

RESOLUTION NO. 2021-

A RESOLUTION APPROVING A SERVICE AGREEMENT BETWEEN THE TOWN OF CASTLE ROCK AND STANLEY CONSULTANTS, INC. FOR THE FIFTH STREET IMPROVEMENTS PROJECT

WHEREAS, the Town of Castle Rock and Stanley Consultants, Inc. have agreed to the terms and conditions by which Stanley Consultants, Inc. will provide engineering and technical services for the Fifth Street Improvements Project.

NOW, THEREFORE BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK, COLORADO AS FOLLOWS:

Section 1. Approval. The Service Agreement in the form attached as *Exhibit A* is hereby approved. The Mayor and other proper Town officials are hereby authorized to execute the Contract by and on behalf of the Town of Castle Rock, Colorado.

Section 2. Encumbrance and Authorization for Payment. In order to meet the Town's financial obligation under the Agreement, the Town Council authorizes the expenditure and payment from 2021 appropriation accounts 135-3175-431.78-85 in an amount not to exceed \$1,492,000 which includes a Town managed contingency of \$110,522.50, account 213.4575.455.75-62 in an amount not to exceed \$7,200 which includes a Town managed contingency of \$660, and account 120-3175-431.75-24 in an amount not to exceed \$13,000 which includes a Town managed contingency of \$1,082.50 unless authorized in writing by the Town of Castle Rock.

PASSED, APPROVED AND ADOPTED this ____ day of _____, 2021 by the Town Council of the Town of Castle Rock, Colorado, on first and final reading by a vote of ____ for and ____ against.

ATTEST:

TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Michael J. Hyman, Town Attorney

Daniel Sailer, P.E., Director of Public Works

**TOWN OF CASTLE ROCK
SERVICES AGREEMENT
(Fifth Street Improvements Project)**

DATE: _____.

PARTIES: **TOWN OF CASTLE ROCK**, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (“Town”).

STANLEY CONSULTANTS, INC., A Iowa corporation, 1900 W., Littleton, CO 80120 (“Consultant”).

RECITALS:

- A. The Town issued a Request for Proposals from qualified contractors with expertise in engineering design and general technical support services.
- B. Consultant timely submitted its proposal.
- C. Town wishes to engage Consultant to provide the services more fully described in the following Agreement and Exhibits.

TERMS:

Section 1. Scope of Services. Consultant shall provide engineering design and general technical support services related to **Fifth Street Improvements Project**, in accordance with the scope of services attached as **Exhibit 1** (“Services”).

Section 2. Payment. Consultant shall invoice Town upon completion of the Services rendered in accordance with the rate and fee schedule identified in **Exhibit 1**. Town shall pay such invoices within 30 days of receipt of such invoice. In no event shall the cumulative payment to Consultant exceed \$1,399,935 unless authorized in writing by Town.

Section 3. Completion. Consultant shall commence the Services on June 21st, 2021 and complete the Services December 22nd, 2023. Consultant shall devote adequate resources to assure timely completion of the Services. Consultant shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

Town shall have the right to terminate this Agreement at any time with 30 days written notice to Consultant. The Town’s only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination. Consultant shall turn over all work product produced up to the date of termination.

Section 4. Subcontractors. Consultant may utilize subcontractors to assist with specialized works as necessary to complete the Services. Consultant will submit any proposed subcontractor and the description of their services to the Town for approval.

Section 5. Assignment. This Agreement shall not be assigned by Consultant without the written consent of the Town.

Section 6. Notice. Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the first page of this Agreement, or at such other address as has been previously furnished in writing to the other party or parties. Such notice shall be deemed given when deposited in the United States mail.

Section 7. Prohibition Against Employing Illegal Aliens. Consultant shall not knowingly employ or contract with an illegal alien to perform work under this contract. Consultant shall not enter into a contract with a subcontractor that fails to certify to the Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract.

Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under the public contract for services through participation in either the E-verify program or the Department program, as defined in C.R.S. §§ 8-17.5-101(3.3) and 8-17.5-101(3.7), respectively. Consultant is prohibited from using the E-verify program or Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed.

If Consultant obtains actual knowledge that a subcontractor performing work under this Agreement for services knowingly employs or contracts with an illegal alien, Consultant shall:

A. Notify the subcontractor and the Town within three days that the Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

B. Terminate the subcontract with the subcontractor if within three days of receiving notice required pursuant to this paragraph the subcontractor does not stop employee or contracting with the illegal alien; except that the Consultant shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

Consultant shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. §8-17.5-102(5).

If Consultant violates a provision of this Agreement required pursuant to C.R.S. §8-17.5-102, Town may terminate the Agreement for breach of contract. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the Town.

Section 8. Insurance. Consultant agrees to procure and maintain, at his own cost, the following policy or policies of insurance. Consultant shall not be relieved of any liability, claims, demands or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

A. Consultant shall procure and maintain, and shall cause each subcontractor of the Consultant to procure and maintain a policy with the minimum insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to the Town. All coverage shall be continuously maintained from the date of commencement of services hereunder. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Workers Compensation insurance to cover obligations imposed by the Workers Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employer's Liability insurance with minimum limits of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-policy limit, and FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-each employee.

2. Comprehensive General Liability insurance with minimum combined single limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.

3. Comprehensive Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate with respect to each of Consultant's owned, hired and/or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision.

4. Professional Liability insurance with minimum limits of ONE MILLION DOLLARS (\$1,000,000) per claim and ONE MILLION DOLLARS (\$1,000,000) aggregate.

B. The policies required above, except Workers' Compensation insurance, Employers' Liability insurance and Professional Liability insurance shall be endorsed to include the Town, its officers and employees, as an additional insured. Every policy required above, except Workers' Compensation and Professional Liability insurance, if applicable, shall be primary insurance, and any insurance carried by the Town, its officers, or its employees, shall be excess and not contributory insurance to that provided by Consultant. The additional insured endorsement for the Comprehensive General Liability insurance required

above shall not contain any exclusion for bodily injury or property damage arising from completed operations. The Consultant shall be solely responsible for any deductible losses under each of the policies required above.

C. Certificates of insurance shall be completed by Consultant's insurance agent and submitted at the time of execution of this Agreement as ***Exhibit 2*** as evidence that policies providing the required coverage, conditions and minimum limits are in full force and effect, and shall be subject to review and approval by the Town. Each certificate shall identify the Project and shall provide that coverage afforded under the policies shall not be cancelled, terminated or materially changed until at least 30 days prior written notice has been given to the Town. If the words "endeavor to" appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the certificate. The Town reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

D. Failure on the part of Consultant to procure or maintain policies providing the required coverage, conditions, and minimum limits shall constitute a material breach of contract upon which at the Town's discretion may procure or renew any such policy or any extended connection therewith, and all monies so paid by the Town shall be repaid by Consultant to the Town upon demand, or the Town may offset the cost of the premiums against any monies due to Consultant from the Town.

E. The parties understand and agree that the Town is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently \$387,000 per person, \$1,093,000 for two or more persons, per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, §24-10-101, *et seq.*, C.R.S., as from time to time amended, or otherwise available to Town, its officers, or its employees.

Section 9. Indemnification. Consultant expressly agrees to indemnify and hold harmless Town or any of its officers or employees from any and all claims, damages, liability, or court awards including attorney's fees that are or may be awarded as a result of any loss, injury or damage sustained or claimed to have been sustained by anyone, including, but not limited to, any person, firm, partnership, or corporation, to the extent caused by the negligent acts, errors or omissions of Consultant or any of their employees or agents in performing work pursuant to this Agreement. In the event that any such suit or action is brought against Town, Town will give notice within ten (10) days thereof to Consultant.

Section 10. Delays. Any delays in or failure of performance by any party of his or its obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.

Section 11. Additional Documents. The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement.

Section 12. Entire Agreement. This Agreement represents the entire agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect.

Section 13. Time of the Essence. Time is of the essence. If any payment or any other condition, obligation, or duty is not timely made, tendered or performed by either party, then this Agreement, at the option of the party who is not in default, may be terminated by the non-defaulting party, in which case, the non-defaulting party may recover such damages as may be proper.

Section 14. Default and Remedies. In the event either party should default in performance of its obligations under this agreement, and such default shall remain uncured for more than 10 days after notice of default is given to the defaulting party, the non-defaulting party shall be entitled to pursue any and all legal remedies and recover its reasonable attorney's fees and costs in such legal action. In addition, no Party will be entitled to lost profits, economic damages, or actual, direct, incidental, consequential, punitive or exemplary damages in the event of a default.

Section 15. Waiver. A waiver by any party to this Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

Section 16. Governing Law. This Agreement shall be governed by the laws of the State of Colorado.

Section 17. Independent Contractor. Consultant and Town hereby represent that Consultant is an independent contractor for all purposes hereunder. As such, Consultant is not covered by any worker's compensation insurance or any other insurance maintained by Town except as would apply to members of the general public. Consultant shall not create any indebtedness on behalf of the Town.

Section 18. No Third Party Beneficiaries. It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Town and Consultant, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such Agreement. It is the express intention of the parties that any person other than Town or Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

ATTEST:

TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Michael J. Hyman, Town Attorney

Daniel Sailer, Public Works Director

CONSULTANT:

Stanley Consultants Inc.

By: _____

Its: _____

The following Scope of Services identifies exclusions and assumptions upon which Stanley Consultants Inc. has relied upon in determining our effort, fee, scope, and schedule for the project. A detailed workhour and fee estimate are provided as **EXHIBIT A** in our proposal. Stanley Consultants and the Town of Castle Rock (Town) agree to renegotiate these terms in the event an assumption or exclusion becomes invalid. Stanley Consultants scope includes the primary top tasks listed below:

- Task 1 – Project Management**
- Task 2 – Data Collection**
- Task 3 – Environmental Coordination**
- Task 4 – Public Involvement & Stakeholder Coordination**
- Task 5 – Subsurface Utility Engineering (SUE) & Utility Coordination**
- Task 6 – Traffic Analysis & Conceptual Design**
- Task 7 – Preliminary Design**
- Task 8 – Final Design**
- Task 9 – Post Design Services**

Task 1 – Project Management

1.1 Project Management

Stanley Consultants will monitor and control the effort and progress of the proposed services as follows:

- Monitor subconsultant progress and review/approve invoices
- Prepare monthly Progress Reports and client invoices showing Earned Value
- Prepare, monitor and adjust CPM schedule monthly
- Prepare a QA/QC Plan

Deliverables: Monthly Progress Reports (including monthly updates to CPM schedule)
CPM Schedule (MS Project)
QA/QC Plan

1.2 Progress Meetings

Project design coordination meetings will serve as the primary forum for reviewing the status of the project and identifying and resolving project issues. Attendees will include Stanley Consultants PM, consultant task leads as needed, Town staff, CDOT staff and other stakeholders as necessary. Stanley Consultants will provide meeting notices, prepare meeting materials and agenda, attend and facilitate the meeting, and prepare meeting minutes for a Kickoff Meeting/Pre-Design Meeting, and status meetings (up to 12) (review meetings are considered separately). Stanley Consultants will also conduct an initial Agency Workshop. Stanley Consultants will consult with the Town's PM prior to each meeting to get input regarding the agenda.

Deliverables: Meeting Notice, Agenda and Minutes (1 Kickoff/Pre-Design Meeting and up to 12 status meetings)
Initial Agency Workshop

Task 2 – Data Collection

2.1 *Project Initiation / Data Collection*

Stanley Consultants will conduct a field reconnaissance and site review to document features and constraints specific to this project. Field information will be recorded using field notes and digital photos.

2.2 *Design Survey, Mapping, and Right-of-Way*

Design Survey and Mapping activities will be performed by Daley Land Surveying, Inc. (Daley). Survey and mapping activities will consist of the following:

Project Initiation

- Obtain permission to enter

Survey Control and Right-of-Way

- Recover and Establish project Horizontal and Vertical Control for Right-of-Way, Improvement mapping, and future construction. Horizontal Control will be referenced to the Douglas County network, Vertical control will be referenced to NGS-NAVD88 Benchmark control (tie to previous Ridge Road project).
- Perform requisite research and calculations to plot the existing Right-of-Way along Fifth Street within the project limits.
- Prepare Right-of Way Plans and Ownership Map using CDOT standards.
- Obtain Owner and Encumbrances Reports.

Design Survey Mapping

- Perform topographic survey, mapping all improvements within the project limits (supplemental survey) sufficient for the design. Mapping will include, but not be limited to the following: streets, curb & gutter, fences, sidewalks, walls, trees, inlets, manholes, above ground utility appurtenances, etc.
- Obtain invert data for storm & sanitary sewer within the project limits.
- Stake up to 79 geotechnical borehole locations.
- Provide AutoCAD drawing and surface files for mapping.
- Mapping, Right of Way and Verification limits per **Figure 1**.
- Supplemental surveying – we have assumed an additional 2 days (16 hrs) of field work and 12 hrs of office work. Supplemental surveying will be used to pick up any areas of need not picked up in the original survey limits based on preliminary design (areas for water quality ponds, etc.)

Legal Descriptions and Exhibits

- Prepare up to thirty-nine (39) legal descriptions and exhibits for right-of-way and easements. Prepare closure reports.

Deliverables: Design Survey & ROW mapping, Legal Descriptions and Exhibits, CDOT Right-of-Way Plans, Right of Entry Agreements, Land Survey Control Diagram

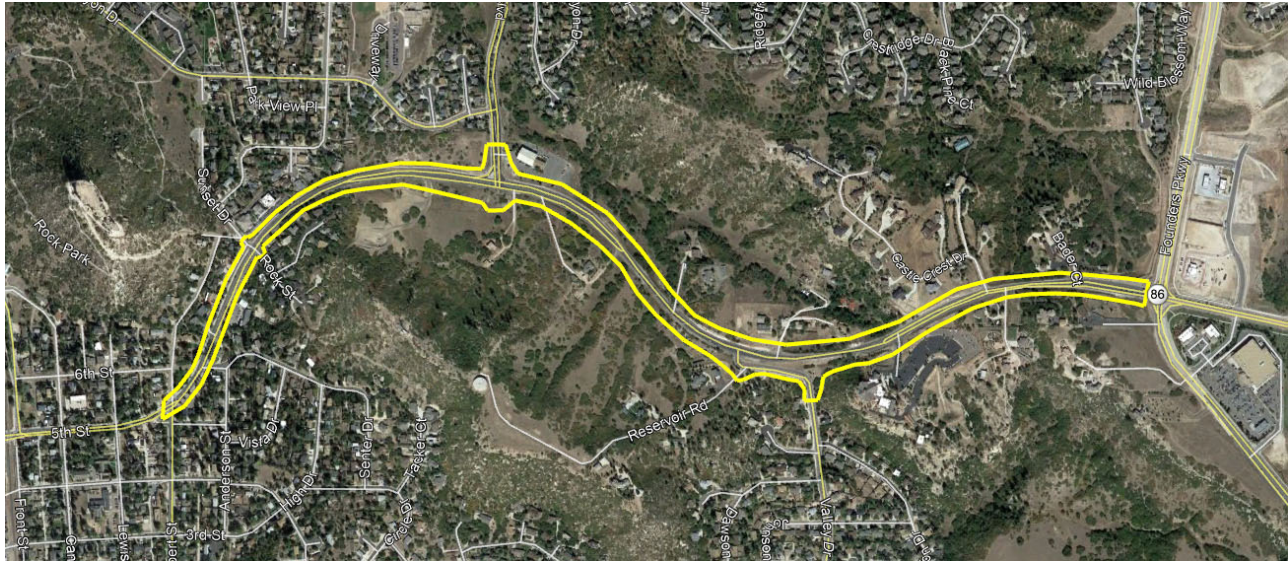


Figure 1. Survey & Mapping Limits

2.3 Geotechnical Investigation and Pavement Design

Geotechnical Investigation and Pavement Design activities will be performed by Vivid Engineering Group, Inc. These services will consist of the following activities:

Geotechnical Field Investigation

- Work with Stanley Consultants to obtain access to boring locations within the Town of Castle Rock right-of-way and private properties, as required.
- Field locate the borings and establish safety procedures.
- Notify the Colorado 811 one-call system to have existing utilities located/marked in the vicinity of the proposed boring locations.
- Obtain an appropriate excavation/work in the right-of-way permit through the Town of Castle Rock, and provide traffic control services during field activities, as required.
- Obtain pavement cores at 8 of the boring locations (approximately 1 core per 1,000 lineal feet of existing road) to evaluate existing asphalt condition and thickness.
- **If required by utility owners, we will perform potholing to verify utility locations in the vicinity of geotechnical borings. However, for the purposes of this proposal, potholing is not included. Therefore, additional scope/fee and schedule impacts beyond that provided herein would be required if potholing is deemed required by utility owners.**

Subsurface Exploration

Based on Section 14 of the Town of Castle Rock Pavement Design Criteria, pavement borings are required at not greater than 250-foot horizontal intervals for roadways with one lane in each direction. In addition, retaining wall boring locations are generally based on frequency/spacing recommended by

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the CDOT Field Materials Manual and AASHTO LRFD guidelines. The following subsurface exploration program will be performed under the observation of a qualified geologist/representative of the geotechnical engineer:

Boring Location	Number of Borings	Proposed Boring Depth (feet, bgs)	Estimated Drilled Footage (feet)
Pavement Borings			
Pavement Borings (Valley Drive)	2	10	20
Pavement Borings (5 th Street)	27	5 to 10	160
Retaining Wall Borings			
Retaining Wall 1	3	15 to 20	55
Retaining Wall 2	3	15	45
Retaining Wall 3	4	15 to 40	95
Retaining Wall 4	3	15 to 25	55
Retaining Wall 5	4	20 to 50	140
Retaining Wall 6	2	15 to 25	40
Retaining Wall 7	4	15 to 30	95
Retaining Wall 8	3	15 to 25	55
Rock Cut Area (9)	1	30	30
Rock Cut Area (10)	1	15	15
Rock Cut Area (11)	1	25	25
Rock Cut Area (12)	1	30	30
Total Estimated Drilled Footage (feet)			860

* The retaining wall locations are based on a conceptual layout performed by Stanley Consultants during the proposal phase. Actual number of retaining walls to be verified to preliminary design.

Geotechnical Lab Testing

Testing will be performed in general accordance with CDOT and Town of Castle Rock pavement design specifications and will include, but not be limited to: Gradation Analysis/Atterberg Limits, Moisture Content/Unit Weight, Direct Shear Testing, Swell Testing, R-value/Unconfined Compressive Strength, pH, Resistivity, Redox, Soluble Sulfates, Soluble Chlorides, and Sulfides.

Geotechnical Analysis and Report Preparation

Prepare a report to summarize the site exploration data, laboratory test results, observations, and provide conclusions and recommendations. The field work and report preparation will be supervised by a registered professional engineer.

Deliverables: Geotechnical Investigation and Pavement Design Report

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Task 3 – Environmental Coordination

3.1 Environmental Coordination

Environmental coordination activities will be performed by Pinyon Environmental, Inc. (Pinyon). This work consists of completing a NEPA study in compliance with CDOT specifications. The level of study required is assumed to be a Categorical Exclusion (CatEx) utilizing CDOT Form 128. Pinyon will support the project by completing technical studies as noted in the table below:

Task	Scope of Work Summary	Deliverables
Environmental Documentation	The memorandum will summarize the environmental conditions, with appendices for air, noise, biological, historic, and hazardous materials. It is assumed that this memorandum will have a draft and final review by CDOT in addition to the Town's initial review.	<ul style="list-style-type: none"> Environmental Clearance Memorandum
Air Quality	It is assumed that air quality modeling for Carbon Monoxide will be required for up to two intersections and that PM10 modeling will not be required. This will be confirmed once the current, future no-action, and future with improvements Level of Service is known.	<ul style="list-style-type: none"> Air Quality Memorandum
Noise	A Type I noise analysis is required based on proposed project improvements as additional capacity will be added to Fifth Street and there are sensitive receptors within 500 feet of the roadway.	<ul style="list-style-type: none"> Noise Memorandum
Hazardous Materials	<p>Pinyon will complete an Initial Site Assessment (ISA) and CDOT Form 881. A Geosearch database will be ordered by Pinyon for review. The focus of the ISA will be areas where ground disturbances are anticipated. A site visit will be conducted by one resource specialist over a one-day period.</p> <p>Pinyon assumes no lead-based paint and asbestos sampling will be required. No soil or water sampling will be conducted.</p>	<ul style="list-style-type: none"> ISA CDOT Form 881 Database Report (provided by CDOT)
Biological Resources	<p>Field Work & Documentation:</p> <p>The field survey will be completed by one Pinyon biologist in a one-day period. For this project, Pinyon biologist will survey for: wetlands, Senate Bill 40 (SB 40) resources, threatened and endangered species, vegetation, noxious weeds, and migratory birds as well as raptors. Geographic Information System (GIS) data will be provided for incorporation into the project plans. All biological resources will be documented in a Biological Resources Report (BRR).</p>	<ul style="list-style-type: none"> GIS Shapefiles Brief BRR
	<p>Wetlands/Waters of the US:</p> <p>Pinyon will complete a wetland delineation in accordance with US Army Corps of Engineers (USACE) and CDOT protocols, where disturbances are expected (e.g., within the project footprint and along staging areas). Stanley will provide the study area prior to field surveys. Pinyon will complete the impact analysis and document the existing conditions regarding wetlands in the BRR.</p> <p>Based on review of the area, impacts to Waters of the US, including wetlands, are possible, along the small ditches adjacent to and crossing Fifth Street. This scope and fee assume that an Individual Section 404 permit and Wetland</p>	<ul style="list-style-type: none"> Documented in BRR GIS Data Files PCN

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	Finding Report are not required but a Preconstruction Notice (PCN) to the USACE may be necessary, likely for use of a Nationwide Permit #14. Mitigation is assumed to be completed on-site. If the ditches are not jurisdictional, CDOT will still require 1:1 mitigation of any wetland (if present) impacts to them. Senate Bill 40 resources may also be present.	
	<p>Vegetation and Noxious Weeds: List A and B noxious weeds will be mapped, as applicable (i.e., if located in discrete locations); however, if the density of weeds is significant detailed mapping will be stopped, and recommendations regarding weed controls will be presented in the BRR.</p> <p>It is assumed that an Integrated Noxious Weed Management Plan (INWMP) will not be required for this project. If an INWMP is needed, additional scope and fee would be required.</p>	<ul style="list-style-type: none"> • Documented in BRR
	<p>Senate Bill (SB) 40 Resources: Assumes SB 40 resources are located within the study area and that an informal certification is required.</p>	<ul style="list-style-type: none"> • SB 40 Informal Certification
	<p>TES/Migratory Birds/Raptors: Pinyon will conduct a survey for raptors and other migratory birds within the prescribed buffer area/study area per Colorado Parks and Wildlife guidelines. The results of the survey will be documented in the BRR.</p> <p>Pinyon will evaluate habitat within the study area for federally and state-listed species, and document within the BRR. Only a habitat assessment will be conducted; a species-specific survey is not included in this scope. If a species-specific survey is required, additional scope and fee would be necessary.</p> <p>There is low potential for the presence of suitable habitat for threatened or endangered species. Pinyon assumes that the impact assessment will reveal <i>No Effect</i> to federally listed species. Therefore, coordination with the US Fish and Wildlife Service (USFWS) is not anticipated to be required. If the effects determination is <i>May Affect, But Not Likely to Adversely Affect</i>, coordination with USFWS in the form of a letter would be necessary and additional scope and fee may be required.</p>	<ul style="list-style-type: none"> • Biological Resources Report
Historic Resources	<p>Pinyon will develop an Area of Potential Effects (APE), in coordination with CDOT. It is assumed that the APE will surround the estimated limits of disturbance, as well as all properties that will be impacted by the project (i.e., new right-of-way acquisitions or easements). Once the APE is established, Pinyon will research the Office of Archeology and Historic Preservation (OAHP) COMPASS database, topographic maps, and local assessor data for the presence of potential historic resources within the APE.</p> <p>Based on proposed project improvements, up to two (2) OAHP Architectural Inventory Forms 1403 may be needed for a newly identified, potentially historic resource along Fifth Street. Recordation of linear resources on the corresponding OAHP forms is anticipated for Fifth Street itself. It is assumed that if</p>	<ul style="list-style-type: none"> • APE Map • Up to two (2) Architectural Inventory 1403 Forms • 1 Linear Form • 1 District Eligibility Assessment • Eligibility and Effects Letter

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	there is a newly historic resource, no adverse effect will result from the project. Additionally, it is assumed that the historic district will need to be assessed for eligibility and that it is not adversely affected. Pinyon will document use of Section 4(f) de minimis in the eligibility and effects letter. Pinyon will coordinate level of effort for evaluation with the CDOT Historian and provide documentation for compliance with Section 106 and Section 4(f), including historic site evaluation forms; eligibility and effects letter; APE map; and Section 4(f) de minimis form(s). Pinyon assumes that if right of entry is required, it will be provided by Stanley.	
Archeological Resources	Assumes CDOT to evaluate resources internally.	<ul style="list-style-type: none"> • None
Section 6(f)	Assumes Land and Water Conservation Funds have not been utilized for any resources in or adjacent to the study area.	<ul style="list-style-type: none"> • None
Paleontology	Assumes CDOT to evaluate resources internally.	<ul style="list-style-type: none"> • None
Non-Historic 4(f)	There are no Section 4(f)/Non-Historic Resources adjacent to Fifth Street between Gilbert Street and North Ridge Road. It is assumed that all sidewalks/trails are multi-use facilities.	<ul style="list-style-type: none"> • Documented in the Environmental Clearance Memorandum

Task 4 – Public Involvement and Stakeholder Coordination

4.1 Public Involvement

Public Involvement and Stakeholder Coordination will be led by CIG and will consist of the following items:

Design Meeting #1

The primary information to be shared during Design Meeting #1 will be the preliminary design and target milestones dates for construction start/completion. Project website information will be shared to those who attend as well. The Stanley Consultants teams will coordinate and facilitate Design Meeting #1. It is assumed that Design Meeting #1 will be held virtually.

Design Meeting #2

The primary information to be shared during Design Meeting #2 will be the final design and rough schedule of construction activities/impacts. The project website link will be shared. Also, attendees will be asked if they would like to sign up for email notifications for project updates. The Stanley Consultants teams will coordinate and facilitate Design Meeting #2. It is assumed that Design Meeting #2 will be held virtually.

Project Website

The Town of Castle Project Manager and Community Relations will be responsible to update the project website throughout the project design. The Stanley Consultants will be responsible for

supplying content to the Town of Castle Rock to be periodically posted to the website. It is assumed the Town will be responsible for updating and maintaining the website. The website will be a primary tool for residents/stakeholders to obtain general information regarding the project, including:

- Outline Project Schedule
 - Open House Dates
 - Construction Start
 - Construction Completion
- General Project Description
- Representative contacts

Email Notification Line

A project Email Notification Line will be created before construction in order to facilitate communication of project updates. The Email Notification Line will be maintained by the Town of Castle Rock and is excluded from our scope of work.

CRW Mailer

Another communication tool to utilize is the monthly CRW mailer. The mailer may be used as an additional form of communication to inform residents of upcoming open houses, and any major changes (if encountered) to project timeframes. The Stanley Consultants will be responsible for supplying content to the Town of Castle Rock to be used in the CRW Mailer.

Our scope of work excludes any hard costs (such as printing or mailing). It is assumed that the Town of Castle Rock can provide these materials.

Deliverables: Design Meeting #1, Design Meeting #2, Project Website Content, CRW Mailer Content, Final Communications Report, Stakeholder List, Open House Feedback Summary

Task 5 – Subsurface Utility Engineering (SUE) & Coordination

Subsurface Utility Engineering (SUE) and investigation activities will be performed by Goodbee & Associates, Inc. (Goodbee). This work will be performed 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 and includes the following activities:

5.1 SUE Investigation

The SUE investigation will consist of a Phase 1 and Phase 2 investigation. For Phase 1, it is the responsibility of Goodbee to perform due diligence with regards to records research (QL-D level of effort) and acquisition of available utility records. Goodbee will further investigate the project area utilizing a suite of geophysical equipment to obtain QL-B data. During QL-B field work, Goodbee will scan the defined work area using electronic prospecting equipment to search for previously un-recorded utilities. Utilities that are not identified through these efforts will be here forth referred to as

“unidentified” utilities. Goodbee is not responsible for designating “unidentified” utilities that were not detected through due diligence and scanning the work area.

The Phase 2 investigation primarily consists of utility locating discrete QL-A vacuum excavated test holes. Goodbee and a vacuum excavation truck (vac truck) contractor will perform excavation operations and the engineering survey. The test hole locations will be coordinated between Goodbee and the project team.

Assumptions/Exclusions

- ✓ Assume **50** test hole locations.
- ✓ QL-A test holes will be backfilled using native materials as collected by the vacuum excavation truck. Asphalt repair will be completed with DOT-compliant cold-patch asphalt. Should alternative methods of test hole restoration be required, Goodbee will invoice the repairs at cost.
- ✓ The SUE Plan set is valid only at the time of sealing. Should the project occur over an extended duration of time, an additional SUE investigation may be warranted to collect updated existing subsurface utility conditions.

Deliverables: CADD utility reference file with Phase 1 findings, CADD utility reference file with Phase 2 findings, Utility Plan Set with Quality Level Designations

5.2 Utility Coordination

Stanley Consultants will incorporate the Phase 1 and Phase 2 utility information received from Goodbee into the project files, prepare a utility potholing log sheet for incorporation into the plans, and show the utility designation/test hole information in the plans. Stanley Consultants will utilize the Phase 1 & 2 information to determine if utility conflicts exist with the proposed improvements and if the proposed design can be altered to avoid conflicts. If conflicts with the proposed design are unavoidable, Stanley Consultants will begin the utility coordination process with the affected utility owners.

Stanley Consultants will coordinate with the affected utility owners in the project area. It is assumed that we will attend up to ten (10) utility coordination meetings to discuss and resolve any utility conflicts during the preliminary design phase.

Deliverables: Meeting Notice, Agenda and Minutes (up to ten (10) utility coordination meetings), Utility Matrix, Utility Tracking Matrix

Assumptions/Exclusions

- ✓ Our scope of work is for utility coordination only and excludes any wet and dry utility relocation designs (with the exception of the sanitary sewer line relocation mentioned in Tasks 8.X and 9.X)

5.3 *CDOT Utility Clearance Support*

Stanley Consultants will coordinate the CDOT utility clearance process. The task involves finalizing any utility relocation coordination with the affected utilities and documenting the resolution with a utility relocation agreement that will be signed by the affected utilities along with preparing a utility clearance letter required by CDOT for Utility Clearance prior to project approval.

Deliverables: Utility Clearance Letter, Utility Relocation Agreements

Task 6 – Traffic Analysis & Conceptual Design

6.1 *Traffic Counts & Forecasts*

Traffic Data

Stanley Consultants will obtain existing AM and PM peak hour turning movement counts at the following intersections:

- 5th Street and Woodlands Blvd
- 5th Street and Valley Dr.

Twenty-four-hour bi-directional traffic volumes will be collected at the following three locations:

- Between Founders Parkway (Four Corners intersection) and Valley Dr.
- Between Valley Dr. and Woodlands Parkway
- Between Rock St. and Woodlands Parkway

Stanley Consultants will visit the project site and existing intersections to document existing conditions such as intersection geometry and operation.

Stanley Consultants will obtain historical ADT volumes from the Town's website.

Forecast Data

Stanley Consultants will obtain 2040 travel demand model forecast volumes from DRCOG.

Data provided by the Town of Castle Rock:

- The most recent 5 years of crash data for the intersections and the project corridor
- Previously completed studies and reports pertinent to the project

6.2 *Traffic Analysis*

Stanley Consultants will perform a traffic analysis at the Fifth Street/Woodlands Blvd. and Fifth Street/Valley Dr. intersections to determine operational performance for the current year (2021), opening year (2023), and design year (2040). PTV Vistro software will be utilized for the analysis. The scope of work for the traffic analysis and accompanying report includes the following tasks:

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- a) Analysis of crash data. Stanley Consultants will summarize the five years of crash data obtained and document the crash rate, frequency, and severity for all intersections and roadway segments in the study area.
- b) Conduct an existing conditions analysis utilizing the existing collected traffic volumes, intersection configurations and operations at the two project intersections.
- c) Review obtained historical ADT, previous studies and reports as well as proposed developments in the vicinity and develop a growth rate to generate projected 2023 traffic volumes for the two project intersections.
- d) Determine 2040 turning movement volumes based on DRCOG projected 2040 volumes for the two project intersections.
- e) Complete a signal warrant analysis (Signal Warrants 1, 2, 3, and 7 as defined in the Manual on Uniform Traffic Control Devices) for the intersection of 5th Street and Valley Dr for existing year (2021), the year 2023 and 2040.
- f) Analyze the operation and recommend lane configurations for the year 2023 and 2040 for the two project intersections. The Town's Transportation Design Criteria Manual (TDCM) requires a minimum LOS D or better. Capacity analysis will be per HCM 6th Edition. Level-of-service will be reported for all analysis scenarios listed above and mitigated to a minimum level-of-service "D" as defined by the Town's TDCM.
- g) Analyze the queuing for all turn lanes for the two project intersections. Queuing analysis will be studied using PTV Vistro to determine appropriate storage lengths at the intersections.
- h) Prepare a report in accordance with the Town of Castle Rock Transportation Design Criteria Manual requirements stating the findings, conclusions and recommendations. The Traffic Report will be submitted to the Town for review, comments and approval. Stanley Consultants shall address the review comments received from the review process, resubmit a FINAL Report and obtain approval.
- i) New and major Town comments generated during the review that substantially change the Traffic Impact Report may necessitate additional out of scope work and reviews and shall be discussed with the Town

Assumptions/Exclusions

- Traffic simulations videos are excluded.
- COVID-19 Adjustment factor will not be applied to the existing traffic volumes.
- Pedestrian and bicycle count or analysis are excluded.
- Analysis of adjacent intersections other than ones described above are excluded.
- Analysis of horizon years other than ones described above are excluded.
- Analysis of pedestrian/bicycle facilities are excluded.
- Analysis of weekend time periods are excluded.

Deliverables: Draft and Final Traffic Analysis Report

6.3 Conceptual Design Layout

Stanley Consultants will look at up to four (4) conceptual layouts to address variations in the typical section and alternative cut/fill and retaining wall arrangements. These layouts will consist of 2 intersection alternatives at the Fifth/Woodlands intersection and 2 intersection alternatives at the Fifth/Valley Drive intersection. Stanley Consultants will prepare the geometric layout for each conceptual alternative on a roll plot exhibit at a scale of 1"=100' depicting the horizontal layout. The following information will be depicted on the roll plots:

- North Arrow
- Control Lines
- Curve Data
- Laneage
- Project Limits and anticipated ROW impacts
- Traffic volumes
- Concept Layouts for Water Quality

Planning-level cost estimates will be prepared for two (2) alternatives. The roll plot and estimate will be prepared and submitted to the Town for review. It is assumed that Stanley Consultants will attend meeting a coordination to discuss the Conceptual Design Layouts with the Town prior to finalizing and moving into the preliminary design phase.

Deliverables: Conceptual Design Roll Plot
Conceptual Opinion of Probable Cost

Task 7 – Preliminary Design

7.1 Preliminary Roadway Design

Once a preferred alternative has been selected from the Conceptual Design phase, Stanley Consultants will perform the roadway design that will include:

- Refine the horizontal and vertical geometry of the preferred alternative.
- Refine and detail the cross-sectional elements including laneage, tapers and transitions, curb and gutter, sidewalk, shoulders, medians, islands, pedestrian facilities, retaining walls, fences, etc.
- Refine the layout of the proposed intersection improvements. Create a 3-dimensional model of the roadway that incorporates the elements noted above.
- Compute earthwork quantities. Stanley Consultants will model the horizontal and vertical alignment using the typical sections for the project and prepare cross sections every 50 feet for the length of the proposed improvements. After the cross sections are completed, Stanley Consultants will utilize the end area method to calculate the earthwork quantities.
- It is assumed that the project will be constructed in two (2) different construction phases (separated by multiple years). This scope of work includes providing two (2) complete sets of

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plans, specifications, and estimates (PS&E). One (1) PS&E package for Phase 1 and one (1) PS&E package for Phase 2.

- Prepare review drawings for a Field Inspection Review (FIR) Meeting with the Town and CDOT.

The following plan sheets are assumed:

- | | |
|-------------------------------------|--|
| ✓ Title Sheet | ✓ Structural Plans |
| ✓ Standard Plans List | ✓ Drainage Plan and Profile Sheets, Details |
| ✓ General Notes | ✓ CDOT SWMP Template Sheets |
| ✓ Summary of Approximate Quantities | ✓ Erosion Control Sheets (Initial/Interim & Final) |
| ✓ Tabulation of Quantities | ✓ Landscaping Plans |
| ✓ Typical Sections | ✓ Lighting Plans |
| ✓ Survey Tabulation | ✓ Construction Phasing Sheets |
| ✓ Survey Control Diagram | ✓ Traffic Signal Sheets |
| ✓ Geometric Layout Sheets | ✓ Signing and Striping Sheets |
| ✓ Removal Sheets | ✓ Cross Sections |
| ✓ Roadway Plan and Profile Sheets | |
| ✓ Intersection Details | |
| ✓ Misc. Construction Details | |

7.2 Preliminary Structural Design

Stanley Consultants anticipates that retaining walls will be required along Fifth Street to mitigate right-of-way impacts. Stanley Consultants estimates that 8 walls will be required for a total length of 4,000 feet. Stanley Consultants estimates that 4 walls will be MSE fill walls for a total length of 1,900 feet. Stanley Consultants estimates that 4 walls will be soil nail cut walls for a total length of 2,100 feet. The rock cut areas will be evaluated by the geotechnical investigate but are assumed to not require retaining walls.

Stanley Consultants will prepare a Structures Selection Report (SSR) for the selection of the retaining walls along Fifth Street. Using the CDOT SSR checklist, the selection report will include:

- Executive Summary
- Site Description and Design Features
 - Vicinity Map
 - ROW Impacts
 - Utilities
 - Water and sewer pipelines
 - Overhead powerline
 - Fiber optic
 - Geotechnical Summary
 - Hydraulics Summary
 - Environmental Concerns
 - Roadway Design Features
- Structural Design Criteria
 - Design Specifications

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- Aesthetic Requirements
- Structure Wall Selection
 - Structure Layout Alternatives
- Wall alternatives
- Constructability and Construction Phasing
- Maintenance and Durability
- Corrosive Resistance
- Summary of Structure Type Evaluation Table
- Construction Cost
- Figures and Appendices
 - Alternative Typical Sections
 - General Layout of the Selected walls
 - Summary of Quantities and Cost Estimate Tables

Stanley Consultants will evaluate alternatives for the walls along the corridor. Walls will be evaluated considering the following:

- Location of retaining wall
- Use of wall vs slopes and obtaining ROW
- Geotechnical requirements and recommendations
- Cost of retaining walls
- Phasing of project with roadway
- Constructability
- Drainage structures and utilities
- Railing requirements
- Aesthetics

Stanley Consultants will evaluate the following types of walls at each location:

- Cast-in-place retaining wall
- MSE retaining walls
- Soil nail/rock cut walls or rock slopes
- Large block landscape walls
- Soldier piles walls

Stanley Consultants will prepare and submit the SSR to Town of Castle Rock and CDOT. Stanley will attend an FIR meeting with CDOT. Stanley will address comments on the SSR and close comments.

Assumptions/Exclusions

- ✓ Design of noise walls are excluded from this scope since location and type will be determined after noise study. Noise walls can be added later if required.
- ✓ Design of major drainage structures (concrete box culverts crossing Fifth Street) are excluded.
- ✓ Design of water quality outlet structures is included in our scope of work. We assume up to three (3) water quality ponds may be needed for this project.
- ✓ It is assumed that rock cuts will not require retaining walls.

Deliverables: Structures Selection Report

7.3 Preliminary Drainage Design

The drainage system design will follow the Town of Castle Rock Storm Drainage Design and Technical Criteria Manual and CDOT requirements.

7.3.1 Review of Background Material, Information Collection, & Coordination

- All available reports and construction plans will be reviewed including adjacent development plans, master planning studies, and floodplain studies.
- All available mapping and survey data will be reviewed.

7.3.2 Hydrologic and Hydraulic Analysis

- The hydrologic analysis for the project will be updated to reflect current conditions and the proposed work.
- Peak flows for cross culverts/storm sewer systems will be established from adjacent development and drainage reports where possible. The reports provided by the Town will be limited to those sent to Stanley Consultants on 5/19/2021.
- The Rational Method will be used to develop peak flows for local roadway drainage.
- Water quality control measures will be included in the design. These features will be designed following USDCM: Volume 3 Stormwater Quality guidance.
- Roadway drainage, including roadway ditches, storm inlets, and storm sewer systems will be designed for hydraulic capacity for both minor and major storm events.
- Major drainage crossings proposed to be replaced will be designed to meet all Town and CDOT requirements for culverts.
- Storm Sewer Systems including profile elevations, size, and locations will be designed using Bentley's Open Roads Designer and StormCAD software and storm sewer design methods.

7.3.3 Water Quality Analysis and Design

- It is assumed that the project will be required to provide full-spectrum detention and water quality. We have assumed up to three (3) water quality ponds and one (1) hydrodynamic separator.

7.3.4 Preliminary Design Plans and Drainage Report

- Development of preliminary construction drawings and estimate.
- Development of Draft Phase III Drainage Report.

Deliverables: Draft Phase III Drainage Report, Drainage plans/profiles

7.4 Preliminary Stormwater Management & Erosion Control Plans

It is anticipated that the project will have more than 1 acre of disturbance. Stanley Consultants will complete either the TESC plans and report required by the Town or the CDOT Stormwater Management Plan (SWMP) template sheets as well as prepare Erosion Control plans for the proposed improvements and tabulate these items. The Erosion Control plans will be broken into Initial, Interim, and Final plans. Which requirements will be followed will be determined at the kickoff meeting.

Deliverables: SWMP Template or TESC Report & Erosion Control plans

7.5 Preliminary Sanitary Sewer Relocation Plans

Stanley Consultants will provide a design for the replacement of an existing 8" VCP sanitary sewer line that serves Rock Lane with new manholes, pipe, and service connections within Town right-of-way (underneath Fifth Street). The existing sanitary line is currently outside of Town right-of-way and in poor condition.

Deliverables: Preliminary Sanitary Sewer Relocation plans

7.6 Preliminary Traffic Signal Design

Stanley Consultants will prepare preliminary traffic signal modification plans for the intersection of Fifth Street and Woodlands Blvd. The design for Fifth Street and Woodlands Blvd will be in accordance with the Town of Castle Rock's current policies and procedures and the latest version of the MUTCD. The preliminary traffic signal plans only include the preparation of plan sheets for the signal layout. A detailed description of the drawings is given below along with an estimate of the number of sheets required.

The traffic signal design will include a 20-scale plan view that will require one plan sheet for each intersection. These plan views will show curb, gutter, sidewalk, ROW, utilities, median islands, striping, and control lines.

Removal of the traffic signal equipment will occur at Fifth Street and Woodlands Blvd. One (1) sheet is required to show traffic signal removal plans.

Stanley Consultants will design a modified traffic signal for the intersection of Woodlands Blvd, and a new traffic signal at Valley Dr. if warranted. For preliminary design the traffic signal equipment shown on these plans will include, signal poles, signal mast arms, luminaires, luminaire mast arms, signal head placement.

It is anticipated that the signal timing for the intersection will be completed by the Town.

Deliverables: Traffic Signal plans

7.7 Preliminary Signing & Striping Plans

Stanley Consultants will prepare the signing and pavement marking plans for the Fifth Street reconstruction based on the Town of Castle Rock's current policies and procedures and the latest

version of the MUTCD. The signing and pavement marking plans include general notes and quantities sheet, sign summary sheets, plan sheets and sign format sheets.

A field visit will provide an inventory of the existing signing and pavement markings. This information will assist in the design process and in presenting the existing conditions on the plans.

Deliverables: Signing & Striping plans

7.8 Preliminary Construction Phasing Plans

Stanley Consultants will develop the Construction Phasing Plan Sheets. It is currently envisioned that there will be two phases in the construction sequence plan. A preliminary construction phasing plan will be developed that will consist of showing construction work zones, lane configurations, and temporary concrete barrier and/or channelizing device locations. Detailed Construction Traffic Control Plans will be prepared during the progress to Final Design.

Stanley Consultants will work closely with the Town to coordinate the sequence of construction and maintenance of traffic throughout construction of the project.

Deliverables: Phasing plans

7.9 Preliminary Landscaping Design

Landscaping & Irrigation design will be performed by Goodbee & Associates, Inc. (Goodbee). Goodbee will prepare the following for the preliminary landscaping design task:

- Prepare 2 options for landscape design between Sixth Street and Calvary Chapel (New Development) for consideration by the Town. Includes roll plots and cross sections.
- Prepare 2 concepts for water quality pond features (one (1) pond location only).

Deliverables: Landscaping Concept exhibits

7.10 Preliminary Lighting Design

Stanley Consultants will develop a lighting plan for Fifth Street using the TDCM for Major Arterials. The photometric analysis will be performed using AGI 32 computer software and will optimize IREA's standard luminaire mounting heights, mast arm lengths and fixture wattages to obtain a safe and efficient lighting system that meets the design requirements. Stanley Consultants design will focus on using the LED type luminaires for this corridor.

When the analysis is complete the proposed pole locations will be placed on plan sheets for the Town and IREA to review. Power drop locations and voltage drop calculations will be prepared during the final design.

Deliverables: Preliminary Lighting Plans

7.11 Opinion of Probable Construction Cost Estimate

Stanley Consultants will prepare a preliminary opinion of probable construction cost using CDOT format for Item Number, Description, Units and Quantities. The preliminary estimate will contain a 20% contingency.

Deliverables: Opinion of Probable Construction Cost Estimate

7.12 FIR Review Meeting

Stanley Consultants will submit an electronic half-size set of plans to the Town and CDOT a minimum of ten (10) working days prior to the FIR review meeting. Stanley Consultants will attend the FIR review meeting to discuss additions and/or revisions to the plans. The Stanley Consultants project manager will conduct the meeting in conjunction with the Town project manager. Stanley Consultants shall take meeting minutes and distribute to meeting attendees after the meeting.

*Deliverables: 1 electronic set of 11x17 FIR plans
FIR Review Meeting minutes, agenda & notes
List of Design Variances*

Task 8 – Final Design

8.1 Final Roadway Design

Prepare 90% review drawings for a Final Office Review (FOR) submittal that will include:

- ✓ Finalize horizontal and vertical geometry as well as cross sectional elements from the FIR design phase.
- ✓ Finalize earthwork quantities.
- ✓ Refine the design at all intersections and driveways.
- ✓ Finalize quantities and tabulate

8.2 Final Structural Design

Stanley will prepare plans and specifications for the eight (8) structural walls. Plans will include the following:

- General Notes and index (1 sheet)
- Summary of Quantities (1 sheet)
- Wall Typical Sections (3 sheets)
- Wall Layout – Key Map (2 sheets)
- Engineer Geology Sheets (3 sheets)
- Wall General Layout (assume 400 ft per sheet, 12 sheets)
- MSE Wall Detail Sheets (6 sheets)
- Soil Nail Notes and Detail Sheets (3 sheets)
- Moment Slab Details (1 sheet)

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- Fencing and Railing Detail Sheets (3 sheets)
- Aesthetic Structural Details (2 sheets)

Assumptions/Exclusions

- ✓ Design of noise walls are excluded from this scope since location and type will be determined after noise study. Noise walls can be added later if required.
- ✓ Cast-in-place walls are excluded
- ✓ Calculations for cast-in-place walls are excluded
- ✓ Independent Design Calculations are excluded

8.3 Final Drainage Design and Water Quality Analysis

- Review comments received from the FIR.
- Finalize drainage and water quality design.
- Development of final drainage plans
- Development of Final Phase III Drainage Report

Deliverables: Final Phase III Drainage Report, Drainage Plans, Profiles and Details

8.4 Final Stormwater Management Plans & Erosion Control Plans

Prepare 90% SWMP template or TESC Report and Initial, Interim, and Final Erosion Control plans for a Final Office Review (FOR) submittal.

8.5 Final Sanitary Sewer Relocation Plans

Prepare 90% sanitary sewer relocation plans and tabulate these items for a Final Office Review (FOR) submittal.

8.6 Final Traffic Signal Design

Prepare 90% traffic signal plans and details for the Fifth St./Woodlands Blvd. and Fifth St./Valley Dr. intersections for a Final Office Review (FOR) submittal.

8.7 Final Signing & Striping Plans

Prepare 90% signing and striping plans for the proposed improvements and tabulate these items for a Final Office Review (FOR) submittal.

8.8 Final Construction Phasing / Traffic Control Plans

After the FIR review meeting and consensus is achieved on the preferred phasing concept, Stanley Consultants will develop detailed Construction Traffic Control Plans following the latest MUTCD and construction traffic control will be tabulated for the project for a Final Office Review (FOR) submittal.

The Construction Phasing/Traffic Control Plans will be limited to two (2) construction phases.

8.9 Final Landscaping Design

Upon obtaining approval of the landscaping concept from the preliminary design phase, Goodbee will perform final landscape design for Sixth Street to Calvary Chapel (New Development) and prepare construction documents including planting/hardscape/irrigation plans, details, notes, tabulations, special provisions and estimate of probable cost.

Deliverables: Final Landscaping Plans

8.10 Final Lighting Design

Prepare 90% lighting plans for the proposed improvements and tabulate these items for a Final Office Review (FOR) submittal.

8.11 Opinion of Probable Construction Cost Estimate

Stanley Consultants will update the opinion of probable construction cost estimate. The FOR estimate will contain a 10% contingency.

8.12 Project Special Provisions

Prepare project special provisions (following CDOT format) for the project to be included in the construction documents.

8.13 Final Office Review (FOR) Meeting

Stanley Consultants will submit an electronic half-size set of plans and project special provisions to the Town and CDOT a minimum of fifteen (15) working days prior to the FOR review meeting. Stanley Consultants will attend the FOR meeting to discuss additions and/or revisions to the plans and project special provisions. The Stanley Consultants project manager will conduct the meeting in conjunction with the Town project manager. Stanley Consultants shall take meeting minutes and distribute to meeting attendees after the meeting.

*Deliverables: 1 electronic set of 11x17 FOR plans
FOR Review Meeting minutes, agenda & notes*

8.14 Construction Documents / Advertisement

Stanley Consultants will make corrections to the plans and special provisions after the FOR review meeting and prepare the Final advertisement (AD) package.

*Deliverables: 1 electronic set of 11x17 Final AD plans
2 stamped/signed sets of 24x36 Final AD plans
Project Special Provisions (MS Word format)*

Task 9 – Post Design Services

9.1 *Bidding/Award Services*

We anticipate that the Town of Castle Rock will advertise the project for bidding and distribute the plans to prospective bidders. Stanley Consultants project manager and project staff will be available during the bidding phase to assist the Town of Castle Rock in responding to contractor inquiries. Work associated with this task are only for the Phase 1 improvements and will include:

- Attending the pre-bid meeting to answer questions from prospective bidders.
- Supporting the Town of Castle Rock during the bidding process by providing answers to Contractor inquiries
- Issuing addenda (if required) to clarify issues in the bid documents.

The professional hours for this task are limited to those provided in Exhibit A

9.2 *Construction Support Services*

Stanley Consultants will be available during construction to respond to questions specifically related to the design plans and specifications and provide clarification when requested. These services shall include, but not be limited to, the following for Phase 1 improvements only:

- Attend pre-construction meeting
- Review and approve all submittals and shop drawings.
- Respond to questions in the field that arise relative to the plans, details or special provisions.
- Provide engineering and drafting services for design revisions required due to changes in construction of field conditions.

The professional hours for this task are limited to those provided in Exhibit A

Scope of Services - Assumptions/Exclusions

The following are Stanley Consultants assumptions and/or exclusions to the above scope of services:

- It is assumed that an Operations & Maintenance (O&M) Report for the water quality facilities are not required and are excluded from this scope of services.
- It is assumed that the Town will prepare the up-front “boilerplate” contractual documents as part of the bid documents. It is assumed that Stanley Consultants will only be required to provide the plans, estimate, and the project special provisions.

Date: 5/24/2021

																			Stanley Consultants	Subconsultants					TOTAL	EXHIBIT A FEE SCHEDULE
TASK / DELIVERABLE	Marvinetta Hartwig, PE Principal-in-Charge	Jeff Binning, PE Project Manager	Dave Dyer QA/QC Manager	Ron Gibson, PE Task Manager - Structures	Inna Pushkarova, PE Project Engineer	Nigel Ruckhaus, EI Engineer-In-Training I	Josh Root, PE, CFM Task Manager - Drainage	Alyssa Pankow, PE Project Engineer	TJ Scarberry PE, PTOE Task Manager - Traffic	Michael Romero, PE Project Engineer	Andrew Valdez, PE Project Engineer	Elle Lueth, EI Engineer-in-Training I	Eric Lang Senior Technician	Ryan Hanson Senior Technician	Joey Davidson, PE CM Project Engineer	Amelia Dyer Project Coordinator	Professional Service Hours	Professional Service Fee	Other Direct Costs	Vivid Engineering Group (Geotechnical)	Daley Land Surveying, Inc. (Survey/Mapping/ROW)	Phylon Environmental, Inc. (Environmental)	CIG (Public Involvement)	Goodbee & Associates, Inc. (SUE Investigation, Landscape Design)	Total Professional Service Fee and Other Direct Costs	DESCRIPTION / ASSUMPTIONS
	\$300	\$221	\$225	\$230	\$140	\$100	\$190	\$116	\$169	\$151	\$128	\$100	\$140	\$164	\$166	\$98										
TASK 1 - PROJECT MANAGEMENT																										
1.1 Project Management	8	160														40	208	\$41,680	\$ 250						\$ 41,930	Postage / Reproductions / Misc.
1.2 Progress Meetings		36		20			20		20	8	20						124	\$23,504	\$ 100						\$ 23,604	Assumes a pre-design/kickoff meeting, Initial Agency Workshop, and 12 progress meetings
TASK 2 - DATA COLLECTION																										
2.1 Project Initiation / Data Collection		4		4			4		4	4	4						24	\$4,356	\$ 50						\$ 4,406	
2.2 Design Survey, Mapping, and Right-of-Way		2	8														10	\$2,242			\$ 124,856				\$ 127,098	
2.3 Geotechnical Investigation and Pavement Design		2		4													6	\$1,362		\$ 84,150					\$ 85,512	
TASK 3 - ENVIRONMENTAL COORDINATION																										
3.1 Environmental Coordination		4															4	\$884				\$ 66,385			\$ 67,269	
TASK 4 - PUBLIC INVOLVEMENT AND STAKEHOLDER COORDINATION																										
4.1 Public Involvement		20		8					16		32						76	\$13,060					\$ 47,237		\$ 60,297	
TASK 5 - SUBSURFACE UTILITY ENGINEERING (SUE) & COORDINATION																										
5.1 SUE Investigation		2															2	\$442						\$ 135,936	\$ 136,378	Assumes 50 test holes
5.2 Utility Coordination		4	40								60						104	\$17,564							\$ 17,564	Assumes up to 10 coordination meetings
5.3 CDOT Utility Clearance Support		8															8	\$1,768							\$ 1,768	
TASK 6 - TRAFFIC ANALYSIS & CONCEPTUAL DESIGN																										
6.1 Traffic Counts & Forecasts									30	60							90	\$14,130	\$ 1,650						\$ 15,780	
6.2 Traffic Analysis									30	80			8				118	\$18,270							\$ 18,270	
6.3 Conceptual Design Layout		10		16	16		4	8	20	40	60	40	30	80			324	\$48,238							\$ 48,238	
TASK 7 - PRELIMINARY DESIGN																										
7.1 Preliminary Roadway Design																										
- Define the Horizontal and Vertical Geometry		4									24						28	\$3,956							\$ 3,956	
- Define and Detail Cross Section Elements		2									8	20					30	\$3,466							\$ 3,466	
- Layout Intersections		4									40	20					64	\$8,004							\$ 8,004	
- Create a 3-Dimensional Model														80			80	\$13,120							\$ 13,120	
- Prepare 60% Construction Drawings - Phase 1		16									120	120	120		8		384	\$51,904							\$ 51,904	
- Prepare 60% Construction Drawings - Phase 2		16									100	80	80		8		284	\$38,784							\$ 38,784	
- Tabulate Quantities											16	16					32	\$3,648							\$ 3,648	
- QA/QC		8	24														32	\$7,168							\$ 7,168	
7.2 Preliminary Structural Design				40	100	100											240	\$33,200							\$ 33,200	
7.3 Preliminary Drainage Design																										
7.3.1 Review of Background Material, Information Collection & Coordination							8	24									32	\$4,304							\$ 4,304	
7.3.2 Hydrologic and Hydraulic Analysis							16	72									88	\$11,392							\$ 11,392	
7.3.3 Water Quality analysis and design							40	72									112	\$15,952							\$ 15,952	
7.3.4 Preliminary Drainage Plans and Drainage Report							10	60									70	\$8,860							\$ 8,860	
- Phase 2 Drainage Plans							8	52									60	\$7,552							\$ 7,552	
- QA/QC							40										40	\$7,600							\$ 7,600	
7.4 Preliminary Stormwater Management & Erosion Control Plans																										
- Prepare SWMP Template Sheets and Erosion Control Plans - Phase 1											40						40	\$4,640							\$ 4,640	
- Prepare SWMP Template Sheets and Erosion Control Plans - Phase 2											40						40	\$4,640							\$ 4,640	
- QA/QC							8										8	\$1,520							\$ 1,520	
7.5 Preliminary Sanitary Sewer Relocation Plans							8	32									40	\$5,232							\$ 5,232	
7.6 Preliminary Traffic Signal Design									14	34			16				64	\$9,740							\$ 9,740	
7.7 Preliminary Signing & Striping Plans																										
- Phase 1									12	44			20				76	\$11,472							\$ 11,472	
- Phase 2									8	36			16				60	\$9,028							\$ 9,028	
7.8 Preliminary Construction Phasing Plans																										
- Phase 1									16	44			16				76	\$11,588							\$ 11,588	
- Phase 2									8	40			16				64	\$9,632						\$ 26,000	\$ 9,632	
7.9 Preliminary Landscaping Design																	0	\$0							\$ 26,000	
7.10 Preliminary Lighting Design									20	50			20				90	\$13,730							\$ 13,730	
7.11 Opinion of Probable Construction Cost Estimate		4									8						12	\$1,908							\$ 1,908	
7.12 FIR Review Meeting		4		2			2		2	2	2						14	\$2,620							\$ 2,620	
TASK 8 - FINAL DESIGN																										
8.1 Final Roadway Design																										
- Finalize Roadway Elements		8									60	40					108	\$13,448							\$ 13,448	
- Prepare 90% Construction Drawings - Phase 1		8									100	100		120	8		336	\$45,576							\$ 45,576	
- Prepare 90% Construction Drawings - Phase 2		8									80	80	100		8		276	\$37,736							\$ 37,736	
- Finalize Quantities and Tabulation Sheets											16	12					28	\$3,248							\$ 3,248	
- QA / QC		8	40														48	\$10,768							\$ 10,768	
8.2 Final Structural Design				60	400	400											860	\$109,800							\$ 109,800	
8.3 Final Drainage Design and Water Quality Analysis																										
- Finalize Drainage Plans and Details - Phase 1							18	60									78	\$10,380							\$ 10,380	
- Finalize Drainage Plans and Details - Phase 2							18	40									58	\$8,060							\$ 8,060	
- Finalize Drainage Report								20									20	\$2,320							\$ 2,320	
- QA / QC							12										12	\$2,280							\$ 2,280	
8.4 Final Stormwater Management & Erosion Control Plans																										
- Finalize SWMP Template Sheets and Erosion Control Plans - Phase 1											16						16	\$1,856							\$ 1,856	
- Finalize SWMP Template Sheets and Erosion Control Plans - Phase 2											16						16	\$1,856							\$ 1,856	
- QA/QC							4										4	\$760							\$ 760	
8.5 Final Sanitary Sewer Relocation Plans							2	8									10	\$1,308							\$ 1,308	
8.6 Final Traffic Signal Design									16	40			12				68	\$10,424							\$ 10,424	
8.7 Final Signing & Striping Plans																										
- Phase 1									10	40			16				66	\$9,970							\$ 9,970	
- Phase 2									10	40			16				66	\$9,970							\$ 9,970	

Fifth Street Widening
(Gilbert St. to Founders Pkwy.)

Date: 5/24/2021

Date: 5/24/2021																	Stanley Consultants			Subconsultants						TOTAL	EXHIBIT A FEE SCHEDULE								
TASK / DELIVERABLE		Marvinetta Hartwig, PE Principal-In-Charge	Jeff Binning, PE Project Manager	Dave Dyer QA/QC Manager	Ron Gibson, PE Task Manager - Structures	Inna Pushkarova, PE Project Engineer	Nigel Ruckhaus, EI Engineer-In-Training I	Josh Root, PE, CFM Task Manager - Drainage	Alyssa Pankow, PE Project Engineer	TJ Scarberry PE, PTOE Task Manager - Traffic	Michael Romero, PE Project Engineer	Andrew Valdez, PE Project Engineer	Elle Lueth, EI Engineer-In-Training I	Eric Lang Senior Technician	Ryan Hanson Senior Technician	Joey Davidson, PE CM Project Engineer	Amelia Dyer Project Coordinator	Professional Service Hours	Professional Service Fee	Other Direct Costs	Vivid Engineering Group (Geotechnical)	Daley Land Surveying, Inc. (Survey/Mapping/ROW)	Phiyon Environmental, Inc. (Environmental)	CIG (Public Involvement)	Goodbee & Associates, Inc. (SUE Investigation, Landscape Design)	Total Professional Service Fee and Other Direct Costs	DESCRIPTION / ASSUMPTIONS								
		\$300	\$221	\$225	\$230	\$140	\$100	\$190	\$116	\$169	\$151	\$128	\$100	\$140	\$164	\$166	\$98																		
SCOPE OF WORK	8.8 Final Construction Phasing/Traffic Control Plans																																		
	- Phase 1																	126	\$18,990																
	- Phase 2																	118	\$17,754																
	8.9 Final Landscaping Design																	0	\$0											\$ 15,245					
	8.10 Final Lighting Design																	100	\$15,312																
	8.11 Opinion of Probable Construction Cost Estimate																	8	\$1,840																
	8.12 Project Special Provisions																	16	\$3,608																
	8.13 FOR Review Meeting																	14	\$2,620																
	8.14 Construction Documents/Advertisement																																		
	- Phase 1																	212	\$30,786																
- Phase 2																	180	\$26,420																	
TASK 9 - POST DESIGN SERVICES																																			
9.1 Bidding/Award Services			4		2		2											8	\$1,724								\$	1,724	Mileage to attend Pre-bid meeting and bid opening						
9.2 Construction Support Services			10		8	12	4				4							38	\$7,002	\$ 100							\$	7,102	Mileage for misc. coordination meetings during construction						
		8	384	142	186	548	536	234	582	306	800	812	584	286	660	40	40	6148	\$ 897,976	\$ 2,150	\$84,150	\$ 124,856	\$66,385	\$47,237	\$ 177,181										
		BASE PROPOSAL																									\$ 1,399,935								