

SECOND AMENDATORY DESIGN SERVICES AGREEMENT

This **SECOND AMENDATORY DESIGN SERVICES AGREEMENT** is made between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the “City”) and **RS&H, INC.**, a Florida corporation whose address is 10748 Deerwood Park Boulevard South, Suite 300, Jacksonville, Florida 32256 (the “Design Consultant” or “Consultant”), jointly (“the Parties”).

WITNESSETH:

A. The Parties entered into a Design Services Agreement dated July 23, 2019 (the “Agreement”) to furnish professional design services for the Project as set forth in the Agreement. The Parties entered into an Amendatory Agreement dated April 1, 2021 to extend the term of the Agreement and revise the scope of work.

B. The Parties wish to amend the Agreement to implement an additional phase of work, increase maximum amounts in subsections 3.01, 3.04 and 3.06-Compensation paragraphs, amend subsection 5.06-No Discrimination in Employment, amend subsection 5.19-No Employment of Workers without Authorization and amend the scope of services.

NOW THEREFORE, in consideration of the premises and the Parties’ mutual covenants and obligations, the Parties agree as follows:

1. All references to “...Exhibit A and A-1” in the Agreement shall be amended to read: “...Exhibit A, A-1 and A-2” as applicable. The scope of services marked as **Exhibit A-2** is attached to this Second Amendatory Agreement and becomes part of the Agreement.

2. Section 3 of the Agreement entitled **COMPENSATION, PAYMENT AND FUNDING**, subsection 3.01 “**Fee for Basic Services**” is hereby deleted in its entirety and replaced with:

“3.01 Fee for Basic Services. The City agrees to pay the Design Consultant, as full compensation for its basic services rendered hereunder, a fee not to exceed **THREE MILLION TWENTY-SEVEN THOUSAND FOUR HUNDRED SIXTY-TWO DOLLARS AND NINETY-TWO CENTS (\$3,027,462.92)**, in accordance with the billing rates and project budget stated 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 designee, and subject to the Maximum Contract Amount stated in this Section 3.”

3. Section 3 of the Agreement entitled **COMPENSATION, PAYMENT AND FUNDING**, subsection 3.04 “**Additional Services**.” is hereby deleted in its entirety and replaced with:

“**3.04 Additional Services**. If pre-approved additional services are performed by the Design Consultant, the City agrees to pay the Design 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)**.”

4. Section 3 of the Agreement entitled **COMPENSATION, PAYMENT AND FUNDING**, subsection 3.06 “**Maximum Contract Amount**.” is hereby deleted in its entirety and replaced with:

“**3.06 Maximum Contract Amount**.”

(a) It is understood and agreed by the parties hereto that payment or reimbursement of all kinds to the Consultant, for all Work performed under this Agreement, shall not exceed a maximum of **THREE MILLION ONE HUNDRED TWENTY-TWO THOUSAND NINE HUNDRED SIXTY-TWO DOLLARS AND NINETY-TWO CENTS (\$3,122,962.92)**. In no event shall the maximum payment to the Consultant, for all work and services performed throughout the entire term of this Agreement exceed the contract maximum amount set forth above.”

5. Section 5 of the Agreement entitled “**GENERAL PROVISIONS**”, subsection 5.06 “**No Discrimination in Employment**” is hereby deleted in its entirety and replaced with:

“**5.06 NO DISCRIMINATION IN EMPLOYMENT**: In connection with the performance of work under the Agreement, the Contractor may not refuse to hire, discharge, promote, demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, ethnicity, citizenship, immigration status, gender, age, sexual orientation, gender identity, gender expression, marital status, source of income, military status, protective hairstyle, or disability. The Contractor shall insert the foregoing provision in all subcontracts.”

6. Section 5 of the Agreement entitled “**GENERAL PROVISIONS**, subsection 5.19 “**No Employment of Illegal Aliens to Perform Work Under the Agreement:**” is hereby deleted in its entirety and replaced with:

“5.19 NO EMPLOYMENT OF WORKERS WITHOUT AUTHORIZATION 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 (the “Certification Ordinance”).

(b) The Contractor certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with a worker without authorization who will perform work under this Agreement, nor will it knowingly employ or contract with a worker without authorization to perform work under this Agreement in the future.

(2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., and confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

(3) It will not enter into a contract with a subconsultant or subcontractor that fails to certify to the Contractor that it shall not knowingly employ or contract with a worker without authorization to perform work under this Agreement.

(4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under this Agreement, and it is required 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 this Agreement knowingly employs or contracts with a worker without authorization, it will notify such subconsultant or subcontractor and the City within three (3) days. The Contractor shall also 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 worker without authorization, unless during the three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with a worker without authorization.

(6) It will comply with a 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.

(c) The Contractor is liable for any violations as provided in the Certification Ordinance. If the Contractor violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If this Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the City. Any 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 the Contractor from submitting bids or proposals for future contracts with the City.”

7. As herein amended, the Agreement is affirmed and ratified in each and every particular.

8. This Second Amendatory Design Services Agreement will not be effective or binding on the City until it has been fully executed by all required signatories of the City and County of Denver, and if required by Charter, approved by the City Council.

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Contract Control Number: DOTI-202161064-02 [201948451-02]
Contractor Name: RS&H, Inc.

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

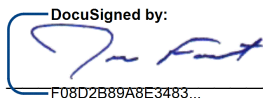
By:

By:

By:

Contract Control Number:
Contractor Name:

DOTI-202161064-02 [201948451-02]
RS&H, Inc.

By:  _____

Name: Jesse Forst
(please print)

Title: Vice President
(please print)

ATTEST: [if required]

By: _____

Name: _____
(please print)

Title: _____
(please print)



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Suite 1100
Denver, CO 80237

303-771-6200
rsandh.com

October 6, 2021

Mr. James Geist, P.E.
Senior Engineer-Department of Transportation and Infrastructure
City and County of Denver
201 W. Colfax Ave., Dept. 506
Denver, CO 80202

**RE: Washington Street Improvements – Design Services
Contract Control No. PWADM-201948451-00
Request for Amendment No. 2**

Dear Jim:

The City of Denver has requested a new Phase of work and additional services on two existing Phases of work under contract for the Washington Street Improvements – Design Services (Contract Control No. PWADM-201948451-00). RS&H, Inc is requesting Contract Amendment No. 2 to provide these services as discussed below.

At the request of the City, a new phase of work, Phase 10, is being added for preliminary and final design services for sidewalks on Clarkson Street between 51st and 52nd Avenues and along the south side of 52nd Avenue from Washington Street to the unnamed alley just east of Clarkson St. The scope, schedule, and fee, dated August 25, 2021, detailing this work is enclosed. We request that the Contract Amount be increased by \$450,868.98 for this work. No extension to the Contract Term is requested for this work.

The City has also requested additional services be performed for Phase 8, 51st Avenue from Logan Street to Emerson Street. The additional services and fee for services is detailed in the enclosed scope of work and fee dated August 9, 2021. The schedule for this work remains unchanged. Unallocated funding already in the Contract will be utilized to pay for this additional work, but no extension to the Contract Term is requested for this additional work.

The City has also requested additional services be provided for Phase 9, the Washington Street Prioritization Plan. The additional services requested are detailed in the enclosed scope, schedule and fee dated July 26, 2021. Unallocated funding already in the Contract along with a small amount of additional CIP funds as discussed in the below Table will be utilized to pay for this additional work.

Note that since Contract Amendment No. 1 was executed, additional costs of \$6,344.74 for Phase 1 and \$2,645.07 for Phase 2 have been incurred for Subsurface Utility Engineering (SUE) Work. These costs are reflected in the updated Table below:



The current fee status for Phases 1 through 10 of work is listed below:

Phase	Description	Amount
Phase 1	Washington St from 47th Ave North	\$466,572.97
Phase 2	Washington St from 47th Ave to South Platte River	\$187,762.80
Phase 3	Washington St Bridge and Globeville Landing Pedestrian Bridge	\$199,751.50
Phase 4	Washington St from 47th Ave North final design	future work
Phase 5	Washington Street 47th south - final design	future work
Phase 6	Washington St Bridge and Globeville Landing Pedestrian Bridge - Final	future work
Phase 7	Professional Services During Construction	future work
Phase 8	51st Ave from Emerson St To Logan St	\$774,831.69
	51st Ave from Emerson St To Logan St - Additional Services Requested	\$115,394.28
Phase 9	Washington Street Prioritization Plan	\$139,964.00
	Washington Street Prioritization Plan- Additional Service Requested	\$84,944.00
	Budget to be allocated to Phases 1 and 2 and other Phases as directed by the City once Phase 9 is complete	\$667,872.70
	Original Contract Total	\$2,637,093.94
Phase 10	Clarkson Street and 52nd Ave Sidewalk Improvements	\$450,868.98
	Additional Services Requiring CIP Funds as Directed by the City	\$35,000.00
	Contract Change Amount	\$485,868.98
	New Contract Total	\$3,122,962.92

As mentioned above, additional funding of \$450,868.98 is requested in Contract Amendment No. 2 for Phase 10. Unallocated funding already in the Contract will be allocated for the additional work outlined in this Amendment Request for Phases 8 and 9. As conveyed by the City's project manager, unallocated City CIP funds to be allocated for Phases 8 and 9 will exhaust the CIP funding in the Contract, and an additional \$285.53 of CIP funding will be needed for the required expenses. As shown in the Table above, and as requested by the City, an additional \$35,000 of CIP funding is requested in Contract Amendment No. 2 for these and other Additional Services that may be requested by the city which require payment with CIP funds. No extension to the Contract Term is requested at this time.

Please let me know if you need any additional information regarding this request.

Sincerely,

RS&H, INC.

Randal Lapsley, P.E.
Project Manager



Scope of Services

Clarkson Street and 52nd Avenue Sidewalk Improvements

August 25, 2021

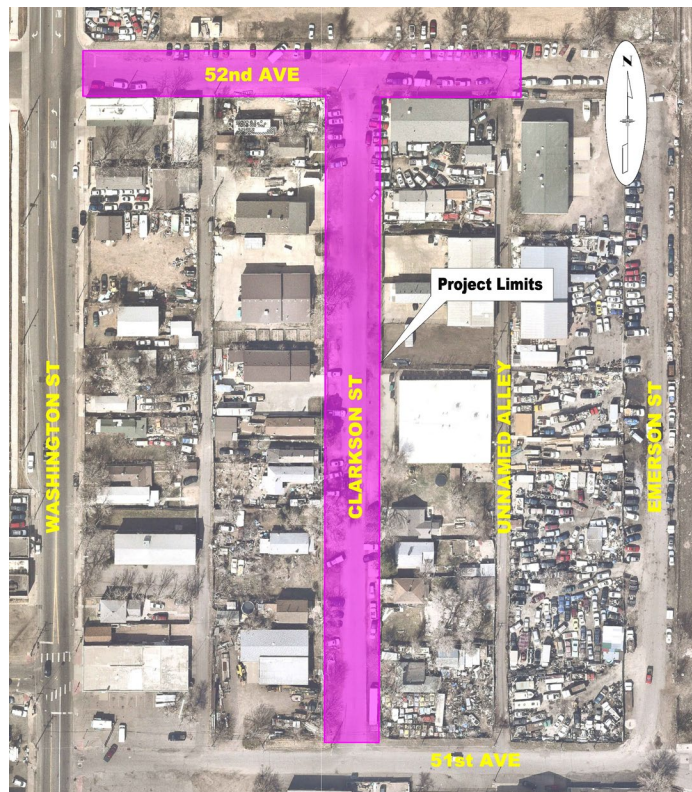
Project Description

The scope of this project consists of performing preliminary design, final design, and post-design services (between Final Plans and Bid Opening only) for the construction of sidewalk improvements along Clarkson Street and 52nd Avenue in the City and County of Denver. Specific project components include the following:

- Construct sidewalk and curb & gutter along both sides of Clarkson Street from 51st Avenue to 52nd Avenue.
- Construct sidewalk and curb & gutter along the south side of 52nd Avenue from Washington Street to the unnamed alley just east of Clarkson Street.

The proposed typical section will consist of two travel/parking lanes, curb & gutter and sidewalk. A tree lawn is not proposed at this time.

Our team will address design of the proposed improvements along 51st Ave (per proposal dated July 17, 2020) and along Clarkson St & 52nd Ave (under this proposal) in a comprehensive manner. **This proposal assumes that all design work for Clarkson St and 52nd Ave will be combined into the same plan package as the previously scoped 51st Ave Improvements project. Budgets and invoicing for this project will be tracked separately from the 51st Avenue improvements project.**



Project Location Map



Project Team

RS&H will manage the project and will lead roadway, sidewalk, drainage and traffic engineering design tasks. Our team will consist of the following firms:

Firm Name	Role
RS&H	Project Manager and Engineering Lead
105 West, Inc.	Survey & Right of Way
Clanton	Lighting Design
Pinyon Environmental, Inc.	Environmental Services
Utility Mapping Services, Inc.	Subsurface Utility Engineering

Scope of Work

Our team will provide the below professional design and engineering services to assist the City of Denver (CCD) in completing the project.

1. Project management.
2. Field surveys and Right of Way.
3. Roadway and sidewalk design.
4. Environmental resources studies and considerations.
5. Drainage/Water Quality design.
6. Utility research, identification, and coordination, including potholing.
7. Technical assistance with public involvement activities. Leading and conducting overall public involvement activities will be performed by NHN Consulting, LLC through the Sidewalk Gap Program public outreach efforts. RS&H will only provide a technical support role in these activities as discussed in greater detail elsewhere in this document.
8. Cost estimating.
9. Denver Public Works Engineering, Regulatory, and Analytics (PWERA) Preparation, Process, and Submittal.

The project is divided into three tasks as follows:

Task 1: General Project Management

Task 2: Preliminary Design for the proposed improvements

Task 3: Final Design for the proposed improvements

Task 4: Post-Design Services (between Final Plans and Bid Opening only)

Task 1: General Project Management

- **Project Management**

The Consultant will provide consultant project management services to include design team coordination, subconsultant coordination, monthly invoices, general project management and



the below items.

- **Project Assistance:** The Consultant will aid the City in responding comments or inquiries.
- **Meetings:** The Consultant team for the below meetings will include key personnel from RS&H. Other team members will be included on an as-needed basis depending on topics being discussed.

Kick off Meeting – The Consultant will hold one kick off meeting upon NTP with the City staff and the project team to review the scope of work, schedule and budget for the project.

General Project Meetings – Consultant will attend and/or conduct up to 3 general project meetings as requested by the City. Prepare and distribute meeting minutes and action items for all project meetings.

Technical Meetings – Consultant will attend and/or conduct up to 3 technical meetings as requested by the City. Prepare and distribute meeting minutes and action items for all project meetings.

Monthly Progress Meetings - The Consultant will meet with the City's PM every month to review project progress, critical issues and plan next steps. The frequency of these meetings can be adjusted as needed.

Task 2: Preliminary Design

This task includes design efforts for Clarkson St and 52nd Ave. Our team will address design of the proposed improvements in a comprehensive manner for the entire corridor.

A. Field Surveys and Right of Way

105 West will complete this task at the direction of RS&H.

The Consultant has previously completed field survey along Washington Street and 51st Avenue under a separate work effort. This task includes field survey to encompasses the expanded project area along Clarkson St and 52nd Ave not included in the initial effort's survey limits.

Work efforts under this Task include:

- **Meetings, Mobilization & Coordination**
105 West anticipates attending one (1) project team meetings with City and County of Denver (CCD) personnel and/or the RS&H team members. As part of this task 105 West will develop work plans, mobilize staff, and keep the Consultant Manager and CCD Project Manager updated relative to the survey team's progress or any concerns.
- **Permits/Right-of-Entry**
105 West will apply for the right-of-way permit from the City and County of Denver in order to perform survey work within the City and County of Denver rights-of-way. For the purposes of



this proposal, all work will be performed within the CCD rights-of-way. Acquiring permission to enter private property is not anticipated at this time.

- **Project Control**
105 West will establish horizontal and vertical (NAVD 88) control monuments based on the City and County of Denver's horizontal and vertical datum. 105 West anticipates setting five (5) semi-permanent control points to be used for surveying purposes. The preparation of a project control diagram is included in this task.
- **Topographic Design Survey**
105 West will obtain, by field methods, existing, visible planimetric features and topography at a one-foot (1') contour interval. The topographic survey will include the existing edges of pavement, existing edge of traveled surface, centerline, curb/gutter, striping, sidewalks, traffic signals, culverts, fences, structures, and surface utility evidence within the project limits.
- **Ownership/Right-of Way**
In order to determine the existing right-of-way limits and private ownerships along Clarkson Street and 52nd Avenue, 105 West will obtain City and County of Denver (CCD) record information including subdivision plats, land survey plats, right-of-way plans and vesting deed information for the twenty-two (22) parcels located within the project limits. To aid in the development of the ownership/ROW, 105 West will utilize the "Existing Right-of-Way Plan and Ownership Map" provided by CCD signed and sealed on November 1, 2018.
- **Underground Utilities**
The firm of Utility Mapping Services (UMS) will mark the underground utilities within the topographic limits. Once the utilities have been marked, and signed sketches have been provided, 105 West will survey the paint mark locations.
- **Legal Description and Exhibits**
Based on geometry provided by RS&H, 105 West will provide up to eight (8) legal descriptions and exhibits, in accordance with specifications set forth by the City and County of Denver, for proposed temporary easements.
- **The following exclusions apply to this task:**
 - Monumentation of existing or proposed ROW/Easements
 - CCD Survey Control Perpetuation of Range Points and creation of associated Survey Control Perpetuation Diagram
 - Final Right-of Way Plans
 - Procurement of title commitments
 - Manhole/Inlet invert measure downs [note: this work will be performed by UMS under the SUE task]
 - ALTA Surveys



B. Subsurface Utility Engineering (SUE)

Utility Mapping Services (UMS) will complete this task at the direction of RS&H.

The Consultant has previously completed Quality Level B subsurface utility engineering (SUE) along Washington Street and 51st Avenue under a separate work effort. Due to the expanded project limits, additional SUE work is required to complete the utility data collection effort.

The Consultant through the subconsultant Utility Mapping Services (UMS) will locate existing underground utilities in accordance with the American Society of Civil Engineers Construction Institute Standard 38-02 (ASCE/CI 38-02), as well as Colorado Senate Bill 18-167 (for the QL B utility designating project areas), and includes the following activities:

- Compilation of utility data (i.e. records and as-built information) acquired by UMS and others.
- Preparation of field books, log sheets, and crew scheduling and logistics for the initial utility designating field campaign.
- 2D QL B data acquisition (using electromagnetic (EM) induction, acoustic, and/or other geophysical technologies), characterization, and 2D depiction (CADD file) of existing utility infrastructure data to develop a reliably qualified base map and data set from which to develop and support future design, coordination, and construction decisions.

C. Preliminary Sidewalk Design

This task will be led by RS&H.

Roadway and sidewalk design tasks include:

- Design horizontal and vertical alignments of roadway and multimodal facilities in accordance with CCD Transportation Standards and Details and all ADA compliance requirements.
- Gathering of sufficient information to accurately identify all pertinent horizontal and vertical elements for the purpose of preparing fully vetted and feasible roadway cross-sections which provide drainage, and which meet City standards.
- Provide alignments and develop profiles, cross sections, geometrics, grading and toes of slope based on the above referenced requirements.
- Identify and develop pertinent design features and report results including permanent and temporary impacts to Right-of-Way and utilities impacts to the City project manager.
- Evaluate the alignment for property and acquisition impacts, impacts from environmental studies and findings, and adjacent projects.
- Consider construction phasing and provide 30 percent construction phasing plans.

D. Preliminary Traffic Design

This task will be led by RS&H.

This task will include the design of a traffic signing and striping plans along Clarkson Street between



51st and 52nd Avenues and 52nd Avenue between Washington Street and the alley east of Clarkson Street (approx. 460 ft).

Traffic design tasks include:

- Proposed Signing and Striping plans for Clarkson Street and 52nd Ave within the limits included in the scope. If applicable, the City will provide any proposed changes to the existing signing and striping information in the area. These plans will be considered the existing condition. If applicable, the City shall provide existing traffic information.

Exclusion from the traffic work:

- Collection of traffic data.
- Additional traffic studies/analysis of the area.

E. Environmental Studies and Considerations

The Consultant will provide the following information through subconsultant Pinyon Environmental:

- Task 1 – Material Management Plan

Pinyon has assumed that one MMP which includes both the 51st Avenue Reconstruction project and the 52nd and Clarkson project will be completed.

An MMP will be prepared to facilitate the identification and management of soil, groundwater, and/or debris that is suspected of being a solid or hazardous waste or requires special handling and disposal. The purpose of this document is to detail the procedures for handling potentially contaminated media. The MMP will be designed to minimize worker exposure to potentially contaminated material, prevent releases to the environment, and ensure proper disposal. At a minimum, the MMP will include procedures covering the following topics:

- Personnel and their responsibilities
- Soil and debris management options based on regulated chemical concentrations
- Construction water handling procedures
- Waste characterization protocols
- Asbestos containing materials management
- Decontamination of equipment
- Reporting

- Task 2 – Limited Environmental Site Assessment

Pinyon has assumed that one LES which includes both the 51st Avenue Reconstruction project and the 52nd and Clarkson project will be completed.

For this project, Pinyon proposes to conduct a Limited Environmental Screening. The objective



of the Limited Environmental Screening is to provide information about facilities that pose a potential risk of being impacted by Recognized Environmental Conditions (RECs). Assessment of facilities in and near the project area for past or present soil and/or groundwater impacts is an integral component of the planning process. In cases where potential impacts are suspected, avoidance and/or identification of potential mitigation measures can be implemented when reasonably possible.

The Limited Environmental Screening addresses (and in many cases incorporates) components of the Colorado Department of Transportation (CDOT) Form 881 and the ASTM Standard 1527-13 Phase I Environmental Site Assessment. However, this document is limited in relation to the ASTM Standard. The Limited Environmental Screening will provide project planners a “snapshot” of the existing conditions within the study area; however, more detailed information may be needed through additional investigation.

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), including historical documentation such as Sanborn Fire Insurance maps, aerial photographs, reverse city directories, and historical topographic maps. Further, Pinyon will review up to four 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 specifically identify potential project environmental risks.

- Task 3 – Soil Sampling

Limited soil sampling activities will be completed concurrent with the geotechnical investigation; if a geotechnical investigation is not completed, soil samples will be collected by hand auger. The following is a general scope of services for this project.

- If the samples are collected with a hand auger, three locations will be sampled along 52nd Avenue and three locations will be samples along Clarkson Street; we assume this will take approximately one business day to accomplish with a team of two field scientists. If samples are collected during the geotechnical investigation, a maximum of two composite samples will be collected. Specific details of this sampling cannot be determined until more information regarding the geotechnical investigation becomes available.
- Samples will be collected from the zero to up to three-foot interval using a decontaminated hand auger or from the same interval in the geotechnical borings.
- After sampling, the excavation will be backfilled with clean soil or sand, and the sod (or surface, as applicable) returned to pre-excavation conditions.
- Samples will be analyzed for the following (contingent on confirmation with CCD DOTI):
 - Volatile Organic Compounds (VOCs) by EPA Method 8260
 - Resource Conservation and Recovery Act (RCRA) Eight Metals (totals analysis) by EPA Methods 6010/7417
 - Metals by the Toxicity Characteristic Leachate Procedure (TCLP) – will be kept on hold pending results of the RCRA 8 total results



- Standard laboratory turn-around time will be utilized.
- Pinyon's field scientists will be Certified Asbestos Building Inspectors (CABIs), who will visually screen soil for the presence of non-soil material. If suspect materials are identified, asbestos sampling will also be completed.
- Results of the investigation will be briefly summarized in the Materials Management Plan; laboratory reports will be appended to the Materials Management Plan.
- Assumptions
 - Pinyon personnel will attend one project meeting.
 - One MMP and one LES will be completed at the same time as the proposed work for the 51st Avenue Reconstruction. Pinyon has assumed that information from both projects will be incorporated into one LES and one MMP.
 - The LES site visit will not include entrance into buildings.
 - If file review above and beyond four hours is deemed necessary to complete the Scope of Services, Pinyon will notify the client that additional costs may be required. Pinyon will seek authorization from client for additional fee prior to conducting additional file review.
 - Investigation-derived wastes, if generated, will be removed and disposed properly by a qualified vendor under the direction of the geotechnical driller. The geotechnical driller will pay for the disposal of these wastes.
 - Geotechnical oversight will not be completed.
 - No more than two soil samples will be submitted for laboratory analysis. If additional samples are required, additional costs will be incurred. The samples will be submitted for standard laboratory turn-around time, which is approximately seven business days. Lab analysis can be completed quicker; however, additional costs will be incurred.

F. Preliminary Drainage/Water Quality Design

RS&H will lead this task.

- Preliminary Drainage Design

The Consultant will coordinate all drainage design with the City and County of Denver Storm Drainage Master Plan and with Denver Wastewater to not preclude future improvements identified in the Master Plan, nor those considerations underway in the Globeville Stormwater Systems Study.

The Washington Street Project (including 51st Avenue, 52nd Avenue, and Clarkson Street improvements) is located in the downstream portion of the drainage basin and as such there is a significant offsite basin that historically drains from west to east, across Washington Street and ultimately to the South Platte River. Planned improvements include storm sewer systems that discharge to the Heron Pond, which provides



permanent water quality treatment. The Heron Pond design assumes outfalls from both 51st Avenue and 52nd Avenue.

The Consultant will design storm drainage improvements for 52nd Avenue from Washington Street to the unnamed alley just east of Clarkson Street and for Clarkson Street from 51st Avenue to 52nd Avenue. The Consultant will work with the City and County of Denver to develop the preferred approach to drainage improvements, considering future improvements to Washington Street and the planned outfalls to Heron Pond.

Deliverables Include:

- Drainage Plans: (50 scale) showing inlet locations, pipe sizes, existing contours, proposed contours, conceptual layout for water quality facilities, existing and proposed utilities, and existing and proposed right of way lines. Profiles will not be submitted with this submittal but will be developed as needed to identify right-of-way acquisitions.
- Preliminary Drainage Report
- Preliminary Water Quality Design

There is an existing water quality pond downstream of the project in Heron Park. It is assumed that the pond has sufficient volume to provide water quality treatment and detention for on-site runoff from this project and off-site runoff conveyed through the project. The required additional pond volume tributary to this pond will be calculated, but a hydraulic analysis of the pond or modifications to the pond are not included with this scope.

Deliverables Include:

- Water Quality Calculations included in the Preliminary Drainage Report
- Preliminary Stormwater Management Plans
 - Stormwater management plans (SWMP) will not be provided at the preliminary submittal.

G. Utility Conflict Identification and Coordination

RS&H will lead this task.

The Consultant will provide the following utility work:

- Identify potential utility conflicts between existing utilities and proposed improvements for coordination with design team and utility companies.
- Recommend locations for potholing. Potholing will be completed in the Final Design phase of the work.
- Incorporate utility mitigations/relocations schematics into the 30 percent design



package.

- Prepare a summary table of all utilities within the project limits, noting utility adjustments, relocations and / or replacement.
- We have not included any water line relocation work. Until the preliminary design is completed and any conflicts or relocation desired by Denver Water are known, we are not able to determine the work required (if any).

H. Lighting Design

RS&H in conjunction with our subconsultant Clanton and Associates will develop and coordinate the 30% lighting design with the City, the utility agency, and the project stakeholders. Lighting design will be integrated into the overall streetscape and character and done accordance with City and County of Denver Streetlighting Guidelines. Lighting work for this phase will include determining the type of lights and approximate locations. It is assumed that lighting will be owned and maintained by Xcel Energy.

The scope of work includes:

- A single lighting plan set for work along Clarkson St and 52nd Ave.

The Consultant will provide the following lighting work for Preliminary Design:

- Kickoff meeting by videoconference call
- Establish basis of design
- Preliminary lighting design
- Xcel energy approved luminaire
- Preliminary lighting calculations
- Preliminary lighting details
- Preliminary electrical design (power source locations)
- Utility coordination
- Preliminary tabulation of approximate quantities
- Preliminary Opinion of Probable Cost

Specific exclusions from this scope are as follows:

- Lighting system redesign after the preliminary submittal due to changes in lighting ownership.
- Structural engineering.
- Equipment procurement.
- Commissioning.
- Communication wiring to traffic signals.



I. Public Involvement

RS&H will perform this task. It is our understanding that leading, coordinating and conducting all necessary public involvement activities will be completed by NHN Consulting, LLC through the Sidewalk Gap Program public outreach efforts. RS&H will only provide a technical support role in these activities. At the direction of DOTI, RS&H will provide the following services to support the public involvement activities:

- Develop graphic displays for one (1) public meeting. It is assumed that up to three (3) graphical displays will be provided:
 - Two (2) plan view displays with an aerial background depicting the proposed improvements.
 - One (1) graphic typical section.
- Attend one (1) workshop prep meeting. This meeting will be coordinated and conducted by the Sidewalk Gap Program public outreach team.
- Attend one (1) public workshop. This meeting will be coordinated and conducted by the Sidewalk Gap Program public outreach team.
- Attend one (1) workshop follow-up meeting. This meeting will be coordinated and conducted by the Sidewalk Gap Program public outreach team.

RS&H will participate in up to four (4) property owner meetings. CCD will communicate directly with property owners and will coordinate these meetings. RS&H will be in direct contact with property owners only during the scheduled meeting times and all information provided will be routed through CCD. RS&H will provide the following services to support the property owner meetings:

- Prepare specific information requested by the property owner or CCD prior to the meeting. Up to two (2) hours of prep time is assumed per meeting.
- Develop exhibit for property owner meetings. These exhibits will be prepared if requested by CCD and are assumed to depict key features such as existing topography, utilities and ROW & proposed limits of sidewalk, curb, storm drains and temporary easements. Up to four (4) exhibits will be developed at an assumed four (4) hours per exhibit.
- Attend property owner meetings. Up to four (4) meetings at 1 hour per meeting are assumed. The RS&H roadway task manager and one other discipline staff member (drainage, utilities, etc.) are assumed to attend.

J. Cost Estimating

RS&H will lead this task.

The Consultant shall develop detailed construction bid quantities and construction cost estimates based on the 30 percent design plans and quantities. The cost estimates will be presented by typical CDOT Pay Items and cost categories and utilize relevant/current unit cost information from similar/recent projects in the Denver metropolitan area.



K. Denver Transportation and Infrastructure Engineering, Regulatory, and Analytics (PWERA) Preparation, Process, and Submittal

RS&H will lead this task.

The project must follow the City's review process and meet all City standards (including, but not limited to the Department of Transportation & Infrastructure Standards, etc.). The consultant will complete the 30% design plans/documents associated with the PWERA review process. One or more reviews through PWERA prior to the completion of the preliminary design may be required. The following items may be included:

- Preparation and attendance for the 30% Design Review Meeting,
- Coordinate, complete and compile the plan inputs from all activities: materials, drainage utility design, and right-of-way.
- Compile the preliminary cost estimate for the work described in the preliminary design plans based on estimated quantities.
- The 30% design plans will include, but not be limited to:
 - Title Sheet
 - Standard Plans List
 - Project Site Plan & Key Map
 - Typical Sections
 - General Notes
 - Summary of Approximate Quantities
 - Project Tabulations (major items only)
 - Survey Control Plan (105 West)
 - Geometric Control
 - Removal & Reset Plans
 - Sidewalk Plan & Profiles
 - Curb Ramp Details
 - Driveway Details
 - Utility Plans (UMS)
 - Drainage Plans
 - Stormwater Management Plans (preliminary)
 - Signing and Striping Plans
 - Construction Zone Traffic Control
 - Cross Sections
 - Right-of-Way Ownership Plans
 - Preliminary Specifications
- The following items will be included with the preliminary design plans:
 - Preliminary Drainage Report
 - Information regarding any required permits
- The plans and specifications will be reproduced and distributed by the consultant as requested by the City. The consultant has included 10 paper copies in the reproduction



expenses.

- Resolve design questions raised in the 30 percent Design Review meeting in cooperation with the City. Document the decisions and transmit the documentation to the City for approval.
- Submit a list of all deviations from standard design criteria along with the written justification for each one. Obtain concurrence from affected agencies or utility companies.
- Consultant shall complete revisions to the 30% design documents to address comments made at the review meeting. Develop a memo summarizing the actions taken on each submitted comment.
- Identify and submit a listing of all permits and clearances required for the completion of the project.
- Submit copies of the revised plans to the City and other agencies as appropriate.

Task 3: Final Design

This task includes Final Design efforts for Clarkson St and 52nd Ave. Task 3 work includes Final Design of the proposed improvements and assistance in obtaining project permits and clearances for environmental, design and utilities that are necessary to advertise the project for bid.

A. Subsurface Utility Engineering (SUE)

Utility Mapping Services (UMS) will complete this task at the direction of RS&H.

The Consultant through the subconsultant Utility Mapping Services (UMS) will perform QL A utility locates for existing underground utilities in accordance with the American Society of Civil Engineers Construction Institute Standard 38-02 (ASCE/CI 38-02). The utility investigation primarily consists of utility locating via discrete QL A vacuum excavated test holes. The Consultant will perform excavation operations and the engineering survey of each test hole location. The Consultant will identify test hole locations based on utility conflicts and areas where more detailed data, including three-dimensional coordinates, are required to complete designs and mitigate/accommodate conflicts. For the purpose of this work, "locate" means to establish by engineering, surveying, drafting, and vacuum excavation practices the accurate horizontal and vertical position of subsurface utilities with vertical tolerances of generally 0.1 feet based on referenced benchmarks. Written logs for all test holes are utilized, derived elevations are transcribed onto CAD reference files, and "locate" points area mapped to Quality Level A on the plans.

Based on our previous work designating utilities within the project area and on our project understanding, a total of 10 test holes are estimated.

B. Final Sidewalk Design

This task will be led by RS&H.

The Consultant will provide final engineering design to include the following:



- Horizontal and vertical geometry
- Roadway section elements including travel lanes, curb and gutter, sidewalk, fences, etc.
- Project grading and disturbance limits.
- Cross Sections
- Project and standard special provisions
- Final Construction Phasing Strategy and Construction Phasing Plans: The Consultant will develop plans for traffic management during construction and other considerations, to allow access to properties on Clarkson Street, 52nd Avenue, and all other side streets in the vicinity during construction. Consultant will provide design plans for construction traffic control signing within the construction zone and along detour routes (if required).

C. Final Traffic Design

This task will be led by RS&H.

This task will include the design of a traffic signing and striping plans along Clarkson Street between 51st and 52nd Avenues and 52nd Avenue between Washington Street and the alley east of Clarkson Street (approx. 460 ft).

Traffic design tasks include:

- Proposed Signing and Striping plans for the Clarkson Street and 52nd Ave within the limits included in the scope. If applicable, the City will provide any proposed changes to the existing signing and striping information in the area. These plans will be considered the existing condition. If applicable, the City shall provide existing traffic information.

Exclusion from the traffic work:

- Collection of traffic data.
- Additional traffic studies/analysis of the area.

D. Final Drainage/ Water Quality Design

RS&H will lead this task.

- Final Drainage Design

Final drainage plans will be a continuance of the preliminary drainage plans developed in the Preliminary Design. Comments from the preliminary drainage plans will be addressed and design will be further developed including: vertical layout of storm sewer, water quality details, and erosion control details. During this phase, the drainage design will be adjusted to minimize impacts to the existing utilities. Utility impacts that are unable to be avoided will be coordinated with the utility designers. Design and detailing of one special drainage structure is included in this scope.

Deliverables Include:



- Final Drainage Plans (50 scale), Profiles, General Notes, and Details
- Final Drainage Report

- Final Water Quality Design and Engineering

The consultant will provide final required water quality volumes for the existing extended detention basin downstream of the project. It is anticipated that the water quality outlet structure of the extended detention basin will not need to be retrofit or replaced to accommodate the additional flows from this Project and no further analysis will be required.

Deliverables include:

- Water quality calculations included in the Final Drainage Report

- Final Stormwater Management Plans

The Consultant will provide stormwater management plans adjusted to address comments and for modifications to roadway and drainage designs. These plans will serve as the basis of the contractor obtaining the construction stormwater discharge permit. The permit application is not included with this scope.

Deliverables Include:

- Stormwater Management Plans (100 scale; Three Phases)

E. Final Utility Design and Coordination

The City will prepare Utility Clearance Letters to Utility Companies. The Consultant will prepare Utility Specifications; provide assistance to CCD to obtain Utility Clearances. Verify all utility company as-builts in the field to the full extent possible to finalize design and identify project utility relocations. Objective/requirement is to obtain the required Utility Clearance for the project.

F. Lighting Design

RS&H in conjunction with our subconsultant Clanton and Associates will develop and coordinate the Final lighting design with the City, the utility agency, and the project stakeholders.

The Consultant will provide the following lighting work for Final Design:

- Incorporate comments from 60% Review
- Final lighting layout
- Final lighting details
- Final electrical design
 - Panel schedules
 - One line diagrams
 - Lighting Control Centers, including short circuit calculations and feeder sizing



- Circuiting and conduit, including voltage drop calculations and conduit sizing
- Electrical details
- Specifications
- Tabulation of Approximate Quantities
- Opinion of Probable Cost

G. Cost Estimating

RS&H will lead this task.

The Consultant shall develop detailed construction bid quantities and construction cost estimates based on the Final plans and quantities. The cost estimates will be presented by typical CDOT Pay Items and cost categories and utilize relevant/current unit cost information from similar/recent projects in the Denver metropolitan area.

H. Denver Transportation and Infrastructure Engineering, Regulatory, and Analytics (PWERA) Preparation, Process, and Submittal

RS&H will lead this task.

The Consultant will prepare final construction documents, drawing and specification per City design standards and format including applicable federal and state requirements. The consultant will complete the Final design plans/documents associated with the PWERA review process. The following items may be included:

- Preparation and attendance for the Final Design Review Meeting.
- Coordinate, complete and compile the plan inputs from all activities: materials, drainage utility design, and right-of-way.
- Compile the Final cost estimate for the work described in the Final design plans based on estimated quantities.
- The Final design plans will include, but not be limited to:
 - Title Sheet
 - Standard Plans List
 - Project Site Plan & Key Map
 - Typical Sections
 - General Notes
 - Summary of Approximate Quantities
 - Project Tabulations (major items only)
 - Survey Control Plan
 - Geometric Control
 - Removal & Reset Plans
 - Sidewalk Plan & Profiles
 - Curb Ramp Details
 - Driveway Details
 - Utility Plans
 - Drainage Plans
 - SWMP plans



- Signing and Striping Plans
- Construction Zone Traffic Control
- Cross Sections

- The following items will be included with the Final design plans:
 - Project Sign-off and Cost Estimate for Ad for Bids
 - Final Drainage Report
 - Technical Specifications
 - Survey documents to support obtaining the required ROW Clearance
 - Updated Basemap and DTM
 - Final ROW and Ownership Plans
 - Updated Legal descriptions and Exhibits
 - Updated Title work (provided by CCD)

Task 4: Post-Design Services (between Final Plans and Bid Opening only)

RS&H will assist the City during the period between finalization of the plan documents and bid opening. Construction phase services are not included in this scope of services. RS&H will perform the following:

- Provide project management to include overall coordination, reporting, and invoicing (10 hours).
- Provide information needed for the City to administer the project's advertisement and bidding (8 hours)
- Attend one Pre-Bid meeting with DOTI (4 hours).
- Prepare addenda drawings. Assume 2 drawings at 6 hours each (12 hours).

Project Schedule

Per coordination with DOTI, this project is proposed to be combined with the on-going design of the 51st Ave project. The 51st Ave project received design NTP in July 2020 and design is underway.

Upon receipt of Notice to Proceed for this project, RS&H will begin collecting survey, ROW and utility information. Once this information is compiled, RS&H will attempt to align the design schedule with the 51st Ave project so the two can be merged into one plan package. It is anticipated that the two projects will have separate Preliminary design plan submittals and that they will be combined into one package at the Final Plan submittal. The feasibility of this schedule will depend on the timing of the receipt of NTP and Right of Way/Easement acquisition. RS&H will coordinate with DOTI to align the schedules of the two projects to meet the City's project delivery goals.

The Clarkson St and 52nd Ave project design is proposed to be completed over an approximate 12-month period. This timeline can be revised as needed as noted above. This timeline accounts for a typical CCD review cycle of 15 working days for each plan submittal.



- Survey, ROW & SUE (QL-B/C): 3 months
- Preliminary Design: 4 months (submit as a stand-alone plan package)
- SUE (QL-A): 1 month
- Final Design: 4 months (submit as a combined plan package with 51st Ave)

The Clarkson St and 52nd Ave project design is proposed to be completed over an approximate 12-month period in conjunction with the work on 51st Ave. The completion date for 51st Ave is December 31, 2023, therefore the term of this scope of work would go through December 31, 2023.

Construction is expected to begin for Clarkson St and 52nd Ave and the 51st Ave projects in early 2024 construction phase services are not included in this schedule or scope of services.

Additional Services

Up to \$20,000 is allocated for additional services to be used as directed by the City Project manager. Additional service work will be agreed to by the Consultant and City project manager prior to this work being performed.

Limitations on Scope of Services

We have provided a specific number of hours to execute the various work tasks outlined in this proposal. The following tasks are not included in the scope of services:

- Redesign resulting from a change in CCD design policy or standards.
- Private or municipal utility design, including design work for water line relocations.
- Structural design.
- Geotechnical design or soil borings for use in pavement design. It is assumed that the pavement design on Clarkson St and 52nd Ave will meet the minimum requirements per the DOTI Standards and Details. A Pavement Design report will not be completed.
- RS&H will not be conducting, scheduling, or coordinating public outreach, public meetings and stakeholder engagement. RS&H will only be providing a technical support role for all public involvement activities as described in this proposal. It is our understanding that all necessary public involvement activities will be completed by NHN Consulting, LLC through the Sidewalk Gap Program public outreach efforts.
- Hydraulic analysis or modifications to the existing water quality pond downstream of this project.
- Irrigation Design.
- Streetscape and Landscaping Design.
- Right of Way Plans
- Right of way Title Work.
- Traffic data collection, modeling, or analysis.
- Construction phase services.

**Clarkson Street and 52nd Avenue Sidewalks
Fee Summary**

Task	Task Description	RS&H	Subs				Reimbursable Expenses	Overall Fee
			105 West	UMS	Pinyon	Clanton		
1	Project Management, Coordination & Meetings	\$ 25,066.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,066.00
2	Preliminary Sidewalk Design	\$ 94,083.00	\$ 23,440.00	\$ 11,085.92	\$ 8,231.00	\$ 5,399.00	\$ 2,782.60	\$ 145,021.52
3	Preliminary Sidewalk Design Plan Package	\$ 81,551.90	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,551.90
4	Final Sidewalk Design	\$ 61,202.00	\$ 5,800.00	\$ 5,877.61	\$ -	\$ 7,467.00	\$ 12,350.00	\$ 92,696.61
5	Final Sidewalk Design Plan Package	\$ 77,758.95	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,758.95
6	Post-Design Services (between Final Plans and Bid Opening only)	\$ 8,774.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,774.00
7	Additional Services to be used as directed by the City Project manager	\$ 20,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000.00
	Overall Design Total	\$ 368,435.85	\$ 29,240.00	\$ 16,963.53	\$ 8,231.00	\$ 12,866.00	\$ 15,132.60	\$ 450,868.98



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

January 26, 2021

Mr. Randal Lapsley, PE
Transportation Office Leader
RS&H
5690 DTC Blvd, Suite 345W
Greenwood Village, CO 80111

RE: Proposal for Professional Surveying Services – Clarkson Street and 52nd Avenue Improvements – City and County of Denver

Dear Randal:

105 West, Inc. (105 West), appreciates the opportunity to offer our proposal providing professional surveying services for the above-referenced project.

SCOPE OF SERVICES

Task A – Meetings, Mobilization & Coordination

105 West anticipates attending one (1) project team meetings with City and County of Denver (CCD) personnel and/or the RS&H team members. As part of this task 105 West will develop work plans, mobilize staff, and keep the Consultant Manager and CCD Project Manager updated relative to the survey team's progress or any concerns.

Task B – Permits/Right-of-Entry

105 West will apply for the right-of-way permit from the City and County of Denver in order to perform survey work within the City and County of Denver rights-of-way. For the purposes of this proposal, all work will be performed within the CCD rights-of-way. Acquiring permission to enter private property is not anticipated at this time.

Task C – Project Control

105 West will establish horizontal and vertical (NAVD 88) control monuments based on the City and County of Denver's horizontal and vertical datum. 105 West anticipates setting five (5) semi-permanent control points to be used for surveying purposes. The preparation of a project control diagram is included in this task.

Task D – Topographic Design Survey

105 West will obtain, by field methods, existing, visible planimetric features and topography at a one-foot (1') contour interval. The topographic survey will include the existing edges of pavement, existing edge of traveled surface, centerline, curb/gutter, striping, sidewalks, traffic signals, culverts, fences, structures, and surface utility evidence within the limits shown in red on the attached Exhibit A. All electronic deliverables will be provided in AutoCAD.

Task E – Ownership/Right-of Way

In order to determine the existing right-of-way limits and private ownerships along Clarkson Street and 52nd Avenue, 105 West will obtain City and County of Denver (CCD) record information including subdivision plats, land survey plats, right-of-way plans and vesting deed information for the twenty-two (22) parcels located within the project limits. To aid in the development of the ownership/ROW, 105 West will utilize the “Existing Right-of-Way Plan and Ownership Map” provided by CCD signed and sealed on November 1, 2018.

Task F - Underground Utilities

The firm of Utility Mapping Services (under separate contract) will mark the underground utilities within the topographic limits shown in red on the attached Exhibit A. Once the utilities have been marked, and signed sketches have been provided, 105 West will survey the paint mark locations.

Task G - Legal Description and Exhibits

Based on geometry provided to us by RS&H, 105 West will provide up to eight (8) legal descriptions and exhibits, in accordance with specifications set forth by the City and County of Denver, for proposed temporary easements.

EXCLUSIONS

Monumentation of existing or proposed ROW/Easements
CCD Survey Control Perpetuation of Range Points and creation of associated Survey Control Perpetuation Diagram
Final Right-of Way Plans
Procurement of title commitments
Manhole/Inlet invert measure downs
ALTA Surveys

FEES

For the professional services described herein, 105 West, Inc., proposes to be compensated at cost not-to-exceed basis. Please see our fee breakdown spreadsheet dated January 26, 2021 for detailed project costs.

SCHEDULE

Upon receipt of our permits from CCD, we are prepared to commence work immediately. We anticipate completing Tasks A-E within ten (10) weeks (weather permitting). The remaining Tasks F and G are at the schedule discretion of others.

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

Sincerely,

105 West, Incorporated



Robert C. Maestas, PLS

Director of Surveying and Mapping Services

105 West

26-Jan-21

Fee Schedule

CCD Clarkson St and 52nd Ave

TASK / DELIVERABLE	105 West Staff						105 West Totals			TOTALS
	Director of Survey/Mapping	Project Surveyor	Survey Technician	Party Chief	Instrument Operator	GPS/Robotic(1-man)	Professional Service Hours	Professional Service Fee	105 West's Other Direct Costs and Subconsultants	Professional Service Fee and Other Direct Costs
	\$125	\$100	\$80	\$80	\$55	\$115				
SCOPE OF WORK										
Activity 1 - Survey & Mapping										
Task A - Meetings/Mobilization & Coordination	4	6					10	\$ 1,100		\$ 1,100
Task B - Permits/Right-of-Entry		2	3				5	\$ 440	\$ -	\$ 440
Task C - Project Control	3	6	10	8	8		35	\$ 2,855		\$ 2,855
Task D - Topographic Design Survey	4	8	16	40	40		108	\$ 7,980		\$ 7,980
Task E - Ownership-Right-of-Way	8	16	36			9	69	\$ 6,515	\$ -	\$ 6,515
Task F - Underground Utilities	2	8	10	20	20		60	\$ 4,550		\$ 4,550
Task G - Legal Description and Exhibits	8	16	40				64	\$ 5,800		\$ 5,800
							0	\$ -		\$ -
TOTALS	29	62	115	68	68	9	351	\$ 29,240	\$ -	\$ 29,240



**52nd Ave: Obtain survey, ROW & SUE.
50' wide (starting at southern ROW).**

52nd AVE

**Limits extend 50' east
of southeast corner of
intersection with alley**

UNNAMED ALLEY

**Clarkson St: Obtain survey, ROW & SUE.
60' wide (ROW to ROW)**

CLARKSON ST

EMERSON ST

WASHINGTON ST

**Completed survey,
ROW & SUE**

Exhibit A

51st AVE

Legend

- Limits of completed survey, ROW & SUE
- Limits of proposed survey, ROW & SUE

Clarkson St & 52nd Ave Survey Limits

CLANTON & ASSOCIATES

LIGHTING DESIGN AND ENGINEERING

Date: June 16, 2021

David Duszak

RS&H

4582 South Ulster Street, Suite 1100

Denver, CO 80237

720.586.6674 | David.Duszak@rsandh.com

Re: 51st Ave at Washington St – Clarkson Street add scope
Lighting and Electrical Design Consulting Proposal

Clanton and Associates proposes to undertake the lighting and electrical consulting for Clarkson Street and 52nd Avenue in Denver, CO.

3a) preliminary design	\$ 5,399
3b) final design	\$ 7,467
3) Total fee	\$ 12,866

The scope of work includes:

1. A single lighting plan set for street lighting along Clarkson Street and 52nd Avenue
2. Lighting will be owned and maintained by Xcel Energy.

Fees are billed hourly not to exceed the contract amount without prior approval. Invoicing will occur monthly based on hours worked. Design services shall include the following:

Preliminary Design (60%)

- Kickoff meeting by videoconference call
- Establish basis of design
- Preliminary lighting design
 - Xcel energy approved luminaire
 - Preliminary lighting calculations
- Preliminary lighting details
- Preliminary electrical design (power source locations)
- Utility coordination
- Preliminary tabulation of approximate quantities
- Preliminary Opinion of Probable Cost
- Up to six (6) team coordination meetings by conference call
- Up to one (1) submittal (60% set)
- Attendance at 60% Review meeting by videoconference call

Final Design (100%)

- Incorporate comments from 60% Review
- Final lighting layout
- Final lighting details
- Final electrical design
 - Panel schedules
 - One line diagrams
 - Lighting Control Centers, including short circuit calculations and feeder sizing

51st Ave at Washington St – Clarkson Street add scope
RS&H

- Circuiting and conduit, including voltage drop calculations and conduit sizing
- Electrical details
- Specifications
- Tabulation of Approximate Quantities
- Opinion of Probable Cost
- Up to six (6) team coordination meetings by conference call
- Up to one (1) submittal (100% set)
- Attendance at 100% review meeting by videoconference call

This scope of work is based upon normal project progress and within the time schedule agreed upon, without major redesign or change order work. Additional fees will be required if project timing is extended or project is put on hold and restarted at later date. If the project timing exceeds one year, additional services rates may increase.

The scope is based on emails sent on 1/21/2020.

Not included in this scope of work but is available for extra services:

- Lighting system redesign after the preliminary submittal due to changes in lighting ownership
- Additional meetings, site visits, or conference calls
- Construction observation and/or services during advertisement and/or construction
- Electrical engineering
- Any development, design, or detailing of custom luminaires
- Drafting on non-digital backgrounds such as *.pdf or *.jpg files

Specific exclusions from this scope are as follows:

- Structural engineering
- Equipment procurement
- Commissioning
- Survey control map or Right-of-Way plans
- Subsurface Utility Engineering
- Communication wiring to Traffic Signals

Client will supply Clanton and Associates with review materials and backgrounds in AutoCAD or Micro Station format. Reimbursable expenses shall include printing costs, overnight delivery and travel expenses associated with the project and shall be charged in addition to the compensation for professional services. Payment for services is expected within 30 days of invoice unless other arrangements are made in writing. Work shall commence upon receipt of a signed copy of this agreement. This agreement is valid for 60 days.

Additional services shall be charged per the 2016 on-call rates in the attached Clanton & Associates Rates Table.



CLANTON & ASSOCIATES

6/16/2021

DATE

RS&H

DATE



Corporate Headquarters
3222 South Vance Street, Suite 200, Lakewood, CO 80227
T: 303.980.5200 F: 303.980.0089
www.pinyon-env.com

January 15, 2021

Dave Duszak, P.E.
RS&H
5690 DTC Boulevard, Suite 345W
Greenwood Village, CO 80111

Via email: David.Duszak@rsandh.com

Subject: Proposal to Complete a Limited Environmental Screening, Soil Sampling and Materials Management Plan, 52nd Avenue and Clarkson Street, Clarkson Street between 51st and 52nd Avenues and 52nd Avenue between Washington Street and East of Clarkson Street, Denver, Colorado

Dear Mr. Duszak:

Pinyon Environmental, Inc. (Pinyon), is pleased to present this proposal to complete a Limited Environmental Screening (LES), Soil Sampling for waste characterization and a Materials Management Plan (MMP) for the above-referenced area. The City and County of Denver's Department of Transportation and Infrastructure (CCD DOTI) previously requested a proposal to complete design services for the reconstruction of 51st Avenue; Pinyon submitted a scope and fee for environmental support for this work dated July 14th, 2020. Pinyon understands that the 51st Avenue Reconstruction project limits have been extended, and CCD DOTI has now requested an additional proposal for this additional area. Pinyon has assumed that the services in this proposal will be completed at the same time as those in the 51st Avenue Reconstruction proposal, but this project will be tracked and invoiced separately. Pinyon has assumed that information from both projects will be incorporated into one LES and one MMP. If this scope is completed separately from the 51st Avenue Reconstruction, there will be additional costs.

The scope of services and schedule details for the proposed project are outlined in Attachment A. Pinyon estimates the cost to complete this project, in accordance with the outlined services, will be \$9,513.60 (Table I). Pinyon will invoice on a time and materials basis, in accordance with the applicable approved rates.

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 Marin@pinyon-env.com. Thank you for considering Pinyon for your environmental consulting needs.

Sincerely,

PINYON ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Michelle Marin".

Michelle Marin
Team Leader – Project Delivery

Cc: Randal Lapsley



Task 1 – Material Management Plan

Pinyon has assumed that one MMP which includes both the 51st Avenue Reconstruction project and the 52nd and Clarkson project will be completed.

An MMP will be prepared to facilitate the identification and management of soil, groundwater, and/or debris that is suspected of being a solid or hazardous waste or requires special handling and disposal. The purpose of this document is to detail the procedures for handling potentially contaminated media. The MMP will be designed to minimize worker exposure to potentially contaminated material, prevent releases to the environment, and ensure proper disposal. At a minimum, the MMP will include procedures covering the following topics:

- Personnel and their responsibilities
- Soil and debris management options based on regulated chemical concentrations
- Construction water handling procedures
- Waste characterization protocols
- Asbestos containing materials management
- Decontamination of equipment
- Reporting

Task 2 – Limited Environmental Site Assessment

Pinyon has assumed that one LES which includes both the 51st Avenue Reconstruction project and the 52nd and Clarkson project will be completed.

For this project, Pinyon proposes to conduct a Limited Environmental Screening. The objective of the Limited Environmental Screening is to provide information about facilities that pose a potential risk of being impacted by Recognized Environmental Conditions (RECs). Assessment of facilities in and near the project area for past or present soil and/or groundwater impacts is an integral component of the planning process. In cases where potential impacts are suspected, avoidance and/or identification of potential mitigation measures can be implemented when reasonably possible.

The Limited Environmental Screening addresses (and in many cases incorporates) components of the Colorado Department of Transportation (CDOT) Form 881 and the ASTM Standard 1527-13 Phase I Environmental Site Assessment. However, this document is limited in relation to the ASTM Standard. The Limited Environmental Screening will provide project planners a “snapshot” of the existing conditions within the study area; however, more detailed information may be needed through additional investigation.

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), including historical documentation such as Sanborn Fire Insurance maps, aerial photographs, reverse city directories, and historical topographic maps. Further, Pinyon will review up to four additional facility reports at local regulatory offices. A summary report of existing conditions, including recommendations and conclusions, will be prepared. This



ATTACHMENT A – SCOPE OF SERVICES (CONT.)

report is not designed to be an ASTM compliant Phase I Environmental Site Assessment but will be prepared to specifically identify potential project environmental risks.

Task 3 – Soil Sampling

Limited soil sampling activities will be completed concurrent with the geotechnical investigation; if a geotechnical investigation is not completed, soil samples will be collected by hand auger. The following is a general scope of services for this project.

- If the samples are collected with a hand auger, three locations will be sampled along 52nd Avenue and three locations will be sampled along Clarkson Street; we assume this will take approximately one business day to accomplish with a team of two field scientists. If samples are collected during the geotechnical investigation, a maximum of two composite samples will be collected. Specific details of this sampling cannot be determined until more information regarding the geotechnical investigation becomes available.
- Samples will be collected from the zero to up to three-foot interval using a decontaminated hand auger or from the same interval in the geotechnical borings.
- After sampling, the excavation will be backfilled with clean soil or sand, and the sod (or surface, as applicable) returned to pre-excavation conditions.
- Samples will be analyzed for the following (contingent on confirmation with CCD DOTI):
 - Volatile Organic Compounds (VOCs) by EPA Method 8260
 - Resource Conservation and Recovery Act (RCRA) Eight Metals (totals analysis) by EPA Methods 6010/7417
 - Metals by the Toxicity Characteristic Leachate Procedure (TCLP) – will be kept on hold pending results of the RCRA 8 total results
- Standard laboratory turn-around time will be utilized.
- Pinyon's field scientists will be Certified Asbestos Building Inspectors (CABIs), who will visually screen soil for the presence of non-soil material. If suspect materials are identified, asbestos sampling will also be completed.
- Results of the investigation will be briefly summarized in the Materials Management Plan; laboratory reports will be appended to the Materials Management Plan.

Assumptions

Pinyon has assumed the following:

- Pinyon personnel will attend one project meeting.
- One MMP and one LES will be completed at the same time as the proposed work for Segments 1 and 2 in the 51st Avenue Reconstruction proposal dated July 14, 2020. Pinyon has assumed that information from both projects will be incorporated into one LES and one MMP.
- The LES site visit will not include entrance into buildings.



ATTACHMENT A – SCOPE OF SERVICES (CONT.)

- If file review above and beyond four hours is deemed necessary to complete the Scope of Services, Pinyon will notify the client that additional costs may be required. Pinyon will seek authorization from client for additional fee prior to conducting additional file review.
- Any utility clearances, permits or traffic control measures will be completed and paid for by the geotechnical firm conducting the investigation.
- Investigation-derived wastes, if generated, will be removed and disposed properly by a qualified vendor under the direction of the geotechnical driller. The geotechnical driller will pay for the disposal of these wastes.
- Geotechnical oversight will not be completed.
- No more than two soil samples will be submitted for laboratory analysis. If additional samples are required, additional costs will be incurred. The samples will be submitted for standard laboratory turn-around time, which is approximately seven business days. Lab analysis can be completed quicker; however, additional costs will be incurred.



TABLE I – SUMMARY OF ESTIMATED FEES

Task 1 Materials Management Plan				
Description	Quantity	Unit	Rate	Extension
Labor Rates				
Principal/Executive Management	1.0	hour	\$220.00	\$220.00
Project Specialist	1.0	hour	\$153.00	\$153.00
Project Engineer/Scientist	4.0	hours	\$127.00	\$508.00
Field Technician/Project Assistant	1.0	hour	\$86.00	\$86.00
Task Subtotal				\$967.00
Task 2 Limited Environmental Site Assessment				
Description	Quantity	Unit	Rate	Extension
Labor Rates				
Principal/Executive Management	1.0	hour	\$220.00	\$220.00
Project Specialist	4.0	hours	\$153.00	\$612.00
Project Engineer/Scientist	28.0	hours	\$127.00	\$3,556.00
Drafting (Graphics)	4.0	hours	\$98.00	\$392.00
Equipment/Material Unit Rates				
Geosearch	1.0	each	\$300.00	\$300.00
Task Subtotal				\$5,080.00
Task 3 Soil Sampling				
Description	Quantity	Unit	Rate	Extension
Labor Rates				
Project Specialist	4.0	hours	\$153.00	\$612.00
Staff II Engineer/Scientist	16.0	hours	\$117.00	\$1,872.00
Equipment/Material Unit Rates				
Soil Logging/Screening Field Equipment	1.0	day	\$250.00	\$250.00
Laboratory Rates				
Soil - VOCs	2.0	samples	\$115.50	\$231.00
Soil - RCRA 8 Metals	2.0	samples	\$93.50	\$187.00
Waste - TCLP RCRA8	2.0	samples	\$157.30	\$314.60
Task Subtotal				\$3,466.60
Project Total				\$9,513.60

**Utility Mapping Services, Inc.
Cost Proposal for Utility Designating**

Project Name: 52nd Avenue and Clarkson Street

UMS Project No: 11176.1

Date: June 16, 2021

Owner: City/County of Denver

Contact: Dave Duszak, PE, PTOE

Address: 5690 DTC Blvd, Suite 345W, Greenwood Village, CO 80111

Phone: 720-586-6674

Email: david.duszak@rsandh.com



Utility Mapping Services, Inc.

15065 W. 44th Ave.

Golden, CO 80403

720.230.0780

www.umsi.us

email: cgreer@umsi.us

**Subsurface Utility Engineering - Phase 1 Assumptions: 7600 lineal feet of utilities
A one man designating crew for 5 days
Surveying effort to be completed by 105 West**

Project Task No.	Project Task Description	Project Manager	Project Engineer	Senior Engineer	Principal Engineer	SUE Field Ops Manager	SUE Field Specialist II	SUE Field Specialist I	Staff Engineer	Business Administrator	Total Hours	
1100	Project Preparation and Management, Meetings	8.00		1.00	1.00	6.00				2.00	18.00	
1200	Records Research	2.00				4.00					6.00	
1300	Mobilization					6.00					6.00	
1400	Field Designating					40.00					40.00	
1500	Engineering Survey										0.00	
1600	CADD Development	10.00									10.00	
1700	Database Development	4.00									4.00	
1800	Project Documentation & QA/QC	6.00		1.00	1.00	3.00					11.00	
1900	Submittal Preparation	6.00		1.00	2.00					2.00	11.00	
	Phase I Hours	36.00	0.00	3.00	4.00	59.00	0.00	0.00	0.00	4.00	106	
	Rates	105.77	103.58	121.31	119.38	103.09	81.85	64.43	77.32	88.61		
	Total Burdened Rates	3807.72	0.00	363.93	477.52	6082.31	0.00	0.00	0.00	354.44	11085.92	
											Phase I Labor Costs	11085.92

Traffic Control (does not include flaggers)	day	1.00	1500.00	1500.00
Permits (Fee assumed to be waived)	ea	0.00	500.00	0.00

*traffic control and permit costs are approximate; actual costs will be invoiced.

THIS ESTIMATE IS VAILD FOR 60 DAYS FROM THE DATE POSTED AT THE TOP OF THIS PROPOSAL

SUE Phase 1 Total **\$12,585.92**

Utility Mapping Services, Inc.

Cost Proposal for Utility Locating

Project Name: 52nd Avenue and Clarkson Street

UMS Project No: 11176.2

Date: June 16, 2021

Owner: City/County of Denver

Contact: Dave Duszak, PE, PTOE

Address: 5690 DTC Blvd, Suite 345W, Greenwood Village, CO 80111

Phone: 720-586-6674

Email: david.duszak@rsandh.com



Utility Mapping Services, Inc.

15065 W. 44th Ave.

Golden, CO 80403

720.230.0780

www.umsi.us

email: cgreer@umsi.us

Subsurface Utility Engineering - Phase 2 Utility Locating: Assuming 10 vacuum excavation holes on utilities less than 7-feet in depth, 5 holes in pavement, and 5 in dirt.

Project Task No.	Project Task Description	Project Manager	Project Engineer	Senior Engineer	Principal Engineer	SUE Field Ops Manager	SUE Field Specialist II	SUE Field Specialist I	Staff Engineer	Business Administrator	Total Hours	
2100	Work Plan, H&S, Traffic, Permits	10.00		1.00	1.00	2.00				2.00	16.00	
2200	Mobilization					2.00					2.00	
2300	Test Hole Staking/Designating										0.00	
2400	Utility Locating					16.00					16.00	
2500	Engineering Survey										0.00	
2600	CADD Development	3.00									3.00	
2700	Database Development	2.00									2.00	
2800	Project Documentation & QA/QC	3.00		1.00	1.00	4.00					9.00	
2900	Submittal Preparation	4.00		1.00	1.00					2.00	8.00	
	Phase I Hours	22.00	0.00	3.00	3.00	24.00	0.00	0.00	0.00	4.00	56	
	Rates	105.77	103.58	121.31	119.38	103.09	81.85	64.43	77.32	88.61		
	Total Burdened Rates	2326.94	0.00	363.93	358.14	2474.16	0.00	0.00	0.00	354.44	5877.61	
											Phase I Labor Costs	5877.61

Vacuum Excavation Truck and Crew	hole	10.00	685.00	6850.00
Backfill and Restoration	day	2.00	500.00	1000.00
Pavement Coring	day	2.00	250.00	500.00
Permits	ea	1.00	1000.00	1000.00
Traffic Control (does not include flaggers)	day	2.00	1500.00	3000.00
	Vendor Services, Permits, Traffic Control			12350.00

*traffic control and permit costs are approximate; actual costs will be invoiced.

THIS ESTIMATE IS VAILD FOR 60 DAYS FROM THE DATE POSTED AT THE TOP OF THIS PROPOSAL

SUE Phase 2 Total **\$18,227.61**

Scope of Services for Out of Scope Work

51st Avenue Improvements, Logan Street to Emerson Street

August 9, 2021

Project Description

The scope of this proposal includes supplemental works items that were not included in the original scope of work for the 51st Avenue improvements project. The original scope of work, dated July 17, 2020, states the following:

- **A concept alignment for 51st Ave and typical roadway section were provided by the City. These concept plans were used to develop the scope and fee for this project. If during the preliminary design significant changes to the alignment or typical sections are determined to be needed the scope and fees may need to be revised.**

The concept information referred to above is an exhibit developed by Atkins (dated 4/16/2020) and provided to RS&H by DOTI that displays the conceptual alignment along with key roadway elements such as lane widths, type/width of bike facilities and width of sidewalks/amenity zones.

This scope of work includes coordination and design work related to the redesign of the conceptual typical sections and conceptual horizontal geometry that RS&H was tasked with in order to complete the Preliminary design phase.

Additionally, this scope of work includes work to define the BNSF railroad crossing easement across 51st Avenue.

Scope of Work

The scope of work is divided into three tasks as follows:

Task 1: Typical Section Redesign

Task 2: Intersection Redesign

Task 3: Railroad Crossing Easement

Task 1: Typical Section Redesign

RS&H hosted a project kick-off meeting on October 14, 2020 and it came to our attention that the typical section elements as shown in the concept exhibit were not vetted through the DOTI Roadway staff or coordinated with the Heron Pond project. The Heron Pond project designed 51st Ave between Emerson St and the proposed NWCO bridge project and ties directly in with RS&H's 51st Ave project at Emerson St. As a result, RS&H performed extensive coordination efforts and developed several new

exhibits, graphics and a memo to thoroughly vet the redesign through DOTI staff and the three adjacent projects (Heron Pond, NWCO bridge and 51st Ave bike lanes).

In the scope of services, RS&H included nominal hours and budget to account for one initial coordination meeting with the Roadway group and for refinement of the typical section based on that meeting. As detailed below, the work effort needed to complete these tasks was not included in RS&H's scope of services and was necessary to complete before proceeding with Preliminary Design. The following is a breakout of work performed beginning on October 3, 2020 and finishing on January 11, 2021.

October 2020

- Prior to the project kick-off meeting, RS&H compiled and developed a graphic comparing and summarizing four different proposed typical sections for 51st Ave that were prepared by others and forwarded to RS&H by DOTI.
- Hosted a Roadway typical section coordination meeting with DOTI on 10/23/20 to review the typical sections developed by others.
- Based on 10/23 meeting, developed, and submitted a memo reviewing typical section preferred alternatives and considerations.

November 2020

- Coordinated with the Heron Pond design team and NWCO bridge design team regarding their horizontal alignments.
- Developed a plan view concept exhibit for the east leg of 51st Ave incorporating all DOTI coordination efforts to date.

December 2020

- Updated the concept exhibit per the comments received from DOTI on December 2.
- Hosted a second Roadway typical section meeting to discuss the concept exhibit typical section comments. Drafted meeting minutes.
- Coordinated with the Heron Pond design team regarding the roadway tie-in at Emerson St. Assisted in developing the S-curve east of Emerson St (as part of the Heron Pond project) to confirm it met the needs of both projects.
- Updated the concept exhibit to reflect the most recent Heron Pond design.

January 2021

- Hosted a third Roadway typical section meeting. This meeting focused on the design west of Washington St.
- Coordinated with the 51st Ave bike lane project extending through RS&H's 51st Ave project's limits.
- Created another concept exhibit to display the west leg of 51st Ave and submitted to DOTI.

On January 19, 2021, RS&H was notified by DOTI that the conceptual exhibit with revised typical sections was accepted. As a result of the above Task 1 coordination and redesign efforts, the Preliminary

Plans submission date was rescheduled from December 2020 to June 2021. To meet the June 2021 deadline, RS&H began preliminary design in February 2021.

Task 2: Intersection Redesign

Conceptual Design

On May 18, 2021, about 6 weeks before the Preliminary Plan deadline, DOTI requested that RS&H develop a revised horizontal alignment concept for the west leg of 51st Ave intersection. DOTI requested that this new concept revise the origin concept design by modifying the eastbound approach to consist of two curves with a tangent between them rather than an angled approach that the original concept design had called for. Additionally, it was requested to remove the northwest corner porkchop island that was also originally called for.

RS&H began developing a new intersection concept as directed and also with the following objectives based on previous coordination with DOTI:

- Avoid impacts to the structure on the southwest corner.
- Minimize impacts to the parking lot on the northeast corner.
- Reduce corner radii to the extent feasible while also accommodating the WB-50 design vehicle selected by DOTI.

Given the various design constraints, multiple iterations were drafted and evaluated. Each iteration was reviewed by Roadway and Traffic staff. The iterations consisted primarily of changing the radii of the west leg curves as well as the offset through the 51st Ave intersection. For each iteration, turning templates were developed for all pertinent truck movements. Through this process, the design was refined until all the above objectives were achieved.

RS&H submitted the revised concept to DOTI on June 11, 2021 and received notice that the concept was accepted on June 24, 2021.

Preliminary Redesign

Prior to receiving notice regarding the concept redesign, the Preliminary Plans were about 2 weeks away from beginning the formal QC process. Much of the roadway, drainage and traffic design had been completed, including the completion of the Inroads modeling and creation of a proposed surface DTM.

RS&H requested an hour estimate from each discipline involved for the redesign. The hour estimate includes all work needed to redesign the intersection per the new approved concept.

Task 3: Railroad Crossing Easement

RS&H and our subconsultant, RailPros, are scoped with preparing a grade crossing application for the BNSF railroad crossing at 51st Ave, just east of Logan St. One component of this application is defining the BNSF crossing easement location and dimensions. Typically, both the railroad owner and municipality have records of this easement. Through coordination with BNSF, RailPros was notified that BNSF cannot locate the crossing easement for this location. RS&H requested that DOTI also conduct a

search for this easement. The DOTI PM asked that the Real Estate and Survey groups to search for this easement. Neither search found crossing easement documents. Since both BNSF and DOTI were unable to locate records, RS&H and RailPros need to develop a new crossing easement for this location.

Subtask 1: Project Management

RS&H and RailPros will plan, organize and monitor project team activities, including participation in project team coordination and coordination conference calls. The project team will also respond to client requests.

Subtask 2: Develop new crossing easement

RS&H and RailPros will coordinate with BNSF and their contractor, Jones, Lang & LaSalle (JLL), to obtain a new easement for inclusion in the C&M agreement with BNSF.

- Coordinate with BNSF and JLL.
- Create exhibit of proposed easement area.
- Draft a legal description of the proposed easement area.
- Review easement area and legal description for compliance with BNSF requirements.
- Participate in conference calls with BNSF and/or JLL (2 total)
- Address BSNF & JLL comments on easement and legal description.

Limitations on Scope of Services

We have provided a specific number of hours to execute the various work tasks outlined in this proposal. The following tasks are not included in the scope of services:

- Redesign resulting from a change in CCD design policy or standards.



51st Avenue Improvements, Logan Street to Emerson Street (Scope Additions)

Task Summary	Total RS&H Hours	RS&H Cost	Subs	Expenses	Total Cost
Task 1a - 51st Ave Typical Section Redesign (West of Washington St)	119	\$ 26,431.00	\$ -	\$ -	\$ 26,431.00
Task 1b - 51st Ave Typical Section Redesign (East of Washington St)	35	\$ 8,299.00	\$ -	\$ -	\$ 8,299.00
Task 2a - 51st Ave Intersection Redesign (West of Washington St)	322	\$ 62,624.00	\$ -	\$ -	\$ 62,624.00
Task 2b - 51st Ave Intersection Redesign (East of Washington St)	28	\$ 6,320.00	\$ -	\$ -	\$ 6,320.00
Task 3 - Railroad Crossing Easement (West of Washington St)	18	\$ 4,842.00	\$ 6,878.28	\$ -	\$ 11,720.28
TOTAL	522			Total	\$ 115,394.28

Breakout West and East of Washington St	Total RS&H Hours	RS&H Cost	Subs	Expenses	Totals Cost
West of Washington Street (Task 1a + Task 2a + Task 3)	459	\$ 93,897.00	\$ 6,878.28	\$ -	\$ 100,775.28
East of Washington Street (Task 1b + Task 2b)	63	\$ 14,619.00	\$ -	\$ -	\$ 14,619.00
TOTAL	522			Total	\$ 115,394.28



**City and County of Denver Department of Transportation & Infrastructure
51st Avenue Improvements, Logan Street to Emerson Street (Scope Additions)**

Work Activity	PM					Drairage	Traffic		Total Design Hours	RS&H Cost	Rail Roads	Expenses	Totals Cost
	Project Manager	PE 5	PE 3	PE 3	PE 2	PE 2	PE 3	PE 1					
RATES	\$ 269.00	\$ 269.00	\$ 176.00	\$ 176.00	\$ 161.00	\$ 161.00	\$ 176.00	\$ 143.00			RailPros	(Lab testing, airline travel, etc)	
Task 1a - 51st Ave Typical Section Redesign (West of Washington St)	RL	DD	EB	JK	RLM	JD	DL	AW					
A. Project Management & Coordination with City	5	24	3						32	\$ 8,329.00			\$ 8,329.00
B. Typical Section Refinement		30	57						87	\$ 18,102.00			\$ 18,102.00
Total Task 1a Hours	5	54	60	0	0	0	0	0	119				
Total Task 1a	\$ 1,345	\$ 14,526	\$ 10,560	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 26,431.00			\$ 26,431.00
Task 1b - 51st Ave Typical Section Redesign (East of Washington St)													
A. Project Management & Coordination with City	5	8	2						15	\$ 3,849.00			\$ 3,849.00
B. Typical Section Refinement		10	10						20	\$ 4,450.00			\$ 4,450.00
Total Task 1b Hours	5	18	12	0	0	0	0	0	35				
Total Task 1b	\$ 1,345	\$ 4,842	\$ 2,112	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 8,299.00			\$ 8,299.00
Task 2a - 51st Ave Intersection Redesign (West of Washington St)													
A. Project Management & Coordination with City		8							8	\$ 2,152.00			\$ 2,152.00
B. Conceptual Design		48	4		36				88	\$ 19,412.00			\$ 19,412.00
C. Preliminary Roadway Redesign		40	16	20	74				150	\$ 29,010.00			\$ 29,010.00
D. Preliminary Drainage Redesign						40			40	\$ 6,440.00			\$ 6,440.00
E. Preliminary Traffic Redesign							14	22	36	\$ 5,610.00			\$ 5,610.00
Total Task 2a Hours	0	96	20	20	110	40	14	22	322				
Total Task 2a	\$ -	\$ 25,824	\$ 3,520	\$ 3,520	\$ 17,710	\$ 6,440	\$ 2,464	\$ 3,146		\$ 62,624.00			\$ 62,624.00
Task 2b - 51st Ave Intersection Redesign (East of Washington St)													
A. Project Management & Coordination with City		8							8	\$ 2,152.00			\$ 2,152.00
B. Conceptual Design		4							4	\$ 1,076.00			\$ 1,076.00
C. Preliminary Roadway Redesign		4	6		2				12	\$ 2,454.00			\$ 2,454.00
D. Preliminary Drainage Redesign									0	\$ -			\$ -
E. Preliminary Traffic Redesign							2	2	4	\$ 638.00			\$ 638.00
Total Task 2b Hours	0	16	6	0	2	0	2	2	28				
Total Task 2b	\$ -	\$ 4,304	\$ 1,056	\$ -	\$ 322	\$ -	\$ 352	\$ 286		\$ 6,320.00			\$ 6,320.00
Task 3 - Railroad Crossing Easement (West of Washington St)													
A. Project management and coordination with City	2	6							8	\$ 2,152.00	\$3,601.14		\$ 5,753.14
B. Review and define Crossing Easement & coordinate with BNSF and JLL	2	8							10	\$ 2,690.00	\$3,277.14		\$ 5,967.14
Total Task 3 Hours	4	14	0	0	0	0	0	0	18				
Total Task 3	\$ 1,076	\$ 3,766	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 4,842.00			\$ 4,842.00
PROJECT HOURS	14	198	98	20	112	40	16	24	522				
PROJECT TOTALS	\$ 3,766	\$ 53,262	\$ 17,248	\$ 3,520	\$ 18,032	\$ 6,440	\$ 2,816	\$ 3,432		\$ 108,516	\$6,878.28	\$0.00	\$ 115,394.28



August 9, 2021

Dave Duszak, PE, PTOE
RS&H
Senior Transportation Engineer
5690 DTC Blvd, Suite 345W
Greenwood Village, CO 80111

SUBJECT: 51st AVENUE ADDITIONAL RAILROAD COORDINATION SERVICES

Dear Dave,

Per your request, we are pleased to submit this scope of work and fee to provide additional railroad crossing support services at the 51st Avenue grade crossing to assist in coordinating a new easement over BNSF's right-of-way. The following scope tasks are included:

- Coordination with Jones, Lang and LaSalle (JLL), BNSF's real estate consultant.

Thank you for the opportunity to support RS&H. If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Hankinson", written over a light blue rectangular background.

Karen Hankinson, P.E.
Vice President

Attachments: Scope of Work, Fee

ADDITIONAL RAILROAD COORDINATION SERVICES

Project Understanding

RailPros to plan, organize, control and monitor RailPros project team activities. Manage service activities and deliverables to RS&H, BNSF, JLL and PUC.

Scope of Work

TASK 1.0 – ADDITIONAL PROJECT MANAGEMENT

RailPros to plan, organize, control and monitor RailPros project team activities. Manage service activities and deliverables to RS&H, BNSF, JLL and PUC.

RailPros Activities

- Participate in Project Team Coordination conference calls (2 total)

Task Deliverables

- Conference call participation
- Monthly invoices

Meetings

- Conference Calls (up to 2 meetings total).

TASK 2.0 – COORDINATION WITH JLL

RailPros will coordinate with JLL to obtain a new easement for inclusion in C&M agreement with BNSF.

RailPros Activities

- Coordinate with RS&H, BNSF and JLL
- Review easement area and legal description for compliance with BNSF requirements

Task Deliverables

- Conference call participation (2 total)
- Review comments on easement and legal description

Meetings

- Participate in 2 conference calls with RS&H, BNSF and/or JLL

Project Assumptions

- RS&H will provide proposed easement area and legal description for RailPros' review.
- Outstanding work items from the previous contract will continue
- Bidding assistance and Construction Management are not included in this scope of work.

ADDITIONAL RAILROAD COORDINATION SERVICES

Fee

RailPros is proposing an additional total fixed fee cost of \$6,878.28 to provide the tasks outlined in this proposal. A cost breakdown is provided in the fee schedule attached. Invoices will be submitted monthly based on completion of work.

Schedule

Work scope defined herein is anticipated to be completed within 1 year. If for some reason the project schedule extends beyond this period, contract is open to extension or renegotiation based on current billing rates.

RailPros Fee Proposal - 51st Avenue Additional Railroad Coordination Services

Task Description	Project Manager - Karen Hankinson, PE, TE \$285.66	Senior Traffic Engineer - Travis Bailey \$213.45	Design Engineer - Leah Russell, EIT \$96.00	Administrator - Stephanie Schaubert \$81.00	Total Hours	Labor Cost
TASK 1.0 - ADDITIONAL PROJECT MANAGEMENT						
Project Management	2	6		4	12	\$2,176.02
Meetings - up to 2 Conference Calls (2 meetings total)	2	4			6	\$1,425.12
Subtotals	4	10	0	4	18	\$3,601.14
TASK 2.0 - COORDINATION WITH JLL						
Review proposed easement area	2	2			4	\$998.22
Review legal description	2	2			4	\$998.22
Coordinate with BNSF and JLL		4			4	\$853.80
Meetings - up to 2 Conference Calls (2 meetings total)		2			2	\$426.90
Subtotals	4	10	0	0	14	\$3,277.14
SUBTOTAL	8	20	-	4	32	\$6,878.28
ODC (Mileage/Gas/Meals, Airfare, Car rental, Hotel, and Traffic Counts)*						\$0.00
TOTAL						\$6,878.28

Scope of Work

Washington Area Project Prioritization Plan and Outreach Strategy, Additional Scope of Work

July 26, 2021

The City and County of Denver (CCD) has requested that RS&H and OV Consulting provide services for the Washington Area Prioritization Plan that were not included in the original scope of services. The additional services include:

- Participate in monthly Project Management meetings for the 51st Avenue and Washington Street projects.
- Continue to participate in manager coordination and internal team coordination meetings beyond the duration of the original scope.
- Create materials for Washington Street for the public open house meeting on July 22, 2021. The original scope involved public outreach work related to the 51st Avenue project only.

The City has requested OV continue to coordinate with OCBE in the strategic direction and management of outreach in the Washington Program of Projects area including, stakeholder coordination, community education and public engagement and project collaboration. The effort requested by OCBE extends beyond the original scope of work.

OV and RS&H will work with OCBE in the following areas to December 31, 2021 to ensure an ongoing and effective communication platform for the area.

TASK 6. CONTINUED OUTREACH ENGAGEMENT STRATEGY, MANAGEMENT AND IMPLEMENTATION

Task 6a. Project Management

Manager Coordination: Beth Vogelsang (OV Consulting) will continue to work with OCBE in direction and management of a coordinated outreach approach. OV will coordinate weekly with OCBE Project Manager and DOTI Project Managers through a weekly Project Manager meeting, and regular email communication. RS&H will assist with coordination and attend up to

Internal Team Coordination: OV will continue ongoing coordination with internal and city staff in the scheduling, organization and execution of communication and outreach activities, including translation of emails or short notices to various groups. Administration support of process, workflow and invoicing will be included under this task.

RS&H will prep for and attend up to 6 meetings. The original scope called for a 10-month schedule beginning from the kickoff meeting on December 17, 2020 through the end of September 2021. The additional 6 meetings will cover the extended schedule through December 31, 2021.

(OV: 26 meetings/prep and attendance; ongoing staff coordination)

(RS&H: 6 meetings/prep and attendance)

Task 6b. Monthly Washington Area Program of Projects' Managers Meetings

OV will work with OCBE to organize monthly management meetings for all Washington Area Project Managers. These meetings will serve to update the various teams on area-wide planning and design efforts, allow for coordination among the projects and identify future tasks or meetings needed to ensure all Washington area projects are moving forward together.

The monthly Washington Area Project Managers meetings were not in the original scope. At CCD's request, RS&H will attend up to 6 meetings to coordinate the 51st Avenue project and Washington Street projects.

*(OV: 6 meetings; prep and attendance)
(RS&H: 6 meetings; prep and attendance)*

Task 6c. Monthly OCBE Communications Managers Meetings

Beth will attend monthly Communications Teams meetings hosted by OCBE and representative of all Washington area ongoing efforts. These meetings serve as a platform for city coordination on area wide project communication.

(OV: 6 meetings)

Task 6d. Community Advisory Group (CAG) Meetings

Beth will continue to support OCBE with monthly CAG meetings through organization of CAG schedule and individual agendas, coordination with highlighted project teams and related presentations and CAG member communication. OV will assist in meeting organization, presentations and internal team coordination, including support for email communication and notifications in English and Spanish.

(OV: 6 meetings – organization, materials preparation, attendance, email communication English/Spanish, individual coordination with CAG members as needed)

Task 6e. Business/Property Owner/Developer Coordination

OV will work with businesses, property owners/developers and city staff within the Washington Area Program of Projects to continue communication around future development and city project needs.

(OV: up to 4 meetings)

Task 6f. Strategic and Small Group Community Education and Outreach

Building off the organizational plan for Community and Stakeholder Engagement, OV will continue to work with OCBE in the strategic direction for Washington area community education and outreach. Individual meetings, RNO meeting attendance, small group sessions, "doughnuts in the park" and other opportunities to allow for community input will be part of this next phase task. Additionally, OV will continue to advance the history of the area through opportunities to meet with community members and develop a community based "living history" compilation that will inform city staff and community even after the current projects are completed.

(OV: up to 10 small-group meetings)

Task 6g .Public Engagement

- **Website and Social Media:** OV will continue to support the development of materials or the implementation of social media tools; such as community surveys using survey monkey, Facebook interface and community comments and e-newsletter updates.
- **Virtual or in-person Meetings:** OV will continue to work with OCBE in the organization and implementation of virtual and in-person engagement meetings with the public. OV will provide assistance with virtual platforms and tools including Microsoft Teams, Zoom, Poll Anywhere, etc., and support in the organization, scheduling, notification and execution of public meetings relevant to all projects in the Washington Area Program of Projects.

The original scope called for RS&H's involvement in community outreach relating to the 51st Avenue project only. RS&H has been asked to prepare for and attend a community meeting on July 22, 2021 for both the Washington Street project and 51st Avenue project. RS&H will prepare a roll-map display for the Washington Street project. RS&H will update the 51st Avenue roll-map previously developed for the May 18, 2021 public meeting. This update is required due to the redesigned west leg of the 51st Ave and Washington St intersection. Two representatives from RS&H will prepare for and attend the meeting.

(OV: up to 3 community meetings)

(RS&H: one community meeting for Washington St and 51st Avenue on July 22, 2021; prep and attendance)

Schedule

This scope of work and fee is based on a 6-month schedule from July 1, 2021 to December 31, 2021.



City and County of Denver Department of Transportation & Infrastructure Washington Area Project Prioritization Plan and Outreach Strategy (Scope Additions)										
Work Activity	PM	Planning (Roadway)		Planning (Traffic)		Admin			Subs	
	Project Manager	PE 5	PE 3	PE 5	PE 3	Admin III	Total Hours	RS&H Cost	OV	Totals Cost
RATES	\$ 269.00	\$ 269.00	\$ 176.00	\$ 269.00	\$ 176.00	\$ 141.00				
Task 6: Continued Outreach Engagement Strategy, Management and Implementation										
6a. Project Management (PM meetings, coordination, translation)	12	12					24	\$ 6,456.00	\$20,540.00	\$ 26,996.00
6b. Monthly Washington Area Program of Projects' Managers Meetings for Washington area (6 mtgs)	6	6					12	\$ 3,228.00	\$3,120.00	\$ 6,348.00
6c. Monthly OCBE Communications Managers Meetings (6 mtgs)							0	\$ -	\$930.00	\$ 930.00
6d. Community Advisory Group (CAG) Meetings (6 monthly mtgs; emails in English/Spanish)							0	\$ -	\$8,430.00	\$ 8,430.00
6e. Business/Property Owner/Developer Coordination (up to 4 mtgs)							0	\$ -	\$1,240.00	\$ 1,240.00
6f. Strategic Small Group Community Education and Outreach (up to 10 mtgs)							0	\$ -	\$16,640.00	\$ 16,640.00
6g. Public Engagement: organization, preparation materials, attendance	2	24	16				42	\$ 9,810.00	\$14,550.00	\$ 24,360.00
TOTALS HOURS	20	42	16	0	0	0	78			
TOTAL	\$ 5,380	\$ 11,298	\$ 2,816	\$ -	\$ -	\$ -		\$ 19,494.00	\$65,450.00	\$ 84,944.00



Washington Area Project Community Education & Outreach and Stakeholder Coordination - Scope Additions Task 6

OV will continue to coordinate with OCBE in the strategic direction and management of outreach in the Washington Program of Projects area including, stakeholder coordination, community education and public engagement and project collaboration. OV will work with OCBE in the following areas from July 1 to December 31, 2021 to ensure an ongoing and effective communication platform for the area.

TASK 6. CONTINUED OUTREACH ENGAGEMENT STRATEGY, MANAGEMENT AND IMPLEMENTATION

Task 6a. Project Management

Manager Coordination: Beth Vogelsang will continue to work with OCBE in direction and management of a coordinated outreach approach. OV will coordinate weekly with OCBE Project Manager and DOTI Project Managers through a weekly Project Manager meeting, and regular email communication.

Internal Team Coordination: OV will continue ongoing coordination with internal and city staff in the scheduling, organization and execution of communication and outreach activities, including translation of emails or short notices to various groups. Administration support of process, workflow and invoicing will be included under this task.

(26 meetings/prep and attendance; ongoing staff coordination)

Task 6b. Monthly Washington Area Program of Projects' Managers Meetings

OV will work with OCBE to organize monthly management meetings for all Washington area Project Managers. These meetings will serve to update the various teams on area-wide planning and design efforts, allow for coordination among the projects and identify future tasks or meetings needed to ensure all Washington area projects are moving forward together.

(6 meetings; prep and attendance)

Task 6c. Monthly OCBE Communications Managers Meetings

Beth will attend monthly Communications Teams meetings hosted by OCBE and representative of all Washington area ongoing efforts. These meetings serve as a platform for city coordination on area wide project communication. *(6 meetings)*

Task 6d. Community Advisory Group (CAG) Meetings

Beth will continue to support OCBE with monthly CAG meetings through organization of CAG schedule and individual agendas, coordination with highlighted project teams and related presentations and CAG member communication. OV will assist in meeting organization, presentations and internal team coordination, including support for email communication and notifications in English and Spanish.

(6 meetings – organization, materials preparation, attendance, email communication English/Spanish, individual coordination with CAG members as needed)



Task 6e. Business/Property Owner/Developer Coordination

OV will work with businesses, property owners/developers and city staff within the Washington Area Program of Projects to continue communication around future development and city project needs.

(up to 4 meetings)

Task 6f. Strategic and Small Group Community Education and Outreach

Building off the organizational plan for Community and Stakeholder Engagement, OV will continue to work with OCBE in the strategic direction for Washington area community education and outreach. Individual meetings, RNO meeting attendance, small group sessions, “doughnuts in the park” and other opportunities to allow for community input will be part of this next phase task. Additionally, OV will continue to advance the history of the area through opportunities to meet with community members and develop a community based “living history” compilation that will inform city staff and community even after the current projects are completed.

(up to 10 small-group meetings)

Task 6g .Public Engagement

- **Website and Social Media:** OV will continue to support the development of materials or the implementation of social media tools; such as community surveys using survey monkey, Facebook interface and community comments and e-newsletter updates.
- **Virtual or in-person Meetings:** OV will continue to work with OCBE in the organization and implementation of virtual and in-person engagement meetings with the public. OV will provide assistance with virtual platforms and tools including Microsoft Teams, Zoom, Poll Anywhere, etc., and support in the organization, scheduling, notification and execution of public meetings relevant to all projects in the Washington Area Program of Projects .

(up to 3 community meetings)

Washington Area Project Prioritization Plan and Outreach Strategy								
	OV Consulting							
WORK ACTIVITY	Beth Vogelsang Principal Planner	Fernando Abbud Planner	Shari Moore Office Manager (Senior Planner)	Translation & Interpretation	Total Outreach Hours	Total Cost	Expenses	Total Costs
MANHOURLY RATES	\$ 155.00	\$ 105.00	\$ 115.00	\$ 75.00	\$ 312			
Washington Area Project Prioritization Plan and Outreach Strategy - Additional Outreach 6 Months								
Task 6: Continued Outreach Engagement Strategy, Management and Implementation								
6a. Project Management (PM meetings, coordination, translation)	78	52	26	0	156	\$ 20,540.00		\$ 20,540.00
6b. Monthly Washington Area Program of Projects' Managers Meetings for Washington area (6 mtgs)	12	12	0	0	24	\$ 3,120.00		\$ 3,120.00
6c. Monthly OCBE Communications Managers Meetings (6 mtgs)	6	0	0	0	6	\$ 930.00		\$ 930.00
6d. Community Advisory Group (CAG) Meetings (6 monthly mtgs; emails in English/Spanish)	30	36	0	0	66	\$ 8,430.00		\$ 8,430.00
6e. Business/Property Owner/Developer Coordination (up to 4 mtgs)	8	0	0	0	8	\$ 1,240.00		\$ 1,240.00
6f. Strategic Small Group Community Education and Outreach (up to 10 mtgs)	40	60	36	0	136	\$ 16,640.00		\$ 16,640.00
6g. Public Engagement: organization, preparation materials, attendance (up to 3 meetings)	30	45	45	0	120	\$ 14,550.00		\$ 14,550.00
Task 6 sub total:	204	205	107	0	516	\$ 65,450.00		\$ 65,450.00
SUBTOTALS HOURS	204	205	107	0	516		\$0	
TOTAL	\$ 31,620.00	\$ 21,525.00	\$ 12,305.00	\$ -		\$ 65,450.00		\$ 65,450.00

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