

**TOWN OF CASTLE ROCK
 CONSTRUCTION CONTRACT
 (Plum Creek Park North)**

THIS CONSTRUCTION CONTRACT ("Contract") is made between the **TOWN OF CASTLE ROCK**, a Colorado municipal corporation ("Town"), 100 N. Wilcox Street, Castle Rock, Colorado 80104 and **COLORADO DESIGNSCAPES, INC.** a Colorado corporation, 15440 E. Fremont Dr., Englewood, Colorado 80112 ("Contractor").

In consideration of these mutual covenants and conditions, the Town and Contractor agree as follows:

SCOPE OF WORK The Contractor shall execute the entire Work described in the Contract.

CONTRACT The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, written or oral representations and agreements. The Contract incorporates the following Contract Documents. In resolving inconsistencies among two or more of the Contract Documents, precedence will be given in the same order as enumerated.

LIST OF CONTRACT DOCUMENTS

The Contract Documents, except for Modifications issued after execution of this Contract, are:

1. Change Orders
2. Notice to Proceed
3. Construction Contract
4. General Conditions, attached as *Exhibit 1*
5. The following Addenda, if any:

i. Number

- ii. Addenda No. 1

Date

May 4, 2023

6. Special Conditions of the Contract:
7. The following Specifications: *Exhibit 2*
8. The following Drawings/Reports: *Exhibit 3*
9. Notice of Award;
10. Invitation to Bid;
11. Information and Instructions to Bidders;
12. Notice of Substantial Completion;
13. Notice of Construction Completion;
14. Proposal Forms, including Bid Schedules;
15. Performance, and Labor and Material Payment Bonds;
16. Performance Guarantee; and
17. Insurance Certificates.

CONTRACT PRICE. The Town shall pay the Contractor for performing the Work and the completion of the Project according to the Contract, subject to Change Orders as approved in writing by the Town,



under the guidelines in the General Conditions. The Town will pay \$ **3,737,350.00** ("Contract Price"), to the Contractor, subject to full and satisfactory performance of the terms and conditions of the Contract. The Contract Price is provisional based on the quantities contained in the Bid attached as **Exhibit 4**. Bid Forms are attached as **Exhibit 5**. The final Contract Price shall be adjusted to reflect actual quantities incorporated into the Work at the specified unit prices. The Town has appropriated money equal or in excess of the Contract Price for this work.

COMPLETION OF WORK. The Contractor must begin work covered by the Contract within 10 calendar days from the date of the Notice to Proceed, and must receive Substantial Completion no later than May 31, 2024 and Final Construction Completion by Jun 14, 2024 according to the General Conditions.

TERM. The term shall commence upon execution of the Contract and terminate on June 14, 2024, unless an extension of the Contract is agreed to in writing by the Town and Contractor.

LIQUIDATED DAMAGES. If the Contractor fails to complete the Work by the date set for completion in the Contract, or if the completion date is extended by a Change Order, by the date set in the Change Order, the Town may permit the Contractor to proceed, and in such case, may deduct the sum of \$500.00 for each day that the Work shall remain uncompleted from monies due or that may become due the Contractor. This sum is not a penalty but is a reasonable estimate of liquidated damages.

The parties agree that, under all of the circumstances, the daily basis and the amount set for liquidated damages is a reasonable and equitable estimate of all the Town's actual damages for delay. The Town expends additional personnel effort in administering the Contract or portions of the Work that are not completed on time, and has the cost of field and office engineering, inspecting, and interest on financing and such efforts and the costs thereof are impossible to accurately compute. In addition, some, if not all, citizens of Castle Rock incur personal inconvenience and lose confidence in their government as a result of public projects or parts of them not being completed on time, and the impact and damages, certainly serious in monetary as well as other terms are impossible to measure.

SERVICE OF NOTICES. Notices to the Town are given if sent by registered or certified mail, postage prepaid, to the following address:

TOWN OF CASTLE ROCK
Town Attorney
100 N. Wilcox Street
Castle Rock, CO 80104

With a copy to: Legal@crgov.com

INSURANCE PROVISIONS. The Contractor must not begin any work until the Contractor obtains, at the Contractor's own expense, all required insurance as specified in the General Conditions. Such insurance must have the approval of the Town of Castle Rock as to limits, form and amount. *Certificate of Insurance ("COI") must be submitted along with the executed contract as Exhibit 6.*

RESPONSIBILITY FOR DAMAGE CLAIMS. The Contractor shall indemnify, save harmless, and defend the Town, its officers and employees, from and in all suits, actions or claims of any character brought because of: any injuries or damage received or sustained by any person, persons or property because of operations for the Town under the Contract; including but not limited to claims or amounts recovered from any infringements of patent, trademark, or copyright; or pollution or environmental liability. The Town may retain so much of the money due the Contractor under the Contract, as the Town considers necessary



for such purpose. If no money is due, the Contractor's Surety may be held until such suits, actions, claims for injuries or damages have been settled. Money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that the Contractor and the Town are adequately protected by public liability and property damage insurance.

The Contractor also agrees to pay the Town all expenses, including attorney's fees, incurred to enforce this Responsibility for Damage Claim clause.

Nothing in the **INSURANCE PROVISIONS of the General Conditions** shall limit the Contractor's responsibility for payment of claims, liabilities, damages, fines, penalties, and costs resulting from its performance or nonperformance under the Contract.

STATUS OF CONTRACTOR. Contractor has completed the Affidavit of Independent Contractor Status, attached as *Exhibit 7*, and submitted same at the time of execution of this Agreement. The Contractor is performing all work under the Contract as an independent Contractor and not as an agent or employee of the Town. No employee or official of the Town will supervise the Contractor. The Contractor will not supervise any employee or official of the Town. The Contractor shall not represent that it is an employee or agent of the Town in any capacity. **The Contractor and its employees are not entitled to Town Workers' Compensation benefits and are solely responsible for federal and state income tax on money earned.** This is not an exclusive contract.

THIRD PARTY BENEFICIARIES. None of the terms or conditions in the Contract shall give or allow any claim, benefit, or right of action by any third person not a party to the Contract. Any person, except the Town or the Contractor, receiving services or benefits under the Contract is an incidental beneficiary only.

INTEGRATION. This contract integrates the entire understanding of the parties with respect to the matters set forth. No representations, agreements, covenants, warranties, or certifications, express or implied, shall exist as between the parties, except as specifically set forth in this Contract.

DEFINITIONS. The Definitions in the General Conditions apply to the entire Contract unless modified within a Contract Document.

AMERICANS WITH DISABILITIES ACT. Contractor agrees to ensure that any deliverables, work, services, or equipment developed, designed, constructed or produced pursuant to this Agreement, to include website design services, will comply with all requirements of Title II of the Americans with Disabilities Act and, where applicable, Section 504 of the Rehabilitation Act, the Architectural Barriers Act, and the Colorado Anti-Discrimination Act. To the extent any deliverables, work, services, or equipment developed, designed, constructed or produced pursuant to this Agreement fail to comply with the requirements of this Section, Contractor shall indemnify the Town in accordance with the terms of this Agreement and, at the Town's option, shall re-vise, re-construct, or similar, the non-compliant deliverable, work, service, or equipment, or reimburse the Town for the cost associated with bringing the non-compliance deliverable, work, service or equipment into compliance.

NO DISCRIMINATION IN EMPLOYMENT. The Town is a governmental agency and, therefore, in connection with the performance of Work or Services under this Agreement, Contractor shall not refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender identity or gender expression, marital status, or physical or mental disability, or



any other protected class under Federal or State law; and Contractor shall insert the foregoing provision in any subcontracts hereunder.

ADVERTISING AND PUBLIC DISCLOSURE. Contractor shall not include any reference to this Agreement or goods or services provided pursuant to this Agreement in any of Contractor's advertising or public relations materials without first obtaining the written approval of the Town. Nothing herein, however, shall preclude the transmittal of any information to officials of the Town, including without limitation, the Town Attorney, Town Manager, and the Town Council.

VENUE, CHOICE OF LAW AND DISPUTES. Venue for all legal actions shall lie in the District Court in and for the County of Douglas, State of Colorado, and shall be governed by the laws of the State of Colorado as well as the Charter and Municipal Code, rules, regulations, Executive Orders, and fiscal rules of the Town.

AUTHORITY. The individuals executing this Agreement represent that they are expressly authorized to enter into this Agreement on behalf of the Town and the Contractor and bind their respective entities. This Agreement is executed and made effective as provided above.

LICENSES/TAXES. Contractor affirms it is licensed to do business in the State of Colorado and is in good standing. Further, Consultant shall be solely responsible for paying all applicable taxes associated with or rising out of this Agreement.

CONFIDENTIALITY. Contractor agrees that it shall treat as confidential all information provided by the Town regarding the Town's business and operations. All confidential information provided by the Town hereto shall be used by Consultant solely for the purposes of rendering services or work pursuant to this Agreement and, except as may be required in carrying out the terms of this Agreement, shall not be disclosed to any third party without the prior consent of the Town. The foregoing shall not be applicable to any information that is publicly available when provided or which thereafter becomes publicly available or which is required to be disclosed by any regulatory authority in the lawful and appropriate exercise of its jurisdiction over a party, any auditor of the parties hereto, by judicial or administrative process or otherwise by applicable law or regulation.

Executed this _____ day of _____, 20__.

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

Jeff Brauer, Director of Parks & Recreation

COLORADO DESIGNSCAPES, INC.

By: _____

Its: _____

Paul E. Smith
President

EXHIBIT 1

TOWN OF CASTLE ROCK CONSTRUCTION CONTRACT GENERAL CONDITIONS

SCOPE: Since the General Conditions are general, some conditions may not apply to a particular Project.

Article 1--DEFINITIONS AND ABBREVIATIONS

Whenever used in the Bidding Documents and Contract Documents, the following terms shall have the following meanings, applicable to both the singular and plural:

- 1.0.1 **Addenda:** Written changes to the Bidding Documents issued at least two days before the Opening of Bids which modify or interpret the Contract or changes the date set for the Opening of Bids.
- 1.0.2 **Alternate Bid:** An Alternate Bid is an amount stated in the Bid added to or deducted from the base amount of the Bid when the Town accepts a corresponding change in project scope, materials or method of construction described in the Contract.
- 1.0.3 **Bid:** The proposal the Bidder submits on the prescribed Bid Forms stating the prices for the Work to be performed.
- 1.0.4 **Bid Forms:** The Bid Proposal, Bid Bond, Bid Schedule, Bidder's Qualifications and Data, Bidder's Officials Data, Non-Collusion Affidavit of Prime Bidder, and Subcontractors and Related Data.
- 1.0.5 **Bidder:** The person, partnership, or corporation submitting a Proposal for the performance of the Work covered by the Contract.
- 1.0.6 **Bidding Documents:** The Invitation to Bid, Bid Forms, Information and Instructions to Bidders, Specifications, Drawings, Sample Forms, Special and General Conditions and Addenda (if any).
- 1.0.7 **Bonds:** Bid Bonds, Performance, and Labor and Material Payment Bonds or other instruments of security, furnished by the Contractor and its Surety according to the Contract.
- 1.0.8 **Change Order:** A written modification of the Contract, issued after award to the Contractor, authorizing an addition, deletion or revision in the Work within the general scope of the Contract or authorizing an adjustment in the Contract Price or Contract Time, mutually agreed upon between the Town and the Contractor.
- 1.0.9 **Town:** The Town of Castle Rock, in the State of Colorado, acting by and through its Mayor, Town Council, Town Manager, or other authorized representative.
- 1.0.10 **Completion Date:** The date the Contract specifies the Work is to be completed.
- 1.0.11 **Contract:** The Construction Contract consisting of the Agreement for a Construction Contract and the incorporated Contract Documents.
- 1.0.12 **Contract Coordinator:** The authorized representative of the Town designated to act for the Town in processing the Award of Contracts, maintaining centralized official Contract documentation,

providing administrative liaison/coordination, legal liaison/coordination via Town Attorney, and processing of Contract Payment authorizations as approved by the Project Manager.

- 1.0.13 **Contract Documents:** All the documents expressly incorporated into the Contract by the Agreement for Construction Contract, including but not limited to Addenda, Bid Forms, Change Orders, Town Project Final Acceptance, Drawings, General Conditions, Information and Instruction to Bidders, Insurance Certificates, Invitation to Bid, Notice of Award, Notice of Construction Completion, Notice to Proceed, Notice of Substantial Completion, Performance and Labor and Material Payment Bonds, Special Conditions, Supplemental Drawings and Schedules, and Technical Specifications.
- 1.0.14 **Contract Price:** The total monies payable to the Contractor under the terms and conditions of the Contract.
- 1.0.15 **Contract Time:** The number of days stated in the Contract for the completion of the Project.
- 1.0.16 **Contractor:** The person, company, firm or corporation contracting with the Town to construct, erect, alter, install or repair any work or construction project.
- 1.0.17 **Drawings:** The part of the Contract prepared or approved by the Project Manager showing the characteristics and scope of the Work to be performed.
- 1.0.18 **Date of Contract:** The execution date in the Agreement for a Construction Contract.
- 1.0.19 **Day:** A calendar day of twenty-four hours each.
- 1.0.20 **Field Order:** A written order directing a change in the Project issued by the Project Manager to the Contractor during construction.
- 1.0.21 **Inspector:** The Town's authorized representative assigned to make detailed inspection of the Work performed by the Contractor.
- 1.0.22 **Notice of Award:** The written notice of the acceptance of the Bid from the Town to the successful Bidder.
- 1.0.23 **Notice of Construction Completion:** The written acknowledgment that construction is complete which starts the warranty period.
- 1.0.24 **Notice of Final Acceptance:** The written acceptance of Work performed under the Contract, following satisfactory conclusion of the warranty period.
- 1.0.25 **Notice to Proceed:** The written notice by the Town to the Contractor authorizing it to proceed with the Work which establishes the Contract commencement and Contract Coordinators.
- 1.0.26 **Notice of Substantial Completion:** The written notice of the date, as certified by the Project Manager, when the Project or a specified part is sufficiently completed, according to the Contract, so the Project or specified part can be used for the intended purposes.
- 1.0.27 **Owner.** The Town; see 1.1.9.

- 1.0.28 **Project:** The undertaking to be performed as provided in the Contract.
- 1.0.29 **Project Manager:** The authorized representative of the Town, known as the Project Manager, assigned to the Project to ensure that all Work is performed according to the terms and conditions of the Contract. Also see Article 10, "Project Manager's Responsibilities."
- 1.0.30 **Shop Drawings:** All Drawings, diagrams, illustrations, brochures, schedules, and other data prepared by the Contractor, a Subcontractor, manufacturer, Supplier or distributor which illustrate how specific portions of the Work will be fabricated or installed.
- 1.0.31 **Special Conditions:** Additions to the General Conditions containing instructions and conditions peculiar to an individual Project.
- 1.0.32 **Specifications:** A part of the Contract Documents consisting of written technical description of materials, equipment, construction systems, standards, and workmanship.
- 1.0.33 **Subcontractor:** Any person, company, firm or corporation, having a subcontract with the Contractor to furnish and perform on-site labor, with or without furnishing materials for the project.
- 1.0.34 **Supplier:** Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.
- 1.0.35 **Surety:** The entity which is bound with and for the Contractor for the Performance of the Work and for the Labor and Material Bond.
- 1.0.36 **Unit Price:** An amount stated in the Bid as a price per unit of measurement for materials or services as described in the Contract.
- 1.0.37 **Work:** The construction and services required by the Contract, whether completed or partially completed, including all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may be the whole or a part of the Project.
- 1.1 **Abbreviations:** When the following abbreviations appear in the documents, they are defined as follows:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
CDOT	Colorado Department of Transportation
EPA	Environmental Protection Agency
MUTCD	Manual on Uniform Traffic Control Devices
OSHA	Occupational Safety & Health Administration

WW-P Federal Specifications Prefix

Article 2--PRELIMINARY MATTERS

2.1 Notice to Proceed

- 2.1.1 Following the execution of the Contract by the Parties, the Project Manager will give the Contractor written Notice to Proceed with the Work. The Contractor shall begin and continue the Work regularly and without interruption (unless otherwise directed in writing by the Project Manager) with the force necessary to complete the Work within the time stated in the Contract.

2.2 Contractor's Understanding

- 2.2.1 The Contractor agrees that, by careful examination, it is satisfied as to the nature and location of the Work, the conformation of the ground, the character, quality, and quantity of the materials to be encountered, the character of equipment and facilities needed before beginning and for the Project, the general and local conditions, and all other matters, which can in any way affect the Work under the Contract. No oral agreement with any officer, agent or employee of the Town either before or after the execution of the Contract shall affect or change any of the terms or obligations contained in the Contract.

2.3 Contractor's Warranty

- 2.3.1 The Contractor warrants that it has the knowledge, ability, experience, and expertise to perform the Work competently. The Contractor warrants the capacity of the Contractor's construction plant, personnel, and its ability to complete the Project within the allotted time.

2.4 Contractor's License and Permits

- 2.4.1 Contractor, or if applicable Subcontractor, shall be responsible for applying for, and obtaining all Town, County, State and/or Federal licenses and permits required to do the Work. Contractor will not be required to pay for Town permits, with the exception of the Grading, Erosion, and Sediment Control (GESC) permit. All GESC permit fees must be paid by Contractor or Subcontractor as a condition to issuance of such GESC Permit.

2.5 Schedules, Reports, and Records

- 2.5.1 Before beginning construction, the Contractor shall submit to the Project Manager a Construction Progress Schedule, on a form approved by the Project Manager, showing all Work the Contractor and all Subcontractors will perform. The Project Manager may require the Contractor to substitute a Critical Path Method schedule (CPM), or bar graph type schedule. The Special Conditions will state when a CPM network schedule is required.
- 2.5.2 The schedule shall be in enough detail for the Project Manager to readily determine the Work to be performed each day. When requested by the Project Manager, the Contractor shall update the schedule.
- 2.5.3 Before beginning construction, the Contractor shall give the Project Manager the dates it expects to submit Shop Drawings, manufacturers' details, catalog cuts or other required special detail

Drawings and also the dates of beginning manufacture, testing, delivery and installation of special equipment and materials.

2.6 Contractor's Address

- 2.6.1 The address in the Bid Proposal is designated as the place to which all communications to the Contractor will be delivered or mailed. The delivery at the listed address, in person or by certified mail, of any notice, letter or other communication to the Contractor, is adequate service upon the Contractor, and the date of the service is the date of delivery.

2.7 Notification of Utility Owners

- 2.7.1 The Contractor shall cooperate with Utility Owners to mitigate damage whenever the Contractor's work affects their utilities.
- 2.7.2 The Contractor shall not excavate without first notifying the owners, operators or association of owners and operators having underground facilities in the area of such excavation. Notice may be given in person, by telephone or in writing. Notice to an association is notice to each member of the association.
- 2.7.3 Contractor shall give notice of the commencement, extent, and duration of the excavation work at least two business days before beginning Work.
- 2.7.4 If the Project affects fences, landscaping, mailboxes, driveways and other improvements, the Contractor shall notify the affected property owners or occupants IN WRITING at least two business days before beginning Work. The Contractor shall cooperate with the owners or occupants to reduce inconvenience where reasonably possible.

2.8 Department of Revenue Forms

- 2.8.1 It is the responsibility of the Contractor to apply for a Colorado State Sales and Use Tax Exemption Certificate from the State Dept. of Revenue and to use it when purchasing materials or supplies in connection with the Project.
- 2.8.2 The Town's Tax Exemption Numbers are to be used only when obtaining the Contractor's own Tax Exemption Certificate for each specific Town project:
- a. Federal Tax Exemption Number: 84-6000640
 - b. State of Colorado Tax Exemption Number: 98-05820-0000

Article 3--DRAWINGS AND SPECIFICATIONS

3.1 Intent of Drawings and Specifications

- 3.1.1 In the Drawings and Specifications, the Town intends that the Contractor furnish all superintendence, labor, materials, tools, equipment, supplies, machinery and transportation necessary for the proper execution of the Work unless specifically noted otherwise. The Contractor shall do all the Work shown on the Drawings and described in the Specifications and all incidental Work reasonably necessary to complete the Project in a substantial and acceptable manner, and to complete fully the Work, ready for use, by the Town.

- 3.1.2 The Contractor shall complete all Work according to the Specifications and Plans, and in compliance with applicable laws of Colorado and ordinances of the Town.
- 3.1.3 In interpreting the Contract, words describing materials or work having a well-known technical or trade meaning, unless otherwise specifically defined, will be construed according to well-known meanings as recognized by engineers, architects, and the trades.
- 3.1.4 When the Contract refers to a provision of the General Conditions or another Contract Document, the Contract means the provision as amended or supplemented by other provisions of the Contract.
- 3.1.5 When the Specifications state the words "as directed," or "as required," or "as permitted," or words of like meaning, it is understood that the direction, requirement or permission of the Project Manager is intended. Similarly, the words **approved, acceptable or satisfactory** shall refer to approval by the Project Manager.
- 3.1.6 The Contract Documents are intended to be complementary, and Work called for on any Drawing and not mentioned in the Specifications, or Work described in the Specifications and not shown on any Drawing, is included under the Contract as if set forth in both the Specifications and Drawings.
- 3.2 **Copies of Drawings and Specifications Furnished**
 - 3.2.1 The Project Manager will furnish to the Contractor, free of charge, four copies of Drawings and Specifications of the Work. All additional copies will be furnished at reproduction costs.
- 3.3 **Discrepancies in Drawings**
 - 3.3.1 Contractor shall immediately report any discrepancies found between the Drawings and Specifications and site conditions or any errors or omissions in the Drawings or Specifications to the Project Manager, who shall promptly correct such error or omission IN WRITING. Any Work done by the Contractor after discovery of such discrepancies, errors or omissions is done at the Contractor's risk. In all cases, the Project Manager shall decide the intent of the Drawings and Specifications. The decision is final.
- 3.4 **Dimensions**
 - 3.4.1 Figured dimensions shall govern over scaled dimensions.
- 3.5 **Drawings and Specifications at Job Site**
 - 3.5.1 The Contractor shall keep one complete set of all Drawings and Specifications at the job-site, available to the Project Manager or the Manager's representative at all times.
- 3.6 **Shop Drawings**
 - 3.6.1 The Contractor shall provide Shop Drawings, settings, schedules, and such other Drawings as may be necessary for the prosecution of the Work in the shop and in the field as required by the Drawings, Specifications or Project Manager's instructions.

- 3.6.2 The Contractor shall submit for approval four reproducible copies of all Shop Drawings and descriptive data as applicable showing all features not fully detailed on the Contract Plans but essential for a completely coordinated installation.
- 3.6.3 The Town's approval of Shop Drawings indicates only that the type and kind of equipment, general method of construction or detailing are satisfactory, but the Contractor may not construe the approval as a complete check. The Contractor has the responsibility for incorporating into the Work satisfactory materials and equipment meeting the requirements of the Contract Plans and Specifications, the proper dimensions, and the detailing of connections.
- 3.6.4 The review of Shop Drawings is only to check for compliance with the design concept of the Project and general compliance with the Contract Documents. Approval does not indicate the waiver of any contract requirement. Changes in the Work are authorized only by separate written Change Order.
- 3.7 **Record Documents**
- 3.7.1 The Contractor shall keep one record copy of all Addenda, Change Orders, Drawings, Field Orders, Modifications, and Shop Drawings and Specifications in good order. The Contractor shall record any changes made during construction on the record copies. The Contractor shall make a set of "Record Drawings" by marking this set of prints with all changes from the original Drawings as bid, including all Change Orders, alignment changes, depth changes of underground pipes and utilities, and all other items that are not the same as originally drawn. The Contractor shall keep the Record Drawings up to date as the Project progresses. The Project Manager may require, as a condition of the approval of the monthly progress payment, periodic inspection of the Record Drawings. The Contractor will deliver the Record Drawings to the Project Manager upon completion of the Project before Final Payment.
- 3.8 **Differing Site Conditions**
- 3.8.1 The Contractor shall promptly, before such conditions are further disturbed, notify the Project Manager in writing of:
- 3.8.1.1 Subsurface or latent physical conditions at the job-site differing materially from those indicated in the Contract; or
- 3.8.1.2 Unknown physical conditions at the job-site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.
- 3.8.2 Upon receipt of written notification from the Contractor of alleged differing site conditions, the Project Manager shall promptly investigate the conditions and if it finds the conditions materially differ, and so cause an increase or decrease in the Contractor's cost of or the time required for performance of any part of the Work under the Contract, an equitable adjustment will be made and the Contract modified in writing as provided for in Article 11 of these General Conditions.
- 3.8.3 No claim will be allowed under this Article unless the Contractor has given the written notice required in Article 3.8.1.
- 3.8.4 No claim will be allowed under this Article if Final Payment has been made.

3.9 Surveys

3.9.1 DELETED

3.9.2 The Contractor shall carefully protect all monuments and property markers from disturbance or damage.

Article 4--AVAILABILITY OF RIGHT-OF-WAY

4.1 Acquisition of Right-of-Way

4.1.1 Before issuance of Notice to Proceed, the Town shall obtain all land and right-of-way necessary for carrying out and completion of the Work to be performed pursuant to the Contract, unless otherwise mutually agreed.

4.1.2 The Town shall provide to the Contractor information which delineates and describes the lands owned and rights-of-way acquired, when necessary. The Contractor shall confine its operations within the areas designated by the Project Manager.

4.2 Access to Right-of-Way

4.2.1 The Town will provide right of access to all places necessary for the performance of the Work. Nothing contained in the Contract shall give the Contractor exclusive occupancy of the area provided by the Town. The Town, other Contractors of the Town and utility companies may enter upon or occupy portions of the land furnished by the Town for any purpose, but without unreasonably interfering with the completion of the Project. Joint occupancy or use of the territory shall not be the basis of any claim for delay or damages.

4.3 State Highway Right-of-Way

4.3.1 If any part of the Project is within the right-of-way of a roadway under the jurisdiction of the Colorado Division of Transportation (CDOT) the Town shall obtain the necessary permits from CDOT to perform such Work. Town, at its option may assign the responsibility to Contractor to obtain the necessary permits from CDOT to perform such Work. The Contractor shall conform to all the requirements and restrictions indicated on the permit. The Contractor shall restore the area to its original condition, including reseeding if necessary, at the completion of the Project.

4.4 Temporary Storage Facilities

4.4.1 The Contractor may secure at its own expense, and without liability to the Town, use of any additional land that the Contractor may desire for temporary construction activities, and facilities, or storage of materials.

Article 5--BONDS AND INSURANCE

5.1 Performance Bond and Labor and Material Payment Bond

5.1.1 The Contractor shall, within ten days after receipt of the Notice of Award, and before the commencement of any operations hereunder execute the Contract and furnish the Town with

separate Performance, and Labor and Material Payment Bonds each in a penal sum equal to the amount of the Contract Price, conditioned upon the Contractor's performance of all undertakings, covenants, terms, conditions, and agreements of the Contract, and upon the Contractor's prompt payment to all persons supplying labor and materials in the prosecution of the Work provided by the Contract. The Contractor and a corporate Bonding company, licensed to transact such business in the State of Colorado and acceptable to the Town, shall execute the Bonds. The Contractor bears the expense of these Bonds. If at any time the Surety on such Bonds becomes irresponsible or loses its right to do business in the State of Colorado, the Town may require another Surety, which the Contractor shall furnish within ten days after receipt of written notice to do so. Evidence of authority of an attorney-in-fact acting for the corporate Surety shall be provided in the form of a certificate as to its power of attorney and to the effect that it is not terminated and remains in full force and effect on the date of the Bonds. The form of the Bonds is subject to the Town's approval.

5.2 Insurance

5.2.1 The insurance requirements contained in the Contract shall not limit or redefine the obligations of the Contractor as provided elsewhere in the Contract.

5.2.2 Contractor agrees to procure and maintain, at its own cost, the following policy or policies of insurance. Contractor shall not be relieved of any liability, claims, demands or other obligations assumed pursuant to the Contract Documents 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.

5.2.2.1 Contractor shall procure and maintain, and shall cause each subcontractor of the Contractor to procure and maintain a policy 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.

5.3 Insurance Requirements

5.3.1 The Contractor shall purchase and maintain, for the full period of the Contract, including any warranty period, at the Contractor's or Subcontractor's sole expense, insurance policies providing coverage as follows:

5.3.1.1 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 Contractor'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.

5.3.1.2 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.



- 5.3.1.3 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.
- 5.3.1.4 Builder's Risk: a builder's risk or installation floater policy, at the Town's discretion, in an amount equal to the value of the Project where the possibility exists of losses or damage to the Project. The Special Conditions of the Contract Documents will state if and when Builder's Risk is required.
- 5.3.2 The policies required above, except Workers' Compensation insurance and Employers' Liability insurance shall be endorsed to include the Town, its officers and employees, as additional insureds. Every policy required above 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 Contractor. 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 Contractor shall be solely responsible for any deductible losses under each of the policies required above.
- 5.3.3 Certificates of insurance shall be completed by Contractor's insurance agent 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.
- 5.3.4 Failure on the part of Contractor 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 Contractor to the Town upon demand, or the Town may offset the cost of the premiums against any monies due to Contractor from the Town.
- 5.3.5 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 \$424,000 per person, \$1,195,000 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.

Article 6--INDEMNIFICATION

- 6.1 **Responsibility for Damage Claims:** The Contractor shall indemnify, save harmless, and defend the Town, its officers and employees, from and in all suits, actions or claims of any character brought because of: any injuries or damage received or sustained by any person, persons or property because of operations for the Town under the Contract; the Contractor's failure to comply with the provisions of the Contract; the Contractor's neglect of materials while constructing the Work; because of any act or omission, neglect or misconduct of the Contractor; because of any claims or amounts recovered from any infringements of patent, trademark, or copyright, unless the design, device, materials or process involved are specifically required by Contract; from any claims or amount arising or recovered under the "Workers' Compensation Act," by reason of the Contractor's failure to comply with the act; pollution or environmental liability; or any failure of the Contractor to comply with any other law, ordinance, order or decree. The Town may retain so much of the money due the Contractor under the Contract, as the Town considers necessary for such purpose, for the Town's use. If no money is due, the Contractor's Surety may be held until such suits, actions, claims for injuries or damages have been settled. Money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that it and the Town are adequately protected by public liability and property damage insurance.
- 6.1.1 The Contractor also agrees to pay the Town all expenses incurred to enforce this "Responsibility for Damage Claim" agreement and if the insurer of the Contractor fails to provide or pay for the defense of the Town of Castle Rock, its officers and employees, as additional insured, the Contractor agrees to pay for the cost of that defense.
- 6.1.2 Nothing in the **INSURANCE PROVISIONS** shall limit the Contractor's responsibility for payment of claims, liabilities, damages, fines, penalties, and costs resulting from its performance or nonperformance under the Contract.
- 6.1.3 This indemnification obligation shall survive the expiration or termination of this Contract.

Article 7--CONTRACTOR'S RESPONSIBILITIES

7.1 Control of the Work

- 7.1.1 When the Contractor is not present on the Project it shall have a Superintendent or other representative acceptable to the Town present who shall, during the absence of the Contractor, be its representative and have immediate charge of the Project. The Superintendent or representative shall have the Contractor's authority to act in its absence.
- 7.1.2 Any person employed on the Project who fails, refuses or neglects to obey the Superintendent or Contractor's other designated representative, shall, upon the order of the Project Manager, be at once removed from the Project and not again employed on any part of the Project.

7.2 General Use of Subcontractors

- 7.2.1 The Contractor may utilize the services of specialty Subcontractors on those parts of the Work which, under normal contracting practices, are performed by specialty Subcontractors.
- 7.2.2 The Contractor shall not sublet or subcontract any portion of the Work to be done under the Contract until approval of such action has been obtained from the Town.

- 7.2.3 The Contractor is fully responsible to the Town for the acts and omissions of its Subcontractors, and of persons either directly or indirectly employed by them.
- 7.2.4 Nothing contained in the Contract creates any contractual relationship between any Subcontractor and the Town.
- 7.2.5 The Contractor shall put appropriate provisions in all Subcontracts relative to the Work to bind Subcontractors to the terms of the Contract insofar as applicable to the Work of Subcontractors, and to give the Contractor the same power to terminate any Subcontractor that the Town may exercise over the Contractor.
- 7.2.6 The Contractor shall make available to each proposed Subcontractor, before the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors shall similarly make copies of applicable portions of such documents available to their respective proposed Sub-Subcontractors.
- 7.3 Materials and Equipment Furnished by the Contractor**
- 7.3.1 The Contractor shall furnish and pay the cost of all of the necessary materials not furnished by the Town, all the superintendence, labor, tools, equipment, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery and transportation. The Contractor shall perform all the work required for the construction of all structures listed and itemized under the Bid Schedule of the Bid in strict accordance with the plans, Specifications and requirements and any amendments thereto and supplemental plans and Specifications hereafter approved.
- 7.3.2 Unless otherwise provided for in the Specifications, all workmanship, equipment, materials, and articles incorporated in the Project are to be the best of their respective kinds, new and undamaged.
- 7.3.3 Materials, supplies or equipment to be incorporated into the Project shall not be purchased by the Contractor or any Subcontractor subject to chattel mortgage or under a conditional sales contract or other agreement by which an interest is retained by the seller.
- 7.3.4 The Contractor shall furnish the Project Manager, for the Manager's approval, the name of the manufacturer of machinery and other equipment for materials the Contractor contemplates incorporating in the Project. The Contractor shall also furnish information on capacities, efficiencies, sizes, etc., and other information as may be required by the Project Manager. The Contractor shall submit samples for approval when requested. Machinery, equipment, materials, and articles installed or used without the Project Manager's approval are at the risk of subsequent rejection.
- 7.3.5 The Contractor shall give the Project Manager three copies of all shop manuals, operating manuals, parts lists, classifications, catalog cuts, Specifications, warranties and guarantees for all equipment and machinery installed.
- 7.3.6 **Consideration of a product as an "equal" by the Project Manager may require that the manufacturer of such product furnish guarantees that extend beyond the usual product**

warranty time. The refusal of a manufacturer to provide such guarantees is sufficient reason for rejecting the product.

7.4 Patents and Copyrights

7.4.1 The Contractor shall provide a suitable legal agreement with the patentee giving the Contractor the right to use any design, device, material, or process covered by letters patent or copyright, in the construction of the Project when the use has not been specified or required by the Drawings and Specifications. The Contractor shall file a copy of this agreement with the Town, if requested. The Contractor and the Surety shall indemnify, defend and save harmless the Town from all claims for infringements on patented design, devices, material, process or any trademark or copyright during the prosecution or after the completion of the Project.

7.4.2 If any design, device, material, process or product of a particular manufacturer covered by letters patent or copyright is specified for use by the Drawings and Specifications, the Town is responsible for any claims for infringement by reason of the use of such design, device, material, process or product of a particular manufacturer; but the Contractor shall pay any royalties or license fees required.

7.5 Existing Utilities

7.5.1 The Town has collected and shown on the Drawings available information on the location of existing underground, surface and overhead structures and utilities. However, the Town does not guarantee the results of the investigations are accurate or complete. It is the Contractor's responsibility to verify all locations of existing structures and utilities shown on the Drawings and to ascertain whether any other structures and utilities exist.

7.5.2 The Contractor shall support, and protect from injury, existing power lines, telephone lines, water mains, gas mains, sewers, cables, conduits, ditches, curbs, walks, pavements, driveways, and other structures in the vicinity of the Project which are not authorized to be removed until completion of the Project.

7.6 Coordination with Utilities Departments

7.6.1 The Contractor shall always coordinate its Work with the Town of Castle Rock Utilities Department. If it becomes necessary to close portions of any water or sewer system due to construction operations, a minimum of 48 hours notification shall be given the Utilities Department and whenever possible one week's notice should be given. It is the Contractor's responsibility to ensure continuity of the utilities.

7.6.2 All water from Town owned utilities required for the Project will be provided at the Contractor's expense.

7.7 Laws and Ordinances

7.7.1 The Contractor shall perform all obligations under the Contract in strict compliance with all federal, state, and municipal laws, rules, statutes, charter provisions, ordinances, and regulations, applicable to the performance of the Contractor under the Contract.

7.7.2 The Contractor shall obtain all other permits and licenses required in the prosecution of the Work.

- 7.7.3 IT IS UNLAWFUL AND UNETHICAL FOR ANY PERSON TO OFFER, GIVE OR AGREE TO GIVE ANY TOWN EMPLOYEE, TOWN OFFICIAL OR FORMER TOWN EMPLOYEE, OR FOR ANY TOWN EMPLOYEE, TOWN OFFICIAL OR FORMER TOWN EMPLOYEE TO SOLICIT, DEMAND, ACCEPT OR AGREE TO ACCEPT FROM ANOTHER PERSON, A GRATUITY OR AN OFFER OF EMPLOYMENT IN CONNECTION WITH ANY DECISION, APPROVAL, DISAPPROVAL, RECOMMENDATION OR PREPARATION OF ANY PART OF A PROGRAM REQUIREMENT OR A PURCHASE REQUEST, INFLUENCING THE CONTENT OF ANY SPECIFICATION OR PROCUREMENT STANDARD, RENDERING OF ADVICE, INVESTIGATION, AUDITING OR IN ANY OTHER ADVISORY CAPACITY IN ANY PROCEEDING OR APPLICATION, REQUEST FOR RULING, DETERMINATION, CLAIM OR CONTROVERSY, OR OTHER PARTICULAR MATTER, PERTAINING TO ANY PROGRAM REQUIREMENT OR A CONTRACT OR SUBCONTRACT, OR TO ANY SOLICITATION OR PROPOSAL THEREFOR.
- 7.7.4 IT IS UNLAWFUL AND UNETHICAL FOR ANY PAYMENT, GRATUITY OR OFFER OF EMPLOYMENT TO BE MADE BY OR ON BEHALF OF A SUBCONTRACTOR UNDER A CONTRACT TO THE PRIME CONTRACTOR OR HIGHER TIER SUBCONTRACTOR OF ANY PERSON ASSOCIATED THEREWITH, AS AN INDUCEMENT FOR THE AWARD OF A SUBCONTRACT OR ORDER.
- 7.8 **Protection of Persons**
- 7.8.1 The Contractor is responsible for the health and safety of each and every person on or at the Work site. The Contractor shall take all necessary and reasonable precautions and actions to protect all such persons from injury, death or loss. The Contractor shall furnish, erect, and maintain at its own expense all necessary precautions for the protection of the Work and safety of the public through and around its construction operations.
- 7.8.2 Contractor shall prepare and implement a safety program complying with all of the requirements in this Section. Prior to the start of construction, Contractor shall provide the safety program to the Project Manager.
- 7.8.3 Prior to the start of construction, the Contractor shall provide the Project Manager with a statement signed by the Contractor's Superintendent that all Contractor Personnel have been or will be briefed on the Contractor's safety program prior to being allowed on the Work site.
- 7.8.4 It is a condition of the Contract, and the Contractor shall make a condition of each Subcontract entered into pursuant to the Contract, that the Contractor and any Subcontractor shall not require any laborer, mechanic or other person employed in performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to health or safety. The Contractor shall comply with all applicable safety rules and regulations adopted by the United States Department of Labor Occupational Safety and Health Administration (OSHA), the Industrial Commission of the State of Colorado or the Town of Castle Rock, whichever is most restrictive. The Town assumes no duty to insure that the Contractor follows the safety regulations issued by OSHA or the State of Colorado.
- 7.8.5 The Town shall have the right at any time to request a safety compliance review of the Contractor's and its Subcontractor's safety policies, practices, and procedures. The Contractor shall provide to the Project Manager a complete copy of any OSHA correspondence, report, warning, citation,

directive or notice within twenty-four (24) hours after it is received. The Contractor shall also provide the Project Manager a copy of any Contractor reply to any OSHA correspondence, report, warning, citation, directive or notice. This submittal is for informational purposes only and shall not alter the Contractor's responsibilities for safety of the Work site.

- 7.8.6 The Contractor shall provide written notice of any report of injury on the Work site to the Project Manager within forty-eight (48) hours after Contractor becomes aware of same. In addition, the Contractor shall provide verbal notice of the injury to the Project Manager immediately following the report of the injury. Contractor shall thereafter provide a copy of any investigation into the injury and a written statement of resolution of the injury, which should include but is not limited to, the cause of the injury and remediation steps the Contractor will take to prevent another similar injury.
- 7.8.7 The Contractor shall employ at the Work site a responsible qualified person whose duties shall include the protection of persons and property and the administration of the Contractor's safety program. This person must have safety training, a working knowledge of safety requirements, and experience administering safety programs. The Contractor shall provide the Project Manager with this person's name prior to the start of construction.
- 7.8.8 For operations involving trenching, excavation or any other underground construction, the Contractor's attention is specially directed to and its Work shall conform to the Construction Safety and Health Regulations, Part P Subparagraph 1926.650-653 by OSHA, latest revision.
- 7.8.9 The Contractor shall provide all necessary protective devices and safety precautions. Such devices and precautions may include but are not limited to: posting of danger signs warning against hazards such as, but not limited to, hoists, well holes, elevator hatchways, scaffolding, openings, stairways, trip and fall hazards and falling materials; placement of warning flares; equipment back-up alarms; installation of barricades; promulgation and application of safety regulations and employment of safety personnel and guards. Signs will not be considered to be an adequate substitute for physical protective barriers. The costs of all protective devices and the planning and implementing of safety precautions are considered to be included in the Contract Amount.
- 7.8.10 This Section shall be interpreted in its broadest sense for the protection of persons and property, and no act or omission to act by the Town, its officers, employees or agents, or by any consultant shall relieve the Contractor of its obligations and duties hereunder.

7.9 Protection of Property

- 7.9.1 The Contractor shall continuously and adequately protect the Work from damage, injury or loss arising in connection with the Contract. It shall repair or replace at its expense any such damage, injury or loss, except such as may be directly due to error in the Contract or caused by agents or employees of the Town. It shall provide and maintain at its expense all passageways, barricades, guard fences, lights, and other protection facilities required by public authority or local conditions.
- 7.9.2 The Contractor is responsible for protection of all public and private property on and adjacent to the site of the Work. It shall use every precaution necessary to prevent damage to curbs, sidewalks, driveways, trees, shrubs, sod, mailboxes, fences, and other private and public improvements. It shall protect carefully from disturbance or damage all land monuments and property markers until an authorized agent has witnessed or otherwise referenced their locations, and shall not remove them until directed.

7.10 Protection of Historical Sites

- 7.10.1 When the Contractor's excavating operations encounter remains of prehistoric people's dwelling sites or artifacts of historical or archeological significance, the Contractor shall temporarily discontinue the operations, and immediately advise the Project Manager. The Project Manager will contact archeological authorities to determine the disposition of the items in question. When directed, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and remove them for delivery to the custody of the proper authorities. Such excavation is considered, and paid for, as extra Work.

7.11 Responsibility to Repair

- 7.11.1 Should any existing property be damaged, the Contractor shall immediately notify the owner of such property. Unless authorized in writing by the owner of the property or directed by the Project Manager, the Contractor shall not attempt to make repairs. Written authorization from the owner to make repairs must be so worded as to save the Town harmless from any responsibility whatsoever relative to the sufficiency of the repairs. The Contractor shall give the Project Manager a copy of the written authorization to make repairs.
- 7.11.2 When any direct or indirect damage or injury is done to any public or private property or utility by or on account of any act, omission, neglect or misconduct in the execution of the Work, the Contractor shall restore the damaged property at its own expense to a condition equal to or better than that existing before such damage or injury.
- 7.11.3 The Contractor shall replace any materials and equipment lost, stolen, damaged or otherwise rendered useless during the performance of Work on the Project.

7.12 Traffic Control

- 7.12.1 The Contractor shall arrange Work to disrupt traffic as little as possible. All traffic Control Devices used shall conform to the latest edition of the Manual of Uniform Traffic Control Devices, (MUTCD). Except as otherwise permitted, two way traffic shall be maintained at all times in public roadways. At least 7 days before starting any Work in Town right-of-way, the Contractor shall submit a detailed traffic control plan for review from the Public Works Department, with a copy to the Police Department. The approval shall establish the requirements for closures related to the number of lanes and time of day lanes or streets may be closed. The Traffic Control Plan (TC Plan) shall include the name of the contractor, the name and phone number of the person responsible for the traffic control, the date for beginning and ending construction activity and hours of operation expected. The TC Plan should show the widths of streets involved, traffic lanes, the size and location of the Work area with distances from the curb, distance to the nearest intersection and the type and location of traffic control devices. No changes to the TC Plan shall be permitted without prior approval by the Public Works Director.
- 7.12.2 The Contractor shall furnish and maintain all necessary signs, barricades, lights, and flaggers necessary to control traffic and provide for safety of the public, all in compliance with the MUTCD with subsequent revisions and additions, and to the satisfaction of the Public Works Director.

7.12.3 Whenever a police officer is necessary for traffic control, the Contractor shall hire and pay a uniformed off-duty police officer with authority in the Town to direct traffic. The police department will determine the rate of pay for the officers.

7.12.4 The Contractor shall make its Traffic Control plans in concurrence with the Town requirements.

7.13 Sanitary Regulations

7.13.1 The Contractor is responsible for providing proper health and sanitation facilities for its employees, in compliance with any rules and regulations of the State Board of Health or any other bodies having jurisdiction.

7.13.2 The Contractor shall always provide an abundant supply of safe drinking water for its employees and shall give orders against the drinking of any water known to be unsafe in the vicinity of the Project.

7.13.3 At convenient places, the Contractor shall provide fly-proof outside toilets which are to be maintained in a sanitary condition. Toilets shall not be permitted in any reservoir area and shall not be permitted where they may pollute a water supply.

7.14 Pollution Control

7.14.1 The Contractor shall comply with all applicable Federal and State laws, orders, and regulations concerning the control, prevention, and abatement of water pollution and air pollution in all operations pertaining to the Contract whether on right-of-way provided by the Town or elsewhere.

7.14.2 The Contractor shall use construction methods that prevent release, entrance or accidental spillage of solid matter, contaminants, debris, and other objectionable pollutants and wastes including, but not restricted to refuse, garbage, cement, concrete, sewage effluent, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution. Non-regulated solid wastes shall be disposed of by methods approved under applicable laws and regulations, including, the Resource Conservation and Recovery Act (RCRA), Subtitle D, as administered by Colorado and local Health Departments and the EPA. Contaminated and hazardous materials are regulated by RCRA, Subtitles C and D. The Contractor shall notify the Colorado Department of Health, local Health Departments, and Town Fire Departments if suspect materials are encountered.

7.14.3 The Contractor shall utilize methods and devices that are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants including dust in its construction activities and operation of equipment.

7.14.4 **The Contractor shall not emit dust into the atmosphere during any operations, including but not limited to:** grading; excavating; manufacturing, handling or storing of aggregates; trenching; or cement or pozzolans. The Contractor shall use the necessary methods and equipment to collect, deposit, and prevent dust from its operations from damaging crops, orchards, fields or dwellings or causing a nuisance to persons. The Contractor is liable for any damage resulting from dust.

7.14.5 The Contractor may not operate equipment and vehicles with excessive emission of exhaust gases due to improper mechanical adjustments, or other inefficient operating conditions, until repairs or adjustments are made.

- 7.14.6 Burning trash, rubbish, trees, brush or other combustible construction materials is not permitted.
- 7.14.7 De-watering for structure foundations or earthwork operations adjacent to or encroaching on lakes, streams or water courses shall be done in a manner which prevents muddy water and eroded materials from entering the lakes, streams or water courses, by construction of intercepting ditches, bypass channels, barriers, settling ponds or by other approved means. Excavated materials may not be deposited or stored in or alongside lakes or water courses where they can be washed away by high water or storm runoff.
- 7.14.8 The Contractor may not allow waste water from aggregate processing, concrete batching or other construction operations to enter lakes, streams, water courses or other surface waters without turbidity control methods such as settling ponds, gravel-filter entrapment dikes, approved flocculation processes that are not harmful to fish, recirculation systems for washing of aggregates or other approved methods. Any waste waters discharged into surface waters shall conform to applicable discharge standards of the Colorado Department of Health and the Federal Government.

7.15 Cleaning Up and Restoration

- 7.15.1 The Contractor shall clean up all refuse or scrap materials so the site presents a neat, orderly, and workmanlike appearance at all times.
- 7.15.2 Upon completion of the Project, and before Final Inspection, the Contractor shall remove from the construction site and any occupied adjoining property all plants, buildings, refuse, unused materials, forming lumber, sanitary facilities, and any other materials and equipment that belong to the Contractor or its Subcontractors.
- 7.15.3 The Town may clean up and restore the construction site satisfactorily when the Contractor fails to do so. Any costs the Town incurs will be deducted from the Final Payment due the Contractor.

Article 8--OTHER WORK

- 8.1 The Town reserves the right to award other Contracts in connection with the Project. The Contractor shall cooperate with and afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work, and shall coordinate its Work with theirs.

Article 9--TOWN'S RESPONSIBILITIES

- 9.1 The Town will furnish the data required by the Contract and will make payments to the Contractor as provided by these General Conditions.

Article 10--PROJECT MANAGER'S RESPONSIBILITIES

- 10.1 The Project Manager is designated by the Town to exercise all authority on its behalf under the Contract and to see that the Project is completed according to its terms and conditions. The Project Manager may assume exclusive control of the performance of the Contractor whenever such performance is located in or upon the Town's property. The Project Manager will furnish all explanations, directions, stakes or markers, and inspections necessary to carry out and complete the Project.

10.2 Lines and Grades

10.2.1 The Contractor shall survey and stake as needed to complete project.

10.2.2 DELETED

10.2.3 DELETED

10.2.4 The Contractor shall preserve all stakes, bench marks, and any other survey points. If they are destroyed by the Contractor or its employees, the Contractor shall pay for their replacement.

10.3 Inspection

10.3.1 The Contractor shall be responsible for obtaining and managing their own third party inspectors. Refer to **EXHIBIT 4** to this Agreement, Bid Requirements.

10.3.2 Inspection may extend to all or any part of the Project. The Inspectors are not authorized to alter the provisions of the Drawings or Specifications or to delay the fulfillment of the Contract by failure to inspect materials and Work with reasonable promptness.

10.3.3 An Inspector has authority to reject defective materials and to suspend any Work that is being done improperly subject to the final decision of the assigned Town Project Manager.

10.3.4 The Contractor shall give the assigned Town Inspector due and timely notice of readiness when the Project is to be inspected, tested or approved. The Contractor shall give the assigned Town Project Manager required certificates of inspection, testing or approval. Inspection, tests or approvals by the Town Inspector or others does not relieve the Contractor from its obligations to perform the Work according to the requirements of the Contract.

10.3.5 If the assigned Town Project Manager and or Town Inspector considers it necessary or advisable that previously completed or covered Work be inspected or tested, the Contractor shall uncover, expose or otherwise make the Work available to the assigned Town Project Manager and or Inspector for inspection and testing. The Contractor shall furnish all tools, labor, material, and equipment necessary to make the Work available. If the assigned Town Project Manager and or Inspector finds the Work defective, the Contractor shall pay for the cost of satisfactory reconstruction and making the Work available. However, if the Work is not found defective, the Contractor will be allowed an increase in the Contract Price and/or an extension of the Contract Time for costs and time directly attributable to making the Work available and for reconstruction.

10.3.6 If the Contractor's operations require Town inspecting to be done outside normal working hours or on Town holidays, it shall be at the Contractor's expense.

10.4 Stop Work Order

10.4.1 The Project Manager and the Inspectors have the authority to suspend Work on the Project either in whole or in part, for as long as the Project Manager deems necessary due to:

- X Unsuitable weather;
- X Faulty workmanship;



- X Improper superintendence;
 - X Contractor's failure to carry out orders or to perform any provision of the Contract;
 - X Conditions which may be considered unfavorable for the prosecution of Work on the Project; or
 - X Work being carried on in an unsafe manner.
- 10.4.2 If it is necessary to stop work for an indefinite period, the Contractor shall, if directed by the Project Manager, store all materials in such a manner that they will not become an obstruction or become damaged in any way. The Contractor shall take every precaution to prevent damage to or deterioration of the Work, providing suitable drainage and erecting temporary structures where necessary.
- 10.4.3 The Project Manager will put the Stop Work order in writing and the Contractor may not proceed with Work on the suspended portion of the Project until notified in writing by the Project Manager.
- 10.5 **Disputes**
- 10.5.1 If the Contractor considers any Work directed by the Town to be outside the Contract requirements, or if it considers any ruling of the Project Manager to be unfair, it shall immediately ask for a written instruction or decision and shall perform the Work in conformance with the Project Manager's ruling. If the Contractor considers such instructions unsatisfactory, it shall file a written protest with the Project Manager within ten days after their receipt.
- 10.5.2 All claims, disputes and other matters in question arising out of or relating to the Contract shall be submitted to the Project Manager before the Contractor can begin litigation.

Article 11--CHANGES

11.1 General

- 11.1.1 The Town may make alterations to the Project without the consent of the Surety at any time during the Work. The Contractor shall perform the Work as changed, as if originally specified. The alterations do not invalidate the Contract in any way.
- 11.1.2 The Project Manager may, at any time, without notice to the Surety, by written notice to the Contractor, make any change in the Work to be performed within the general scope of the Contract, including but not limited to changes:
- X In the Specifications (including Drawings and designs);
 - X In the method or manner of the performance of the Work;
 - X In facilities, equipment, materials, services or site furnished by the Town; or
 - X Directing acceleration in the performance of the Work.
- 11.1.3 Any other written order or verbal order (which terms as used in this Article shall include direction, instruction, interpretation or determination) from the Project Manager, which causes the change, will be treated as a Change Order under this Article, provided that the Contractor gives the Project Manager written notice stating the date, circumstances, and source of the order and that the Contractor regards the order as a Change Order.



11.1.4 The Contractor may not treat any order, statement or conduct of the Project Manager as a change under this Article nor become entitled to an equitable adjustment in the Contract Price or Performance Time, except as provided in this Article.

11.1.5 If any change under this clause causes an increase or decrease in the Contractor's cost or the time required for the performance of any part of the Work under the Contract, whether or not changed by any order, an equitable adjustment will be made and the Contract modified in writing accordingly.

11.1.6 Claims for changes in the Contract Price or Contract Time of Performance will not be considered after the Final Payment has been made.

11.2 **Compliance with §24-91-103.6**

11.2.1 Notwithstanding any other language in this contract, the issuance of any Change Order or other form of order or directive by the Town requiring additional compensable work to be performed which will cause the Contract Price to exceed the amount appropriated for the Work is prohibited unless the Contractor is given written assurance by the Town that lawful appropriations to cover the costs of the additional work have been made or unless the Contract contains a remedy granting provision.

11.3 **Field Orders**

11.3.1 The Project Manager may make changes in the details of the Project at any time, by issuing a Field Order. The Contractor shall proceed with the performance of any changes in the Project ordered by the Project Manager. If the Contractor believes that such Field Order entitles it to a change in Contract Price or Time, or both, it shall give the Project Manager written notice within ten days after the receipt of the Field Order. Thereafter, the Contractor shall document the basis for the change in Contract Price or Time within thirty days.

11.4 **Change Orders**

11.4.1 Changes in the Contract Price are authorized only by Change Orders. Changes in contract time may be made by Change Order or by other appropriate written authorization.

11.4.2 Any difference in cost from Change Orders shall be added to or deducted from the amount of the Contract, as the case may be. Adjustments in the amounts to be paid to the Contractor on account of changed Work will be determined by one of the following methods in the order listed:

- X Unit Prices submitted in the Bid Schedule;
- X Negotiated Unit Prices; and
- X Negotiated lump sum.

11.5 **Extras and Force Account Work**

11.5.1 The Contractor shall perform any Work and furnish materials and equipment necessary or desirable for proper completion of the Contract if the Project Manager believes it necessary to order Work or materials or equipment which, in the Project Manager's opinion, are not susceptible to classification under the Unit Price items named in the Bid Schedule, and are not included in any

lump sum bid item. The Project Manager will order such labor, material and equipment in writing before the extra Work is started. The labor, material and equipment will be classed as extra Work. The Town will not pay for extra Work unless the Town orders in extra work in writing. All claims for extra Work shall be submitted to the Project Manager, supplemented by any data the Project Manager requires.

11.5.2 Extra Work and Work involving a combination of increases and decreases in the Work will ordinarily be paid for at a lump sum or Unit Price agreed upon in writing by the Project Manager and Contractor before the extra Work Order is issued. In the negotiation of lump sum or Unit Prices, the agreed estimated cost of the Work plus an allowance for overhead and profit, not to exceed the allowances stated in Section 11.5.3, shall be used.

11.5.3 The allowance for overhead and profit will include full compensation for superintendence, bonds and insurance premiums, taxes (other than sales or use taxes included in the cost of materials), office expense, and all other items of expense or cost not included in the cost of labor, materials, or equipment provided under Sections 11.5.4, 11.5.5 and 11.5.6. The allowance for overhead and profit will be according to the following schedule:

ACTUAL NECESSARY COST ALLOWANCE:

Labor	10 percent
Materials	10 percent
Equipment	5 percent

The Actual Necessary Cost for labor, materials, or equipment will be computed according to Sections 11.5.4, 11.5.5 and 11.5.6.

Superintendence, bond and insurance premiums, taxes (other than sales or use taxes inclusive in the cost of materials), and other general expense will not be included in the computation of actual necessary cost. When all or any part of the extra Work is performed by a Subcontractor or specialty firm, the prime Contractor may add five percent of the Subcontractor's total cost for the extra Work. The Contractor shall give the Project Manager daily report sheets covering the direct cost of labor and materials and charges for equipment. The daily report sheets shall provide names or identifications and classifications of workers and hours worked, as well as size, type and identification number of equipment and hours operated. Material charges shall be substantiated by valid copies of vendors' invoices. The Project Manager will make any necessary adjustments and compile the costs of cost-plus Work. When these reports are agreed upon and signed by both parties, they become the basis of payment for the Work performed.

11.5.4 Labor: The cost of labor used in performing the Work by the Contractor, a Subcontractor, or other forces will be the sum of the actual wages paid plus any employer payments to, or on behalf of, workers for fringe benefits including health and welfare, pension, vacation, and similar purposes; all payments imposed by State and Federal laws including, but not limited to, compensation insurance, and social security payments; and the amount paid for subsistence and travel required in accordance with the regular practice of the employer.

At the beginning of the contract or as later requested by the Project Manager, the Contractor shall furnish the Project Manager proof of labor compensation rates being paid or already paid.

11.5.5 Materials: The cost of materials used in performing the Work, including transportation charges for delivery (exclusive of machinery rentals), will be the cost to the purchaser, whether Contractor,

Subcontractor or other forces, from the Supplier thereof, inclusive of sales or use taxes, except if, in the opinion of the Project Manager, the cost of materials is excessive, or the Contractor does not furnish satisfactory evidence of the cost of such material. If the Project Manager finds the cost excessive or the Contractor has not furnished evidence of the cost, then the cost will be deemed to be the lowest current wholesale price for the quantity concerned delivered to the job-site less cash or trade discounts.

The Town reserves the right to furnish materials for the Work and the Contractor may not claim costs and profit on materials furnished by the Town.

The Town reserves the right to purchase from the Contractor any materials previously purchased for a project and not used. Payment for the materials will be based on the actual material cost as shown on the Supplier's invoice, any transportation charges incurred, plus a fifteen percent handling fee.

- 11.5.6 Equipment: The Contractor will be paid according to the rental rates agreed upon in writing before extra or force account Work is begun, for any machinery or special equipment (other than small tools) authorized by the Project Manager. The Contractor may furnish cost data to assist the Project Manager in the establishment of the rental rate.

The rental rates paid, as provided above, shall include the cost of fuel, oil, lubrication supplies, small tools, necessary attachments, repairs and maintenance of all kinds, depreciation, storage, insurance, and all incidentals. Operator wages will be paid separately, as provided in Section 11.5.4.

Individual pieces of equipment or tools having a replacement value of \$100.00 or less, whether or not consumed by use, are considered small tools and no payment will be made for them.

Rental time will not be allowed while equipment is inoperative due to breakdowns or storage on-site.

- 11.5.7 Equipment on the Work: The rental time to be paid for equipment on the Work is the time the equipment is in productive operation on the extra Work being performed.
- 11.5.8 Eliminating Items: The Project Manager shall notify the Contractor in writing to eliminate any items contained in the proposal unnecessary for the proper completion of the Work. Such action will not invalidate the contract. The Contractor, by Change Order, will be reimbursed for actual work done and all cost incurred, including mobilization of materials and equipment before the elimination of such items.

Article 12--CONTRACT TIME

12.1 General

- 12.1.1 Time is of the essence in the performance of all Work contemplated in the Contract. Therefore, the Work shall be commenced no later than ten days from and including the date of Notice to Proceed and shall be fully completed in a satisfactory and acceptable manner within the time stated in the Contract.

12.1.2 The capacity of the Contractor's construction plant and force shall be sufficient as to insure completion of the Project within the allotted time. The Contractor shall use multiple crews if necessary to complete the Project within the allotted time.

12.2 Delays

12.2.1 Delay claims fall into three categories: non-excusable, excusable, or compensable. Any payment for delays or the granting of time extensions require a properly executed Change Order per Article 11.

12.2.1.1 **Non-excusable delay** is one caused by factors within the Contractor's reasonable control. The delay is the Contractor's fault; no additional time or additional compensation is allowed. Typical types of non-excusable delays are:

- X Late submittal of Shop Drawings;
- X Late procurement of materials or equipment;
- X Insufficient personnel;
- X Unqualified personnel;
- X Inadequate coordination of Subcontractors or other contractors;
- X Subcontractor delays;
- X Late response to Town and Project Manager inquiries; or
- X Construction not conforming to contract requirements making repeated re-working necessary.

12.2.1.2 **Excusable delay** is caused by factors beyond the Contractor's reasonable control, but is not the result of the Town's actions or failure to act. An excusable delay entitles the Contractor to an extension of time but no additional compensation for the cost of the delay.

12.2.1.3 **Compensable delay** is one where the Town has failed to meet an obligation stated or implied in the construction contract. If the Project Manager considers a delay as compensable, the Town will grant a time extension and reimburse the Contractor for the increased cost caused by the delay. Typical types of Town-caused delays are:

- X Late approval of Shop Drawings and samples;
- X Delays in answers to field inquiries by the Contractor;
- X Interference with the Contractor during construction;
- X Town-caused schedule changes;
- X Design changes; or
- X Interference by other contractor's or the Town's forces.

12.2.1.4 **Failure to Prosecute Work.** If, in the opinion of the Town's Project Manager, or other authorized agent of the Town, the Contractor is not prosecuting the Work under the Contract, written notice will be given and the Contractor shall have seven days to resume the Work with due diligence.

12.3 Failure to Complete Work on Time--Liquidated Damages

12.3.1 The Town may permit the Contractor to proceed if the Contractor fails to complete the Work on or before the original date set forth for or on or before the corrected. In such case, the Town will deduct the sum specified in the Contract for each day that the Work remains uncompleted. This sum shall not be a penalty but is liquidated damages.

- 12.3.2 The parties agree that, under all of the circumstances, the daily basis and the amount set forth as liquidated damages is reasonable and equitable. The Town expends additional personnel effort in administering the Contract or portions of it that are not completed on time, and such efforts and the costs thereof are impossible to accurately compute. In addition, some, if not all, citizens of Castle Rock incur personal inconvenience and lose confidence in their government as a result of public projects or parts of them not being completed on time, and the impact and damages, certainly serious in monetary as well as other terms, are impossible to measure.
- 12.3.3 Permitting the Contractor to continue and finish the Work, or any part of it, after the time fixed for its completion, or after the date to which the time of completion may have been extended, shall not operate as a waiver on the part of the Town of liquidated damages or any of its rights under the Contract.

Article 13--WARRANTY AND GUARANTEE:SAMPLES AND TESTING; DEFECTIVE WORK AND MATERIALS

13.1 Warranty and Guarantees

- 13.1.1 The Contractor and its Surety are jointly responsible for maintenance and satisfactory operation of Work performed under the Contract for a period of one year following the Notice of Construction Completion or until warranty work is fully satisfied. They are responsible for the satisfactory repair or replacement of any Work, materials or equipment which are found defective during this period, provided any failure results directly or indirectly from faulty workmanship or negligence by the Contractor, from faulty manufacturing or from faulty erection or improper handling of materials or equipment furnished or installed by the Contractor. Neither the Contractor nor Surety are liable for any failure resulting from the Town's neglect or improper operation of facilities or the act of a third party.
- 13.1.2 The obligations of 13.1.1 shall survive termination of the Contract under the provisions of Article 15.

13.2 Samples and Testing

- 13.2.1 All materials and equipment used in the Project will be subject to sampling and testing according to generally accepted standards and as required in the Contract Documents. In the absence of direct references, the sampling and testing of materials will be done according to current Specifications of the American Society for Testing and Materials or the American Water Works Association. The Contractor shall cooperate with the Project Manager in collecting and forwarding required samples.
- 13.2.2 The Contractor shall not incorporate any materials into the Project or cover any part of the Work until it has been inspected and approved according to the Contract Documents.
- 13.2.3 The Contractor shall furnish all samples without charge. The Contractor will cooperate with the Project Manager in collecting, handling, storing, and forwarding required samples including the furnishing of manpower and equipment when necessary.
- 13.2.4 The Contractor will pay the cost of the initial test except when the Contract states otherwise. The Contractor will pay the costs for repeated tests due to failure of the initial test.

13.3 Access to Work

- 13.3.1 The Project Manager and the Manager's representatives shall have access to the Project at any time for purposes of inspection, sampling, and testing. Access shall extend to authorized representatives of participating federal or state agencies and to other public authorities having jurisdiction established by law. The Contractor shall provide proper facilities for access to the Project.
- 13.3.2 Access to the Project shall mean wherever and whenever it is in manufacture, preparation or progress. It shall include access to payrolls, records of personnel, invoices of materials, terms and conditions of sale of materials and equipment to be incorporated in the Project, files, records, books, correspondence, instructions, Drawings, receipts, subcontracts, purchase orders, vouchers, memoranda and any other relevant data and records relating to the Contract.
- 13.3.3 The Town may, at reasonable times, inspect the part of the plant, place of business or worksite of the Contractor or Subcontractor at any tier which is pertinent to the performance of the Contract.
- 13.4 **Defective Work and Materials**
- 13.4.1 Material and workmanship not conforming to the requirements of the Contract are deemed defective. Defective Work or material shall be removed immediately from the Project site and replaced with acceptable Work and material at the Contractor's expense.
- 13.4.2 If the Contractor fails to replace rejected materials or Work within ten days after receipt of written notice, the Town may replace or correct them and charge the cost to the Contractor and may terminate the right of the Contractor to proceed. Failure to detect previously installed defective materials or workmanship shall not impair the Town's right to receive a completed project which is free of defects and meets all of the requirements of the Contract Documents.

Article 14--PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 General

- 14.1.1 Unless expressly provided otherwise, the prices shown in the Bid Schedule include the cost of all labor, materials, equipment, tools, forms, services, utilities, royalties, fees, and any other thing or expense necessary to complete the Project. Items not shown on the Plans, Specifications or Special Provisions but which are necessary to construct the Project will be considered a part of the Project whether specified or not and no separate payment will be made for these items.
- 14.1.2 Unless expressly provided otherwise in the Contract, the amount to be paid for the Work includes all labor, materials, forms, tools, scaffolding, plants, equipment, service, utilities, royalties, fees, and everything, whether temporary or permanent, necessary to complete the Project.

14.2 Determination of Amounts and Quantities

- 14.2.1 The Project Manager shall verify determinations of amounts and quantities of Work performed. The Project Manager shall have access to the records as stated in Article 13.3. The method of measurement of the Contract Bid Items will be as specified in the Special Conditions.

14.3 Variations in Estimated Quantities

- 14.3.1 Where the quantity of a pay item in the Contract is an estimated quantity and where the actual quantity of such pay item varies more than twenty-five percent below the estimated quantity stated in the Contract, the Contractor shall make an equitable adjustment in the Contract Price, upon demand of the Town. The Contract Price adjustment will be based upon any decrease in costs due solely to the variation below seventy-five percent of the estimated quantity.

Where the quantity of a pay item in the Contract is an estimated quantity and the actual quantity of such pay item is more than twenty-five percent above the estimated quantity in the Contract, the Town may elect to terminate the Contract or issue a Change Order to adjust the Contract Price.

14.4 **Monthly Estimates--Partial Payments**

- 14.4.1 The Contractor shall prepare monthly partial estimates (monthly estimates) for all Work completed up to that time. The authorized Town representative(s) shall approve the monthly estimates before progress payments will be made. The format of the monthly estimates will be related to the format of the Bid Proposal.
- 14.4.2 In making such progress payments, subject to the exceptions in this Article, the Town will retain five percent of the total amount earned as indicated in the monthly estimate until the Project is substantially completed, provided, however, that at any time after the value of the completed Work equals or exceeds fifty percent of the face value of the Contract, the Town shall, if it finds that satisfactory progress is being made, retain the amount previously withheld but make the remaining partial payments in full. At no time may the amount retained exceed five percent of the total Contract Price.
- 14.4.3 Intentionally deleted. .
- 14.4.4 If the Town finds that satisfactory progress is being made in all phases of the Contract, it may, upon written request by the Contractor, authorize payment from the withheld percentage. Before such payment is made, the Town shall determine that satisfactory and substantial reasons exist for the payment and shall require written approval from any Surety furnishing Bonds for the Contract. The Contractor shall make partial payments of the amount due to each of its Subcontractors in the same manner as the Town is required to pay the Contractor under this Article, providing that the Subcontractor is satisfactorily performing under its Contract with the Contractor.
- 14.4.5 Monthly estimates may include the value of acceptable materials required in the construction which have been delivered on the site of the Work or to adjacent railway siding and for which acceptable provisions have been made for preservation and storage, providing the Contractor submits with its monthly estimate, paid invoices in duplicate for the material for which payment is being requested. Material paid for by the Town becomes the property of the Town and, in the event of the default on the part of the Contractor, the Town may use or cause to be used such materials in construction of the Work provided for in the Contract.
- 14.4.6 The Town may withhold, in addition to retained percentages from Contractor payments, such an amount or amounts as may be necessary to cover:
- 14.4.6.1 Claims for labor or materials furnished the Contractor or Subcontractor(s) or reasonable evidence indicating probable filing of such claims;

14.4.6.2 Failure of the Contractor to make proper payment to Subcontractors or for material or labor furnished by others;

14.4.6.3 A reasonable doubt that the Contract can be completed for the balance then unpaid;

- * Evidence of damage to another Contractor or private property;
- * Uncorrected defective Work or guarantees that have not been met;
- * Failure of the Contractor to submit cost breakdowns, schedules, reports and other information required under the Contract;
- * Persistent failure to carry out the Work according to the Contract; or
- * Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay.

14.4.7 The Town may disburse and has the right to act as agent for the Contractor in disbursing funds, withheld pursuant to this paragraph, to the party or parties who are entitled to payment therefrom, but the Town assumes no obligation to make such disbursement. The Town will render to the Contractor a proper accounting of all funds disbursed under this paragraph.

14.5 **Escrow Contract in Lieu of Retainage**

14.5.1 When sums are withheld to assure satisfactory performance of any contract exceeding fifty thousand dollars, the Contractor may withdraw the whole or any portion of the withheld sums if the Contractor deposits acceptable securities with the Director of Finance to negotiate the acceptable securities and to receive the payments due the Town pursuant to law or the terms of the Contract. To the extent there are excess funds resulting from negotiation, the balance shall be returned to the Contractor. Acceptable securities which are deposited shall have a market value at least equal in value to the amount withdrawn at all times. If at any time the Town determines that the market value of the acceptable securities deposited has fallen below the amount withdrawn, the Director of Finance shall give notice to the Contractor, who shall deposit additional acceptable securities in an amount sufficient to re-establish a total deposit of securities equal in value to the amount withdrawn.

14.5.2 The Town may enter into an escrow contract or agreement with any national bank, state bank, trust company or savings and loan association located in this state and designated by the Contractor, after notice to the Surety, to provide an escrow agent for the custodial care and servicing of any obligations deposited with it pursuant to ☐ 24-91-106, C.R.S., as amended. Such services shall include the safekeeping of the obligations and the rendering of all services required to effectuate the purpose of ☐ 24-91-106 and ☐ 38-26-107, C.R.S., as amended.

14.5.3 The Town or any national bank, state bank, trust company or savings and loan association located in the state and designated by the Contractor to serve as custodian for the obligations pursuant to ☐ 24-91-106, C.R.S., as amended, shall collect all interest and income when due on the obligations deposited and shall pay them, when and as collected, to the Contractor who deposited the obligations. If the deposit is in the form of coupon Bonds the escrow agent shall deliver each coupon, as it matures, to the Contractor. The Contractor may not charge any expense incurred for this service to the Town.

14.5.4 Any amount deducted by the Town, pursuant to law or the terms of a Contract, from the retained payments otherwise due to the Contractor, will be deducted first from that portion of the retained payments for which no obligation has been substituted and then from the proceeds of any deposited

obligation, in which case, the Contractor is entitled to receive the interest, coupons or income only from those obligations which remain on deposit after such amount has been deducted.

14.5.5 Provided that the Subcontractor has performed under its Contract with the Contractor, the Contractor shall disburse to each Subcontractor all retained payments and interest disbursed to the Contractor by the Town, in proportion to the respective amounts of retained payments, if any, which the Contractor has withheld from its Subcontractors.

14.5.6 The provisions of this Article do not apply if a part of the Contract Price is to be paid with funds from the federal government or from some other source and if the federal government or such other source has inconsistent requirements concerning retention or payment of funds applicable to the Contract.

14.5.7 If it becomes necessary for the Town to take over the completion of any Contract, all of the amount owed the Contractor, including the withheld percentage, shall first be applied toward the cost of completion of the Contract and any liquidated damages. Any balance remaining in the retained percentage shall be payable to the Contractor or the Contractor's creditors. Such retained percentage, as may be due any Contractor, shall be due and payable at the expiration of thirty days from the date of the Town Project Final Acceptance.

14.6 **Town's Right to Accept Portion of the Project**

14.6.1 The Town reserves the right to accept and make use of any completed section of the Project without invalidating the Contract or obligating the Town to accept the remainder of the Project.

14.7 **Substantial Completion**

14.7.1 When the Contractor considers the entire work ready for its intended use, the Contractor shall notify the Project Manager in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that the Project Manager issue a Notice of Substantial Completion. Within a reasonable time, the Contractor, Project Manager and any other appropriate Town representatives shall make an inspection of the Work to determine the status of completion. If the Project Manager does not consider the Work substantially complete, the Project Manager will notify the Contractor in writing giving the reasons for denial of the Notice of Substantial Completion. If the Project Manager considers the Work substantially complete, the Project Manager will prepare and deliver to the contractor a Notice of Substantial Completion which shall fix the date of Substantial Completion. The Project Manager shall attach to the certificate a tentative list ("punch list") of items to be completed or corrected before Final Payment. Warranties required by the Contract shall commence on the date set in the Notice of Construction Completion for the Project, or the date set in the Notice of Construction Completion for a designated portion of the Project, unless otherwise provided in the notice of Substantial Completion.

14.8 **Construction Completion**

14.8.1 When the Work specified in the Contract is completed and the final cleanup has been performed, the Contractor shall notify the Project Manager that all Work under the Contract has been completed and the Project Manager shall, within five days after such notice, make the final inspection. If the Project Manager finds that the Project has been completed according to the requirements set forth in the Contract, the Town, upon the recommendation of the Project Manager,

shall issue a Notice of Construction Completion. Notices of Construction Completion issued orally or without proper Town authorization are void.

14.9 Claims Against the Contractor

14.9.1 Intentionally deleted.

14.9.2 As provided by Colorado law, persons or businesses, including Subcontractors, who have not been promptly paid by the Contractor and who have provided materials, services and labor of any kind, or labor and material incidental to the completion of the Project, may file claims and the Town may withhold from the Contractor an amount sufficient to cover such claims.

14.10 Final Payment--Pursuant to Section 38-26-107, C.R.S., as Amended

14.10.1 After the Notice of Construction Completion is issued by the Town, a Notice of Final Settlement shall be advertised at least twice, not less than ten days before the date of Final Settlement, in a newspaper of general circulation in the county where the Work was done. If no claims are filed before the expiration of ten days from the date of the last publication of the Notice of Final Settlement, the Final Payment, including retainage, may be made.

14.10.2 If any Subcontractor or Supplier files a claim before the expiration of ten days from the date of the last publication of the Notice of Final Settlement, for Work done or material furnished that has not been paid for by the Contractor, the Town shall withhold from Final Payment to the Contractor sufficient funds to insure the payment of the claims. The funds shall not be withheld longer than ninety days from the date of Final Settlement unless a legal action is started within that time to enforce payment of the claims.

14.10.3 At the end of ninety days, or any time before, if the person filing the claim acknowledges receipt of payment for the claim, or otherwise releases the claim in writing, the Town shall pay the Contractor the monies not subject to suit or lis pendens notices.

14.10.4 Monies that are the subject of a suit will be withheld until a judgment is rendered in the suit.

Article 15--CONTRACT TERMINATION

15.1 Town's Right to Terminate Contract for Convenience

15.1.1 The Town shall, at any time, have the right to terminate the Contract, for convenience, upon giving written notice to the Contractor. The Contractor shall be entitled to the full amount of the approved estimate for the Work satisfactorily completed under the Contract up to the time of such termination, including the retained percentage. The Town shall reimburse the Contractor for such expenditures as, in the judgment of the Project Manager, are not otherwise compensated for, together with the cost of moving to and from the Project and a reasonable profit on the Work deleted by reason of the annulment of the Contract, in order that an equitable settlement is made with the Contractor.

15.2 Town's Right to Terminate Contract for Default

15.2.1 The Project Manager, with the approval of the Town and acting on behalf of the Town, may serve notice upon the Contractor and its Surety of the intention to terminate the Contract if the

performance of the Work set forth under the Contract is unnecessarily or unreasonably delayed by the Contractor, or if any of the provisions of the Contract are being violated by the Contractor or its Subcontractors. The Contract is terminated unless, in the opinion of the Project Manager, the Contractor corrects the violation within five days after the notice is served. In the event of such termination, the Project Manager, acting on behalf of the Town, shall immediately serve notice of the termination and the Surety's right to complete the Contract upon the Surety and the Contractor. The Surety shall have the right to take over and perform the Work called for in the Contract. The Surety is then bound by all the provisions of the Contract. If the Surety does not commence performance of the Work within ten days from the date of the notice, the Town may take over the Project and, without prejudice to any other remedies, complete the Project and the Contractor and its Surety are liable to the Town for any excess costs incurred by the Town.

15.3 **Contractor's Right to Terminate Contract**

- 15.3.1 The Contractor may terminate the Contract if the Work is stopped for a period of three months under any order of any court or other public authority through no act or fault of the Contractor or of anyone employed by it.

The Contractor may suspend Work if Town fails to make payments at the times provided in the Contract and the Contractor has given the Town written notice seven days before suspending Work. The Contractor may terminate the Contract, at its option, if the Town continues to be in default thirty days after the date of the written notice. Failure by the Town to make payments at the times provided is a bar to any claim by the Town against the Contractor for delay in completion of the Project if the Contractor suspended Work for that reason.

If the Contractor terminates the Contract, it may recover the price of all Work done and materials provided and all damages sustained.

Article 16--EQUAL OPPORTUNITY

- 16.1 **General:** During the performance of the Contract, the Contractor agrees as follows:
- 16.1.1 The Contractor shall not discriminate against any employee or applicant for employment because of race, color, age, disability, religion, sex, national origin, or as otherwise prohibited by law.
- 16.1.2 The Contractor shall ensure that all Subcontractors shall not discriminate against any employee or applicant for employment because of race, color, age, disability, religion, sex, national origin, or as otherwise prohibited by law.

Article 17--AUDIT

17.1 **Records and Reports**

- 17.1.1 The Contractor shall keep and preserve full and detailed accounts relating to the Contract for a period of three years from the date of final payment under the Contract in which the Work is completed.
- 17.1.2 The Subcontractor shall keep and preserve full and detailed accounts relating to the Contract for a period of three years from the date of final payment under the subcontract.



17.2 Access

- 17.2.1 The Contractor shall permit the Town and the Town's accountants to have access as stated in Article 13.3 and to the records kept per Article 17.2 for the purpose of making such financial audits, or verifications as the Town deems necessary or appropriate concerning the Contractor's performance under the Contract.

Article 18--MISCELLANEOUS

- 18.1 **Reservation of Right to Bar Persons from the Work and Site:** The Town reserves the right to bar any person, including employees of the Contractor and Subcontractors, from the Town's Work site. This shall not be treated as a request for the employee's termination but a request that the employee not be assigned to work on the Town Work site. No increase in contract time or price is authorized.
- 18.2 **Provisions Construed as to Fair Meaning.** The provisions of the Contract shall be construed as to their fair meaning, and not for or against any party based upon any attributes to such party of the source of the language in question.
- 18.3 **Headings for Convenience:** All headings, captions and titles are for convenience and reference only and of no meaning in the interpretation or effect of the Contract.
- 18.4 **No Implied Representations:** No representations, agreements, covenants, warranties, or certifications, express or implied, exist as between the parties, except as specifically set forth in the Contract.
- 18.5 **Financial Obligations of Town:** All financial obligations of the Town under the Contract are contingent upon appropriation, budgeting, and availability of specific funds to discharge such obligations. Nothing in the Contract shall be deemed a pledge of the Town's credit, or a payment guarantee by the Town to the Contractor.
- 18.6 **Assignment/transference:** The Contractor may not assign or transfer any interest in the Contract, including any money due or to become due, without the prior written consent of the Town.
- 18.7 **Amendments.** The parties shall only amend the Contract in writing with the proper official signatures and, if required elsewhere in this Contract, on the proper forms.
- 18.8 **Waiver.** No waiver of a breach or default under the Contract is a waiver of any other or subsequent breach or default.
- 18.9 **Governing Law.** The Contract is governed and to be construed according to the laws of the State of Colorado.
- 18.10 **Binding Contract.** The Contract is binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

Article 19— DELETED.

Article 20—Contract Work Hours and Safety Standards Act

- 20.1 **Applicability.** The clauses in this Article apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.
- 20.2 **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 20.3 **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in 20.2 of this Article the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in 20.2 of this Article, in the sum of \$29 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in 20.2 of this Article.
- 20.4 **Withholding for unpaid wages and liquidated damages.** The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
- 20.5 **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in 20.1-20.5 of this Article and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 20.1-20.5 of this Article.
- 20.6 **Other.** In addition to the clauses contained in Article 20, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in § 5.1 of 29 C.R.F, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting

officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the contracting agency and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

EXHIBIT 2

DEFINITIONS OF BID ITEMS

SECTION 01270**DEFINITIONS OF BID ITEMS****PART 1- GENERAL****1.1 SUMMARY**

- A. The intent of this section is to explain, in general, what is and what is not included in a contract line item, and the limits or cut-off points where one item ends and another begins.
- B. Measurement and payment for each contract item.
- C. **If no contract line item exists for a portion of the work, include the costs in a related item.**

PART 2- PRODUCTS (Not Used)**PART 3-EXECUTION****3.1 LIST OF CONTRACT BID ITEMS****BASE BID ITEMS****Bid Item #1 – Project Start-up / Mobilization / General Conditions**

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to all general conditions, mobilization costs, staging area, restoration and seeding of disturbed areas due to staging and general construction activities, construction fencing, vehicle tracking, temporary facilities, potholing, dust control, permits (as applicable, refer to Bid Requirements), and fees.

Bid Item #2 – Materials Testing

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes all required materials testing to be provided by contractor, for review and approval by Owner. Materials testing and frequency as required per Town requirements.

Bid Item #3 – Erosion Control & Stormwater Management

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment, application for and obtaining a CDPS Construction Activity Permit from the Colorado Department of Health and Environment (CDPHE), and implementation of the Stormwater Management Plan (SWMP) in accordance with the Contract Drawings and Specifications and the CDPHE regulations, installation, maintenance and removal of temporary BMPs for erosion and sediment control and the services of a qualified Erosion Control Supervisor with duties as described in the SWMP Drawings. Excluded from this item is reseeding.

Bid Item #4 – Construction Surveying and Staking

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work of this bid item includes, but is not limited to all initial and continued construction surveying required to complete project as shown on plans.

Bid Item #5 – Traffic Control

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for all temporary facilities, traffic control, permits, and fees per Town requirements.

Bid Item #6 – Vegetation Clearing and Grubbing

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for clearing and grubbing of surface vegetation, shrubbery and disposal of all waste materials, as necessary, per plans.

Bid Item #7 – Tree Protection & Construction Fencing

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to install construction fencing along areas of disturbances (as outlined in the plans), tree protection around all trees to remain adjacent to areas of construction, upkeep of construction fencing and tree protection during the course of construction and removal of all construction fencing and tree protection upon completion of construction as required per Town requirements. Tree protection fencing shall be installed prior to commencement of any work on site.

Bid Item #8 – Tree Removal and Disposal

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to remove all trees designated to removal and restoration of the immediate area, if necessary. This bid item also includes disposal of all trees being removed from the site.

Bid Item #9 – Tree Relocation (On-Site)

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to carefully relocate all trees and restoration of previous tree location, as shown on plans and per Town requirements. Contractor to contact Landscape Architect and Town to review final tree locations prior to spading.

Bid Item #10 – Site Demolition

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for saw-cutting, removal of concrete, landscape timbers, asphalt saw-cutting, asphalt paving, asphalt milling, curb & gutter, edging, fencing, pedestrian ramps, abandoning unnecessary utility improvements, culverts, signage, poles/posts, excess soil (if necessary) and disposal of waste materials, for a fully cleared site of excess materials, ready for site construction.

Bid Item #11 – Site Grading & Earthwork

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for all general excavation, striping and stockpiling of topsoil, general embankment, importing, exporting, backfill materials, compaction, placement of striped soils, rough and fine grading and all incidental work necessary to complete the task. This item is inclusive of all earthwork necessary on the project site and per Town requirements.

Bid Item #12 – Water Service & Improvements

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to provide water service to the restroom building location. The work includes excavation, trenching, bedding, furnishing, joining and cutting (where necessary), backfill material, piping, connections to existing pipes, joint fasteners and all incidental work necessary to complete the task. Work in this bid item includes everything necessary to provide a fully functioning water service connection to the restroom building location, per Town requirements (Plumbers shall be licensed and registered with the Town of Castle Rock Building Department). Town Building Permit for this structure will not be released until a licensed and registered Plumber is provided. Physical utility connection to the building, to provide a fully functional restroom building found in Bid Item #42.

Bid Item #13 – Sanitary Service Improvements

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to provide sanitary sewer service to the restroom building location, excavation, trenching, bedding, furnishing, joining and cutting (where necessary), backfill material, piping, connections to existing pipes, joint fasteners and all incidental work necessary to complete the task. Work in this bid item includes everything necessary to provide a fully functioning sanitary service connection to the restroom building location, per Town requirements (Plumbers shall be licensed and registered with the Town of Castle Rock Building Department). Town Building Permit for this structure will not be released until a licensed and registered Plumber is provided. Physical utility connection to the building, to provide a fully functional restroom building found in Bid Item #42.

Bid Item #14 – Stormwater Drainage Improvements

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to install culverts, pipes, water quality structures, railings, concrete outlet structures, spillway, detention basin, manholes, flared end section, riprap, PVC drainpipes, area drains, inlets, cleanouts, connectors, sidewalk chases, mitered drain outlet, excavation, trenching, bedding, furnishing, joining and cutting (where necessary), backfill material, connections to existing pipes, joint fasteners and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #15 – Rectangular Rapid Flashing Beacons – Crosswalk Improvements

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary to install RRFB signs & lights, posts, footings, crosswalk improvements, and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #16 – Site Lighting & Electrical Service

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor and equipment necessary to install all light fixtures, electric outlets, trenching, backfilling, conduit, wiring, connectors, pull-strings in empty conduit, monument lighting, connections to the restroom building, connections to shade structure, connections to transformer, meter, electrical panel, electrical distribution and all incidental work necessary to provide a fully functioning electrical & lighting system, as shown on plans, for a complete installation and per Town requirements.

Bid Item #17 – Concrete Paving

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor and equipment necessary to install 6-inch depth gray concrete, 6-inch depth "Charcoal" colored concrete banding and slabs, sub-grade preparation, formwork, Fibermesh reinforcement, epoxy coated doweling, concrete, expansion joint material and installation, finishing, hand-tooling, sandblasting (cardinal point letters in plaza), Lithichrome staining (cardinal point letters in plaza), backfill along paving, disposal of excess excavated material for a complete installation per plans and per Town requirements.

Bid Item #18 – Concrete Paving, Parking HC Stall

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor and equipment necessary to install 6-inch depth gray concrete, sub-grade preparation, formwork, Fibermesh reinforcement, epoxy coated doweling, concrete, expansion joint material and installation, finishing, backfill along paving, disposal of excess excavated material for a complete installation per plans and per Town requirements. HC striping has been included in Parking Lot Striping line item.

Bid Item #19 – Concrete – Playpit Edging

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment necessary to install the concrete playground edging per details shown in plans, steel reinforcement, grading, sub-grade preparation, formwork, Fibermesh reinforcement, rebar, epoxy coated doweling, finishing, saw cutting, expansion joints, rubber surfacing keyway, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #20 – Concrete – Playpit Wall

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment necessary to install the concrete

playpit walls per details shown in plans, steel reinforcement, grading, sub-grade preparation, formwork, Fibermesh reinforcement, rebar, epoxy coated doweling, finishing, saw cutting, expansion joints, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #21 – Structural Concrete – Stairs

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment necessary to install the concrete stairs per details shown in plans, steel reinforcement, grading, sub-grade preparation, formwork, Fibermesh reinforcement, rebar, epoxy coated doweling, finishing, saw cutting, expansion joints, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements. Handrails are part of separate bid item.

Bid Item #22 – Concrete – Landscape Edging

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment necessary to install concrete landscape edging, steel reinforcement, grading, sub-grade preparation, formwork, Fibermesh reinforcement, finishing, saw cutting, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #23 – Steel Handrail (Stairs & Entry Monument)

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of steel handrailing, steel piping, posts, connections, footings, connection preparation, welding, painting, and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #24 – Crusher Fines, 4" Depth

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of crusher fines material, landscape fabric, compaction, grading, sub-grade preparation, full-depth stabilizer additive, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #25 – Landscape Boulder

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of large sandstone boulders, excavation, subgrade preparation, cleaning, delivery and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #26 – Boulder Block Seating – Quarry Finish

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of large sandstone boulders blocks, "Quarry Finish", cleaning, delivery, excavation, subgrade preparation, and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #27 – Concrete Curb & Gutter

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of concrete curb & gutter, grading, sub-grade preparation, formwork, Fibermesh reinforcement, finishing, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #28 – Concrete Curb Stop

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of concrete curb stops, rebar staking and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #29 – Asphalt Paving, Parking – 3" Overlay

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of paving overlay, finishing, disposal of excess material and all incidental work necessary to complete the task for a complete installation, per Town requirements. Milling down of asphalt shall be included in Site Demolition line item.

Bid Item #30 – Asphalt Paving, Patching – Full Depth

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of asphalt paving, saw cutting, grading, sub-grade preparation, finishing, compaction, backfill along paving, disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #31 – Parking Lot Striping

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of paint striping and handicap striping/symbol and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #32 – Parking Lot Signage

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of

parking lot signage, and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #33 – Playground Equipment & Climbing Boulder

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for coordination of installation of pre-purchased playground equipment, purchasing and installation of large climbing boulder (as shown on plans), and all incidental work necessary to complete the task for a complete installation, per Town requirements. Town has purchased playground equipment and installation – Contractor will need to coordinate/schedule installation of equipment. Large Climbing Boulder is not included in the pre-purchased playground equipment and is the responsibility of the Contractor. Playground surfacing under Bid Item #35.

Bid Item #34 – Structural Concrete – Playground Ramp

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of concrete playground ramp per details shown in plans, steel reinforcement, grading, sub-grade preparation, formwork, Fibermesh reinforcement, rebar, epoxy coated doweling, finishing, saw cutting, expansion joints, backfill along edges, and disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #35 – Poured-in-Place Rubber Surfacing - Playground

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of 4-inch depth gray concrete under rubber surfacing material, grading, sub-grade preparation, formwork, Fibermesh reinforcement, finishing, disposal of excess excavated material, poured-in-place rubber surfacing, rubber underlayment and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #36 – EWF Surfacing - Playground

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of “Playsafe Plus Mulch” Engineered Wood Fiber, grading, sub-grade preparation, crushed rock, geotextile fabric, disposal of excess excavated material and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #37 – Post Tension Pickleball Court

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment and coordination for installation of the “Renner Classic” Pickleball Package, including laser grading, beam & cables, concrete finishing, all

nets, posts, all fencing, gates, court surfacing and all incidental work necessary to complete the task for a complete installation, per Town requirements. Fencing shall be engineered to accommodate future windscreen. Windscreen is not included in base-bid.

Bid Item #38 – Post Tension Basketball Court

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment and coordination for installation of the “Renner Classic” Basketball Package, including laser grading, beam & cables, concrete finishing, basketball goal, striping, court surfacing and all incidental work necessary to complete the task for a complete installation, per Town requirements. Fencing shall be engineered to accommodate future windscreen. Windscreen is not included in base-bid.

Bid Item #39 – Bocce Ball Courts

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of bocce ball courts, concrete edging, concrete curb, steel reinforcement, forming, Fibermesh reinforcement, epoxy coated rebar, wire mesh screens, grading, compaction, geotextile fabric, crushed rock, crusher fines surfacing, area drains, PVC piping, saw cutting and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #40 – Entry Monument

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of large sandstone boulders, excavation, subgrade preparation, placement, footings, steel reinforcement, cast-in-place concrete, sandblasting, signage, form liner, and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #41 – Shade Shelter

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of a custom or prefabricated shade shelter (per plan), permitting, foundation, excavation, subgrade preparation, painting, sheeting, hardware, fabrication shop drawings and all incidental work necessary to complete the task for a complete installation, per Town requirements. This bid item must also include Colorado engineered and stamped construction plans as provided by the manufacturer to obtain all necessary permits (Class A Building License will be required per Town of Castle Rock Building Department), if a pre-fabricated shelter is submitted for approval & selected, upon final Contractor selection.

Bid Item #42 – CXT Restroom

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, labor, equipment, purchasing & installation of the prefabricated CXT restroom structure (per plan), coordination with mfg., scheduling, local and state permitting, installation (typically included in mfg. pricing and by manufacturer), excavation, subgrade

preparation, physical wet utility connections to the building and all incidental work necessary to provide a complete and fully functioning restroom facility, per Town Code and manufacturers recommendation. Town Code shall take precedence if conflicting information. Wet utility services to the building location are included in Bid Items #12 & #13. Complete electrical connection included in Bid Item #16.

Bid Item #43 – 3-Rail Wood Fencing

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of 3-rail wood fencing, posts & rails, connections, footings and all incidental work necessary to complete the task for a complete installation, per Town requirements.

Bid Item #44 – Trash Receptacles

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of trash receptacles, mounting hardware and all incidental work necessary to complete the task for a complete installation, per Town requirements. Contractor to receive approval for final locations from Landscape Architect and Town prior to surface mounting.

Bid Item #45 – Bike Racks

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of bike racks, mounting hardware and all incidental work necessary to complete the task for a complete installation, per Town requirements. Contractor to receive approval for final locations from Landscape Architect and Town prior to surface mounting.

Bid Item #46 – Tables - Square

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of tables, mounting hardware and all incidental work necessary to complete the task for a complete installation, per Town requirements. Contractor to receive approval for final locations from Landscape Architect and Town prior to surface mounting.

Bid Item #47 – Pet Waste Stations

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of waste bag dispenser, mounting hardware and all incidental work necessary to complete the task for a complete installation, per Town requirements. Contractor to receive approval for final locations from Landscape Architect and Town prior to surface mounting.

Bid Item #48 – Benches

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of benches, mounting hardware and all incidental work necessary to complete the task for a complete installation, per Town requirements. Contractor to receive approval for final locations from Landscape Architect and Town prior to surface mounting.

Bid Item #49 – Adirondack Chairs

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of Adirondack chairs, mounting hardware and all incidental work & materials necessary to complete the task for a complete installation, per Town requirements.

Bid Item #50 – Western Wheatgrass with Soil Prep

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of soil preparation, amendments, Western Wheatgrass seed, broadcast/distribution, fertilizing and all incidental work & materials necessary to complete the task for a complete installation.

Bid Item #51 – Native Seed with Soil Prep

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of soil preparation, amendments, native seed, broadcast/distribution, fertilizing and all incidental work & materials necessary to complete the task for a complete installation.

Bid Item #52 – Ornamental Grasses

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of plant material, shrub bed amendments, fertilizers, 4" depth wood mulch in shrub bed and all incidental work & materials necessary to complete the task for a complete installation.

Bid Item #53 – Evergreen Shrubs

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of plant material, shrub bed amendments, fertilizers, 4" depth wood mulch in shrub bed and all incidental work & materials necessary to complete the task for a complete installation.

Bid Item #54 – Deciduous Shrubs

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of plant material, shrub bed amendments, fertilizers, 4" depth wood mulch in shrub bed and all incidental work & materials necessary to complete the task for a complete installation.

Bid Item #55 – Deciduous Shade Tree – 2” Caliper

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of plant material, fertilizers, tree stakes, wood mulch as shown on plans and all incidental work & materials necessary to complete the task for a complete installation. Contractor to contact Landscape Architect and Town for tree tagging prior to delivery to site.

Bid Item #56 – Ornamental Tree – 2” Caliper

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of plant material, fertilizers, tree stakes, wood mulch as shown on plans and all incidental work & materials necessary to complete the task for a complete installation. Contractor to contact Landscape Architect and Town for tree tagging prior to delivery to site.

Bid Item #57 – Complete Irrigation System

Measurement: Measurement for payment will be made on a percentage basis.

Payment: Payment for all work completed will be made at the contract **lump sum** price. The work in this bid item includes, but is not limited to, all materials, equipment and labor necessary for installation of a complete irrigation system, excavation, patching, temporary controller, laterals, mainline, valve boxes, wiring, spray heads, rotors, dripline, connections, concrete, trenching, excavation and all incidental work & materials necessary to complete a fully functional irrigation system.

END OF SECTION

EXHIBIT 3

DRAWINGS/REPORTS

GROUND

ENGINEERING

Geotechnical Evaluation Plum Creek North Park Improvements Castle Rock, Colorado



Prepared For:

DHM Design

**900 South Broadway
Denver, Colorado 80209**

Attention: Mr. Matthew Whipple

Job Number: 21-3027

May 11, 2021

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PURPOSE AND SCOPE OF STUDY

This report presents the results of a geotechnical evaluation performed by GROUND Engineering Consultants, Inc. (GROUND) in support of the design and construction of the proposed Plum Creek Park North Improvements to be located north of the intersection of Emerald Drive and McCracken Lane in Erie, Colorado. Our study was conducted in general accordance with GROUND's Proposal Number 2101-0107 dated January 19, 2021 and associated contract documents between DHM Design and GROUND.

A field exploration program was conducted to obtain information on the subsurface conditions. Material samples obtained during the subsurface exploration were tested in the laboratory to provide data on the classification and engineering characteristics of the on-site soils. The results of the field exploration and laboratory testing are presented herein.

This report has been prepared to summarize the data obtained and to present our findings and conclusions based on the proposed development/improvements and the subsurface conditions encountered. Design parameters and a discussion of engineering considerations related to the proposed improvements are included herein. This report should be understood and utilized in its entirety; specific sections of the text, drawings, graphs, tables, and other information contained within this report are intended to be understood in the context of the entire report. This includes the *Closure* section of the report which outlines important limitations on the information contained herein.

This report was prepared for design purposes of DHM Design, based on our understanding of the project at the time of preparation of this report. The data, conclusions, opinions, and geotechnical parameters provided herein should not be construed to be sufficient for other purposes, including the use by contractors, or any other parties for any reason not specifically related to the design of the project. Furthermore, the information provided in this report was based on the exploration and testing methods described below. Deviations between what was reported herein and the actual surface and/or subsurface conditions may exist, and in some cases those deviations may be significant.

PROPOSED CONSTRUCTION

We understand that present plans call for a new park that will include shade structures, playgrounds, a sports court, and a restroom structure. New underground utilities, flatwork, and landscaping are also planned for construction. We anticipate that structural loads will be relatively low, typical of this type of construction, and that no below-grade levels are planned for construction. Additionally, we understand that no new pavement sections are planned at this time. Some of the existing improvements at the site (i.e., the pool and associated structures, flatwork, landscaping, etc.) may be demolished to allow for the construction of the proposed improvements.

We understand that grade changes will be relatively limited, on the order of 5 feet, to achieve project lines and grades, though total slope heights will be on the order of 10 to 15 feet. Retaining walls, other than relatively short landscaping walls, are not planned at this time.

If the proposed construction differs significantly from that described above, GROUND should be notified to re-evaluate our conclusions and parameters.

Performance Expectations Based on our experience with other, similar projects, we understand that post-construction, building foundation and floor movements on the order of 1½ to 3 inches are acceptable to, and anticipated by the owner, as are the resultant distress and maintenance measures. Similarly, we anticipate that movements of somewhat greater magnitude (3 to 4 inches) are acceptable and anticipated for flatwork and ancillary structures, although movement estimates closer to 1 inch may be preferable near the buildings. GROUND will be available to discuss the risks and remedial approaches outlined in this report, as well as other potential approaches, upon request if post-construction movements of these magnitudes are not acceptable and anticipated.

SITE CONDITIONS

At the time of our subsurface exploration program, the project site consisted of recently stripped vegetation, local areas of short turf grasses, and deciduous and coniferous trees. The site was generally tiered, sloping down from the south to the north and displaying about 40 feet of total relief across the project site. The tiers were approximately 10 to 15

feet in height. The slopes at the tiers were generally relatively steep to moderate and the remainder of the site contained relatively gently slopes. Most of the prior park amenities, including an in-ground pool, appeared to have been demolished. Although a sand volleyball court was observed in the western portion of the site and pedestrian flatwork was observed at the site.



The site is bordered on the south by Emerald Drive to the south, single-family residences to the east, a golf course to the north, and undeveloped land to the west. Single-family residences and undeveloped land further surrounded the site.

SUBSURFACE EXPLORATION

Subsurface exploration for the project was conducted in April 2021. A total of 4 test holes were drilled with a conventional, truck-mounted drilling rig advancing 4-inch diameter continuous flight auger to evaluate the subsurface conditions and retrieve samples for laboratory testing. The test holes were drilled within or near improvement foundation areas to depths of about 26 to 36 feet. A GROUND engineer directed the subsurface exploration, logged the test holes in the field, and prepared the samples for transport to our laboratory.

Samples of the subsurface materials were retrieved with a 2-inch inner diameter California liner sampler and a 1 $\frac{3}{8}$ -inch inner diameter Standard Penetration Test sampler. The samplers were driven into the substrata with blows from a 140-pound hammer falling 30 inches, a procedure in the case of the Standard Penetration Test sampler described by ASTM Method D1586. Penetration resistance values, when properly evaluated, indicate the relative density or consistency of soils. Depths at which the samples were obtained and associated penetration resistance values are shown on the test hole log.

The approximate locations of the test holes are shown in Figure 1. Logs of the test holes are shown in Figure 2. A legend and notes are provided on Figure 3. Detailed logs of the test holes are presented in *Appendix A*.

LABORATORY TESTING

Samples retrieved from our test holes were examined and visually classified in the laboratory by the project engineer. Laboratory testing of soil samples included standard property tests, such as natural moisture contents, dry unit weights, grain size analyses, and Atterberg limits. Swell – consolidation, water-soluble sulfate content, and a suite of corrosivity tests were completed on selected samples, as well. Laboratory tests were performed in general accordance with applicable ASTM protocols. Results of the laboratory testing program are summarized in Tables 1 and 2. A gradation plot is provided in Figure 4.

SUBSURFACE CONDITIONS

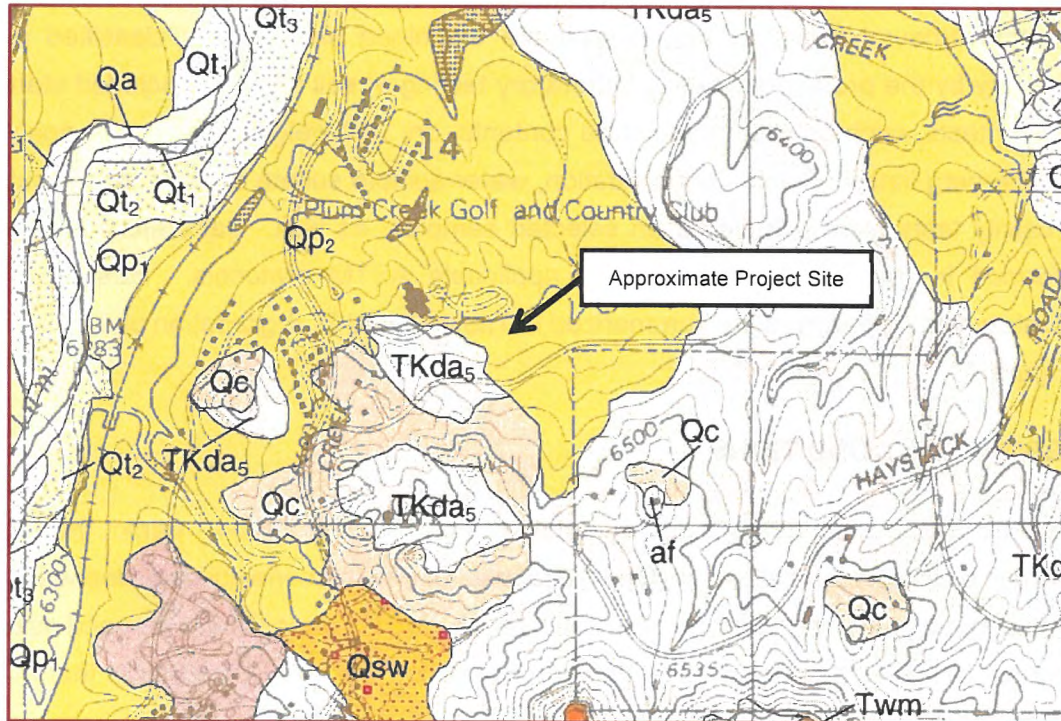
Geologic Setting - Published geologic maps, e.g., Thorson (2004)¹ depict the site as underlain by Pleistocene alluvium (**Qp**). Holocene and Pleistocene colluvial deposits (**Qc**), are also mapped in the greater project area. These surficial deposits are mapped as being underlain by the Upper Cretaceous Dawson Formation (**TKda**). A portion of that map is reproduced below.

Alluvial deposits, in the project area, commonly consist of fine to coarse sand and gravels with local cobbles and boulders. Silts and clays are also present locally. These deposits can include relatively large clasts that may be awkward or difficult to handle or clasts that may not be suitable for use in project fills.

Colluvial deposits, in the project area, consist of sands, gravels, cobbles, boulders, and silts and clays, similar to the local bedrock materials from which they are derived. Colluvial deposits can be subject heave or consolidation upon loading and wetting.

¹ Thorson, J.P., 2004, Geologic Map of the Castle Rock South Quadrangle, Douglas County, Colorado, Colorado Geological Survey, Open-File Report OF04-05, 1:24,000.

The Dawson Formation, in the project area, typically consists of claystones, siltstones, and sandstones interbedded on various scales. The claystones and siltstones can be moderately to highly expansive and the formation includes well-cemented beds that can be very hard and can be difficult to excavate.



Local Conditions In general, the test holes penetrated undocumented fill soils that were recognized to depths of about 4 to 10 feet below existing grade. Beneath the fill soils, weathered sandstone bedrock was encountered to depths of about 12 to 16 feet below existing grade. Relatively unweathered sandstone bedrock was encountered beneath the weathered sandstone bedrock and extended to the depths explored. Additionally, approximately 6 inches of topsoil² were encountered at the surface of Test Holes 1 and 2.

Native soils were not specifically recognized in the test holes; however, they may be present locally at the site.

² 'Topsoil' as used herein is defined geotechnically. The materials so described may or may not be suitable for landscaping or as a growth medium for plants that may be proposed for the project.

We interpret the fill materials to be materials placed during the construction and demolition of the nearby improvements and former site improvements. We interpret the underlying bedrock materials to be Dawson Formation materials.

Fill materials were recognized in the test holes and are likely are present generally across the site. (See the *Site Conditions* section of this report.) These fill soils may contain coarse gravels and cobbles, as well as similarly sized pieces of construction, debris even though these items were not recognized in the test holes. Delineation of the complete lateral and vertical extents of the fills at the site and their compositions was beyond our present scope of services. If more detailed information regarding fill extents and compositions at the site are of significance, they should be evaluated using test pits.

Similarly, coarse gravel and larger clasts are not well represented in small diameter liner samples collected from the test holes. Therefore, such materials may be present even where not called out in the material descriptions herein.

Fill consisted of fine coarse sands and clays with local silts and gravels. It was slightly moist to wet, loose to dense to or stiff to hard, non- to moderately plastic, and brown to gray brown in color.

Weathered Sandstone Bedrock consisted of weathered, fine to coarse sandstone with lenses and beds of weathered claystones and siltstone. It was moist to wet, slightly to moderately plastic, firm to medium hard, and gray to gray brown in color. Iron oxide staining was noted locally.

Sandstone Bedrock consisted of fine to coarse sandstones with local claystones and siltstone beds. It was moist to wet, non- to slightly plastic, hard to very hard, and gray to gray blue in color. Iron oxide staining was noted locally.

Groundwater was encountered at the time of drilling at a depth of about 6 feet below existing grade in Test Hole 3 and 17 feet below existing grade in Test Hole 2. When measured at the end of drilling operation in Test Hole 3, groundwater was at a depth of 4 feet below existing grade. The test holes were backfilled upon drilling completion per Code of Colorado Regulations (2 CCR 402-2). Groundwater levels can be expected to fluctuate, however, in response to annual and longer-term cycles of precipitation,

irrigation, surface drainage, land use, and the development of transient, perched water conditions. At this site we anticipate the groundwater level will tend to rise and fall with the stage of the East Plum Creek and other nearby drainages.

Swell-Consolidation Testing of selected samples of on-site fill and native soils recovered from the test holes indicated consolidations up to 0.4 percent and swells up to about 1.8 percent under various surcharge loads approximating in-place overburden pressures. (See Table 1.)

SEISMIC CLASSIFICATION

Based on extrapolation of available data to depth and our experience in the project area, we consider the area of the proposed addition likely to meet the criteria for a Seismic Site Classification of **C** according to the 2012/15 IBC classification (Table 1613.5.2). (Exploration and/or shear wave velocity testing to a depth of 100 feet or more was not part of our present scope of services.) If, however, a quantitative assessment of the site seismic properties is desired, then shear wave velocity testing should be performed. GROUND can provide a fee estimate for shear wave velocity testing upon request. We consider the likelihood of achieving a Site Class B to be low.

Using longitude and latitude coordinates obtained from Google Earth and the Applied Technology Council's Hazard By Location Tool (<https://hazards.atcouncil.org/#>), the project area is indicated to possess an S_{DS} value of **0.186** and an S_{D1} value of **0.058** for the site latitude and longitude and a Site Class of C.

GEOTECHNICAL CONSIDERATIONS FOR DESIGN

The conclusions and parameters provided in this report were based on the data presented herein, our experience in the general project area with similar structures, and our engineering judgment with regard to the applicability of the data and methods of forecasting future performance. A variety of engineering parameters were considered as indicators of potential future soil movements.

Our parameters and conclusions were based on our judgment of "likely movement potentials," (i.e., the amount of movement likely to be realized if site drainage is generally effective, estimated to a reasonable degree of engineering certainty) as well as our

assumptions about the owner's willingness to accept geotechnical risk. "Maximum possible" movement estimates necessarily will be larger than those presented herein. They also have a significantly lower likelihood of being realized, in our opinion, and generally require more expensive measures to address.

We encourage DHM Design, upon receipt of this report, to discuss these risks and the geotechnical alternatives with us. In addition to the risks and remedial approaches presented in this report, DHM Design, also must understand the risk-cost trade-offs addressed by the civil and structural engineering disciplines in order to direct his design team to the portion of the Higher Cost / Lower Risk – Lower Cost / Higher Risk spectrum in which this project should be designed. If DHM Design does not understand these risks, it is critical that additional information or clarification be requested so that the owner's expectations reasonably can be met.

General Geotechnical Risk In GROUND's opinion there are several sources of geotechnical risk at the site. One of these sources is the presence of undocumented fill soils at the site. Although some of these soils may have been placed in a controlled manner, testing records for the fill placement was not available for GROUND to review at this time. Additionally, in our experience, demolition fills typically are not placed in a controlled manner, and should be considered to be undocumented fill soils, unless documentation for fill placement can be provided. Therefore, the site fill materials in their current state do not appear to be suitable to support the proposed improvements with of risk of significant post-construction movements.

Additionally, undocumented fill soils are considered to be geotechnically unsuitable to support new construction because of their unknown composition and consistency. Where they are present beneath a proposed improvement, undocumented fill soils will need to be removed and replaced as properly compacted fill or the effects of undocumented fill soils otherwise mitigated.

Another significant source of geotechnical risk to new construction at this site is the presence of relatively shallow bedrock at the site. Although the bedrock consisted primarily of sandstones, claystones and siltstones were encountered locally, and claystones and siltstones in the project area are known to be moderately to highly expansive. Significant, damaging post-construction movements have resulted where

improvements were underlain by these expansive materials. However, swell-consolidation testing of the site bedrock did not yield significant swells under surcharge loads approximating in place order burden loads. This suggests that the risk of heave at the site is lower than other similar sites in the project area.

Likely Post-construction Movements Based on our data, the selected depth of wetting, and our experience with similar sites, we estimate improvements supported directly on the existing site soils are subject to likely, post-construction, vertical movements of 1½ to 2½ inches where improvements bear directly on the existing site earth materials. Lateral movements will result, as well. Foundation and slab/flatwork movements of these magnitudes can result in significant damage. Nearly all of the proposed improvements are vulnerable in this regard.

Building Foundation and Floor Types In GROUND's opinion, supporting the proposed structures (restroom building, shade structures, park shelters, etc.) on a drilled pier foundation system will provide the lowest estimates of likely post-construction foundation movement (about ½ inch, with similar differential movements over spans of about 40 feet) and will provide the least risk of excessive foundation movements. Drilled piers should bear in the bedrock beneath the site at a depth below the depth of wetting (20 feet below existing grade). However, we understand that drilled piers may not be practical given the anticipated structural loads and the anticipated tolerance of post-construction movement for the proposed structures. Geotechnical parameters for drilled pier foundations can be provided upon request.

Constructing the slab/flatwork as a structural floor, also supported on drilled piers, will yield similarly low post-construction floor movement estimates. For similar reasons as stated above, a structural floor may not be practical for the proposed construction. Geotechnical parameters for structural floors can be provided upon request.

Constructing a remedial fill section could be used to reduce estimates of post-construction movement. In order to reduce estimates of post-construction movements to about 1 inch, all of the undocumented fill soils would need to be removed and replaced as properly compacted fill. Based on the depth of fill recognized in the test holes, we anticipate that remedial excavations to depths of about 4 to 10 feet would be necessary. However,

deeper remedial fill sections may be necessary where undocumented fills soils extend to greater depths.

Where the proposed buildings and improvements are tolerant of about 2½ inches of post-construction movement, those structures could be supported directly on existing site soils. It should be noted that where undocumented fill soils are not completely removed and replaced as properly compacted fill, then there will exist a greater risk of the estimated post-construction movements being exceeded. This risk is low, in GROUND's opinion, but is not zero. Additionally, if the improvements bear directly on the bedrock, the risk of 2½ inches of post-construction movement being realized is lower, but not zero. (See Figure 2 and *Appendix A* for depth to bedrock and depths of undocumented fills recognized in the test holes.)

Additional parameters regarding the construction of shallow foundations and slab-on-grade floors are provided in the *Shallow Foundations* and *Slab-on-Grade Floors* sections of this report.

As an alternative to the approaches above, the use of proprietary foundation systems, such as micropiles or helical piers appear to be geotechnically feasible alternatives to reduce estimates of post-construction movements and be cost effective when compared to the other alternatives. Proprietary foundations systems are generally designed and constructed by a specialty design-build contractor. We anticipate that the information should be sufficient for their design.

We understand that some of the proposed hardscaping, such as the sports courts, may utilize a post-tensioned slab. Post-tensioned slabs may be used were the post-construction movement estimates associated with the post-tension slab parameters provided in this report are acceptable. Parameters and considerations for the design and construction of post-tensioned slabs are provided in the *Geotechnical Parameters for Post-Tensioned Slab Design* section of this report.

SHALLOW FOUNDATIONS

The geotechnical parameters below may be used for design of foundations for the proposed restroom and shade structures.

Geotechnical Parameters for Shallow Foundation Design

- 1) Footings should bear on firm, existing soils or properly compacted fill as discussed in the *Geotechnical Considerations for Design* section of this report.

If selected a fill section beneath a given improvements should extend at full thickness across the building footprint and at least **5 feet** laterally beyond the footing margins where site derived fill section is used.

Considerations for fill placement and compaction are provided in the *Project Earthwork* section of this report.

The fill section beneath the building or other structure should be laterally consistent and of uniform depth to reduce differential, post-construction foundation movements. A differential fill section will tend to increase differential movements.

The contractor should provide survey data of the excavation beneath each building indicating the depth and lateral extents of the remedial excavation.

- 2) Footings bearing on properly compacted fill or relatively firm, existing weathered bedrock may be designed for an allowable soil bearing pressure of **2,000 psf** for footings up to **8 feet in width**.

Footings bearing on firm, existing site soils may be designed for an allowable soil bearing pressure of **1,500 psf** for footings up to **8 feet in width**.

This value may be increased by $\frac{1}{3}$ for transient loads such as wind or seismic loading. For larger footings, a lower allowable bearing pressure may be appropriate.

Immediate compression of the bearing soils for the provided allowable bearing pressure is estimated to be about $\frac{3}{4}$ inch, based on an assumption of drained

foundation conditions. If foundation soils are subjected to an increase/fluctuation in moisture content, however, the effective bearing capacity will be reduced and greater post-construction movements than those estimated above may result.

This estimate of foundation movement from immediate compression of the foundation soils is a component of the likely post-construction movement estimated for the buildings at this site. It is in addition to movements from post-construction volume change in the native soils underlying the site and from densification of the fill section constructed beneath the building, as discussed above.

To reduce differential settlements between footings or along continuous footings, footing loads should be as uniform as possible. Differentially loaded footings will settle differentially.

- 3) Spread footings should have a minimum lateral dimension of **16 or more inches** for linear strip footings and **24 or more inches** for isolated pad footings. Actual footing dimensions should be determined by the structural engineer.
- 4) Footings should bear at an elevation **3 or more feet** below the lowest adjacent exterior finish grades to have adequate soil cover for frost protection.
- 5) Continuous foundation walls should be reinforced as designed by a structural engineer to span an unsupported length of at least **10 feet**.
- 6) Geotechnical parameters for lateral resistance to foundation loads are provided in the *Lateral Loads* section of this report.
- 7) Connections of all types must be flexible and/or adjustable to accommodate the anticipated, post-construction movements of the structure.

Shallow Foundation Construction

- 8) The contractor should take adequate care when making excavations not to compromise the bearing or lateral support for nearby improvements.

- 9) Care should be taken when excavating the foundations to avoid disturbing the supporting materials particularly in excavating the last few inches.
- 10) Footing excavation bottoms may expose loose, organic, or otherwise deleterious materials, including debris. Firm materials may become disturbed by the excavation process. All such unsuitable materials should be excavated and replaced with properly compacted fill or the foundation deepened.
- 11) Foundation-supporting soils may be disturbed or deform excessively under the wheel loads of heavy construction vehicles as the excavations approach footing bearing levels. Construction equipment should be as light as possible to limit development of this condition. The movement of vehicles over proposed foundation areas should be restricted.
- 12) All foundation subgrade should be compacted prior to placement of concrete.
- 13) Fill placed against the sides of the footings should be properly compacted in accordance with the *Project Earthwork* section of this report.

GEOTECHNICAL PARAMETERS FOR POST-TENSIONED SLAB DESIGN

Parameters were developed for design of the post-tensioned (PT) slabs for the proposed tennis courts. The parameters below were developed in general accordance with PTI methodology using the methods and recommendations provided by the Post-Tensioning Institute (PTI) in their recent design manuals.^{3, 4, 5} PTI's 3rd Edition design methodology requires engineering judgment and interpretation of available data in order to develop the provided parameters and differing interpretations can yield different parameters. Parameters used in this analysis were based on our experience with similar soils and the results of our laboratory testing. We understand that the design of the post-tensioned slab-on-grade will be performed by others. The vertical deflection values tabulated are

³ Post-Tensioning Institute, 2004, *Design and Construction of Post-Tensioned Slabs-on-Ground, 3rd Edition*.

⁴ Post-Tensioning Institute, 2007, *Addendum No. 1 to the 3rd Edition of the Design of Post-Tensioned Slabs-on-Ground*.

⁵ Post-Tensioning Institute, 2008, *Addendum No. 2 to the 3rd Edition of the Design of Post-Tensioned Slabs-on-Ground*.

differential deflections, and will be in addition to the total movements discussed in the *Geotechnical Considerations for Design* section of this report.

It should be noted that the use of PTI's 3rd Edition methodology remains a matter of controversy in Colorado within the geotechnical profession – particularly for residential structures. It also should be noted, however, that many structures have been constructed on post-tensioned slabs in the Colorado Front Range and, to our knowledge, the great majority of them have performed as intended.

Geotechnical Parameters for Post-Tensioned Slab Design

Edge Moisture Variation Distance (E_m)

Edge Lift	4.7 ft
Center Lift	9.0 ft

Differential Vertical Deflection (y_m)

Edge Lift	1.2 in
Center Lift	0.9 in

Allowable Soil Bearing Pressure **2,000 psf**

Design Frost Depth **3 ft.**

Vertical Modulus of Subgrade Reaction..... **60 pci**

(This value is for a 1-foot x 1-foot plate, and should be adjusted for slab dimension.)

Slab Subgrade Friction Coefficient (μ)

0.75 for a ribbed or uniform thickness slab on polyethylene

1.00 for a slab cast directly on a sand base.

Post-tensioned slabs should be underlain by a fill section or existing site materials as discussed in the *Geotechnical Considerations for Design* section of the report.

The fill section beneath a post-tension slab should be laterally consistent and of uniform depth to reduce differential, post-construction floor movements. A differential fill section will tend to increase differential movements. Loose, soft, or otherwise unsuitable materials exposed on the prepared surface on which the floor slab will be cast should be excavated and replaced with properly compacted fill.

The contractor should provide survey data of the excavation beneath the slab indicating the depth and lateral extents of the remedial excavation.

Where a fill section is constructed beneath a post-tensioned slab, the fill section should extend at full thickness across the building footprint and at least **5 feet** laterally beyond the slab perimeter.

Criteria for fill placement and compaction are provided in the *Project Earthwork* section of this report.

SLAB-ON-GRADE FLOORS

The geotechnical parameters below may be used for design of a slab-on-grade floor for the proposed restroom building. ACI Sections 301/302/360 provide guidance regarding concrete slab-on-grade design and construction.

Geotechnical Parameters for Design of Slab-on-Grade Floors

- 1) A slab-on-grade floor system should bear on a section of properly compacted fill soils as discussed in the *Geotechnical Considerations for Design* section of this report. (If the sub-slab gravel section is omitted, the depth of fill beneath the floor slab should be thickened correspondingly.)

The selected fill section beneath the building should extend at full thickness across the building footprint and at least **5 feet** laterally beyond the slab margins where site derived fill section is used.

Considerations for fill placement and compaction are provided in the *Project Earthwork* section of this report.

The fill section beneath the building should be laterally consistent and of uniform depth to reduce differential, post-construction foundation movements. A differential fill section will tend to increase differential movements.

The contractor should provide survey data of the excavation beneath each building indicating the depth and lateral extents of the remedial excavation.

- 2) Floor slabs should be adequately reinforced. Floor slab design, including slab thickness, concrete strength, jointing, and slab reinforcement should be developed by a structural engineer.
- 3) An allowable vertical modulus of subgrade reaction (**Kv**) of **60 tcf** (69 pci) may be used for design of a concrete, slab-on-grade floor bearing on existing site soils remedial fill section.

For a slab-on-grade concrete floor bearing on a remedial fill section or weathered bedrock, an allowable vertical modulus of subgrade reaction (**Kv**) of **90 tcf** (104 pci).

These values are for a 1-foot x 1-foot plate; they should be adjusted for slab dimension.

- 4) Floor slabs should be separated from all bearing walls and columns with slip joints, which allow unrestrained vertical movement.

Slip joints should be observed periodically, particularly during the first several years after construction. Slab movement can cause previously free-slipping joints to bind. Measures should be taken to assure that slab isolation is maintained in order to reduce the likelihood of damage to walls and other interior improvements.

- 5) A concrete slab-on-grade should be provided with properly designed control joints.

ACI, AASHTO, and other industry groups provide guidelines for proper design and construction concrete slabs-on-grade and associated jointing. The design and construction of such joints should account for cracking as a result of shrinkage, curling, tension, loading, and curing, as well as proposed slab use. Joint layout

based on the slab design may require more frequent, additional, or deeper joints, and should reflect the configuration and proposed use of the slab.

Particular attention in slab joint layout should be paid to areas where slabs consist of interior corners or curves (e.g., at column blockouts or reentrant corners) or where slabs have high length to width ratios, significant slopes, thickness transitions, high traffic loads, or other unique features. Improper placement or construction will increase the potential for slab cracking.

- 6) Interior partitions resting on floor slabs should be provided with slip joints so that if the slabs move, the movement cannot be transmitted to the upper structure. This detail is also important for wallboards and doorframes. Slip joints should allow **1½ inches or more** of vertical, differential movement depending on the fill section selected. Accommodation for differential movement also should be made where partitions meet bearing walls.

Slip joints that accommodate greater movements should be considered, if a remedial fill section is not selected.

- 7) Post-construction heave may not displace a slab-on-grade floor and utility lines in the soils beneath them to the same extent. Design of floor penetrations, connections, and fixtures should accommodate **up to 2 inches** of differential movement.

Floor penetrations, connections, and fixtures that accommodate greater movements should be considered, if a fill section is not selected.

- 8) Moisture can be introduced into a slab subgrade during construction and additional moisture will be released from the slab concrete as it cures. A properly compacted layer of free-draining gravel, 4 or more inches in thickness, should be placed beneath the slabs. This layer will help distribute floor slab loadings, ease construction, reduce capillary moisture rise, and aid in drainage. Selection and specification of sub-slab gravel should be coordinated with soil gas mitigation systems, where such systems are used.

The free-draining gravel should contain **less than 5 percent** material passing the No. 200 Sieve, **more than 50 percent** retained on the No. 4 Sieve, and a maximum particle size of **2 inches**.

The capillary break and the drainage space provided by the gravel layer also may reduce the potential for excessive water vapor fluxes from the slab after construction as mix water is released from the concrete.

We understand, however, that professional experience and opinion differ with regard to inclusion of a free-draining gravel layer beneath slab-on-grade floors. If these issues are understood by the owner and appropriate measures are implemented to address potential concerns including slab curling and moisture fluxes, then the gravel layer may be deleted.

- 9) A vapor barrier beneath a building floor slab can be beneficial with regard to reducing exterior moisture moving into the building, through the slab, but can retard downward drainage of construction moisture. Uneven moisture release can result in slab curling. Elevated vapor fluxes can be detrimental to the adhesion and performance of many floor coverings and may exceed various flooring manufacturers' usage criteria.

Per the 2006 ACI *Location Guideline*, a vapor barrier is required under concrete floors when that floor is to receive moisture-sensitive floor covering and/or adhesives, or the room above that floor has humidity control.

Therefore, in light of the several, potentially conflicting effects of the use vapor-barriers, the owner and the architect and/or contractor should weigh the performance of the slab and appropriate flooring products in light of the intended building use, etc., during the floor system design process and the selection of flooring materials. Use of a plastic vapor-barrier membrane may be appropriate for some building areas and not for others.

In the event a vapor barrier is utilized, it should consist of a minimum 15 mil thickness, extruded polyolefin plastic (no recycled content or woven materials), maintain a permeance less than 0.01 perms per ASTM E-96 or ASTM F-1249, and

comply with ASTM E-1745 (Class "A"). Vapor barriers should be installed in accordance with ASTM E-1643.

Polyethylene ("poly") sheeting (even if 15 mils in thickness which polyethylene sheeting commonly is not) does not meet the ASTM E-1745 criteria and should not be used as vapor barrier material. It can be easily torn and/or punctured, does not possess necessary tensile strength, gets brittle, tends to decompose over time, and has a relatively high permeance.

Construction Considerations for a Slab-on-Grade Floor

- 10) Loose, soft, or otherwise unsuitable materials exposed on the prepared surface on which the floor slab will be cast should be excavated and replaced with properly compacted fill.
- 11) The fill section beneath a slab should be of uniform thickness.
- 12) Concrete floor slabs should be constructed and cured in accordance with applicable industry standards and slab design specifications.
- 13) All plumbing lines should be carefully tested before operation. Where plumbing lines enter through the floor, a positive bond break should be provided.

LATERAL LOADS

Equivalent Fluid Weights and Friction Coefficients The following equivalent fluid pressures may be used for the design of shallow foundations and other shallow elements (such as thrust blocks) resisting lateral loads.

Shallow Elements Resisting Lateral Loads A friction coefficient of **0.33** between a foundation element and the site soils may be used for design of shallow foundations and thrust blocks resisting lateral loads.

Passive soil pressure at this site may be estimated using an equivalent fluid pressure of **290 pcf** for drained conditions, to a **maximum of 2,900 psf**. The upper 1 foot of embedment should be neglected for passive resistance, however. Where passive soil pressure is used to resist lateral loads, it should be understood that significant lateral

strains will be required to mobilize the full value indicated above, likely 1 inch or more. A reduced passive pressure can be used for reduced anticipated strains, however.

At-Rest and Active Lateral Earth Pressures Site soils placed as backfill against a structure in an **at-rest** condition may be considered to exert an equivalent fluid unit weight of **73 pcf**.

Site soils placed as backfill where the full, **active** earth pressure condition applies may be considered to exert an equivalent fluid unit weight of **51 pcf**.

Note that the values provided below were based on a moist unit weight (γ') of 128 pcf and an angle of internal friction (ϕ) of 26 degrees for the on-site soils. These values are unfactored and appropriate factors of safety should be included in design calculations.

Helical Piers or Micropiles Resisting Lateral Loads Based on the data obtained for this study and our experience with similar sites and conditions, lateral load analysis using the "L-Pile" or a similar computer program should use the following geotechnical parameters for input. The parameters are based on a simplified soil / bedrock profile. These include, unit wet weights (γ'), undrained shear strength (C_u), for the earth materials, strain at 50 percent of failure stress (ϵ_{50}), and horizontal soil modulus (k). Resistance to lateral loads should be neglected in the upper **3 feet** of soils, whether fill or native.

GEOTECHNICAL PARAMETERS FOR LATERAL LOAD ANALYSIS USING L-PILE

Soil / Bedrock Material	Approximate Depth Range	Parameter	Value
Existing Fill and Weathered Sandstone Bedrock (model as \ without Free Water)	3 feet below FFE – 16 feet below existing grade	γ'	128 pcf (0.074 pci)
		ϕ	28 degrees
		k	0.121×10^6 pcf (70 pci)
Sandstone Bedrock (model as Stiff Clay without Free Water)	> 25 feet below existing grade	γ'	130 pcf (0.075 pci)
		C_u	3,000 psf (20.8 psi)
		ϵ_{50}	0.010

WATER-SOLUBLE SULFATES

The concentration of water-soluble sulfates measured in a selected sample of site soils was approximately 0.01 percent by weight. (See Table 2.) Such a concentration of soluble sulfates represents a **negligible** environment for sulfate attack on concrete exposed to these materials. Degrees of attack are based on the scale of 'negligible,' 'moderate,' 'severe' and 'very severe' as described in the "Design and Control of Concrete Mixtures," published by the Portland Cement Association (PCA). The Colorado Department of Transportation (CDOT) utilizes a corresponding scale with four classes of severity of sulfate exposure (Class 0 to Class 3) as described in the table below.

Based on this test results and on PCA and CDOT guidelines, sulfate-resistant cement does not appear necessary based on geotechnical considerations.

REQUIREMENTS TO PROTECT AGAINST DAMAGE TO
CONCRETE BY SULFATE ATTACK FROM EXTERNAL SOURCES OF SULFATE

Severity of Sulfate Exposure	Water-Soluble Sulfate (SO ₄ ⁼) In Dry Soil (%)	Sulfate (SO ₄) In Water (ppm)	Water Cementitious Ratio (maximum)	Cementitious Material Requirements
Class 0	0.00 to 0.10	0 to 150	0.45	Class 0
Class 1	0.11 to 0.20	151 to 1500	0.45	Class 1
Class 2	0.21 to 2.00	1501 to 10,000	0.45	Class 2
Class 3	2.01 or greater	10,001 or greater	0.40	Class 3

SOIL CORROSIVITY

Data were obtained to support an initial assessment of the potential for corrosion of ferrous metals in contact with earth materials at the site, based on the conditions at the time of GROUND's evaluation. The test results are summarized in Table 2.

Reduction-Oxidation testing indicated a red-ox potential of approximately -3 millivolts. Such a low potential typically creates a more corrosive environment.

Sulfide Reactivity testing indicated a 'trace' result in the local soils. The presence of sulfides in the soils suggests a more corrosive environment.

Soil Resistivity In order to assess the "worst case" for mitigation planning, samples of materials retrieved from the test holes were tested for resistivity in the laboratory, after being saturated with water, rather than in the field. Resistivity also varies inversely with temperature. Therefore, the laboratory measurements were made at a controlled temperature. Measurement of electrical resistivity indicated a value of approximately 2,816 ohm-centimeters in samples of site soils.

pH Where pH is less than 4.0, soil serves as an electrolyte; the pH range of about 6.5 to 7.5 indicates soil conditions that are optimum for sulfate reduction. In the pH range above 8.5, soils are generally high in dissolved salts, yielding a low soil resistivity.⁶ Our testing indicated a pH value of about 7.1.

Corrosivity Assessment The American Water Works Association (AWWA) has developed a point system scale used to predict corrosivity. The scale is intended for protection of ductile iron pipe but is valuable for project steel selection. When the scale equals 10 points or higher, protective measures for ductile iron pipe are indicated. The AWWA scale is presented below.

The soil characteristics refer to the conditions at and above pipe installation depth. We anticipate that drainage at the site after construction will be effective. Nevertheless, based on the values obtained for the soil parameters, the fill and native soils appear to comprise a severely corrosive environment for ferrous metals (11 points).

If additional information or evaluation is needed regarding soil corrosivity, then the American Water Works Association or a corrosion engineer should be contacted. It should be noted, however, that changes to the site conditions during construction, such as the import of other soils, or the intended or unintended introduction of off-site water, might alter corrosion potentials significantly.

⁶ American Water Works Association ANSI/AWWA C105/A21.5-05 Standard.

Table A.1 Soil-Test Evaluation

<u>Soil Characteristic / Value</u>	<u>Points</u>
Redox Potential	
< 0 (negative values)	5
0 to +50 mV	4
+50 to +100 mV	3½
> +100 mV	0
Sulfide Reactivity	
Positive	3½
Trace	2
Negative	0
Soil Resistivity	
<1,500 ohm-cm	10
1,500 to 1,800 ohm-cm	8
1,800 to 2,100 ohm-cm	5
2,100 to 2,500 ohm-cm	2
2,500 to 3,000 ohm-cm	1
>3,000 ohm-cm	0
pH	
0 to 2.0	5
2.0 to 4.0	3
4.0 to 6.5	0
6.5 to 7.5	0 *
7.5 to 8.5	0
>8.5	3
Moisture	
Poor drainage, continuously wet	2
Fair drainage, generally moist	1
Good drainage, generally dry	0

* If sulfides are present and low or negative redox-potential results (< 50 mV) are obtained, add three (3) points for this range.

PROJECT EARTHWORK

The earthwork criteria below are based on our interpretation of the geotechnical conditions encountered in the test holes. Where these criteria differ from applicable municipal specifications, e.g., for trench backfill compaction along a public utility line, the latter should be considered to take precedence.

General Considerations Project grading should be performed as early as possible in the construction sequence to allow settlement of fills and surcharged ground to be realized to the greatest extent prior to subsequent construction.

Prior to earthwork construction, existing construction debris, vegetation, and other deleterious materials should be removed and disposed of off-site. Relic underground utilities should be abandoned in accordance with applicable regulations, removed as necessary, and properly capped.

Topsoil present on-site should be incorporated into ordinary fills. Instead, topsoil should be stockpiled during initial grading operations for placement in areas to be landscaped or for other approved uses.

Use of Existing Fill Soils Fill materials were recognized in the test holes during subsurface exploration and are likely are present elsewhere on the site, given it's apparent prior grading. Because not all the fill soils were sampled and tested, it is possible that some of the fill soils may not be suitable for re-use as compacted fill, due to the presence of deleterious materials such as trash, organic material, coarse cobbles and boulders, or construction debris. Therefore, excavated fill materials should be evaluated and tested, as appropriate, with regard to re-use.

Use of Existing Native Soils Based on the samples retrieved from the test holes, we anticipate that the existing site soils that are free of organic materials, coarse cobbles, boulders, or other deleterious materials will be suitable, in general, for re-use as compacted fill.

Fragments of rock and cobbles, (as well as inert construction debris, e.g., concrete or asphalt) up to **3 inches** in maximum dimension may be included in project fills, in general.

Such materials should be evaluated on a case-by-case basis, where identified during earthwork.

Imported Fill Materials Materials imported to the site as (common) fill should be free of organic material, and other deleterious materials. Imported material should exhibit **40 percent or less** passing the No. 200 Sieve and a plasticity index of **10 or less**. Materials proposed for import should be approved prior to transport to the site.

Fill Platform Preparation Prior to filling, the top **12 inches** of in-place materials on which fill soils will be placed (except for utility trench bottoms where bedding will be placed) should be scarified, moisture conditioned and properly compacted in accordance with the criteria below to provide a uniform base for fill placement.

If surfaces to receive fill expose loose, wet, soft, or otherwise deleterious material, additional material should be excavated, or other measures taken to establish a firm platform for filling. A surface to receive fill must be effectively stable prior to placement of fill, including trench bottoms prior to placement of bedding.

Wet Conditions and Groundwater Groundwater was encountered at relatively shallow depths (as shallow as 8 feet below existing grade), and project excavations may encounter wet soils, seepage or groundwater depending on depth and the season of the year. The contractor likely will require additional efforts to complete earthwork in such conditions. Stabilization generally will be required there prior to filling or construction of improvements.

Wet, Soft, or Unstable Subgrades Where wet, soft or unstable subgrades are encountered, the contractor should establish a stable platform for fill placement and achieving compaction in the overlying fill soils. Therefore, excavation of the unstable soils and replacing them with relatively dry or granular material, possibly together with the use of stabilization geo-textile or geo-grid, may be necessary to achieve stability. Whereas the stabilization approach should be determined by the contractor, GROUND offers the alternatives below for consideration. Proof-rolling can be beneficial for identifying unstable areas.

- Replacement of the existing subgrade soils with clean, coarse, aggregate (e.g., crushed rock or "pit run" materials) or road base. Excavation and replacement to

a depth of 1 to 2 feet commonly is sufficient, but greater depths may be necessary to establish a stable surface.

On very weak subgrades, an 18- to 24-inch “pioneer” lift that is not well compacted may be beneficial to stabilize the subgrade. Where this approach is employed, however, additional settlements of up to ½ inch may result.

- Where coarse, aggregate alone does not appear sufficient to provide stable conditions, it can be beneficial to place a layer of stabilization geo-textile or geo-grid (e.g., Tencate Mirafi® RS 580i, or Tensar® BX 1100) at the base of the aggregate section.

The stabilization geo-textile / geo-grid should be selected based on the aggregate proposed for use. It should be placed and lapped in accordance with the manufacturer’s recommendations.

Geo-textile or geo-grid products can be disturbed by the wheels or tracks of construction vehicles. We suggest that appropriate care be taken to maintain the effectiveness of the system. Placement of a layer of aggregate over the geo-textile / geo-grid prior to allowing vehicle traffic over it can be beneficial in this regard.

When a given remedial approach has been selected, the contractor should construct a test section to evaluate the effectiveness of the approach prior to use over a larger area.

General Considerations for Fill Placement Fill soils should be thoroughly mixed to achieve a uniform moisture content, placed in uniform lifts not exceeding 8 inches in loose thickness, and properly compacted.

No fill materials should be placed, worked, rolled while they are frozen, thawing, or during poor/inclement weather conditions.

Where soils on which foundation elements will be placed are exposed to freezing temperatures or repeated freeze – thaw cycling during construction – commonly due to water ponding in foundation excavations – bearing capacity typically is reduced and/or settlements increased due to the loss of density in the supporting soils. After periods of

freezing conditions, the contractor should re-work areas affected by the formation of ice to re-establish adequate bearing support.

Care should be taken with regard to achieving and maintaining proper moisture contents during placement and compaction. Materials that are not properly moisture conditioned may exhibit significant pumping, rutting, and deflection at moisture contents near optimum and above. The contractor should be prepared to handle soils of this type, including the use of chemical stabilization, if necessary.

Compaction areas should be kept separate, and no lift should be covered by another until relative compaction and moisture content within the specified ranges are obtained.

Compaction Criteria All soils placed as fill should be compacted to **95 or more percent** of the maximum dry density at moisture contents **within 2 percent** of the optimum moisture content as determined by ASTM D1557, the 'modified Proctor.'

Use of Squeegee Relatively uniformly graded fine gravel or coarse sand, i.e., "squeegee," or similar materials commonly are proposed for backfilling foundation excavations, utility trenches (excluding approved pipe bedding), and other areas where employing compaction equipment is difficult. In general, this procedure should not be followed for the following reasons.

Although commonly considered "self-compacting," uniformly graded granular materials require densification after placement, typically by vibration. The equipment to densify these materials is not available on many job-sites.

Even when properly densified, uniformly graded granular materials are permeable and allow water to reach and collect in the lower portions of the excavations backfilled with those materials. This leads to wetting of the underlying soils and resultant potential loss of bearing support as well as increased local heave or settlement.

Wherever possible, excavations should be backfilled with approved, on-site soils placed as properly compacted fill. Where achieving adequate compaction is difficult, then Controlled Low Strength Material" (CLSM), i.e., a lean, sand-cement slurry ("flowable fill") or a similar material should be used for backfilling.

Where “squeegee” or similar materials are proposed for use by the Contractor, the design team should be notified by means of a request for information (RFI), so that the proposed use can be considered on a case-by-case basis. Where “squeegee” meets the project requirements for pipe bedding material, however, it is acceptable for that use.

Settlements Settlements will occur in newly filled ground, typically on the order of 1 to 2 percent of the fill depth. This is separate from settlement of the existing soils left in place. For a 6-foot fill, for example, that corresponds to a total settlement of about 1 inch. If fill placement is performed properly and is tightly controlled, in GROUND’s experience the majority (on the order of 60 to 80 percent) of that settlement typically will take place during earthwork construction, provided the contractor achieves the compaction levels indicated herein. The remaining potential settlements likely will take several months or longer to be realized, and may be exacerbated if these fills are subjected to changes in moisture content.

Cut and Filled Slopes Permanent, un-retained, graded slopes supported by local soils up to **15 feet** in height should be constructed no steeper than **3 : 1** (horizontal : vertical). Minor raveling or surficial sloughing should be anticipated on slopes cut at this angle until vegetation is well re-established. Surface drainage should be designed to direct water away from slope faces into designed drainage pathways or structures.

Steeper slope angles and heights may be possible but will require detailed slope stability analysis based on final proposed grading plans. A geotechnical engineer should be retained to evaluate this on a case-by-case basis.

EXCAVATION CONSIDERATIONS

Excavation Difficulty Test holes for the subsurface exploration were advanced to the depths indicated on the test hole logs by means of conventional, buggy-mounted, geotechnical drilling equipment without any unusual difficulties. However, given the inherent nature of undocumented fill soils, materials that may be awkward or otherwise difficult to handle (e.g., relatively large pieces of construction debris) may be encountered the undocumented fill soils including any demolition fills that may be generated. The contractor and the project team should be prepared to handle such materials.

Additionally, very hard and resistant beds of bedrock have been encountered in the greater project area and resistant beds were encountered locally in the test holes. Penetration resistance values as hard as 50 blows for 3 inches of penetration were encountered in the test holes (see *Appendix A*) and harder, more resistant beds could be encountered locally. Excavations into the site bedrock likely will encounter these materials, and the contractor and project team should be prepared to process and handle these materials as necessary.

Temporary Excavations and Personnel Safety Excavations in which personnel will be working must comply with all applicable OSHA Standards and Regulations, particularly CFR 29 Part 1926, OSHA Standards-Excavations, adopted March 5, 1990. The contractor's "responsible person" should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. GROUND has provided the information in this report solely as a service to DHM Design, and is not assuming responsibility for construction site safety or the contractor's activities.

The contractor should take care when making excavations not to compromise the bearing or lateral support for any adjacent, existing improvements.

Temporary, un-shored excavation slopes up to **15 feet** in height, in general, should be cut no steeper than **2 : 1** (horizontal : vertical) in the on-site soils in the absence of seepage. Some surface sloughing may occur on the slope faces at these angles. Should site constraints prohibit the use of the above-indicated slope angle, temporary shoring should be used. GROUND is available to provide shoring design upon request. Stockpiling of materials should not be permitted closer to the tops of temporary slopes than 5 feet or a distance equal to the depth of the excavation, whichever is greater.

Groundwater Groundwater was encountered a shallowly as 4 feet below existing grade at the time of drilling in Test Hole 3. Therefore, based on conditions at the time of this subsurface exploration, excavations deeper than about 2 feet below existing grade at the site appear likely to encounter groundwater, near Test Hole 3. Excavation near the other test holes, likely will not encounter groundwater at such shallow depth, though groundwater should be anticipated in those excavations.

Therefore, dewatering measures may be necessary for shallow project excavations. For planning purposes, a steady state flow into an excavation about the size of one of the proposed buildings of about 15 gpm may be used. (Flows generated during initial draw-down may be significantly higher.) Actual dewatering systems should be designed for the contractor by a qualified engineer. Additional data to evaluate shallow groundwater flow rates should be collected in support of that design.

Should seepage or flowing groundwater be encountered in project excavations, the slopes should be flattened as necessary to maintain stability or a geotechnical engineer should be retained to evaluate the conditions. The risk of slope instability will be significantly increased in areas of seepage along excavation slopes.

Surface Water The contractor should take pro-active measures to control surface waters during construction and maintain good surface drainage conditions to direct waters away from excavations and into appropriate drainage structures. A properly designed drainage swale should be provided at the tops of the excavation slopes. In no case should water be allowed to pond near project excavations.

Temporary slopes should also be protected against erosion. Erosion along the slopes will result in sloughing and could lead to a slope failure.

UTILITY LATERAL INSTALLATION

The measures and criteria below are based on GROUND's evaluation of the local, geotechnical conditions. Where the parameters herein differ from applicable municipal requirements, the latter should be considered to govern.

Pipe Support The bearing capacity of the site soils appeared adequate, in general, for support of typical utility lines. The pipes + contents are less dense than the soils which will be displaced for installation. Therefore, in general GROUND anticipates no significant pipe settlements in these materials where properly bedded from loading alone.

Trench bottoms may expose existing fill soils, or soft, loose, or otherwise deleterious materials. Firm materials may be disturbed by the excavation process. All such unsuitable materials should be excavated and replaced with properly compacted fill.

Areas allowed to pond water will require excavation and replacement with properly compacted fill. The contractor should take particular care to ensure adequate support near pipe joints which are less tolerant of extensional strains.

Where thrust blocks are needed, the parameters provided in the *Lateral Loads* section of this report may be used for design.

Trench Backfilling Some settlement of compacted soil trench backfill materials should be anticipated, even where all the backfill is placed and compacted correctly. Typical settlements are on the order of 1 to 2 percent of fill thickness. However, the need to compact to the lowest portion of the backfill must be balanced against the need to protect the pipe from damage from the compaction process. Some thickness of backfill may need to be placed at compaction levels lower than specified (or smaller compaction equipment used together with thinner lifts) to avoid damaging the pipe. Protecting the pipe in this manner can result in somewhat greater surface settlements. Therefore, although other alternatives may be available, the following options are presented for consideration:

Controlled Low Strength Material Because of these limitations, the entire depth of the trench (both bedding and common backfill zones) should be backfilled with “controlled low strength material” (CLSM), i.e., a lean, sand-cement slurry, “flowable fill,” or similar material along all trench alignment reaches with low tolerances for surface settlements.

CLSM used as pipe bedding and trench backfill should exhibit a 28-day unconfined compressive strength between **50 to 150 psi** so that re-excavation is not unusually difficult.

Placement of the CLSM in several lifts or other measures likely will be necessary to avoid ‘floating’ the pipe. Measures also should be taken to maintain pipe alignment during CLSM placement.

Compacted Soil Backfilling In areas that area tolerant of surface settlements, conventional soil backfilling may be used. Where compacted soil backfilling is employed, using the site soils or similar materials as backfill, the risk of backfill settlements entailed in the selection of this higher risk alternative must be anticipated and accepted by project team and the owner.

We anticipate that the on-site soils excavated from trenches will be suitable, in general, for use as common trench backfill within the above-described limitations. Backfill soils should be free of vegetation, organic debris and other deleterious materials. Fragments of rock, cobbles, and inert construction debris (e.g., concrete or asphalt) coarser than 3 inches in maximum dimension should not be incorporated into trench backfills.

Soils placed for compaction as trench backfill should be conditioned to a relatively uniform moisture content, placed and compacted in accordance with the parameters in the *Project Earthwork* section of this report.

Pipe Bedding Pipe bedding materials, placement and compaction should meet the specifications of the pipe manufacturer and applicable municipal standards. Bedding should be brought up uniformly on both sides of the pipe to reduce differential loadings.

As discussed above, the use of CLSM or similar material in lieu of granular bedding and compacted soil backfill should be considered where the tolerance for surface settlement is low. (Placement of CLSM as bedding to at least 12 inches above the pipe can protect the pipe and assist construction of a well-compacted conventional backfill, although possibly at an increased cost relative to the use of conventional bedding.)

If a granular bedding material is specified, with regard to potential migration of fines into the pipe bedding, design and installation should follow ASTM D2321, Appendix X1.8. If the granular bedding does not meet filter criteria for the enclosing soils, and we don't anticipate that it will, then non-woven filter fabric (e.g., Mirafi® 140N, or the equivalent) should be placed around the bedding to reduce migration of fines into the bedding which can result in severe, local surface settlements. Where this protection is not provided, settlements can develop/continue several months or years after completion of the project. In addition, clay or concrete cut-off walls should be installed to interrupt the granular bedding section to reduce the rates and volumes of water transmitted along the sewer alignment which can contribute to migration of fines.

If granular bedding is specified, the contractor should not anticipate that significant volumes of shallow on-site soils will be suitable for that use. Materials proposed for use as pipe bedding should be tested for suitability prior to use.

Other Considerations Because of the potential for significant consolidation and local heave of undocumented fill soils and bedrock heave to result in significant, extensional strains to utility pipes, pipes should be provided with restrained joints to reduce the potential for failure at joints. Connections to the building or other structures should be flexible and easily replaced or adjusted. Non-pressurized lines should be evaluated periodically for deformations such as pipe 'bellies' that would impair their efficiency, and appropriate repairs made. Maintenance plans should anticipate greater than typical utility line maintenance and replacement because of the undocumented fill soils and expansive site soils and bedrock that will remain beneath utility lines.

SURFACE DRAINAGE

The site soils are relatively stable with regard to moisture content – volume relationships at their existing moisture contents. Other than the anticipated, post-placement settlement of fills, post-construction soil movements will result primarily from the introduction of water into the soils underlying the proposed structure, hardscaping and pavements. Based on the site surface and subsurface conditions encountered in this study, we do not anticipate a rise in the local water table sufficient to approach foundation or floor elevations. Therefore, local saturation of project foundation soils likely will result from infiltrating surface waters (precipitation, irrigation, etc.), and water flowing along constructed pathways such as bedding in utility pipe trenches.

The following drainage measures should be followed both for during construction and as part of project design. The facility should be observed periodically to evaluate the surface drainage and identify areas where drainage is ineffective. Routine maintenance of site drainage should be undertaken throughout the design life of the proposed facility. Maintenance should be anticipated to include removal and replacement of sidewalk stones, curb and gutter, sections of pavement, etc., to restore effective drainage. If these measures are not implemented and maintained effectively, the movement estimates provided in this report could be exceeded.

- 1) Wetting or drying of the underslab areas should be avoided during and after construction. Permitting increases/variations in moisture to the adjacent or supporting soils may result in increased total and/or differential movements.

- 2) Measures for positive surface drainage away from the building should be provided and maintained to reduce water infiltration into foundation soils. Underdrains should not be relied upon in surface drainage design to collect and discharge surface waters.

A minimum slope of **12 inches in the first 10 feet** in the areas not covered with pavement or concrete slabs should be established. For areas covered with asphalt pavement or concrete slabs, slopes **should comply with ADA requirements where required**. Increasing slopes to **a minimum of 3 percent in the first 10 feet** in the areas covered with pavement or concrete slabs will reduce, but not eliminate, the potential for moisture infiltration and subsequent volume change of the underling soils.

In no case should water be allowed to pond near or adjacent to foundation elements, hardscaping, etc.

- 3) Drainage also should be established and maintained to direct water away from sidewalks and other hardscaping as well as utility trench alignments which are not tolerant of increased post-construction movements.

The ground surface near foundation elements should be able to convey water away readily. Cobbles or other materials that tend to act as baffles and restrict surface flow should not be used to cover the ground surface near the foundations.

Where the ground surface does not convey water away readily, additional post-construction movements and distress should be anticipated.

- 4) In GROUND's experience, it is common during construction that in areas of partially completed paving or hardscaping, bare soil behind curbs and gutters, and utility trenches, water is allowed to pond after rain or snow-melt events. Wetting of the subgrade can result in loss of subgrade support and increased settlements. By the time final grading has been completed, significant volumes of water can already have entered the subgrade, leading to subsequent distress and failures. The contractor should maintain effective site drainage throughout construction so that water is directed into appropriate drainage structures.

**Plum Creek North Park Improvements
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- 5) In no case should water be permitted to pond adjacent to or on sidewalks, hardscaping, or other improvements as well as utility trench alignments, which are likely to be adversely affected by moisture-volume changes in the underlying soils or flow of infiltrating water.
- 6) Roof downspouts and drains, if used, should discharge well beyond the perimeter of the structure foundation, or be provided with positive conveyance off-site for collected waters. Downspouts should not be routed to discharge into an underdrain system.

If roof downspouts and drains are not used, then surface drainage design should anticipate concentrated volumes of water adjacent to the buildings.

- 7) Irrigation water – both that applied to landscaped areas and over-spray – commonly is a significant cause of distress to improvements. Where (near-) saturated soil conditions are sustained, distress to nearby improvements should be anticipated.

To reduce to potential for such distress, vegetation requiring watering should be located **10 or more feet** from the building perimeter, flatwork, or other improvements. Irrigation sprinkler heads should be deployed so that applied water is not introduced near or into foundation/subgrade soils. Landscape irrigation should be limited to the minimum quantities necessary to sustain healthy plant growth.

Use of drip irrigation systems can be beneficial for reducing over-spray beyond planters. Drip irrigation also can be beneficial for reducing the amounts of water introduced to building foundation soils, but only if the total volumes of applied water are controlled with regard to limiting that introduction. Controlling rates of moisture increase beneath the foundations, floors and other improvements should take higher priority than minimizing landscape plant losses.

Where plantings are desired within 10 feet of the restroom building, plants should be placed in water-tight planters, constructed either in-ground or above-grade, to

reduce moisture infiltration in the surrounding subgrade soils. Planters should be provided with positive drainage and landscape underdrains.

As an alternative involving only a limited increase in risk, the use of water-tight planters may be replaced by local, shallow underdrains beneath the planter beds.

- 8) Plastic membranes should not be used to cover the ground surface near the building without careful consideration of other components of project drainage. Plastic membranes can be beneficial to directing surface waters away from the building and toward drainage structures. However, they effectively preclude evaporation and transpiration of shallow soil moisture. Therefore, soil moisture tends to increase beneath a continuous membrane. Where plastic membranes are used, additional shallow, subsurface drains should be installed.

Perforated “weed barrier” membranes that allow ready evaporation from the underlying soils may be used.

SUBSURFACE DRAINAGE

As a component of project civil design, properly functioning, subsurface drain systems (“underdrains”) can be beneficial for collecting and discharging saturated subsurface waters. Although the subsurface drainage system anticipated for this project may consist of perimeter underdrains along the building perimeter and underdrains constructed beneath floor system, they are addressed as underdrains herein.

Underdrains will not collect water infiltrating under unsaturated (vadose) conditions, or moving via capillarity, however. In addition, if not properly constructed and maintained, underdrains can transfer water into foundation soils, rather than remove it. This will tend to induce heave or settlement of the subsurface soils, and may result in distress. Underdrains can, however, provide an added level of protection against relatively severe post-construction movements by draining saturated conditions near individual structures should they arise, and limiting the volume of wetted soil.

It is GROUND’s opinion that it will be beneficial to include a perimeter underdrain system to help limit wetting of the foundation bearing soils. However, we understand that the owner and project team may consider that the reduction of risk provided by a properly

constructed and maintained underdrain system does not justify the costs associated with including an underdrain system. In such a case, an underdrain system can be excluded. If an underdrain system is excluded, then there will be an increased risk of the likely post-construction movements estimated in this report being exceeded. Where an underdrain system is excluded, extra care should be taken to establish and maintain effective surface drainage, identify and repair wet utility leaks in a timely manner, seal open cracks joints, and restore effective surface drainage as necessary to limit the volume of water infiltrating the site.

If a below-grade level will underlie only a portion of the building footprint, then a lower underdrain system could be local to that area. Damp-proofing should be applied to the exteriors of below-grade elements. The provision of Tencate MiraFi® G-Series backing (or comparable wall drain provisions) on the exteriors of (some) below-grade elements may be appropriate, depending on the intended use.

GROUND is available to discuss the above options and as well as other underdrain alternatives upon request.

Geotechnical Parameters for Underdrain Design Underdrain design should incorporate the parameters below. The actual underdrain layouts, outlets, and locations should be developed by a civil engineer. A typical underdrain detail that may be used in provided in Figure 5.

An underdrain system should be tested by the contractor after installation and after placement and compaction of the overlying backfill to verify that the system functions properly.

- 1) An underdrain system for a building should consist of perforated, rigid, PVC collection pipe at least **4 inches** in diameter, non-perforated, rigid, PVC discharge pipe at least **4 inches** in diameter, free-draining gravel, and filter fabric.
- 2) The free-draining gravel should be naturally occurring (not recycled) material with **5 percent or less** passing the No. 200 Sieve and **50 percent or more** retained on the No. 4 Sieve, and have a maximum particle size of **2 inches**.

- 3) Each collection pipe should be surrounded on the sides and top (only) with **6 or more inches** of free-draining gravel.

The gravel surrounding the collection pipe(s) should be wrapped with filter fabric (Mirafi 140N® or the equivalent) to reduce the migration of fines into the drain system.

- 4) The underdrain system should be designed to discharge at least **15 gallons per minute** of collected water.
- 5) The high point(s) for the collection pipe flow lines should be below the grade beam or shallow foundation bearing elevation as shown on the detail. Multiple high points can be beneficial to reducing the depths to which the system would be installed.

The collection and discharge pipe for the underdrain system should be laid on a slope as determined by the underdrain designer.

Underdrain 'clean-outs' should be provided at intervals of no more than **150 feet** to facilitate maintenance of the underdrains. Clean-outs also should be provided at collection and discharge pipe elbows of **60 degrees or more**.

- 6) If a below grade level is included, the underdrain system should include both a perimeter drain and lateral drains. Lateral drains should be spaced such that no point of the basement floor is more than **50 feet** horizontally from a perimeter or lateral drain collection pipe.
- 7) The underdrain discharge pipes should be connected to one or more sumps from which water can be removed by pumping, or to outlet(s) for gravity discharge. We suggest that collected waters be discharged directly into the storm sewer system, if possible.
- 8) Regular maintenance of the underdrain systems should be performed to ensure that the system continues work properly.

PEDESTRIAN FLATWORK

We anticipate that portions of the site will be provided with concrete flatwork. Like other site improvements, flatwork will experience post-construction movements as soil moisture contents increase after construction and distress likely will result. The following measures will help to reduce damages to these improvements, but will not prevent all movements. Critical flatwork, which may include flatwork at entrances and exits, should be constructed as a slab-on-grade floor in a similar manner to project floors. Such areas should be identified by the owner.

- 1) Based on the plasticity of the soils, the pavements should be constructed on a section of properly moisture-conditioned and compacted to a depth of **at least 24 inches or a depth that removes and replaces all soft, wet, otherwise unsuitable soils (including the undocumented fill), whichever is greater**. This section assumes the facility owner will be tolerant of significant total and differential pavement post-construction movements (on the order of several inches) and the associated maintenance costs that are necessary to re-establish effective drainage, replace distressed flatwork, etc.

We understand, however, that it may not be practical remove and replace all the undocumented fill soils or soft, yielding, or otherwise deleterious soils as properly compacted fill due the presence of utility lines and the proximity of existing improvements. Therefore, if the owner opts to reduce the fill section beneath the flatwork, additional post-construction movements, accelerated flatwork distress, and additional maintenance should be anticipated. We suggest remedial earthwork should be performed to no less than 24 inches in such a case. Similarly, where existing utility lines or other site constraints limit the depth to which remedial earthwork can be accomplished, additional maintenance should be anticipated.

In general, increasing the depth of fill beneath the pavements will decrease the risk of post-construction movements.

- 2) Prior to placement of flatwork, a proof roll should be performed to identify areas that exhibit instability and deflection. The deleterious soils in these areas should be removed and replaced with properly compacted fill. The contractor should take

care to achieve and maintain compaction behind curbs to reduce differential sidewalk settlements. Passing a proof roll is an additional requirement to placing and compacting the subgrade fill soils within the specified ranges of moisture content and relative compaction in the *Project Earthwork* section of this report. Subgrade stabilization may be cost-effective in this regard.

- 3) Flatwork should be provided with control joints extending to an effective depth and spaced no more than **10 feet** apart, both ways. Narrow flatwork, such as sidewalks, likely will require more closely spaced joints.
- 4) In no case should exterior flatwork extend to under any portion of the building where there is less than **2 inches** of vertical clearance between the flatwork and any element of the building. Exterior flatwork in contact with brick, rock facades, or any other element of the building can cause damage to the structure if the flatwork experiences movements.

Concrete Scaling Climatic conditions in the project area including relatively low humidity, large temperature changes and repeated freeze – thaw cycles, make it likely that project sidewalks and other exterior concrete will experience surficial scaling or spalling. The likelihood of concrete scaling can be increased by poor workmanship during construction, such as ‘over-finishing’ the surfaces. In addition, the use of de-icing salts on exterior concrete flatwork, particularly during the first winter after construction, will increase the likelihood of scaling. Even use of de-icing salts on nearby roadways, from where vehicle traffic can transfer them to newly placed concrete, can be sufficient to induce scaling. Typical quality control / quality assurance tests that are performed during construction for concrete strength, air content, etc., do not provide information with regard to the properties and conditions that give rise to scaling.

We understand that some municipalities require removal and replacement of concrete that exhibits scaling, even if the material was within specification and placed correctly. The contractor should be aware of the local requirements and be prepared to take measures to reduce the potential for scaling and/or replace concrete that scales.

In GROUND’s experience, the measures below can be beneficial for reducing the likelihood of concrete scaling. Which measures, if any, used should be based on cost and

the owner's tolerance for risk and maintenance. It must be understood, however, that because of the other factors involved, including weather conditions and workmanship, surface damage to concrete can develop, even where all of these measures were followed. Also, the mix design criteria should be coordinated with other project requirements including criteria for sulfate resistance presented in the *Water-Soluble Sulfates* section of this report.

- 1) Maintaining a maximum water/cement ratio of 0.45 by weight for exterior concrete mixes.
- 2) Include Type F fly ash in exterior concrete mixes as 20 percent of the cementitious material.
- 3) Specify a minimum, 28-day, compressive strength of 4,500 psi for all exterior concrete.
- 4) Including 'fibermesh' in the concrete mix also may be beneficial for reducing surficial scaling.
- 5) Cure the concrete effectively at uniform temperature and humidity. This commonly will require fogging, blanketing and/or tenting, depending on the weather conditions. As long as 3 to 4 weeks of curing may be required, and possibly more.
- 6) Avoid placement of concrete during cold weather so that it is not exposed to freeze-thaw cycling before it is fully cured.
- 7) Avoid the use of de-icing salts on given reaches of flatwork through the first winter after construction.

We understand that sometimes it is not practical to implement some of these measures for reducing scaling due to safety considerations, project scheduling, etc. In such cases, where these measures are not implemented, additional costs for flatwork maintenance or reconstruction should be incorporated into project budgets.

Frost and Ice Considerations Nearly all soils other than relatively coarse, clean, granular materials are susceptible to loss of density if allowed to become saturated and exposed to freezing temperatures and repeated freeze – thaw cycling. The formation of ice in the underlying soils can result in heaving of pavements, flatwork, and other hardscaping (“ice jacking”) in sustained cold weather up to 2 inches or more. This heaving can develop relatively rapidly. A portion of this movement typically is recovered when the soils thaw, but due to loss of soil density, some degree of displacement will remain. This can result even where the subgrade soils were prepared properly.

Where hardscape movements are a design concern, e.g., at doorways, replacement of the subgrade soils with 3 or more feet of clean, coarse sand or gravel should be considered or supporting the element on foundations similar to the building and spanning over a void. Detailed guidance in this regard can be provided upon request. It should be noted that where such open graded granular soils are placed, water can infiltrate and accumulate in the subsurface relatively easily, which can lead to increased settlement or heave from factors unrelated to ice formation. Therefore, where a section of open graded granular soils is placed, a local underdrain system should be provided to discharge collected water. GROUND will be available to discuss these concerns upon request.

TEMPORARY FIRE ACCESS ROUTES

Commonly, construction sites are required by local fire departments to provide temporary access for emergency response. It has been GROUND’s experience these access drives are to provide support for trucks weighing up to 90,000 pounds and are typically desired to be gravel/aggregate-surfaced.

Based on our experience, a temporary section consisting of **at least 12 inches** of material meeting the requirements of CDOT Class 5 or Class 6 Aggregate Base Course or at least **8 inches** of CDOT Class 5 or Class 6 Aggregate Base Course over **a layer of stabilization geotextile/geofabric**, such as Mirafi® RS380i or the equivalent, could be utilized provided the owner understands that this section is for temporary access during construction only and is not a replacement or an equal alternate to the pavement section(s) that was indicated previously. The aggregate base course placed for this purpose should be compacted to at least 95 percent of the maximum modified Proctor dry

density. It should be noted that the aggregate base course sections indicated above are not intended to support fire truck outriggers without cribbing or similar measures.

The aggregate comprising such a wearing course will be displaced and rutted under the loads imposed by heavy vehicles. Therefore, regular maintenance including re-grading and application of additional aggregate should be implemented to ensure proper drainage, repair distressed/damaged areas, and re-establish grades. Additionally, the ability of a temporary aggregate-surfaced route to accommodate loads as indicated above is directly related to the quality of the subgrade materials on which the aggregate is placed, not only on the aggregate section. If water infiltrates these areas, additional rutting and other distress, including a reduction in capacity, will result, requiring additional maintenance.

CLOSURE

Geotechnical Review The author of this report or a GROUND principal should be retained to review project plans and specifications to evaluate whether they comply with the intent of the measures discussed in this report. The review should be requested in writing.

The geotechnical conclusions and parameters presented in this report are contingent upon observation and testing of project earthworks by representatives of GROUND. If another geotechnical consultant is selected to provide materials testing, then that consultant must assume all responsibility for the geotechnical aspects of the project by concurring in writing with the parameters in this report, or by providing alternative parameters.

Materials Testing DHM Design should consider retaining a geotechnical engineer to perform materials testing during construction. The performance of such testing or lack thereof, however, in no way alleviates the burden of the contractor or subcontractor from constructing in a manner that conforms to applicable project documents and industry standards. The contractor or pertinent subcontractor is ultimately responsible for managing the quality of his work; furthermore, testing by the geotechnical engineer does not preclude the contractor from obtaining or providing whatever services that he deems necessary to complete the project in accordance with applicable documents.

Limitations This report has been prepared for DHM Design as it pertains to design and construction of the proposed park improvements as described herein. It may not contain sufficient information for other parties or other purposes.

In addition, GROUND has assumed that project construction will commence by winter 2021-22. Any changes in project plans or schedule should be brought to the attention of a geotechnical engineer, in order that the geotechnical conclusions in this report may be re-evaluated and, as necessary, modified.

The geotechnical conclusions in this report relied upon subsurface exploration at a limited number of exploration points, as shown in Figure 1, as well as the means and methods described herein. Subsurface conditions were interpolated between and extrapolated beyond these locations. It is not possible to guarantee the subsurface conditions are as indicated in this report. Actual conditions exposed during construction may differ from those encountered during site exploration.

If during construction, surface, soil, bedrock, or groundwater conditions appear to be at variance with those described herein, a geotechnical engineer should be retained at once, so that re-evaluation of the conclusions for this site may be made in a timely manner. In addition, a contractor who obtains information from this report for development of his scope of work or cost estimates may find the geotechnical information in this report to be inadequate for his purposes or find the geotechnical conditions described herein to be at variance with his experience in the greater project area. The contractor is responsible for obtaining the additional geotechnical information that is necessary to develop his workscope and cost estimates with sufficient precision. This includes current depths to groundwater, etc.

ALL DEVELOPMENT CONTAINS INHERENT RISKS. It is important that ALL aspects of this report, as well as the estimated performance (and limitations with any such estimations) of proposed improvements are understood by DHM Design. Utilizing these criteria and measures herein for planning, design, and/or construction constitutes understanding and acceptance of the conclusions with regard to risk and other information provided herein, associated improvement performance, as well as the limitations inherent within such estimates.

**Plum Creek North Park Improvements
Castle Rock, Colorado**

If any information referred to herein is not well understood, then DHM Design or members of the design team, should contact the author or a GROUND principal immediately. We will be available to meet to discuss the risks and remedial approaches presented in this report, as well as other potential approaches, upon request.

GROUND makes no warranties, either expressed or implied, as to the professional data, opinions or conclusions contained herein. This document, together with the concepts and conclusions presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Re-use of, or improper reliance on this document without written authorization and adaption by GROUND Engineering Consultants, Inc., shall be without liability to GROUND Engineering Consultants, Inc.

GROUND appreciates the opportunity to complete this portion of the project and welcomes the opportunity to provide DHM Design with a proposal for construction observation and materials testing.

Sincerely,

GROUND Engineering Consultants, Inc.

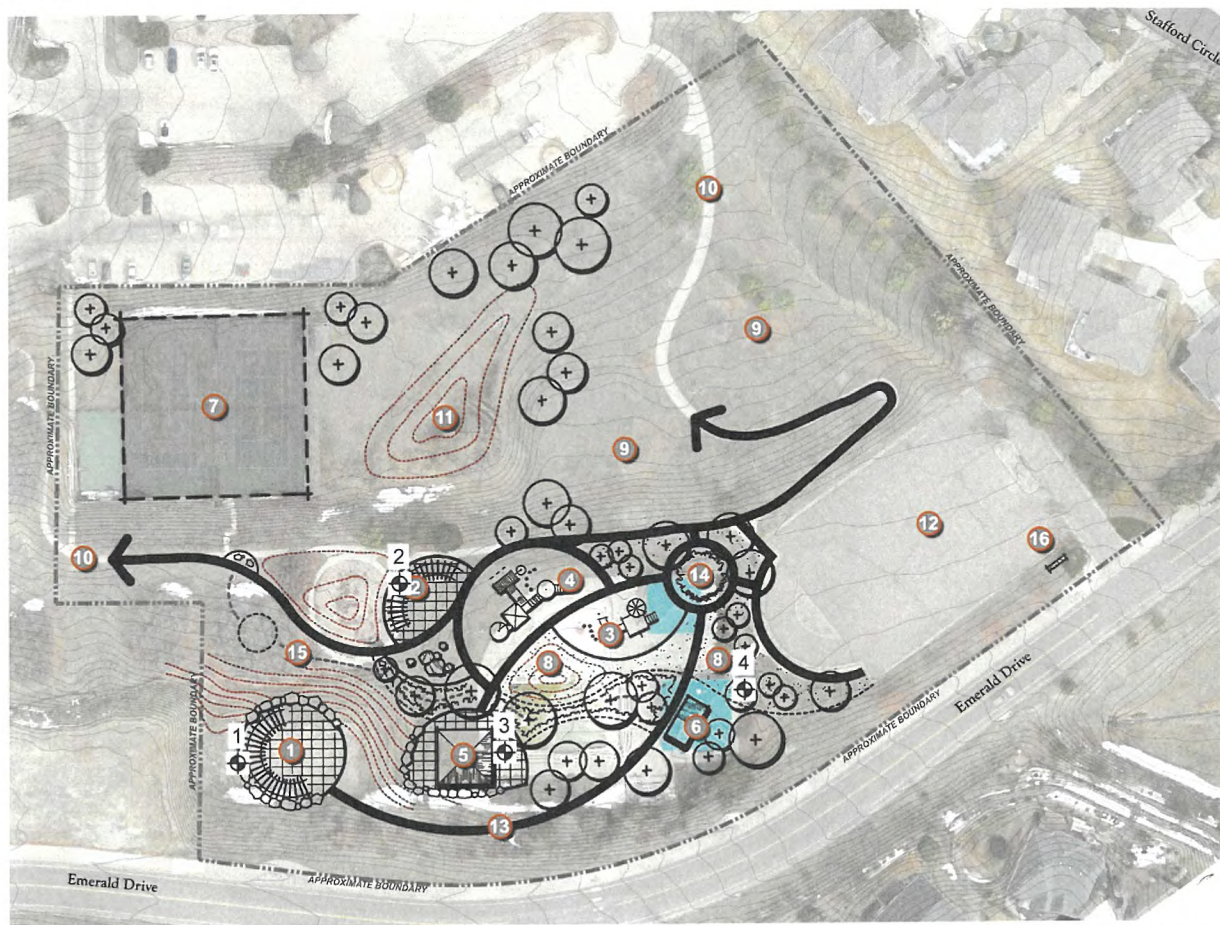


Ben Fellbaum, P.G., E.I.



Reviewed by Brian H. Reck, P.G., C.E.G., P.E.

CON 2023-0439



1
 Indicates test hole number and approximate location.



GOOGLE EARTH AERIAL IMAGE (10/6/2019)
 SITE PLAN PROVIDED BY CLIENT

GROUND ENGINEERING	JOB NO.: 21-3027
	FIGURE: 1
LOCATION OF TEST HOLES	

CON 2023-0439

GROUND ENGINEERING

LOGS OF THE TEST HOLES

CLIENT: DHM Design
JOB NO: 21-3027

PROJECT NAME: Plum Creek North Park Improvements
PROJECT LOCATION: Castle Rock, CO

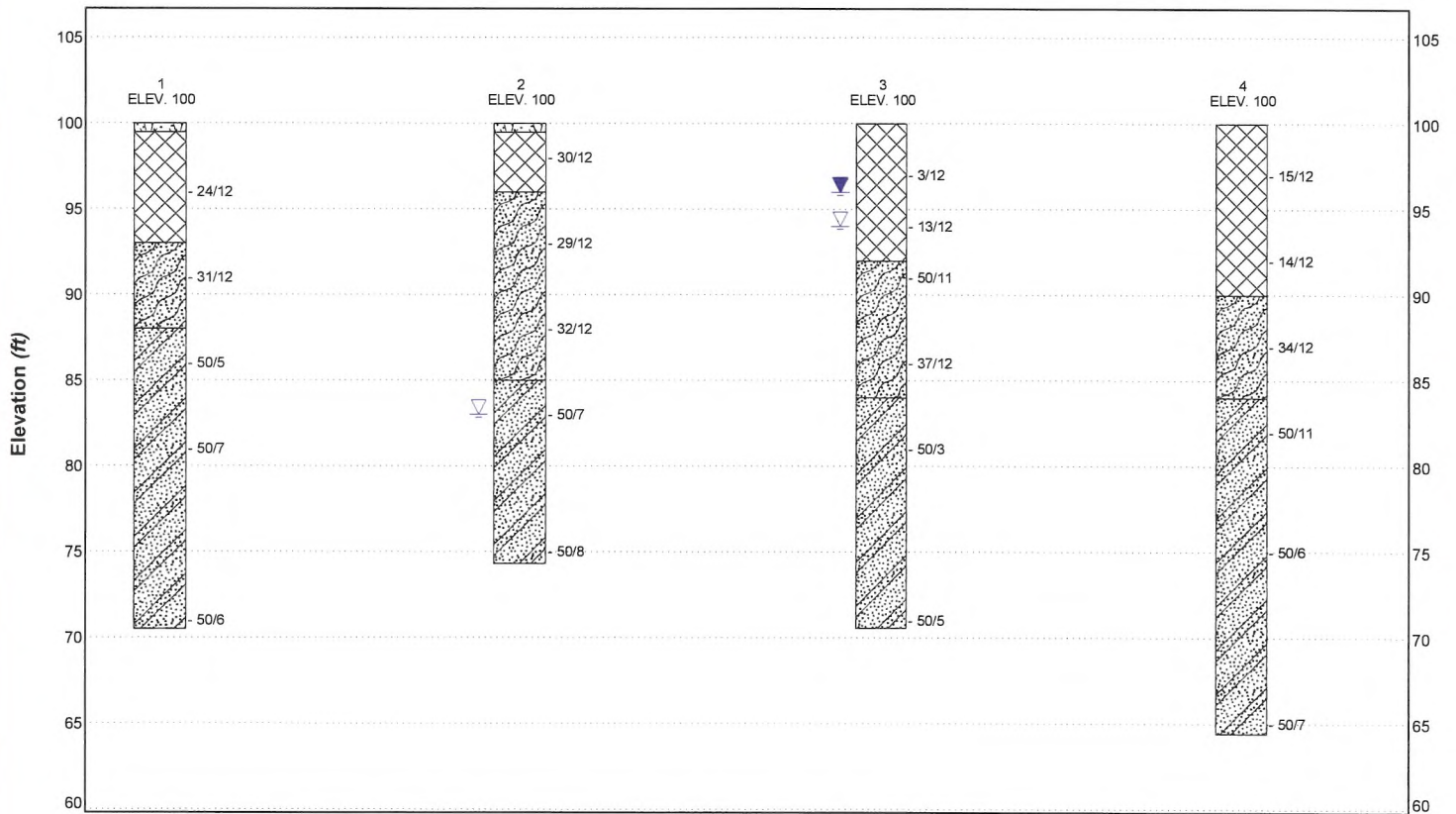


Figure 2

CLIENT: DHM Design

PROJECT NAME: Plum Creek North Park Improvements

JOB NO: 21-3027

PROJECT LOCATION: Castle Rock, CO

MATERIAL SYMBOLS



TOPSOIL



FILL



WEATHERED SANDSTONE



SANDSTONE

SAMPLER SYMBOLS



Modified California Liner Sampler

23 / 12 Drive sample blow count indicates 23 blows of a 140 pound hammer falling 30 inches were required to drive the sampler 12 inches.



Standard Penetration Test Sampler

20-25-30 Drive sample blow count, indicates 20, 25, and 30 blows of a 140 pound hammer falling 30 inches were required to drive the sampler 18 inches in three 6 inch increments.

NOTES

1. Test holes were drilled on 4/9/2021 with 4" solid stem auger.
2. Locations of the test holes were determined approximately by pacing from features shown on the site plan provided.
3. Elevations of the test holes were not measured and the logs of the test holes are drawn to depth. Nominal elevation of "100 feet" indicates existing ground level at the test hole at the time of drilling.
4. The test hole locations and elevations should be considered accurate only to the degree implied by the method used.
5. The lines between materials shown on the test hole logs represent the approximate boundaries between material types and the transitions may be gradual.
6. Groundwater level readings shown on the logs were made at the time and under the conditions indicated. Fluctuations in the water level may occur with time.
7. The material descriptions on these logs are for general classification purposes only. See full text of this report for descriptions of the site materials & related information.
8. All test holes were immediately backfilled upon completion of drilling, unless otherwise specified in this report.

NOTE: See Detailed Logs for Material descriptions.

ABBREVIATIONS

Water Level at Time of Drilling, or as Shown

Water Level at End of Drilling, or as Shown

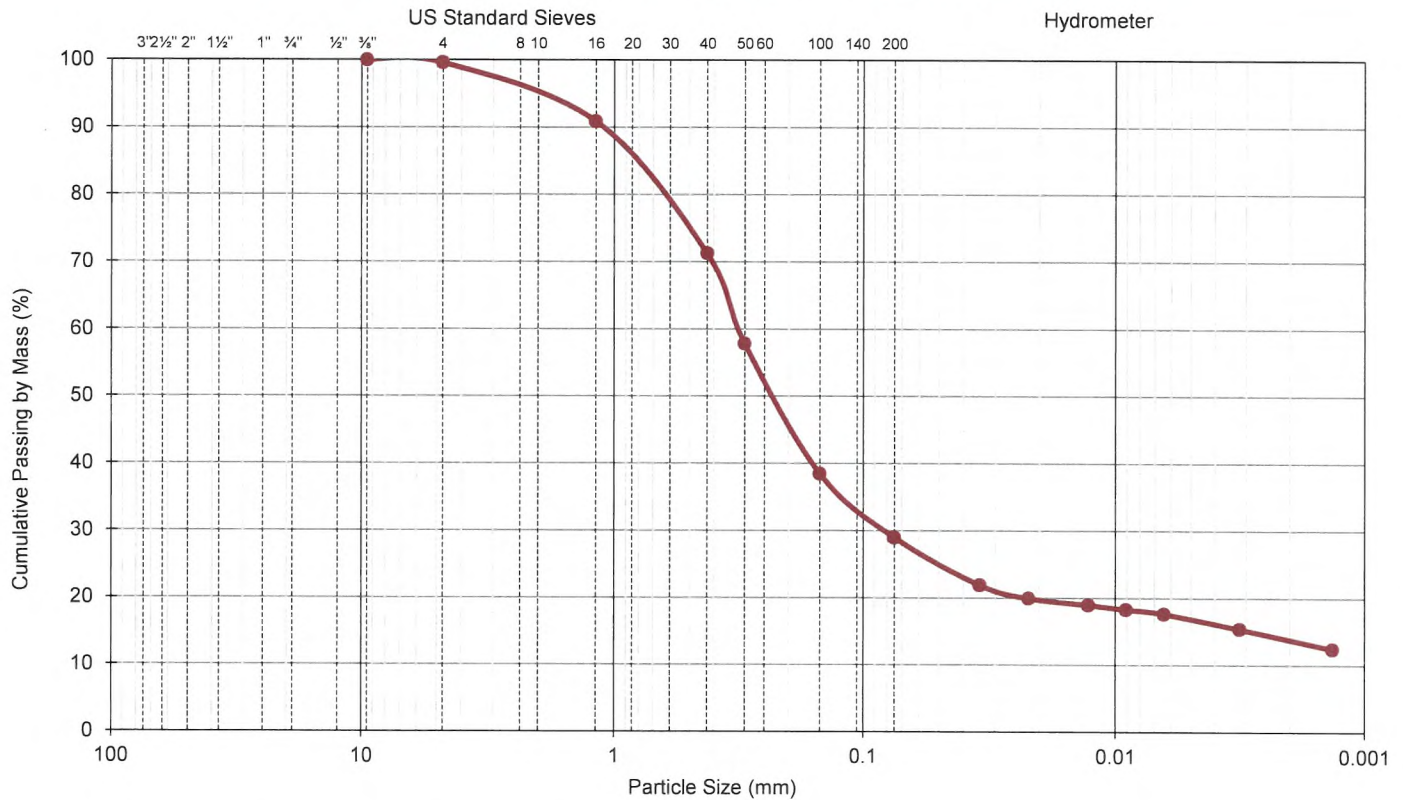
Water Level After 24 Hours, or as Shown

NV No Value
NP Non-Plastic

Figure 3

Plum Creek North Park Improvements

Gradation and Hydrometer (ASTM D422-63[2007])



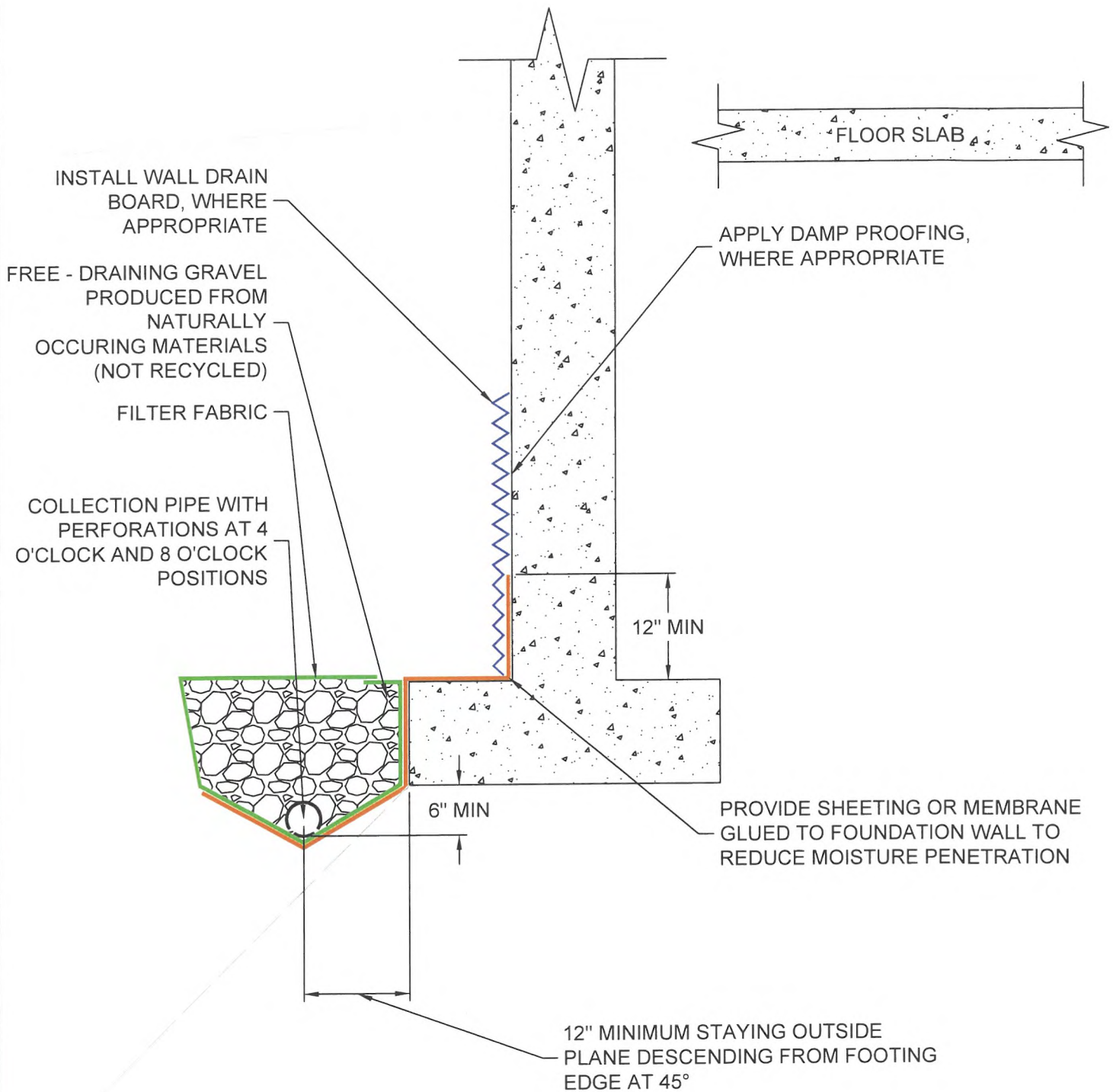
Coarse Gradation			Fine Gradation			Hydrometer		Grading	
US Standard Sieve	Particle Size (mm)	Passing by Mass (%)	US Standard Sieve	Particle Size (mm)	Passing by Mass (%)	Particle Size (mm)	Passing by Mass (%)	Coefficient	Value
6 in	150	-	No. 4	4.75	100	0.034	22	D90	1.127
5 in	125	-	No. 8	2.36	-	0.022	20	D85	0.869
4 in	100	-	No. 10	2.00	-	0.013	19	D80	0.670
3 in	75	-	No. 16	1.18	91	0.009	18	D60	0.317
2.5 in	63	-	No. 20	0.85	-	0.006	18	D50	0.227
2 in	50	-	No. 30	0.60	-	0.003	15	D40	0.158
1.5 in	37.5	-	No. 40	0.425	71	0.001	12	D30	0.081
1 in	25.0	-	No. 50	0.300	58	-	-	D15	-
3/4 in	19.0	-	No. 60	0.250	-	-	-	D10	-
1/2 in	12.5	-	No. 100	0.150	38	-	-	D05	-
3/8 in	9.5	100	No. 140	0.106	-	-	-	Cu	-
No. 4	4.75	100	No. 200	0.075	29.0	-	-	Cc	-

Location: 2 at 7 feet
Description: Weathered SANDSTONE

Classification: SC / A-2-6 (0)
Liquid Limit: 31
Plasticity Index: 12
Activity: 0.9

Gravel (%): 0
Sand (%): 71
Silt/Clay (%): 29
< .002 mm (%): 14

Results apply only to the specific items and locations referenced and at the time of testing. For the hydrometer portion of the test, a composite temperature correction and meniscus correction were applied to each reading. This report should not be reproduced, except in full, without the written permission of GROUND Engineering Consultants, Inc.



NOTES:

1. This is NOT a design - level drawing. it should be used solely for general information purposes only. Actual Underdrain design should be completed by others.
2. The underdrain system must be tested by the contractor after installation and backfilling to verify that it functions properly.
3. Inclusion of this figure in construction documents is done so at the document preparer's risk.
4. Reproduction of this document should be in color.

NOT TO SCALE
SEE TEXT FOR ADDITIONAL INFORMATION

GROUND
ENGINEERING

JOB NO.: 21-3027

FIGURE: 5

TYPICAL UNDERDRAIN DETAIL

CON 2023-0439



Job Number 21-3027

Plum Creek North Park Improvements

TABLE 1: SUMMARY OF LABORATORY TEST RESULTS

Sample Location		Natural Moisture Content (%)	Natural Dry Density (pcf)	Gradation			Atterberg Limits		Swell/Consolidation		USCS Equivalent Classification	AASHTO Equivalent Classification (Group Index)	Sample Description
Test Hole No.	Depth (feet)			Gravel (%)	Sand (%)	Fines (%)	Liquid Limit	Plasticity Index	Volume Change (%)	Surcharge Pressure (psf)			
1	9	15.9	114.1	0	66	33.8	40	14	-0.2	1,100	SM	A-2-6 (1)	Weathered SANDSTONE
1	19	13.1	118.0	1	80	19.2	31	7	-	-	SM	A-2-4 (0)	SANDSTONE Bedrock
2	7	10.8	118.6	1	70	29.0	31	12	-	-	SC	A-2-6 (0)	Weathered SANDSTONE
3	3	12.3	SD	1	66	33.1	34	13	-	-	SC	A-2-6 (1)	SANDSTONE Bedrock
3	6	26.5	95.4	1	23	75.7	52	17	1.0	750	(MH)s	A-7-5 (15)	FILL: Silt with Sand
3	9	10.6	124.0	1	72	26.6	27	8	-	-	SC	A-2-4 (0)	Weathered SANDSTONE
3	14	15.7	114.6	0	58	41.7	27	5	-	-	SC-SM	A-4 (0)	Weathered SANDSTONE
3	19	9.8	120.6	2	79	18.8	29	8	-	-	SC	A-2-4 (0)	SANDSTONE Bedrock
4	3	16.8	112.9	0	35	64.6	45	23	1.8	350	s(CL)	A-7-6 (13)	FILL: Sandy Clay
4	8	17.1	111.4	0	52	47.6	30	9	-	-	SC	A-4 (2)	FILL: Clayey Sand
4	13	22.5	101.3	0	24	76.4	35	11	0.0	1,600	(CL)s	A-6 (8)	Weathered CLAYSTONE
4	18	13.6	117.6	0	48	51.6	30	7	-0.4	2,250	s(ML)	A-4 (1)	SILTSTONE Bedrock

SD = Sample disturbed, NV = No value, NP = Non-plastic

CON 2023-0439



Job Number

21-3027

Plum Creek North Park Improvements

TABLE 2: SUMMARY OF SOIL CORROSION TEST RESULTS

Sample Location		Water Soluble Sulfates (%)	pH	Redox Potential (mv)	Sulfide Reactivity	Resistivity (ohm-cm)	USCS Equivalent Classification	AASHTO Equivalent Classification (Group Index)	Sample Description
Test Hole No.	Depth (feet)								
4	8	0.01	7.1	- 3	Trace	2,816	SC	A-4 (2)	FILL: Clayey Sand

Appendix A

Detailed Logs of the Test Holes

GROUND ENGINEERING

TEST HOLE 1

PAGE 1 OF 1

CLIENT: DHM Design

PROJECT NAME: Plum Creek North Park Improvements

JOB NO: 21-3027

PROJECT LOCATION: Castle Rock, CO

Elevation (ft)	Depth (ft)	Graphic Log	Material Descriptions and Drilling Notes	Sample Type	Blow Count	Natural Moisture Content (%)	Natural Dry Density (pcf)	Percent Passing No. 200 Sieve	Atterberg Limits		Swell/Consolidation (%) at Surcharge Pressure (psf)	Unconfined Compressive Strength (ksf)	USCS Equivalent Classification
									Liquid Limit	Plasticity Index			
100	0		TOPSOIL										
			FILL: Fine coarse sands and clays with local silts and gravels. It was slightly moist to wet, loose to dense to or stiff to hard, non- to moderately plastic, and brown to gray brown in color.										
95	5				24/12								
			WEATHERED SANDSTONE: Weathered, fine to coarse sandstone with local weathered claystones and siltstone. It was moist to wet, slightly to moderately plastic, firm to medium hard, and gray to gray brown in color. Iron oxide staining was noted lo										
90	10				31/12	15.9	114.1	34	40	14	-0.2 (1100)		SM
			SANDSTONE BEDROCK: Fine to coarse sandstones with local claystones and siltstone beds. It was moist to wet, non- to slightly plastic, hard to very hard, and gray to gray blue in color. Iron oxide staining was noted locally.										
85	15				50/5								
80	20				50/7	13.1	118	19	31	7			SM
75	25												
					50/6								

Bottom of borehole at Approx. 29.5 feet.

GROUND

ENGINEERING

TEST HOLE 2

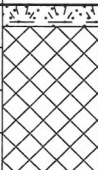
PAGE 1 OF 1

CLIENT: DHM Design

PROJECT NAME: Plum Creek North Park Improvements

JOB NO: 21-3027

PROJECT LOCATION: Castle Rock, CO

Elevation (ft)	Depth (ft)	Graphic Log	Material Descriptions and Drilling Notes	Sample Type	Blow Count	Natural Moisture Content (%)	Natural Dry Density (pcf)	Percent Passing No. 200 Sieve	Atterberg Limits		Swell/Consolidation (%) at Surcharge Pressure (psf)	Unconfined Compressive Strength (ksf)	USCS Equivalent Classification
									Liquid Limit	Plasticity Index			
100	0		TOPSOIL										
			FILL: Fine coarse sands and clays with local silts and gravels. It was slightly moist to wet, loose to dense to or stiff to hard, non- to moderately plastic, and brown to gray brown in color.		30/12								
95	5		WEATHERED SANDSTONE: Weathered, fine to coarse sandstone with local weathered claystones and siltstone. It was moist to wet, slightly to moderately plastic, firm to medium hard, and gray to gray brown in color. Iron oxide staining was noted locally.		29/12	10.8	118.6	29	31	12			SC
90	10				32/12								
85	15		SANDSTONE BEDROCK: Fine to coarse sandstones with local claystones and siltstone beds. It was moist to wet, non- to slightly plastic, hard to very hard, and gray to gray blue in color. Iron oxide staining was noted locally.		50/7								
80	20		Groundwater encountered at 17 feet at time of drilling.										
75	25				50/8								

Bottom of borehole at Approx. 25.67 feet.

GROUND ENGINEERING

TEST HOLE 3

PAGE 1 OF 1

CLIENT: DHM Design

PROJECT NAME: Plum Creek North Park Improvements

JOB NO: 21-3027

PROJECT LOCATION: Castle Rock, CO

Elevation (ft)	Depth (ft)	Graphic Log	Material Descriptions and Drilling Notes	Sample Type	Blow Count	Natural Moisture Content (%)	Natural Dry Density (pcf)	Percent Passing No. 200 Sieve	Atterberg Limits		Swell/Consolidation (%) at Surcharge Pressure (psf)	Unconfined Compressive Strength (ksf)	USCS Equivalent Classification
									Liquid Limit	Plasticity Index			
100	0												
			FILL: Fine coarse sands and clays with local silts and gravels. It was slightly moist to wet, loose to dense to or stiff to hard, non- to moderately plastic, and brown to gray brown in color.										
				3/12	12.3	SD	33	34	13				SC
95	5		Groundwater encountered at 4 feet approximately 2 hours after drilling.										
			Groundwater encountered at 6 feet at time of drilling.	13/12	26.5	95.4	76	52	17		1 (750)		(MH)s
90	10		WEATHERED SANDSTONE: Weathered, fine to coarse sandstone with local weathered claystones and siltstone. It was moist to wet, slightly to moderately plastic, firm to medium hard, and gray to gray brown in color. Iron oxide staining was noted locally.	50/11	10.6	124	27	27	8				SC
85	15			37/12	15.7	114.6	42	27	5				SC-SM
80	20		SANDSTONE BEDROCK: Fine to coarse sandstones with local claystones and siltstone beds. It was moist to wet, non- to slightly plastic, hard to very hard, and gray to gray blue in color. Iron oxide staining was noted locally.	50/3	9.8	120.6	19	29	8				SC
75	25			50/5									

Bottom of borehole at Approx. 29.42 feet.

GROUND ENGINEERING

TEST HOLE 4

PAGE 1 OF 1

CLIENT: DHM Design

PROJECT NAME: Plum Creek North Park Improvements

JOB NO: 21-3027

PROJECT LOCATION: Castle Rock, CO

Elevation (ft)	Depth (ft)	Graphic Log	Material Descriptions and Drilling Notes	Sample Type	Blow Count	Natural Moisture Content (%)	Natural Dry Density (pcf)	Percent Passing No. 200 Sieve	Atterberg Limits		Swell/Consolidation (%) at Surcharge Pressure (psf)	Unconfined Compressive Strength (ksf)	USCS Equivalent Classification	
									Liquid Limit	Plasticity Index				
100	0													
			FILL: Fine coarse sands and clays with local silts and gravels. It was slightly moist to wet, loose to dense to or stiff to hard, non- to moderately plastic, and brown to gray brown in color.		15/12	16.8	112.9	65	45	23	1.8 (350)		s(CL)	
95	5													
					WEATHERED SANDSTONE: Weathered, fine to coarse sandstone with local weathered claystones and siltstone. It was moist to wet, slightly to moderately plastic, firm to medium hard, and gray to gray brown in color. Iron oxide staining was noted locally.		14/12	17.1	111.4	48	30		9	
90	10													
			SANDSTONE BEDROCK: Fine to coarse sandstones with local claystones and siltstone beds. It was moist to wet, non- to slightly plastic, hard to very hard, and gray to gray blue in color. Iron oxide staining was noted locally.				34/12	22.5	101.3	76	35		11	0 (1600)
85	15													
							50/11	13.6	117.6	52	30	7	-0.4 (2250)	s(ML)
80	20													
					50/6									
75	25													
70	30													
65	35				50/7									

Sheet Number	Sheet Title
	Cover Sheet
GN1.0	General Notes
GN1.1	General Notes
	Project Survey of Existing Conditions
BP1.0	Boundary Plan
	Overall Combined
SP1.0	Site Plan
	Existing Conditions and Demolition Plan
L1.0	Layout and Materials Plans
L2.0	Layout and Materials Plans
L2.1	Plans
L3.0	Enlargement Plans
L3.1	Enlargement Plans
L3.2	Enlargement Plans
L3.3	Enlargement Plans
L3.4	Enlargement Plans
L3.5	Enlargement Plans
L4.0	Landscape Plans
L4.1	Landscape Plans
L4.2	Landscape Plans
	Landscape Details and Plant List
L4.3	
L5.0	Site Details
L5.1	Site Details
L5.2	Site Details
L5.3	Site Details
L5.4	Site Details
L5.5	Site Details
L5.6	Site Details
L5.7	Site Details
	Shade Structure Details
L6.0	Shade Structure Details
L6.1	Shade Structure Details
	General Structural
S1.0	Notes
	Entry Monument Sign and Structural Details
S2.0	

	Shade Structure
S3.0	Foundation Plan
	Shade Structure
S4.0	Structural Details
C1	Civil Site Plan
U1	Utility Plans
U2	Utility Plans
U3	Utility Plans
G1	Grading Plans
G2	Grading Plans
	Existing Detailed
D1	Basins Plan
	Proposed Detailed
D2	Basis Plan
DTL1	Civil Details
DTL2	Civil Details
DTL3	Civil Details
DTL4	Civil Details
DTL5	Civil Details
DTL6	Civil Details
DTL7	Civil Details
E0.0	Electrical Cover Sheet
	Electrical Site Plan -
E1.0	West
	Electrical Site Plan -
E1.1	East
	Electrical One-line
E2.0	Diagram
	Electrical Photometric
E3.0	Site Plan
	Electrical Photometric
E3.1	Site Plan
	Electrical Photometric
E3.2	Details
IR1.0	Irrigation Plan
IR1.1	Irrigation Details
IR1.2	Irrigation Details
IR1.3	Irrigation Notes
	Temporary Erosion
	and Sediment Control
T1	Plans

T2	Temporary Erosion and Sediment Control Plans
T3	Temporary Erosion and Sediment Control Plans
T4	Temporary Erosion and Sediment Control Plans
1	TESC Standard Notes and Details
2	TESC Standard Notes and Details
3	TESC Standard Notes and Details
4	TESC Standard Notes and Details

EXHIBIT 4

BID & REQUIREMENTS

SCHEDULE: All Bidders shall provide a base line schedule with a gantt chart. The baseline schedule shall include but not be limited to the following milestones:

- Mobilization
- Completion of Water Meter
- Completion of Restroom Footings & Underground Plumbing
- Date to Set CXT Restroom
- Commencement of Irrigation
- Completion of Irrigation
- Commencement of Plantings
- Completion of Plantings
- Commencement of Playground Shelter
- Completion of Playground Shelter
- Commencement of Playground Equipment
- Completion of Playground Equipment
- Commencement of PIP
- Completion of PIP
- Commencement of Court Surfacing
- Completion of Court Surfacing
- Commencement of Sandblasting
- Completion of Sandblasting
- Closeout (Warranty, O&M, As-builts)
- Punchlist initial
- Punchlist completion
- Project Substantial Completion (Friday, May 31, 2024)
- Project Final Construction Completion (Friday, June 14, 2024)

Weekly: General contractor shall provide an electronic schedule to the assigned Project Manager via email on a weekly basis. This schedule shall be a four week look ahead which list the activities that will be occurring over the next four weeks correlating to the dates on which they will occur.

Base Line Schedule: During the bid a base line schedule shall be provided with a Gantt chart. Furthermore, the schedule shall show the activities included but not limited to buyout, submittals, installation, inspections, punchlist and closeout. The critical path shall be shown, updated and provided in an electronic format to the assigned Town Project Manager via email on a monthly basis. Additionally, the schedule shall have the project name listed and the data date shown. Furthermore, the “float” of each activity shall be shown.

PROJECT MEETINGS:

OAC's: Owner, Architect and Contractor meetings shall be held on a weekly basis at the jobsite. If it takes the General Contractor awhile to get their trailer on-site and mobilized or should the General Contractor choose not to have a trailer, an alternate location may be deemed necessary by the assigned Town Project Manager. At the end of each meeting, the project team shall walk the job site to review the progress. The General Contractor shall have the following personnel present at the meeting; Superintendent, Project Manager and Project Engineer. The General Contractor shall include the following information in the printed meeting minutes: safety update, submittal log (identifying long lead items), RFI log, change order log, schedule, hot topics.

MATERIALS TESTING:

The materials testing contract will be held by The General Contractor. The General Contractor shall coordinate all inspections needed in order to complete the project. The General Contractor shall be responsible for scheduling their materials testing in a timely and orderly manner in order to maintain the schedule. Additionally, any and all certifications necessary shall be submitted formally to the structural engineer as well as materials tester. These certifications shall remain on-site for reference. All structures will need to be inspected regardless of what the submittal/shop drawings state.

Materials Testing Scope: The purpose of this Scope of Work (SOW) is to provide all materials testing & inspections for Plum Creek Park North Construction. This work shall be performed with an experienced technician who is certified and capable of performing the required construction material observations, testing and inspections as required per the Contract Documents.

- a. The testing that is to be performed shall at minimum meet the Town of Castle Rock Public Works and Building Department requirements. This shall include but not be limited to the following:
 - a. Soils proctors
 - b. Rebar inspection
 - c. Compaction testing
 - d. Drilled Pier Inspections (light poles)
 - e. Concrete strength testing
 - f. Post-Tension Concrete (tennis courts)
 - g. Bolting of Structural Steel (shade structure roof and footers bolting)
- b. All field reports shall be emailed to the general contractor, the architect, DHM and The Town of Castle Rock as well as the following individuals:
 - Brian Peterson (bpeterson@crgov.com)
 - Matt Roth (mroth@crgov.com)
 - Matthew Whipple (mwhipple@dhmdesign.com)
 - Kyle Davis (kdavis@dhmdesign.com)
 - Others to be added after bid.

If there is a failed inspection this shall be flagged and emailed immediately to the persons stated above.

- c. It is preferred that only one technician within their area of expertise/certification rather than having multiple inspectors engaged in the project.

- d. Inspector(s) shall have all the proper mix designs, shop drawings, and other pertinent information with them while on-site.

TOWN INSPECTIONS: The General Contractor shall be responsible for coordinating inspections with any and all entities involved. This includes but may not be limited to the following agencies: the local Town of Castle Rock Building Department, Castle Rock Water TESC, Town of Castle Rock Public Works and third party inspections as mentioned above.

DRAWINGS:

The General Contractor shall have a full-sized, printed set of the most current drawings that remain on-site at all times. It is recommended, that the General Contractor use an electronic system for tracking all the drawings, Specifications/Definitions of Bid Items, RFI's, submittals, meeting minutes, photos and punchlist. Recommended electronic systems include PROCORE or Bluebeam. Additionally, they shall allow access for the assigned Project Manager from the Town as well as the Landscape Architect and their associated consultants.

PERMITS:

The assigned Project Manager from The Town of Castle Rock shall be responsible for assisting in obtaining the following permits (as applicable); Building Permit, TESC Permit, Irrigation Permit, Construction (CON) Permit and Signage Permit. The General Contractor shall be responsible for obtaining all other permits including but not limited to Traffic Control Permit – this can take 7-10 days to approve if it is a Castle Rock controlled street. Stormwater Permits (State) other than what is listed above as well as CDPS Construction Activity Permit from the Colorado Department of Health and Environment (CDPHE), and implementation of the Stormwater Management Plan (SWMP) in accordance with the Contract Drawings and Specifications and the CDPHE regulations, installation, maintenance and removal of temporary BMPs

DEFERRED SUBMITTALS:

Shall there be any deferred submittals that are necessary to be submitted to the Building Department (structural, electrical, etc...) The assigned Town of Castle Rock Project Manager is willing to help with this process. All items that will be submitted to the Building Department will need to be stamped by a Colorado Licensed Engineer prior to submitting. Please allow up to three (4) weeks for Building Department approval.

REGISTRATION WITH THE TOWN:

In order to perform work within the Town of Castle Rock, the following trades must be registered with the Building Department: General Contractor, Electrical, Plumbing and Mechanical. For the installer who installs the shade structure(s)/pavilion(s) they will need to be registered with the Town and have a Class A building license. Additionally, landscapers must be licensed with the Town of Castle Rock.

CLOSE OUT: At the time of Substantial Completion, the General Contractor shall provide the assigned Town of Castle Rock Project Manager with an electronic copy of the following information:

- Updated Construction Documents: these shall contain all the ASI's incorporated into them and RFI's posted at the appropriate areas.
- As-Built Drawings: accurate drawings depicting the underground utilities. This does not mean highlighting the CD's and calling these as-builts. Actually knowing where underground conduit runs, where it is fed from and what it is feeding.
- As-Built Grading drawings
- A copy of the panel schedule. Again, this does not mean copying what it is the CD's. This means an accurate representation of what is in the field and what it controls.
- All individual approved submittals shall be provided and titled in the following manner: division number and the title of what the file contains.
- All individual RFI's shall be provided in numerical folders containing the actual RFI and the appropriate back up.
- Warranty information
- Any and all attic stock listed per the Specifications/Definitions of Bid Items
- O&M manuals
- Any required training

BID FORMS
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BID PROPOSAL

PROJECT: Plum Creek Park North Construction

1. In compliance with your Invitation to Bid, and subject to all conditions thereof, the undersigned:

Colorado Designscares Inc.

a Corporation incorporated in the State of Colorado

-OR-

, a partnership, / limited partnership, (select one), registered in the State of , whose general partner(s) is/are

-OR-

a sole proprietor, whose trade name is in the Town of , State of , offers this Bid Proposal for the construction of all items listed at the prices shown on the following Bid Schedule. *(The attached Bid Schedule lists the various divisions of construction contemplated in the Plans and Specifications, together with an estimate of the units of each. With these units as the basis, extend each item, using the cost inserted in the unit column. Any total cost found inconsistent with the unit cost when the Bids are examined will be deemed in error and corrected to agree with the unit cost. Alternate Bids are optional.)*

2. The undersigned Bidder declares and stipulates that this Bid is made in good faith, without collusion or connection with any other person or persons bidding for the same Work, and that it is made subject to all the terms and conditions of the Invitation to Bids, Information and Instruction for Bidders, and Construction Contract General Conditions, the Agreement for a Construction Contract, Special Conditions, the Technical Specifications, and the Plans pertaining to the Work to be done, all of which have examined by the undersigned.

3. Accompanying this Bid is a Bid Guarantee for 5% of the total Bid amount according to the Invitation to Bids and Information and Instructions to Bidders.

4. The undersigned Bidder agrees to execute the Agreement for a Construction Contract, a Performance Bond and a Labor and Material Payment Bond within ten days from the date when the written Notice of Award is delivered at the address given on this Bid Proposal. The Performance Bond and Labor and Material Payment Bond shall each be for the amount of the total of this Bid and shall be from the same surety. The name and address of the corporate surety through which the Bidder proposes to furnish the specified Bonds is as follows:

5. The submission of the Bid constitutes an agreement, and it shall not be withdrawn after the Bid Opening for a period of thirty days.

6. All the various phases of work enumerated in the Contract with individual jobs and overhead, whether specifically mentioned or not, are included by implication or appurtenance in the Contract. The Contractor shall perform all the various phases of work under one of the items listed in the Bid Schedule, irrespective of whether it is named in the Schedule.

7. Payment for the Work performed will be according to the Bid Schedule, subject to changes as provided in the Contract.

8. The undersigned Bidder hereby acknowledges receipt of addenda numbers 1 through 1.

Addenda No. <u>1</u>	Date <u>5/4/2023</u>
Addenda No. _____	Date _____
Addenda No. _____	Date _____
Addenda No. _____	Date _____
Addenda No. _____	Date _____
Addenda No. _____	Date _____

RETURN BID TO:

The undersigned, being familiar with the existing conditions on the project area affecting the cost of the Work and the Contract Documents, and having verified the quantities and the availability of materials and labor, hereby proposes to furnish all supervision, labor, materials, machinery, tools, appurtenances, equipment, supplies, and services, including utility and transportation service required to construct and complete the Project listed above, according to the Contract, within the time specified, and at the prices stated below. These prices are to cover all expenses incurred in performing the Work required under the Contract of which this Bid is a part.

(The approximate quantities of Work to be completed in-place under the Contract are identified in the Bid Schedule and are for the purpose of comparing Bids. These quantities have been estimated and the quantities used are for the general information of the Bidder, representing the major items of the Work to be done. Minor details are not listed but shall be part of the complete Contract.)

9. The undersigned agrees to hold firm the Bid for thirty days for the purpose of the Town reviewing the Bids and investigating the qualifications of the Bidders prior to award of Contract. Mutually agreed upon extensions of time may be made if necessary.

This proposal is submitted by:

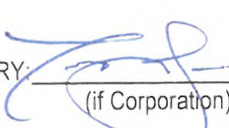
CONTRACTOR: Colorado Designscares Inc.

BY: 
Phil Steinhauer

ADDRESS: 15440 E. Fremont Drive, Centennial CO 80112

TITLE: President

Attest:

SECRETARY: 
(if Corporation)

DATE: 5/12/2023





BIDDER'S QUALIFICATIONS AND DATA

All questions must be answered clearly and comprehensively. If necessary, separate sheets may be attached. The Bidder may submit additional information.

1. Name of Bidder: Colorado Designsapes Inc.
2. Permanent main office address:
15440 E. Fremont Drive
Centennial, CO 80112
3. Phone: 303-721-9003 Fax # 303-531-7670
4. Bidder's federal tax identification number 84-1197138
5. The Bidder is organized as a Corporation
6. The date the Bidder was organized in its current form: April 1992
7. If a corporation, the state where it is incorporated: Colorado
8. How many years have you been engaged in the contracting business under your present firm or trade name?
31 Years
9. Contract(s) on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dated of completion.)

Job: <u>Mitchell Gulch Park</u>	\$: <u>3.1MM</u>	Completion Date: <u>Oct / Nov 2023</u>
Job: <u>Colliers Hill Park</u>	\$: <u>2.1MM</u>	Completion Date: <u>August 2023</u>
Job: <u>Congress Park</u>	\$: <u>2.3MM</u>	Completion Date: <u>June 2024</u>
Job: <u>Applewood Park</u>	\$: <u>200K</u>	Completion Date: <u>August 2023</u>
10. General character or work performed by your company:
Demolition, Earthwork, Small Utilities, Concrete, Landscape, Irrigation, Maintenance, Trucking
11. Have you ever been debarred or suspended by a government from consideration for the award of contracts? No If so, where and why?
12. Have you ever been charged liquidated damages on a contract? Yes If so, where and why?
Once for City and County of Denver - On Call Construction Services. We had a subcontractor for concrete that performed work unsatisfactorily, but failed to remove and replace it in the appropriate amount of time. We could not self perform the work due to the minority % required by the contract, and were therefore subject to LD's. Total amount charged was \$1,000 per the on call contract for being late 1 day.
13. List your major equipment AVAILABLE FOR THIS PROJECT:
See attached.

14. Experience in construction work similar in contract price to this project:

- a. Job/\$ 900,000.00 Wrangler Park /
Contact Name/Phone Jeff Smullen - Town of Castle Rock
- b. Job/\$ 4,200,000.00 Elk Ridge Park /
Contact Name/Phone Larry Nemo - City of Castle Pines
- c. Job/\$ 1,200,000.00 Bible Park /
Contact Name/Phone Kristen Beard - City and County of Denver

15. Background and experience of the principal members of your organization, including officers:

Tom Brownfield - 30+ Years. PLA Certified
Travis Sommervold - 20+ Years.

16. Bonding Limit: \$ 8MM

17. Bonding Company: Westfield Insurance Phone # 303-824-6600
Address: 8055 East Tufts Ave

18. Bank Reference(s):
Am First Bank

19. Will you, upon request, complete a detailed financial statement and furnish any other information that may be required by the Town of Castle Rock?
Yes.

20. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Town of Castle Rock in verification of the recitals in this statement of **Bidder's Qualifications and Data**.

CONTRACTOR: Colorado Designscares Inc.

BY: Phil E. Steinhauer
Phil Steinhauer

ADDRESS: 15440 E. Fremont Drive, Centennial CO 80112

ITS: President
Title

Attest:

SECRETARY: (if Corporation)

DATE: 5/12/2023



BIDDER'S OFFICIALS DATA

Bidder's name Colorado Designscapes Inc.For each officer of a corporation, partner of a firm, or owner of a sole proprietorship, provide the following information:
(Use additional sheets as necessary.)Name Travis SommervoldTitle Assistant Manager

Home address _____

Town, State, Zip Englewood, CO 80112Other companies with whom this person has been affiliated in last 10 years None.Has that company ever been disbarred or suspended from participation in the award of contracts with a government? No.Name Mark DemrovskyTitle Project Manager

Home address _____

Town, State, Zip Lakewood, COOther companies with whom this person has been affiliated in last 10 years Environmental LandworksHas that company ever been disbarred or suspended from participation in the award of contracts with a government? No.Name Chris StoneTitle Project Manager

Home address _____

Town, State, Zip Thornton, COOther companies with whom this person has been affiliated in last 10 years NoneHas that company ever been disbarred or suspended from participation in the award of contracts with a government? No.Name Tom BrownfieldTitle Team Manager

Home address _____

Town, State, Zip Parker, COOther companies with whom this person has been affiliated in last 10 years None.Has that company ever been disbarred or suspended from participation in the award of contracts with a government? No.

BID BOND

Colorado Designsapes, Inc. 15440 E. Fremont Drive, Centennial, CO 80112
 (insert the full name and address or legal title of the Contractor) as Principal,
 and, Westfield Insurance Company
 (insert the legal title of the Surety)
 as Surety, a corporation organized under the laws of the State of OH and authorized to transact business in the State of
 Colorado, with a general office at P.O. Box 5001, Westfield Center, OH 44251-5001
 are hereby bound to the Town of Castle Rock, Colorado, (Town) as Oblige, in the amount of Five Percent of Amount Bid 5% DOLLARS, in United States currency, for the payment of which
 amount the Contractor and Surety bind themselves, their heirs, executors, administrators, successors, and
 assigns, jointly and severally. The Principal has submitted the accompanying Bid dated May 12, 2023,
 for construction of the named project. Plum Creek Park North Construction

The Town requires, as a condition for receiving the Bid, that the Principal deposit with the Town a Bid Guaranty, of at least five percent of the amount of the Bid, conditioned so that if the Principal fails to execute the Agreement for Construction Contract, and furnish the required Bonds if the Principal is awarded the Contract, that the sum be paid immediately to the Town, as liquidated damages and not as a penalty, for the Principal's failure to perform.

If the Principal, within the specified period, executes the Agreement for Construction Contract with the Town according to the Bid, as accepted, and furnishes a Performance Bond and a Labor and Material Payment Bond with good and sufficient Surety or Sureties, upon the forms prescribed by the Town for the faithful performance and proper fulfillment of the Contract, or pays to the Town the proper amount of liquidated damages, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Executed this 12th day of May, 2023.

WITNESS

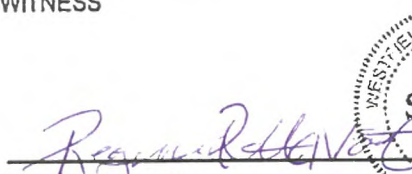


Colorado Designsapes, Inc.
 PRINCIPAL

BY: 
 By its President Philip E. Steinhauer



WITNESS

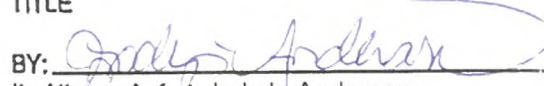


 Regina R. Hrovat



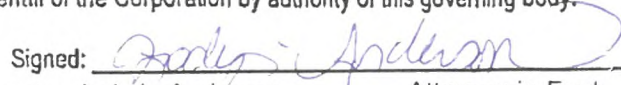
Westfield Insurance Company
 SURETY

TITLE

BY: 
 Its Attorney-in-fact Jody L. Anderson

I, Jody L. Anderson, certify that I am
 the Attorney-in-Fact (title) of the Corporation named as Surety; that
 Philip E. Steinhauer, who signed the bond on behalf of the Principal, was then President
 (title) of the Corporation; that I know his or her signature, and the signature thereto is genuine; and that the bond was
 duly signed, sealed, and attested to for and on behalf of the Corporation by authority of this governing body.

(CORPORATE SEAL)

Signed: 
 Title: Jody L. Anderson Attorney-in-Fact

General
Power
of Attorney

CON 2023-0439

CERTIFIED COPY

Westfield Insurance Co.
Westfield National Insurance Co.
Ohio Farmers Insurance Co.
Westfield Center, Ohio

Know All Men by These Presents, That WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY, corporations, hereinafter referred to individually as a "Company" and collectively as "Companies," duly organized and existing under the laws of the State of Ohio, and having its principal office in Westfield Center, Medina County, Ohio, do by these presents make, constitute and appoint **Jody L. Anderson SEVERALLY**

of **Denver** and State of **CO** its true and lawful Attorney-in-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver **any and all bonds, recognizances, undertakings, or other instruments or contracts of suretyship-**

Surety Bond No.: Bid Bond
Principal: Colorado Designsapes, Inc.
Obligee: Town of Castle Rock

LIMITATION: THIS POWER OF ATTORNEY CANNOT BE USED TO EXECUTE NOTE GUARANTEE, MORTGAGE DEFICIENCY, MORTGAGE GUARANTEE, OR BANK DEPOSITORY BONDS.

and to bind any of the Companies thereby as fully and to the same extent as if such bonds were signed by the President, sealed with the corporate seal of the applicable Company and duly attested by its Secretary, hereby ratifying and confirming all that the said Attorney(s)-in-Fact may do in the premises. Said appointment is made under and by authority of the following resolution adopted by the Board of Directors of each of the WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY:

"Be It Resolved, that the President, any Senior Executive, any Secretary or any Fidelity & Surety Operations Executive or other Executive shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

The Attorney-in-Fact, may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements of indemnity and other conditional or obligatory undertakings and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed by the President and sealed and attested by the Corporate Secretary."

"Be It Further Resolved, that the signature of any such designated person and the seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signatures or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached." (Each adopted at a meeting held on February 8, 2000).

In Witness Whereof, WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY have caused these presents to be signed by their **National Surety Leader and Senior Executive** and their corporate seals to be hereto affixed this **17th** day of **DECEMBER** A.D., **2019**.

Corporate
Seals
Affixed



WESTFIELD INSURANCE COMPANY
WESTFIELD NATIONAL INSURANCE COMPANY
OHIO FARMERS INSURANCE COMPANY

By:
Gary W. Stumper, National Surety Leader and Senior Executive

State of Ohio
County of Medina

ss.:

On this **17th** day of **DECEMBER** A.D., **2019**, before me personally came **Gary W. Stumper** to me known, who, being by me duly sworn, did depose and say, that he resides in **Hartford, CT**; that he is **National Surety Leader and Senior Executive** of WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY, the companies described in and which executed the above instrument; that he knows the seals of said Companies; that the seals affixed to said instrument are such corporate seals; that they were so affixed by order of the Boards of Directors of said Companies; and that he signed his name thereto by like order.

Notarial
Seal
Affixed



David A. Kotnik, Attorney at Law, Notary Public
My Commission Does Not Expire (Sec. 147.03 Ohio Revised Code)

State of Ohio
County of Medina

ss.:

I, **Frank A. Carrino**, Secretary of WESTFIELD INSURANCE COMPANY, WESTFIELD NATIONAL INSURANCE COMPANY and OHIO FARMERS INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect, and furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Westfield Center, Ohio, this **12th** day of **May** A.D., **2023**



Frank A. Carrino, Secretary

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of Colorado)
) SS
 County of Arapahoe)

Phil Steinhauer _____, being duly sworn, deposes and says that:
 (Insert name)

1. He/She is the President (Title) of Colorado Designscares Inc., the Bidder that has submitted the attached Bid;
2. He/She is fully informed respecting the preparation and content of the attached Bid and of all pertinent circumstances respecting such Bid;
3. Such Bid is genuine and is not a collusive or sham Bid;
4. Neither the Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, subcontractor, mechanic, materialman, suppliers, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted, or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought agreement, collusion, communication or conference in the attached Bid or any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Town of Castle Rock or any person interested in the proposed Contract; and
5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees or parties in interest, subcontractor, mechanic, materialman, suppliers, including this affiant.

CONTRACTOR: Colorado Designscares Inc.

BY: Phil E. Steinhauer
 Phil Steinhauer

ADDRESS: 15440 E. Fremont Drive, Centennial CO 80112

TITLE: President

Attest:

SECRETARY: (Signature)
 (if Corporation)

DATE: 5/12/2023

(SEAL)



SUBCONTRACTORS AND RELATED DATA

For each Subcontractor to be utilized please provide the following information (use additional sheets as necessary):

Firm Name: C&R Electrical
 Address: _____
 Proposed work and percentage of total work to be assigned: _____
Electrical Percentage 9 %

Firm Name: Tatonka (Surface America)
 Address: _____
 Proposed work and percentage of total work to be assigned: _____
Poured In Place Percentage 3.5 %

Firm Name: Metro Pavers
 Address: _____
 Proposed work and percentage of total work to be assigned: _____
Asphalt Milling and Paving Percentage 1.5 %

Firm Name: J&F Concrete
 Address: _____
 Proposed work and percentage of total work to be assigned: _____
Concrete Percentage 8 %

Firm Name: Triax Engineering
 Address: _____
 Proposed work and percentage of total work to be assigned: _____
Materials Testing Percentage 1 %

Firm Name: K&K Custom Fabrication
 Address: _____
 Proposed work and percentage of total work to be assigned: _____
Steel Fabrication Percentage 7 %

Total Percentage 30 %

Percentage of sub-contractor work must not exceed FIFTY-ONE PERCENT (51%) of the overall construction price.

BID SCHEDULE PLUM CREEK NORTH PARK

Bidder Name: Colorado Designscares Inc.

1. Contractor to submit bids for all items, failure to do so will render bid non-responsive.
2. If no bid item existing for a portion of the work or item, include the costs in a related bid item.
3. Contractor to provide a bid for a fully constructed project.
4. In case of error in summation, the total of the corrected bid amount governs.
5. CAD files will be provided for bidding purposes.
6. Contractor to provide supplemental bid pricing for any ADDS & DEDUCTS to the project during construction.

#	Item Description	Qty	Unit	Unit Price	Extension
BASE BID ITEMS					
01	Project Start-up / Mobilization / General Conditions	1	LS	Lump Sum	365,000. ⁰⁰
02	Materials Testing	1	LS	Lump Sum	33,000. ⁰⁰
03	Erosion Control & Stormwater Management	1	LS	Lump Sum	156,000. ⁰⁰
04	Construction Survey and Staking	1	LS	Lump Sum	39,500. ⁰⁰
05	Traffic Control	1	LS	Lump Sum	13,000. ⁰⁰
06	Vegetation Clearing & Grubbing	1	LS	Lump Sum	52,000. ⁰⁰
07	Tree Protection & Construction Fencing	1	LS	Lump Sum	7,500. ⁰⁰
08	Tree Removal and Disposal	1	LS	Lump Sum	13,000. ⁰⁰
09	Tree Relocation (On-Site)	1	LS	Lump Sum	19,000. ⁰⁰
10	Site Demolition	1	LS	Lump Sum	126,000. ⁰⁰
11	Site Grading & Earthwork	1	LS	Lump Sum	196,000. ⁰⁰
12	Water Service & Improvements	1	LS	Lump Sum	9,500. ⁰⁰
13	Sanitary Service Improvements	1	LS	Lump Sum	25,000. ⁰⁰
14	Stormwater Drainage Improvements	1	LS	Lump Sum	345,000. ⁰⁰
15	Rectangular Rapid Flashing Beacons – Crosswalk Improvements	1	LS	Lump Sum	14,000. ⁰⁰
16	Site Lighting & Electrical Service	1	LS	Lump Sum	390,000. ⁰⁰
17	Concrete Paving	1	LS	Lump Sum	230,000. ⁰⁰
18	Concrete Paving, Parking HC Stall	1	LS	Lump Sum	10,000. ⁰⁰
19	Concrete – Playpit Edging	1	LS	Lump Sum	27,000. ⁰⁰
20	Concrete – Playpit Wall	1	LS	Lump Sum	26,000. ⁰⁰
21	Structural Concrete – Stairs	1	LS	Lump Sum	19,000. ⁰⁰
22	Concrete - Landscape Edging	1	LS	Lump Sum	23,000. ⁰⁰
23	Steel Handrail (Stairs & Entry Monument)	1	LS	Lump Sum	12,000. ⁰⁰
24	Crusher Fines, 4" Depth	1	LS	Lump Sum	7,500. ⁰⁰
25	Landscape Boulder	1	LS	Lump Sum	14,500. ⁰⁰
26	Boulder Block Seating – Quarry Finish	1	LS	Lump Sum	43,500. ⁰⁰
27	Concrete Curb & Gutter	1	LS	Lump Sum	900. ⁰⁰
28	Concrete Curb Stop	1	LS	Lump Sum	1,650. ⁰⁰
29	Asphalt Paving, Parking – 3" Overlay	1	LS	Lump Sum	36,000. ⁰⁰
30	Asphalt Paving, Patching	1	LS	Lump Sum	4,100. ⁰⁰
31	Parking Lot Striping	1	LS	Lump Sum	3,900. ⁰⁰
32	Parking Lot Signage	1	LS	Lump Sum	5,800. ⁰⁰
33	Playground Equipment & Climbing Boulder	1	LS	Lump Sum	32,000. ⁰⁰
34	Structural Concrete – Playground Ramp	1	LS	Lump Sum	10,500. ⁰⁰
35	Poured-in-Place Rubber Surfacing - Playground	1	LS	Lump Sum	220,000. ⁰⁰
36	EWf Surfacing - Playground	1	LS	Lump Sum	11,000. ⁰⁰
37	Post Tension Pickleball Court	1	LS	Lump Sum	135,000. ⁰⁰
38	Post Tension Basketball Court	1	LS	Lump Sum	60,000. ⁰⁰
39	Bocce Ball Courts	1	LS	Lump Sum	57,000. ⁰⁰
40	Entry Monument	1	LS	Lump Sum	35,000. ⁰⁰
41	Shade Shelter	1	LS	Lump Sum	285,000. ⁰⁰
42	CXT Restroom	1	LS	Lump Sum	220,000. ⁰⁰
43	3-Rail Wood Fencing	1	LS	Lump Sum	9,000. ⁰⁰
44	Trash Receptacles	1	LS	Lump Sum	26,000. ⁰⁰
45	Bike Racks	1	LS	Lump Sum	6,700. ⁰⁰
46	Tables - Square	1	LS	Lump Sum	7,500. ⁰⁰
47	Pet Waste Stations	1	LS	Lump Sum	5,000. ⁰⁰
48	Benches	1	LS	Lump Sum	16,000. ⁰⁰
49	Adirondack Chairs	1	LS	Lump Sum	5,000. ⁰⁰

50	Western Wheatgrass with Soil Prep
51	Native Seed with Soil Prep
52	Ornamental Grasses
53	Evergreen Shrubs
54	Deciduous Shrubs
55	Deciduous Shade Tree – 2" Caliper
56	Ornamental Tree – 2" Caliper
57	Complete Irrigation System

1	LS	Lump Sum	4,000.00
1	LS	Lump Sum	65,000.00
1	LS	Lump Sum	7,000.00
1	LS	Lump Sum	8,300.00
1	LS	Lump Sum	3,000.00
1	LS	Lump Sum	11,000.00
1	LS	Lump Sum	14,000.00
1	LS	Lump Sum	16,000.00

TOTAL BASE BID: 3,682,350.00

SUPPLEMENTAL BID SCHEDULE - PLUM CREEK NORTH PARK - UNIT PRICING

NOTE: ALL unit prices are for both ADD & DEDUCTS to the project during construction.

Project Start-up & Site Protection:

General Conditions

Silt Fence

Inlet Protection

Reinforced Rock Berm (RRB)

Erosion Control Blanket (ECB)

Tree Protection

Unit	Unit Price
Per day	\$1650.00
LF	\$3.30
LF	\$10.00
LF	\$210.00
SF	\$1.40
LF	\$4.00

Demolition:

Tree Removal and Disposal - 6" or less

Tree Spade Relocation - 6" or less

Demo Existing Concrete

Demo Existing Curb and Gutter

Demo Existing Asphalt

EA	\$915.00
EA	\$800.00
SF	\$1.60
LF	\$8.25
SF	\$1.60

Earthwork:

Earthwork - Import/Export

Earthwork - In Place

CY	\$20.00
CY	\$16.00

Sitework:

Structural Concrete - General

Concrete Paving - 6" Standard Gray

Concrete Paving - 6" Colored

Concrete Edge (Landscape) - 6"x8"

Concrete Edge (Bocce) - 8"x15"

Crusher Fines, 4" Depth (Full Depth Stabilized)

Boulder - Landscape

Boulder - Block Seating (Quarry Finish)

3-Rail Wood Fencing

CY	\$525.00
SF	\$8.30
SF	\$15.00
LF	\$33.00
LF	\$138.00
SF	\$3.20
EA	\$550.00
EA	\$850.00
LF	\$70.00

Parking:

Concrete Curb Stop

Asphalt Paving, Parking - 3" Overlay

Asphalt Paving, Patching - Full Depth

EA	\$150.00
SF	\$3.00
SF	\$9.00

Playground:

Concrete - Playpit Wall - 8"x21"

Concrete Edge (Playpit Edge) - 6"x8"

EWB Surfacing

Poured-in-Place Rubber Surfacing - Playground

4" Concrete - Base for PIP Rubber Surfacing

LF	\$130.00
LF	\$35.00
SF	\$4.00
SF	\$31.00
SF	\$7.50

Site Furniture:

CON 2023-0439

Trash Receptacles
Bike Racks
Tables - Square
Tables - Square ADA
Pet Waste Stations
Benches
Adirondack Chairs

EA	<u>\$2,300.00</u>
EA	<u>\$950.00</u>
EA	<u>\$1,750.00</u>
EA	<u>\$1,650.00</u>
EA	<u>\$1,200.00</u>
EA	<u>\$2,800.00</u>
EA	<u>\$1,650.00</u>

Landscape:

Western Wheatgrass with Soil Prep
Native Seed with Soil Prep
Shrub Bed w/ Wood Mulch & Soil Prep
Ornamental Grasses
Evergreen Shrubs
Deciduous Shrubs
Deciduous Shade Tree - 2" Caliper
Ornamental Tree - 2" Caliper

SF	<u>\$1.75</u>
SF	<u>\$1.45</u>
SF	<u>\$1.90</u>
EA	<u>\$21.00</u>
EA	<u>\$90.00</u>
EA	<u>\$60.00</u>
EA	<u>\$725.00</u>
EA	<u>\$725.00</u>

Electrical:

Electrical Conduit - 3/4", with Pull String (Joint Trenched With Electrical)

LF	<u>\$4.00</u>
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Irrigation:

Quick Coupler
Backflow Preventer
Mainline 1.5"
Gate Valve
Irrigation Wires
Master Valve
Flow Sensor
Control Valve

EA	<u>\$250.00</u>
EA	<u>\$1,500.00</u>
LF	<u>\$3.75</u>
EA	<u>\$390.00</u>
LF	<u>\$1.30</u>
EA	<u>\$850.00</u>
EA	<u>\$850.00</u>
EA	<u>\$350.00</u>



Designscapes Colorado - Commercial Construction Equipment Availability

- Attachment, Auger Bit, 24", 2003
- Attachment, Auger Bit, 36", 1999, CAT
- Attachment, Auger Driver, 2009, CAT, Quick Attach
- Attachment, Auger, 12", 2009, CAT
- Attachment, Auger, 9", 2009, CAT
- Attachment, Box Scraper, 7', 2007, Gannon 4x4HXD,
- Attachment, Box Scraper, 6', 1996, Gannon 4x4
- Attachment, Bucket, 18", 2014, CAT, Mini-Excavator
- Attachment, Bucket, 36", 2014, CAT, Mini-Excavator
- Attachment, Bucket, 72", 2003, Caterpillar, Toothe
- Attachment, Bucket, 72", 2004, Caterpillar, Toothe
- Attachment, Bucket, 72", 2005, Caterpillar, Toothe
- Attachment, Bucket, 72", 2008, Caterpillar
- Attachment, Bucket, 72", 2014, Caterpillar, Toothe
- Attachment, Bucket, 80", 2006, Caterpillar, Toothe
- Attachment, Bucket, Rock, 12", 2006, Caterpillar,
- Attachment, Forks, 1996, John Deere, 5400
- Attachment, Ripper Skidsteer
- Attachment, Rotovator, 73", 2014, Frontier for JD
- Attachment, Tiller, CAT Skid Attachment, 2013, 6
- Boom, Trencher, 2001, Ditch Witch, H412
- Camera, Digital, 2004, Nikon Coolpix 2100
- Camera, Video, 2009, Sony, DCR-SR45
- Compaction, Roller, 2008, 6', In-House Fabrication
- Compactor, 2008, Bomag BW55E
- Compactor, 2005, Rammer, Multiquip
- Compactor, 2009, Rammer, Multiquip, MTX70
- Compactor, 2010, Rammer, Multiquip, MTX60
- Compactor, Asphalt Roller, Essick, 30"
- Compactor, Plate, 2008, Wacker, WP1550AW
- Compactor, Soil Drum, 2000, CP-433C, Caterpillar
- Computer, 2008, TopCon, Data Collector, FC-120
- Concrete Blankets, 12'x25', 2011, R5 OS Foam
- Demo Saw, 14", Stihl, 2013
- Detector, Topcon, LS-80L w/Holder
- Disc, 6'6", 2006, Ford, Tandem 3-Point Attachment
- Drill, 2009, Bosch, SDS-Plus, Hammer
- Drill, 1/2" Cordless 18V Hmr Drill, 2014, Rigid
- Drill, 1/2" Cordless 18V Hmr Drill, 2014, Rigid
- Drill, 1/2", 2006, Dewalt
- Drill, 3/8", Hammer Drill, Dewalt, 2013
- Drill, Set, 2014, Rigid
- Drill, Set, 2014, Rigid
- Excavator, Mini, 2014, Caterpillar, 308 E2
- Power Broom, Angle, 2008, Caterpillar, BA18B
- Pump, Hydrostatic Test, 2010, Rice, DPH-3B
- Pump, Trash, Electric, Multiquip, ST204OT, 2014
- Sandblaster, 2009, Clemco, 3CF, Blast Machine w/Re
- Sandblaster, 2010, Clemco, 3CF, Blast Machine w/Re
- Sandblaster, 2010, Clemco, 3CF, Blast Machine w/Re
- Saw, Circular Worm Drive, 7-1/4" 2011, Dewalt
- Saw, 2008, Worm Drive
- Saw, 2012, Demo, 65cc, Stihl, TS 420
- Saw, 2014, Mikita Reciprocating Saw, 11A
- Saw, Chain, 24", 2012, Stihl, MS441
- Saw, Demo, 14", 2010, Stihl, TS420-14
- Saw, Demo, 64CC, 2014 Stihl, TS 420
- Saw, Demo, 64CC, 2014 Stihl, TS 420
- Saw, Demo, 64CC, 2014 Stihl, TS 420
- Saw, Floor, 18", 2009, Honda, PACIV-13H
- Saw, Floor, 8", 2004, Soff-Cut, X150
- Seeder, 2003, Land Pride Slit
- Sod Cutter, 7', 2008, Fabricated
- Sprayer, Tank, 30 gals, 2000, FIMCO
- Spreader, 10 CY, 2000, Flink, 10' V-Box, S & S
- Spreader, 10 CY, 2001, Warren, 12' V-Box, S & S
- Spreader, 6 CY, 2005, Swenson, 10' V-Box, S & S
- Spreader, 6 CY, 2005, Swenson, 10' V-Box, S & S
- Spreader, 6 CY, 2005, Swenson, 10' V-Box, S & S
- Stamp, 36x36, 2006, Ashlar, Cut Slate
- Stamp, 4x12, 2006, Brick border, TM-1000
- Straw Crimper, 7', 2007, Leinbach, 3-Point Attachm
- Striper, 2010, Graco, LLIV39002GUN
- Tiller, 20", 2000, Barreto, Walk Behind
- Tiller, 20", 1996, Barreto, Walk Behind
- Trailer, 500 gal Water with Pump
- Trailer, End Dump, 1999, Western, Semi
- Trailer, End Dump, 2000, Ranco, Rock, Semi
- Trailer, Flat Bed, 18', Performance, 2015
- Trailer, Flatbed, 16', 1986, Ditchwitch
- Trailer, Flatbed, 16', 1999, B-Line
- Trailer, Flatbed, 20', 1998, Gooseneck, Fabricated
- Trailer, Flatbed, 2003, Load King, Lowboy, Semi
- Trailer, Flatbed, 48' x 102", 2008, Utility, Semi
- Trailer, Side Dump, 2006, SmithCo, Side-Dump, Semi
- Trailer, Traffic, 2009, Arrow Signal, National
- Trailer, Utility, 10', 2008, Mirage, Enclosed
- Trailer, Utility, 1998, Gooseneck, Fabricated



Designsapes Colorado - Commercial Construction Equipment Availability

- Fence, 6'x12' C/L Panel, 2008, Temp, Fabricated
- Forks, 2001, Quick Attach on Caterpillar, 924G
- Forks, 48", 2003, Caterpillar
- Forks, 48", 2004, Caterpillar
- Forks, 48", 2014, Caterpillar
- Form Stakes, 2008, Lot of 140, Hardpoint Steel
- Generator, 2014, Champion, Model 71530
- Generator, 2014, Champion, Model 71530
- GPS, 2004, Millimeter
- GPS, 2004, Topcon, HiPer, Lite
- Grinder, 4.5", 2011, Makita, Angle
- Grinder, Milwaukee 4.25" 2014
- Gun, Paint Sprayer, 2010, Graco, Truecoat
- Jack Hammer, 60# Sullair MPB60A
- Laptop, 2010, HP, G72-257CL
- Laser, 2003, Grade Sensor, LS-B4
- Laser, 2005, Topcon RL-H2SA Dual Slope
- Laser, 2006, Topcon Sys, Five Motor, Grader Contro
- Laser, 2008, Topcon, RL-H3C Flat
- Laser, 2012, Topcon RL-H4C Flat Laser
- Laser, 2014 Tripod, Laser Level
- Laser, 2014, Topcon RL-H4CDB Flat Laser
- Laser, 2014, Topcon, RL1002S, Rotating
- Level, 48", 2004, Stabila Electronic
- Leveler, 46"x57"x32", 2004, Concrete Manual Hand
- Locator, 2006, Ditch Witch, 910 Utility
- Material Arm, I/T, 2006, Quick Attach
- Meter, 2", 2005, Hydrant, RPVB Assembly (Fire)
- Meter, 3", 2005, Water
- Motor Grader, 1998, Caterpillar, 140H
- Mower, 22", 2014, Toro, Recycler Walk Behind
- Pipe Notcher, 2005
- Power Broom, Angle, 2008, Caterpillar, BA18
- Tree Digger, 2008, Skid Attachment
- Trencher, 1995, Rider, Vermeer, V4150
- Trencher, 1996, Rider, Vermeer, V3550
- Trencher, 2001, Ditch Witch, 4500
- Trencher, 2006, Ditch Witch, 410SX
- Trimmer, Hedge, 30", 2014, Stihl, HS81TZ
- Truck, Single Axle, 2002, GMC, C7500, Water
- Truck, 1996, Kenworth, T800W
- Truck, 20 Ton, Single Axle, 2001, Sterling, LT8500
- Truck, 20 Ton, Single Axle, 2001, Sterling, LT8500
- Truck, 20 Ton, Single Axle, 2001, Sterling, LT8500
- Truck, 20 Ton, Tandem, 2000, Sterling, L9000
- Truck, 2007, Kenworth, T800W
- Truck, Single Axle, 1999, Isuzu, NPR-NE3
- Vacuum, Wet Dry, 16gal, 2013
- Vibrator, 2HP, 2004, 3/4 Inch Head
- Weld Igniter, CAD
- Welder/Generator, 2003, Miller, BobCat 250 NT
- Wheel Loader, 2005, Caterpillar, 262B Skid Steer
- Wheel Loader, 1996, John Deere, 5400
- Wheel Loader, 2002, Caterpillar, 924G
- Wheel Loader, 2003, Caterpillar, 950G
- Wheel Loader, 2004, Caterpillar, 262B Skid Steer
- Wheel Loader, 2004, Caterpillar, 262B Skid Steer
- Wheel Loader, 2006, CAT, 262B Trk Skid Steer
- Wheel Loader, 2006, Caterpillar, 262B Skid Steer
- Wheel Loader, 2006, Caterpillar, 420E Backhoe
- Wheel Loader, 2007, Caterpillar, 272C Skid Steer
- Wheel Loader, 2008, Caterpillar, 272C Skid Steer
- Wheel Loader, 2015, Caterpillar, 272D Skid Steer
- Wheel Loader, Tractor, 2007, CAT, 414E Skip Loader
- Wrench, 0.5" Drive, Impact, 2012, Chicago Elect

EXHIBIT 5

BLANK FORMS

CON 2023-0439
CHANGE ORDER NO. _____

Date _____

Project _____

Project Number _____

P.O. Number _____

Bid Number _____

Contractor _____

The following changes are made to the Contract:

Attach support documentation to this Change Order. If paying on multiple accounts and/or project numbers, attach a memo detailing each number and related dollar amount.

Is this Change Order strictly a quantity adjustment? YES NO

The Original Contract Price was \$

Net Change by Previous Change Orders \$

Contract Price before this Change Order \$

CURRENT Change Order AMOUNT (note + or -) \$

THE NEW CONTRACT PRICE WILL BE \$

Original contract time: _____ days

Net time change by previous Change Order(s): _____ days

Net adjustment due to this Change Order: _____ days

Current contract time including this Change Order: _____ days

DATE FOR SUBSTANTIAL COMPLETION WILL BE: _____

The contractor hereby certifies that all work specified in this Change Order shall be performed according to the original contract requirements except as modified by Change Order(s).

TOWN DIVISION APPROVAL

By: _____

Title: _____

Date: _____

TOWN DIVISION APPROVAL

By: _____

Title: _____

Date: _____

TOWN DIVISION APPROVAL

By: _____

Title: _____

Date: _____

CONTRACTOR

By: _____

Its: _____

Date: _____

Originals: Contractor; Purchasing and Contract File

CONTRACTOR'S CERTIFICATE AND RELEASE

FROM: _____
(Contractor)

TO: TOWN OF CASTLE ROCK
100 Wilcox Street
Castle Rock, CO 80104

Project Name _____

Bid Number _____ Project No. _____

Agreement for Construction Contract dated _____, 20____.

1. The Contractor certifies that the Town of Castle Rock owes the Contractor the amount of _____
_____ DOLLARS for duly approved Change Orders and modifications under the Contract.

2. The Contractor further certifies that in addition to the amount set forth in Paragraph 1, the following claims are just, due and owing by the Town of Castle Rock to the Contractor:

- (a) _____
- (b) _____
- (c) _____
- (d) _____
(Itemize claims and amounts due. If none, so state.)

3. The Contractor certifies that it has performed all Work required by and according to the Contract, including Work required under Change Orders numbers _____ through _____, and that there are no unpaid claims for materials, supplies or equipment and no claims of laborers or mechanics for unpaid wages arising out of the performance of the Contract, and that the wage rates paid by the Contractor and all Subcontractors conform to applicable laws and regulations.

4. Except for the amounts stated under Paragraphs 1 and 2 hereof, the Contractor has received from the Town of Castle Rock all money payable to the Contractor under the Contract, as modified.

5. In consideration of the payment of the amount in Paragraph 1 the Contractor hereby releases the Town of Castle Rock from any claims arising under or by virtue of the Contract, except the amount(s) listed in Paragraph 2; provided, however, that if for any reason the Town of Castle Rock does not pay the amount stated in Paragraph 1 in full, the deduction shall not affect the validity of this release, but the deducted amount shall be automatically included under Paragraph 2 as an amount which the Contract has not released but will release upon payment. The Contractor certifies that, upon the payment of the amount in Paragraph 2, and of any amount which may be deducted for claims of any nature arising out of the Contract, as modified, the Contractor shall execute such further releases or assurances as the Town may request.

Executed this _____ day of _____, 20____.

Contractor _____

By: _____

Its: _____
Title

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That _____
 (full name and address or legal title of Contractor)
 _____ as Principal,
 hereinafter called Contractor, and as Surety, _____
 (full name and address or legal title of Surety)

 hereinafter called Surety, are held and firmly bound unto _____
 (full name and address or legal title of Owner)

 as Obligee, hereinafter called Owner, in the amount of _____
 Dollars
 (\$_____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors,
 administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____, 20____, entered into a
 contract with Owner for _____, Project No. _____
 in accordance with Drawings and Specifications prepared by the Town of Castle Rock, 100 Wilcox Street, Castle
 Rock, Colorado, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully
 perform said Contract then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

The Surety hereby waives notice of any alteration of the contract or extension of time made by Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having
 performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or;
2. Obtain a bid or bids for completing the contract in accordance with its terms and conditions, and upon
 determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner
 and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and
 make available as work progresses (even though there should be a default or a succession of defaults under the
 contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion
 less the balance of the contract price but not exceeding, including other costs and damages for which the Surety
 may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract
 price" as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract
 and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment
 under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named
 herein or the heirs, executors, administrators or successors of the Owner.

Signed and sealed this _____ day of _____, 20__.

Witness

Principal

Title

Title

Witness

Title

Title

Title

LABOR AND MATERIAL PAYMENT BOND

THIS BOND IS ISSUED SIMULTANEOUSLY WITH PERFORMANCE BOND IN FAVOR OF THE OWNER
CONDITIONED ON THE FULL AND FAITHFUL PERFORMANCE OF THE CONTRACT.

KNOW ALL MEN BY THESE PRESENTS: That _____
(full name and address or legal title of Contractor)
_____ as Principal, hereinafter called
Principal, and _____
(full name and address or legal title of Surety)
as Surety, hereinafter called Surety, are held and firmly bound unto _____
(full name and address or legal title of
Owner)
_____ as Obligee, hereinafter called Owner, for the
use and benefit of claimants as herein below defined, in the amount of _____ Dollars (\$____
____), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators,
successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ 20____,
entered into a contract with Owner for _____

(description of project)
in accordance with Drawings and Specifications prepared by the Town of Castle Rock, 100 Wilcox Street, Castle Rock,
Colorado, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment
to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the
performance of the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect,
subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for
labor, material or both, used or reasonably required for use in the performance of the Contract, labor and material
being construed to include that part of water, gas power, light heat, oil, gasoline, telephone service or rental of
equipment directly applicable to the Contract.
2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as
herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on
which the last of such claimant's work or labor was done or performed, or materials were furnished by such
claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgement for such sum or
sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of
any costs or expenses of any such suit.

No suit or action shall be commenced hereunder by any claimant:

- a. Unless claimant, other than one having a direct contact with the Principal, shall have given written notice to
any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days after
such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said
claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the
materials were furnished, or for whom he worked or labor was done or performed. Such notice shall be served
by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the
Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business,
or served in any manner in which legal process may be served in the state in which the aforesaid Project is
located, save that such service need not be made by a public officer.

- b. After the expiration of six (6) months following the date on which Principal ceased work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- c. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof is situated, or it the United States District Court for the District in which the Project, or any part thereof, is situated, and not elsewhere.

Signed and sealed this _____ day of _____, 20____.

Witness	Principal

Title	Title

Witness	Title

Witness	Title

NOTICE OF AWARD

Project Name _____

Bid Number _____ Project No. _____

Date of Notice of Award _____

TO: _____

The Town of Castle Rock Project Manager has considered Bids for the above Project in response to its Invitation to Bidders. The Town accepts your Bid for the Work in the amount of _____ DOLLARS

You must sign the Agreement for a Construction Contract with the Town of Castle Rock and furnish complying insurance evidence and applicable Performance and Labor and Material Payment Bonds within **ten** days from the date of delivery of this NOTICE to you.

If you fail to sign the Agreement for a Construction Contract or furnish the bonds and insurance within **ten** days from the date of delivery of this NOTICE, the Town may consider all your rights under the Town's acceptance of your Proposal as abandoned. Your Bid Guarantee shall become the property of the Town as liquidated damages, not as penalty, for any delay of construction. The Town may award or re-advertise the Work, or act otherwise, as its discretion.

TOWN OF CASTLE ROCK

Project Manager**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE OF AWARD is hereby acknowledged this _____ day of _____, 20____.

CONTRACTOR SIGNED: _____

BY ITS: _____
Title

NOTICE TO PROCEED

Project Name: _____

Bid Number: _____ Project Number: _____

Date of Notice to Proceed: _____

To: _____

Please take notice that:

The Contractor and the Town have signed the Contract for the Project and the Contractor has submitted the items requested prior to the beginning of the Work for the Contract.

The Town has approved the Contract.

Therefore, as the Contractor for the above-described work, you are hereby authorized and directed to proceed within ten days from receipt of this NOTICE, as required by the Contract.

Contract Purchase Order Number: _____ *

*Reference this purchase order number, project name, and project number on all invoices and pay request forms.

*Submit all pay requests on approved forms.

Completion Date _____

TOWN OF CASTLE ROCK

Project Manager

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged this

day of _____, 20____.

CONTRACTOR

SIGNED: _____

BY ITS: _____

Title

NOTICE OF SUBSTANTIAL COMPLETION

Project Name _____

Project Number _____ Date of Substantial Completion _____

Contractor _____

PROJECT OR SPECIFIED PART OF PROJECT WHICH IS SUBSTANTIALLY COMPLETE:

The Work performed under this Contract has been inspected by authorized representatives of the Town, Contractor, and the Project (or specified part of the Project, as indicated above) is hereby declared to be substantially completed on the above date.

A tentative list of items to be completed or corrected is appended hereto. This list may not exhaustive, and the failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work according to the Contract.

These items shall be completed by the Contractor within _____ days of the date of Substantial Completion.

AUTHORIZED BY: _____
Project Manager

ACKNOWLEDGED BY: _____
Contractor

NOTICE OF CONSTRUCTION COMPLETION

Project Name _____

Project Number _____ Date of Construction Completion _____

To: _____

Please take notice that the Town of Castle Rock has accepted the construction work for the Project, as complete.

In conformance with Contract, your obligations and guarantees will continue until _____, 20____.

Please reference the project name and number stated above and submit your invoice for final payment (in duplicate) to the Project Manager.

TOWN OF CASTLE ROCK

By: _____

Title: _____

Date: _____

Originals: Contractor
Copies: Project Manager

REQUEST FOR PAYMENT NO. _____

Project Name _____

Project Number _____ P.O. Number _____ Bid Number _____

Final Payment YES_ NO_ If yes, the Notice of Project Construction Completion must be fully completed and signed by the Town of Castle Rock and the Contractor.

Contractor _____ Project Manager _____

Payment Period from _____ to _____

Original Contract Price \$ _____

Net change by Change Orders \$ _____

Contract Price to date \$ _____

Total completed & stored to date _____ %

Retainage _____ % of \$ _____

Total earned less retainage \$ _____

Less previous certificates for payment \$ _____

CURRENT PAYMENT DUE \$ _____

Pay on account # _____

Previous Payment Summary:

Payment #1: \$ _____ Payment #4: \$ _____

Payment #2: \$ _____ Payment #5: \$ _____

Payment #3: \$ _____ Payment #6: \$ _____

Change Order Summary:

Number _____ Date Approved _____ Additions _____ Deductions _____

Change Order(s) Total +/- \$ _____ CURRENT COMPLETION DATE: _____

The Contractor certifies that the work covered by this Request for Payment has been completed according to the Contract and that the current payment shown here is now due.

CONTRACTOR

TOWN OF CASTLE ROCK

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Date: _____

*Originals: Contractor**Copies: Project Manager*

TOWN PROJECT FINAL ACCEPTANCE

Project Name _____

Project Number _____ Project Final Acceptance Date _____

To: _____

Please take notice that the Town of Castle Rock accepts the Project as complete and hereby formally accepts the project for operation and maintenance as part of the Town of Castle Rock's infrastructure.

TOWN OF CASTLE ROCK

By: _____

Title: _____

Date: _____

CONTRACTOR

By: _____

Its: _____

Date: _____

EXHIBIT 6

CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

06/02/2023

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

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

PRODUCER Moody Insurance Agency, Inc. 8055 East Tufts Avenue Suite 1000 Denver CO 80237	CONTACT NAME: Moody Insurance Agency, Inc. PHONE (A/C, No, Ext): (303) 824-6600 E-MAIL ADDRESS: certrequest@moodyins.com FAX (A/C, No): (303) 370-0118																					
INSURED Colorado Designsapes, Inc., DBA: Designsapes Colorado 15440 E Fremont Drive Centennial CO 80112	<table><tr><th colspan="2">INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr><tr><td>INSURER A:</td><td>Selective Insurance Co of America</td><td>12572</td></tr><tr><td>INSURER B:</td><td>Pinnacol Assurance</td><td>41190</td></tr><tr><td>INSURER C:</td><td>Westchester Surplus Lines</td><td>10172</td></tr><tr><td>INSURER D:</td><td></td><td></td></tr><tr><td>INSURER E:</td><td></td><td></td></tr><tr><td>INSURER F:</td><td></td><td></td></tr></table>	INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	Selective Insurance Co of America	12572	INSURER B:	Pinnacol Assurance	41190	INSURER C:	Westchester Surplus Lines	10172	INSURER D:			INSURER E:			INSURER F:		
INSURER(S) AFFORDING COVERAGE		NAIC #																				
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INSURER C:	Westchester Surplus Lines	10172																				
INSURER D:																						
INSURER E:																						
INSURER F:																						

COVERAGES**CERTIFICATE NUMBER:** 23-24 Master**REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC OTHER:			S2324638	01/01/2023	01/01/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ NON-OWNED AUTOS ONLY			S2324638	01/01/2023	01/01/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 0			S2324638	01/01/2023	01/01/2024	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
B	☒ WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☒ N	N/A	4051150	01/01/2023	01/01/2024	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution Liability			G71800957004	01/01/2023	01/01/2024	Per Occurrence \$1,000,000 Aggregate \$2,000,000 Deductible \$10,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

[Job #: Job Type: Plum Creek Park North]

RE: Location: 3517 Mount Royal Drive, Castle Rock CO 80104.

CERTIFICATE HOLDER**CANCELLATION**Town of Castle Rock
100 N. Wilcox Street

Castle Rock

CO 80104

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Moody Insurance Agency

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EXHIBIT 7**TOWN OF CASTLE ROCK
AFFIDAVIT OF INDEPENDENT CONTRACTOR STATUS**

In accordance with Section 8-70-115, C.R.S., I certify the following:

- With respect to the Agreement, I/we/entity represent and warrant that it is my/our/entity's express intention to be employed as an independent contractor of the Town of Castle Rock (the "Town") for purposes of performing the work or services which are the subject of the Agreement, to include all employees and agents of the above named entity. I/we/entity understand and confirm that the Town reasonably relied on this intention in entering into the Agreement.
- The Town does not require I/we/entity work exclusively for the Town, except that I/we/entity may choose to work exclusively for the Town for a finite period of time specified in the document.
- The Town does not establish a quality standard for the work or services performed pursuant to the Agreement, except that the Town may provide plans and specifications regarding the work but cannot oversee the actual work or provide instruction as to how the work is performed.
- The Town does not pay a salary or hourly rate but rather a fixed or contract rate, as noted in the terms and conditions of the Agreement, and any Exhibits made part of the Agreement.
- The Town cannot terminate the work or services performed during the contract period unless otherwise agreed to in the terms and conditions of the Agreement.
- I/we/entity am not provided with anything, if at all, more than minimal training from the Town.
- The Town does not provide me/entity with tools or benefits for the performance of the work or services which are the subject of the Agreement, except materials and equipment may be supplied.
- The Town does not dictate the time of performance, except that a completion schedule and a range of mutually agreeable work hours may be established in the Agreement.
- The Town does not pay me/ entity personally but rather makes checks payable to the trade or business name of the entirety for which I/we/entity are employed and who is a party to the Agreement; and the Town does not combine their business operations in any way with the entity's business, but instead maintains such operations as separate and distinct.



- I/we/entity understand that if a professional license to practice a particular occupation under the laws of the State of Colorado requires the exercise of a supervisory function with regard to the work of services performed under this Agreement, such supervisory role shall not affect the independent contractor relationship with the Town.
- **I/WE/ENTITY UNDERSTAND THAT I/WE/ENTITY ARE NOT ENTITLED TO UNEMPLOYMENT INSURANCE BENEFITS OF THE TOWN UNLESS UNEMPLOYMENT COMPENSATION COVERAGE IS PROVIDED BY ME OR THE ENTITY FOR WHICH I AM EMPLOYED.**
- **I/WE/ENTITY UNDERSTAND THAT I/WE AM OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON MONEYS PAID PURSUANT TO THE AGREEMENT.**

CONTRACTOR/CONSULTANT/VENDOR

COLORADO DESIGNSCAPES, INC.

By: Phil E. Stein

Name

STATE OF COLORADO)

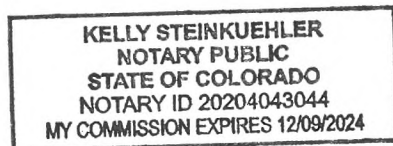
) ss.

COUNTY OF Arapahoe)

The foregoing instrument as acknowledged before me this 6th day of June, 2023 by Philip Steinhauser as President of the above mentioned Contractor/Consultant/Vendor.

Witness my official hand and seal.

My commission expires: 12/09/2024



Kelly Steinkuehler
Notary Public