobile Liability:** The Consultant shall maintain Automobile Liability with limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.
- (i) **Professional Liability (Errors & Omissions):** The Consultant shall maintain limits of \$1,000,000 per claim and \$1,000,000 policy aggregate limit.
- (j) **Additional Provisions:**
  - (a) For Commercial General Liability, the policy must provide the following:
    - (i) That this Agreement is an Insured Contract under the policy;
    - (ii) Defense costs are outside the limits of liability;

- (iii) A severability of interests or separation of insureds provision (no insured vs. insured exclusion); and
  - (iv) A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.
- (b) For claims-made coverage:
- (i) The retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier.
- (c) The Consultant shall advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Consultant will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

**5.08 Defense & Indemnification.**

- (a) To the fullest extent permitted by law, the Consultant agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or related to the work performed under this Agreement that are attributable to the negligence or fault of the Consultant or the Consultant's agents, representatives, subcontractors, or suppliers ("Claims"). This indemnity shall be interpreted in the broadest possible manner consistent with the applicable law to indemnify the City.
- (b) The Consultant's obligation to defend and indemnify may be determined after the Consultant's liability or fault has been determined by adjudication, alternative dispute resolution, or otherwise resolved by mutual agreement between the parties. The Consultant's duty to defend and indemnify the City shall relate back to the time written notice of the Claim is first provided to the City regardless of whether suit has been filed and even if the Consultant is not named as a Defendant.
- (c) The Consultant will defend any and all Claims which may be brought or threatened against the City and will pay on behalf of the City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of the City shall be in addition to any other legal remedies available to the City and shall not be considered the City's exclusive remedy.
- (d) Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Consultant under the terms of this indemnification obligation. The Consultant shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.
- (e) This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

**5.09 Colorado Governmental Immunity Act.** The Parties hereto understand and agree that the City is relying upon, and has not waived, the monetary limitations (presently \$350,000 per person, \$990,000 per occurrence, subject to adjustment pursuant to C.R.S. § 24-10-114(1)(b)) and all other rights,

immunities and protection provided by the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101, *et seq.*

**5.10 Contract Documents; Order of Precedence.** This Agreement consists of Sections 1 through 5, which precede the signature page, and the following attachment, which is incorporated herein and made a part hereof by reference:

Exhibit A	Scope of Work/Reimbursables
Exhibit B	Key Personnel/Fee/Classification/Hourly Rates
Exhibit C	ACORD Certificate of Insurance

In the event of an irreconcilable conflict between a provision of Sections 1 through 5 and the listed attachments, or between provisions of any attachments, such that it is impossible to give effect to both, the order of precedence to determine which provision shall control to resolve such conflict, is as follows:

- Sections 1 through 5
- Exhibit A
- Exhibit B
- Exhibit C

**5.11 When Rights and Remedies Not Waived.** In no event shall any payment by the City constitute a waiver of any breach of covenant or default which may then exist on the part of the Consultant. No assent, expressed or implied, to any breach of the Agreement shall be held to be a waiver of any later or other breach.

**5.12 Governing Law; Venue.** This Agreement shall be construed and enforced in accordance with the laws of the State of Colorado, the City's Charter and Code, and the ordinances, regulations and Executive Orders enacted or promulgated pursuant to the City's Charter and the Code, including any amendments. The City's Charter and the Code, as the same may be amended from time to time, are hereby expressly incorporated into this Agreement. Venue for any action arising hereunder shall be in the court exercising appropriate jurisdiction located within the City and County of Denver, Colorado.

**5.13 Conflict of Interest.**

- (a) The Parties agree that no employee of the City shall have any personal or beneficial interest in the Services or property described herein, and the Consultant further agrees not to hire or contract for Services with any employee or officer of the City which would be in violation of D.R.M.C., Chapter 2, Article IV, the City's Code of Ethics, or Denver City Charter provisions 1.2.9 and 1.2.12.
- (b) The Consultant agrees that it will not engage in any transaction, activity or conduct that would result in a conflict of interest under this Agreement. The Consultant represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of the Consultant by placing the Consultant's own interests, or the interests of any party with whom the Consultant has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, shall determine the existence of a conflict of interest and may terminate this Agreement in the event such a conflict exists after it has given the Consultant written notice which describes the conflict. The Consultant shall have thirty (30) days after the notice is received to eliminate or cure the conflict of interest in a manner that is acceptable to the City.

**5.14 No Third-Party Beneficiaries.** Enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the City and the Consultant, and nothing contained in this Agreement shall give or allow any claim or right of action by any other or third person under this Agreement. It is the express intention of the Parties that any person other than the City or the Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

**5.15 Time is of the Essence.** The Parties agree that in the performance of the terms, conditions and requirements of this Agreement by the Consultant, time is of the essence.

**5.16 Taxes, Charges and Penalties.** The City shall not be liable for the payment of taxes, late charges, or penalties of any nature except as provided in the City's Prompt Payment Ordinance, §§ 20-107 to 20-118, D.R.M.C.

**5.17 Proprietary or Confidential Information.**

(a) City Information: The Consultant acknowledges and accepts that, in performance of the Services under the terms of this Agreement, the Consultant may have access to Proprietary Data, as defined below, or confidential information which may be owned or controlled by the City and that the disclosure of such data or information may be damaging to the City or third parties. As such, the Consultant agrees that all Proprietary Data or confidential information provided or otherwise disclosed by the City to the Consultant be held in confidence and used only in the performance of its obligations under this Agreement. The Consultant shall exercise the same standard of care to protect such Proprietary Data or confidential information as a reasonably prudent Consultant would do to protect its own proprietary or confidential data. "Proprietary Data" shall mean geographic materials or Geographic Information Systems ("GIS") data owned by the City and County of Denver including but not limited to maps, computer programs, aerial photography, methodologies, software, diagnostics and documents; or any other materials or information which may be designated or marked "Proprietary" or "Confidential" and provided to or made available to the Consultant by the City. Such Proprietary Data may be in hardcopy, printed, digital or electronic format.

(b) Consultant's Information: The Parties understand that all the material provided or produced under this Agreement may be subject to the Colorado Open Records Act, C.R.S. §§ 24-72-201, *et seq.*, and that in the event of a request to the City for disclosure of such information, the City shall advise the Consultant of such request in order to give the Consultant the opportunity to object to the disclosure of any of its proprietary or confidential material. In the event of the filing of a lawsuit to compel such disclosure, the City will tender all such material to the court for judicial determination of the issue of disclosure and the Consultant agrees that it shall be responsible to intervene in such lawsuit to protect and assert its claims of privilege and against disclosure of such material or waive the same. The Consultant further agrees to defend, indemnify and save and hold harmless the City, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of the Consultant's intervention to protect and assert its claim of privilege against disclosure under this Section 5.17(b) including, but not limited to, prompt reimbursement to the City of all reasonable attorney fees, costs and damages that the City may incur directly or may be ordered to pay by such court.

**5.18 Use, Possession or Sale of Alcohol or Drugs.** The Consultant, its officers, agents, and employees shall cooperate and comply with the provisions of Executive Order 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs, as may be amended. Violation of these



provisions or refusal to cooperate with implementation of the policy can result in the City's barring the Consultant from City facilities or participating in City operations.

**5.19 No Employment of Illegal Aliens to Perform Work Under the Agreement.**

- (a) This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments thereto (the "Certification Ordinance").
- (b) The Consultant certifies that:
  - (1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.
  - (2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.
- (c) The Consultant also agrees and represents that:
  - (1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
  - (2) It shall not enter into a contract with a subconsultant or subcontractor that fails to certify to the Consultant that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.
  - (3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in the E-Verify Program.
  - (4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and that otherwise requires the Consultant to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.
  - (5) If it obtains actual knowledge that a subconsultant or subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such subconsultant or subcontractor and the City within three (3) days. The Consultant will also then terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or subcontractor does not stop employing or contracting with the illegal alien, unless during such three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with an illegal alien.
  - (6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S, or the City Auditor, under authority of D.R.M.C. § 20-90.3.
- (d) The Consultant is liable for any violations as provided in the Certification Ordinance. If Consultant violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the City. Any such termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying Consultant from submitting bids or proposals for future contracts with the City.

**5.20 Disputes.** All disputes between the City and Consultant regarding this Agreement shall be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. § 56-106(b), *et seq.*, provided, however, that such administrative hearing requirements shall not limit the Consultant's right to seek review of such administrative hearing determination as allowed by applicable law. For the purposes of that procedure, the City official rendering a final determination shall be the Director.

**5.21 Waiver of C.R.S. §§ 13-20-802, et seq.** The Consultant specifically waives all the provisions of Chapter 8 of Article 20 of Title 13, Colorado Revised Statutes (also designated C.R.S. §§ 13-20-802, *et seq.*) relating to design defects in the Project under this Agreement.

**5.22 Survival of Certain Contract Provisions.** The Parties understand and agree that all terms and conditions of this Agreement, together with the exhibits and attachments hereto, which, by reasonable implication, contemplate continued performance or compliance beyond the termination of this Agreement, (by expiration of the term or otherwise), shall survive such termination and shall continue to be enforceable as provided herein. Without limiting the generality of the foregoing, the Consultant's obligations for the provision of insurance and to indemnify the City shall survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period.

**5.23 Advertising and Public Disclosure.** The Consultant shall not include any reference to this Agreement or to Services performed pursuant to this Agreement in any of its advertising or public relations materials without first obtaining the written approval of the Director, which will not be unreasonably withheld. Any oral presentation or written materials related to Services performed under this Agreement shall include only Services that have been accepted by the City. The Director shall be notified in advance of the date and time of any such presentation. Nothing in this provision shall preclude the transmittal of any information to officials of the City, including without limitation the Mayor, the Director, City Council or the Auditor.

**5.24 Legal Authority.** The Consultant represents and warrants that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into this Agreement. Each person signing and executing this Agreement on behalf of Consultant represents and warrants that he/she has been fully authorized by Consultant to execute this Agreement on behalf of Consultant and to validly and legally bind Consultant to all the terms, performances and provisions of this Agreement. The City shall have the right, in its sole discretion, to either temporarily suspend or permanently terminate this Agreement if there is a dispute as to the legal authority of either Consultant or the person signing the Agreement on behalf of the Consultant to enter into this Agreement.

**5.25 Notices.** Notices, bills, invoices or reports required by this Agreement shall be sufficiently delivered if sent in the United States mail, postage prepaid, to the Parties at the following addresses:

to the City: Executive Director of Department of Transportation  
and Infrastructure  
201 West Colfax Avenue, Department 608  
Denver, Colorado 80202

to the Consultant: Wilson & Company, Inc., Engineers & Architects  
4401 Masthead Street NE, Suite 150  
Albuquerque, New Mexico 87109

The addresses may be changed by the Parties by written notice.

**5.26 Severability.** It is understood and agreed by the Parties hereto that, if any part, term, or provision of this Agreement, except for the provisions of this Agreement requiring prior appropriation and limiting the total amount to be paid by the City, is by the courts held to be illegal or in conflict with any law of the State of Colorado, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term or provision held to be invalid.

**5.27 Agreement as Complete Integration-Amendments.** This Agreement is intended as the complete integration of all understandings between the Parties. No prior or contemporaneous addition, deletion or other amendment shall have any force or effect, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion or other amendment hereto shall have any force or effect unless embodied in a written amendatory or other agreement executed by the Parties and signed by the signatories to the original Agreement. This Agreement and any amendments shall be binding upon the parties, their successors and assigns.

**5.28 Electronic Signatures and Electronic Records.** The Consultant consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

*Remainder of Page Intentionally Left Blank*

*Signature Pages and Exhibits Follow*

**Contract Control Number:**  
**Contractor Name:**

DOTI-202056933-00  
WILSON & COMPANY, INC., ENGINEERS & ARCHITECTS

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at  
Denver, Colorado as of:

**SEAL**

**CITY AND COUNTY OF DENVER:**

**ATTEST:**

By:

\_\_\_\_\_

\_\_\_\_\_

**APPROVED AS TO FORM:**

**REGISTERED AND COUNTERSIGNED:**

Attorney for the City and County of Denver

By:

By:

\_\_\_\_\_

\_\_\_\_\_

By:

\_\_\_\_\_

**Contract Control Number:**  
**Contractor Name:**

DOTI-202056933-00  
WILSON & COMPANY, INC., ENGINEERS & ARCHITECTS

DocuSigned by:  
*Steve Salazar*  
By: 0B68D838A59B4E9...

Name: Steve Salazar  
(please print)

Title: Vice President  
(please print)

ATTEST: [if required]

By: \_\_\_\_\_

Name: \_\_\_\_\_  
(please print)

Title: \_\_\_\_\_  
(please print)

**Exhibit A**  
**Scope of Work**



1675 Broadway, Suite 200  
Denver, CO 80202  
303 297 2976 p  
303 297 2693 f  
wilsonco.com

December 15, 2020

Subject: 48<sup>th</sup> Avenue Storm - Globeville – Scope of Work

The 48<sup>th</sup> Avenue Storm – Globeville project corridor is anticipated to extend from the northwest side of the BNSF tracks at Lincoln Street to the South Platte River. This corridor is approximately 3,000 linear feet and includes two storm crossings of the BNSF tracks. The project will include preliminary design (30% & 60%) for the entire length of the corridor, but will only prepare the final design for approximately 800 linear feet (90% and 100%) from the west side of Washington St. to the South Platte River. The conceptual approach for this project is to create a greenway corridor that utilizes the storm sewer system as a catalyst for trail connectivity from the South Platte River trail to Argo Park and ultimately Platte Farm Open Space. The components of this scope of work are intended to support the design and implementation of this storm sewer system and amenity corridor to improve the quality of life for the Globeville community.

Scope of Work:

## **1 Project Management, Meetings, & QA/QC Plan**

- 1.1 Kick-off Meeting – The full design team will be included at the kick-off meeting. The Consultant PM will work with the CCD PM to generate an agenda that includes the following items at a minimum.
  - 1.1.1 Project Overview
  - 1.1.2 Brief Scope Discussion
  - 1.1.3 Introduction of Management and Design Team
  - 1.1.4 Schedule
- 1.2 Bi-Weekly Project Management Team (PMT) status meetings – Planned for one hour virtual or in- person meetings for an 18 month duration. Full project duration is anticipated to be 22 months with anticipated NTP by February 1, 2021 and advertisement of Phase 1 by December 1, 2022. Consultant will work with the CCD Project Manager to prepare an agenda and distribute prior to the meetings including schedule, utility relocation, and other updates of the project status. Consultant will prepare minutes within two business days following each meeting. Assume two hours to prepare agenda and minutes for each meeting. Planned for Consultant PM plus one other Consultant staff to attend each meeting. Sub consultants will be included in these as needed depending on the stage of the work.
- 1.3 Monthly Progress Reports and Invoices – Consultant will prepare a progress report to accompany the invoice for each billing period. Assume one hour to prepare progress report and invoice per billing period (4-week billing period). The Consultant will create and update a schedule based on the project scope requirements and milestones. It is assumed this will require 2 hours initially and 30 minutes every period to maintain.
- 1.4 Consultant Team Coordination meetings – Meetings to be held approximately bi-weekly and will include all consultant team consultants needed depending on stage of project. Assume two-hour meeting with Consultant design team bi-weekly with additional time for meeting prep and documentation.

- 1.5 Project Management – Project duties for contracting and management of the prime and sub-consultant contracts.
- 1.6 Quality Assurance/Quality Control Plan – Consultant shall prepare and submit a Quality Management Plan (QM Plan) for ensuring deliverables are void of technical and format related errors. Assume adapting consultant’s standard QA/QC plan for use on this project. This scope item includes the effort to put the plan together. The QM Plan shall cover all quality assurance control activities, which will be implemented for the all work on the project. The plan should include:
  - 1.6.1 Project Description and Goals
  - 1.6.2 Scope of Work
  - 1.6.3 Project Team and Organizational Chart
  - 1.6.4 Names and responsibilities of Project Manager, Quality Assurance Manager, and major discipline managers
  - 1.6.5 Document control system description
  - 1.6.6 Description of plan checking process, AutoCAD and computer file maintenance
  - 1.6.7 Data management plan
  - 1.6.8 Auditing frequency
- 1.7 Adjacent Project Coordination – there are several other City projects on-going at various stages of design and construction in the area. Consultant shall coordinate as necessary with the other project teams as needed. Effort is assumed to be 8 hours each month for the duration of the project.

## **2 Alternatives Analysis (10%)**

The Alternatives Analysis phase will include evaluation of the proposed alternative and two (2) additional alternative alignment modifications to determine the most feasible alignment to carry forward in design. The three alternatives will be evaluated for cost, impacts, functionality, and other considerations to be presented on a matrix for the City to utilize in selection of the preferred alternative. The evaluation and hydraulic modeling of all three alternatives will be presented in an Alternatives Analysis report to document the evaluation process.

- 2.1 Public Meeting – As part of the alternatives analysis the Consultant will provide a public meeting in an open house format to allow the community to provide feedback on the alternatives. Public feedback will be one of the components that is utilized to develop a decision matrix for the alternatives.

## **3 Preliminary Design (30%) (Task components coincide with 60% Preliminary Design)**

### **4 Preliminary Design (60%)**

The Preliminary Design Phase includes the entire length of the project corridor from the northwest side of the BNSF tracks at Lincoln St. extending east through Argo Park, crossing the BNSF tracks and Washington St. to the South Platte River. Full roadway reconstruction of 48<sup>th</sup> Ave. from east of the future Washington St. to the landing point of the Bettie Cram Dr. Bridge is included in this scope. Consultant will coordinate with the Washington St. and Bettie Cram Dr. Bridge projects to determine design information corresponding to reconstruction of 48<sup>th</sup> Ave. Consultant will provide typical cross section, grading, and drainage for this segment of 48<sup>th</sup> Ave. Consultant will also provide street layout and design for the extension of Elgin Pl. east of Washington St. to Emerson St.

- 4.1 Survey (Wilson) - Design level topographic and boundary survey will be conducted along the selected stormwater alignment extending from the BNSF tracks at Lincoln St. to the South Platte River.



- 4.1.1 Control – Horizontal and vertical control in the CCD system will be established along the project utilizing existing CCD range points and survey monumentation for the City datum. A Survey Control Sheet will be developed for the plan set.
  - 4.1.2 ROW delineation – Consultant will research the existing property deeds and adjacent street right-of-way deeds and ordinances to determine their widths and locations. Subdivision plats and parcels deeds will be pulled and referenced to help determine the location of right-of-ways descriptions. Once research has begun and consultant has developed a preliminary model of the right-of-ways and adjacent parcels, consultant will begin the field survey to locate Range Points and property corners that will anchor the right-of-way and boundary lines to the appropriate position on the ground. A CAD file identifying the existing property, adjacent public right-of-way, and applicable easements will be delivered as the ROW Base Map. Consultant shall perform services for initial property research through O&E Reports and BNSF Title Research. Full property acquisition services is anticipated to be included in a supplemental contract. See H.C. Peck’s attached scope for additional detail.
  - 4.1.3 Topographic and planimetric features – Features and structures will be surveyed and mapped throughout the survey limits. Using a UAV, consultant will collect high-definition aerial imagery along with high density aerial LiDAR throughout the project limits. This high-resolution imagery and 3d point clouds will enable us to define most of these surface features including a dense and accurate topography of the project corridor. Surface features including curb and gutter, sidewalks, curb ramps, driveways, cross pans, trees, etc. will be collected through supplemental ground survey.
  - 4.1.4 Storm and sanitary sewer – Field surveys will be conducted to identify the size, type and location of the storm and sanitary sewer systems in the project area. Current Denver storm and sanitary maps will be referenced to help locate and identify these items. The structures rim elevations and pipes flowlines will be measured.
  - 4.1.5 Utilities – Utilities will be located with paint and flags as part of the SUE work. Once the utilities are marked, we will survey the horizontal locations and they will be included in the topographic survey drawings.
- 4.2 Subsurface Utility Engineering (SUE)/Utility Coordination – Consultant is required to perform SUE in general conformance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-02 (Standard Guidelines for the Collection and Depiction of Subsurface Utility Data). Design shall work to minimize impacts to all utilities, including Denver Water, as much as practically possible. As Per ASCE Standard 38-02, all utilities will be located and labeled with the appropriate quality level. See Goodbee’s attached scope for additional detail. Items included in this scope include:
- 4.2.1 Meetings with owner and utility company’s
  - 4.2.2 All designations, potholes (assume 60 based on preliminary utility review), and plans.
  - 4.2.3 Utility Research
  - 4.2.4 Coordination with Utility owners.
  - 4.2.5 Coordination of Storstaking exercise at the 60% submittal which includes painting all utilities. Then spend up to 8 hours walking the project with construction personnel.
  - 4.2.6 Prepare Denver Water relocation plans as part of the 60% submittal, if necessary.
  - 4.2.7 Coordinate relocation of utilities after 60% comments have been addressed.
  - 4.2.8 Submit work order requests to utility owners to relocate utilities.
  - 4.2.9 Perform site visits with impacted utility owners.
- 4.3 Environmental Analysis/Permitting – Consultant shall perform an environmental assessment

of the project area including the following. See Pinyon's attached scope for additional detail.

4.3.1 Limited Environmental Sampling and Investigation –

4.3.1.1 Environmental sample collections concurrent with geotechnical investigations (14 borings and five (5) groundwater monitoring wells) and analysis of samples.

- One representative soil sample from each boring to support a waste profile at the Denver – Arapahoe Disposal Site (DADS).
- Collect representative asbestos-containing materials samples, as applicable.
- Collect groundwater samples from five (5) monitoring wells installed by geotechnical drilling. Analyze for parameters required to obtain appropriate dewatering permit from Colorado Department of Health and Environment (CDPHE) Water Quality Division (WQCD).

4.3.1.2 Prepare a Groundwater Remediation Permit application from CDPHE that will be transferred to the contractor once the NTP is issued.

4.3.1.3 Site Investigation Report and Material Management Plan (MMP)

- A limited environmental evaluation of the project area generated by the Denver Department of Public Health and Environment (DDPHE) is available and will be provided by the City. Recommendations in the provided document should be utilized.
- The MMP should provide the necessary information for the contractor as detailed in the Denver Standard Measurement and Payment Specification.

4.3.1.4 Envision gap analysis

- Conduct an Envision gap analysis utilizing a spreadsheet checklist provided by the City in accordance with updates to Executive Order 123.

4.3.1.5 Permitting – Consultant shall prepare necessary documents to obtain the following permits. The City will assist where needed.

- USACE Section 404 & Endangered Species Compliance
- Erosion Control (Denver and State)
- Sewer Use and Drainage Permit/Floodplain (DOTI)
- Temporary Construction and Access Permit (Denver Parks and Recreation)

4.4 Geotechnical Analysis – Consultant shall perform an analysis of the soils in the area including sufficient explorative borings to determine representative subsurface conditions and pavement design recommendations. Drilling shall be coordinated with Environmental Sampling and Investigations and observed by the Tunneling Consultant.

4.4.1 The boring plan includes 14 borings along the proposed along the storm alignment including borings at potential tunneled locations at Lincoln St/BNSF RR and the BNSF RR crossing on the east side of Argo Park for the storm alignment. An additional tunneled crossing will be evaluated at the northwest portion of Argo Park for feasibility of a pedestrian underpass at this location. Five borings will include the installation of groundwater monitoring wells. See Geocal's attached scope for additional detail of geotechnical exploration and Pinyon Environmental's attached scope for additional detail of environmental sampling and testing.

4.4.2 A Geotechnical Baseline Report (GBR) will be prepared for each potential tunneled location. See Lithos Engineering's attached scope for additional details of tunneling evaluation and GBR preparation.

4.4.3 Consultant will provide pavement design for the trail and roadways associated with the project.

4.4.4 Draft Report to be provided at 60% Design Phase.

4.5 Drainage Report – Consultant shall complete drainage analysis per the CCD Storm Drainage Criteria. A drainage report will be include with 60%, 90%, and 100% submittals. A

preliminary drainage study will be provided at the 30% submittal stage. The final drainage report shall include all applicable inlets, manholes, structures, etc. to fully document the hydraulics of the proposed system. Hydraulic analysis will be conducted for the proposed system (including resultant street depths) for the 10-year and 100-year events, per City and County Storm drainage Design and Technical Criteria. The consultant will be provided a detailed 100-year storm event existing conditions EPA SWMM model with updated CUHP 2.0 input hydrographs for the Globeville-Utah Junction basin. The results of the hydraulic analysis will be included in the drainage report. The hydraulic analysis includes the additional items associated with 2D modeling updates:

- 4.5.1 Update the existing conditions FLO-2D model analysis (provided by the City) of the proposed system for the 100-year storm event and the 2 x 100-year storm event after 100% design plans are completed. An updated FLO-2D model and memo that utilized CUHP 2.0 will be provided by the City.
  - 4.5.2 Deliverables include all supporting SWMM and FLO-2D modeling and updated GIS Potential Inundation Area (PIA) data where the resulting flow depth at cell information for all models will be clipped to the desired limit of study boundary and cells with a depth of equal to, or greater than 1 foot and will be merged into a PIA layer. An updated memo will be included to document the changes to the PIA.
- 4.6 Communication Plan, Public Outreach, and Stakeholder Engagement – (NHN/OV/Wilson) Consultant and the City will co-lead the continuing effort in partnership with the DOTI Office of Community and Business Engagement. Community involvement and input has been the single most important component of past efforts, including the GSSS as well as the Washington Street Study and the current Washington St. design efforts and current Washington St. connectivity study. The project team will continue to build on these past efforts to engage the community and stakeholders in the design process to meet the goals of the Globeville community. See attached scope documents from NHN Consulting and OV for additional detail.

Consultant will develop a comprehensive communications and public outreach plan in conjunction with the City that identifies key roles, triggers, and methods of communication specific to the project location. The plan will outline an efficient procedure, timing, and methods to communicate project-relevant information about issues, status, and decisions. The plan should continue to utilize leaders in the neighborhood and bring effective, creative concepts that will enhance and improve the public outreach and communications. All communications should be bilingual as the Globeville neighborhood has a large Spanish speaking population and should have cultural sensitivity and awareness of the community, including alternative outreach efforts inclusive to those with a lack of internet access.

- 4.6.1 Public outreach efforts include:
    - 4.6.1.1 Flyer the affected neighborhood to notify residents of upcoming public meetings and/or introduce the project
    - 4.6.1.2 Find an appropriate location in the neighborhood to hold public meetings, facilitate and organize public meetings.
    - 4.6.1.3 Coordinate the project and public outreach with City Council.
    - 4.6.1.4 Coordinate and assist the Management Office with setting up and maintaining a project website in coordination with the City PM.
    - 4.6.1.5 Outreach and project coordination with applicable registered neighborhood organizations and other potential significant neighborhood locations.
- 4.7 Structural Design – Consultant shall provide structural design support for storm system and corridor components associated with the following:

- 4.7.1 Four (4) tunneling transition structures.
  - 4.7.2 Pedestrian bridge over the railroad.
  - 4.7.3 Retaining walls for pedestrian tunnel under the railroad (30% design only)
  - 4.7.4 Two cast-in-place box culvert bend structures.
  - 4.7.5 Transition structure for levee closure and transition under the Metro sanitary sewer interceptor adjacent to the levee/river. The outfall structure to the South Platte River will include integration into the levee closure system to meet all requirements of 44 CFR 65.10 and will be coordinated with the Globeville Levee design team. The design team will design the outfall configuration in coordination with stakeholders including DOTI, MHFD, Denver Department of Parks and Recreation and the community to meet the vision and goals for the Globeville community.
  - 4.7.6 Basic outlet structures for water quality/detention at Argo Park. Large or complicated water quality or outlet structures may require additional fee.
  - 4.7.7 Miscellaneous structural design support for small walls, small water quality structures, etc. associated with the project greenway corridor.
- 4.8 Railroad Coordination – Consultant shall coordinate with the BNSF Railroad concerning the spur track. A Maintenance Agreement or other agreements (right of entry, License agreements) will be needed for each of the crossing locations. Initial permitting discussions and submittals for two (2) storm crossings and one (1) pedestrian bridge crossing are anticipated for the 60% design phase. One (1) tunneled pedestrian crossing will be carried to 30% design for a future connection to Platte Farm Open Space.
- 4.9 60% Design Plans, Quantities, & Cost Estimate
- 4.9.1 Anticipated Plan Sheets
    - 4.9.1.1 Cover Sheet
    - 4.9.1.2 General Notes/ Quantities
    - 4.9.1.3 General Layout/Survey Control Sheets
    - 4.9.1.4 Subsurface Utility Engineering Plans (SUE)
    - 4.9.1.5 Demolition Plans
    - 4.9.1.6 Typical Sections (Storm, Trail, Road)
    - 4.9.1.7 Roadway/Paving Plan
    - 4.9.1.8 Grading Plans
    - 4.9.1.9 Outfall Plan and Details
    - 4.9.1.10 Signing and Striping Plan
    - 4.9.1.11 Traffic Control Plan
    - 4.9.1.12 Denver Water Relocation Plans
    - 4.9.1.13 South Platte River Trail Detour Plan
    - 4.9.1.14 Erosion Control Plan
    - 4.9.1.15 Structural Details
    - 4.9.1.16 Landscape and Irrigation Plans
  - 4.9.2 60% Quantities & Cost Estimate
- 4.10 Quality Control Review
- 4.10.1 Quality Control – Consultant shall perform a quality control review of the submittals prior to submitting in accordance with the Quality Management Plan
- 4.11 ERA Review Meeting and Comment Resolution
- 4.11.1 Consultant shall participate in the 60% ERA review meeting

- 4.11.2 Consultant shall compile the comments received from ERA review into a comment resolution form and work to resolve/respond to the comments.
- 4.11.3 Consultant shall update the design based on the comments and resolutions.

## **5 Final Design (90%, 100%, Final)**

The final design phase will only include the Phase 1 segment of the project extending from the west side of Washington St. to the Outfall at the South Platte River. The final design tasks are a continuation of the detailed tasks discussed for the 30% and 60% submittals including street construction plans for 48<sup>th</sup> Ave. and Elgin Pl.

- 5.1 Survey - ROW/Easement Legal Descriptions, and Tract Maps – Consultant shall continue efforts to finalize legal descriptions and tract maps for up to 18 properties.
- 5.2 Utility Coordination – Continue Utility Coordination Started in Preliminary Design based on the SUE plans. Minimize impacts to all utilities, including Denver Water, as much as practically possible.
  - 5.2.1 Update Denver Water relocation plans for 90% and 100%. This effort is included in 90%/100% Design Task.
  - 5.2.2 Continue to coordinate relocation of utilities.
  - 5.2.3 Track status of work order requests to utility owners to relocate utilities.
  - 5.2.4 Perform site visits with impacted utility owners as needed.
- 5.3 Environmental Analysis/Permitting – Consultant shall continue environmental assessment and permitting developed in Preliminary Design. See Pinyon Environmental’s attached scope for additional detail.
- 5.4 Geotechnical Analysis – Continue analysis and Finalize Report through Final Design. Findings and recommendations will be presented in a Geotechnical Report signed and sealed by a professional engineer registered in Colorado. See Geocal’s attached scope for additional detail.
- 5.5 Drainage Report– Consultant shall update the Drainage Design Report and include with 90%, and 100% submittals. See ICON’s attached scope for additional detail.
- 5.6 Communication Plan, Public Outreach, and Stakeholder Engagement – (NHN/OV/Wilson) Continue the Communication Plan Developed in Preliminary Design.
- 5.7 Structural Design – Consultant will finalize all structural design elements started in Preliminary Design.
- 5.8 90% Design Plans, Quantities, Cost Estimate, Specifications, and Measurement and Payment
  - 5.8.1 Update previously produced plans and provide additional details as necessary
  - 5.8.2 90% Quantities & Cost Estimate
  - 5.8.3 Specifications and Measurement and Payment items will generally use CCD standards unless required to be different. Consultant will work with the City PM on how to handle special provisions as needed.
- 5.9 Quality Control Review
  - 5.9.1 Quality Control – Consultant shall perform a quality control review of the submittals prior to submitting in accordance with the Quality Management Plan
- 5.10 ERA Review Meeting, Comment Resolution, and Plan Updates
  - 5.10.1 Consultant shall participate in the 90% ERA review meeting

- 5.10.2 Consultant shall compile the comments received from ERA review into a comment resolution form and work to resolve/respond to the comments.
- 5.10.3 Consultant shall update the design based on the comments and resolutions.
  
- 5.11 100% Design Plans, Quantities, Cost Estimate, Specifications, and Measurement and Payment – Update and complete design and resolution of all comments.
  
- 5.12 Quality Control Review
  - 5.12.1 Quality Control – Consultant shall perform a quality control review of the submittals prior to submitting in accordance with the Quality Management Plan
  
- 5.13 ERA Final Comment Resolution and Plan Updates
  - 5.13.1 Consultant shall compile any final comments received from ERA review into a comment resolution form and work to resolve/respond to the comments.
  - 5.13.2 Consultant shall update the design based on the comments and resolutions.
  
- 5.14 100% Final Plans for Bidding – Submit all documents for bidding.
  
- 6 Additional Services
  - 6.1 Additional Services (as necessary) – Consultant shall provide additional services as necessary for unknown design requirements for the project. Authorization for this item shall only be through written pre-approval by the City Project Manager.

Bidding support, construction services, and asbuilt drawings are excluded from the current scope of services.

# 48th Avenue Storm - Globeville

## Fee Estimate 12/15/2020

Task ID	Phase and Task Description	Estimated Work hours											Sub-Rate Total	Wilson & Company Summary	49.3%	0.2%	17.6%	1.9%	4.9%	
		Engineer/ Technical Specialist XXXIII	Principal/ Contract Manager	Engineer/ Technical Specialist XX	QC Manager/Project Manager II	Engineer/ Technical Specialist XVII	Project Manager/ Senior Engineer I	Engineer/ Technical Specialist XIV	Technical Discipline Lead - Structural	Engineer II	Engineer/ Technical Specialist X	Engineer/ Technical Specialist VII								Senior CADD Technician
<b>1 Meetings, Coordination, Project Management &amp; QA/QC Plan</b>																				
1.1	Kick-Off Meeting	4																		
1.2	Bi-Weekly Meetings	36		8		6														
1.3	Monthly Progress Reports & Invoices	36		108		36														
1.4	Consultant Team Coordination Meetings	72		36		150														
1.5	Project Management	36		180		72														
1.6	Quality Assurance/Quality Control Plan	2		8		4														
1.7	Adjacent Project Coordination	10		60		40														
	<b>Sub-Totals</b>	<b>160</b>	<b>8</b>	<b>472</b>	<b>0</b>	<b>236</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Sub-Rate Total</b>	<b>\$44,800</b>	<b>\$2,000</b>	<b>\$89,680</b>	<b>\$0</b>	<b>\$35,400</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>2 Alternatives Analysis (10%)</b>																				
2.1	Survey			4		16														
2.2	SUE/Utility Coordination			24		40														
2.3	Environmental Analysis			8																
2.4	Geotechnical Analysis			24		16														
2.5	Communication Plan, Public Outreach, and Stakeholder Engagement			40		20														
2.6	RR Coordination			8																
2.7	10% Alternatives Analysis & Report	20		200		160														
2.8	10% Quality Control Review	4		24		16														
2.9	10% ERA Review Meeting & Comment Resolution			16		24														
	<b>Sub-Totals</b>	<b>24</b>	<b>44</b>	<b>348</b>	<b>0</b>	<b>332</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Sub-Rate Total</b>	<b>\$6,720</b>	<b>\$11,000</b>	<b>\$66,120</b>	<b>\$0</b>	<b>\$49,800</b>	<b>\$22,080</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>3 Preliminary Design (30%)</b>																				
3.1	Survey - ROW and Tract Maps, O&E Reports			4		16														
3.2	SUE/Utility Coordination			40		60														
3.3	Environmental Analysis/Permitting			8																
3.4	Geotechnical Analysis/Geotechnical Baseline Report			8		8														
3.5	Drainage Report			16		32														
3.6	Communication Plan, Public Outreach, and Stakeholder Engagement			24		24														
3.7	Structural Design			60		90														
3.8	RR Coordination			8																
3.9	30% Design Plans, Quantities, Cost Estimate			80		170														
3.10	30% Quality Control Review	4		24		16														
3.11	30% ERA Review Meeting, Comment Resolution			16		24														
	<b>Sub-Totals</b>	<b>4</b>	<b>44</b>	<b>148</b>	<b>140</b>	<b>440</b>	<b>434</b>	<b>80</b>	<b>190</b>	<b>200</b>	<b>170</b>	<b>200</b>	<b>80</b>	<b>190</b>	<b>200</b>	<b>170</b>	<b>200</b>	<b>80</b>	<b>190</b>	<b>200</b>
	<b>Sub-Rate Total</b>	<b>\$1,120</b>	<b>\$11,000</b>	<b>\$28,120</b>	<b>\$26,600</b>	<b>\$66,000</b>	<b>\$52,080</b>	<b>\$18,400</b>	<b>\$32,300</b>	<b>\$14,000</b>	<b>\$25,500</b>	<b>\$14,000</b>	<b>\$3,970</b>	<b>\$3,970</b>	<b>\$82,269</b>	<b>\$30,000</b>	<b>\$82,269</b>	<b>\$30,000</b>	<b>\$3,970</b>	<b>\$25,500</b>
<b>4 Preliminary Design (60%)</b>																				
4.1	Survey - ROW and Tract Maps			8		8														
4.2	SUE/Utility Coordination			40		80														
4.3	Environmental Analysis/Permitting			8																
4.4	Geotechnical Analysis			8		8														
4.5	Drainage Report			16		32														
4.6	Communication Plan, Public Outreach, and Stakeholder Engagement			24																
4.7	Structural Design			100		300														
4.8	RR Coordination			4																
4.9	60% Design, Quantities, Cost Estimate			100		320														
4.10	60% Quality Control Review	4		24		24														
4.11	60% ERA Review Meeting, Comment Resolution			16		24														
	<b>Sub-Totals</b>	<b>4</b>	<b>24</b>	<b>248</b>	<b>100</b>	<b>666</b>	<b>644</b>	<b>20</b>	<b>80</b>	<b>80</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>80</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>
	<b>Sub-Rate Total</b>	<b>\$1,120</b>	<b>\$6,000</b>	<b>\$47,120</b>	<b>\$19,000</b>	<b>\$99,900</b>	<b>\$77,280</b>	<b>\$4,600</b>	<b>\$15,600</b>	<b>\$5,600</b>	<b>\$6,000</b>	<b>\$5,600</b>	<b>\$0</b>	<b>\$0</b>	<b>\$130,482</b>	<b>\$10,000</b>	<b>\$130,482</b>	<b>\$10,000</b>	<b>\$0</b>	<b>\$22,255</b>

# 48th Avenue Storm - Globeville

## Fee Estimate 12/15/2020

Task ID	Phase and Task Description	Estimated Work hours										Wilson & Company Summary	49.3%	0.2%	17.6%	1.9%	4.9%
		Engineer/ Technical Specialist XXXIII	Principal/ Contract Manager	Engineer/ Technical Specialist XX	QC Manager/Project Manager II	Engineer/ Technical Specialist XIV	Project Manager/ Senior Engineer I	Engineer/ Technical Specialist XIV	Technical Discipline Lead - Structural	Engineer II	Engineer/ Technical Specialist X						
5	<b>Final Design (90% &amp; 100%)</b>	\$280	\$250	\$190	\$190	\$190	\$150	\$120	\$230	\$170	\$70	\$150	\$1,223,078	\$3,970	\$439,984	\$46,717	\$122,275
5.1	Survey - ROW and Tract Maps								20				\$7,600				
5.2	SUE/Utility Coordination			8			16						\$3,920				
5.3	Environmental Analysis/Permitting			16			24						\$6,640				
5.4	Geotechnical Analysis			8			8						\$2,720				6,717
5.5	Drainage Report			8			32						\$6,320		\$10,000		
5.6	Communication Plan, Public Outreach, and Stakeholder Engagement			8			16						\$3,920				
5.7	Structural Design						40						\$33,400				
5.8	90% Design, Quantities, Cost Estimate, Specifications, and M&P			80			160						\$65,600		\$60,000		\$27,580
5.9	90% Quality Control Review			24			220						\$10,030				
5.10	90% ERA Review Meeting, Comment Resolution, and Plan Updates			80			120						\$47,600				
5.11	100% Design, Quantities, Cost Estimate, Specifications, and M&P			40			24						\$11,200		\$58,871		
5.12	100% Quality Control Review			24			8						\$10,030				
5.13	100% ERA Review Meeting, Comment Resolution, and Plan Updates			8			16						\$4,880				
5.14	100% Plans Submittal for Concurrence to Bid			40			80						\$29,200				
	<b>Sub-Totals</b>	8	6	344	40	604	568	20	20	0	0	20	\$243,060		\$128,871	\$6,717	\$27,580
	<b>Sub-Rate Total</b>	\$2,240	\$1,500	\$65,360	\$7,600	\$90,600	\$68,160	\$4,600	\$3,000	\$0	\$0	\$3,000	\$128,871	\$0	\$128,871	\$6,717	\$27,580

6	<b>Additional Services (if necessary)</b>																
6.1	Additional Services (if necessary) by written permission from City PM			250			250						\$85,000				
	<b>Sub-Totals</b>	0	0	250	0	250	0	0	0	0	0	0	\$85,000		\$0	\$0	\$0
	<b>Sub-Rate Total</b>	\$0	\$0	\$47,500	\$0	\$37,500	\$0	\$0	\$0	\$0	\$0	\$0	\$85,000	\$0	\$0	\$0	\$0

Item	Unit	Quantity	Unit Rate
Public Meeting Facility Rental (4 hour) with Equipment and Refreshments (if needed)	Each	2	\$1,000.00
Flyers/Public Outreach Materials	LS	2	\$1,000.00
Vehicle Mitigation	Mile	400	\$0.570
Survey GPS Unit Rate	Each Day	20	\$125.00
Misc. Survey Supplies (caps, stakes, paint, etc.)	LS	1	\$350.00
Denver Water Review Fees	LS	1	\$5,000.00
<b>Other Direct Costs Total</b>			





October 5, 2020

Quote#: M00986-CityMapper

**Wilson & Company, Inc.**  
4401 Masthead Street NE  
Suite 150  
Albuquerque, NM 87109  
Attn: Jacob Darlington

**Ref: 48<sup>th</sup> in Denver**

Price Estimate (CityMapper H2 – Imagery & LiDAR)

Price

**Denver, CO**

3 Lines  
40 Exposures  
5.0 cm GSD, 60% FOL  
RGB Image Files  
8ppsm LiDAR data collection

Denver, CO Flight Cost    \$3,970.00

**Deliverables:**

Processed TIFF or JPG Imagery (nadir only), histogram applied.  
Exterior Orientation Position files for nadir camera.  
Calibrated LAS Files (Client to provide control)

Please refer to quote number M00986-CityMapper when ordering.

-Thank you-  
Terms: Net 60 Days

# ICON ENGINEERING

**PROJECT NAME:** 48th Ave Outfall  
**CLIENT:** Wilson  
**DATE:** November 19, 2020  
**Description**

**1. Project Management, Administration and General Coordination (14-Month Schedule)**

Contract Initiation	2	4		
Monthly Progress Reports, Invoicing and Schedule Updates	20	10		
Internal Design Team Meetings with Wilson (14)	35	35		
External Progress Coordination Meetings with Wilson & Denver (Kickoff, 5 Project, Public Meeting)	24	32		12
<b>Subtotals</b>	<b>81</b>	<b>81</b>	<b>0</b>	<b>12</b>

**2. Alternatives Analysis**

Collect Existing SWMM and FLO-2D PIA Modeling, Set up for Project	4	8		
Alternative Development and Coordination with Wilson	16	40		24
H&H Updates for Alternatives (SWMM & FLO-2D)	8	16		32
Detention and Storm Sewer Hydraulic Hydraulics (SWMM)	4	12		24
Preliminary Alternative Report Development	12	32		12
Final Alternative Report	8	18		10
<b>Subtotals</b>	<b>52</b>	<b>126</b>	<b>78</b>	<b>118</b>

**3. Drainage Analysis for 30%, 60%, Final Designs**

Local Basin Delineation - identify inlet / sw collection in project area	4	8		16
Coordinate with Wilson for inlet and key drainage collection areas	4	16		4
Collection System Analysis for Inlet & Collection Design (Design by Wilson)	4	8		16
SWMM Modeling to reflect final design	2	8		16
Update PIA FLO-2D Evaluations to reflect final design	2	6		12
Hydrology Mapping & Exhibits	2	2		1
No-Rise HEC-RAS Hydraulics for South Platte River	2	6		16
Detention and Storm Sewer Hydraulic Analysis (Storm CAD)	1	4		8
Preliminary Drainage Design Memo (30%)	4	16		12
Preliminary Drainage Report (60%)	4	16		24
Draft Final Drainage Report (90%)	2	8		12
Final Drainage Report (100%)	1	4		6
Floodplain Development Permit Application (for PIA & SPR No-Rise based on Drainage Report)		16		20
<b>Subtotals</b>	<b>32</b>	<b>118</b>	<b>127</b>	<b>104</b>

**4. Design Services (From Concept to 60%)**

<b>Design Exhibits for Design Development &amp; Stakeholder Coordination</b>			8	8
<b>Site Visits to Obtain Supplemental Design Data</b>			8	8
<b>Preliminary Construction Plans</b>				
WQCV Calculations	2	4		12
Water Quality - Roadway/48th Ave Concepts (30% Design Level)	4	16		30
Water Quality - Argo Park / Greenway Area Concepts (30% Design Level)	4	16		30
Drainage Improvement Support (30% Design Level)	4	16		30
Cross Sections & Details	2	8		16
Water Quality - Roadway/48th Ave Design (60% Design Level)	4	16		30

ICOI

Principal Engineer	Prof. Engineer IV	Prof. Engineer II	Engineer
\$189 Hours	\$179 Hours	\$159 Hours	\$122 Hours

# ICON ENGINEERING

PROJECT NAME: 48th Ave Outfall  
 CLIENT: Wilson  
 DATE: November 19, 2020

Description	Principal Engineer			Prof. Engineer IV			Prof. Engineer II			Engineer II		
	Hours	\$189	Hours	Hours	\$179	Hours	Hours	\$159	Hours	Hours	\$122	Hours
<b>5. 90% Design</b>												
Design Exhibits for Design Development & Stakeholder Coordination												
Site Visits to Obtain Supplemental Design Data												
Final Construction Plans												
Water Quality - Roadway/48th Ave Design (90% Design Level)												
Water Quality - Argo Park / Greenway Area Design (90% Design Level)												
Drainage Improvement Design (90% Design Level)												
Cross Sections & Details												
Technical Specifications, Supplemental Specifications, M & P												
Project Quantities for Bid Schedule												
Quality Control/Quality Assurance (Entire Set)												
Comment Review & Resolution												
<b>Subtotals</b>												
<b>6. 100% Design</b>												
Final Construction Plans - Advance 90% Plans to 100%												
Project Quantities for Bid Schedule												
Technical Specifications, Supplemental Specifications, M & P												
Quality Control/Quality Assurance												
Comment Review & Resolution												
Final Bid Documents												
<b>Subtotals</b>												
<b>7. Miscellaneous Direct Expenses</b>												
Estimated Reimbursable Expenses (ICON) Per Table Below												
<b>Total Hours</b>	283		747		217		790					
<b>Total Cost</b>	\$53,487.00		\$133,713.00		\$34,503.00		\$96,380.00					

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November 19, 2020

Jeffrey C. Holste, P.E., CFM  
Wilson & Company, Inc.  
1675 Broadway Suite 200  
Denver, CO 80202

**RE: Geotechnical Engineering Services  
48<sup>th</sup> Avenue Storm System Project  
City and County of Denver, Colorado**

Dear Jeff:

This letter contains our Scope of Work and Cost Estimate to provide geotechnical engineering services for the 48<sup>th</sup> Avenue Storm System project for the City and County of Denver (CCD). Based on information provided by Wilson & Company, we understand the storm system will extend along 48<sup>th</sup> Avenue from Lincoln Street to the South Platte River. We understand that three tunnels are proposed at Lincoln Street, the Northwest corner of Argo Park, and the Northeast corner of Argo Park. The geotechnical scope of work will be to provide subsurface information, laboratory test results, and design recommendations for the pavement reconstruction, storm water drainage conduit, and to provide tunneling information. Overburden is expected to be alluvium up to 20 feet thick and windblown sand of varying thickness. Denver-Arapahoe formation is expected to lie at 25 feet to 30 feet below grade and groundwater is expected to be 20 feet below grade.

### **Proposed Scope of Work**

Our proposed scope of work includes drilling exploratory borings, conducting laboratory testing, and providing a report with geotechnical recommendations. We propose to drill a total of 14 borings for the storm sewer and associated tunnels, the pedestrian tunnel, and associated new pavements. The borings will be drilled to about 25 feet to 30 feet below surface. The borings will be used to help evaluate the materials for design of storm water drainage system, pedestrian tunnel and pavement design.

Two tunnel borings will be drilled at each of the 3 proposed tunnel locations (6 total) for tunneling information as directed by Lithos, with field and laboratory testing based on Lithos' recommended testing frequencies. Five groundwater monitoring wells are proposed for follow-up water level readings by Lithos and Pinyon Environmental, Inc (Pinyon). We have included the costs of installing these 5 monitoring wells in our proposal. Borings on the levee along the west bank of the South Platte River are not planned as part of this study.

Right of Way (ROW) access permits will be obtained through CCD and traffic control will be used for borings drilled on active roadways. An initial review of the project alignment does not indicate that we will need to obtain permits through the Burlington Northern Santa Fe Railway Company (BNSF), it appears that we can locate the borings outside of their Right-of-Way (ROW). Should we need to locate borings within BNSF ROW

Jeffrey C. Holste, PE, CFM  
 Geotechnical Engineering Services  
 48<sup>th</sup> Avenue Storm System Project  
 November 19, 2020  
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and require permitting through BNSF, there will be additional costs. We will assist the drilling contractor with UNCC utility locates prior to drilling, and we have assumed that some utility site meets, and boring re-location may be required prior to drilling. We understand that there is a potential of encountering hazardous materials during drilling. If encountered, Geocal will stop drilling, demobilize, and move on to the next boring location. We have budgeted for drumming and disposal of the hazardous materials in the event they are encountered.

The borings will be drilled using 4¼-inch inside diameter hollow-stem augers and we will log the materials encountered including groundwater level and depth to bedrock (if encountered). The borings will be backfilled using make-up sands, bentonite chips and auger cuttings and will be compacted with the weight of the drill rig. Pavement areas will be patched with compacted asphalt cold patch to 9 inches thick or to the thickness of the existing pavement section, whichever is greater. Soils (and bedrock if encountered) will be sampled with Split Spoon and California samplers using procedures similar to ASTM D1586. Disturbed bulk samples will be collected from each boring within about the upper 5 feet of pavement subgrade.

A laboratory testing program will be conducted to evaluate the engineering classification, strength, compressibility or swell characteristics, and other engineering properties for the soils/bedrock encountered. Only uncontaminated soils will be laboratory tested and our field personnel will rely on the environmental consultant to identify material suitable for laboratory testing. Laboratory tests will include gradation, liquid and plastic limits, swell-compression, R-value, water-soluble sulfates, unconfined compression strength, water soluble chloride, pH, and Resistivity. An estimate of the type and number of tests anticipated is shown below:

<b>Laboratory Test</b>	<b>Estimated Quantity</b>
Gradation	20
Liquid & Plastic Limits	20
Unconfined Compressive Strength (bedrock)	12
Swell-Consolidation	10
R-value	4
Water Soluble Sulfate	12
pH	7
Laboratory Resistivity	7
Chloride	7

The results of the field and laboratory investigations will be evaluated to provide geotechnical design recommendations. Our engineering report will be prepared to summarize at least the following.

- Introduction and proposed construction conditions,
- brief review of field and laboratory procedures,
- site geology, physical description,
- subsurface conditions encountered (soils, and groundwater),
- results of laboratory testing,
- geotechnical recommendations for storm drainage conduit design, and
- geotechnical recommendations for pavement design.

Jeffrey C. Holste, PE, CFM  
Geotechnical Engineering Services  
48<sup>th</sup> Avenue Storm System Project  
November 19, 2020  
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Our draft report will be submitted for review by the client and CCD and the final report will be submitted soon after comments on the draft have been received. Our work will be done under the supervision of a Colorado Registered Professional Engineer.

## Schedule and Fee

We will initiate activity within 10 working days of notice-to-proceed, with the initial item being ROW permit application to the City. After the permit is approved/received, the borings will be staked, and utilities cleared. We estimate that our drilling program will require 5 full days to complete and a draft report of findings should be available within about 5 to 6 weeks after completion of field investigation. Specific times may vary somewhat if weather conditions or permitting issues delay our work.

In any case, we will keep you informed of our progress and any available information. For the scope of work outlined above, we estimate our fee at **\$46,717.00** for geotechnical engineering, as summarized on the attached Table 1. The cost estimate will not be exceeded without prior approval.

We look forward to working with you on this project and thank you for the opportunity to provide this scope and fee. If you have any questions or if we can be of further service, please feel free to give me a call at (303) 337-0338.

Sincerely,  
**GEOCAL**



Walter J. Zitz, P.E.  
Project Manager

Attachment: Table 1 – Cost Estimate for Geotechnical Engineering

TLD/WJZ/P20.1945.064

**Table 1 - Cost Estimate for Geotechnical Engineering Services****48th Avenue Storm System Project****City and County of Denver, Colorado**

Geocal, Inc.: 11/19/2020; P20.1945.064

**Scope:** Drill 14 exploratory borings for storm sewer, tunnel information, and pavement design. The borings will be drilled to about 25 feet to 30 feet below surface. 5 groundwater monitoring wells are included. Laboratory tests will include gradation, liquid and plastic limits, swell-compression, R-value, unconfined compression strength, and various chemical tests. This estimate assumes environmental sampling will be performed concurrently with geotechnical drilling and sampling. Geocal project management, field engineering, drill supervision and lab analysis from centennial, drill and traffic sub-contractors from Denver area are planned. We anticipate the field work will be completed in 5 business days. We assume permitting will be needed from CCD.

<b>Item</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>
<b>Field Geologist: Pre-Drill Activity</b>				
Obtain City of Denver access, coordinate access with drilling and City Stake boring locations & alternates; clear UNCC ticketing (arrange ticketing through drill contractor) and RT travel	Hour	10	\$ 85.00	\$ 850.00
General pre-drill coordination (drill planning, schedule & coordinate with drillers).	Hour	8	\$ 85.00	\$ 680.00
	Hour	6	\$ 85.00	\$ 510.00
<b>Field Geologist: Drilling Supervision &amp; Directly Related</b>				
Pre-trip equipment & supply load, post-drill cleanup, review logs/samples, replenish supplies and equipment	Hour	5	\$ 85.00	\$ 425.00
Drill site supervision, monitoring wells installed in five borings, plus site clean-up	Hour	45	\$ 85.00	\$ 3,825.00
Project RT travel 5 trips	Hour	5	\$ 85.00	\$ 425.00
<b>Laboratory Testing</b>				
Laboratory Technician	Hour	116	\$ 75.00	\$ 8,700.00
Laboratory Manager	Hour	10	\$ 95.00	\$ 950.00
<b>Analysis &amp; Report Preparation</b>				
Graphics and AutoCAD - Geologist	Hour	28	\$ 85.00	\$ 2,380.00
Staff Engineer	Hour	3	\$ 90.00	\$ 270.00
Project Engineer	Hour	36	\$ 120.00	\$ 4,320.00
Project Manager	Hour	8	\$ 180.00	\$ 1,440.00
Principal	Hour	2	\$ 210.00	\$ 420.00
<b>Other Direct Costs</b>				
<b>Traffic Control (at cost)</b>				
Traffic control plans	Each	3	\$ 150.00	\$ 450.00
Crew unit operations, (TCS, 2-Flaggers), mob/demob	Hour	45	\$ 130.00	\$ 5,850.00
Equipment rental (signs & cones package average).	Day	5	\$ 60.00	\$ 300.00
<b>Sub-Contracted Drilling Costs (at cost)</b>				
Utility Clearance	Lump Sum	2	\$ 200.00	\$ 400.00
Driller RT travel	Hour	5	\$ 175.00	\$ 875.00
Drill 14 30-foot auger borings; 4-1/4 inch diameter hollow-stem auger, install groundwater monitoring wells in 5 of the borings after drilling	Hour	45	\$ 175.00	\$ 7,875.00
Asphalt cold patch	Sacks	7	\$ 20.00	\$ 140.00
Well Materials	Each	5	\$ 250.00	\$ 1,250.00
<b>Hazardous Materials (if encountered)</b>				
Support Truck	Day	5	\$ 250.00	\$ 1,250.00
Flatbed Trailer Rental	Day	5	\$ 150.00	\$ 750.00
Decontamination Impoundment setup and take-down	Lump	1	\$ 400.00	\$ 400.00
55 Gallon Drums for cuttings and decontamination water	Each	5	\$ 65.00	\$ 325.00
Drummed Soil Disposal Fee	Each	5	\$ 145.00	\$ 725.00
Drummed Decontamination Water Disposal Fee	Each	5	\$ 144.00	\$ 720.00
Drummed Waste PPE and Debris	Each	1	\$ 212.00	\$ 212.00
			<b>Geotechnical Total:</b>	<b>\$ 46,717.00</b>

Notes & Assumptions: (1) City and County of Denver is the only applicable ROW permitting authorities. Access to private property will be provided by the client.



## 48<sup>th</sup> Avenue Stormwater

Final Scope | November 20, 2020

### Scope of Work OV

#### OV Consulting will perform the following scope of work for the 48<sup>th</sup> Avenue Stormwater Design

##### Task 1: Project Management and Coordination

###### **Task 1.1: Project Management and Management Meetings**

OV Consulting will attend up to 12 Project Management or team management meetings over the course of the 18-month schedule.

###### **Task 1.2: Administration and Invoicing**

OV will invoice Wilson on a monthly basis for work performed.

##### Task 2: Communication Plan, Public Outreach, and Stakeholder Engagement

This task will build on previous planning efforts and ongoing public processes. It is expected that the Consultant and the City will co-lead this continuing effort in partnership with the DOTI Office of Community and Business Engagement (“OCBE”). Community involvement and input has been the single most important component of past efforts, including the GSSS as well as the Washington Street Study and the current Washington Street design efforts.

OV Consulting will support Task 2 through the following sub tasks:

**Task 2.1: Develop Communication Plan with Project Manager:** OV will work with the Project Manager to develop the Communications Plan, focused on outreach to the community and stakeholders. OV and NHN will develop a communications and public outreach plan in conjunction with the City team that identifies key roles and methods of communication specific to the 48<sup>th</sup> Avenue corridor. The plan will outline an efficient procedure, timing, and methods to communicate project-relevant information about issues, status, and decisions. The plan will identify leaders in the neighborhood and bring effective, creative concepts that will enhance and improve the public outreach and communications. All communications should be bilingual as the Globeville neighborhood has a large Spanish speaking population and should have cultural sensitivity and awareness of the community, including alternative outreach efforts inclusive to those with a lack of internet access.

**Task 2.2: Stakeholder Working Groups:** Throughout the 18-month schedule, the project team will conduct up to five (5) meetings with the Stakeholder Working Group.

The purpose of these meetings will be to listen and engage the 48<sup>th</sup> Avenue stakeholders, property owners, businesses and organizations throughout the process. OV Consulting will lead these meetings with support from Wilson and Company (content).

Stakeholder Meetings are anticipated to be organized around key project milestones and to inform design phases: Kick-off/Introduction, Alternatives Analysis, Preliminary Design, up to 60% design, final design.





**Task 2.3: Public Meetings (2 virtual meetings):** Two (2) virtual meetings or touchpoints will occur within this process. NHN will lead the logistics and outreach for these meetings. Wilson and Company will create the content with support from OV. OV will support technical needs and implementation.

**Task 2.4: Individual Property Owner/Business Coordination and Meetings:** Up to four (4) in-person or virtual meetings will take place during this process. These meetings will be organized by OV Consulting with the appropriate technical team members to discuss critical issues throughout the process. Ongoing coordination with property owners and businesses within the neighborhood and along the alignment is anticipated and will include email, phone, and coordination with City OCBE office.

**Task 2.5: Council Updates:** Prior to each public meeting, a council briefing will be set up to meet (via phone or virtually) with Councilwoman CdeBaca (and at-large members?) and/or her staff to explain the project, the public meeting purpose and to ask for their support in reaching out to constituents in the area. OV Consulting will support these briefings as needed.

**Task 2.6: Virtual Meeting Tools and Software:** The project will use several different platforms and software to engage and communicate with the public. OV Consulting will provide current options for online surveys, polling questions, small group meetings, larger public meetings and newsletters.

**Task 2.7: Contact List:** OV Consulting will create the Stakeholder Working Group contact list and contribute to the overall community outreach list using contact info from the previous studies in the area as a baseline. (NHN will generate the general public list and maintain for public outreach efforts.)

#### **Task 2 Deliverables:**

- Communications Plan
- Stakeholder Meeting Notes
- Online Surveys or Polling and supporting data or documentation
- Stakeholder Working Group contact list and related information
- Public Meeting Support

#### **Task 3: Alternatives Analysis**

OV Consulting will support the alternatives analysis process to look at Recommendation G in the GSSS and at least two other alternatives. Challenges and opportunities of Recommendation G and the two other alternatives will be evaluated to select a preferred alternative in which the vision for the Globeville Neighborhood is best met. OV Consulting will lead the multi-modal mobility portion of the alternatives analysis and will develop evaluation criteria related to multi-modal mobility.

OV Consulting will support Task 3 through the following sub tasks:

**Task 3.1: Develop Two Additional Alternatives:** OV will work with the Project Manager to assist in the development of two alternatives to be evaluated in addition to the Recommendation G Alignment Alternative. OV will focus on multi-modal elements.

**Task 3.2: Develop Multi-modal Evaluation Criteria:** we will develop evaluation criteria for the multi-modal components to be used in the overall alternative evaluation process.



**Task 3.3: Screen Alternatives and Refine Preferred Alternative:** we will participate in the alternatives screening process and will work with the project team to refine the preferred alternative. The goal is to identify the key elements and design data and criteria so the preliminary and final design team can move forward.

#### **Task 4: Preliminary Design and up to 60% Design**

OV will lead assist the design team with multi-modal elements design including, if needed, Uncontrolled Pedestrian Crossing Guidelines analysis, facility validation analysis, signal warrant analysis and the application of Denver's Bicycle Facility Design Guidelines. In addition, OV will lead the traffic signal design, signing and striping, construction traffic control and construction phasing plan development for this task.

OV Consulting will support Task 4 through the following sub tasks:

**Task 4.1: Multi-modal and Traffic Analysis:** OV will apply standards and guidelines from the Uncontrolled Pedestrian Crossing Guidelines, Bicycle Facility Design Guide and the MUTCD to support further refinement of the preferred alternative.

**Task 4.2: Temporary Crossing of Washington St:** The final traffic signal design is assumed to be part of the Washington St Design project. For this project, it is assumed that the construction will be completed prior to completion of the Washington St construction and a temporary pedestrian crossing of Washington St will need to be developed. OV will develop 30% and 60% temporary crossing designs (type of crossing to be determined through the application of the Uncontrolled Pedestrian Crossing Guidelines and the MUTCD) at the crossing of Washington St.

**Task 4.3: Signing and Striping Plans:** OV will apply standards and guidelines from the Uncontrolled Pedestrian Crossing Guidelines, Bicycle Facility Design Guide as well as the MUTCD and Denver's Signing and Striping Standards to develop signing and striping plans for the 30% and 60% plansets.

**Task 4.4: Construction Phasing Development and Construction Traffic Control Plans:** OV will work with the project team and also with external project stakeholders such as the Washington St design team and the NWC design and construction team to develop high level construction activity timing and integration plans for the 48<sup>th</sup> Outfall project as well as detailed construction phasing plans for the specific project elements. We will also develop appropriate construction traffic control plans for each design phase.

#### **Task 5: Final Design**

OV will lead the traffic signal design, signing and striping, construction traffic control and construction phasing plan refinement and development for this task.

OV Consulting will support Task 5 through the following sub tasks:

**Task 5.1: Temporary Crossing of Washington St:** OV will advance the 60% temporary crossing plans (type of crossing to be determined through the application of Denver's Uncontrolled Pedestrian Crossing Guidelines and the MUTCD) at the crossing of Washington St to final design level. We will also develop quantities for these elements.

**Task 5.2: Signing and Striping Plans:** OV will refine the 60% plans to develop final signing and striping plans. We will also develop quantities for these elements.



**Task 5.3: Construction Phasing and Construction Traffic Control Plans:** OV will deliver final construction phasing plans and construction traffic control plans. We will also develop quantities for these elements.

**Task 5.4: Final Standard Specifications and Project Special Provisions:** OV will deliver standard specifications and project special provisions for traffic signal, signing and striping, construction phasing and construction traffic control elements.

This scope of work does not include procurement of construction support activities.

48th Avenue Stormwater  
OV Fee (11/20/20)



		Beth Vogelsang <i>Principal Planner</i>		Chris Vogelsang <i>Principal Engineer</i>		Shari Moore <i>Senior Planner</i>		Fernando Abud <i>Planner II</i>	
		Hours @	\$175	Hours @	\$175	Hours @	\$140	Hours @	\$120
<b>Task 1: Project Management and Coordination</b>									
1.1	Project Management and Management Meetings	24	\$4,200	24	\$4,200	0	\$0	0	\$0
1.2	Administration and Invoicing	0	\$0	0	\$0	18	\$2,520	0	\$0
	Subtotal	24	\$4,200	24	\$4,200	18	\$2,520	0	\$0
<b>Task 2: Communication Plan, Public Outreach, and Stakeholder Engagement</b>									
2.1	Develop Communication plan with Project Manager	4	\$700	0	\$0	0	\$0	8	\$960
2.2	Stakeholder Working Group or Stakeholder Coordination (up to 5 meetings)	15	\$2,625	0	\$0	0	\$0	35	\$4,200
2.3	Public Meetings (2) support	4	\$700	0	\$0	4	\$560	20	\$2,400
2.4	Individual Property Owner/Business Coordination and Meetings (up to 6 meetings)	24	\$4,200	0	\$0	8	\$1,120	24	\$2,880
2.5	Council Updates (2 total - 1 each prior to Public Meetings) - OV Support	4	\$700	0	\$0	0	\$0	4	\$480
2.6	Virtual Meeting Tools and Software	0	\$0	0	\$0	0	\$0	20	\$2,400
2.7	Contact List/Updates	2	\$350	0	\$0	0	\$0	6	\$720
	Subtotal	53	\$9,275	0	\$0	12	\$1,680	117	\$14,040
<b>Task 3: Alternatives Analysis</b>									
3.1	Develop Two Additional Alternatives	40	\$7,000	8	\$1,400	0	\$0	40	\$4,800
3.2	Develop Multi-modal Evaluation Criteria	4	\$700	8	\$1,400		\$0	4	\$480
3.3	Screen Alternatives and Refine Preferred Alternatives	16	\$2,800	8	\$1,400		\$0	20	\$2,400
	Subtotal	60	\$10,500	24	\$4,200	0	\$0	64	\$7,680
<b>Task 4: Preliminary Design and up to 60% Design</b>									
4.1	Multi-modal and Traffic Analysis		\$0	16	\$2,800		\$0		\$0
4.2	Temporary Crossing Design		\$0	24	\$4,200		\$0		\$0
4.3	Signing and Striping Plans		\$0	6	\$1,050		\$0		\$0
4.4	Construction Phasing Development and Construction Traffic Control Plans		\$0	24	\$4,200		\$0		\$0
	Subtotal	0	\$0	70	\$12,250	0	\$0	0	\$0
<b>Task 5: Final Design</b>									
5.1	Temporary Crossing Design		\$0	16	\$2,800		\$0	0	\$0
5.2	Signing and Striping Plans		\$0	8	\$1,400		\$0	0	\$0
5.3	Construction Phasing and Construction Traffic Control Plans		\$0	20	\$3,500		\$0		\$0
5.4	Final Standard Specifications and Project Special Provisions		\$0	40	\$7,000		\$0		\$0
	Subtotal	0	\$0	84	\$14,700	0	\$0	0	\$0
<b>Professional Time and Costs Subtotal</b>		<b>137</b>	<b>\$23,975</b>	<b>202</b>	<b>\$35,350</b>	<b>30</b>	<b>\$4,200</b>	<b>181</b>	<b>\$21,720</b>



## 48<sup>th</sup> Avenue Storm - Globeville

### Public Involvement Approach

Globeville is a proud neighborhood with a unique, history steeped in the agricultural, industrial, and immigrant history of Denver. Globeville, as a community, has seen considerable change in the last ten years as the buildout of the National Western Center, the growth of RiNo, future plans for Washington Street and the Heron Pond/Carpio Sanguinette Park, and the reconstruction of I-70 begin to reshape the neighborhood. Community members have, at times, expressed skepticism that infrastructure improvements are for the benefit of the neighborhood rather than precursors to new development and gentrification. Garden Place Academy (DPS) is a hub of community life in Globeville, along with the Stapleton Recreation Center, and non-profits such as the Globeville Center, the Focus Points Family Resource Center, and the Growhaus (which is currently seeking another way to house their community farms). Globeville has a number of Registered Neighborhood Organizations which operate loosely, are not coordinated with one another, and may not always be seen as representing neighborhood wishes. There are long-time residents of Globeville, however, who are faithful and consistent participants in civic affairs and have been involved in many recent planning efforts in Globeville. Finally, in addition to flooding related to an undersized stormwater system, Globeville residents are concerned about flooding from the S. Platte River and the fact that the existing levee is at risk of being decertified. Time and effort should be spent explaining the various flood variables at work in the area and how they are being addressed through separate but coordinated infrastructure efforts.

Working with DOTI Office of Community and Business Engagement, the consultant team will build on an understanding of both the project goals and the preferred communication methods of stakeholders in the project area to create a comprehensive public involvement plan.

Key stakeholders and community partners in Globeville might include:

- Globeville Center/Birdseed Collective (nonprofit community outreach organization)
- Focus Points Family Resource Center (connects families with the resources and support they need to build strong, healthy lives)
- Globeville Civic Partners (community organization representing the interests of the residents, business and property owners in Globeville)
- Elyria-Swansea-Globeville Business Association
- Globeville First
- UCAN Metro Denver
- Garden Place Elementary School
- Groundwork Denver
- The Growhaus
- Globeville K.A.R.E.S
- Residents living on 48<sup>th</sup> Ave.
- Businesses operating on 48<sup>th</sup> Ave.

#### Online project page, outreach materials, contact list:

The Consultant team will assist in creating a clear, concise background document reviewing both the science and history of flooding in Globeville, as well as the community involvement efforts that have led to the design phase of this project. This document can serve as a project introduction to the community.

The NHN team will work with DOTI staff to build and maintain an online project page on the Denvergov website with useful public information and clear project background. Easy-to-read project sheets will be created to use with council office briefings and to distribute via email and at public meetings. Project materials, meeting flyers, maps, and project overviews will be conveyed in clear and simple terms, be graphically pleasing, and translated into Spanish. Based upon the existing GSSS, Washington Street, and Heron Pond contact lists, the Consultant team will build and maintain a comprehensive project contact list. The contact list will be updated after every outreach effort to accurately capture interested parties and meeting attendees.

All written collateral will be translated into Spanish.

**Public meetings:**

The Consultant team will host two public meetings. In light of social distancing requirements related to the COVID-19 epidemic, these meetings may be held online. If in person meetings are allowed, Garden Place Elementary, the Stapleton Rec Center, or the Globeville Center are centrally located to accommodate local residents. If virtual meetings are required, NHN will work with the project team to identify the optimal web platform (e.g. a Zoom webinar streamed simultaneously on Facebook Live). The first public meeting will share design ideas (10% design), and solicit input and comment from the public. The second public meeting will include a presentation of the preferred alternative based on public input and optimal engineering recommendations.

The public meetings will be accompanied by extensive grassroots outreach, including working with local RNOs and community organizations (see key stakeholder list above), door-to-door flyering of local residences and businesses (if COVID-related/safety guidelines allow), as well as working with Garden Place Elementary to connect with local families through already-existing communication channels. Public meetings will also be publicized via social media and through email communication and/or phone calls to the project contact list.

Other outreach tools might include local print and online media (Denver Post Your Hub, North Denver News), online platforms such as Nextdoor, direct mail postcard campaigns, project signs in Argo Park, and short video announcements for social media. In order to maximize input opportunities, a recording of the public meeting will be posted on the project page for viewing at any time, and could be accompanied by an online survey, and posted office hours (via Microsoft Teams) for interested parties to engage in small group conversation with the project team.

Meeting fatigue is a significant concern in this part of the City given all the related and parallel projects that are taking place simultaneously. It may be useful to look for synergistic opportunities to convey information and seek input in conjunction with nearby DOTI initiatives including the Washington Street Improvements, the National Western Center construction, and the Lincoln Street bikeway between 44<sup>th</sup> and 51<sup>st</sup> Street, to name a few.

All live or recorded events will have Spanish interpretation available.

**Small Group Meetings by Stakeholder interest:**

It may be necessary, as the public process progresses, to engage discrete stakeholders by interest or location - specifically the business community on the eastern end of the project along Elgin Place and

48<sup>th</sup> Avenue. Up to four small group meetings either on-site, in person, or virtually could be arranged to address specific design proposals and concerns.

**Council Updates:**

Prior to each public meeting, a council briefing will be set up to meet (via phone or virtually) with Councilwoman CdeBaca (and at-large members?) and/or her staff to explain the project, the public meeting purpose and to ask for their support in reaching out to constituents in the area.

**Alternative outreach methods:**

To ensure broad participation from the business and resident communities the Consultant team will work with community leaders and interest groups to identify additional useful methods of outreach and engagement that do not require Internet access. These might include: setting up a table in Argo Park with information about the project (in accordance with Covid-related safety precautions); having a booth at the newly launched Farmer's Market at Taxi if the season allows; having project easels to view at the Monday afternoon Healthy Food distribution at the Globeville Center; printing and hanging signs with project information and a phone number to call to provide input, and; mailing postcards to homes and businesses in the project area with phone number to provide feedback. All materials will be translated into Spanish, and a Spanish-speaking member of the Consultant team will be available to respond to phone calls.

**CCD 48th Avenue Storm Drain. NHN Consulting  
FINAL**



Task	Description	Nora Neureiter NHN/Owner \$140.00		Palmquist/Headington NHN/Communic. \$125.00		Patricia Gaytan NHN/Lang Interp \$105.00		NHN TOTAL
		Hours	Dollars	Hours	Dollars	Hours	Dollars	
	Initial Project Meeting: Project Kick off	2	\$280.00	2	\$250.00		\$0.00	\$530.00
	Project Administration	20	\$2,800.00					
	Progress Meetings: Assume 18	18	\$2,520.00	0	\$0.00	0	\$0.00	\$2,520.00
	Pop ups (Argo Park, Garden Place Elem, Globeville Center, etc):	12	\$1,680.00	20	\$2,500.00	16	\$1,680.00	\$5,860.00
	Large format public meetings: Assume 2. Spring and fall 2021. Assumes securing location, editing collateral, executing outreach, attending meetings, assisting with mtng notes and follow up OR 2 virtual meetings with the same level of outreach. Assume 2 NHN staff per mtng.	28	\$3,920.00	30	\$3,750.00	14	\$1,470.00	\$9,140.00
	Small format meetings: 4 total.	18	\$2,520.00	22	\$2,750.00	10	\$1,050.00	\$6,320.00
	Support Council briefings (up to 3)	9	\$1,260.00	0	\$0.00	0	\$0.00	\$1,260.00
	Digital Outreach: Outreach list, online collateral, regular updates, survey support and promotion.	24	\$3,360.00	28	\$3,500.00	0	\$0.00	\$6,860.00
	Spanish language translation and interpretation through the Colorado Language Cooperative							\$2,000.00
	<b>TOTAL</b>	<b>131</b>	<b>\$18,340.00</b>	<b>102</b>	<b>\$12,750.00</b>	<b>40</b>	<b>\$4,200.00</b>	<b>\$34,490.00</b>



Task	Description of Activities /Assumptions	Project Manager III \$150/hr	Project Manager III \$150/hr	Project Manager III \$150/hr	Project Manager III \$150/hr	Project Manager II \$135/hr
Project Mgmt.	Project Meetings (assume six meetings) Monthly progress reports and invoicing. Assume 14 invoices. Utility Data Collection (Quality Level D): Prior to 10% Alternatives Analysis, submit CO 811 SUE notification. If utility companies do not provide records in 10 days, Goodbee will follow up utility companies to request records, information on planned facilities, and inform them of the proposed project. Prepare utility contact list. Assume project area includes 48th Ave. from east of Broadway to S. Platte River, all of Argo Park, and private properties between the railroad spur and Emerson St. that may be acquired for the project. Assume 9 utility owners per UNCC search.	6	14	6	6	
Preliminary Design 10%, 30% and 60% (entire corridor)	Utility Designating (QL B): After 10% Alternatives have been vetted, conduct geophysical investigations to designate the horizontal location of underground utilities. Coordinate with Wilson to survey utility markings (QLB) and surface utility features (QLC). Prepare existing utility CAD file based on QLD, QLC and QLB utility data. Assume same area as for QLD data collection. Preliminary Utility Matrix - Identify potential utility conflicts with proposed improvements based on the 10% concept plan. Develop a utility conflict matrix summarizing utility type, size, owner, material, and location where in conflict with proposed design and proposed resolution. Utility Preliminary Design / 30% plans - Coordinate with design team to show existing utilities (QLD, QLC, and QLB) on 30% plans. Assume plan view only. Distribute 30% plans to utility owners. Attend preliminary design meeting. Utility Coordination: Follow up with utility owners to make sure their existing facilities are shown on the 30% plans. Initial Test Holes (QL A): Prior to 60%, prepare preliminary and final test hole plan with input from client. Test hole to locate buried utilities at potential utility conflict locations identified in the 30% plans (as revised per comments received). Revise existing utility CAD file per test hole table. Prepare test hole table. Coordinate with Wilson to survey test holes. Assume 40 test holes over 13 days. Prepare stamped SUE plans/report documenting QLD-QLA data acquisition along larger project alignment. Utility Conflict Matrix: Re-evaluate potential utility conflicts with test hole data. Revise utility conflict matrix summarizing utility type, size, owner, material, and location where in conflict with proposed design and proposed resolution. Coordinate with design team to mitigate or eliminate conflicts where feasible. 60% Utility Relocation Plans: Prepare utility plans for 60% submittal showing existing utilities at achieved quality levels (A, B, C, and D), proposed improvements and utility conflicts. Distribute utility plans to utility owners. Attend design plan review meeting. Assume 10 sheets. 3D Utility Surface - excluded. Storystaking - update/refresh QLB utility markings along alignment of planned improvements for Phase 1 only (from west side of Washington St. to S Platte River. Participate in storystaking exercise. Follow-up Test Holes (QL A): Identify additional test hole needs based on storystaking and post 60% design changes. Prepare preliminary and final test hole plan with input from client. Test hole to locate buried utilities. Revise existing utility CAD file per test hole table. Prepare test hole table. Coordinate with Wilson to survey test holes and utility markings. Prepare updated stamped SUE plans/report adding new Phase 1 QLA data. Assume 20 test holes over 7 days. 3D Utility Surface - excluded. Utility Conflict Matrix: Re-evaluate potential utility conflicts with test hole data. Coordinate with design team to mitigate or eliminate conflicts where feasible. Revise utility conflict matrix. Utility Coordination: Meet one on one with utility owners to discuss conflicts and relocation strategies. Prepare Xcel work request. Assume 9 utility owners, 10 meetings. 90% Utility Plans: Prepare utility plans for 90% submittal showing existing utilities at achieved quality levels (A, B, C, and D), proposed improvements and utility relocations. Calculate quantities for tabulation sheet. Distribute utility plans to utility owners. Attend final design plan review meeting. Assume 7 sheets. Utility Project Special Provision: Prepare utility special provision for 90% submittal describing work to be done by Contractor and each utility owner. Utility Agreements: Prepare draft clearance letters to be signed by municipality. Send clearance letters, agreements to utility owners for signature. Assume five letters. 100% submittal: Revise 90% plans and special provisions per comments on/design changes to 90% submittal. Assume 7 sheets. Final Utility Coordination: Coordination to finalize utility agreements and relocations. Utility Bid Documents: Provide Ad utility plans and project special provisions.	1	8	2	4	20
Final Design 90%, 100% (Phase 1 only)	Utility Post Design Support - excluded.	4	8	2	4	2
Post-Design Services		4	16	1	4	1
<b>TOTAL LABOR</b>		<b>247</b>	<b>8</b>	<b>56</b>	<b>0</b>	

**Other Direct Costs and SUE**

Item	11 Days	6 Days	20 Days	5 Days	\$	Equipment and Supplies
SUE QLB investigation						
SUE QLB survey (by Wilson)			60		\$	by Wilson
SUE QLA investigation						
SUE QLA survey (by Wilson)			60		\$	vac ex and cold patch by Wilson
Permanent restoration						
Permitting (assume CCD fees are waived)						
<b>TOTAL ODCs</b>					<b>60 \$</b>	<b>11,700</b> per hole rate

**Total Estimate**



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November 18, 2020

Steve Salazar, PE  
Wilson & Company, Inc.  
1675 Broadway, Ste 200  
Denver, CO 80202

Via eMail: Steve.Salazar@wilsonco.com

Subject: Proposal to Provide Environmental Support, 48<sup>th</sup> Avenue Storm – Globeville, Denver, Colorado

Dear Mr. Salazar:

Pinyon Environmental, Inc. (Pinyon), is pleased to present this proposal to support Wilson & Company, Inc. (Wilson), and the City and County of Denver (CCD) on the subject 48<sup>th</sup> Avenue Storm project in the Globeville neighborhood in Denver, Colorado.

The following is a general list of the proposed tasks that Pinyon would lead; a detailed description is provided in Attachment A.

1. General Project Management: general project management/administration.
2. Limited Environmental Screening: evaluate using readily available agency records environmental conditions along the corridor.
3. Environmental Sampling: collect soil samples to evaluate soil impacts that could require special management; collect groundwater samples to evaluate dewatering and discharge permit options to support construction.
4. Prepare Materials Management Plan: support the project team in identifying strategies for management of impacted media through completion of a Materials Management Plan. As part of this task, Pinyon will support Wilson by drafting specifications regarding hazardous materials for inclusion in the bid documents.
5. Support Groundwater Dewatering Strategy: support the project team in identifying viable dewatering/discharge options regarding construction dewatering and assisting in drafting applicable specifications.
6. Section 404 Permit: conduct evaluations of waters of the U.S. (including wetlands) along the South Platte River and obtain authorization from the U.S. Army Corps of Engineers under provisions of Section 404 of the Clean Water Act to construct an outfall into the South Platte River.
7. Envision: CCD would like to complete the Envision checklist and conduct a gap analysis for this project. The team will work with CCD staff to identify the appropriate level of achievement on tasks that were completed as part of prior activities related to the project, or that are related to CCD policies and procedures.
8. Optional Tasks: Pinyon understands that an undetermined number of properties may be acquired as part of this project. Typically, CCD requires that environmental due diligence be conducted as part of the acquisition process, including completion of Phase I and Phase II Environmental Site Assessments (ESAs). It

Steve Salazar, PE  
November 18, 2020  
Page 2

is unclear how many properties may be acquired, nor if/how many may need Phase II ESAs. However, in order to assist the CCD in programming funding for the project, Pinyon has included a per-property cost estimate to complete a Phase I ESA and a per-property cost to complete a "typical" Phase II ESA. Pinyon has also prepared scope and costs to conduct the "full Envision" effort, pending approval from CCD. Further details are included in Appendix A.

Pinyon estimates the cost to complete this project, in accordance with the outlined services, will be **\$99,511** (Table I). Optional task fees are included for reference. Pinyon will invoice on a time and materials basis, in accordance with the Attachment A Rates provided to Wilson for its response to Request for Proposal.

To authorize the outlined scope of services, please issue a subcontract for review. Should you have any questions or require additional information, please do not hesitate to contact me at (303) 980-5200 or via email at [partington@pinyon-env.com](mailto:partington@pinyon-env.com). Thank you for considering Pinyon for your environmental consulting needs.

Sincerely,

**PINYON ENVIRONMENTAL, INC.**



Brian Partington  
Principal

Cc: File



### **Task 1 – General Project Management**

This task assumes general project management and contract administration. Project meetings and project management as related to specific tasks are built into the subsequent tasks. Pinyon assumes this task will span approximately 24 months.

*Deliverables: Monthly invoices and progress reports*

### **Task 2 – Limited Environmental Screening**

A high-level review of publicly available information will be conducted to evaluate potential environmental risks to the project. For this project, Pinyon will obtain a regulatory database (GeoSearch), review reports that may already be in Pinyon's possession, and review up to two additional facility reports at local regulatory offices. A summary report of existing conditions, including recommendations and conclusions, will be prepared. This report is not designed to be an ASTM compliant Phase I Environmental Site Assessment but will be prepared to identify potential project environmental risks, and to support refining Task 3 below. This task will apply to the entire 48<sup>th</sup> Storm corridor.

*Deliverables: Limited Environmental Screening Technical Memorandum*

### **Task 3 – Limited Sampling and Environmental Report**

Pinyon understands that Geocal, Inc. (Geocal), has been retained to conduct the geotechnical evaluation for the project. As Geocal will be conducting subsurface drilling activities, Pinyon assumes that we will be able to conduct concurrent environmental sampling. Costs related to permitting, traffic control, and drilling, will be the responsibility of Geocal.

At the time of this proposal, Geocal has scoped to drill 15 soil borings, five of which will be converted into groundwater monitoring wells. Pinyon assumes that this drilling will be conducted over one week.

#### Subtask 3a – Limited Soil Sampling (HASP, Soil Sampling)

- Pinyon will prepare a Health and Safety Plan (HASP) for drilling activities, to be used by Pinyon personnel. Pinyon will share the information presented in our HASP and related documentation with those that are interested. Pinyon's field representative will provide a Photoionization Detector (PID) to monitor atmospheric conditions in the vicinity of the drilling rig for volatile organic compounds (VOCs). Pinyon will share information regarding PID measurements with other project personnel. Pinyon will also field screen soil samples for the presence of potential subsurface impacts.
- During geotechnical drilling (which will be completed and paid for by Geocal), Pinyon will collect one representative soil sample from each boring (15 total) to support a waste profile at the Denver-Arapahoe Disposal Site (DADS), and/or to evaluate potential reuse opportunities for soil displaced by construction



## ATTACHMENT A – SCOPE OF SERVICES (CONT.)

of this project. As noted above, Geocal intends to drill 15 borings. Pinyon will use the following decision criteria to select samples for laboratory analysis:

- Discrete samples from discrete intervals where soil “looks bad, smells bad” based on field screening and observations; or
  - A composite sample from the interval where man-made fill of unknown disposition is observed during drilling; or
  - A composite of the soil from the proposed construction interval (i.e., the interval likely to be disturbed during the construction).
- Analytes will be confirmed with the Denver Department of Public Health and Environment (DDPHE) before the investigation begins. The results from Task 2 will also inform the analyte list.
  - If suspect asbestos-containing materials are observed, Pinyon’s field representative (who will be a Certified Asbestos Building Inspector) will collect representative samples, as applicable (up to 15 total).

*Note: Geocal will be responsible for disposal of the drums; Pinyon will support with appropriate waste profiling utilizing the data collected during the investigation.*

### Subtask 3b – Limited Groundwater Sampling (Initial CDPHE GW Sampling - Phase I)

During geotechnical drilling, up to five groundwater monitoring wells will be installed (paid for under the geotechnical engineering and drilling task under Geocal’s task order). Pinyon will coordinate permitting with the Colorado Division of Water Resources, and we assume that the wells will be permitted as permanent wells. From the Phase I project area (between Washington and the South Platte River), one groundwater sample will be collected and analyzed for those parameters required to obtain the appropriate dewatering permit from the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD). It is possible that sampling and permitting will not be required, as construction may not approach groundwater.

*Deliverables: CDWR Well Permits*

### Subtask 3c – Limited Groundwater Sampling (Initial MWRD GW Sampling - Phase I)

Under this task, Pinyon has included costs to pursue a Metro Wastewater Reclamation District option. This option will be initiated only if a Construction Dewatering permit from WQCD is not possible.

**It is assumed that sampling from one or more of the remaining four wells will be conducted if/when design advances on the future Phase(s), under a separate task order.**

### Subtask 3d – Environmental Report

- A Limited Site Investigation Report will be prepared based on the information collected during the limited sampling.
- Pinyon assumes that we will abandon the five wells during future project phases; costs for well abandonment have not been included with this proposal.

*Deliverables: Limited Site Investigation Report*



#### **Task 4 – Materials Management Plan**

A Materials Management Plan (MMP) will be prepared detailing the results of the earlier tasks (sampling results) for the Phase I project area. The MMP will detail the means and methods that contractors must comply with to identify, manage, and dispose of potentially impacted soil and/or groundwater generated during construction. The MMP will include a summary of the previous environmental investigations and identify the potential constituents of concern. The MMP will also detail the procedures for the evaluation, investigation, and management of other potential constituents that could be uncovered during excavation. As part of this task, Pinyon will support Wilson in drafting specifications regarding hazardous materials. Note, this plan will be completed concurrently with the Groundwater Dewatering Permit(s) as discussed below in Task 5.

It is possible that minor revisions of the MMP will be needed for future project phases. This MMP task addresses the Phase I project area only; future revisions are assumed to be covered in a future task order(s).

*Deliverables:      Materials Management Plan  
                             Hazardous Materials Specification*

#### **Task 5 – Groundwater Dewatering Permit(s)**

Groundwater management may be the most significant challenge from an environmental perspective, as dewatering and discharge into a water of the State (e.g., the South Platte River) requires State permitting. Depending on the groundwater quality and quantity, pumping and treatment of groundwater can be a significant project risk. Pinyon has worked on dewatering strategies across the Metro area and developed a strategy protocol for addressing dewatering with the State that considers the new permits that went into effect on June 1, 2020.

Groundwater management is contingent on several variables, including the “Reasonable Potential” that contamination may exist; groundwater quantity (i.e., flow rates); construction methods (e.g., open trench); source water quality data; discharge limits that apply to specific stream segments; and other topics. Pinyon assumes that under this task, we will closely coordinate with the design team in identifying a strategy that meets the stringent regulatory environment, that is pragmatic, and is efficient. Therefore, it is possible that we will evaluate at least two State permit options, as well as discharge to a sanitary sewer (i.e., Metro Wastewater Reclamation District) as options. For the latter, additional groundwater sampling will be required. However, due to the costs of collecting these samples, we will not collect samples supporting this option unless the State Construction Dewatering Activities permit is proven to not be a viable option. Generally, this task will include the following services:

1. General advisory services, including attendance at up to three project meetings in the Denver area.
2. Assist the project owner (CCD) in obtaining either the State Construction Dewatering Activities or Remediation Activities permit with the State.
3. As an alternative to the State permits, Pinyon will assist the CCD with obtaining associated approvals with the Metro Wastewater Reclamation District. Note that this effort will require additional groundwater sampling than what is required under Subtask 3c. Pinyon recommends that this sampling be done under a separate mobilization as the analytical costs are significant. These costs have been included in this proposal.
4. Assist the design team in preparing applicable specifications and identify pay items, as necessary, to address Groundwater Management in the bidding documentation.



## ATTACHMENT A – SCOPE OF SERVICES (CONT.)

Note, for permitting purposes, the CCD will hold the State dewatering permit until it may be transferred to the awarded Contractor. We will assist the CCD in obtaining the permits during this process but will need some modest support from the CCD to secure the authorization. Any associated permits or fees are assumed to be paid for directly by the CCD.

*Deliverables:*     *Applicable Discharge Permit Application(s)*  
                           *Applicable Environmental Specification(s)*  
                           *Groundwater Dewatering Specification*

### **Task 6 – Section 404 Permitting**

Pinyon previously obtained authorization from the U.S. Army Corps of Engineers (USACE) on behalf of the National Western Center project for the Bettie Cram Bridge and the Bettie Cram Outfall (i.e., Montclair Outfall), which appears to occur within the general footprint of this 48<sup>th</sup> Street Outfall. Therefore, Pinyon will “refresh” the information collected during past studies and repurpose for this project. Pinyon will require an impact evaluation from Wilson regarding the proposed fill in the South Platte River, including a plan/profile plan sheet denoting the work in the river. We may need to extend the delineation slightly toward the north depending on the ultimate project footprint.

This task includes efforts to verify the information related to the Section 404 permit, Endangered Species Act compliance, and compliance with Section 106 of the National Historic Preservation Act. We assume that this effort will be modest, and no species-specific surveys will be required, nor will surveys for potential historic resources be needed.

### **Task 7 – Envision**

The project team understands that CCD would like to complete the Envision checklist and conduct a gap analysis for this project. The team will work with CCD staff to identify the appropriate level of achievement on tasks that were completed as part of prior activities related to the project, or that are related to CCD policies and procedures. Additionally, the team will conduct an Envision training session for project personnel and will review the individual credits related to specific design areas (e.g., review the achievement criteria of Envision credit QL2.1., Improve Community Mobility and Access, with those working on the Mobility task). This will help the individual groups consider sustainability in their design and allow the team to accurately track the level of achievement attained for each credit. The team will identify credits that would be based on subsequent project activities (e.g., construction), evaluate the Envision points attained through completion of design, and evaluate the level of achievement against Envision award categories. Finally, the team will provide a list of sustainability items that could be implemented and increase the sustainability level.

For this project, Pinyon has provided in our base fees the cost to conduct the Gap Analysis, as described below. We have also included the scope and fees to conduct a Full Envision analysis, should the CCD be interested in pursuing those efforts, as an optional task.

#### Gap Analysis

Goals: 1. Evaluate which levels of achievement are satisfied by previous work on the project; 2. Identify additional levels of achievement that will be satisfied by the planned work on the project; 3. Identify additional elements of sustainability that could be accomplished on the project; 4. Identify expectations for achievement during construction phase; 5. Evaluate whether or not to pursue an Envision verification for project award.



## ATTACHMENT A – SCOPE OF SERVICES (CONT.)

### *Steps/Level of Effort:*

1. Conduct an initial 2-hour session of “Introduction to Envision” for key members of project team (including CCD).
2. Conduct a series of project meetings (five meetings recommended; each will be 2 to 3 hours long), to evaluate each of the credits. The meetings will be structured around the credit topics, to target small groups of team members. Using the Envision checklist, evaluate:
  - a. Is the credit applicable to the project?
  - b. Has work related to this credit previously been conducted on the project, and what is the likely level of achievement, based on that work, for each credit? Who is the contact for the needed documentation?
  - c. Are there activities related to the phases of the project, and what level of achievement could be obtained, given the planned activities? Evaluate this in terms of Phase I activities, and other Phase activities. Identify the project personnel related to the credit.
  - d. During the discussions, identify other project elements that could be modified, and the resulting increased level of achievement. Identify the project personnel who could evaluate options if desired.
3. Outcome: Draft checklist outlining:
  - a. total available Envision points based on project scope
  - b. levels of achievement (e.g., points) from previous work
  - c. level of achievement possible with planned scope of work (both Phase I and subsequent Phases)
  - d. Potential for additional levels of achievement with modified approach/design elements identified during meetings.
  - e. Analysis of possible Envision award levels (including “gap” to higher levels of achievement)

### **Optional Task – Full Envision Effort (Assume Not Submitting for Award – Phase I only)**

1. Complete Envision tracking tools and populate with assignments, documents and activities, responsibility, deadlines, etc.
2. Throughout project (Phase I only), track the information needed to document level of achievement (decisions, documentation, etc.). Coordinate with project team members responsible for specific credits.
3. Complete the memos for all applicable credits, including organization of documentation.
4. Conduct periodic meetings with team, at least once a month, to review assignments and documentation needs.
5. Be the lead company for the work needed to attain a level of achievement in:
  - a. Quality of Life: QL 1.4, QL 3.1 – 3.4
  - b. Leadership: LD 2.1, 2.2, 3.1
  - c. Resource Allocation: RA 3.1





## ATTACHMENT A – SCOPE OF SERVICES (CONT.)

- d. Natural World – all credits
- e. Climate & Resilience – all credits
6. Work with CCD and design team to develop operational expectations (specific to LD2.3, RA1.3, RA2.1, RA2.4, RA3.2, RA3.4).
7. Develop requirements to be completed during construction, for inclusion in the bid package.
8. Develop submittal packages for all documentation.
  - a. Phase I (100% design)
  - b. Subsequent phases




### *Assumptions*

1. No award submittal - ISI fees are not included in Pinyon's estimate
2. CCD and Design team will provide documentation suitable for use as supporting documentation
3. Goal is to achieve Envision Silver level
4. Parties will supply requested documentation in the agreed-to schedule
5. Pinyon will lead data collection/analysis of specific credits (see accompanying table - green rows)
6. Design/Construction leads will complete data collection/analysis of specific credits (see table, orange leads)
7. Design leads will likely need to either document current programs or initiate programs related to procurement (RA1.1) and training (QL3.2) for needed level of achievement
8. Design leads may need to commit to policies related to sustainability (LD1.1 and 1.2) for needed level of achievement
9. Pinyon's costs due not include costs borne by other members of the team for their responsibilities in documentation, meetings, etc., nor any changes in design or SOPs





# ATTACHMENT A – SCOPE OF SERVICES (CONT.)

## ENVISION POINTS TABLE (EXAMPLE)

 <p><b>Quality of Life</b></p>	<p><b>Wellbeing</b></p>	QL1.1 Improve Community Quality of Life
		QL1.2 Enhance Public Health & Safety
		QL1.3 Improve Construction Safety
		QL1.4 Minimize Noise & Vibration
		QL1.5 Minimize Light Pollution
		QL1.6 Minimize Construction Impacts
	<p><b>Mobility</b></p>	QL2.1 Improve Community Mobility
		QL2.2 Encourage Sustainable Transportation
		QL2.3 Improve Access & Wayfinding
	<p><b>Community</b></p>	QL3.1 Advance Equity & Social Justice
		QL3.2 Preserve Historic & Cultural Resources
		QL3.3 Enhance Views & Local Character
QL3.4 Enhance Public Space & Amenities		
 <p><b>Leadership</b></p>	<p><b>Collaboration</b></p>	LD1.1 Provide Effective Leadership & Commitment
		LD1.2 Foster Collaboration & Teamwork
		LD1.3 Provide for Stakeholder Involvement
		LD1.4 Pursue Byproduct Synergies
	<p><b>Planning</b></p>	LD2.1 Establish a Sustainability Management Plan
		LD2.2 Plan for Sustainable Communities
		LD2.3 Plan for Long-Term Monitoring & Maintenance
		LD2.4 Plan for End-of-Life
	<p><b>Economy</b></p>	LD3.1 Stimulate Economic Prosperity & Development
		LD3.2 Develop Local Skills & Capabilities
 <p><b>Resource Allocation</b></p>	<p><b>Materials</b></p>	RA1.1 Support Sustainable Procurement Practices
		RA1.2 Use Recycled Materials
		RA1.3 Reduce Operational Waste
		RA1.4 Reduce Construction Waste
		RA1.5 Balance Earthwork On Site
	<p><b>Energy</b></p>	RA2.1 Reduce Operational Energy Consumption
		RA2.2 Reduce Construction Energy Consumption
		RA2.3 Use Renewable Energy
		RA2.4 Commission & Monitor Energy Systems
	<p><b>Water</b></p>	RA3.1 Preserve Water Resources
		RA3.2 Reduce Operational Water Consumption
		RA3.3 Reduce Construction Water Consumption
RA3.4 Monitor Water Systems		



ATTACHMENT A – SCOPE OF SERVICES (CONT.)

 <p>Natural World</p>	Siting	NW1.1 Preserve Sites of High Ecological Value	
		NW1.2 Provide Wetland & Surface Water Buffers	
		NW1.3 Preserve Prime Farmland	
		NW1.4 Preserve Undeveloped Land	
	Conservation	NW2.1 Reclaim Brownfields	
		NW2.2 Manage Stormwater	
		NW2.3 Reduce Pesticide & Fertilizer Impacts	
		NW2.4 Protect Surface & Groundwater Quality	
	Ecology	NW3.1 Enhance Functional Habitats	
		NW3.2 Enhance Wetland & Surface Water Functions	
		NW3.3 Maintain Floodplain Functions	
		NW3.4 Control Invasive Species	
		NW3.5 Protect Soil Health	
	 <p>Climate and Resilience</p>	Emissions	CR1.1 Reduce Net Embodied Carbon
			CR1.2 Reduce Greenhouse Gas Emissions
CR1.3 Reduce Air Pollutant Emissions			
Resilience		CR2.1 Avoid Unsuitable Development	
		CR2.2 Assess Climate Change Vulnerability	
		CR2.3 Evaluate Risk and Resilience	
		CR2.4 Establish Resilience Goals and Strategies	
		CR2.5 Maximize Resilience	
		CR2.6 Improve Infrastructure Integration	
Maximum TOTAL Points			

CCD Primary (previous work/O&M)
Pinyon
Design/Construction leads effort to obtain pts; Pinyon documentation only

**Optional Tasks – Due Diligence**

An initial review of the project alignment indicates that up to nine private properties may be acquired as part of this project. Generally, the CCD requires that a Phase I ESA be conducted to evaluate environmental liabilities associated with acquiring real estate; a Phase I ESA may recommend that a Phase II ESA (which includes intrusive soil and/or groundwater sampling) be conducted. It is possible that the project will be required to fund these services. In order to provide funding options, Pinyon has developed costs to conduct an ASTM Standard Phase I ESA, and a “typical” Limited Phase II ESA, should the CCD be interested in including these services in Pinyon’s scope and fee. A typical Limited Phase II ESA assumes that three soil borings/temporary groundwater monitoring wells would be installed at a discrete property and analyzed for volatile organic compounds and the Resource Conservation and Recovery Act (RCRA) eight metals. The estimated costs include those necessary to contract a drilling company, field supplies, in-house equipment, laboratory costs, etc. It may be necessary to re-evaluate these costs as more information becomes available.



## TABLE I – SUMMARY OF ESTIMATED FEES

### Base Costs

<b>Task 1 – General Project Management</b>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	24	hours	\$201.00	\$4,824.00
Project Assistant	24	hours	\$86.00	\$2,064.00
<b>Task 1 Subtotal</b>				<b>\$6,888.00</b>
<b>Task 2 – Limited Environmental Screening</b>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	4	hours	\$201.00	\$804.00
Project Manager	2	hours	\$153.00	\$306.00
Project Engineer/Scientist	32	hours	\$110.00	\$3,520.00
<b>Equipment/Material Unit Rates</b>				
Field Visits (General Projects)	1	day	\$50.00	\$50.00
GeoSearch (Vendor)	1	each	\$550.00	\$550.00
<b>Task 2 Subtotal</b>				<b>\$5,230.00</b>
<b>Task 3 – Limited Sampling and Environmental Report</b>				
<b>Subtask 3a – Limited Soil Sampling (HASP, Soil Sampling)</b>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	5	hours	\$201.00	\$1,005.00
Staff II Engineer/Scientist	54	hours	\$94.00	\$5,076.00
<b>Equipment/Material Unit Rates</b>				
Soil Logging (During Drilling)	15	borings	\$105.00	\$1,575.00
<b>Laboratory Rates</b>				
SOIL (Waste Profile Screen)	15	samples	\$500.00	\$7,500.00
PLM - 72 Hour TAT (EMSL)	15	samples	\$8.80	\$132.00
CDWR - Well Permitting	5	wells	\$100.00	\$500.00
<b>Subtask Subtotal</b>				<b>\$15,788.00</b>
<b>Subtask 3b – Limited Groundwater Sampling (Initial CDPHE GW Sampling - Phase I)</b>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	1	hour	\$201.00	\$201.00
Staff II Engineer/Scientist	6	hours	\$94.00	\$564.00
<b>Equipment/Material Unit Rates</b>				
Groundwater Sampling Kit	1	day	\$201.00	\$201.00
<b>Laboratory Rates</b>				
GW (CDPHE Screen)	1	sample	\$1,100.00	\$1,100.00
<b>Subtask Subtotal</b>				<b>\$2,066.00</b>



TABLE I – SUMMARY OF ESTIMATED FEES (CONT.)

<b>Subtask 3c – Limited Groundwater Sampling (Initial MWRD GW Sampling - Phase I)</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Senior Engineer/Scientist	1	hour	\$201.00	\$201.00
Staff II Engineer/Scientist	6	hours	\$94.00	\$564.00
<b>Equipment/Material Unit Rates</b>				
Groundwater Sampling Kit	1	day	\$201.00	\$201.00
<b>Laboratory Rates</b>				
GW (MWRD Screen)	1	sample	\$1,700.00	\$1,700.00
<b>Subtask Subtotal</b>				<b>\$2,666.00</b>
<b>Subtask 3d – Environmental Report and Well Abandonment</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Senior Engineer/Scientist	4	hours	\$201.00	\$804.00
Project Engineer/Scientist	30	hours	\$110.00	\$3,300.00
<b>Subtask Subtotal</b>				<b>\$4,104.00</b>
<b>Task 3 Subtotal</b>				<b>\$24,624.00</b>
<b>Task 4 – Materials Management Plan</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Senior Engineer/Scientist	3	hours	\$201.00	\$603.00
Project Engineer/Scientist	20	hours	\$110.00	\$2,200.00
<b>Task Subtotal</b>				<b>\$2,803.00</b>
<b>Task 5 – Groundwater Dewatering Permit(s)</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Senior Engineer/Scientist	20	hours	\$201.00	\$4,020.00
Project Specialist	40	hours	\$127.00	\$5,080.00
<b>Task Subtotal</b>				<b>\$9,100.00</b>
<b>Task 6 – Section 404 Permitting</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Senior Engineer/Scientist	4	hours	\$201.00	\$804.00
Project Specialist	16	hours	\$127.00	\$2,032.00
Project Engineer/Scientist	16	hours	\$110.00	\$1,760.00
<b>Task Subtotal</b>				<b>\$4,596.00</b>



## TABLE I – SUMMARY OF ESTIMATED FEES (CONT.)

<b>Task 7 – Envision (Gap Analysis)</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Senior Engineer/Scientist	170	hours	\$201.00	\$34,170.00
Project Engineer/Scientist	110	hours	\$110.00	\$12,100.00
<b>Task Subtotal</b>				<b>\$46,270.00</b>
<b>Project Total</b>				<b>\$99,511.00</b>



## TABLE I – SUMMARY OF ESTIMATED FEES (CONT.)

### Optional Tasks

<i>Optional Tasks – Full Envision</i>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	250	hours	\$201.00	\$50,250.00
Project Engineer/Scientist	920	hours	\$110.00	\$101,200.00
Project Assistant	50	hours	\$86.00	\$4,300.00
<b>Task Subtotal</b>				<b>\$155,750.00</b>

<i>Optional Tasks – Due Diligence (Phase I ESA, per property)</i>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	1	hour	\$201.00	\$100.50
Project Manager	1	hour	\$153.00	\$153.00
Project Engineer/Scientist	22	hours	\$110.00	\$2,420.00
<b>Equipment/Material Unit Rates</b>				
GeoSearch (including historical)	1	each	\$325.00	\$325.00
<b>Task Subtotal</b>				<b>\$2,998.50</b>

<i>Optional Tasks – Due Diligence ("Typical" Phase II ESA, per property, pending results of Phase I ESA)</i>				
Description	Quantity	Unit	Rate	Extension
<b>Labor Rates</b>				
Senior Engineer/Scientist	4	hours	\$201.00	\$804.00
Project Manager	2	hours	\$153.00	\$306.00
Project Engineer/Scientist	48	hours	\$110.00	\$5,280.00
<b>Equipment/Material Unit Rates</b>				
Soil Sampling Kit	1	day	\$315.00	\$315.00
Groundwater Sampling Kit	1	day	\$201.00	\$201.00
Driller (EST)	1	LS	\$4,500.00	\$4,500.00
Private Locator	1	LS	\$400.00	\$400.00
<b>Laboratory Rates</b>				
Water - VOCs	3	samples	\$115.50	\$346.50
Water - RCRA 8 Metals	3	samples	\$93.50	\$280.50
Soil - VOCs	3	samples	\$115.50	\$346.50
Soil - RCRA 8 Metals	3	samples	\$93.50	\$280.50
<b>Task Subtotal</b>				<b>\$13,060.00</b>

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Date: 11/18/2020

Author: brp

Reviewer: trg

Review Date: 10/7/20



# Agreement for Professional Services

November 19, 2020

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Project: 48th Ave Storm - Globeville

Client: **Wilson & Company, Inc**  
**Attn: Jeffrey Holste**  
1675 Broadway #200, Denver, CO 80202

Dear Mr. Holste,

We are pleased to submit this proposal for professional services in connection with Wilson & Company (the “Client”) for the 48<sup>th</sup> Avenue Storm-Globeville project. We greatly appreciate the opportunity and consideration that allows us to work with you. This proposal is being prepared using our best understanding of the project scope based on information provided via meetings, email, and the Wilson & Company RFQ proposal approach provided to us on 9/15/20. Our fees are based upon the amount of Landscape Architectural, Graphic, Irrigation Design and Planning services necessary to satisfactorily complete the work as initially requested. If additional information, studies, jurisdiction requirements, submittal elements, or specialized sub-consultant services be required, it may be necessary to revisit this agreement and adjust the fees to the revised scope of professional services necessary to complete the project.

## Scope of Services

Valerian Ilc. (Valerian) shall provide Landscape Architectural, Planning, Graphic and Irrigation design consulting services associated with the 48<sup>th</sup> Avenue Storm - Globeville project. Based on information provided to Valerian the scope limits for the tasks outlined below shall be defined as:

- Entire Corridor: Lincoln Street side of Argo Park (and possibly to the beyond to the west) to the outfall at the South Platte River.
- Phase 1: The west side of Washington Street & 48<sup>th</sup> Avenue east to the outfall at the South Platte River.

Changes to the limits of improvements or project schedule shall be considered a change of scope and may result in additional fees. Valerian will complete the following specific work tasks and deliverables. Valerian will endeavor to design in compliance with laws, codes and ordinances in effect at the time of signing of the contract.

### 1. Task 1: Project Coordination

Valerian shall provide coordination with Wilson & Company, the design team and the following:

- Valerian to take the lead on coordination with Great Ecology
- Valerian to take the lead on coordination with Denver Water related to irrigation water needs



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- Valerian to take the lead on coordination with Denver Forestry
- Coordination with DPR Project Manager
- Coordination on trail alignment for the mobility plans
- Coordination on streetscape treatments on Washington Avenue for the roadway plans
- Coordination for initial grading, boulder placement, material selection, two (2) site quarry visits for outfall design
- Coordination with Bettie Cram Bridge consultants for design at the bridge landing
- Coordination with structural for any wall/retaining wall design/handrail
- Coordination with electrical for irrigation controller connection & site lighting
- Survey Coordination
  1. Valerian to review survey items related to landscape (trees, vegetation, irrigation equipment, site furnishings)
  2. Coordinate any missing items and provide to Wilson

## 2. **Task 2: Meetings**

Valerian shall attend, prepare for and provide notes for the following project meetings:

- Attend Kickoff Meeting
- Attend internal bi-weekly design team meetings (20 meetings)
- Attend key meetings with the Client (5 meetings)
- Attend site design meetings (2)

## 3. **Task 3: Communication Plan & Public Outreach**

Valerian shall provide the client with graphics for public presentation. The renderings will graphically portray up to three (3) alternatives for the overall corridor including Argo Park, open channel design, crossings, and outfall. Valerian shall provide the design team with preliminary graphics for review and approval and one set of final graphics incorporating revisions based on the Clients input.

- Attendance at two (2) Public Meetings
  - Alternatives Analysis Public Meeting
  - Preferred Alternatives Public Meeting
- Provide high quality presentation graphics related to the corridor and landscape renderings for the two (2) meetings. Valerian to provide up to four (4) 36 x 48 graphic boards for each meeting.
- Provide one (1) Lumion fly through
- Presentation material preparation



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## 4. Task 4: Alternatives Analysis – Overall Corridor (10%)

Prepare 10% Alternative Analysis - Landscape & Irrigation

- Valerian to provide relevant landscape/irrigation/water quality information as it relates to the Project alignment alternatives (3 total)
- Resiliency Analysis Memo
- Valerian to provide relevant landscape/irrigation information as it relates to the Preferred Alignment
- Cost Estimating: Valerian to provide quantities/opinion of probable costs related to landscape/irrigation only

## 5. Task 5: Preliminary Designs (30% Plans)

Prepare 30% Drawings - Landscape & Irrigation

- Interdisciplinary Review
- Internal & External QA/QC process as required.
- Provide preliminary water budget
- Estimated Drawing sheets to include:
  - Layout Plans (site furnishings, signs, feature boulders)
  - Landscape Plans
  - Plant Schedule and Notes
  - Landscape Planting Details
  - Irrigation Legend & Notes
  - Irrigation Plan
  - Irrigation Details
- Cost estimate:
  - Provide quantities and opinion of probable costs for landscape and irrigation items shown in the 30% drawings

## 6. Task 6: Preliminary Designs (60% Plans)

Prepare 60% Drawings - Landscape & Irrigation

- Revisions based on comments from 30% submittal as required.
- 30% ERA comment responses
- Interdisciplinary Review.
- Internal & External QA/QC process as required.
- Estimated Drawing sheets to include:
  - Layout Plans (site furnishings, signs, feature boulders)



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- Landscape Plans
- Plant Schedule and Notes
- Landscape Planting Details
- Irrigation Legend & Notes
- Irrigation Plan
- Irrigation Details
- Cost estimate:
  - Provide quantities and opinion of probable costs for landscape and irrigation items shown in the 60% drawings

## 7. Task 7: Final Design Phase 1 (90% Plans)

Prepare 90% Final Drawings & Specifications - Landscape & Irrigation

- Revisions based on comments from 60% submittal as required.
- 60% ERA comment responses
- 90% Specifications to include:
  - Tree Retention & Protection
  - Site Furnishings
  - Irrigation System
  - Automatic Irrigation Controller
  - Trees Plant & Groundcovers
  - Concrete Walks, Curbs and Miscellaneous
  - Crushed Stone Paving
- Interdisciplinary Review.
- Internal & External QA/QC process as required.
- Estimated Drawing sheets to include:
  - Layout Plans (site furnishings, signs, feature boulders)
  - Landscape Plans
  - Plant Schedule and Notes
  - Landscape Planting Details
  - Irrigation Legend & Notes
  - Irrigation Plan
  - Irrigation Details



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- Cost estimate:
  - Provide quantities and opinion of probable costs for landscape and irrigation items shown in the 90% drawings

## 8. Task 8: Final Design Phase 1 (100%/Final Plans)

Prepare 100% & Final Drawings & Specifications - Landscape & Irrigation

- Revisions based on comments from 90% submittal as required.
- 90% ERA comment responses
- 90% DPR QAQC comment responses
- 100%/Final Specifications to include:
  - Tree Retention & Protection
  - Site Furnishings
  - Irrigation System
  - Automatic Irrigation Controller
  - Trees Plant & Groundcovers
  - Concrete Walks, Curbs and Miscellaneous
  - Crushed Stone Paving
- Interdisciplinary Review.
- Internal & External QA/QC process as required.
- Drawing sheets to include:
  - Layout Plans (site furnishings, signs, feature boulders)
  - Landscape Plans
  - Plant Schedule and Notes
  - Landscape Planting Details
  - Irrigation Legend & Notes
  - Irrigation Plan
  - Irrigation Details
- Cost estimate:
  - Provide quantities and opinion of probable costs for landscape and irrigation items shown in the 100% & Final drawings



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# Agreement for Professional Services

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## Additional Services and Change Orders

After authorization to proceed is received any changes to the project scope, including tasks, deliverables and/or site plan modifications requested/required by the Client, Project Lead or municipality may constitute a change in the fees required for the project. Additional graphics, meetings, inspections, approvals, affidavits and coordination above and beyond what is outlined above may also be considered a change order. All change orders will be submitted to the Client, in writing, for review. Signed approval must be received prior to commencing any work.

## Project Assumptions

- All submittals will be digital pdf's
- This proposal is based on the schedule provided on 9/15/20
- Valerian to provide all graphic presentation material to Wilson & Company for printing/mounting for the two (2) public meetings
- Federal mileage rate \$.57.5
- Public presentation graphics will be high quality Lumion
- QA/QC Interdisciplinary Review will be Bluebeam
- File Management will be Projectwise
- ERA and DPR comments will be provided at 60%, 90%, 100%
- DPR to provide QA/QC review at 60% & 90%
- Valerian to provide seed mixes on plans and specs that are provided by Great Ecology
- Valerian to provide demolition information to Wilson for incorporation into demo plans
- Valerian to provide tree protection information to Wilson for incorporation into demo plans
- Valerian to adhere to DPR specifications and requirements related to irrigation and landscape.
- If the schedule is extended due to reasons out of our control, the fee will be subject to renegotiation.
- Specifications will be provided for the 90% & 100%, Final Submittals only.
- Wilson & Company to provide the tap utility drawings and Denver Water coordination.
- Wilson & Company to lead coordination Xcel and electrical design services need for lighting and providing electrical to the irrigation controller(s).
- Valerian shall lead coordination with Great Ecology
- Valerian to collaborate on retaining wall design and handrail selection. Engineer to provide drawings.
- Valerian to collaborate on initial grading and Wilson & Company will provide final deliverables for the following:
  - Site grading
  - Open Channel



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# Agreement for Professional Services

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- Outfall
- Green Infrastructure treatments Argo Park/Washington Street
- Valerian to collaborate on initial design and coordination Wilson & Company will provide final deliverables for the following:
  - Outfall
  - Open channel

## **Specific Exclusions to Scope of Services**

Fees depicted are to complete the entire project as described. Items not specifically included are excluded from this proposal. Additionally, Valerian has not anticipated or included the following:

- A. Surveys, base maps, verification and certification of existing utilities or analysis of existing vegetation. All utility information shall be provided by the Client in the form of an ALTA survey or similar device depicting utility types, locations and associated easements.
- B. Tree Survey Assessment or arborist services.
- C. Formal coordination with or submittals to local agencies including application fees associated with processing. All deliverables will be provided to the Client or Clients Representative for submittal to jurisdictions as required.
- D. Project scheduling.
- E. Verification and certification of existing utilities. All utility information shall be provided by others.
- F. Any planning or landscape requirements to mitigate hazardous materials.
- G. Any planning or landscape requirements to mitigate/adjust flood plain and/or wetlands.
- H. Additional municipal or construction submittals and addenda or required submittal documents/deliverables other than what has been specifically outlined in the tasks above.
- I. LEED Documents/Coordination.
- J. Irrigation Tap/Utility Drawings.
- K. Seed Mix Selection and design & specifications
- L. Soil testing & recommendations
- M. Soil amendment recommendations & specification
- N. Topsoil specification
- O. Import/Fill quantities & pricing related to import/fill
- P. Determination of Static Pressure at Point of Connections.
- Q. Any connection to, adaption of, or expansion of existing irrigation systems.
- R. Retaining wall design/structural design.
- S. Recommended start up, establishment, and post establishment irrigation watering schedule.



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- T. Site satellite controller communication testing.
- U. Captured or use of on-site water for irrigation purposes.
- V. Pump design and specification.
- W. Micro station and Revit conversion of project drawings.
- X. Finish grading including detailed grading plans. All grading and topographic information shall be provided by other consultants.
- Y. Development of Design Guidelines.
- Z. Neighborhood meeting site postings and mailings.
- AA. Presentation graphics, renderings or PowerPoint presentations beyond those specifically outlined.
- BB. Concurrent or phased submittals.
- CC. Construction Period Services.
- DD. Record Drawings

## **Limitation of Liability**

In recognition of the relative risks and benefits of the project to both the client and Valerian, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit the liability of Valerian and our sub-consultants to the Client and to all construction contractors and subcontractors on the project for any claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, so that the total aggregate liability of Valerian and our sub-consultants to all those names shall not exceed our design fee for services rendered on this project. Such claims and causes include, but are not limited to, negligence, professional errors or omissions, strict liability breach of contract or warranty.

## **Ownership and Copyright of Documents**

All drawings and documents produced under terms of this agreement are the property of Valerian, and cannot be used for any reason other than to bid and construct the above named project. The client has the right to use the drawings and documents for the purpose of constructing, maintaining, and operating the project. The client shall indemnify and defend Valerian from any claims, loss or damage arising out of client's failure to abide by these terms.



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# Agreement for Professional Services

November 19, 2020

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## Publicity

Valerian has the right to photograph the above named project and to use the photos in the promotion of the professional practice through advertising, public relations, brochures or other marketing or educational materials.

## Contract Validity

This contract is valid only if signed within 30 days of origination, unless formally extended by both parties.



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# Agreement for Professional Services

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48<sup>th</sup> Ave Storm-Globeville / #20-040

## Fee Schedule

### Fee Summary

Valerian llc. shall provide professional services on a T&M not to exceed basis as outlined below.

1. Project Coordination	\$ 35,860.00
2. Meetings	\$ 8,410.00
3. Communication Plan & Public Outreach	\$ 15,560.00
4. Alternatives Analysis – Overall Corridor (10%)	\$ 30,280.00
5. Preliminary Design (30% Plans)	\$ 25,220.00
6. Preliminary Design (60% Plans)	\$ 26,480.00
7. Final Design-Phase 1 (90% Plans)	\$ 33,060.00
8. Final Design-Phase 1 (100%/Final Plans)	\$ 28,300.00
9. <u>Direct Expenses (not to exceed)</u>	<u>\$ 550.00</u>

**Proposal Total:** **\$203,720.00**

The hourly rates used in the preparation of the fee schedule are as follows:

Principal: \$150.00	Irrigation Designer: \$ 100.00
Project Manager: \$115.00	Project Designer: \$85.00
Associate Principal: \$ 100.00	

All direct costs including but not limited to printing, reprographic and photographic reproduction of drawings, postage, delivery services, mileage and out-of-pocket expenses incurred in connection with this project shall be considered reimbursable expenses and shall be invoiced at cost.



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# Agreement for Professional Services

November 19, 2020

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I hereby authorize Valerian llc. to proceed with the Scope of Services as defined above for the Project, at a T&M not to exceed basis in the amount of **\$203,720.00** including direct reimbursable expenses. Please return one (1) signed copy of this Agreement for Professional Services to Valerian llc. for our records.

Agreed on this \_\_\_\_ day of \_\_\_\_\_, 2020

By: \_\_\_\_\_ Title: \_\_\_\_\_  
Print

\_\_\_\_\_  
Signature

Organization: \_\_\_\_\_

\_\_\_\_\_  
On Behalf of Valerian llc - Signature



VALERIAN

**Project Name: 48th Ave Storm - Globeville**

Project Number: 20-040  
 Date: 11/19/20  
 Client: Wilson & Company  
 Jurisdiction: CCD/DOTI

**Proposed Scope and Fees**

Project Role/Area of Expertise	Project Manager	Irrigation Designer	Project Designer	Principal
Staff Name(s)	PM	BJ	WK	CK
Hourly Rate	\$ 115.00	\$ 100.00	\$ 85.00	\$ 150.00

**Task 1: Project Coordination**

		PM	BJ	WK	CK	Hours	Labor
1	Valerian to take the lead on coordination with Great Ecology	30				30	\$3,450
2	Valerian to take the lead on coordination with Denver Water related to irrigation water needs		16			16	\$1,600
3	Develop QAQC Plan	8	8			16	\$1,720
4	Valerian to take the lead on coordination with Denver Forestry	16				16	\$1,840
5	Coordination with DPR Project Manager	30				30	\$3,450
6	Overall Project Coordination with Wilson/Design Team	60				60	\$6,900
7	Coordination on Mobility Plans	28				28	\$3,220
8	Coordination on Roadway Plans	32				32	\$3,680
9	Coordination on Outfall Plans	32				32	\$3,680
10	Coordination with Bettie Cram Bridge consultants	8				8	\$920
11	Coordination with structural	12				12	\$1,380
12	Coordination with electrical for irrigation controller connection		8			8	\$800
13	Coordination with electrical regarding site lighting	12				12	\$1,380
14	Survey Coordination	16				16	\$1,840
	<b>Total Hours for Task 1</b>	284.0	32.0	0.0	0.0	316	
	<b>Total Fee for Task 1</b>	\$32,660	\$3,200	\$0	\$0		<b>\$35,860</b>
						Estimated Expenses	\$0

**Task 2: Meetings**

		PM	BJ	WK	CK	Hours	Labor
1	Attendance at Kickoff Meeting	4		2		6	\$630
2	Attendance at internal biweekly design team meetings (20 Meetings)	40	8			48	\$5,400
3	Attendance at key meetings with the Client (5 Meetings)	12				12	\$1,380
4	Attendance at site meetings (2)	4	2	4		10	\$1,000
	<b>Total Hours for Task 2</b>	60.0	10.0	6.0	0.0	76	
	<b>Total Fee for Task 2</b>	\$6,900	\$1,000	\$510	\$0		<b>\$8,410</b>
						Estimated Expenses	\$250

**Task 3: Communication Plan & Public Outreach**

		PM	BJ	WK	CK	Hours	Labor
1	Attendance at two (2) Public Meetings	8			8	16	\$2,120
2	Preparation of high quality presentation graphics related to the corridor and landscape renderings for the two (2) meetings	20		80		100	\$9,100
3	Coordination related to graphic presentation materials	20		24		44	\$4,340
	<b>Total Hours for Task 3</b>	48.0	0.0	104.0	8.0	160	
	<b>Total Fee for Task 3</b>	\$5,520	\$0	\$8,840	\$1,200		<b>\$15,560</b>
						Estimated Expenses	\$300

**Task 4 - Alternatives Analysis - Overall Design (10% Plans)**

		PM	BJ	WK	CK	Hours	Labor
1	Prepare three (3) design alternatives	32	24	80	8	144	\$14,080
2	Resiliency Analysis Memo	8	4	8		20	\$2,000
3	Preliminary water budget		30			30	\$3,000
4	Preliminary opinion of costs	40	32	40		112	\$11,200
	<b>Total Hours for Task 4</b>	80.0	90.0	128.0	8.0	306	
	<b>Total Fee for Task 4</b>	\$9,200	\$9,000	\$10,880	\$1,200		<b>\$30,280</b>

Estimated Expenses \$0

**Task 5 - Preliminary Design (30% Plans)**

		PM	BJ	WK	CK	Hours	Labor
1	Preparation of Irrigation and Landscape Drawings	32	60	80		172	\$16,480
2	Interdisciplinary Review	8	8	8	8	32	\$3,600
3	Preparation of Opinion of Probable Costs	20	8	24		52	\$5,140
	<b>Total Hours for Task 5</b>	60.0	76.0	112.0	8.0	256	
	<b>Total Fee for Task 5</b>	\$6,900	\$7,600	\$9,520	\$1,200		<b>\$25,220</b>

Estimated Expenses \$0

**Task 6 - Preliminary Design (60% Plans)**

		PM	BJ	WK	CK	Hours	Labor
1	Preparation of Irrigation and Landscape Drawings	32	60	80		172	\$16,480
2	30% Comment Responses	8	8	8		24	\$2,400
3	Interdisciplinary Review	8	8	8	8	32	\$3,600
4	Preparation of Opinion of Probable Costs	16	8	16		40	\$4,000
	<b>Total Hours for Task 6</b>	64.0	84.0	112.0	8.0	268	
	<b>Total Fee for Task 6</b>	\$7,360	\$8,400	\$9,520	\$1,200		<b>\$26,480</b>

Estimated Expenses \$0

**Task 7 - Final Design Phase 1 (90% Plans)**

		PM	BJ	WK	CK	Hours	Labor
1	Preparation of Irrigation and Landscape Drawings	12	40	60		112	\$10,480
2	60% ERA Comment Responses	8	8	8		24	\$2,400
3	60% DPR QAQC Comment Responses	16	12	20		48	\$4,740
4	90% Specifications	40	24	24		88	\$9,040
5	Interdisciplinary Review	8	8	8	8	32	\$3,600
6	Preparation of Opinion of Probable Costs	8	12	8		28	\$2,800
	<b>Total Hours for Task 7</b>	76.0	84.0	112.0	0.0	332	
	<b>Total Fee for Task 7</b>	\$8,740	\$8,400	\$9,520	\$0		<b>\$33,060</b>

Estimated Expenses \$0

**Task 8 - Final Design Phase 1 (100%/Final Plans)**

		PM	BJ	WK	CK	Hours	Labor
1	Preparation of Irrigation and Landscape Drawings	16	32	48	8	104	\$10,320
2	90% ERA Comment Responses	8	8	4		20	\$2,060
3	90% DPR QAQC Responses	16	16	8		40	\$4,120
4	100% Specifications	24	24	24	4	76	\$7,800
5	Interdisciplinary Review	4	4	4		12	\$1,200
6	Preparation of Opinion of Probable Costs	8	12	8		28	\$2,800
	<b>Total Hours for Task 8</b>	64.0	80.0	84.0	12.0	280	
	<b>Total Fee for Task 8</b>	\$7,360	\$8,000	\$7,140	\$1,800		<b>\$28,300</b>

Estimated Expenses \$0

<b>Totals</b>							
	<b>Total Hours</b>	736.0	456.0	658.0	44.0	1,994.0	
	<b>Total Fee</b>	84,640.0	45,600.0	55,930.0	6,600.0		<b>\$203,170</b>
	<b>Total Expenses</b>						<b>\$550.00</b>
	<b>TOTAL</b>						<b>\$203,720.00</b>



1435 Larimer Street, Suite 200  
Denver, CO 80202  
[www.greatecology.com](http://www.greatecology.com)  
P: (303) 872-0927

November 19, 2020

**JEFFERY C. HOLSTE, PE, CFM**

Wilson & Company, Inc.  
1675 Broadway, Suite 200  
Denver, CO 80202

**Proposal to Provide Ecological Design Services for 48<sup>th</sup> Avenue Storm – Globeville Project**

---

Dear Mr. Holste:

Thank you for the opportunity to present a proposal to provide ecological design services for the 48<sup>th</sup> Avenue Storm – Globeville project (project). In this scope we describe the tasks to support project evaluation, coordination, alternatives development, construction document support, and construction administration services.

**PROPOSED SCOPE**

**TASK 1: KICK-OFF MEETING, ONGOING COORDINATION, AND PROJECT MANAGEMENT**

Great Ecology will participate in one 2-hour client kick-off meeting for project initiation. The purpose of the meeting is to gain a clear understanding of project goals and objectives. Great Ecology will offer our expertise in ecological landscape design, stormwater management, and water quality design elements. Great Ecology will also review all relevant documentation including master plans and other planning documents to inform design intent and understand adjacent project objectives and data.

Great Ecology will also participate in internal bi-weekly Design Team meetings, as it relates to relevant subject matter. It is anticipated to include up to 24 1-hour meetings over the proposed 18-month schedule. It is anticipated that up to two (2) Great Ecology staff may attend up to ten (10) Design Team meetings. Great Ecology will also provide our expertise at up to six (6) key meetings with the client including, but not limited to: alternatives analysis, 30% plan review, 60% plan review, and 90% plan review. Great Ecology will also attend up to two (2) site visits with the client and project team during the design phase. It is assumed that all meetings will include 0.5 hours for preparation and follow-up on action items.

Also, in this task, Great Ecology will include time to conduct project management actions, internally and across the project team, including but not limited to project set-up, file management, and invoicing.

*Task 1 Deliverables:*

- Attendance at one (1) project kick-off meeting;
- Attendance at up to 24 internal design team meetings;
- Attendance at up to six (6) client stakeholder meetings;
- Attendance at up to two (2) site visits with the client and project team; and
- Monthly invoices and related project management deliverables.

**PHASE I: CONCEPTUAL DESIGN (10% AND 30%) ALL PHASES**

**TASK 2: SITE ASSESSMENTS**

Under this task, up to two (2) Great Ecology staff members will participate in a preliminary site assessment of the project areas in conjunction with the Wilson Design Team. The objective of the site visit will be to evaluate current conditions of the proposed project area to assess current conditions and identify opportunities and constraints relating to stormwater green infrastructure and open space functions and services.



Additionally, following the selection of a chosen alternative (Task 3), Great Ecology will evaluate the plant community and soils of each selected area to develop a comprehensive list of the existing plant species and soil conditions to inform planting plan development. The assessment includes a tree survey using a submeter grade Global Positioning System (GSP) and inventory following Denver Parks and Recreation tree database format. Great Ecology will collect one composite soil samples per identified area, up to five (5) locations for soil testing analyses, The soil test results will describe the current condition of onsite topsoil and assist with development of appropriate soil amendments and treatments. Areas that are private property will only be observed from outside the property unless given access by the owner.

### Task 2 Deliverables:

- Field report describing current ecological conditions, including species identified and soil test results for inclusion in the *Conceptual Design Report* developed by Wilson; and
- GIS shapefile of tree survey and inventory.

### TASK 3: ALTERNATIVES ANALYSIS (10%)

Great Ecology will support the Design Team in developing open space, channel, and stormwater conceptual alternatives for the entire project reach from South Platte River (SPR) outfall to Lincoln Street. Great Ecology's role at this point in the design process is to help ensure the ecological objectives can be achieved with all engineering alternatives being considered. Layering in an understanding of ecological design elements early in the design process helps ensure the selected alternative will increase ecological function, achieve a natural aesthetic, meet hydraulic and maintenance requirements, provide water quality treatment where feasible, and complement the project's other interrelated objectives instead of trying to shoehorn in ecology after the major engineering elements are agreed to. Outside of Design Team meetings, we will work iteratively by exchanging hand-drawn design ideas with the Design Team and will support integration of ecological principles into the alternatives through regular communication and support. Additionally, we will assist Wilson in developing ecological elements of the *Conceptual Design Report* to help determine the preferred alternative.

### TASK 3 DELIVERABLES:

- Rough conceptual sketches of ecological design features and stormwater concepts to facilitate iterative design team collaboration:
  - Up to (3) hand-drawn plan view sketches;
  - Up to (3) hand-drawn section sketches;
- Development of Ecological Approach section(s) for *Conceptual Design Report*; and
- Redline review and comment on 10% plan sets focused on ecological design elements.

### TASK 4: PRELIMINARY DESIGN 30%

Great Ecology will support refinement of the design alternatives into 30% construction documents. The selected alternative will cover the entire project length (SPR outfall to Lincoln Street). We will collaborate with Wilson and Valerian on ecological aspects of the design through iterative redline and written comments and provide preliminary plant recommendations and seed mixes for the different identified areas. Planting and revegetation comments may address ecological function, habitat improvement opportunities, water quality treatment opportunities, mobility and roadway impacts, and maintenance concerns. We will also support development of the 30% opinion of probable costs (OPC) as it relates to ecological design elements.

As part of the plan set development, we will provide review of the 30% Construction Documents focusing on aspects that may influence successful restoration or enhancement of ecological functions and services. We will focus our review on areas of the plans that include, but are not limited to grading, mobility, roadway, and outfall design plans.

#### TASK 4 DELIVERABLES:

- Redline and written comments on draft 30% design;
- Preliminary plant palette and seed mixes; and
- 30% design cost estimating support for planting and ecological design elements.

### **PHASE II: PRELIMINARY DESIGN (60%) ALL PHASES**

#### **TASK 5: PRELIMINARY DESIGN 60%**

Great Ecology will support refinement of the design alternatives into 60% construction documents. We will collaborate with Wilson and Valerian on ecological aspects of the design through iterative redline and written comments and provide plant recommendations and seed mixes for the different areas and expected hydrologic conditions. Planting and revegetation comments may address ecological function, habitat improvement opportunities, water quality treatment opportunities, mobility and roadway impacts, and maintenance concerns. We will develop up to four (4) site specific seed mixes based on purpose and hydrology. We will also support development of the 60% opinion of probable costs.

#### TASK 5 DELIVERABLES:

- Redline and written comments on draft 60% design;
- Preliminary plant palette and up to four (4) seed mixes; and
- 60% design cost estimating support for planting and ecological design elements.

#### **TASK 6: PUBLIC ENGAGEMENT AND PUBLIC MEETING SUPPORT**

Great Ecology will provide public engagement and public meeting support by offering our experience with the Globeville neighborhood and expertise in ecological design and restoration planning. Joshua Eldridge, M.S., and/or Esa Crumb, M.S. will attend one 2-hour public meeting and/or open house event. Additional time is included for development or review of public meeting materials, preparation, and debrief.

#### TASK 6 DELIVERABLES:

- Up to four hours of graphic support to provide ecological information for public meetings; and
- Attendance at one (1) 2-hour public meeting.

### **PHASE III: FINAL DESIGN (90% AND 100%) PHASE 1**

#### **TASK 7: FINAL DESIGN**

Great Ecology will support refinement of 60% design plans into final construction documents. We will continue collaboration with the Design Team on ecological and aesthetic aspects throughout the design process. We will collaborate with Valerian and Wilson on grading and planting through iterative redline and written comments and will finalize seed mixes, plant palette, and soil amendment recommendations. Additionally, we will finalize revisions to the topsoil, seedbed preparation, and native seeding specifications. We will support development of the 90% and 100% OPC.

#### TASK 7 DELIVERABLES:

- Redline and written comments for each review submittal (90% and 100%);
- Site-specific plant palette and seed mixes;
- 90% and 100% technical specification modifications; and
- 90%, and 100% cost estimating support for planting and ecological design elements.

### **COST ESTIMATE**

The estimated total cost of this effort is a not-to-exceed \$44,080 on a time and materials basis. If the scope of work changes, we will immediately inform you to request authorization to proceed. Great



Ecology bills monthly and will initiate work immediately upon written authorization to proceed.

TABLE 1 summarizes the estimated costs associated with Phase I, II, and III.

TABLE 1: ESTIMATED TOTAL COST

Task	Description	Labor Hours	Cost (\$)
<b>Overall</b>	<b>Meetings, Coordination and Project Management</b>		
Task 1	Meetings, Coordination and Project Management	110	17,285
	<b>Phase I: Site Assessment and Alternatives Analysis</b>		
Task 2	Site Assessments	39	5,505
Task 3	Alternatives Analysis (10%)	30	4,380
Task 4	Alternatives Analysis (30%)	22	3,212
	Phase I Direct Expenses		621
	<i>Phase I Subtotal</i>	91	13,719
	<b>Phase II: Preliminary Design</b>		
Task 5	Preliminary Design (60%)	48	6,910
Task 6	Stakeholder Engagement and Public Meeting Support	9	1,356
	<i>Phase II Subtotal</i>	57	8,266
	<b>Phase III: Final Design</b>		
Task 7	Final Design (90% and 100%)	33	4,811
	<i>Phase III Subtotal</i>	33	4,811
	<b>Subtotal Direct Expenses</b>		<b>621</b>
	<b>Subtotal Labor</b>	<b>291</b>	<b>43,459</b>
	<b>Total</b>		<b>44,080</b>

Additional services requested outside of, or in addition to, the described scope of work will be billed at the following rates depending on personnel required to perform the requested service. Any additional work will be requested in writing and have official notice to proceed before Great Ecology will perform the requested work.

Position Title	Hourly Rate
Senior Ecologist	\$160
Associate Ecologist/Landscape Architect	\$139
Ecologist	\$125

Our cost estimate is based on the following assumptions:

- Wilson will provide all relevant planning and design files and documents to facilitate collaboration;
- Our proposed fees include reimbursable expenses (laboratory fees, shipping, and mileage);
- No printed materials are included in our estimate;
- Deliverables will be transmitted electronically; and
- Our proposed fees include project and task management.

Sincerely,



Joshua D. Eldridge, MS  
Mountain Regional Director



November 19, 2020  
Proposal No. 20094

Wilson and Company  
1675 Broadway #200  
Denver, CO 80202

2750 S Wadsworth Blvd, Suite D200  
Denver, Colorado 80227  
303.625.9502  
www.LithosEng.com

Attention: Mr. Jeffrey Holste, PE, CFM  
Project Manager

Mr. Holste -

Lithos Engineering (Lithos) is pleased to provide this proposal to Wilson and Company (Wilson) for the subject project. The project owner is the City and County of Denver (CCD).

### **Project Understanding**

The 48<sup>th</sup> Avenue Storm project includes installation of a storm sewer pipeline and pedestrian connectors in the vicinity of E. 48<sup>th</sup> Avenue and the South Platte River based on preliminary exhibits prepared by Wilson in July 2020. The project includes storm-sewer tunnels beneath Lincoln Avenue and a railroad (in two locations). Pedestrian RR crossings may be considered in another two locations. All tunnels are to be advanced to the 60% design level for further consideration by CCD. Tunnel crossings are referred to henceforth as:

1. Tunnel #1 (T1)- Railroad crossing West of Lincoln St. and E. 48<sup>th</sup> ave.
2. Tunnel #2 (T2) - Under Lincoln St. and onto 48<sup>th</sup>.
3. Tunnel #3 (T3) – Railroad crossing between Platte Farm Open Space and Argo Park, possible pedestrian usage
4. Tunnel #4 (T4) – Railroad crossing between Argo Park and near E. Elgin Place, possible pedestrian usage

It should be noted that T1 and T2 are about 50 feet from one another and that the ground conditions will most likely be similar to each other, therefore these two tunnels will be discussed simultaneously as shown later in this proposal.

### **Proposed Scope of Services**

Based on our understanding of the project, Lithos proposes the following scope of services for 60% design of the four (4) potential tunnel crossings. Note only storm crossings will be advanced into design. Pedestrian crossings will be developed through feasibility only until written approval is provided from Wilson to scope pedestrian tunnels and pursue design.

#### **Task 1 – Geotechnical Investigation**

Wilson retained Geocal, Inc. (Geocal) for geotechnical exploration of the entire alignment. Lithos will coordinate with Geocal on the subsurface exploration near the proposed crossings.

Lithos assumes Geocal will drill two boreholes on either side of each proposed crossing (7 or 8 tunnel boreholes total) and complete select locations as groundwater monitoring wells, Typically one well per tunnel.

Our scope includes:

- Discussions with Geocal about the location and depth of geotechnical borings at either side of the proposed crossing locations, as well as soil/bedrock sampling intervals.
- Observation of the borings during drilling. We assume Geocal will have the lead on the drilling work including obtaining the drill rig, utility locates, official boring logs, and sample ownership. Project risk will be reduced by having the tunnel designer observe and record soil/rock parameters which are relevant to tunnel construction.
  - Five days are assumed for geotechnical exploration/observation at the proposed crossing locations.
- Coordinate with Geocal on an appropriate laboratory testing program of collected samples at the crossing location.
- Reviewing the geotechnical report authored by Geocal for tunnel-related aspects.

#### Task 2 – Tunnel Feasibility Memorandum

Lithos will provide a feasibility memorandum addressing:

- Viable tunnel construction methods at each tunnel
- Associated tunnel risks and risk mitigation strategies (including ground improvement) incorporating constraints posed by potential utility and layout conflicts, subsurface ground conditions, and third-party impacts.
- Discussion of tunnel and shaft construction techniques to alleviate problems associated with potentially contaminated groundwater, and recommendations for design elements to address groundwater concerns.

It is assumed a workshop or otherwise communications will be held following Task 2 to collaborate on the tunnel design aspects. The following tasks are proposed upon Wilson/CCD decision to further tunnel design at each location.

#### Task 3 – Geotechnical Baseline Reports

Lithos will prepare three (3) Geotechnical Baseline Reports (GBR) for the tunnels. Tunnels T1 and T2 will be included in the same GBR. We propose to separate GBRs to allow the project flexibility in bidding and extensive report edits if select tunnels are added/removed. A draft version (in electronic format) will be submitted to Wilson for review. The report will then be revised per Wilson and CCD comments and advanced to the 60 percent design stage.

The GBR differs from typical geotechnical reports by that the intended reader of the report is the tunnel contractor rather than the design engineer. The report provides interpretation of the ground conditions and sets baselines of those conditions to aid the contractor during bidding and to resolve differing site condition (DSC) claims during construction. As a risk mitigation tool, the GBR allows the City to decide what ground conditions the contractor must account for in its bid price. If ground conditions prove to be more adverse than the GBR describes, then the contractor is legitimately owed the additional costs of construction in the adverse conditions. For the GBR to be effective, the contract documents between the

owner and contractor must address the DSC clause. A DSC may be defined as subsurface or latent physical conditions at the site which differ materially from those indicated in the contract. The GBR is how subsurface geologic conditions (soil, rock, and ground water) are indicated in the contract.

The GBR will:

- Be prepared in general accordance with the 2007 guidelines published by ASCE;
- Reference in the report and the results of field explorations and laboratory testing;
- Provide a site vicinity map, boring location plan and geologic profile for the trenchless portion of the project;
- Evaluate ground classification and anticipated ground behavior with respect to shaft and tunnel excavation using the appropriate Tunnelmans' Classification System;
- Provide and interpretation of groundwater conditions (if necessary);
- Review alignment and configuration options for the alignment;
- Provide a discussion of the allowable shaft and tunnel construction methods as dictated in the specifications including potential construction challenges the contractor needs to account for;
- Evaluate potential impacts to adjacent structures (if any);
- Set baseline conditions for the materials to be encountered, i.e. rock hardness, clay stickiness, soil plasticity etc.

Oftentimes projects that incorporate GBR's result in contractor bids having less variance between the competing contractors because contractors make fewer assumptions and refrain from pricing excessive risk.

#### Task 4 – Shaft and Tunnel Design Drawings

Lithos will prepare Contract Drawing sheets for tunnel and shaft drawing details, as required, for inclusion into the overall drawing set prepared by Wilson. Drawings will likely consist of detail sheets discussing instrumentation and monitoring, preliminary pedestrian tunnel design concepts, pipe grout port details for contact grouting, and ground improvement details. We assume Wilson will prepare the plan and profile drawings that include the tunnel-related drawing details.

These will be advanced to the 60% design efforts and include general specification components for the project team to consider.

#### Task 5 – Cost Estimating

Lithos will provide AACE 18R-97 Class 3 opinion of probable construction costs for each pedestrian tunnel, and Class 2 opinion of probable construction costs for each storm tunnel. It will be difficult to cost the pedestrian tunnels to the same level of expected accuracy as the storm tunnel until the designs are further advanced.

#### Task 6 – Meetings

Lithos (up to two personnel) will attend up to five (5) two-hour meetings during the design of the project. We anticipate some of these meetings will be internal to the design team and others will include CCD and third parties. We anticipate presentation aids will be required and prepared in addition to the meetings.

### Fee Estimate

Based on our proposed Scope of Services outlined above, we estimate a total fee for our services for the above 6 tasks as summarized in the attached fee estimate. Lithos proposes to provide these services on a time and expense basis in accordance with the attached CCD fee schedule and estimate.

If the design team wishes to further pedestrian crossings beyond feasibility, Lithos will submit additional scope for pedestrian tunnel design.

### Additional Services (not scoped)

Lithos is available to provide additional services upon request, below are services that may benefit the project.

- a. Levee coordination – Lithos is available to offer geotechnical support for the design of the outfall
- b. Construction Dewatering inflow rate analysis. By performing a pump test to better quantify the volume of inflow that that contractors should bid in the open cut areas the project cost will include less risk priced in the bid. This will be important should Pinyon find significant contaminated ground. Ground support modeling for the interaction between the Betty Cram bridge foundations and potential underground pipe should an open channel concept prove to not be viable.
- c. Railroad tunnel-related permitting support.
- d. Risk Registry - Lithos recommends a Risk Identification analysis and Mitigation Workshop and proposes to lead the preparation of the project risk register regarding the tunnel portions of the project. The tunnel portions of the project pose a high risk to the project success and helping the City to make risk-evaluated decisions that meet their risk tolerance will be important to the project. This scope includes:
  1. Develop and update the risk tunnel risk register up to the 60% design milestones.
  2. Identification of the potential risk, likelihood of risk event occurrence, propose mitigation measures, quantify potential impacts to cost and schedule and present pros and cons of alternative risk sharing and allocation strategies so that City can consider how it contracts for the construction work. This will be summarized in a memorandum prepared by Lithos regarding the tunnel risks to the project.
  3. Owner input/discussion on tunnel techniques in an in-person meeting during the approximate 60% submittal phase. Prior to this meeting the risks will have been scored, ranked, and presented to the team.

It is assumed the risk register will be submitted as part of prime consultant's design report.

Closing

We appreciate the opportunity to submit a proposal for this project and look forward to the opportunity to work with you and your team on this project. For this project, Ryan Marsters will be your key contact and Project Manager and Benny Siljenberg will serve as the principal-in-charge. If you have any questions regarding the contents of this proposal, please contact the undersigned.

Sincerely,

**Lithos Engineering**



Ryan Marsters, PE, PG  
Associate



Benny Siljenberg, PE  
Vice-President

Attachments

Fee Estimate

Fee Schedule (CCD approved)

**Project Fee Estimate**

Project Name: 48th Ave Storm/Ped  
 Project Number: 20094  
 Date: 11/19/2020

**FEE ESTIMATE**

No.	Phase	Labor	Subconsultants	Direct Costs	Total
1	Geotechnical Investigation	\$ 8,580			\$ 8,580
2	Tunnel Feasibility Memo	\$ 17,120			\$ 17,120
3	Geotechnical Baseline Reports	\$ 34,340			\$ 34,340
4	Shaft and Tunnel Design Drawings	\$ 17,160			\$ 17,160
5	Communications	\$ 3,220			\$ 3,220
6	Meetings	\$ 5,400			\$ 5,400
	NO MARKUPS INCLUDED	\$ -	\$ -	\$ -	\$ -
	<b>Total</b>	\$ 85,820	\$ -	\$ -	<b>\$ 85,820</b>



# H.C. Peck & Associates, Inc.

## A National Land Service Company

November 19, 2020

*Sent via email*

Mr. Jeffrey C. Holste, P.E., CFM  
Wilson & Company, Inc.

Re: City and County of Denver – 48<sup>th</sup> Avenue Storm

Dear Jeff:

Per our email discussion today regarding initial project budgets, this is to formalize our costs relative to preliminary title work in connection with the referenced project, to wit:

Title research/prep of “O&E” reports for 18 parcels:	\$4,500
Title research for BNSF right of way (Up to 19 +/- hours of time @\$129/hour – rounded)	<u>\$2,500</u>
TOTAL	\$7,000

If you have any questions or need additional information, please contact me.

Sincerely,

*J E Parker, Jr.*

J E Parker, Jr.  
Executive Vice President





4201 E. Yale Ave., STE 230  
Denver, CO 80222  
Phone 303-859-4491  
www.105westinc.com

December 11, 2020

Mr. Jeffrey C. Holste, PE, CFM  
Wilson & Company, Inc., Engineers & Architects  
1675 Broadway, Suite 200  
Denver, CO 80202

**RE: Professional Surveying Services – 48<sup>th</sup> Avenue Storm (Globeville) Survey Control Assistance  
City and County of Denver, State of Colorado**

Dear Jeff,

105 West, Inc., (105 West) appreciates the opportunity to offer our proposal providing professional surveying services for the above-referenced project. Based on our discussion, 105 West will assist Wilson & Company, Inc., (Wilson) in the performance of the following scope up to the amount shown below.

***AERIAL IMAGERY & LIDAR GROUND SHOT ASSISTANCE***

105 West will assist Wilson with establishing 11 total field survey control points.

To properly align and control aerial data, 105 West, Inc., will assist Wilson with the establishment of Photo identifiable features (PIDs) and lidar ground shots. PIDs are photo identifiable features such as the end of paint stripes, corners of concrete or centers of manholes where Wilson can identify a very specific XY&Z.

All PIDs will include a photo of the shot so Wilson can see exactly what the point of the GPS rod is sitting on.

In addition, 105 West will assist Wilson with the establishment of supplemental ground shots for LIDAR purposes. These shots will be in clear open areas and on hard surfaces (some areas might only have a gravel road available). These shots are to set an elevation, so a specific feature is not required.

For the survey task/s described herein, 105 West will provide assistance on an hourly basis according to the attached charge rate fee schedule up to and not-to-exceed a fee of **\$8,000.00**.

Thank you for the opportunity to provide our services to you. Please contact us if you have any questions.

Sincerely,

105 West, Incorporated

A handwritten signature in blue ink that reads 'Robert C. Maestas'.

Robert C. Maestas, PLS  
Director of Surveying and Mapping Services



5350 DTC Pkwy, Suite 206  
Greenwood Village, Colorado 80111  
Cell: 720-474-0941  
[www.bai-eng.com](http://www.bai-eng.com)

## QUOTATION FOR SCOPE OF WORK

City and County of Denver 48<sup>th</sup> Avenue

December 14, 2020

### Section 1 Understanding

Our understanding of this project is to provide stormwater control automation services.

### Section 3: Scope of Work

We will provide stormwater control automation services based on a time and material basis as needed for the 48<sup>th</sup> Avenue Storm project.

### Section 4 Fee

The not-to-exceed fee is \$2,000.

If you have any questions regarding this quote, do not hesitate to contact us. We look forward to working with you on this project.

Sincerely,

A handwritten signature in blue ink that reads "Xuehua Bai".

---

Xuehua Bai, PE, BCEE  
Principal

**Exhibit B**  
**Key Personnel/Fee/Classification/Hourly Rates/Reimbursables**

## CONSULTANT TEAM MEMBERS

**PRIME CONSULTANT:** Wilson & Company, Inc., Engineers & Architects

List **ALL** potential firm personnel titles/classification that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager).

Title/Classification	Responsibilities	Rate/Hr.
Engineer/Technical Specialist XXV	Principal III	\$300.00
Engineer/Technical Specialist XXIV	Principal II	\$290.00
Engineer/Technical Specialist XXIII	Principal I	\$280.00
Engineer/Technical Specialist XXII	Project Manager IV	\$270.00
Engineer/Technical Specialist XXI	Contract Manager, Project Manager III, Sr. Engineer III	\$260.00
Engineer/Technical Specialist XX	Project Manager II	\$250.00
Engineer/Technical Specialist XIX	Project Manager II	\$240.00
Engineer/Technical Specialist XVIII	Survey Manager	\$230.00
Engineer/Technical Specialist XVII	Sr. Engineer II, Construction Manager	\$220.00
Engineer/Technical Specialist XVI	Sr. Engineer II	\$210.00
Engineer/Technical Specialist XV	Environmental Lead, Sr. Engineer I	\$200.00
Engineer/Technical Specialist XIV	Engineer III, , Sr. Engineer I	\$190.00
Engineer/Technical Specialist XIII	Engineer III	\$180.00
Engineer/Technical Specialist XII	Professional Surveyor	\$170.00
Engineer/Technical Specialist XI	Engineer II, Senior Architect	\$160.00
Engineer/Technical Specialist X	Engineer II	\$150.00
Engineer/Technical Specialist IX	Sr. Graphics Designer, Biologist, Engineer I	\$140.00
Engineer/Technical Specialist VIII	Hazardous Materials Specialist, Engineer I, Architect	\$130.00
Engineer/Technical Specialist VII	Jr Engineer III, Sr. Cadd Tech	\$120.00
Engineer/Technical Specialist VI	Jr Engineer III, Construction Observer II, Project Accounting	\$110.00
Engineer/Technical Specialist V	Jr Engineer II, Construction Observer I	\$100.00
Engineer/Technical Specialist IV	Jr Engineer I, Party Chief II, Construction Observer I, Social Media	\$90.00
Engineer/Technical Specialist III	Party Chief I	\$80.00
Engineer/Technical Specialist II	Office Administration, Instrument Person	\$70.00
Engineer/Technical Specialist I	Instrument Person	\$60.00
Intern	Intern	\$55.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3.0

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Prime Consultant: Wilson & Company, Inc., Engineers & Architects

The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

**Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 1/2 x 11")	\$ <u> N/A </u> / each
Copies (8 1/2 x 14")	\$ <u> N/A </u> / each
Red-line copies	\$ <u> 0.10 </u> / S.F.
Reproducibles	\$ <u> 0.25 </u> / page
Flyers/Public Outreach Materials	\$ <u> 1,000.00 </u> / each meeting
Survey GPS Unit Rate	\$ <u> 125.00 </u> / day
Misc. Survey Supplies (caps, stakes, paint, etc.)	\$ <u> 350.00 </u> / lump sum
Public Meeting Facilities	\$ <u> 1,000.00 </u> / each meeting
Denver Water Review Fees	\$ <u> 5,000.00 </u> / each review

**SUB-CONSULTANT TEAM MEMBERS**

Firm Name: 105 West, Inc.

List **ALL** potential firm personnel titles/classification that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Dir.of Survey/Mapping	Manage Projects/Perform Survey work and ROW work	\$130
Project Surveyor	Manage Projects/day-to-day field operations & surveying	\$105
Survey Technician	Perform all types of surveying required for completion	\$85
Party Chief	Perform field work and coordination	\$85
Instrument Operator	Assist Party Chief in performing field work/coordination	\$60
Administrative	Perform administrative duties	\$60
Survey Crew (2-Man)	Perform field work and coordination	\$145
Survey Crew (1-Man)	Perform field work and coordination	\$120
Survey Crew (3-Man)	Perform field work and coordination	\$220

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.7.

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Sub-Consultant: \_\_\_\_\_ 105 West, Inc. \_\_\_\_\_

The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

**Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 1/2 x 11")	\$ <u>0.12</u> / each
Copies (8 1/2 x 14")	\$ <u>0.14</u> / each
Red-line copies	\$ <u>N/A</u> / S.F.
Reproducibles	\$ <u>N/A</u> / page

**SUB-CONSULTANT TEAM MEMBERS**Firm Name: Bai EngineersCategory: 12

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager).

Title/Classification	Responsibilities	Rate/Hr.
Project Manager	Project management, technical review, and project deliverable development. Year of experience: 33 years.	\$150
Project Engineer	Engineering design & hydraulic modeling, and project deliverable development. Year of experience: 5+ years.	\$102
Engineer-in-Training	Engineering design & hydraulic modeling, and project deliverable development. Year of experience: 1 to 5 years.	\$93
Sr. Technician, 10 + Yr Exp.	Gravity flow meter installation and data analysis. Year of experience: 10+ years.	\$75
Technician	Gravity flow meter installation and data analysis. Year of experience: 1 to 5 years.	\$63
Administrative/Clerical	Engineering support & report formatting. Year of experience: 1 to 5 years.	\$54

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3.0

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

- (1) Mileage: Reimbursable at the current IRS Business Rate ONLY when Consultant is required to drive to a project located outside the City and County of Denver Boundary.
- (2) Actual cost of reproducing and printing reports, drawings, specifications and other work products, and the associated cost for shipping and handling. These reimbursable expenses pertain only to requests made to the Consultant from the City, and exclude intra-office printing, scanning and reproduction required by the Consultant to complete the work.
- (3) Actual cost for expendable supplies and services not normally used on a routine or normal basis in an architectural or engineering office (i.e. aerial photography) and which are provided especially under this Agreement for the benefit of the City.



### SUB-CONSULTANT TEAM MEMBERS

Firm Name: Geocal, Inc.

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Principal-In-Charge/Project Manager	Oversees contract execution and management, client interaction, overall quality management and document control, ensures systems and processes are in-place, commits resources, negotiates and signs agreements. Provides high-level expertise and oversees specific task orders that involve technical expertise in geotechnical engineering.	\$210.00
Senior Project Manager	Manages geotechnical engineering projects for budget and technical content, helps author reports with design recommendations, provides technical guidance for staff, and interacts with the client for clarifications or additions to the scope of work.	\$180.00
Construction Manager	Construction engineer that provides plan reviews, analysis and approval of drawings, design engineering review, resident engineer, reviews plans and documents prepared by others, reviews construction schedule and pay requests.	\$160.00
Project Engineer	Technical position to provide analyses and report preparation for pavements, structures, programming of lab tests, interpretation of results and providing recommendations to the client on design and construction issues related to geotechnical and materials engineering. Assists with cross-hole sonic logging, other sonic echo tests, PDA results, and other technical procedures to ensure quality. Registered PE to oversee construction inspection and materials testing.	\$120.00
Staff Engineer	Evaluates site characteristics, with respect to design and construction, identifies geohazards and mitigation procedures, assists with site subsurface investigations,	\$90.00

	laboratory analyses, engineering analyses, and report preparation.	
Geologist	Conducts site subsurface investigations including staking borings, permitting, arranging drilling and traffic control subcontractors, logging borings, researching site geology, sampling soils, bedrock and groundwater, and assists with report preparation.	\$85.00
Operations Manager for Construction Services	Oversees construction quality services including inspections, materials testing, local agency documentation, checking resource allocation, calibration and field management.	\$130.00
Laboratory Manager	Oversees laboratory operations including AASHTO quality management, equipment calibration, training & records, and application of ASTM and AASHTO procedures for materials testing in the lab.	\$95.00
Construction Inspector	Provides onsite observations for traffic control, erosion control, material quantities, conformance with project design and specifications, and review of field test results, generally non-structural.	\$85.00
Senior Construction Inspector	Provides inspection of more complicated structures, batch plant inspections, pre-cast and post-tensioning inspections, masonry and grout placement, fire proofing, caisson and pile installations, mostly structural.	\$100.00
Materials Technician	Provides construction quality assurance testing, typically for soils, concrete, and asphalt, but could include masonry prisms, grout, mortar, or other construction materials. Works with the contractor to determine testing needs and schedule of activity.	\$75.00
Senior Materials Technician/Technician Supervisor	Provides review of quality assurance testing for soils, concrete, asphalt, and other materials, interfaces with client and aids in troubleshooting material issues, interprets test results for client. Schedules personnel, maintains resource allocation and assists with calibrations.	\$85.00

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.7751.

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City.

Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**SUB-CONSULTANT TEAM MEMBERS**Firm Name: Goodbee & Associates, Inc.

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

<b>Title/Classification</b>	<b>Responsibilities</b>	<b>Rate/Hr.</b>
President	Directs all aspects of the firm's operations	\$185
Principal	Directs all aspects of the firm's operations	\$185
Project Manager III	Leads and reviews technical work	\$150
Project Manager II	Leads and reviews technical work	\$135
Project Manager I	Leads and reviews technical work	\$125
Landscape Architect (Principal)	Leads and reviews technical work	\$175
Landscape Architect III	Leads and reviews technical work	\$150
Landscape Architect II	Leads and reviews technical work	\$130
Landscape Architect I	Leads and reviews technical work	\$110
Designer III	Completes technical work under direction of a PM/LA	\$115
Designer II	Completes technical work under direction of a PM/LA	\$110
Designer I	Completes technical work under direction of a PM/LA	\$100
CAD II	Completes technical work under direction of a PM/LA	\$100
CAD I	Completes technical work under direction of a PM/LA	\$80
SUE Field Manager	Leads and reviews field work	\$150
SUE Senior Technician	Leads and completes field work	\$130
SUE Technician II	Completes field work under direction of manager	\$110
SUE Technician I	Completes field work under direction of manager	\$90
SUE Junior Technician	Completes field work under direction of manager	\$70
Survey Manager	Leads and reviews field work	\$145
Survey Party Chief	Leads and completes field work	\$125
Survey Technician II	Completes field work under direction of manager	\$95
Survey Technician I	Completes field work under direction of manager	\$80
Administrator	Bookkeeping and general administration	\$110
Administrative Assistant	General administration	\$80

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3.1.

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Sub-Consultant: Goodbee & Associates, Inc.

The additional expense of the consultant reimbursable by the City shall include:

Actual cost of reproduction of drawings and specifications requested by the City.

Travel/transportation costs shall not be reimbursable by the City for Consultants.

Actual Costs

Item

Copies (8 1/2 x 11")

Copies (8 1/2 x 14")

Red-line copies

Reproducibles

Charge Rate

\$ at cost / each

\$ at cost / each

\$ at cost / each

\$ at cost / each

**SUB-CONSULTANT TEAM MEMBERS**Firm Name: Great Ecology

Category: \_\_\_\_\_

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager).

Title/Classification	Responsibilities	Rate/Hr.
Senior Ecologist/ Project Manager	Oversee Great Ecology's role in an on-call contract; provide senior oversight and guidance for ecological components of the project	\$160
Senior Ecological Designer	Lead, support, and/or provide senior review for ecological design of sites, including grading and planting plans	\$160
Associate Ecologist	Lead field operations; develop reports & recommendations	\$139
Associate Ecological Designer	Support ecological design of sites, including development of graphics, review of grading plans, etc.	\$139
Ecologist	Support field operations and development of reports	\$125
GIS Specialist	Support mapping and other GIS-related needs	\$125
Copy Editor	Quality Assurance of deliverables & development of public-facing materials	\$125
Controller	Project administration support	\$53

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3

All reimbursable expenses are subject to the review and approval of the City. The additional expenses of the Consultant reimbursable by the City shall include:

- (1) Mileage: Reimbursable at the current IRS Business Rate ONLY when Consultant is required to drive to a project located outside the City and County of Denver Boundary.
- (2) Actual cost of reproducing and printing reports, drawings, specifications and other work products, and the associated cost for shipping and handling. These reimbursable expenses pertain only to requests made to the Consultant from the City, and exclude intra-office printing, scanning and reproduction required by the Consultant to complete the work.
- (3) Actual cost for expendable supplies and services not normally used on a routine or normal basis in an architectural or engineering office (i.e. aerial photography) and which are provided especially under this Agreement for the benefit of the City.

**SUB-CONSULTANT TEAM MEMBERS**Firm Name: H.C. Peck & Associates, Inc.List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager).

Title/Classification	Responsibilities	Rate/Hr.
Principal	Overall project management; acquisition of property rights	168
Sr. Project Manager	Day to day project management; acquisition	144
Project Manager	Day to day project management; acquisition	133
Sr. ROW Agent	Acquisition	120
ROW Agent III	Acquisition	109
ROW Agent II	Acquisition; acquisition support	96
ROW Agent I	Acquisition; acquisition support	85
Title Staff	Title work	129

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: N/A.

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Sub-Consultant: H.C. Peck & Associates, Inc.

The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

**Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 1/2 x 11")	\$3.75/ each
Copies (8 1/2 x 14")	\$3.75 each
Red-line copies	N/A
Reproducibles	\$0.25/ page



## SUB-CONSULTANT TEAM MEMBERS

Firm Name: ICON Engineering

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Principal	Management / Design	\$189 / hr
Professional Engineer V	Design / Project Management	\$184 / hr
Professional Engineer IV	Design / Project Management	\$179 / hr
Professional Engineer III	Design / Project Management	\$169 / hr
Professional Engineer II	Design / Project Management	\$159 / hr
Professional Engineer I	Design / Project Management	\$149 / hr
Engineer IV	Design	\$146 / hr
Engineer III	Design	\$140 / hr
Engineer II	Design / CAD	\$122 / hr
Engineer I	Design / CAD	\$108 / hr
Senior Field Representative	Construction Management / Observation	\$144 / hr
Field Representative	Construction Observation	\$119 / hr
Senior Design Professional	Design / CAD	\$155 / hr
Design Professional	Design / CAD	\$140 / hr
GIS Specialist II	GIS Design	\$115 / hr
GIS Specialist I	GIS Design	\$105 / hr
CAD Technician II	Drafting	\$110 / hr
CAD Technician I	Drafting	\$95 / hr
Administrative	Word Processing / Record Keeping	\$70 / hr

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 2.96 .

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City, including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

## REIMBURSABLE EXPENSES

Sub-Consultant: ICON Engineering

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The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

### **Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 ½ x 11")	\$0.07 / each
Copies (8 ½ x 14")	\$0.08 / each
Red-line copies	\$0.10 / S.F.
Reproducibles	\$0.25 / page

**SUB-CONSULTANT TEAM MEMBERS**

Firm Name: Lithos Engineering

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Senior Consultant		\$260
President		\$215
Vice President		\$190
Senior Professional II		\$185
Senior Professional I		\$170
Professional II		\$155
Professional I		\$135
Staff Professional III		\$120
Staff Professional II		\$110
Staff Professional I		\$95
Administrative		\$70

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: \_\_\_\_\_.

Unless expressly authorized by the City as part of any approved project proposal or specified in the contract, the City will not compensate the Consultant for expenses such as postage, travel, mileage, telephone, reproduction and messenger service costs incurred in connection with Work performed under this Agreement. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as part of each on-call task order as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**SUB-CONSULTANT TEAM MEMBERS**

Firm Name:                     NHN Consulting llc                    

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Owner	Public Involvement; Public Relations; Government Relations	\$140/hr
Public Engagement Support III	Public involvement, public relations, and government relations support.	\$125/hr
Public Engagement Support II	Public involvement; Spanish language communication and outreach support.	\$105/hr
Logistics and administrative support. Spanish language activities support.	Spanish language interpretation and general support during public activities. Logistics and administrative support.	\$75/hr
PI Strategy and Govt Relations Specialist	Assist with public involvement strategy development and government relations	\$135/hr

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate:   1.25  .

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Sub-Consultant: NHN Consulting llc

The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

**Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 1/2 x 11")	\$ <u>.10</u> / each
Copies (8 1/2 x 14")	\$ <u>N/A</u> / each
Red-line copies	\$ <u>N/A</u> / S.F.
Reproducibles	\$ <u>N/A</u> / page

### SUB-CONSULTANT TEAM MEMBERS

Firm Name: OV Consulting

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Principal	Project Management, Transportation Management, Mobility Planning, Design, Strategic Outreach	\$175
Project Manager	Project Management, Transportation Planning, Transportation Engineering	\$160
Senior Engineer	Transportation Engineering	\$145
Engineer II	Transportation Engineering	\$130
Engineer I	Transportation Engineering	\$115
Senior Planner	Transportation Planning	\$140
Planner II	Transportation Planning	\$120
Planner I	Transportation Planning	\$110
GIS Analyst	GIS, Data Review	\$90
Graphic Designer	Graphic design, meeting materials, web-based materials	\$90
CAD Technician	CAD Drafting	\$90
Clerical/Administrative	Word processing & administrative organization	\$70
Data Collection Technician	Collect field data	\$35

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 1.0.

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Sub-Consultant: OV Consulting

The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

**Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 1/2 x 11")	\$ <u>0.10</u> / each Black/White
	\$0.85 each color
Copies (11 x 17")	\$ <u>1.70</u> / each
Large format plotter prints	\$ <u>5.00</u> / S.F.

## SUB-CONSULTANT TEAM MEMBERS

Firm Name: Pinyon Environmental, Inc.

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e., Project Manager).

Title/	Responsibilities	Rate/Hr.
Principal Engineer/Scientist	Responsible for providing strategic direction, vision, and leadership. Performs senior-level QA/QC and conducts meetings and negotiations with regulatory and oversight agencies.	\$220
Senior Engineer/Scientist	Responsible for technical completeness and competency of all submissions and work performed, including performance of junior- and mid-level planners and scientists. Conduct and supervise professional and technical staff to complete studies focused on engineering, planning, NEPA evaluations, air quality, noise, biology, geology, chemistry, and environmental science.	\$201
Senior Project Manager	Project management, including coordination of multi-disciplinary teams, preparing responses to agency questions, and facilitates project meetings with client and regulators. Develops project requirements, site investigations, facility requirements development, budget and programming support, analyses and project execution.	\$179
Project Manager	Directs the gathering of data and prepares complex reporting and analysis. Oversight of technical products and development of detailed studies related to NEPA, air quality, noise, environmental justice, biology, geology, chemistry, and environmental science.	\$153
Project Specialist	Reports to Regulatory and Oversight Agencies, Preparation of Permits, GIS Library Development and Data Analysis, Technical Review of Documents	\$ 127
Project Engineer/Scientist	Phase I ESA Site Visits/Reporting, Interpretation of Data, Collection of Non-Field Data, Development of Logs and Maps, Pilot Testing, Biological and Wetland Field Mapping, Preparation of Reports to Clients, GIS Data Collection/Processing/Presentation, Asbestos Designer/Air Monitoring Specialist/Project Manager, Technical Review of Documents	\$110
Staff II Engineer/Scientist	Soil Logging, Monitoring Well Installation Oversight, Water-Level Surveying, Slug Tests, Field Oversight, Lead Driller, Miscellaneous Field Services, Asbestos Building Inspector	\$94
Staff I Technician	Groundwater Sampling, Sampling During UST Removals, Surveyor's Assistant	\$76
Drafting (Graphics)	AutoCAD, floor plans, elevations, sections, scale drawings, layering and concept design for architects and engineers. Duties may include configuring and maintaining CADD libraries, engineering documentation management systems and CADD computer network systems.	\$98
Project Assistant	Maintain Field Equipment, Data Management	\$86
Word Processing, Clerical	Word Processing, Clerical	\$67

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate: 3.01

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproductions, etc., are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.



**REIMBURSABLE EXPENSES**FIRM: Pinyon Environmental, Inc.

<b>EXPENSE OR SERVICE</b>	<b>RATE</b>	<b>BILLING RATE</b>
Copies	Each	\$0
Reproducibles	Page	\$0
Dual Interface Probe	day	\$70.00
Groundwater level indicator	day	\$30.00
Automated Samplers, Monitors, and Data Loggers	day	\$100
PID / FID / multi gas meter (or similar) (each)	day	\$75.00
Groundwater sampling kit	day	\$201.00
Soil Sampling kit	day	\$315.00
Rental Vehicle	day	Cost
Field Visits (General Projects [e.g., Phase I ESA])	Day	\$50.00
Field Visits (Wetland/Biology)	Day	\$50.00
Soil Logging (During Drilling)	Boring	\$105.00
Monitoring Well Development	Well	\$55.00
Monitoring Well Sampling	Well	\$67.00
Asbestos Sampling Kit (Building Inspections)	Day	\$45.00
Asbestos Air Monitoring Kit	Day	\$110.00
<b>Pass Through Rate – Subcontractor Costs and Management</b>		
All Subcontracted Services, including laboratory costs or other vendors	Cost	Cost
Field Sampling and Investigation Supplies and Materials as preapproved by City and County of Denver Project Manager	Cost	Cost
Remediation Supplies and Materials as preapproved by City and County of Denver Project Manager	Cost	Cost
Bonding Rate	2.2%	

**SUB-CONSULTANT TEAM MEMBERS**Firm Name:                     **Valerian LLC**                    

List **ALL** potential firm personnel titles/classifications that may be utilized under the Agreement, and their respective hourly rate. Do not list names of personnel, only titles (i.e. Project Manager). Provide additional sheets as necessary.

Title/Classification	Responsibilities	Rate/Hr.
Principal	Provides leadership & quality control	\$150
Project Manager	Primary contact, oversees and provides design, quality control & budget management	\$115
Irrigation Designer	Provides all irrigation design & coordination	\$100
Project Designer	Provides project support, in-house project management, production oversight	\$85

Multiplier, which when multiplied by the direct labor rate yields the above hourly billing rate:   3  .

The City will not compensate the consultant for expenses such as postage, mileage, parking, or telephone costs. Reproduction costs, if requested by the City, shall be reimbursed at actual cost if approved in advance by Project Manager. Such costs are, in all such instances, included in the hourly rates paid by the City. Reproduction of submittals requested by the City including such items as end-of-phase reports, drawings, bid documents, record drawing reproducibles, etc. are not included in the hourly rates, and will be itemized as a not-to-exceed reproducible expense and will be reimbursed at actual cost.

**REIMBURSABLE EXPENSES**

Sub-Consultant: **Valerian LLC**

The additional expenses of the consultant reimbursable by the City shall include:

1. Actual cost of reproduction of drawings and specifications requested by the City.
2. Travel/transportation costs shall not be reimbursable by the City for Prime Consultants.

**Actual Costs**

<u>Item</u>	<u>Charge Rate</u>
Copies (8 1/2 x 11")	\$ <u>.15</u> / each
Copies (8 1/2 x 14")	\$ <u>.75</u> / each
Red-line copies	\$ <u>6.00</u> / S.F.
Reproducibles	\$ <u>.25</u> / page

**Exhibit C**  
**Certificate of Insurance**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/1/2021

5/29/2020

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

<b>PRODUCER</b> Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	<b>CONTACT NAME:</b> <b>PHONE (A/C. No. Ext):</b> <span style="float: right;"><b>FAX (A/C. No):</b></span> <b>E-MAIL ADDRESS:</b>
<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> 4011 WILSON & CO., INC. ENGINEERS & ARCHITECTS 4401 MASTHEAD STREET NE, SUITE 150 ALBUQUERQUE NM 87109	<b>INSURER A:</b> Liberty Insurance Corporation <span style="float: right;">NAIC # 42404</span> <b>INSURER B:</b> The First Liberty Insurance Corporation <span style="float: right;">33588</span> <b>INSURER C:</b> <b>INSURER D:</b> <b>INSURER E:</b> <b>INSURER F:</b>

**COVERAGES** 2      **CERTIFICATE NUMBER:** 17172995      **REVISION NUMBER:** XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:	Y	Y	TB7-Z91-467382-020	6/1/2020	6/1/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	Y	Y	AS7-Z91-467382-010	6/1/2020	6/1/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
	<input type="checkbox"/> <b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <input type="checkbox"/> <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX AGGREGATE \$ XXXXXXXX \$ XXXXXXXX
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N	N/A	WC6-Z91-467382-030	6/1/2020	6/1/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
 RE: 48TH AVE GLOBEVILLE. THE CITY AND COUNTY OF DENVER, ITS ELECTED AND APPOINTED OFFICIALS, EMPLOYEES AND VOLUNTEERS ARE ADDITIONAL INSUREDS AS RESPECTS GENERAL LIABILITY AND AUTO LIABILITY, AND THESE COVERAGES ARE PRIMARY AND NON-CONTRIBUTORY, IF REQUIRED BY WRITTEN CONTRACT. WAIVER OF SUBROGATION APPLIES TO GENERAL LIABILITY, AUTO LIABILITY AND WORKERS COMPENSATION/EMPLOYER'S LIABILITY WHERE ALLOWED BY STATE LAW AND AS REQUIRED BY WRITTEN CONTRACT.

**CERTIFICATE HOLDER**

**CANCELLATION**

17172995 CITY AND COUNTY OF DENVER 201 W. COLFAX, SUITE 614 DENVER CO 80202	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/1/2021

12/2/2020

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

<b>PRODUCER</b> Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	<b>CONTACT NAME:</b> <b>PHONE (A/C. No. Ext):</b> <span style="float: right;"><b>FAX (A/C. No):</b></span> <b>E-MAIL ADDRESS:</b>
<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURER A:</b> Berkshire Hathaway Specialty Insurance Company <span style="float: right;"><b>NAIC #</b> 22276</span>	
<b>INSURER B:</b>	
<b>INSURER C:</b>	
<b>INSURER D:</b>	
<b>INSURER E:</b>	
<b>INSURER F:</b>	

**COVERAGES** 2      **CERTIFICATE NUMBER:** 17172998      **REVISION NUMBER:** XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX DAMAGE TO RENTED PREMISES (Ea occurrence) \$ XXXXXXXX MED EXP (Any one person) \$ XXXXXXXX PERSONAL & ADV INJURY \$ XXXXXXXX GENERAL AGGREGATE \$ XXXXXXXX PRODUCTS - COMP/OP AGG \$ XXXXXXXX \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident) \$ XXXXXXXX BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX AGGREGATE \$ XXXXXXXX \$ XXXXXXXX
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			NOT APPLICABLE			<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> A PER STATUTE    OTH-ER E.L. EACH ACCIDENT \$ XXXXXXXX E.L. DISEASE - EA EMPLOYEE \$ XXXXXXXX E.L. DISEASE - POLICY LIMIT \$ XXXXXXXX
A	PROFESSIONAL LIABILITY	N	N	47EPP30530103	6/1/2020	6/1/2021	\$1,000,000 EACH CLAIM & ANNUAL AGGREGATE FOR ALL PROJECTS.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
 RE: 48TH AVE GLOBEVILLE.

**CERTIFICATE HOLDER**

**CANCELLATION**

<b>17172998</b> CITY AND COUNTY OF DENVER 201 W. COLFAX, SUITE 614 DENVER CO 80202	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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