



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

INVITATION TO BID
COVER PAGE

BID Number:	7309-22
BID Title:	Morton Heights Subdivision Paving, Drainage, and Sidewalk Improvements Project No. RS-MOR-001
Non-Mandatory Pre-Bid Meeting:	February 28, 2022 – 10:00 a.m. Microsoft Teams meeting Click here to join the meeting Or call in (audio only) +1 720-400-7859 , 306569666# United States, Denver Phone Conference ID: 306 569 66#
BID Questions Due:	March 4, 2022 – 2:00 p.m.
Submittal Due Date:	March 16, 2022 – 2:00 p.m.
Email Address:	purchasing@bouldercounty.org
Documents included in this package:	Bid Instructions Terms and Conditions Specifications Insurance and W-9 Requirements Bid Tab Section Submittal Checklist Signature Page / Sample Contract

Please click on this link to access an additional file for this bid:
<https://www.dropbox.com/s/fxwca6cl5xkk739/MORTON%20HEIGHTS-BID%20SET%2016%20FEB%202022.pdf?dl=0>



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

INSTRUCTIONS

1. Purpose/Background

Boulder County Public Works is seeking bids for the Morton Heights Subdivision Paving, Drainage and Sidewalk Improvements Project. The primary work consists of asphalt paving, storm sewer construction (including concrete pipe, manholes, and inlet structures), concrete improvements (including sidewalks, multiuse paths, curb and gutter, gutters, and concrete pavement) and regional trail connections. The work also consists of clearing and grubbing, removals, unclassified excavation, erosion control, seeding, mulching, grouted and soil riprap, mobilization and traffic control.

2. Non-Mandatory Video Conference Pre-Bid Meeting

A Non-Mandatory Pre-Proposal Video Conference Meeting through Microsoft Teams will be held on **February 28, 2022 at 10:00 a.m.** Please click on the link on the cover page, or call +1 720-400-7859 Conference ID: 306 569 66#.

3. Written Inquiries

All inquiries regarding this BID will be submitted via email to the Boulder County Purchasing Office at purchasing@bouldercounty.org on or before 2 p.m., **March 4, 2022**. A response from the county to all inquiries will be posted and sent via email no later than **March 9, 2022**.

Please do not contact any other county department or personnel with questions or for information regarding this solicitation.

4. Submittal Instructions

BIDs are due at the email box only, listed below, for time and date recording on or before **2:00 p.m. Mountain Time on March 16, 2022**. A bid opening will be conducted at

3:00 p.m. via email by sending a copy of the bid tab to all who have submitted a bid.

Please note that email responses to this solicitation are limited to a maximum of 50MB capacity.

NO ZIP FILES OR LINKS TO EXTERNAL SITES WILL BE ACCEPTED. THIS INCLUDES GOOGLE DOCS AND SIMILAR SITES. ALL SUBMITTALS MUST BE RECEIVED AS AN ATTACHMENT (E.G. PDF, WORD, EXCEL).

Electronic Submittals must be received in the email box listed below. Submittals sent to any other box will NOT be forwarded or accepted. This email box is only accessed on the due date of your questions or proposals. Please use the Delivery Receipt option to verify receipt of your email. It is the sole responsibility of the proposer to ensure their documents are received before the deadline specified above. Boulder County does not accept responsibility under any circumstance for delayed or failed email or mailed submittals.

Email purchasing@bouldercounty.org; identified as **BID # 7309-22** in the subject line.

All BIDs must be received and time and date recorded by authorized county staff by the above due date and time. Sole responsibility rests with the bidder to see that their BID response is received on time at the stated location(s). Any BIDs received after due date and time will be returned to the bidder.

The Board of County Commissioners reserves the right to reject any and all BIDs, to waive any informalities or irregularities therein, and to accept the proposal that, in the opinion of the Board, is in the best interest of the Board and of the County of Boulder, State of Colorado.

Americans with Disabilities Act (ADA): If you need special services provided for under the Americans with Disabilities Act, contact the ADA Coordinator or the Human Resources office at (303) 441-3525 at least 48 hours before the scheduled event.



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

TERMS AND CONDITIONS

1. Bidders are expected to examine the drawing, specifications, schedule of delivery, and all instructions. Failure to do so will be at the bidder's risk.
2. Each bidder will furnish the information required in the Invitation to Bid.
3. The Contract/Purchase Order will be awarded to that responsible bidder whose submittal, conforming to the Invitation to Bid, will be most advantageous to the County of Boulder, based on best value not only price.
4. The County of Boulder reserves the right to reject any or all bids and to waive informalities and minor irregularities in bids received, and to accept any portion of or all items proposed if deemed in the best interest of the County of Boulder to do so.
5. No submittal will be withdrawn for a period of thirty (30) days subsequent to the opening of bids without the consent of the County Purchasing Agent or delegated representative.
6. A signed purchase order or contract furnished to the successful bidder results in a binding contract without further action by either party.
7. Late or unsigned bids will not be accepted or considered. It is the responsibility of bidders to ensure that the bid arrives at the Purchasing email address prior to the time indicated in the "Invitation to Bid."
8. The proposed price will be exclusive of any Federal or State taxes from which the County of Boulder is exempt by law.
9. Any interpretation, correction or change of the bid documents will be made by Addendum. Interpretations, corrections and changes of the bid documents made in any other manner will not be binding, and bidder will not rely upon such interpretations, corrections and changes. The County's Representative will not be responsible for oral clarification.

10. Confidential/Proprietary Information: Bids submitted in response to this “Invitation to Bid” and any resulting contract are subject to the provisions of the Colorado Public (Open) Records Act, 24-72-201 et.seq., C.R.S., as amended. Any restrictions on the use or inspection of material contained within the bid and any resulting contract will be clearly stated in the bid itself. Confidential/proprietary information must be readily identified, marked and separated/packaged from the rest of the bid. **Co-mingling of confidential/proprietary and other information is NOT acceptable. Neither a bid, in its entirety, nor bid price information will be considered confidential/proprietary. Any information that will be included in any resulting contract cannot be considered confidential.**

The Boulder County Attorney’s Office retains sole authority for determining whether the Colorado Open Records Act requires or permits Boulder County to disclose proposal or bid documents, or any information contained therein, pursuant to an open records request.

11. Boulder County promotes the purchase/leasing of energy efficient, materials efficient and reduced toxic level products where availability, quality and budget constraints allow. Bidders are expected whenever possible to provide products that earn the ENERGY STAR and meet the ENERGY STAR specifications for energy efficiency with power management features enabled. Bidders are encouraged to offer products and equipment with post-consumer recycled-content materials. Products should be packaged and delivered with a minimum amount of recycled packaging that adequately protects the product, but is not excessive.
12. Pursuant to Colorado law (House Bill 1292), in any bidding process for public works in which a bid is received from a non-resident bidder who is from a state that provides a percentage bidding preference, a comparable percentage disadvantage will be applied to the bid of that bidder. Bidders may obtain additional information from the Department of Personnel’s website: <http://www.colorado.gov/dpa/>.



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

SPECIFICATIONS

PROJECT NO. RS-MOR-001
MORTON HEIGHTS SUBDIVISION
PAVING, DRAINAGE, AND SIDEWALK IMPROVEMENTS

The CDOT *2021 Standard Specifications for Road and Bridge Construction* controls construction of this project. The following special provisions supplement or modify the Standard Specifications and take precedence over the Standard Specifications and plans.

PROJECT DATED SPECIAL PROVISIONS

NOTICE TO BIDDERS	8
COMMENCEMENT AND COMPLETION OF WORK.....	9
REVISION OF SECTION 101 DEFINITIONS AND TERMS.....	10
REVISION OF SECTION 102 PROJECT PLANS AND OTHER DATA	12
REVISION OF SECTION 104 MAINTAINING TRAFFIC	13
REVISION OF SECTION 106 CONTROL OF MATERIAL	14
REVISION OF SECTION 107 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC	17
REVISIONS OF SECTION 107 AIR QUALITY CONTROL	18
REVISION OF SECTION 107 FIRE PROTECTION PLAN	19
REVISION OF SECTION 108 PROSECUTION AND PROGRESS	23
REVISION OF SECTION 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS	25
REVISION OF SECTION 202 REMOVAL OF PAVEMENT MARKING.....	27
REVISION OF SECTION 202 REMOVAL OF TOPSOIL	28
REVISION OF SECTION 203 EXCAVATION AND EMBANKMENT	29
REVISION OF SECTION 207 TOP SOIL	30
REVISION OF SECTION 208 EROSION CONTROL	31

REVISION OF SECTION 209 DUST PALLIATIVES	32
REVISION OF SECTION 212 SOIL AMENDMENTS, SEEDING, AND SODDING	33
REVISION OF SECTION 214 PLANTING	35
REVISION OF SECTION 216 SOIL RETENTION COVERING	40
SECTION 308 SUBGRADE STABILIZATION	46
REVISION OF SECTION 310 FULL DEPTH RECLAMATION OF HOT MIX ASPHALT PAVEMENT	48
REVISION OF SECTION 403 HOT MIX ASPHALT	51
REVISION OF SECTION 407 PRIME COAT, TACK COAT AND REJUVENATING AGENT.....	54
REVISION OF SECTION 506 RIPRAP	55
REVISION OF SECTION 603 TRACER WIRE	56
REVISION OF SECTION 608 SIDEWALKS AND BIKEWAYS	61
REVISION OF SECTION 608 DETECTABLE WARNINGS	62
REVISION OF SECTION 609 CONCRETE CURB AND GUTTER	64
REVISION OF SECTION 625 CONSTRUCTION SURVEYING	65
REVISION OF SECTION 626 PUBLIC INFORMATION SERVICES	66
REVISION OF SECTIONS 627 and 713 GLASS BEADS FOR PAVEMENT MARKING	68
REVISION OF SECTION 627 PAVEMENT MARKING	69
REVISION OF SECTION 630 CONSTRUCTION ZONE TRAFFIC CONTROL.....	70
REVISION OF SECTION 630 TRAFFIC SIGNAL (TEMPORARY).....	72
REVISION OF SECTION 703 AGGREGATES.....	74
FORCE ACCOUNT ITEMS.....	75
TRAFFIC CONTROL PLAN - GENERAL.....	76
UTILITIES.....	78

NOTICE TO BIDDERS

NOTICE: The proposal guaranty shall be a certified check, cashier's check or bid bond in the amount of 10% of the Contractor's total bid.

Both a payment and a performance bond are required for this project and must equal 100% of the proposed cost. Please include the cost of this bonding into the total proposed cost.

Bidders must be prequalified with the Colorado Department of Transportation to bid the project. Proposals are requested for the furnishing of all labor and materials on a UNIT basis.

Contractor hereby proposes to furnish all labor, machinery, equipment, materials and supplies, and to sustain all the expense incurred in doing the work per the proposal schedule, and in pursuance of a certain advertisement of the County Commissioners, County of Boulder, of the State of Colorado, and in accordance with the full details, Plans, and Specifications as prescribed by said County Engineer.

Bidders on this project are encouraged but not required to attend the pre-bid conference. It is recommended that bidders review the work site and plan details with an authorized county representative. If requested, county staff will be available immediately after the pre-bid conference to walk the site and discuss the project requirements. This will be the only time county representatives will be available for a site review.

All materials, workmanship and construction shall meet or exceed the standards and specification set forth in the Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction (2021), the CDOT Standard Plans M&S Standards, the Boulder County Multimodal Transportation Standards, applicable state and federal regulations, project special provisions and project appendices. Where there is conflict between the appendices, specifications, or any applicable standards, CDOT subsection 105.09 shall be followed. All reference to any published standards shall refer to the latest revision of said standard, unless specifically stated otherwise.

COMMENCEMENT AND COMPLETION OF WORK

The Contractor shall complete all work in the Project within **60 working days** in accordance with the “Notice to Proceed”.

Work may not begin before Tuesday, May 31, 2022. **All work included on Walker Avenue, Morton Road (between Walker Ave and Niwot Elementary School) and Marathon Road must be completed no later than Friday, August 12, 2022.** Work on Paiute Avenue, Niwot Road (at Paiute Avenue), and the trail connections may occur after August 12, 2022 if the project time count allows.

The Contractor shall give Boulder County three (3) weeks’ notice prior to commencement of construction.

**REVISION OF SECTION 101
DEFINITIONS AND TERMS**

Certain terms utilized in the latest edition of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction shall be interpreted to have different meanings within the scope of this Contract. A summary of redefinitions is as follows:

Section 101 of the Standard Specifications is hereby revised for this project as follows:

Subsection 101.22 "Contractor" shall mean prefabricator and/or contractor as described in subsection 101.23

Subsection 101.28 "Department" shall mean Boulder County, Colorado (where applicable).

Subsection 101.29 "Engineer" shall mean County Engineer, Boulder County, Colorado or designated representative (where applicable).

Subsection 101.36 shall be replaced with the following:

When New Year's Day, Cesar Chavez Day, Independence Day, or Christmas Day falls on a Sunday, the following Monday shall be considered a holiday. When one of these days falls on a Saturday, the preceding Friday shall be considered a holiday.

Holidays recognized by the Boulder County are:

New Year's Day
Dr. Martin Luther King, Jr. Day
President's Day
Memorial Day
Independence Day
Labor Day
General Election Day (Even years)
Veterans Day
Thanksgiving Day
Friday after Thanksgiving Day
Christmas Eve, 1/2 Day Christmas Eve (beginning at noon, only if day falls on Tuesday - Thursday), Full Day Christmas Eve, only if day falls on Monday
Christmas Day
New Year's Eve, 1/2 Day New Year's Eve (beginning at noon, only if day falls on Tuesday - Thursday), Full day New Year's Eve, only if day falls on Monday

REVISION OF SECTION 101 DEFINITIONS AND TERMS

Additional Holidays recognized by the State of Colorado are:

Cesar Chavez Day

Frances Xavier Cabrini Day (Cabrini Day)

Subsection 101.39 “Laboratory” shall mean Boulder County, Colorado or their designated representative.

Subsection 101.51 “Project Engineer” shall mean Boulder County’s duly authorized representative who may be a Boulder County employee or an employee of a consulting engineer (consultant) under contract to Boulder County. (where applicable)

Subsection 101.51 (a) “CDOT Project Engineer” shall be replaced with “Project Engineer” within these specifications. When applicable and when these documents reference a CDOT engineer, this reference shall be construed to mean Project Engineer.

Subsection 101.51 (b) shall be replaced with the following:

“Consultant Project Engineer”. The consultant employee under the responsible charge of the consultant’s Professional Engineer who is in direct charge of the work and is responsible for the administration and satisfactory completion of the project. The Consultant Project Engineer’s duties are delegated by the Project Engineer in accordance with the scope of work in the consultant’s contract with Boulder County. The Consultant Project Engineer is not authorized to sign or approve Contract Modification Orders.

Subsection 101.58 “Region Transportation Director” shall mean Boulder County Engineer, Boulder County, Colorado or designated representative (where applicable).

Subsection 101.76 “State” shall mean Boulder County, Colorado (where applicable).

**REVISION OF SECTION 102
PROJECT PLANS AND OTHER DATA**

Section 102 of the Standard Specifications is hereby revised for this project as follows:

Subsection 102.05 shall include the following:

Boulder County will provide electronic files of drawings, the sample contract document, the project technical specifications in PDF format, online at the designated internet bid advertisement site, and they will be considered as the official bid set and record set.

**REVISION OF SECTION 104
MAINTAINING TRAFFIC**

Section 104 of the Standard Specifications is hereby revised as follows:

Subsection 104.04 shall include the following:

Employee vehicle parking is prohibited where it conflicts with safety, access or flow of traffic. The Contractor is responsible for obtaining, coordinating and maintaining acceptable parking and staging areas for the duration of the construction activities. This shall not be paid for separately but shall be included in the work.

**REVISION OF SECTION 106
CONTROL OF MATERIAL**

Section 106 of the Standard Specifications is hereby revised for this project as follows:

Subsection 106.03 shall include the following:

The Contractor will be responsible for establishing, documenting, and implementing a Quality Control Plan. The Quality Control Plan shall include all procedures necessary for the Contractor to control the quality of its production processes to meet the requirements of the Contract. The Contractor’s Quality Control Plan shall include a testing and inspection schedule to control the production processes.

Boulder County will provide a qualified Construction Quality Assurance team to perform Quality Assurance (QA) testing, auditing and acceptance testing. The QA staff shall remain independent from the Contractor’s production and Quality Control (QC). The Boulder County Construction Inspection team and/or testing firm will perform on-site inspection and testing of the construction elements of the work to verify that all work has been constructed in conformance with the table below: **106-01**

Pay Item	Type of Test	Sampling & Testing Frequency
203 Embankment	In-Place Density	1 per 2000 cu yds. Or a fraction thereof of embankment placed. (or as specified by Construction Inspector, Project Engineer or contract)
203 Embankment	Moisture Density Curve	1 per soil type.
206 STR. Backfill (Class 1)	Gradation	1 per 200 cu yds. (or as per contract)
206 STR. Backfill (Class 1)	Moisture Density Curve	1 per source. (or as per contract)
206 STR. Backfill (Class 1)	In Place Density	1 per 200 cu yds. (or as per contract)
206 STR. Backfill (Class 2)	Moisture Density Curve	1 per source. (or as per contact)
206 STR. Backfill (Class 2)	In Place Density	1 per 200 cu yds. or fraction thereof

Pay Item	Type of Test	Sampling & Testing Frequency
207 Topsoil	Boulder County may elect to use the CDOT Field Materials Manual 2013. Schedule (Quality Assurance) for Minimum Materials Sampling, Testing and Inspection.	
304 Aggregate Base Course	Gradation	1 per 2000 tons or fraction thereof.
304 Aggregate Base Course	In-Place Density	1 per 2000 tons or fraction thereof or as specified by the Construction Inspector, Project Engineer or contract.
304 Aggregate Base Course	Moisture-Density Curve	1 per source.
306 Reconditioning	In Place Density	1 per 5000 sq. yds. or a fraction thereof.
306 Reconditioning	Moisture-Density Curve	1 per type.
403 HMA	Asphalt Content	1 per 1500 within the first 2 days of paving (or as specified by Project Engineer or Contract)
403 HMA	Binder	1 per mix design.
403 HMA	Gradation	1 per 1500 tons or a fraction thereof of mix produced (or as specified by Project Engineer or Contract)
403 HMA	In-Place Density	Top Lift 1 per 500 tons or a fraction thereof of mix placed. Bottom Lift 1 per 1000 (or as specified by Project Engineer or Contract)
403 HMA	Theoretical Max. SP Gravity (RICE)	1 per project location (or as specified by Construction Inspector, Project Engineer)
403 HMA	Air Voids	1 per mix design or as specified by Project Engineer, Construction Inspector (or as specified by contract)
403 HMA	Longitudinal Joint Density	1 per 5000 Linear FT. or fraction thereof.
601 Structural Concrete	Air Content, Slump, Unit Weight	1 per set (5) of cylinders per day. Or as specified by Project Engineer, Construction Inspector (or as specified Slump, Unit Weight by Contract).

Pay Item	Type of Test	Sampling & Testing Frequency
601 Structural Concrete	Compressive Strength	1 set (5) per 200cu yds. or fraction thereof or as specified by Project Engineer, Construction Inspector (or as specified by Contract)
608 Sidewalk and Bikeways	Air Content, Slump, Unit Weight	1 per 1000 sq. yds. or fraction thereof. or as specified by Project Engineer, Construction Inspector (or as specified by Contract)
608 Sidewalk	Compressive Strength	1 set (5) of cylinders per 1000 sq. yd. or fraction thereof. and Bikeways as specified by Project Engineer, Construction Inspector (or as specified by Contract)
609 Curb and Gutter	Air Content, Slump, Unit Weight	1 per 2000 lin. ft. or fraction thereof.
609 Curb and Gutter	Compressive Strength	1 set (5) of cylinders per 2000 lin. ft. or fraction thereof.

**REVISION OF SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

Section 107 of the Standard Specifications is hereby revised for this project as follows:

Subsection 107.07, Public Convenience and Safety, add the following:

Prior to working in driveways, the Contractor shall confirm the removal/replacement schedule with the property owner.

Access to residences and businesses shall be maintained at all times unless arrangements are made with the property owner and a copy of the written agreement is provided to the Project Engineer.

Upon removal of concrete pavement, sidewalk, curb and gutter and curbside, the Contractor shall have the applicable replacement concrete in place within two (2) working days.

Subsection 107.17, Contractor's Responsibility for Work, add the following:

The Contractor shall be responsible for any damage to their work arising from running water from either a natural source or from landscape watering at no additional cost to the contract.

**REVISIONS OF SECTION 107
AIR QUALITY CONTROL**

Section 107 of the Standard Specifications is hereby revised for this project as follows:

Subsection 107.24 shall include the following:

Equipment Emissions. Boulder County projects shall meet or exceed current Colorado Air Quality standards. The project work shall be performed using practices that minimize air quality detriments during construction. All the standards below shall be followed to improve air quality related to this project:

(a) Emissions standards:

- (1) Optimally, electric or hybrid powered equipment or vehicles will be used on all projects.
- (2) Equipment engines shall be compliant with the most recent Environmental Protection Agency (EPA) requirements.
- (3) Contractors are required to maintain a minimum emissions level for diesel fueled equipment at a Tier 3 level.
- (4) Contractors shall provide certification of compliance with diesel emissions standards. Failure to do so will result in immediate stoppage of work and is a non-excusable delay per subsection 108.08(c)2.
- (5) All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel (B20) blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.

(b) Proximity. Any project within 1000 linear feet of a residence or regular gathering location of multiple people (i.e., schools, parks, places of worship, commercial buildings, etc.) is required to have either electric, hybrid or Tier 4 diesel powered equipment or vehicles.

(c) Exemption. Emergency equipment is exempt from this specification. All reasonable effort will be made to replace equipment placed in service at the beginning of the emergency work with equipment as specified above as soon as possible.

(d) Definition. Vehicle, for the purposes of this specification, is defined as any diesel-powered company owned car or truck. It does not apply to personal vehicles.

(e) Cost. Unless shown otherwise in the bid tabulation for this project, costs to achieve this specification will be included in the overall cost of the project.

**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

Section 107 of the Standard Specifications is hereby revised as follows:

Subsection 107.18 shall be deleted and replaced with the following:

107.18 Fire Protection Plan. The following work elements are considered safety critical work for this project:

- (a) *Fire Protection Plan.* Prior to start of work, the Contractor shall submit a Fire Control Plan in writing to the Engineer and Local Fire Authority for approval. The plan shall include the following:
- (1) The name and contact information of a Fire Control Coordinator who shall be assigned to the project.
 - (2) A 24-hour Emergency Contact List which, at a minimum, includes Project Superintendent, Project Foreman and Project Traffic Control Supervisor.
 - (3) Methods that will be employed if a fire is encountered or started during construction activities within the project limits.
 - (4) Specific fire prevention precautions, and the required fire mitigation equipment, for every activity which has the potential for starting a fire. At a minimum the plan shall address prevention planning related to use of heavy equipment, vehicles, hand tools, storage and parking areas.
 - (5) Specific precautions for fueling operations.
 - (6) Provisions for field safety meetings. The Contractor shall conduct field safety meetings (also known as toolbox or tailgate meetings) at least once per week and should include a local Fire Authority Representative. The Contractor shall encourage participation by all persons working at the project site. Participants shall discuss specific fire prevention precautions for construction activities.
- (b) *Open Burn Exemption.* A BURN EXEMPTION may be requested by the Contractor from the Boulder County Sheriff's Office if current fire restrictions are in place. The fire restrictions Prohibit:
- (1) Building, maintaining, attending, or using an open fire, campfire or stove fire (including charcoal barbecues and grills) on public land;
 - (2) Use of all personal fireworks;
 - (3) Shooting or discharging firearms for recreational purposes, except for hunting with a valid and current hunting license on public land;

-2-

**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

- (4) Smoking, except in an enclosed vehicle or building, a developed recreation site, or while stopped in an area at least three feet in diameter that is barren or cleared of all flammable materials;
- (5) Operating a chainsaw without a USDA or SAE-approved spark arrester properly installed and in effective working order. A chemical, pressurized fire-extinguisher must be kept with the operator, and at least one round-point shovel with an overall length of at least 35 inches must be readily available for use;
- (6) Welding or operating acetylene or other open-flame torches, except in cleared areas of at least 10 feet in diameter, and with a chemical, pressurized fire-extinguisher immediately available for use; and
- (7) Using an explosive.

Welding/Torching/Cutting/Drilling. If work at field locations is required, the work shall be done at a location where all flammable material has been cleared within a 30-foot radius and approved by the local Fire Authority.

Spark Arrestors. All diesel and gasoline powered engines, both mobile and stationary, shall be equipped with serviceable spark arrestors each gasoline power saw shall be provided with a spark screen and a muffler in good condition. Spill-proof metal safety cans shall be used for refueling. Approved and inspected by the local Fire Authority.

Storage and Parking Areas. Batch plant areas, equipment service areas, parking areas, gas and oil drum storage areas, and explosive storage areas shall be cleared of all flammable materials for a distance of 50 feet. Small stationary engine sites shall be cleared of all flammable material for distance of 20 feet. Other mitigation methods may be used as approved by the Engineer and applicable codes.

-3-

**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

(c) *Fire Control Coordinator Responsibilities.* The Fire Control Coordinator shall:

- (1) Be the primary contact for the local Fire Authority and Project Engineer
- (2) Implement the Fire Control Plan.
- (3) Monitor, manage, and adjust the Fire Control Plan as needed as construction work progresses.
- (4) Document in a letter to the Engineer and Local Fire Authority changes to the Fire Control Plan.
- (5) Contact local firefighting authorities three days in advance when a hazardous operation is scheduled. Inspection due to construction activities within project limits may be required.
- (6) Coordinate fire control, mitigation and possible suppression activities until authorities arrive, including the evacuation of staff.

When the Fire Control Coordinator cannot be on the project site, they shall designate a person who is on site to serve as the Fire Control Coordinator. The Fire Control Coordinator, or his designee, shall always be on site while work is performed.

(d) *Open Burning During Weather Events.* **During any of the following weather events, open burning is not permitted in unincorporated Boulder County from time of issuance until midnight in which the event expires: Red Flag Warning, High Wind Warning, High Wind Watch and Fire Danger Warning.** Check the local forecast for up to date information issued by the National Weather Service. This is per Boulder County Ordinance 2018-1, "An Ordinance Repealing and Replacing Boulder County Ordinance 2006-2 and Authorizing the Declaration of Open Fire Bans by the Board of County Commissioners or the County Sheriff."

The National Weather Service issues weather statements to inform area firefighting and land use management agencies that conditions are ideal for wildland fire ignition and propagation (Red Flag Warning, High Wind Warning, High Wind Watch, Fire Danger Warning).

For this standard special provision, smoking is an open flame and shall be included in the definition of open burning, which is not permitted for the above listed weather events. Any smoking or lighting of items outside or within a vehicle with open windows is not permitted on the project site or within 500 feet of the project's limits of disturbance. With the approval of the Engineer, who consults with the local Fire Authority, a designated smoking area may be established.

-4-

**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

No additional payment or compensation will be paid to the Contractor during any weather events associated with open burning and include Red Flag Warning, High Wind Warning, High Wind Watch, Fire Danger Warning. Delays may be counted as an excusable delay per Standard Specification 108.08 or at the discretion of the Engineer.

- (e) *Costs.* All costs associated with the preparation and implementation of the Plan and compliance with all fire protection provisions and requirements will not be measured and paid for separately but shall be included in the work.

**REVISION OF SECTION 108
PROSECUTION AND PROGRESS**

Section 108 of the Standard Specifications is hereby revised for this project as follows:

Subsection 108.03 shall include the following:

The Contractor shall submit a CPM baseline schedule to the Engineer at least three (3) working days prior to the preconstruction meeting. This CPM baseline schedule shall show the major salient features of the project through completion.

The minimum salient features to be shown on the Contractor's CPM Schedule are:

- (1) Erosion Control, Mobilization
- (2) Construction Surveying
- (3) Traffic Control Phasing
- (4) Unclassified Excavation
- (5) Storm Drainage
- (6) Aggregate Base Course placement
- (7) Hot Mix Asphalt Placement
- (8) Concrete Pavement
- (9) Concrete Curb and Ramp
- (10) Signing and Striping
- (11) Fencing
- (12) Planting, Seeding & Clean Up

Meetings will be required to review progress and plan upcoming activities. The Erosion Control Supervisor, other representatives, as appropriate, the Contractor and all active subcontractors shall attend the meetings. Such meetings will be required on a weekly basis at a time to be determined by the Engineer and the Contractor.

At the weekly progress meetings, the Contractor shall submit a written statement of planned activities and anticipated inspection, testing, and surveying requirements for the upcoming three (3) weeks. The Contractor shall provide a twenty-four-hour notice to the Engineer if the Contractor elects to change a planned activity.

-2-

**REVISION OF SECTION 108
PROSECUTION AND PROGRESS**

Subsection 108.05 shall include the following:

All work performed by the Contractor or any of their agents shall be accomplished during the established working hours of 8:00 A.M. and 4:30 P.M., Monday through Friday. Neither the Contractor nor their agents shall work outside of the daily working hours without prior approval by the Engineer.

If the Contractor receives approval to work additional hours for their convenience, the Contractor shall reimburse the county for the cost of providing additional engineering and inspection services. The reimbursement to the county will be at a rate of \$125.00 per hour for each county employee and \$175.00 per hour for each consultant required to be on the job site. This cost will be deducted from any money due the Contractor.

**REVISION OF SECTION 202
REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Section 202 of the Standard Specifications is hereby revised for this project as follows:

Subsection 202.01, shall include the following:

This work consists of removal and disposal of all concrete pavement, aprons, pans, paths, sidewalks, driveways, bricks, underlying soils, curbs, gutters, pipes, curbwalks, structures, headwalls, inlets, end sections, delineators, gates and other materials as shown on the plans. All items designated for removal shall be saw cut at an existing control joint or specific location as directed by the Project Engineer. Any adjacent asphalt shall be saw cut a minimum of two feet from the edge of concrete and removed unless noted otherwise on the plans and paid for as item 403 HMA (Patching).

-2-

**REVISION TO SECTION 202
REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

Adjacent concrete damaged during the removal process shall be removed and replaced in-kind by the Contractor at their expense.

Unless shown on the plans and/or included in the bid tab for select locations, adjacent facilities, including sprinkler heads and appurtenant components, or landscaping damaged during the removal process shall be replaced or restored in-kind by the Contractor at the Contractor's expense.

All other labor, equipment and material items incidental to complete the work, shall be included in the approved unit price without additional compensation by Boulder County.

**REVISION OF SECTION 202
REMOVAL OF PAVEMENT MARKING**

Section 202 of the Standard Specifications is hereby revised for this project as follows:

Subsection 202.05 shall include the following:

Pavement Markings to be removed shall be marked by the Contractor no less than 48 hours prior to removal. The Department shall review and approve the pavement markings to be removed prior to the work. All Removal of Pavement Markings shall be completed prior to permanent striping layout. All pavement markings removed shall become the property of the Contractor and disposed of properly offsite.

**REVISION OF SECTION 202
REMOVAL OF TOPSOIL**

Section 202 of the Standard Specification is hereby revised as follows:

Subsection 202.02 shall include the following:

Topsoil Removal: After the construction area and its access have been delineated, the vegetation should be mowed to a maximum height of four (4) inches over the area to be disturbed. If the amount of vegetation exceeds what can be incorporated into the soil without interfering with establishing a proper seedbed, then excess vegetation shall be removed.

Topsoil should be removed by a front-end loader (preferred method) or grader. Under no circumstances should upland topsoil be removed under wet soil moisture conditions. The depth of the topsoil layer may vary. Topsoil may be delineated from the subsoil by a higher organic matter content (usually, but not always, indicated by a darker color) and a relatively loose and friable soil structure. Typically, topsoil is between four (4) and eight (8) inches in depth.

Under no circumstances shall subsoil be mixed with topsoil, and subsoil shall not be placed on top of the topsoil. If necessary, salvaged topsoil shall be cordoned off to delineate the topsoil from subsoil or other materials. The topsoil shall be protected from contamination by subsoil material, weeds, etc. and from compaction by construction equipment and vehicles.

**REVISION OF SECTION 203
EXCAVATION AND EMBANKMENT**

Section 203 of the Standard Specifications is hereby revised for this project as follows:

Subsection 203.05 (b), first paragraph, shall include the following:

Excess material that must be removed from the project shall become the property of the Contractor and disposed of outside the project limits.

The Contractor shall make all arrangements to obtain any required agency permit(s) and written permission from property owners for disposal locations outside the limits of the project, within unincorporated Boulder County.

Disposal of more than 50 cubic yards of unclassified excavation within unincorporated Boulder County may qualify for one of the following Boulder County Community Planning and Permitting review processes:

- (a) Grading Permit,
- (b) Site Plan Review,
- (c) Site Plan Review Waiver, or
- (d) Limited Impact Special Review.

Copies of the permit(s) and written permission shall be furnished to the Engineer before the disposal area is used.

Subsection 203.12 shall include the following:

Payment for Unclassified Excavation and Unclassified Excavation (Complete in Place) shall also include costs associated with obtaining any necessary permits or written permissions and will not be paid separately.

**REVISION OF SECTION 207
TOP SOIL**

Section 207 of the Standard Specification is hereby revised as follows:

Subsection 207.01 last sentence shall be replaced with the following:

It shall include the placing of topsoil upon constructed cut and fill slopes after grading operations are completed.

Subsection 207.02 shall include the following:

All topsoil shall be either secured from the site or imported and shall be approved by Boulder County at the source prior to import.

Subsection 207.03 shall include the following:

Relieving Compaction: Areas to receive topsoil that have been compacted by heavy equipment shall be ripped or chiseled **prior to redistribution of topsoil**. Construction areas and other compacted areas will be chiseled to a minimum depth of 10 inches, with no more than a 10-inch interval between chiseled furrows. Two passes with a chiseler may be necessary, with the second pass chiseling between the first furrows, or perpendicular to original furrows.

Redistribution of Topsoil and Application of Soil Conditioning: The topsoil should be redistributed uniformly over the disturbed areas, minimizing compaction by equipment. **Topsoil redistribution shall not occur under wet soil conditions.** When applicable, fertilizer or soil conditioning shall be incorporated evenly throughout the topsoil as described in Specification.

**REVISION OF SECTION 208
EROSION CONTROL**

Section 208 of the Standard Specifications is hereby revised for this project as follows:

Subsection 208.02(h) shall include the following:

All erosion logs shall be biodegradable unless otherwise approved by the Engineer.
Photodegradable will not be accepted.

Subsection 208.02 (k) shall include the following:

Prior to the initial arrival onto the project site, all equipment shall be thoroughly power washed, including the undercarriages and tires. Equipment must be clean of mud, vegetative matter, and other debris to prevent importation of non-native and noxious weed seeds from other project sites.

**REVISION OF SECTION 209
DUST PALLIATIVES**

Section 209 of the Standard Specifications is hereby revised as follows:

Subsection 209.05 shall include the following:

The contractor shall be responsible for controlling vehicle and equipment speeds within the project site to keep dust to a minimum. The Contractor shall monitor activities daily for dust. If excessive dust is being generated by construction speeding vehicles or equipment, the contractor shall immediately take corrective action to ensure operators and drivers control speeds, thereby, assisting in dust suppression.

**REVISION OF SECTION 212
SOIL AMENDMENTS, SEEDING, AND SODDING**

Section 212 of the Revision of Section 212, dated July 9, 2020, is hereby revised as follows:

Subsection 212.02 (a) shall include the following:

Maximum crop and weed content shall follow the Colorado Seed Certification Standards for certified seed:

- (1) Prohibited (Primary) Noxious Weeds (List A): None,
- (2) Restricted (Secondary) Noxious Weeds (List B): Less than 0.1%, and
- (3) Total Other Crop Seed: Less than 1.0%.

Seed shall be free of Prohibited (Primary) Noxious Weeds (List A) and some Restricted (Secondary) Noxious Weeds (List B) including, but not limited to, Canada thistle, diffuse knapweed, spotted knapweed, Russian knapweed, field bindweed, hoary cress, jointed goat grass, leafy spurge, musk thistle, and yellow toadflax. The Project Manager has the right to refuse seed lots upon seeing a lab certified purity exam. The Contractor shall be responsible for replacing any refused seed at no additional cost to the project.

If specified type or variety of seed is not available, substitutions must be submitted and approved by the Engineer.

Subsection 212.02 (b) shall include the following:

Fertilizer may only be used if directed by the project specific documents.

Fertilizer shall meet the following description; a slow release organic fertilizer composed of dried granulated fungal and bacterial biomass. The nutrient source shall be derived from fermented plant material along with nutrients such as cottonseed meal, soybean meal and trace elements all under sterile conditions. It shall not contain urea or sewage material.

Subsection 212.02 (c) shall include the following:

Compost feedstock may include, but is not limited to, leaves and yard trimmings, food scraps, food-processing residuals, manure or other agricultural residuals, forest residues, bark, and paper. Biosolids (from sewage treatment facilities) are not considered suitable feedstock.

-2-

**REVISION OF SECTION 212
SOIL AMENDMENTS, SEEDING, AND SODDING**

Subsection 212.05 shall include the following:

Seeding shall be accomplished within 24 hours of tilling or scarifying to make special seed bed preparation unnecessary. The seeding application rate shall be as designated in the Contract. All slopes flatter than 2:1 shall be seeded with grass or no-till drills followed by packer wheels. Drag chains are not allowed. Drills shall have depth bands set to maintain a planting depth between $\frac{1}{2}$ and $\frac{3}{4}$ inch and shall be set to space the rows not more than eight (8) inches apart. Packer wheels that firm the soil over the drill row are required. Seed that is extremely small shall be sowed from a separate hopper adjusted to the proper rate of application or hand broadcast following drill seeding. The Contractor shall notify the Engineer 24 hours in advance and request inspection of seeding areas prior to installation.

Seed must be applied with a grass or no-till drill that is specifically designed to accommodate variability in size and physical characteristic of native grass seeds. **Seed drills must be clean of seed from previous seeding jobs before any seeding begins.**

If strips greater than eight(8) inches between the rows have been left unplanted or other areas skipped, the Engineer will require additional seeding at the Contractor's expense.

When requested by the Contractor and approved by the Engineer, seeding may be accomplished by broadcast or hydraulic type seeders at twice the rate specified in the Contract at no additional cost to the project.

All seed sown by broadcast-type seeders shall be "raked in" or covered with soil to a depth of at least $\frac{1}{4}$ inch. Broadcasting seed will be permitted only on small areas not accessible to machine methods. Broadcast seeding shall proceed on freshly disturbed (raked or harrowed) soil surface and broadcast seed shall be immediately raked or harrowed into the surface.

Hydraulic seeding will not be accepted unless approved by Project Manager for use on sites otherwise inaccessible to other means of seeding

-3-

**REVISION OF SECTION 212
SOIL AMENDMENTS, SEEDING, AND SODDING**

Seeded areas damaged due to circumstances beyond the Contractor's control shall be repaired and reseeded as ordered. Payment for this corrective work, when ordered, shall be at the contract prices.

Areas not requiring seeding that have been damaged due to the seeding operation shall be required as ordered. Payment for this corrective work, when ordered, shall at the contract prices.

Multiple seeding operations shall be anticipated as portions of job are completed to take advantage of growing conditions and to comply with Section 208 and subsection 212.03.

Subsection 212.09, shall include the following:

The Contractor shall furnish the Engineer with delivery tickets or bag weight tickets prior to placing any Organic Fertilizer, Compost (Mechanically Applied), Humates, Mycorrhizae soil amendments for Seeding (Native). Any Organic Fertilizer, Compost (Mechanically Applied), Humates, Mycorrhizae soil amendments for Seeding (Native) placed by the Contractor without the Engineer's approval will not be paid for.

Tags attached to bags of seed will not be removed until the bag is opened on site at the time of seeding.

**REVISION OF SECTION 214
PLANTING**

Section 214 of the Standard Specifications is hereby revised as follows:

Subsection 214.01 and shall include the following:

This work consists of furnishing all plants, labor, materials and equipment and performing all work necessary and incidental to installing live willow cuttings or poles for the stabilization of soil and riprap and/or environmental mitigation in accordance with other contract documents, at the direction of the Engineer. This work also includes perennial (tubelings) and wattles as shown on the drawings.

Subsection 214.02, paragraph eight, shall include the following:

Substitutions will not be permitted without written request and approval from the County. All substitutions must represent native species that occur naturally in Boulder County and surrounding watersheds and is appropriate for the elevation where the plant material will be planted, and do not represent horticultural cultivars or varieties.

Subsection 214.02 shall include the following:

- (e) *Live Willow*. Stakes shall be collected from sources that have been approved by the Engineer before beginning cutting operations. These plants must be harvested in early spring while dormant and before the buds leaf out (usually between February 15th and April 15th), unless otherwise approved by the Engineer. All stakes shall be collected on or near the site (within 1,000 vertical feet) whenever possible, as directed by a qualified ecologist. All stakes shall be harvested when dormant (before leaves emerge or after they are dropped) from live plants 0.5 to 0.75 inch in diameter. Diseased or damaged stakes shall not be harvested.

The stem shall be stripped of all branches before cutting and then trimmed to the desired length. The lower (rooting) end of the stem shall be cut at a 45-degree angle and the upper end shall be cut at a 90-degree angle. The cuttings shall be placed into water within five minutes of cutting, or if longer, recut the ends, and soaked—with a minimum of 50% of the cutting submerged—for at least 72 hours, but not more than 14 days, prior to planting. The stakes shall be kept wet until placed into the ground and will not be allowed out of water for more than 10 minutes during planting. All cuttings shall be trimmed after installation to ensure that no more than 12" is left above ground.

-2-

**REVISION OF SECTION 214
PLANTING**

No more than 20 percent of middle age plant material shall be taken from willow collection sites unless plant will be removed or transplanted during excavation and grading. Written consent from the property owner must be received in areas where harvesting will occur and will specify if it is beneficial to take more than 20 percent of the plant material.

Willows shall be cut by hand. Transport of willow cuttings on the collection site may be by hand or machinery. No machinery will be used on any property without consent of the owner. Written consent of the owner including explanation of machinery type and limits of machinery travel shall be provided to the Engineer before machinery is used for willow transport.

Willow collection sites shall be left in good condition following the collection process. All slash will be removed and disposed of as part of the work. The collection team will be aware of all property lines and maintain cutting practices on lands that have provided consent only. Collections made on public lands must be permitted and carried out in accordance with local, state, and federal law. Willow cuttings grown in an approved nursery will be allowed.

The Contractor shall provide the Engineer two weeks' notice prior to beginning willow collection.

Protection of Migratory Birds shall be observed in the cutting and planting sites.

- (f) *Perennial (Tubelings)*. Perennial (Tubelings) shall be supplied in 10-cubic-inch containers as designated in the contract. All plants shall be from Colorado. Perennial (Tubelings) shall have been growing at least one growing season in the nursery. Perennial (Tubelings) shall not be shipped while in a dormant condition. Perennial (Tubelings) shall be a minimum of six inches in height when applicable to species and a root mass filling 75% of a 10-cubic inch container.

The Contractor shall notify the Engineer prior to ordering any Perennial (Tubelings). Boulder County shall approve the order and quantities of all Perennial (Tubelings).

-3-

**REVISION OF SECTION 214
PLANTING**

(g) *Wattles*. Wattles are used to trap sediment and revegetate banks. Construct the wattle by bundling 15 to 30 five-foot long willow stakes (or per the plan). Bundle the stakes with ends alternated. Tightly compress bundle to a diameter of 8 to 12 inches and tie with two wraps of biodegradable twine or wire every 18 to 24 inches. Install by digging a trench 12 to 18 inches wide and as deep as the wattle diameter. Do not dig the trench more than one hour prior to planting the wattle to minimize soil drying. Anchor wattle into the trench with 30-inch wooden stakes driven through the wattle every 24 inches. Cover with soil and tamp lightly so that none of the wattle is exposed and the top has no more than four inches of soil covering it.

Subsection 214.03 shall include the following:

(j) *Live Willow/Cottonwood Stake Installation*. Using a piece of rebar, stinger backhoe attachment, or other equipment, to create a vertical hole deep enough to reach the water table throughout the growing season. Insert the cutting into the hole so that the rooting end of the cutting is in contact with the water table during the low flow period. At least $\frac{2}{3}$ of the cutting length must be below ground. After proper installation, trim above ground length so that no more than 12 inches (with at least two live buds showing) is left above ground. Only dead blow hammers or rubber mallets shall be used to tamp the live poles into the soil. Care shall be taken to prevent splitting of the poles due to impact from the hammers. Sledgehammers or other hammering devices shall NOT be used to install the cuttings. Soil shall be placed in any spaces around the cuttings and tamped into place to remove any air pockets. Water shall be applied immediately (within five minutes) to the planted cuttings/stakes until the soil around the plant is saturated. Stake shall be pruned to a clean, non-damaged cut.

(k) *Watering in Non-irrigated Areas*. Newly planted and transplanted tree materials shall be watered once per week at the rate of 10 gallons per tree per watering for the months May through October, and once per month at the rate of 10 gallons per tree for the months November through April of the 12-month period following planting.

Shrubs planted or transplanted in upland areas shall be watered once per week by at the rate of five gallons per shrub per watering for the months May through October and shall be watered once per month at the rate of five gallons per shrub for the months November through April of the 12-month period following planting.

-4-

REVISION OF SECTION 214

PLANTING

Willow poles and other dormant pole cuttings are exempt from the above watering requirements.

Allowable water sources will include water trucks and approved nearby hydrants. Drafting from the stream will not be allowed.

Subsection 214.05 shall include the following:

The quantity of willow cuttings will be measured by the actual number planted, complete in place and accepted

Subsection 214.06 shall include the following:

Payment will be made under:

Pay Item	Pay Unit
Live Willow Stakes	Each

REVISION OF SECTION 216 SOIL RETENTION COVERING

Section 216 of the Standard Specifications is hereby replaced as follows:

DESCRIPTION

216.01 This work consists of furnishing, preparing, applying, placing, and securing soil retention blankets for erosion control on roadway slopes or channels as designated in the Contract

MATERIALS

216.02 Soil retention covering shall be a soil retention blanket as specified in the Contract. All soil retention coverings shall be biodegradable. Photodegradable will not be accepted. It shall conform to the following:

- (a) *Soil Retention Blanket*. Soil retention blanket shall be composed of degradable natural fibers mechanically bound together between two slowly degrading natural fiber nettings to form a continuous matrix and shall conform to the requirements of Tables 216-1 and 216-2. The blanket shall be of consistent thickness with the fiber evenly distributed over the entire area of the mat.

When biodegradable blanket is specified, the thread shall be 100 percent biodegradable; polypropylene thread is not allowed.

Blankets and nettings shall be non-toxic to vegetation and shall not inhibit germination of native seed mix as specified in the Contract. The materials shall not be toxic or injurious to humans. Class 1 blanket shall be an extended term blanket with a typical 24-month functional longevity. Class 2 blanket shall be a long-term blanket with a typical 36-month functional longevity. The class of blanket is defined by the physical and performance characteristics.

1. *Soil Retention Blanket (Straw-Coconut) (Biodegradable)*. Soil Retention Blanket (Straw-Coconut) shall be a machine produced mat consisting of 70 percent certified weed free agricultural straw or Colorado native grass straw and 30 percent coconut fiber. The blanket shall be either biodegradable or photodegradable. Blankets shall be sewn together on a maximum 2-inch centers.

The top and bottom netting shall be 100 percent biodegradable organic jute fiber. Netting shall be constructed using a weave unattached at intersections which allows the strands of the net to move independently of each other.

-2-

**REVISION OF SECTION 216
SOIL RETENTION COVERING**

2. *Soil Retention Blanket (Coconut) (Biodegradable)*. Soil Retention Blanket (Coconut) (Biodegradable) shall be a machine produced mat consisting of 100 percent coconut fiber that is biodegradable.

The top and bottom netting shall be 100 percent biodegradable organic jute fiber. Netting shall be constructed using a weave which is unattached at the intersections, and which allows the strands of the net to move independently of each other.

**TABLE 216-1
PHYSICAL REQUIREMENTS FOR
SOIL RETENTION BLANKET – BIODEGRADABLE BLANKET**

Bio Degradable Class	Minimum Roll Width	Minimum Thickness ASTM D6525	Acceptable Matrix Fill Material	Min. Mass per Unit Area ASTM D6475	Size of Net Opening
1	6.5 ft.	250 mils	Straw/ Coconut	8oz/sy	Minimum 0.50"x0.50"
					Maximum 0.50"x1.00"
2	6.5 ft.	300 mils	Coconut*	8oz/sy	Minimum 0.50"x0.5"
					Maximum 0.5"x1.00"

*Minimum Open Area, 36%

**TABLE 216-2
PERFORMANCE REQUIREMENTS FOR
SOIL RETENTION BLANKET – BIODEGRADABLE BLANKET**

Biodegradable Class	Slope Application "C" Factor ¹ ASTM D6459	Minimum Tensile Strength MD ² ASTM D6818	Minimum Tensile Strength ASTM D4595
1	<0.1 at 3:1	8.33 lbs/in	
2	<0.1 at 3:1	10.42 lb/in	1968 lb/ft

1. "C" Factor is calculated as ratio of soil loss from soil retention blanket protected slope (tested as specified or greater gradient, 3H:1V) to ratio of soil loss from unprotected (control) plot in large-scale testing.
2. MD is for machine direction testing (along the length of the roll).

-3-

REVISION OF SECTION 216 SOIL RETENTION COVERING

Blankets shall be tested for physical properties and have published data from an independent testing facility.

Large scale testing of Slope Erosion Protection ("C" factor) shall be performed by an independent testing facility.

- (b) *Staples*. Staples shall be made of ductile steel wire, 0.165 inches in diameter, 8 inches long and have a 1-inch crown. "T" shaped staples will not be permitted.

A sample of the staples and a Certificate of Compliance (COC) including the manufacturer's product data showing that the product meets the Contract requirements shall be submitted for approval at the Environmental Pre-construction Conference. Installation of the blanket will not begin until approval has been received from the Engineer in writing.

- (c) *Earth Anchors*. The mechanical earth anchor shall be composed of a load bearing face plate, a tendon rod or wire rope, and a locking head or percussion anchor. Each element of the anchor shall be composed of corrosion resistant materials. The anchor and wire rope shall have a breaking strength of 9,500 pounds utilizing standard tensile testing and ASTM A1007-07. The anchor shall have a minimum 1,000 pounds ultimate holding strength in normal soil and a manufacturer's recommended minimum driven depth of 3.5 feet.

A sample of the anchors and a Certificate of Compliance (COC) including the manufacturer's product data showing that the product meets the Contract requirements shall be submitted for approval at the Environmental Pre-construction Conference. Installation of the blanket will not begin until approval has been received from the Engineer in writing.

CONSTRUCTION REQUIREMENTS

216.03 The Contractor shall install soil retention coverings in accordance with Standard Plan M-216-1 and the following procedure:

- (1) Prepare soil in accordance with subsection 212.06(a).
- (2) Apply topsoil or soil conditioning as directed in the Contract to prepare seed bed.
- (3) Place seed in accordance with the Contract.
- (4) Unroll the covering parallel to the primary direction of flow.

-4-

**REVISION OF SECTION 216
SOIL RETENTION COVERING**

- (5) Ensure that the covering maintains direct contact with the soil surface over the entirety of the installation area.
- (6) Do not stretch the material or allow it to bridge over surface inconsistencies.
- (7) Staple the covering to the soil such that each staple is flush with the underlying soil.
- (8) Ensure that staples or earth anchors are installed full depth to resist pull out. No bent over staples will be allowed. Install anchor trenches, seams, and terminal ends as shown on the plans.

216.04 Slope Application. Soil retention coverings shall be installed on slopes as follows: The upslope end shall be buried in a trench 3 feet beyond the crest of the slope if possible. Trench depth shall be a minimum of six inches unless required by the manufacture to be deeper. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over trench and secured with staples or earth anchors at one foot on center.

There shall be an overlap wherever one roll of fabric ends, and another begins with the uphill covering placed on top of the downhill covering. Staples shall be installed in the overlap.

There shall be an overlap wherever two widths of covering are applied side by side. Staples shall be installed in the overlap.

Staple checks shall be installed on the slope length at a maximum of every 35 feet. Each staple check shall consist of two rows of staggered staples.

The down slope end shall be buried in a trench 3 feet beyond the toe of slope. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping and seeded. Fabric shall be brought back over the trench and secured with staples or earth anchors. If a slope runs into State waters or cannot be extended 3 feet beyond the toe of slope, the end of covering shall be secured using a staple check as described above.

Coverings shall be securely fastened to the soil by installing staples or earth anchors at the minimum rate shown on the Standard Plan M-216-1. Staple or earth anchor spacing shall be reduced where required due to soil type or steepness of slope.

-5-

REVISION OF SECTION 216 SOIL RETENTION COVERING

216.05 Channel Application. Soil retention coverings shall be installed as follows on a channel application:

Coverings shall be anchored at the beginning and end of the channel across its entire width by burying the end in a trench. Trench depth shall be a minimum of 6 inches, unless a larger depth is specified by the manufacturer's recommendations. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil and compacted by foot tamping and seeded. Fabric shall be brought back over the trench and stapled.

Covering shall be unrolled in the direction of flow and placed in the bottom of the channel first. Seams shall not be placed down the center of the channel bottom or in areas of concentrated flows when placing rolls side by side.

There shall be an overlap wherever one roll of covering ends and another begins with the upstream covering placed on top of the downstream covering. Two rows of staggered staples shall be placed.

There shall be an overlap wherever two widths of covering are applied side by side. Staples shall be placed in the overlap.

The covering shall have a channel check slot every 30 feet along the gradient of the flowline. Check slots shall extend the entire width of the channel. The covering shall be buried in a trench. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over the trench and continued down the channel.

Coverings shall be securely fastened to the soil by installing staples at the minimum rate shown on the plans. Staple spacing shall be reduced where needed due to soil type or high flows.

216.06 Maintenance. The Contractor shall maintain the soil retention coverings until all work on the Contract has been completed and accepted. Maintenance shall consist of the repair of areas where damage is due to the Contractor's operations. Maintenance shall be performed at the Contractor's expense. Repair of those areas damaged by causes not attributable to the Contractor's operations shall be repaired by the Contractor and will be paid for at the contract unit price. Areas shall be repaired to reestablish the condition and grade of the soil and seeding prior to application of the covering.

-6-

**REVISION OF SECTION 216
SOIL RETENTION COVERING**

METHOD OF MEASUREMENT

216.07 Soil retention coverings, including staples, complete in place and accepted, will be measured by the square yard of finished surface, excluding overlap, which is installed and accepted. Earth anchors will be measured by the actual number of earth anchors complete in place and accepted.

BASIS OF PAYMENT

216.08 The accepted quantities of soil retention coverings will be paid for at the contract unit price per square yard. The accepted quantities of earth anchors will be paid for at the contract unit price for each installed.

Payment will be made under:

Pay Item	Pay Unit
Soil Retention Blanket (Straw-Coconut) (Biodegradable Class 1)	Square Yard

SECTION 308 SUBGRADE STABILIZATION

Section 308 of the Standard Specifications is hereby added to this project as follows:

DESCRIPTION

308.01 This work consists of stabilizing the earth subgrade by a mechanical, chemical, or unbound aggregate process in the specified area as shown on the plans or as directed by the Engineer. The material shall be finished to a smooth and uniform surface on which a structural pavement system shall be placed.

DESIGN REQUIREMENTS

308.02 The Contractor shall submit a design to the Engineer for approval prior to construction. Mechanical stabilization and chemical stabilization with cement, fly ash or other chemical agents shall be designed in accordance with CP 26. Lime stabilized subgrade and stabilization with unbound aggregate shall be designed in accordance with the current version of CDOT's Pavement Design Manual.

MATERIALS

308.03 Mechanically stabilized material shall conform to CP 26. Materials used for lime stabilized subgrade shall conform to the requirements of Section 307. Chemical stabilization with cement, fly ash or other chemical agents shall conform to CP 26. Unbound aggregate material shall conform to the requirements of Section 304.

CONSTRUCTION REQUIREMENTS

308.04 Placing. The Contractor shall construct one or more compacted courses of stabilized material in the area specified. The stabilized subgrade shall have uniform density and moisture content and be void of all vegetation and other organic material. The stabilized subgrade shall be well bound for its full depth and width with a smooth surface suitable for placing subsequent courses.

308.05 Mixing. The Contractor shall regulate the sequence of the work to accurately apply the subgrade stabilization technology courses as necessary to meet the above requirements.

308.06 Proof Rolling. After the subgrade has been stabilized, the Contractor shall perform proof rolling in accordance with subsection 203.08. Final proof rolling will take place a maximum of two days after all mechanical stabilization or unbound aggregate work has been completed, unless otherwise approved by the Engineer. Final proof rolling will take place a minimum of two days after all lime or other chemical stabilization work has been completed, unless otherwise approved by the Engineer.

-2-

**SECTION 308
SUBGRADE STABILIZATION**

308.07 Finishing. The finished surface shall be smooth and uniform conforming to the typical sections. Variation from the stabilized subgrade plan elevations specified shall not exceed 0.04 foot. All irregularities, depressions, or weak spots, which develop, shall be corrected at the Contractor's expense. The surface shall be maintained in a smooth condition, free from undulations and ruts, until other work is placed thereon or the work is accepted.

METHOD OF MEASUREMENT

308.08 Stabilized subgrade will be measured by the square yard completed and accepted.

BASIS OF PAYMENT

308.9 The accepted quantities will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule. Payment shall include all geosynthetic material, unbound material, processing material, mixing, compaction, and any materials used in curing.

Payment will be made under:

Pay Item	Pay Unit
Stabilized Subgrade	Square Yard

Overlapped material will not be measured and paid for separately, but shall be included in the work. All proof rolling will not be measured and paid for separately but, shall be included in the work.

**REVISION OF SECTION 310
FULL DEPTH RECLAMATION OF HOT MIX ASPHALT PAVEMENT**

Section 310 is hereby added to the Standard Specifications as follows:

DESCRIPTION

310.01 This work will be specified as a total reclamation processed depth up to 12 inches. Existing asphalt thicknesses vary but are average depth of 4". This work consists of cutting of the existing asphalt mat, pulverizing the existing asphalt mat, mixing the pulverized asphalt mat with the existing subbase, existing base course, or combination thereof, to a depth of 12", grading and compacting the mixed material, in accordance with and at locations as shown in the Plans and Specifications. **Removal of any excess material to achieve final subgrade elevation and profile will not be paid for separately but will be included in the bid unit price of the work.**

CONSTRUCTION REQUIREMENTS

310.02 The contractor shall develop a written method (plan) to maintain the centerline geometry and as applicable, the profile elevations and cross-slope of the existing roadway. The plan shall be submitted to the Engineer for approval a minimum of two weeks prior to starting work. The Contractor shall locate and determine depths, whether by potholes or other methods, of utility lines prior to starting work.

The existing asphalt mat shall be cut at neat lines at all tie in points by the use of a cutting wheel attached to a blade or by another approved method. The existing asphalt mat shall be pulverized, and mixed with the existing subbase, base course, or combination thereof to a specified depth or as directed by the Engineer, with a self-propelled rotary type mixing machine. The mixing machine shall make as many passes as required to uniformly mix the asphalt, subbase, existing base course, or combination thereof to the required depth. Mixing of the different materials shall create a homogenous mixture. The particle size of the pulverized asphalt mat shall be a minimum of 99 percent passing the 37.5 mm (1-1/2 inch) sieve. When the addition of water is necessary for initial compaction purposes, unless otherwise approved by the Engineer, it shall be added through the mixing machine with the capability to uniformly distribute water through the mixed materials to within 2 percent of the optimum moisture as determined in accordance with AASHTO T-180 Method D.

-2-

**REVISION OF SECTION 310
FULL DEPTH RECLAMATION OF HOT MIX ASPHALT PAVEMENT**

When proper mixing has been accomplished, the mixture shall then be bladed, shaped, wetted or dried, and rolled to meet a minimum of 95 percent of the maximum dry density determined in accordance with AASHTO T-180 Method D. Grading equipment used to establish the final surface elevations shall have automatic controls for transverse slope. The transverse slope controls shall be capable of maintaining the final surface within 0.1 percent of the specified slope. Variations from the subbase (subgrade) plane shall not be more than ¼ inch. The work shall be maintained and tested for conformance to these requirements immediately prior to placing additional pavement layers. At the direction of the plans or Engineer, an application of diluted emulsified asphalt may be required before placement of the bottom layer of hot bituminous pavement.

Excess material generated shall be hauled and stockpiled at a location as designated in the Plans or by the Engineer. If no location is designated, it shall be the responsibility of the contractor to properly dispose of said material. Excess material removal from the site shall be in accordance with Project Special Revision of Section 203, Excavation and Embankment.

Compaction will be measured for the top 8-inch lift of reclaimed materials, and if appropriate for any lift below the top 8-inch lift. Density testing and materials acceptance will apply to each lift of eight inches or less that is reclaimed and placed on the project. Acceptance Testing will be based on a random schedule of 1/2000 square yards of reclaimed material up to eight inches and 1/2000 square yards of reclaimed material eight inches and greater in depth. The compacted material shall be proof-rolled in accordance with Section 209.09. Any areas of deformation shall be removed, treated and re-compacted prior to placement of Hot Mix Asphalt Pavement.

The maximum length of exposed processed asphalt pavement shall be no greater than 0.5 miles unless approved by the Engineer. The maximum time a portion of the roadway will be unpaved is five working days unless approved by the Engineer. The exposed longitudinal joint between the existing asphalt mat and the processed mat shall not remain in place for more than one day unless approved by the Engineer. Joint construction and maintenance shall conform to subsection 401.16.

The contractor shall provide emergency access to all affected residences during construction. The contractor shall rough grade and compact roads and provide suitable material to allow passenger car access to all driveways at the end of each day.

-3-

**REVISION OF SECTION 310
FULL DEPTH RECLAMATION OF HOT MIX ASPHALT PAVEMENT**

METHOD OF MEASUREMENT

310.03 Full Depth Reclamation of Hot Mix Asphalt Pavement will be measured by the square yard of roadway treated, completed and accepted.

BASIS OF PAYMENT

310.04 The accepted quantities of Full Depth Reclamation of Hot Mix Asphalt Pavement will be paid for at the contract unit price per square yard for Full Depth Reclamation of Hot Mix Asphalt Pavement.

Payment will be made under:

Pay Item	Pay Unit
Full Depth Reclamation of Hot Mix Asphalt Pavement (8-12 Inches)	Square Yard

Payment for Full Depth Reclamation of Hot Mix Asphalt Pavement will be full compensation for all work necessary to complete the item including cutting of the existing asphalt mat, pulverizing the existing asphalt mat, mixing the pulverized asphalt mat into existing subbase (subgrade) or base course, wetting and compacting the mixed pulverized asphalt mat and subgrade and/or base course, blading, shaping, haul, disposal of excess material, and water.

All the following will not be paid for separately but will be included in the bid unit price of the work:

- (1) Removal of any excess material to achieve final subgrade elevation and profile,
- (2) Developing and implementing the plan,
- (3) Survey staking to re-establish the centerline geometry, profile and cross slopes,
- (4) Determination of depths of utility lines, including potholing,
- (5) Placing material to provide ramps to each affected driveway, and
- (6) Providing required emergency access.

**REVISION OF SECTION 403
HOT MIX ASPHALT**

Section 403 of the Standard Specifications is hereby revised for this project as follows:

Subsection 403.02 shall include the following:

The design mix for hot mix asphalt shall conform to the following:

Table 403-1

Property	Test Method	Value for Grading		
		S (50)	SX (50)	Patching
Air Voids, percent at: N (design)	CPL 5115	3.5 – 4.5	3.5-4.5	3.5 – 4.5
Lab Compaction (Revolutions): N (design)	CPL 5115	50	50	50
Stability, minimum	CPL 5106	28	28	28
Aggregate Retained on the 4.75 mm (No. 4) Sieve with at least 2 Mechanically Induced fractured faces, % minimum	CP 45	60	60	60
Accelerated Moisture Susceptibility Tensile Strength Ratio (Lottman), minimum	CPL 5109 Method B	80	80	80
Minimum Dry Split Tensile Strength, psi	CPL 5109 Method B	30	30	30
Grade of Asphalt Cement, Top Layer			PG 58-28	
Grade of Asphalt Cement, Layers below Top		PG 58-28		PG 58-28
Voids in the Mineral Aggregate (VMA) % minimum	CP 48	See Table 403-2	See Table 403-2	See Table 403-2
Voids Filled with Asphalt (VFA), %	AI MS-2	65-80	65-80	65-80
Dust to Asphalt Ratio Fine Gradation Coarse Gradation	CP 50	0.6 – 1.2 0.8 – 1.6	0.6 – 1.2 0.8 – 1.6	0.6 – 1.2 0.8 – 1.6
<p>Note: AI MS-2 = Asphalt Institute Manual Series 2</p> <p>Note: The current version of CPL 5115 is available from the Region Materials Engineer.</p> <p>Note: Mixes with gradations having less than 40% passing the 4.75 mm (No. 4) sieve shall be approached with caution because of constructability problems.</p> <p>Note: Gradations for mixes with a nominal maximum aggregate size of one-inch or larger are considered a coarse gradation if they pass below the maximum density line at the #4 screen.</p> <p>Gradations for mixes with a nominal maximum aggregate size of ¾ inch or smaller are considered a coarse gradation if they pass below the maximum density line at the #8 screen.</p>				

-2-

**REVISION OF SECTION 403
HOT MIX ASPHALT**

All mix designs shall be run with a gyratory compaction angle of 1.25 degrees and properties must satisfy Table 403-1. Form 43 will establish construction targets for Asphalt Cement and all mix properties at Air Voids up to 1.0 percent below the mix design optimum.

Table 403-2

Minimum Voids in the Mineral Aggregate (VMA)			
Nominal Maximum Size*, mm (inches)	***Design Air Voids **		
	3.5%	4.0%	4.5%
37.5 (1½)	11.6	11.7	11.8
25.0 (1)	12.6	12.7	12.8
19.0 (¾)	13.6	13.7	13.8
12.5 (½)	14.6	14.7	14.8
9.5 (¾)	15.6	15.7	15.8
* The Nominal Maximum Size is defined as one sieve larger than the first sieve to retain more than 10%. ** Interpolate specified VMA values for design air voids between those listed. *** Extrapolate specified VMA values for production air voids beyond those listed.			

The Contractor shall prepare a quality control plan outlining the steps taken to minimize segregation of HMA. This plan shall be submitted to the Engineer and approved prior to beginning the paving operations. When the Engineer determines that segregation is unacceptable, the paving shall stop and the cause of segregation shall be corrected before paving operations will be allowed to resume.

The hot mix asphalt will include reclaimed asphalt pavement (RAP) up to 20 percent.

Hot mix asphalt for patching shall conform to the gradation requirements for Hot Mix Asphalt (Grading S)(50)(PG 58-28).

A minimum of 1 percent hydrated lime by weight of the combined aggregate shall be added to the aggregate for all hot mix asphalt.

Acceptance samples shall be taken according to CP-41

-3-

**REVISION OF SECTION 403
HOT MIX ASPHALT**

Subsection 403.03 shall include the following:

A material transfer device will be required for the placement of asphalt on the top lift of paving.

Prior to placing tack coat and beginning overlay work, the surface to be tack coated shall be swept to remove accumulations of loose gravel, vegetation and debris.

All patching shall be completed prior to any mill/planning process and before the heating and scarifying process.

Subsection 403.05 shall include the following:

Payment will be made under:

Pay Item	Pay Unit
Hot Mix Asphalt (Grading SX) (50)(PG 58-28)(Complete In Place)	Ton
Hot Mix Asphalt (Grading S) (50)(PG 58-28)(Complete In Place)	Ton
Hot Mix Asphalt (Patching) (Asphalt)	Ton

Aggregate, asphalt recycling agent, additives, hydrated lime, and all other work necessary to complete each hot mix asphalt item will not be paid for separately but shall be included in the unit price bid. When the pay item includes the PG binder grade, the asphalt cement will not be measured and paid for separately but shall be included in the work. Asphalt cement will not be measured and paid for separately but shall be included in the work. Asphalt cement used in Hot Mix Asphalt (Patching) will not be measured and paid for separately but shall be included in the work.

Hot Mix Asphalt (Patching) (Asphalt) shall include, neat line cutting around the perimeter of the patch area, the removal and disposal of existing pavement and underlying material four (4) inches in depth to achieve the desired patch section, mechanical compaction of subgrade, placement of emulsified asphalt (CSS-1H) tack coat, and the haul, placement, and compaction of four (4) inches of full depth Hot Mix Asphalt.

**REVISION OF SECTION 407
PRIME COAT, TACK COAT AND REJUVENATING AGENT**

Section 407 is hereby revised as follows:

Payment for application of tack coat (emulsified asphalt CSS-1H) will not be measured and paid for separately, but shall be included in the work.

The cost of street sweeping and other means of removing unwanted material to provide a clean surface is the contractor's responsibility and shall not be measured and paid for separately, but shall be included in other items of work.

**REVISION OF SECTION 506
RIPRAP**

Subsection 506.01 shall include the following:

The Project will include two different types of riprap:

- (1) Riprap – Consists of exposed riprap material laid on top of a weed blocking geotextile.
- (2) Soil Riprap – Riprap pre-mixed with native soil.

The various types of riprap shall be installed in accordance with the notes as shown on the plans.

Subsection 506.05 Basis of Payment shall include the following:

Topsoil placement will be measured and paid for in accordance with Section 207.

**REVISION OF SECTION 603
TRACER WIRE**

Section 603 of the Standard Specifications is hereby revised for this project as follows:

Subsection 603.01 shall include the following:

This work consists of tracer wire installation for culverts and storm sewer. Tracer wire shall be installed at all underground culvert and storm sewer locations, except as noted below.

Tracer wire does not need to be installed for the following situations:

- (a) Short pipe culverts in which a light shining through one end is visible from the other end;
- (b) Short pipe culverts in which the inlet and outlet may easily be observed/identified from the same (or nearly the same) vantage point;
- (c) Underground storm sewer pipe in which a light shining through one end, or through a manhole, is visible on either end.

Subsection 603.02 shall include the following:

The following materials shall be accepted for tracer wire installation.

- (a) *Tracer Wire*: All tracer wire shall have HDPE insulation intended for direct bury, color coded green. High Heat-resistant Nylon coated (THHN) wire is not acceptable as tracer wire.
 - (1) Open Trench. Tracer Wire shall be #14 AWG copper, high strength with minimum 450 lb. break load, with minimum 30 mil HDPE insulation thickness.
 - (2) Direction Drilling/Boring. Tracer wire shall be #14 AWG copper, extra high strength with minimum 1,150 lb. break load, with minimum 30 mil HDPE insulation thickness.
 - (3) Pipe Bursting/Slip Lining. Tracer wire shall be 7 x 7 stranded copper c, extreme strength with 4,700 lb. break load, with minimum 50 ml HDPE insulation thickness.
- (b) *Connectors*:
 - 1. Mainline. All mainline tracer wires must be interconnected in intersections, at mainline tees and mainline crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At Crosses, the four wires shall be joined using a 4-way connector. Use of two 3-way connectors with a short jumper wire between them is an acceptable alternative.

-2-

**REVISION OF SECTION 603
TRACER WIRE**

2. Direct bury wire connectors – Direct bury wire connectors shall include 3-way lockable connectors and mainline to lateral lug connectors specifically manufactured for use in underground tracer wire installation. Connectors shall be dielectric silicon-filled to seal out moisture and corrosion and shall be installed in a manner to prevent any uninsulated wire exposure.
3. Prohibited - Non-locking friction fit, twist on or taped connectors are prohibited.

(c) Termination/Access Box:

1. All tracer wire termination points must utilize an approved tracer wire access box (above ground access box or grade level/in-ground access box as applicable), specifically manufactured for this purpose.
2. All grade level/in-ground access boxes shall be appropriately identified with “storm” cast into the cap and shall be color coded in green
3. A minimum of two feet of excess/slack wire is required in all tracer wire access boxes after meeting final elevation.
4. All tracer wire access boxes must include a manually interruptible conductive/connective link between the terminal(s) for the tracer wire connection and the terminal for the grounding anode wire connection.
5. Grounding anode wire shall be connected to the identified (or bottom) terminal on all access boxes.

(d) Prohibited Materials:

1. Uninsulated wire insulations other than HDPE
2. Non-locking, friction fit, twist on or taped connectors
3. Brass or copper ground rods
4. Wire connections utilizing a taping or spay-on waterproofing

Subsection 603.03A, Tracer Wire Installation, shall be added and include the following:

603.03A.01 General Construction Requirements. Tracer wire installation shall be performed in such a manner that allows proper access for connection of line tracing equipment, proper locating of wire without loss or deterioration of low frequency (512Hz) signal for distances greater than 1,000 linear feet and without distortion of signal caused by multiple wires being installed near one another. Tracer wire systems must be installed as a single continuous wire, except where using approved connectors. No looping or coiling of wire is allowed.

Tracer wire shall be installed on top of the pipe and secured (taped/tied) at five-foot intervals. Tracer wire must be properly grounded as specified.

-3-

**REVISION OF SECTION 603
TRACER WIRE**

In occurrences where an existing tracer wire is encountered on an existing utility that is being extended or tied into, the new tracer wire and existing tracer wire shall be connected using approved splice connectors and shall be properly grounded at the splice location as specified.

Any damage occurring during installation of the tracer wire must be immediately repaired by removing the damaged wire and installing a new section of wire with approved connectors. Taping and/or spray coating shall not be allowed.

603.03A.02 Storm Sewer System Construction Requirements. A mainline tracer wire must be installed, with all interconnecting storm sewer line tracer wires properly connected to the mainline tracer wire, to ensure full tracing/locating capabilities from a single connection point. Lay mainline tracer wire continuously, by-passing around the outside of manholes/structures on the North or East side. Tracer wire on all interconnecting storm sewer line tracer wires must terminate at an approved tracer wire access box location and color-coded green.

- (a) *Storm Sewer on public property* - Tracer wire must terminate at an approved grade level/in ground tracer wire access box, located at the edge of the road right-of-way, and out of the roadway.
- (b) *Long-runs, greater than 300 linear feet without manholes* - Tracer wire access must be provided utilizing an approved grade level/in-ground tracer wire access box, located at the edge of the road right-of-way, and out of the roadway. The grade level/in-ground tracer wire access box shall be delineated using a minimum 48" polyethylene marker post, color coded green.

-4-

**REVISION OF SECTION 603
TRACER WIRE**

603.03A.03 – Grounding Construction Requirements. Tracer wire must be properly grounded at all dead ends/stubs. Grounding of tracer wire shall be achieved by use of a drive-in magnesium grounding anode rod with a minimum of 20ft of #14red HDPE insulated copper wire connected to anode (minimum 1.5 lb.) specifically manufactured for this purpose and buried at the same elevation as the utility. When grounding the tracer wire at dead ends/stubs, the grounding anode shall be installed in the opposite direction to the tracer wire, at the maximum possible distance. When grounding the tracer wire in areas where the tracer wire is continuous and neither the mainline tracer wire or the grounding anode wire will be terminated at/above grade, install grounding anode directly beneath and in-line with the tracer wire. Do not coil excess wire from grounding anode. In this installation method, the grounding anode wire shall be trimmed to an appropriate length before connecting to tracer wire with a mainline to lateral lug connector. Where the anode wire will be connected to a tracer wire access box, a minimum of two (2) ft. of excess/slack wire is required after meeting final elevation.

603A.03A.04 Prohibited Construction Methods.

- (a) Looped wire or continuous wire installations, that have multiple wires laid side-by-side or near one another;
- (b) Tracer wire wrapped around the corresponding utility;
- (c) Brass fittings with tracer wire connection lugs;
- (d) Wire terminations within the roadway, i.e. in valve boxes, cleanouts, manholes, etc.;
- (e) Connecting tracer wire to existing conductive utilities

603.03A.05 Testing Construction Requirements. All new tracer wire installations shall be located using typical low frequency (512Hz) line tracing equipment, witnessed by the contractor, engineer and facility owner as applicable, prior to acceptance of ownership.

This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project.

Continuity testing in lieu of actual line tracing shall not be accepted.

-5-

**REVISION OF SECTION 603
TRACER WIRE**

Subsection 603.12 shall include the following:

Tracer wire will be measured by the linear foot complete in place and accepted.

Subsection 603.13 shall include the following:

Tracer wire, connectors, and termination/access boxes will not be measured and paid for separately but shall be included in the work for piping items, which includes items specified in Standard Specifications 603, 605, 623, and 624.

**REVISION OF SECTION 608
SIDEWALKS AND BIKEWAYS**

Section 608 of the Standard Specifications is hereby revised for this project as follows:

Subsection 608.02 shall include the following:

These items shall be constructed with 1.5 lbs fiber reinforcing per cubic yard.

Subsection 608.03 shall include the following:

Concrete sidewalks shall be placed at a 6-inch depth.

Concrete texture and color of curing compound shall match or blend in with existing concrete in the vicinity.

Subsection 608.06 shall include the following:

Bed course material will not be measured and paid for separately but shall be included in this item.

**REVISION OF SECTION 608
DETECTABLE WARNINGS**

Section 608 of the Standard Specifications is hereby revised for this project as follows:

Subsection 608.01 shall include the following:

This work includes the installation of detectable warnings on concrete curb ramps as shown on the plans.

Subsection 608.02 shall include the following:

Detectable warnings on curb ramps shall be truncated domes of the dimensions shown on the plans.

Domes shall be prefabricated by the manufacturer as a pattern on embeddable masonry pavers.

Pavers shall meet all Americans with Disabilities Act (ADA) requirements for truncated domes, and when installed, shall be capable of producing the pattern of domes shown on the plans.

Pavers shall meet the requirements of ASTM C 902 or ASTM C 936.

The domes and their underlying surface shall have a discernible contrast of color from the adjacent surface. The contrasting colors shall not be black and white.

The paver contrast shall be achieved by adding pigment during the fabrication of the paver. Prior to the start of work, the Contractor shall submit appropriate documentation from the manufacturer verifying that the contrast has been met, along with a sample paver, to the Engineer for approval.

Bedding and joint sand for pavers shall be free of deleterious or foreign matter. The sand shall be natural or manufactured from crushed rock. Limestone screenings or stone dust shall not be used. Sand for bedding material shall conform to ASTM C 33. Sand that is to be placed between joints shall conform to ASTM C 144.

Subsection 608.03 shall include the following:

(g) Detectable Warnings for curb ramps.

1. Pavers. Pre-fabricated pavers for detectable warnings shall be brought to the site in steel banded, plastic banded or plastic wrapped cubes capable of being transported by a fork lift or clamp lift. Pavers shall be carefully removed and stacked in a manner which results in the least amount of damage. All pavers that are damaged during transport or delivery will be rejected and shall be replaced at the Contractor's expense. Minor cracks or chipping due to transport and handling that do not

REVISION OF SECTION 608 DETECTABLE WARNINGS

interfere with the structural integrity of the paver or the overall pattern of truncated domes will not be deemed as grounds for rejection.

The Contractor shall spread the bedding sand evenly in the area shown on the plans and shall screed the sand to an appropriate embedment depth as shown on the plans or as directed by the Engineer. Sufficient sand shall be placed to stay ahead of laid pavers

Pavers shall be placed in a running bond pattern. Pavers shall be installed such that the base of the truncated dome is at the same elevation as the adjoining surface, allowing for a smooth transition between the curb ramp and the detectable warning.

When cut pavers are required to fill gaps between the pavers and the edge of concrete, the Contractor shall bevel portions of the truncated domes at a 45-degree angle to create a smooth transition between the partial dome and the curb ramp surface. Unless otherwise directed by the Engineer, pavers shall be cut and installed in such a manner that the domes on the cut sections will not significantly impact the overall pattern of the truncated domes.

The Contractor shall use a plate vibrator to embed the pavers into the sand. The size and type of plate vibrator shall be in accordance with manufacturer's recommendations, or as directed by the Engineer. All pavers that are damaged during embedment shall be replaced at the Contractor's expense.

Joint spacing between paver units shall be in accordance with the manufacturer's recommendations, or as approved by the Engineer. Joints shall be filled completely with joint sand. Excess sand shall be removed by sweeping.

Subsection 608.05 shall include the following:

Detectable warnings on curb ramps, including sand, pavers, and all other work and materials necessary for fabrication, transport, and installation will not be measured and paid for separately, but shall be included in the work.

**REVISION OF SECTION 609
CONCRETE CURB AND GUTTER**

Section 609 of the Standard Specifications is hereby revised as follows:

Subsection 609.01 shall include the following:

This work consists of the construction of curb, gutter, cross pan or combination curb and gutter in accordance with these specifications and in conformity with the existing lines and grades of the removed pieces.

Subsection 609.03 shall include the following:

Concrete curbs and gutters shall be replaced at a 6" depth. Concrete for curb and gutter shall be Class B with 1.5 lbs fiber reinforcing per cubic yard.

Concrete for cross pans shall be Class E with Fast Track in order to open the paved surface quickly after placement. Replacement of concrete cross pans shall be coordinated to allow for 24-hour access to local vehicular traffic. Dowels (#5 x 12" @ 18" o.c.) will be centered on the construction joint between the proposed separate concrete pours and at any tooled or saw cut joint.

As directed by the Engineer, install ½" expansion joint material, full-depth between proposed concrete gutters (6" thick or greater) and existing concrete gutters.

Concrete texture and color of curing compound shall match or blend in with existing adjacent concrete.

Subsection 609.06 shall include:

Gutter and/or cross pan will be measured by the square yard. These items as described and as shown in the project plans and will be measured by the square yard.

Subsection 609.07 shall include:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Curb and Gutter Type 2 (Special)(24")	Lineal Foot
Curb Type 4 (Special)	Lineal Foot

Bed course material will not be measured and paid for separately be shall be included in this item.

**REVISION OF SECTION 625
CONSTRUCTION SURVEYING**

Section 625 of the Standard Specifications is hereby revised for this project as follows:

Subsection 625.04 shall include the following:

The Contractor shall provide all construction surveying and staking necessary for the construction of the project.

The Contractor shall provide as-built elevations and/or horizontal locations for any items not built per the plans. These shall be marked-up in red on the construction drawings and provided to the Owner or Owner's Representative within two weeks of substantial completion.

Subsection 625.12 shall include the following:

Construction Surveying will not be measured but will be paid for on a lump sum basis.

REVISION OF SECTION 626 PUBLIC INFORMATION SERVICES

Section 626 of the Standard Specifications is hereby revised for this project as follows:

Subsection 626.01 shall include the following:

The Boulder County Public Works Department Public Information Officer (PIO) will coordinate public information regarding the project and provide timely updates regarding construction to the public through a variety of established channels

The contractor shall designate a representative with whom the PIO can confer with as needed to ensure that all pertinent construction-related information is conveyed to the public. The contractor-designated representative may maintain a direct line of contact with the PIO to assist with answering questions from the public. The PIO will also conduct any media related activities that may arise over the course of the project. All media inquiries will be directed to the PIO for follow up. The contractor-designated representative may be called upon to assist with media related requests for information and photo or video content.

It shall be the contractor's responsibility to maintain adequate signage throughout the construction site. **The Contractor shall erect construction traffic signs with the dates the Contractor expects to initiate and complete construction.** The signs shall conform to the requirements of Section 630 and shall be erected at least one week prior to the beginning of construction. These signs shall be updated if the project schedule changes, at no cost to the project.

The contractor should confer with the PIO and the Engineer on any messages that will appear on static or variable messaging boards. It will also be the responsibility of the contractor to maintain timely and frequent communications with construction zone area residents/property owners who will be directly impacted by daily construction activities. The contractor can do this as they so choose (door hangers, site visits, etc.) but they are to inform any resident at least 48-hours prior to work being conducted in front of a property so that they understand the impacts of the work on their daily activities and how they can access their home while work is taking place in their area. The contractor is also responsible for informing impacted property owners and residents of any utility service interruptions (i.e., water, power, cable, phone, internet).

-2-

**REVISION OF SECTION 626
PUBLIC INFORMATION SERVICES**

Access for emergency vehicles must always be provided. Coordination with emergency service providers is the responsibility of the contractor. The contractor must inform local emergency service providers (Sheriff, Fire Protection District, ambulance services) of any work that may impact their ability to respond to an emergency in the area of the construction project prior to completing the work.

The Contractor must also coordinate with the United States Postal Service (USPS) and trash haulers if construction-related activities will interfere with their ability to complete their duties.

Impacts to local school bus routes must also be coordinated by the contractor and the affected school district. The same can be said for impacts to Regional Transportation District Route (RTD) that are impacted by construction.

The Contractor shall submit weekly lane closure reports to the Engineer and the PIO.

Public Information Services Contacts:

Project Manager

Dan DeLange, PE

Phone: 303-413-7039

Email: ddelange@bouldercounty.org

Boulder County Public Works Public Information Officer

Andrew Barth

Phone: 303-441-1032

Fax: 303-441-4594

Email: abarth@bouldercounty.org

**REVISION OF SECTIONS 627 and 713
GLASS BEADS FOR PAVEMENT MARKING**

Sections 627 and 713 of the Standard Specifications are hereby revised for this project as follows:

Subsection 627.05, shall include the following:

Contractor shall sweep excess glass beads within 24 hours once the modified epoxy pavement marking is dry.

Subsection 627.05, delete the last paragraph and replace with the following:

Modified epoxy pavement marking and beads shall be applied within the following limits:

**Application Rate or Coverage
Per Gallon of Modified Epoxy Pavement Marking**

	Minimum	Maximum
16 – 18 mil marking	90 sq. ft.	100 sq. ft.
Beads	18 lbs.	20 lbs.

Subsection 713.08 (8) delete and replace with the following:

A minimum of 40 percent of the total weight shall be manufactured using a molten kiln direct melt method. All molten kiln direct melt glass beads shall be above the 600 μm (#30) sieve.

REVISION OF SECTION 627 PAVEMENT MARKING

Section 627 of the Standard Specifications is hereby revised for this project as follows:

Subsection 627.03 shall include the following:

Full-compliance pavement markings by means of temporary or final markings shall be in place at the end of the day following placement of the upper asphalt lift both for detour pavement and permanent pavement.

(f) *Pre-striping and Marking Construction Meeting.* A pre-striping and marking construction meeting shall be held prior to the layout to confirm the pavement marking plan. At a minimum, attendees shall include the Contractor, the Striping Contractor or Subcontractor and Department representative(s).

Any striping or marking detail or minor modification shall be provided by the Department in advance of layout. Minor changes shall be addressed in the Pre-striping and Marking Construction Meeting and vetted for constructability and cost.

Any significant modification shall be addressed by an approved change modification order with the Engineer prior the Pre-striping and Marking Construction Meeting.

Control Points and layout shall be done by the Contractor no less than 48 hours prior to striping and marking, and the Department shall review and approve the layout prior to the work whether temporary or final. Layout of all pavement marking, whether temporary or final, is included in the work.

Subsection 627.05 shall include the following:

The Contractor shall clean up excess beads from the roadway, shoulders and adjacent facilities. When used, Contractor shall leave all "Highway Striping" "next __miles" construction warning signs in place until excess glass beads have been cleared from the facilities.

Subsection 627.06 shall include the following:

Crosswalk bars shall be two feet wide and nine feet long unless otherwise noted. Thermoplastic pavement marking arrows shall be the elongated type.

The Contractor shall clean up excess beads from the roadway, shoulders and adjacent facilities. Clean up of excess beads shall be included in the work.

Subsection 627.13 shall include the following:

Clean up of excess beads shall be included in the cost of the work.

REVISION OF SECTION 630 CONSTRUCTION ZONE TRAFFIC CONTROL

Section 630 of the Standard Specifications is hereby revised for this project as follows:

Subsection 630.10, Traffic Control Management shall include the following:

Traffic Control shall include all devices and signs required for the work and as required to inform pedestrians, and drivers of vehicles and bicycles of the work zone, unless additions of traffic control items are itemized.

The Contractor shall be responsible for preparing a Traffic Control Plan (TCP) and Method of Handling Traffic (MHT), no separate payment will be made for the TCP and MHT Plan and shall be included in the work. All work shall be done in accordance with the applicable and current Manual on Uniform Traffic Control Devices (MUTCD) and CDOT Standards. The MHT shall be submitted to and approved by Boulder County prior to commencing work.

Subsection 630.11 shall include the following:

The Contractor's Superintendent and Traffic Control Supervisor (TCS) shall always be equipped with a mobile telephone unit that has a local number for contact with one another, the Engineer, and emergency response dispatchers when emergency services are required. The TCS shall make immediate contact with emergency personnel as required to assist accident victims, expedite the removal of broken-down vehicles, and maintain the smooth flow of traffic. This shall not be paid for separately but shall be included in the work items under Section 630.

Subsection 630.13 shall be revised for this project to include the following:

All flagging personnel used on the project shall be certified for traffic control operations.

Subsection 630.14 shall be deleted and replaced with the following:

All traffic control devices including signs and traffic channelizing devices, or unless otherwise itemized, will not be measured or paid for separately but shall be measured and paid for on a lump sum basis as Construction Zone Traffic Control for all sites within the project. Any additional signs or channelizing devices required by the MUTCD or the Engineer will be considered incidental to this item.

-2-

**REVISION OF SECTION 630
CONSTRUCTION ZONE TRAFFIC CONTROL**

Subsection 630.15 shall include the following:

All labor, equipment, materials, and incidentals required for pedestrian, bicycle traffic and vehicle traffic control and maintenance, including construction signing, channelizing devices, barricades etc., where there is not a specific pay item shall be incidental to the project.

Payment will be made under:

<u>PAY ITEM</u>	<u>PAY UNIT</u>
Construction Zone Traffic Control	Lump Sum

Payment will be considered full compensation for all work necessary, including cleanup, to complete the item.

REVISION OF SECTION 630 TRAFFIC SIGNAL (TEMPORARY)

Section 630 of the Standard Specifications is hereby revised for projects as follows:
In subsection 630.01 shall include the following:

This work consists of furnishing and installing, temporary, portable traffic signals to control one lane alternating traffic as shown on the plans. The work includes all equipment, labor, and materials to install and maintain a complete and operational system that accommodates the variations in traffic flow and removal of the installation.

The Contractor shall develop a maximum of six traffic signal timing plans based on current traffic count data, for review and approval by the Engineer and shall be responsible for implementing the timing and maintaining the traffic signals. Timing plans shall include provisions for weekend and weekday traffic variations and provide sufficient clearance time for vehicles through the work zone.

Subsection 630.04 shall include the following:

Solar powered signals will be allowed upon approval by project engineer only. All signals shall utilize hard-wired electric power sources. As well contractor shall provide an appropriate portable generator as back up.

All temporary traffic signals shall be equipped with communication equipment which will allow each signal device to communicate with any other device(s) which may be in operation in the area.

All signals shall be equipped with vehicle detection sensors. The signal control equipment shall be sufficiently sophisticated as to appropriately react to the approach of a vehicle during the red phase and allow for that vehicle to call for a green light without waiting for a fixed time system to change the signal.

The Contractor shall coordinate with the County Traffic Engineer and project CM&I team to establish the appropriate signal timing and coordinate traffic flow and operations throughout the Fourmile Canyon area. This coordination may require multiple adjustments to the temporary signal locations and programming. All adjustments required to coordinate traffic operations shall be considered incidental to the maintenance of temporary traffic control and will not be paid for separately.

The Contractor will be required to coordinate traffic flow and operations with adjacent projects.

The Traffic Signal (Temporary) shall consist of one system of two (2) portable traffic signals. All electrical wiring, including connectors and switch controls necessary to allow all signal functions required by the specification shall be provided with each system. The Contractor shall maintain one operating and parts manual, wiring diagrams, and trouble-shooting guide for each system. The portable traffic signal system shall be capable of maintaining operations at a temperature range of -60 degrees Fahrenheit to 200 degrees Fahrenheit.

-2-

**REVISION OF SECTION 630
TRAFFIC SIGNAL (TEMPORARY)**

The Traffic Signal (Temporary) shall be in satisfactory operating condition prior to installation. The Contractor shall demonstrate the satisfactory operating condition by operating the system prior to closing the road to one lane of traffic. The Contractor shall maintain and replace the Traffic Signal (Temporary) if the unit fails to operate satisfactorily to the Engineer and shall be retested until a satisfactorily operating Traffic Signal (Temporary) is obtained and installed. The unit shall be kept in satisfactory operating condition during the duration of its use. The unit shall remain in place or remain available until all the work is completed at each location that requires one-lane operation or as deemed necessary by the Engineer. The Traffic Signal (Temporary) shall include adequate spare parts and a source of replacement components such that the system is in operation continuously.

Subsection 630.10 shall include the following:

(9) MHT's detailing the portable traffic signals for one-lane alternating traffic, shall include provisions for the CDOT pre-qualified traffic signal contractor to be onsite during initial operation until traffic is serviced to the satisfaction of the Engineer. The signal systems shall also be checked a minimum of daily for proper operation. Vehicle queue lengths shall not exceed 500 feet and queued vehicles should clear the signal within two (2) cycles. The Contractor shall be on-site during Friday afternoons from 12 pm to 7 pm, or as directed by the Engineer, during the first month of one-lane alternating traffic for observation, maintenance and troubleshooting, including timing plan adjustments and queue dissipation by manual override. . If issues continue beyond the first month, the contractor shall be onsite as listed above, until the issues are resolved to the satisfaction of the Engineer. A sign (24 inches x 36 inches) shall be placed near each portable signal that provides a 7-day, 24 hour number that can be called if the signal malfunctions. The Contractor shall respond to signal malfunctions within 1 hour and arrive on-site within 2 hours of notification

Flaggers shall control traffic during initial turn on of the signal. The flaggers shall remain on standby for 2 hours after the signal is turned on and operating properly.

Subsection 630.16 shall include the following:

Traffic Signal (Temporary) will be measured and paid for by the number of temporary traffic signal systems installed (one system is comprised of two portable signals), 24"x36" signs for malfunction notification and shall include all work necessary to provide and maintain, operate and troubleshoot a complete and operational system, as described herein, that accommodates the variations in traffic flow.

Pay Item

Traffic Signal (Temporary)

Pay unit

Each

Payment will be full compensation for all work and materials required to furnish, install, maintain, and remove the Traffic Signal (Temporary)

**REVISION OF SECTION 703
AGGREGATES**

Section 703 of the Standard Specification is hereby revised for this project as follows:

Subsection 703.00 shall include the following:

No crushed slag, crushed reclaimed concrete or recycled asphalt material may be used as a substitute for aggregates when used for aggregate material that is exposed to the elements.

Subsection 703.03 shall include the following:

Aggregates for bases used for shoulder material shall be crushed stone, crushed gravel or natural gravel and shall not be crushed slag, crushed reclaimed concrete or asphalt material unless otherwise approved by the Engineer.

FORCE ACCOUNT ITEMS

DESCRIPTION

This special provision contains the Division's estimate for Force Account Items included in the Contract. The estimated amounts marked with an asterisk will be added to the total bid to determine the amount of the performance and payment bonds. Force Account work shall be performed as directed by the Engineer.

BASIS OF PAYMENT

Payment will be made in accordance with Subsection 109.04. Payment will constitute full compensation for all work necessary to complete the item.

Force Account work valued at \$5,000 or less, that must be performed by a licensed journeyman to comply with federal, state, or local codes, may be paid for after receipt of an itemized statement endorsed by the Contractor.

<u>FORCE ACCOUNT ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>AMOUNT</u>
F/A Minor Contract Revisions*	F.A.	1	\$ 150,000
F/A Pothole Utilities	F.A.	1	\$ 8,000
F/A Erosion Control	F.A.	1	\$ 25,000

TRAFFIC CONTROL PLAN - GENERAL

The key elements of the Contractor's method of handling traffic (MHT) are outlined in subsection 630.10(a).

The components of the TCP for this project are included in the following:

- (a) Subsection 104.04 and Section 630 of the specifications,
- (b) Standard Plan S-630-1, Traffic Controls for Highway Construction and Standard Plan S-630-2,
- (c) Schedule of Construction Traffic Control Devices,
- (d) Signing Plans,
- (e) Construction phasing details,
- (f) Detour Details,
- (g) Manual of Traffic Control Devices (MUTCD), and
- (h) Other.

Unless otherwise approved by the Engineer, the Contractor's equipment shall follow normal and legal traffic movements. The Contractor's ingress and egress of the work area shall be accomplished with as little disruption to traffic as possible. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require moving backwards through the work zone. When located behind barrier or at other locations shown on approved traffic control plans, equipment may operate in a direction opposite to adjacent traffic.

Unless road closures are approved, Special Traffic Control Plan requirements for this project are as follows:

- (a) During the construction of this project, traffic shall use the present traveled roadway unless identified on the plans or approved by the Engineer.
- (b) The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time, unless approved by the Engineer.
- (c) During the resurfacing work, only one lane may be closed to traffic at any time unless approved by the Engineer. Traffic shall not be delayed for more than 15 minutes or as directed by the Engineer.
- (d) The Contractor shall not perform any work requiring lane closure on the roadway between the hours of 8:30 and 9:30 a.m. and between 3:30 and 4:30 p.m. or as directed. This only applies if work goes past the school's opening deadline (August 17, 2022).

-2-

TRAFFIC CONTROL PLAN – GENERAL

- (e) The Contractor shall submit to the County Traffic Engineer a method of handling vehicular traffic (MHT) for approval at least 10 working days prior to each construction phase, prior to changes in traffic control and or prior to start of any construction. Contractor shall obtain any necessary permits required from other agencies.
- (f) Access to residents' and properties shall always be maintained.
- (g) At least one week prior to starting construction, the Contractor shall notify the Engineer of the date the Contractor intends to start construction.

All costs incidental to the foregoing requirements shall be included in the original contract prices for the project.

UTILITIES

Known utilities within the limits of the project area and are expected to be impacted by the project are:

<u>Utility / Agency</u>	<u>Contact and Email</u>	<u>Phone</u>
Water / Left Hand Water District	Adam Delaney adelaney@lefthandwater.org	303-437-5612
Gas / Xcel Energy	Damian Torres damian.v.torres@xcelenergy.com	303-949-1183
Electric / Xcel Energy	Justin Hill justin.t.hill@xcelenergy.com	720-660-8325
Phone / Century Link	Chris Janoski Christopher.Janoski@CenturyLink.com	720-578-5142
Fiber Optic / Comcast	Marcus Petty Marcus_Petty@comcast.com	720-275-0572
Sewer / Niwot Sanitation District	Karen Behne kbehne@niwotsanitation.com	303-919-4015
Irrigation / Boulder & White Rock Ditch Co.	Bill Campbell billygoatdairy@gmail.com	303-775-8051
Irrigation / St. Vrain Valley School District	Dale Bjorhus bjorhus_dale@svvdsd.org	303-589-3040
Operations / St. Vrain Valley School District	Gary Frantz Frantz_gary@svvdsd.org	303-682-7326
Fiber Optic / Unite Private Networks	Kevin Schucard Kevin.schucard@upnfiber.com	719-313-6826
Gas / Kerr-McGee	Brett Cavanaugh brett.cavanaugh@westernmidstream.com	720-929-3296
Fiber Optic / Zayo Bandwidth	James Black jamesr.black@zayo.com	719-216-8508
Storm Sewer / Boulder County	Bernie Baro bbaro@bouldercounty.org	303-682-6715
Traffic Devices / Boulder County	Josh Trickey jtrickey@bouldercounty.org	720-564-2653

-2-
UTILITIES

The work described in the contract documents, including the plans and specifications, requires coordination and scheduling between the Contractor and the utility companies in accordance with subsection 105.11 in conducting their respective operations as necessary to complete the utility work with minimum delay to the project. Utility relocation work may not have been completed prior to the contractor beginning construction activities. The county will work to encourage utilities to move their facilities before construction commences but cannot provide any assurance that utility work will have been completed prior to start of construction.

Coordinating and scheduling utility relocation with utility owners is ultimately the responsibility of Contractor; any assistance provided by county shall be deemed a courtesy to Contractor and will not alleviate Contractor of its responsibility to coordinate and schedule utility relocation.

Contractor's failure to initially provide for sufficient time in the project schedule for all required utility relocations shall not alleviate Contractor from its obligations hereunder and shall not entitle Contractor to additional time or compensation. The following subsurface utility engineering (SUE) reports were completed for the project and are available upon request: 1) Subsurface Utility Investigation, Morton Heights, Niwot, CO, dated March 12, 2019; 2) Subsurface Utility Investigation, Morton Heights – Marathon, Niwot, Boulder, CO, dated April 24, 2020.

THE WORK LISTED BELOW WILL BE PERFORMED BY THE UTILITY OWNERS OR THEIR AGENTS:

The work listed below shall be performed by the Contractor in accordance with the plans and specifications, and as directed by the Engineer. The Contractor shall keep each utility company advised of any work being done to its facility, so that the utility company can coordinate its inspections for final acceptance of the work with the Engineer.

Provide an accurate construction schedule that includes all utility work elements to the owner of each impacted utility. Provide each utility owner with periodic updates to the schedule. Conduct necessary utility coordination meetings and provide other necessary accommodations as directed by the Engineer. Notify each utility owner in writing, with a copy to the Engineer, prior to the time each utility work element is to be performed by the utility owner.

Provide traffic control, as directed by the Engineer, for any utility work by the utility owner expected to be coordinated with construction. However, traffic control for utility work outside of typical project work hours shall be the responsibility of the utility owner.

-3-
UTILITIES

It is anticipated that some utilities may have their work completed prior to project start. If time count suspensions are requested due to the private utility company relocation work prohibiting the contractor from performing work, Boulder County will consider a suspension of time count, as reasonably presented by the contractor. However, no compensation will be given as the delay is considered non-compensable per CDOT Standard, Subsection 108.08 (c) 1 B because it is a delay that neither the Contractor nor the Department is responsible for.

FOR:

Left Hand Water District (LHWD):

It is anticipated that the work described below will be completed by Left Hand Water District or their agents before the project begins.

Replace and/or lower a section of an existing 4-inch east-west waterline at the northeast corner of Walker Avenue and Morton Road. The proposed 24-inch RCP storm sewer pipe will cross over the waterline with less than one foot of clearance. LHWD will replace a 10-foot section of the waterline. This work is tentatively planned to occur during the 2022 Spring Break for Saint Vrain Valley School District.

Xcel Energy:

It is anticipated that the work described below will be completed by Xcel Energy or their agents before the project begins.

Lower the existing east-west gas line in the intersection of Morton Road and Walker Avenue under the proposed 18-inch storm sewer. *(This work was completed in December 2021.)*

Lower the existing north-south gas line in Walker Avenue at the southeast corner of the intersection at Morton Road under the proposed 18-inch storm sewer. *(This work was completed in December 2021.)*

Lower the existing north-south gas line in Walker Avenue at the northeast corner of the intersection at Marathon Road. *(This work was completed in December 2021.)*

Lower the existing north-south 2-inch gas service line in Paiute Avenue at the intersection with Niwot Road under the proposed 38"x24" concrete culvert.

-4-
UTILITIES

GENERAL:

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavation or grading is planned in the area of underground utility facilities. The Contractor shall notify all affected utilities at least two (2) business days, not including the day of notification, prior to commencing such operations. The Contractor shall contact the Utility Notification Center of Colorado (UNCC) at (8-1-1) or 1-800-922-1987 to have locations of UNCC registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. Utility service laterals shall also be located prior to beginning excavating or grading.

The location of utility facilities as shown on the plan and profile sheets, and herein described, were obtained from the best available information. It is Contractor's responsibility to verify such information and to locate, preserve, and coordinate the relocation (if required) of all existing utilities, whether shown in the contract documents or not. If utility conflicts, beyond those described in the contract documents, are encountered by Contractor during construction, Contractor shall file prompt, sufficient notice to the owner of the utility so that it may make the necessary adjustments, as well as the Engineer.

Unless otherwise noted in the contract documents, Contractor may relocate or adjust the utility lines or service connections for its convenience with the permission of the owner of the utility and the Engineer, at no increase in contract price or contract time.

At all times, Contractor shall take reasonable steps to protect the utilities and prevent service disruption. Whenever Contractor damages a utility or causes any interruption to any utility service, Contractor shall promptly notify the Engineer, the affected utility owner, and the appropriate governmental authorities. Contractor shall cooperate with the affected utility owner and the appropriate governmental authorities in the restoration of service. If the damage is to a utility that is known or should have been discovered before damage occurred, Contractor shall be responsible for all costs associated with its repair and restoration of service, at no increase in contract price or contract time.

Prior to excavating or performing any earthwork operations, the Contractor shall positively locate all potential conflicts with existing underground utilities and proposed construction, as determined by the Contractor according to proposed methods and schedule of construction. The Contractor shall propose modifications to construction plans to avoid existing underground facilities as needed, and as approved by the Engineer.

-5-
UTILITIES

The Contractor shall provide traffic control and survey for any utility work expected to be coordinated with construction, as directed by the Engineer.

All costs incidental to the foregoing requirements will not be paid for separately but shall be included in the work.

Coordination with utility owners includes, but is not limited to, the Contractor staking construction features, providing and periodically updating an accurate construction schedule which includes all utility work elements, providing written notification of upcoming required utility work elements as the construction schedule indicates, allowing the expected number of working days for utilities to complete necessary relocation work, conducting necessary utility coordination meetings, and all other necessary accommodations as required for the project to continue per the schedule. Surveying or staking of utility relocations to be performed by the utility owner shall be the responsibility of the utility owner.

The county will cooperate with the Contractor and the utility owner for the relocation of utilities, but cannot guarantee utilities will be relocated in a timely manner. Contractor acknowledges that utilities may not be relocated prior to commencement of construction and has considered this uncertainty in preparation of its bid/proposal.

In the event of delayed utility relocations caused by utility owners, Contractor shall use best efforts to mitigate the resulting impacts on the project schedule and costs. Best efforts to mitigate shall include evaluating and proposing alternative methods of work sequencing or construction methods in order to continue the work; Contractor is prohibited from implementing any alternative methods without prior approval of the Engineer and county.

Contractor hereby holds the county harmless against all risks arising from acts or omissions of utility owners that damage the work or generate delays, disruptions, or additional cost to Contractor in performance of the work. Subject to subsection 108.08, contract time may be extended on account of acts and omissions of utility owners that delay the work without fault of the Contractor.



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

INSURANCE AND W-9 REQUIREMENTS

PAYMENT & PERFORMANCE BONDS

Both a payment and a performance bond are required for this project and must each equal 100% of the proposed cost. Please include the cost of this bonding into the total proposed cost.

INSURANCE REQUIREMENTS

General Liability	\$1,000,000 Each Occurrence \$2,000,000 General Aggregate \$2,000,000 Products Completed Operations Aggregate 3 years Products/Completed Operations
Excess or Umbrella	\$3,000,000
Automobile Liability	\$1,000,000 Each Accident *Including Hired & Non-Owned Auto
Worker's Compensation and Employer's Liability	Statutory limits \$100,000 Each Accident Employer's Liability \$500,000 Aggregate Employer's Liability \$100,000 Each Employee Disease
Pollution Liability	\$1,000,000 Per Loss \$1,000,000 Aggregate Coverage maintained or extended discovery period for 3 years

Miscellaneous Other

Boulder County as Additional Insured: Boulder County shall be named as an additional insured for General Liability, Umbrella/Excess Liability, and Pollution Liability, as designated in this Contract. Additional insured shall be endorsed to the policy.

THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS: *County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insureds.*

***In regards to General Liability, Umbrella/Excess Liability, and Pollution Liability:**

If any or all of these coverages are required above, additional insured status will be required at the time a contract is executed.

Note that the above insurance amounts are the minimum required for this project. Proof of current insurance must be provided with your proposal in the form of a sample certificate. You are NOT required to include additional insured status until the time a contract is executed.

If you require a waiver of insurance requirements you may request one in your response with an explanation.

W-9 REQUIREMENT

Provide a copy of your business's W-9 with your proposal.



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

SUBMITTAL SECTION

The bidder's attention is especially called to the items listed below, which must be submitted in full as part of the BID. Failure to submit any of the documents listed below as a part of your BID, or failure to acknowledge any addendum in writing with your BID, or submitting a bid on any condition, limitation or provision not officially invited in this Invitation to Bid (BID) may be cause for rejection of the BID.

THIS CHECKLIST MUST BE SUBMITTED AS PART OF YOUR BID PACKAGE: Bidder will check each box indicating compliance:

INCLUDED	ITEM
	Name and Address of the Partners and Subcontractors if applicable
	A detailed project schedule with an all-inclusive total cost
	Information on the relevant experience of key personnel
	State your compliance with the Terms and Conditions in the Sample Contract contained in this BID. Specifically list any deviations and provide justification for each deviation.
	Submit three references for similar projects your company has completed within the last three years and contact information. Boulder County will review all contractor evaluation forms from previous County projects.
	Insurance Certificate
	W-9
	Signature Page
	Addendum Acknowledgement(s) (If Applicable)



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

BID TAB

ITEM NO.	ITEM DESCRIPTION	QTY	UNITS	UNIT COST	TOTAL COST
201-00001	CLEARING AND GRUBBING	1	AC		
202-00001	REMOVAL OF STRUCTURE	1	EA		
202-00015	REMOVAL OF HEADWALL	1	EA		
202-00019	REMOVAL OF INLET	3	EA		
202-00035	REMOVAL OF PIPE	735	LF		
202-00037	REMOVAL OF END SECTION	1	EA		
202-00090	REMOVAL OF DELINEATOR	30	EA		
202-00200	REMOVAL OF SIDEWALK	460	SY		
202-00202	REMOVAL OF GUTTER	50	LF		
202-00203	REMOVAL OF CURB & GUTTER	205	LF		
202-00206	REMOVAL OF CONCRETE CURB RAMP	30	SY		
202-00210	REMOVAL OF CONCRETE PAVEMENT	45	SY		
202-00220	REMOVAL OF ASPHALT MAT	142	SY		
202-00240	REMOVAL OF ASPHALT MAT (PLANING)	10000	SY		
202-01000	REMOVAL OF FENCE	165	LF		
202-01035	REMOVAL OF GATE	2	EA		
202-04002	CLEAN CULVERT	3	EA		
202-05006	SAWING CONCRETE MATERIAL (6 INCH)	50	LF		
202-05026	SAWING ASPHALT MATERIAL (6 INCH)	400	LF		
203-00010	UNCLASSIFIED EXCAVATION (CIP)	1528	CY		
203-00060	EMBANKMENT MATERIAL (CIP)	919	CY		
207-00205	TOPSOIL	279	CY		
208-00002	EROSION LOG TYPE 1 (12 INCH)	1600	LF		
208-00035	AGGREGATE BAG	250	LF		
208-00046	PRE-FABRICATED CONCRETE WASHOUT STRUCTURE	3	EA		
208-00075	PRE-FABRICATED VEHICLE TRACKING PAD	1	EA		
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	35	HR		
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	35	HR		
208-00106	SWEEPING (SEDIMENT REMOVAL)	35	HR		

ITEM NO.	ITEM DESCRIPTION	QTY	UNITS	UNIT COST	TOTAL COST
208-00207	EROSION CONTROL MANAGEMENT	60	DAY		
210-00810	RESET GROUND SIGN	8	EA		
210-01000	REMOVAL OF FENCE	200	LF		
210-04010	ADJUST MH (LID ELEVATIONS)	5	EA		
210-04050	ADJUST VALVE BOX	5	EA		
212-00032	SOIL CONDITIONING	0.74	AC		
212-00708	SEEDING (NATIVE)(BROADCAST)	0.74	AC		
213-00004	MULCH (WEED FREE STRAW)	0.31	AC		
213-00061	MULCH TACKIFIER	148	LB		
216-00201	SOIL RETENTION BLANKET (STRAW/COCONUT) (BIODEGRADABLE CLASS 1)	1226	SY		
304-06000	AGGREGATE BASE COURSE (CLASS 6)	600	TON		
304-09014	STABILIZED CRUSHER FINES MATERIAL	10	TON		
308-00300	STABILIZED SUBGRADE	1000	SY		
310-00610	FULL DEPTH RECLAMATION OF HOT MIX PAVEMENT (8-12")	3600	SY		
403-00720	HOT MIX ASPHALT (PATCHING) (ASPHALT)	300	TON		
403-32621	HOT MIX ASPHALT (GRADING S) (50) (PG 58-28)	600	TON		
403-34621	HOT MIX ASPHALT (GRADING SX) (50) (PG 58-28)	2200	TON		
412-00600	CONCRETE PAVEMENT (6")	80	SY		
412-01220	CONCRETE PAVEMENT (12")(FAST TRACK)	115	SY		
420-00200	GEOTEXTILE (WEED BARRIER)	1200	SY		
506-00406	SOIL RIPRAP (6 INCH)	90	CY		
506-00409	SOIL RIPRAP (9 INCH)	275	CY		
506-00412	SOIL RIPRAP (12 INCH)	230	CY		
603-01185	18 INCH REINFORCED CONCRETE PIPE (COMPLETE IN PLACE)	184	LF		
603-01245	24 INCH REINFORCED CONCRETE PIPE (COMPLETE IN PLACE)	72	LF		
603-02245	30x19 INCH REINFORCED CONCRETE PIPE ELLIPTICAL (COMPLETE IN PLACE)	80	LF		
603-02306	38x24 INCH REINFORCED CONCRETE PIPE ELLIPTICAL (COMPLETE IN PLACE)	96	LF		
603-05124	30x19 INCH REINFORCED CONCRETE END SECTION ELLIPTICAL	2	EA		
603-05130	38x24 INCH REINFORCED CONCRETE END SECTION ELLIPTICAL	3	EA		
603-10180	18 INCH CORRUGATED STEEL PIPE	40	LF		
604-00305	INLET TYPE C (5 FOOT)	1	EA		
604-00505	INLET TYPE D (5 FOOT)	1	EA		
604-16005	INLET TYPE 16 (5 FOOT) (DENVER TYPE 16) (SINGLE) (TYPE L GRATE)	1	EA		
604-30000	MANHOLE SLAB BASE (48" DIA) (10 FOOT) (SPECIAL)	1	EA		

ITEM NO.	ITEM DESCRIPTION	QTY	UNITS	UNIT COST	TOTAL COST
604-30005	MANHOLE SLAB BASE (60" DIA) (10 FOOT)	2	EA		
604-30010	MANHOLE SLAB BASE (72" DIA) (10 FOOT)	1	EA		
604-50003	INLET GRATING AND FRAME TYPE C (CLOSE MESH GRATE)	3	EA		
604-50200	MANHOLE RING AND COVER	4	EA		
607-11525	FENCE (PLASTIC)	2500	LF		
607-52905	END POST (CHAIN LINK)	3	EA		
608-00006	CONCRETE SIDEWALK (6 INCH)	1000	SY		
608-00010	CONCRETE CURB RAMP	35	SY		
608-00015	DETECTABLE WARNINGS (PAVERS)	210	SF		
609-20000	CURB TYPE 2 (SECTION B)	100	LF		
609-21020	CURB AND GUTTER TYPE 2 (SPECIAL) (24")	850	LF		
609-24006	GUTTER TYPE 2 (6 FOOT)	45	LF		
609-40042	CURB TYPE 4 (SPECIAL) (VERTICAL)	210	LF		
610-00024	MEDIAN COVER MATERIAL (4" PATTERNED CONCRETE)(COLORED)	1800	SF		
612-00039	DELINEATOR (FLEXIBLE) (SURFACE MOUNTED)	8	EA		
612-00113	DELINEATOR (DRIVABLE) (TYPE III)	7	EA		
614-00011	SIGN PANEL (CLASS I) (R7-1D) (12" X 18")(PARKING)	3	SF		
614-00012	SIGN PANEL (CLASS II) (S1-1) (36" X 36")(CROSSING)	13.5	SF		
614-00012	SIGN PANEL (CLASS II) (W16-7) (18" X 30")(CROSSING)	4	SF		
614-00027	SIGN PANEL (CLASS II) (INSTALL ONLY) (9"X12") (CUSTOM)	1.5	SF		
620-00020	SANITARY FACILITY	2	EA		
622-00270	BOLLARD (STANDARD STEEL)	4	EA		
622-00270	BOLLARD (FOLDABLE, LOCKABLE)	2	EA		
625-00000	CONSTRUCTION SURVEYING	1	LS		
626-00002	MOBILIZATION	1	LS		
627-00008	MODIFIED EPOXY PVMT MKG	15	GAL		
627-00070	THERMOPLASTIC PAVEMENT MARKING	750	SF		
627-30205	THERMOPLASTIC PAVEMENT MARKING (WORD-SYMBOL)	150	SF		
630-00000	FLAGGING	2000	HOUR		
630-00007	TRAFFIC CONTROL INSPECTION	35	DAY		
630-00012	TRAFFIC CONTROL MANAGEMENT	60	DAY		
630-10005	CONSTRUCTION ZONE TRAFFIC CONTROL	1	LS		
630-80344	CONSTRUCTION TRAFFIC SIGN (SPECIAL)(PROJECT INFO)	2	EA		
630-80348	CONSTRUCTION INFORMATION SIGN	2	EA		
630-80355	PORTABLE MESSAGE SIGN PANEL	2	EA		
630-86810	TRAFFIC SIGNAL (TEMPORARY)	3	EA		

ITEM NO.	ITEM DESCRIPTION	QTY	UNITS	UNIT COST	TOTAL COST
FORCE ACCOUNT ITEMS					
700-70010	F/A MINOR CONTRACT REVISIONS	1	FA	\$ 150,000	\$ 150,000
700-70170	F/A POTHOLE UTILITIES	1	FA	\$ 8,000	\$ 8,000
700-70380	F/A EROSION CONTROL	1	FA	\$ 25,000	\$ 25,000
TOTAL BID					_____



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

SIGNATURE PAGE

Contact Information	Response
Company Name including DBA	
List Type of Organization (Corporation, Partnership, etc.)	
Name, Title, and Email Address of Person Authorized to Contract with Boulder County	
Company Address	
Company Phone Number	
Company Website	

By signing below I certify that:

I am authorized to bid on my company's behalf.

I am not currently an employee of Boulder County.

None of my employees or agents is currently an employee of Boulder County.

I am not related to any Boulder County employee or Elected Official.

(Sole Proprietorships Only) I am not a Public Employees' Retirement Association (PERA) retiree.

**Signature of Person Authorized to Bid on
 Company's Behalf**

Date

Sample Contract

DETAILS SUMMARY	
Document Type	Choose an item.
OFS Number-Version	
County Contact Information	
Boulder County Legal Entity	Boulder County
Department	Public Works
Division/Program	
Mailing Address	PO Box 471, Boulder, CO 80306
Contract Contact – <i>Name, email</i>	Laura Konersman, lkonersman@bouldercounty.org
Invoice Contact – <i>Name, email</i>	pwinvoices@bouldercounty.org
Contractor Contact Information	
Contractor Name	
Contractor Mailing Address	
Contact 1- <i>Name, title, email</i>	
Contact 2- <i>Name, title, email</i>	
Contract Term	
Start Date	
Expiration Date	
Final End Date	
Contract Amount	
Contract Amount	
Fixed Price or Not-to-Exceed?	Choose an item.
Brief Description of Work	
Contract Documents	
a. Formal Procurement (RFP/Bid/SOQ) No. Bid Variable (the "Bid Documents") b. Contractor's proposal in response to the Bid Documents (the "Proposal") c. Project Details, including project-specific terms and a Scope of Work, attached as Exhibit A (the "Scope of Work") d. Fee Schedule, attached as Exhibit B (the "Fee Schedule")	
Purchasing Details – <i>County Internal Use Only</i>	
Grant Funded?	Yes or No
Bid Number	
Award Date	
If no Bid No., bid process used	Choose an item.
COVID-19	NO
Project #	
Purchasing Notes	

<i>(optional)</i>
Contract Notes <i>Additional information not included above</i>

THIS CONTRACT ("Contract") is entered into by and between the Board of County Commissioners on behalf of the County of Boulder, State of Colorado, a body corporate and politic, for the benefit of the Public Works Department, ("County") and [Supplier] ("Contractor"). County and Contractor are each a "Party," and collectively the "Parties."

In consideration of the mutual covenants contained in this Contract, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Incorporation into Contract: The **Details Summary** is incorporated into this Contract. The **Contract Documents** are incorporated into this Contract by reference, except to the extent that the Proposal, if any is incorporated, contains any obligations placed upon County and not otherwise contained in this Contract.

2. Work to be Performed: Contractor will provide all labor and equipment and do all tasks necessary and incidental to performing the work as described in the **Details Summary** and **Contract Documents** (the "Work"). Contractor will perform the Work (i) in a good and workmanlike manner, (ii) at its own cost and expense, (iii) in accordance with recognized industry standards of care, skill and diligence for the type of work being performed, and (iv) in strict accordance with the Contract. County and its representatives shall have access to the Work at all times.

a. Contractor shall supervise and direct the Work and shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.

b. Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for the proper execution and completion of the Work. Contractor warrants that all materials incorporated into the Work will be new unless otherwise specified.

c. Contractor shall at all times enforce good order among its employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to such person. Contractor shall initiate, maintain, and supervise all safety precautions and programs in connection with the Work to ensure safe conditions on the premises at all times. Contractor shall comply with all laws, regulations, ordinances, rules, and orders of any public authority bearing on the safety of persons and property. In the event that County notifies Contractor of any unsafe conditions or practices, Contractor shall immediately take all actions required to remediate them at no expense to County. County reserves the right to immediately suspend the Work in the event of imminent hazard, as determined by County.

d. At all times, Contractor shall keep the premises free from accumulation of waste materials or rubbish caused by Contractor's operations. Upon completion of the Work, Contractor shall remove all of its waste materials and rubbish from the premises, as well as its tools, construction equipment, machinery and surplus materials.

e. Contractor shall confine operations on the premises to areas permitted by law, ordinances, permits, this Contract, and as directed by County, including storage of any materials or equipment.

f. Any claim for an increase in the **Contract Amount** shall be made and generally described by Contractor in writing and delivered to County promptly, in no event later than thirty (30) days after the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered to County within sixty (60) days after such occurrence and shall be accompanied by Contractor's written statement that the amount claimed covers all known amounts to which Contractor is entitled as a result of the occurrence of said event. All claims for increase in the **Contract Amount** shall be determined by County if the Parties are unable to otherwise reach agreement on the claim.

g. Before ordering any materials or doing any Work, Contractor shall verify all measurements for the Work and shall be responsible for the correctness of same.

3. Term of Contract: The **Contract Term** begins on the **Start Date** and expires on the **Expiration Date**, unless terminated sooner. All the Work must be performed during the **Contract Term**.

4. Payment for Work Performed: In consideration of the Work performed by Contractor, and subject to conditions contained in this Contract, County will pay an amount not to exceed the **Contract Amount** to Contractor in accordance with the **Contract Documents**.

5. Invoicing: Contractor will promptly provide a copy of its Form W-9 and invoice template to County upon request. Contractor must submit an invoice to the County by the fifteenth (15th) day of the month for completion of any Work performed in the prior calendar month. All invoices submitted require the following components: Contractor's name and address (submitted W-9 address must match remit address), detailed description of services, dates of services, itemization of labor and materials costs, "Bill to: Boulder County" language, payment remittance address, payer, name and address, date of invoice, unique invoice number, and total amount due. Contractor must send all completed invoices to the **Invoice Contact** in the **Details Summary**. County may require delivery of invoices by email. Failure to submit invoices in a timely manner and in accordance with the terms of this Contract may cause a delay in payment. County may recoup any damages incurred because of Contractor's failure to submit invoices pursuant to the terms of this paragraph. County's acceptance or payment of an invoice will not constitute acceptance of any Work performed under this Contract.

6. Extra Time to Complete the Work (Additional Time only): If Contractor cannot complete the Work by the **Expiration Date**, Contractor may request extra time to complete the Work. County, in its sole discretion, may grant Contractor additional time to complete the Work by sending a written notice of extension to Contractor. An extension of time to

complete the Work will not entitle Contractor to additional compensation from County.

7. Extension of Contract Term (Additional Time and Work): Upon mutual agreement of the Parties, this Contract may be extended until the **Final End Date**. During any extended **Contract Term**, the terms of this Contract will remain in full force and effect, unless otherwise amended in writing by the Parties. Where the Contractor will provide additional services for additional compensation beyond the initial **Contract Amount**, the Parties must execute a written amendment before the then-current **Expiration Date**. If necessary, the written amendment will incorporate an updated Scope of Work and updated Fee Schedule as exhibits. Contractor must provide a current Certificate of Insurance to the County that complies with the **Insurance Requirements** of this Contract, if any, prior to any extended **Contract Term**.

8. Schedule of Work: County may designate the hours (on a daily or weekly basis) during which Contractor may perform the Work, strictly for the purposes of minimizing inconvenience to the County and interference with County operations. Contractor will otherwise set its own work schedule. Contractor shall promptly notify County of any aspect of the Work that will not be delivered or accomplished according to the initial schedule.

9. Indemnity: Contractor will be liable for any damages to persons or property caused by or arising out of the actions, obligations, or omissions of Contractor, its employees, agents, representatives or other persons acting under Contractor's direction or control in performing or failing to perform the Work under this Contract. Contractor will indemnify and hold harmless County, its elected officials and appointed department heads, and its employees, agents and representatives (the "indemnified parties"), from any and all liability, claims, demands, actions, damages, losses, judgments, costs or expenses, including attorneys' fees, which may be made or brought or which may result against any of the indemnified parties as a result or on account of the actions or omissions of Contractor, its employees, agents or representatives, or other persons acting under Contractor's direction or control. This indemnification obligation will extend to claims based on Contractor's unauthorized use or disclosure of confidential information and intellectual property infringement. County will not be obligated to indemnify or defend Contractor under any circumstances. Contractor's obligations under this provision shall survive expiration or termination of this Contract. Nothing contained in this Contract or the **Contract Documents** is intended to limit or restrict the indemnification rights or obligations of any Party under this provision, or damages available for breaches of the obligations herein.

10. Nondiscrimination: Contractor will comply with the Colorado Anti-Discrimination Act, C.R.S. § 24-34-401, et seq., as amended, and all applicable local, State and Federal laws concerning discrimination and unfair employment practices. County prohibits unlawful discrimination on the basis of race, color, religion, gender, gender identity, national origin, age 40 and over, disability, socio-economic status, sexual orientation, genetic information, or any other status protected by applicable Federal, State or local law. Contractor must require that its subcontractors, if any, similarly comply with all applicable laws concerning discrimination and unfair employment practices.

11. Information and Reports: Contractor will provide to authorized County, State, and Federal government representatives all information and reports that may be required for

any purpose authorized by law. Contractor will permit access to such representatives to Contractor's facilities, books, records, accounts, and any other relevant sources of information. Where information required by a representative is in the exclusive possession of a person or entity other than Contractor, Contractor must so certify to the County and explain what efforts it has made to obtain the information.

12. **Independent Contractor:** Contractor is an independent contractor for all purposes in performing the Work. None of Contractor, its agents, personnel or subcontractors are employees of the County for any purpose, including the Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, the Colorado Workers' Compensation Act, the Colorado Unemployment Insurance Act, and the Public Employees Retirement Association. Accordingly, County will not withhold or pay any income tax, payroll tax, or retirement contribution of any kind on behalf of Contractor or Contractor's employees. As an independent contractor, Contractor is responsible for employing and directing such personnel and agents as it requires to perform the Work. Contractor will exercise complete authority over its personnel and agents and will be fully responsible for their actions.

13. Termination

a. **Breach:** Either Party's failure to perform any of its material obligations under this Contract, in whole or in part or in a timely or satisfactory manner, will be a breach. The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law, by or against Contractor, or the appointment of a receiver or similar officer for Contractor or any of its property, which is not vacated or fully stayed within thirty (30) days after the institution of such proceeding, will also constitute a breach. In the event of a breach, the non-breaching Party may provide written notice of the breach to the other Party. If the breaching Party does not cure the breach, at its sole expense, as reasonably determined by the non-breaching Party in its sole discretion, within thirty (30) days after delivery of notice, the non-breaching Party may exercise any of its remedies provided under this Contract or at law, including immediate termination of this Contract.

b. **Non-Appropriation:** The other provisions of this Contract notwithstanding, County is prohibited by law from making commitments beyond the current fiscal year. Payment to Contractor beyond the current fiscal year is contingent on the appropriation and continuing availability of funding in any subsequent year. County has reason to believe that sufficient funds will be available for the full **Contract Term**. Where, however, funds are not allocated for any fiscal period beyond the current fiscal year, County may terminate this Contract without penalty by providing seven (7) days' written notice to Contractor.

c. **Convenience:** In addition to any other right to terminate under this Section 13, County may terminate this Contract, in whole or in part, for any or no reason, upon seven (7) days' advance written notice to Contractor.

14. **Contractor Obligations upon Termination or Expiration:** By the **Expiration Date** or effective date of termination, if earlier, Contractor must (1) remove from County property all

of its personnel, equipment, supplies, trash and any hazards created by Contractor, (2) protect any serviceable materials belonging to the County, and (3) take any other action necessary to leave a safe and healthful worksite. Any items remaining on County property after the Expiration Date or the effective date of termination, if earlier, will be deemed abandoned by Contractor.

15. Payable Costs in Event of Early Termination: If County terminates this Contract before the **Expiration Date**, Contractor's payments (and any damages associated with any lawsuit brought by Contractor) are limited to only (1) payment for Work satisfactorily executed and fully and finally completed, as determined by County in its sole discretion, prior to delivery of the notice to terminate, and (2) the reasonable and actual costs Contractor incurred in connection with performing the Work prior to delivery of the notice to terminate. Contractor explicitly waives all claims it may have against the County for any other compensation, such as anticipatory profits or any other consequential, special, incidental, punitive or indirect damages.

16. Remedies for Non-Performance: If Contractor fails to perform any of its obligations under this Contract, County may, at its sole discretion, exercise one or more of the following remedies (in addition to any other remedies provided by law or in this Contract), which shall survive expiration or termination of this Contract:

a. Suspend Performance: County may require that Contractor suspend performance of all or any portion of the Work pending necessary corrective action specified by the County and without entitling Contractor to an increase in compensation or extension of the performance schedule. Contractor must promptly stop performance and incurring costs upon delivery of a notice of suspension by the County.

b. Withhold Payment Pending Corrections: County may permit Contractor to correct any rejected Work at the County's discretion. Upon County's request, Contractor must correct rejected work at Contractor's sole expense within the time frame established by the County. Upon full and final completion of the corrections satisfactory to the County, County will remit payment to Contractor.

c. Deny Payment: County may deny payment for any Work that does not comply with the requirements of the Contract or that Contractor otherwise fails to provide or fully and finally complete, as determined by the County in its sole discretion. Upon County request, Contractor will promptly refund any amounts prepaid by the County with respect to such non-compliant Work.

d. Removal: Upon County's request, Contractor will remove any of its employees or agents from performance of the Work, if County, in its sole discretion, deems any such person to be incompetent, careless, unsuitable, or otherwise unacceptable.

17. Binding Arbitration Prohibited: County does not agree to binding arbitration by any extra-judicial body or person.

18. Conflicts of Interest: Contractor may not engage in any business or personal activities or practices or maintain any relationships that conflict in any way with the full

performance of Contractor's obligations.

19. Notices: All notices provided under this Contract must be in writing and sent by Certified U.S. Mail (Return Receipt Requested), electronic mail, or hand-delivery to the other Party's **Contact** at the address specified in the **Details Summary**. For certified mailings, notice periods will begin to run on the day after the postmarked date of mailing. For electronic mail or hand-delivery, notice periods will begin to run on the date of delivery.

20. Statutory Requirements: This Contract is subject to all statutory requirements that are or may become applicable to counties or political subdivisions of the State of Colorado generally, including but not limited to: C.R.S. § 38-26-107, which requires withholding funds where the County receives a claim for payment from a supplier or subcontractor of Contractor upon notice of final settlement (required for public works contracts that exceed \$150,000); C.R.S. § 8-17-101 et seq.; C.R.S. § 18-8-301, et seq.; and C.R.S. § 18-8-401, et seq.

21. Public Contracts for Services (C.R.S. §§ 8-17.5-101, et seq.): *The phrase "unauthorized worker" as used in this provision shall have the same and intended meaning as "illegal alien" as such phrase is used in C.R.S. §§ 8-17.5-101, et seq.* Contractor hereby certifies, warrants, and agrees that it does not knowingly employ or contract with an unauthorized worker who will perform work under this Contract and further certifies that it will confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Contract by participating in the E-Verify Program established under Pub. L. 104-28 or the department verification program established under C.R.S. § 8-17.5-102(5)(c). Contractor (i) shall not knowingly employ or contract with an unauthorized worker to perform work under this Contract; (ii) shall not enter into a contract with a subcontractor that fails to certify to the contractor that the subcontractor shall not knowingly employ or contract with an unauthorized worker to perform work under this Contract; (iii) has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in the E-Verify program or department program; (iv) is prohibited from using either the E-Verify program or department program procedures to undertake preemployment screening of job applicants while this Contract is being performed; and (v) shall comply with any reasonable request by the department made in the course of an investigation that the Colorado Department of Labor and Employment is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5). If Contractor obtains actual knowledge that a subcontractor performing work under this Contract knowingly employs or contracts with an unauthorized worker, Contractor shall (a) notify the subcontractor and County within three (3) days that Contractor has actual knowledge that subcontractor is employing or contracting with an unauthorized worker; and (b) terminate the subcontract if, within three (3) days of receiving notice hereunder, subcontractor does not stop employing or contracting with the unauthorized worker; except that Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an unauthorized worker. Contractor's violation of this provision will constitute a material breach of this Contract, entitling the County to terminate the contract for breach. If this Contract is so terminated, Contractor shall be liable for actual and consequential damages to the County.

22. Entire Agreement/Binding Effect/Amendments: This Contract represents the complete agreement between the Parties and is fully binding upon them and their successors, heirs, and assigns, if any. This Contract terminates any prior agreements, whether written or oral in whole or in part, between the Parties relating to the Work. This Contract may be amended only by a written agreement signed by both Parties.

23. Assignment/Subcontractors: This Contract may not be assigned or subcontracted by Contractor without the prior written consent of the County. If Contractor subcontracts any of its obligations under this Contract, Contractor will remain liable to the County for those obligations and will also be responsible for subcontractor's performance under, and compliance with, this Contract. Contractor shall not contract with a person or entity to whom County has made a reasonable objection.

24. Governing Law/Venue: The laws of the State of Colorado govern the construction, interpretation, performance, and enforcement of this Contract. Any claim relating to this Contract or breach thereof may only be brought exclusively in the Courts of the 20th Judicial District of the State of Colorado and the applicable Colorado Appellate Courts.

25. Breach: The failure of either Party to exercise any of its rights under this Contract will not be deemed to be a waiver of such rights or a waiver of any breach of the Contract. All remedies available to a Party in this Contract are cumulative and in addition to every other remedy provided by law.

26. Severability: If any provision of this Contract becomes inoperable for any reason but the fundamental terms and conditions continue to be legal and enforceable, then the remainder of the Contract will continue to be operative and binding on the Parties.

27. Third-Party Beneficiary: Enforcement of the terms and conditions and all rights and obligations of this Contract are reserved to the Parties. Any other person receiving services or benefits under this Contract is an incidental beneficiary only and has no rights under this Contract. Notwithstanding, where the beneficiary **Department** is led by an Elected Official, such Elected Official shall be considered a third-party beneficiary.

28. Colorado Open Records Act: County may disclose any records that are subject to public release under the Colorado Open Records Act, C.R.S. § 24-72-200.1, et seq.

29. Conflict of Provisions: If there is any conflict between the terms of the main body of this Contract and the terms of any of the **Contract Documents**, the terms of the main body of the Contract will control.

30. Governmental Immunity: Nothing in this Contract shall be construed in any way to be a waiver of the County's immunity protection under the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq., as amended.

31. Representations and Warranties: Contractor represents and warrants the following:

- a. Execution of this Contract and performance thereof is within Contractor's duly authorized powers;
- b. The individual executing this Contract is authorized to do so by

Contractor;

c. Contractor is authorized to do business in the State of Colorado and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over the Work and the Contractor; and

d. Contractor and its subcontractors, if any, are financially solvent, able to pay all debts as they mature, and have sufficient working capital to complete the Work and perform all obligations under the Contract.

32. Legal Compliance: Contractor assumes full responsibility for obtaining and maintaining any permits and licenses required to perform the Work. Contractor is solely responsible for insuring that its performance under this Contract and the Work itself will comply with all Federal, State, and local laws, regulations, ordinances and codes. Contractor shall promptly notify County if any drawings or specifications are at variance with any laws, regulations, ordinances, or codes. If Contractor performs any Work contrary to such laws, regulations, ordinances, or codes, Contractor shall bear all costs arising therefrom. County approval of the Work or any aspect of Contractor's performance, such as drawings, specifications, plans, designs, or other Contractor-drafted documents, shall not be interpreted to mean that Contractor has satisfied its obligations under this Section.

33. Litigation Reporting: Contractor is not currently involved in any action before a court or other administrative decision-making body that could affect Contractor's ability to perform the Work. Contractor will promptly notify the County if Contractor is served with a pleading or other document in connection with any such action.

34. Tax Exemption: County is exempt from payment of Federal, State, and local government taxes. Contractor shall collect no tax from the County, and the County shall not be liable to pay any taxes imposed on Contractor. County shall provide its tax exemption status information to Contractor upon request.

35. Delegation of Authority: The Parties acknowledge that the Board of County Commissioners has delegated authority to the Department Head or Elected Official that leads the beneficiary **Department** and their designees to act on behalf of the County under the terms of this Contract, including but not limited to the authority to terminate this Contract.

36. Ownership of Work Product: All work product, property, data, documentation, information or materials conceived, discovered, developed or created by Contractor pursuant to this Contract ("Work Product") will be owned exclusively by the County. To the extent possible, any Work Product will be deemed to be a work made for hire. Contractor unconditionally and irrevocably transfers and assigns to the County all right, title and interest in and to any Work Product.

37. Publicity Releases: Contractor will not refer to this Contract or the County in commercial advertising without prior written consent of the County. This provision shall survive expiration or termination of this Contract.

38. Execution by Counterparts; Electronic Signatures: This Contract may be executed in multiple counterparts, each of which will be deemed an original, but all of which will constitute one agreement. The Parties approve the use of electronic signatures, governed

by the Uniform Electronic Transactions Act, C.R.S. §§ 24 71.3 101 to 121. The Parties will not deny the legal effect or enforceability of this Contract solely because it is in electronic form or because an electronic record was used in its creation. The Parties will not object to the admissibility of this Contract in the form of electronic record, or paper copy of an electronic document, or paper copy of a document bearing an electronic signature, because it is not in its original form or is not an original.

39. Limitation on Public Statements and Lobbying Activity. During the term of this Contract, Contractor may receive from the County its confidential data, work product, or other privileged or confidential information that is protected by law. To maintain the fact and appearance of absolute objectivity, Contractor shall not, without the prior written consent of the County, which shall not be unreasonably withheld, do any of the following: (a) disclose information obtained because of this contractual relationship to any third party; (b) lobby any State or Federal agency on any pending matter while this Contract is effective; or (c) make any public statements or appear at any time to give testimony at any public meeting on the subject matters regarding which Contractor is or was retained by the County. County may set reasonable conditions on any disclosure authorized by the County under this provision. Notwithstanding, Contractor may make disclosures as required by law, and to law enforcement officials in connection with any criminal justice investigation.

40. Sustainability: All construction, deconstruction, remodel, and office move projects are required to follow construction waste procedure modeled off of Boulder County BuildSmart Code, International Green Construction Code (IGCC), International Energy Conservation Code (IECC), and Leadership in Energy and Environmental Design (LEED) certification, as an effort to achieve maximum jobsite waste diversion, energy efficiency, and water conservation. All 'demolition projects' are to follow deconstruction procedures. Instead of demolition project materials being crushed and primarily sent to the landfill, these projects should be systematically dismantled, typically in the opposite order they were constructed, in order to maximize the salvage of materials. Any hazardous materials encountered should follow state and federal standards, and contractor shall leverage the Boulder County Hazardous Materials Management facility for hazardous materials. The development of a project diversion plan is encouraged to include material types and volume/weight estimations as well as planned destinations. Projects must track all jobsite waste.

41. Limitation of Liability: COUNTY SHALL NOT BE LIABLE TO CONTRACTOR FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES ARISING FROM OR RELATING TO THIS CONTRACT, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. COUNTY'S AGGREGATE LIABILITY, IF ANY, ARISING FROM OR RELATED TO THIS CONTRACT, WHETHER IN CONTRACT, OR IN TORT, OR OTHERWISE, IS LIMITED TO, AND SHALL NOT EXCEED, THE AMOUNTS PAID OR PAYABLE HEREUNDER BY COUNTY TO CONTRACTOR. ANY CONTRACTUAL LANGUAGE LIMITING CONTRACTOR'S LIABILITY SHALL BE VOID.

42. County Opportunity to Review: Contractor shall provide County with the opportunity to review and approve or take other appropriate action upon the Contractor's submittals, such as Shop Drawings, Product Data, and Samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents.

43. Notice to Proceed: The Parties agree that time is of the essence and work will begin after a "Notice to Proceed" has been issued by the County and in accordance with the terms therein.

44. Retainage: County may retain partial payment pending completion and County acceptance of the Work as satisfactory and fully and finally complete. For contracts that exceed \$150,000, the retention rate shall not exceed five percent (5%). C.R.S. § 24-91-103. Contractor is responsible for submitting a final invoice for any retainage held by County. If It becomes necessary for County to take over completion of the Work, all of the amounts owing to Contractor, including the withheld percentage, shall be applied: First, towards completion of the Work; second, towards performance of the withholding requirement set forth in C.R.S. § 38-26-107; third, to the surety furnishing bonds for the Work, to the extent such surety has incurred liability or expense in competing the Work or made payments pursuant to C.R.S. § 38-26-106; then, to Contractor. Such retained percentage as may be due to Contractor shall be due and payable as provided by C.R.S. § 38-26-107.

45. Bonds: Upon County's request, Contractor shall obtain and deliver to County payment and performance bonds each equal to 100% of the total Contract. Bonds shall be executed by a qualified corporate surety and must be acceptable to County. County reserves the right to accept other acceptable forms of surety in lieu of a bond, and to reduce the bond requirements set forth herein consistent with C.R.S. § 38-26-106.

46. Change Orders: If unforeseen modifications or changes are required, Contractor may submit a Change Order request to County, which must include a complete description, timeline, and fee schedule for the proposed work. Change Orders are not effective until approved by County in writing.

47. No Suspension or Debarment: Contractor certifies, and warrants for the duration of this Contract, that neither it nor its principals nor any of its subcontractors are debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this Contract by any Federal or State department or agency. Contractor shall comply, and shall require its subcontractors to comply, with subpart C of 2 C.F.R. § 180.

48. Permits/Licenses/Code Compliance: Prior to starting the Work, Contractor will identify and obtain, and maintain during this Contract, all permits and licenses necessary to perform the Work. Contractor shall comply with all State and local codes. Contractor is responsible for locating all public utilities, as necessary. Contractor shall require its subcontractors to comply with this provision. HVAC, roofing, and general contractors must be licensed through Boulder County Land Use. Electricians and plumbers must be licensed through the State and registered with Boulder County Land Use Building Safety and Inspection Division. Architects, Professional Engineers and Professional Land Surveyors must be fully-licensed through the State. All required permits and licenses must be provided to County prior to Contractor beginning the Work.

49. Stormwater Quality Protection Requirements: Contractor will take all measures necessary to prevent pollutants from entering storm drains and watercourses. To eliminate stormwater pollution, Contractor shall implement effective Best Management Practices

(BMPs). BMPs include general good housekeeping practices, appropriate scheduling of activities, operational practices, maintenance procedures and other measures to prevent the discharge of pollutants directly or indirectly to the storm drain system. These BMPs shall be maintained for the duration of this Contract. Contractor shall also be responsible for proper disposal of all waste materials, including wastes generated by the implementation of BMPs. Contractor shall otherwise comply with the Federal Clean Water Act, Colorado Water Quality Control Act, and Boulder County's local Clean Water Act, Illegal Discharge Ordinance (No. 2012-4). For work performed in urbanized areas, Contractor must comply with the requirements of MS4 permit (COR090000), which is available through the Colorado Department of Public Health and Environment.

50. Guaranties and Warranties: Upon completion of the Work, Contractor will provide County with a written guaranty covering all labor, materials and workmanship incorporated into the Work for one (1) year, or within any such longer period of time as may be prescribed by law, the specifications, or any other applicable special warranty required by the **Contract Documents**. Final payment upon full and final completion of the Work will not relieve Contractor of responsibility for faulty material or workmanship, which County may require Contractor to fix at Contractor's sole expense, in addition to County's other remedies. This provision shall apply to Work completed by Contractor's employees and subcontractors.

51. Final Payment: A final inspection of the Work shall be conducted by County. If a list of deficiencies results from such final inspection, Contractor shall promptly rectify all items appearing thereon before final payment will be made. When County indicates acceptance of the Work, Contractor may request final payment from County, including any retained amounts. Final payment shall be subject to C.R.S. § 38-26-107.

52. Notice of Final Settlement: Prior to remitting final payment to Contractor, County shall publish a Notice of Final Settlement in accordance with C.R.S. § 38-26-107. Final payment will be rendered in accordance with the statute and the other terms of this Contract. Final payment will not be rendered until County, in its sole discretion, determines full and final completion of the Work.

53. Geographic Information System (GIS) Data: Contractors agree that the following, specified data formats, shall be used and/or adhered to when submitting required data to the County:

a. All GIS data must be ArcGIS 10.x compatible. Shapefiles may be accepted with written, pre-approval, from the County.

b. All GIS data must have complete metadata, following Boulder County GIS Metadata Standards located at:
<https://assets.bouldercounty.org/wpcontent/uploads/2018/03/metadata-standards-contractors.pdf>

c. All Computer Aided Design (CAD) files must have an assigned real world coordinate system to ensure compatible conversion into the County's GIS system, if necessary.

d. All spatial or georeferenced data will be provided to the county in the following coordinate system:

i. Name:

NAD 1983 HARN State Plane Colorado

North FIPS 0501 Feet

ii. Unit:
Foot US

iii. Projection:
Lambert Conformal Conic

iv. Horizontal Datum:
North American Datum 1983 HARN

v. Vertical Datum:
North American Vertical Datum 1988

vi. Spheroid:
GRS 1980

e. Contractors are responsible for capturing section corners or quarter corners for specific projects to be added into the Public Land Survey System (PLSS) project for updating the section corners, Contractors shall provide high-accuracy PLSS monument coordinates for each corner section or quarter corner section monument used as control points or that occur within the project area (“putting it on the cap”) as is reasonable, depending on the difficulty to access the point. All positions to be collected shall be required to use (at a minimum) the Real-Time Kinematic (RTK) method.

54. State Specifications: The Standard Specifications for Road and Bridge Construction 2017, either in whole or as set forth in the Bid Documents, are expressly incorporated into this Contract by reference.

55. Determination of Unit Prices: County will determine the actual quantities and classifications of Unit Price Work performed by Contractor. The Parties will review the County's preliminary determinations before County renders a written decision thereon (by recommendation of an Application for Payment or otherwise), which shall be final and binding upon Contractor. The value of any Unit Price Work covered by a Change Order or claim for an increase or decrease in the Contract Amount shall be determined by applying the unit prices to the quantities of items.

a. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, the Parties agree that the Contract Amount includes the total cost of Unit Price Work, determined by multiplying the quantity of each item by its unit price. Initial quantity determinations are estimates, which must be adjusted to reflect actual quantities. Contractor shall make a claim in writing to County for any additional amounts owed where actual quantities exceed estimated quantities. Contractor shall provide such written claim within twenty (20) days of providing the items and shall be accompanied by supporting documentation. The written claim shall include a statement that the claimed amount covers all known amounts (direct, indirect and consequential) to which Contractor is owed. County shall only pay Contractor for actual quantities of items provided hereunder.

b. The Parties agree that each unit price adequately covers Contractor's overhead and profit for each item.

56. Records Retention/Access/Audits: Contractor shall maintain all records and documents pertaining to this Contract in accordance with the requirements prescribed by County. Such records shall be maintained for a period of five (5) calendar years after the date of Contractor's final payment from County under this Contract. Contractor agrees that County or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Contract as necessary and upon request, throughout the term of this Contract, and for five (5) calendar years after the date of the final payment hereunder. Contractor agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. County and Contractor acknowledge that protected information is exempt from this requirement without proper client release.

57. Legal Interpretation. Each Party recognizes that this Contract is legally binding and acknowledges that it has had the opportunity to consult with legal counsel of its choice about this Contract. The rule of construction providing that any ambiguities are resolved against the drafting Party will not apply in interpreting the terms of this Contract.

58. COVID-19 Vaccine Requirement for Certain Contractors/Vendors/Subrecipients of the County: On September 28, 2021, the Boulder County Board of Commissioners adopted a COVID-19 vaccine requirement policy that applies to, as relevant here, all employees of independent contractors of the county that perform county work in a county facility. For purposes of this policy, "perform work in a county facility" means any employee of an independent contractor that routinely performs more than fifteen (15) hours per month of county work that takes place in or on a county facility/property. Under the county's COVID-19 vaccine requirement policy, these individuals are required to receive a COVID-19 vaccine unless a reasonable accommodation based on medical reasons or due to a sincerely held religious belief is requested and approved. The policy requires that, by December 1, 2021, all individuals to which the policy applies must be fully vaccinated and submit proof of vaccination or have an approved reasonable accommodation in place. Therefore, beginning December 1, 2021, any employees of Contractor/Vendor/Subrecipient that perform county work in a county facility must be in compliance with the County's vaccine requirement policy unless Contractor/Vendor/Subrecipient can show proof that it is in compliance with its own COVID-19 vaccine requirement policy or is required by local, state, or federal law or regulation to be compliant with a COVID-19 vaccine requirement policy.

59. Insurance: Prior to commencing the Work, Contractor will provide a Certificate of Insurance to the County demonstrating adequate insurance coverage as required by this paragraph. All policies evidencing coverage required by the Contract will be issued by insurance companies satisfactory to the County. Contractor will forward Certificates of Insurance directly to the **County Department** and **Contact** listed in the **Details Summary**.

a. Boulder County as Additional Insured: Boulder County shall be named as an additional insured for General Liability, Umbrella/Excess Liability, and Pollution Liability, as designated in this Contract. Additional insured shall be endorsed to the policy.

THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS: *County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insured.*

b. **Notice of Cancellation:** Each insurance policy required by this Contract shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days' prior written notice has been given to the County except when cancellation is for non-payment of premium, then ten (10) days' prior notice may be given. If any insurance company refuses to provide the required notice, Contractor or its insurance broker shall notify the County any cancellation, suspension, or nonrenewal of any insurance policy within seven (7) days of receipt of insurers' notification to that effect.

c. **Insurance Obligations of County:** County is not required to maintain or procure any insurance coverage beyond the coverage maintained by the County in its standard course of business. Any insurance obligations placed on the County in any of the **Contract Documents** shall be null and void.

d. **Deductible:** Any and all deductibles contained in any insurance policy shall be assumed by and at the sole risk of Contractor.

e. **Primacy of Coverage:** Coverage required of Contractor and its subcontractors, if any, shall be primary over any insurance or self-insurance program carried by the County.

f. **Subrogation Waiver:** All insurance policies in any way related to this Contract secured or maintained by Contractor as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against County, its organizations, officers, agents, employees, and volunteers.

g. **Requirements.** For the entire duration of this Contract including any extended or renewed terms, and longer as may be required by this Contract, Contractor shall procure and maintain at its own expense, and without cost to the County, the following kinds and minimum amounts of insurance to insure the liability risks that Contractor has assumed under this Contract:

i. **Commercial General Liability**

Coverage should be provided on an Occurrence form, ISO CG0001 or equivalent. The policy shall be endorsed to include Additional Insured Owners, Lessees or Contractors endorsements CG 2038 (or equivalent), Designated Construction Project(s) General Aggregate Endorsement CG2503 (or equivalent) and Additional Insured Completed Operations for Owners, Lessees or Contractors CG 2037 (or equivalent). Minimum limits required of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products/Completed Operations Aggregate. The County requires the Products/Completed Operations coverage to be provided 3 years after completion of construction. An endorsement must be included with the certificate.

ii. **Automobile Liability**

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.

iii. **Workers' Compensation and Employer's Liability**

Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease-Policy Limit/\$100,000 Disease-Each Employee.

iv. **Umbrella / Excess Insurance**

Umbrella/Excess Liability insurance in the amount **\$[X],000,000.00**, following form.

v. **Professional Liability (Errors and Omissions)**

Professional liability coverage with minimum limits of \$1,000,000 Per Loss and \$1,000,000 Aggregate. Professional Liability provisions indemnifying for loss and expense resulting from errors, omission, mistakes or malpractice is acceptable and may be written on a claims-made basis. The contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.

vi. **Pollution Liability**

Coverage pay for those sums the Contractor becomes legally obligated to pay as damages because of Bodily Injury, Property Damage or environmental Damage arising out of a pollution incident caused by the Contractor's work including Completed Operations. Coverage shall include emergency response expenses, pollution liability during transportation (if applicable) and at Non-Owned Waste Disposal Site (if applicable). The Minimum limits required are \$1,000,000 Per Occurrence/Loss and \$1,000,000 Policy Aggregate. If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed. County shall be named as an additional insured for ongoing operations and completed operations.

[Signature Page to Follow]

IN WITNESS WHEREOF, the Parties have executed and entered into this Contract as of the latter day and year indicated below.

SIGNED for and on behalf of Boulder County	SIGNED for and on behalf of Contractor
Signature:	Signature:
Name:	Name:
Title:	Title:
Date:	Date:
↓↓ <i>For Board-signed documents only</i> ↓↓	
Attest:	<i>Initials</i>
Attestor Name:	
Attestor Title:	