



MANITOU SPRINGS CITY COUNCIL REGULAR MEETING AGENDA

City Council meetings are held in hybrid form by Zoom
(remote) or in-person at Memorial Hall.

Memorial Hall

606 Manitou Avenue

Manitou Springs, CO 80829

Remote: www.manitouspringsgov.com; click on meeting
link under "Government; City Council" page

Position	Name	Term Expires
Mayor	John G. Graham	January 6, 2026
At-Large	Judith Chandler	January 4, 2028
At-Large	John Shada	January 4, 2028
At-Large	Julie Wolfe	January 4, 2028
Ward 1	Mayor Pro Tem Natalie Johnson	January 6, 2026
Ward 2	Nancy Fortuin	January 6, 2026
Ward 3	Michelle Whetherhult	January 6, 2026

August 5, 2025

6:00 PM

THE CITY COUNCIL MAY TAKE ACTION ON ANY OF THE FOLLOWING AGENDA ITEMS AS PRESENTED OR MODIFIED PRIOR
TO OR DURING THE MEETING, AND ITEMS NECESSARY TO EFFECTUATE THE AGENDA ITEMS

A. CALL TO ORDER

B. PLEDGE OF ALLEGIANCE

C. ROLL CALL

D. APPROVAL OF AGENDA

E. PUBLIC COMMENT ON NON-AGENDA ITEMS

F. CONSENT CALENDAR

1. July 15, 2025 City Council Regular Meeting Minutes
2. July 22, 2025 City Council Special Meeting Minutes
3. Approval of a General Services Agreement with West Fork Construction for the Creek Walk Trail 4 Project

G. BUSINESS

1. Resolution No. 0925, A Resolution of the City of Manitou Springs, Colorado, Approving an IGA with the Pikes Peak Regional Transportation Authority Concerning the Reimbursement to the City for Hiawatha Gardens Architectural Services Performed by Workshop 40
2. Resolution No. 1025, A Resolution of the City of Manitou Springs, Colorado, Approving a Land Donation Agreement and Authorizing the Acceptance of the Donation of Parcels of Real Property with El Paso County Assessor Parcel Numbers 74043-03-011, 74043-03-013, and 74043-03-015

3. Resolution No. 1125, A Resolution of the City of Manitou Springs, Colorado, Finding that the Construction of the Mesa Tank II Water Tank is Completed
4. First Reading of Ordinance No. 1625, An Ordinance Submitting a Ballot Issue to the Registered Electors of the City of Manitou Springs at the City's November 4, 2025 Regular Election to Increase the City's Excise Tax on Ticket Sales and Admission Fees

H. RECEIVE OR ACT ON COUNCIL CORRESPONDENCE

I. CITY ADMINISTRATOR REPORT

ADJOURN

The City of Manitou Springs does not discriminate on the basis of disability in the admission to, access to, or operations of programs, services or activities. Reasonable accommodation will be provided to ensure equal access to all. Individuals who would like to request auxiliary aids or services should contact the ADA Coordinator at (719) 685-5481 or jfryer@manitouspringsco.gov. You may also contact the City Clerk's Office at cityclerk@manitouspringsco.gov or (719) 685-2554. Please provide a minimum of 3-5 days advance notice.



Memorandum

Title: July 15, 2025 City Council Regular Meeting Minutes

From: City Clerk's Office

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

August 5, 2025

Purpose:

To review and approve the meeting minutes from the July 15, 2025 City Council meeting.

Background:

The City Council met in regular session on July 15, 2025.

Pros and Cons:

N/A

Fiscal Impact:

None.

Workload Impact:

Approximately three hours to attend the meeting and to prepare and review the minutes

Recommended Action:

Approve the July 15, 2025 City Council regular meeting minutes through the approval of the consent calendar.

**CITY OF MANITOU SPRINGS
CITY COUNCIL**

Regular Meeting Minutes
606 Manitou Avenue
July 15, 2025

The City Council of Manitou Springs met in Regular Session on Tuesday, July 15, 2025, at 606 Manitou Avenue, in the City of Manitou Springs, County of El Paso, and State of Colorado.

COUNCIL MEMBERS PRESENT FOR ROLL CALL:

Mayor John Graham
Mayor Pro Tem Natalie Johnson
Councilor Judith Chandler
Councilor John Shada
Councilor Julie Wolfe
Councilor Nancy Fortuin
Councilor Michelle Whetherhult

A. CALL TO ORDER

Mayor Graham called the meeting to order at 6:00 PM.

B. PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

C. ROLL CALL

All members of the City Council were present for the roll call.

D. APPROVAL OF AGENDA

Councilor Fortuin moved to approve the agenda as presented. The motion was seconded by Councilor Chandler. The motion carried unanimously (7-0).

E. PUBLIC COMMENT ON NON-AGENDA ITEMS

Karyna Aguirre, 131 Washington Avenue, addressed the urgent need for street safety on upper Washington Avenue. She expressed concerns about heavy traffic and persistent speeding. She requested that the middle double yellow line in front of 131 Washington Avenue be removed, making that portion of the street into a one-way street as the rest of Washington Avenue is and that a stop sign be posted at the corner right before the right turn.

Ralph Routon, 114 Palisade Circle, provided a brief update on behalf of Creative Alliance Manitou Springs (CRANE). He shared that since the City Council approved Art

on the Avenue at the July 1, 2025 meeting the last installation has been finished, which is the earliest installation that has been completed to date.

Linda Morland, 37 Minnehaha Avenue, encouraged residents to run for the City Council and Mayor in the upcoming election.

F. CONSENT CALENDAR

1. Presentation of Warrants
2. July 1, 2025 City Council Regular Meeting Minutes
3. Approval of a General Services Agreement with Remington Builders Group for the Pool and Fitness Center Roof Construction Project

Councilor Fortuin moved to approve the consent calendar as presented. The motion was seconded by Councilor Wolfe. The motion carried unanimously (7-0).

G. BUSINESS

1. Consideration of a Grant Revision Proposal – Presented by the Manitou Arts, Culture and Heritage Board

Ralph Routon, Chair of the Manitou Arts, Culture, and Heritage Board (MACH), explained that MACH grant recipient Natalia Pulido was originally awarded a partial grant to create a historical-themed mural on the exterior of the Rocky Mountain Beignets building, but due to unclear support from the property owner, only partial funding was approved with the hope that the owner would contribute. After the original plan fell through, Ms. Pulido explored other options and recently proposed a new site on the north wall of the Rocky Art Museum, facing Charles Parker Place. At a special MACH meeting on July 10, 2025, MACH unanimously voted to approve the revised project with the same grant funds previously approved and already allocated, pending approval by the City Council. He noted that a letter of support from museum managers David Ball and Lana Elliott was provided to the City Council and that mural work could begin as early as August. Chair Routon added that MACH plans to implement new guidelines requiring applicants to secure confirmed sites with written approval before grant funding is considered, in order to prevent similar issues in the future.

Ms. Pulido shared that she has had several positive meetings with the Rocky Art Museum and the family of Rocky. She explained that the mural is intended to honor Rocky as an important cultural figure in Manitou Springs and as an inspiration to many local artists, including herself and her husband. The mural is planned for the east side of the museum and will be approximately eight feet by eight feet in size. For safety and accessibility, it would be installed as mounted panels. Ms. Pulido stated that she is working closely with the family to incorporate meaningful elements into the design,

including a portrait of Rocky and visual representations of Manitou Springs such as buildings, mountains, and trees. Preliminary sketches and renderings were submitted to the Council, and she noted the family is pleased with the direction of the work.

Councilor Chandler stated that she is Council Liaison for MACH and reiterated that Ms. Pulido made every effort she could to follow through on the original project. She expressed admiration for the initiative Ms. Pulido showed in trying to find an alternative solution.

Councilor Wolfe noted that the proposed property is titled under Noah Rocky, not the museum. She stated that she objects to using public funds for improvements on private property. She added that she was under the impression that the painting would be on the building and expressed concern that the ownership could change anytime, which could result in a mural being painted over, if on the building.

Ms. Pulido clarified that the details were still being worked out with the family and that they had not come to a final determination of whether the painting would be on the building or panels.

Councilor Chandler noted that the consideration to place the mural on panels was partly due to safety and traffic concerns, as painting directly on the building could require road closures. She added that if the mural is not permanently attached to the building and is funded by the city, it can be relocated in the future.

Councilor Chandler moved to approve the revised grant proposal by Natalia Pulido for the Rocky Mural on the Rocky Art Museum. The motion was seconded by Councilor Shada. The motion was carried (6-1), with Councilor Wolfe as the dissenting vote.

2. Approval of Ordinance No. 1525, An Emergency Ordinance of the City of Manitou Springs, Colorado Amending the Manitou Springs Municipal Code to Regulate Accessory Dwelling Units in Compliance with Colorado House Bill 24-1152

Planning Director Fred Rollenhagen presented an emergency ordinance to permit Accessory Dwelling Units (ADUs) in certain zoning districts and stated that the purpose of the ordinance is to ensure the city complies with state law, which required conformance by June 30, 2025. This temporary measure will remain in effect while the City Planning Commission (CPC) continues working on a more comprehensive recommendation for a final ordinance. He added that the CPC is carefully evaluating all options and will need a few more months before making a final recommendation to the City Council. Planning Director Rollenhagen highlighted key points in the ordinance, including establishing the definition of what an ADU is, and size restrictions. He noted that state law prohibits applying local density requirements to ADUs and that dimensional standards, such as height restrictions and setbacks, that apply to single-family residences will also apply to ADUs. He added that ADUs will not be permitted as short-term rentals and that water and sewer tap fees would be set at half the rate of those for single-family residences.

There was a brief discussion about the construction or alteration of an ADU under Section Two of the ordinance, during which Planning Director Rollenhagen confirmed that the referenced municipal code, Section 18.06.4.11(B), would add ADUs as a permitted residential use in three specified residential zoning districts, and that they will only be allowed on residentially zoned properties.

City Attorney Jeff Parker clarified that a minor site plan would be required for ADUs, as outlined in the referenced code, in addition to being a permitted residential use.

Mayor Graham shared that he had previously opposed similar ADU legislation at the state level and expressed concerns about the potential impact on local control, particularly in older parts of town with aging infrastructure, congestion, and limited parking. He cautioned against being too cavalier in moving forward but stated that the proposed ordinance is a reasonable response by the city, with hopes for a more refined version in the near future. He also noted a clerical error in Section Five of the ordinance.

Councilor Chandler agreed with the Mayor that it would have been preferable for the city to address ADUs independently, but since the state bill has passed, she supports the ordinance as it is protective in nature. She also suggested that the Council have a future discussion on how the city will monitor whether ADUs are being used as short-term rentals.

Councilor Shada noted that the state requires municipalities to meet specific criteria and pointed out that the city's existing restrictions on short-term rentals help preserve housing. He suggested that this information be included when submitting the ordinance for state compliance.

There was a brief discussion about whether state statute prohibits the city from requiring off-street parking for ADUs, during which City Attorney Parker clarified that the city cannot require off-street parking unless it is also required for primary residences and there is no available on-street parking on the same block.

Councilor Wolfe suggested that the City Council consider requiring off-street parking in the ordinance, if permitted under the conditions of state law.

Planning Director Rollenhagen confirmed that off-street parking requirements do exist for single-family residences.

There was a brief discussion about whether an analysis had been completed to determine the number of potential sites for ADUs given setback restrictions, during which Planning Director Rollenhagen explained that CPC had been provided some information and confirmed that setbacks and other applicable restrictions would limit the number of ADUs in the city. He added that numbers will be provided when the comprehensive ordinance is presented to the City Council.

Mayor Graham opened the floor for public comment at 6:49 PM.

Amy Mogck, 11 Sheridan Place, shared that she is a member of the Housing Advisory Board (HAB) and that CPC had a joint work session with HAB. She noted that HAB has

been working on ADUs for several years. She stated that HAB, CPC and the Planning Department had all agreed on the emergency ordinance and suggested that the City Council utilize the boards and commissions prior to making any suggested changes to the ordinance. She suggested that requiring parking for ADUs could discourage potential residents, such as younger individuals who rely on public transit and may not need off-street parking.

Due to no further public comment, Mayor Graham closed public comment at 6:50 PM.

City Attorney Parker advised that the city could add language to the ordinance stating that one new off-street parking space is required in connection with the construction or conversion of an ADU when the ADU: (1) is located in a place with no existing off-street parking that could be used for the ADU; (2) is in a zoning district that requires one or more parking spaces for the primary dwelling unit; and (3) is located on a block where on street parking is prohibited. He recommended adding the language to Subsection F of 18.04.37.

Councilor Fortuin stated that she would vote in favor of the emergency ordinance and expressed agreement with Ms. Mogck's comments about involving advisory boards. She added that she hopes the Council can work with CPC and HAB to revise the ordinance sooner rather than later.

Councilor Wolfe moved to approve Ordinance No. 1525, An Emergency Ordinance of the City of Manitou Springs, Colorado Amending the Manitou Springs Municipal Code to Regulate Accessory Dwelling Units in Compliance with Colorado House Bill 24-1152, amended to include the additional language provided by the City Attorney. The motion was seconded by Councilor Chandler. The motion was carried unanimously (7-0).

H. RECEIVE OR ACT ON COUNCIL CORRESPONDENCE

Councilor Fortuin shared concerns about bait that a resident informed her had been placed around the pool to manage pests. She stated that she reached out to the Pool Manager, who is currently researching whether the bait is safe for other animals in the community. She noted that the city has an Organic Land Management Plan, but it does not address this specific issue.

Councilor Whetherhult shared that a downtown resident had reached out after being unable to obtain a prorated parking pass for the Canon Parking Lot. She expressed concern about new residents moving in without a place to park.

Councilor Wolfe stated that she was notified of a truck on Pilot Knob Avenue that has been parked in the same spot for at least a month with flat tires, noting that the vehicle was not previously reported to the city.

Mayor Pro Tem Johnson announced that Helene Gallaway is organizing a Good Trouble Rally in Manitou Springs on Thursday, July 17, 2025. She shared that all members of the City Council have been invited to participate and noted that many

intend to attend. Participants will meet in front of City Hall at 5:00 PM, then march to Soda Springs Park. At the park, Council has been invited to read the Diversity, Equity, and Inclusion Proclamation.

Councilor Chandler added that there will be speakers at Soda Springs Park during the rally. She also reminded everyone that there is a Candidate Forum on Monday, July 21, 2025 at 5:30 PM for anyone that is interested in running for Council or Mayor. She explained that City Clerk Elena Krebs will give a presentation for the process and that there will be a session for questions and answers with a panel of current City Council members.

Mayor Pro Tem Johnson shared that she had the opportunity to participate in Pride Fest and expressed her appreciation for the community coming together. She noted the strong attendance and emphasized the value of having inclusive events like this in the community.

Mayor Graham added that he had heard positive feedback about Pride Fest and noted the overall good sentiment surrounding the event.

Councilor Whetherhult expressed support for the Good Trouble Rally and added that due to a prior engagement she will not be able to attend.

Councilor Wolfe requested a discussion for a future work session regarding a process for the Police Department to notify the mayor whenever there is a shelter in place emergency, so that the mayor has an opportunity to inform other council members. She expressed concerns about safety issues and recommended notification prior to any press release.

Mayor Graham suggested an assessment of the current process for emergency notifications.

Councilor Fortuin stated that she does not see a need for a work session for notification at this time. She suggested that if the police want to share their notification process, an email would suffice. She expressed concern that early notification could interfere with police operations and felt that adding a formal process would create unnecessary bureaucracy.

Councilor Wolfe explained that her request stemmed from a recent incident involving a potentially dangerous intruder near her neighborhood. She emphasized that earlier notification from police could help Council members protect themselves and their communities in real time. She suggested a quick phone call rather than a formal procedure.

Councilor Chandler expressed strong concern that the City Council was not informed about a recent safety threat, calling it a failure in transparency and communication. While she is initially okay with email notifications, she emphasized that council members should be informed immediately in situations of this seriousness, as the public expects their leaders to be aware and responsive.

There was a brief discussion regarding how the Council would like to address the emergency notification process, during which the consensus was that the City Council would be satisfied with an email explaining the process, at least initially.

I. CITY ADMINISTRATOR REPORT

City Administrator Howell reported on the following items:

- Chipping days started in zone six this week.

J. EXECUTIVE SESSION

1. An Executive Session to determine positions relative to matters that may be subject to negotiations; developing strategy for negotiations; and instructing negotiators, pursuant to Section 5.1(d) of the Manitou Springs Municipal Charter. This executive session concerns the Manitou Springs Metropolitan District.
2. An Executive Session for the consideration of documents protected by the mandatory nondisclosure provisions of the Open Records Act, pursuant to Section 5.1(f) of the Manitou Springs Home Rule Charter, specifically C.R.S. §24-72-204(1)(a), et seq., and by reference C.R.S. §29-2-106(4)(c)(II), pertaining to sales tax information of a confidential nature.

Mayor Graham read the purpose of the Executive Session into the record at 7:09 PM.

Mayor Pro Tem Johnson moved to enter the Executive Session for the stated purpose. The motion was seconded by Councilor Chandler. The motion was carried unanimously (7-0).

The City Council moved back to Regular Session at 9:26 PM. Mayor Graham confirmed the Executive Session was held solely for the stated purpose and that no formal decision was made.

ADJOURN

With no other items to discuss, Mayor Graham adjourned the meeting at 9:26 PM.

Attest:

John Graham, Mayor

Elena Krebs, City Clerk

If you need this document in an alternative format, such as large print, accessible PDF, or Braille, please contact the City Clerk's Office at cityclerk@manitouspringsco.gov or (719) 685-2554.



Memorandum

Title: July 22, 2025 City Council Special Meeting Minutes

From: City Clerk's Office

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

August 5, 2025

Purpose:

To review and approve the meeting minutes from the July 22, 2025 City Council meeting.

Background:

The City Council met in special session on July 22, 2025.

Pros and Cons:

N/A

Fiscal Impact:

None.

Workload Impact:

Approximately one hour of staff time to prepare and review the minutes.

Recommended Action:

Approve the July 22, 2025 City Council special meeting minutes through the approval of the consent calendar.

**CITY OF MANITOU SPRINGS
CITY COUNCIL**

Special Meeting Minutes
606 Manitou Avenue
July 22, 2025

The City Council of Manitou Springs met in Special Session on Tuesday, July 22, 2025, at 606 Manitou Avenue, in the City of Manitou Springs, County of El Paso, and State of Colorado.

COUNCIL MEMBERS PRESENT FOR ROLL CALL:

Mayor John Graham
Mayor Pro Tem Natalie Johnson
Councilor John Shada
Councilor Nancy Fortuin
Councilor Michelle Whetherhult
Councilor Judith Chandler

COUNCIL MEMBERS ABSENT FOR ROLL CALL:

Councilor Julie Wolfe (Arrived at 6:07 p.m.)

A. CALL TO ORDER

Mayor Graham called the meeting to order at 6:02 PM.

B. ROLL CALL

All members of the City Council were present for the roll call, except for Councilor Wolfe.

C. DISCUSSION

1. Speed Camera Cost and Benefit

D. ADJOURN TO SPECIAL SESSION

1. An Executive Session for the consideration of documents protected by the mandatory nondisclosure provisions of the Open Records Act, pursuant to Section 5.1(f) of the Manitou Springs Home Rule Charter, specifically C.R.S. §24-72-204(1)(a), et seq., and by reference C.R.S. §29-2-106(4)(c)(II), pertaining to sales tax information of a confidential nature.

Mayor Graham read the purpose of the Executive Session into the record at 6:25 p.m.

Councilor Wolfe moved to enter the Executive Session for the stated purpose. The motion was seconded by Mayor Pro Tem Johnson. The motion was carried (7-0).

The City Council moved back to Regular Session at 7:10 p.m. Mayor Graham confirmed the Executive Session was held solely for the stated purpose and that no formal decision was made.

Note for the record – Councilor Whetherhult left the meeting at 7:05 p.m.

ADJOURN

With no other items to discuss, Councilor Fortuin moved to adjourn the meeting. The motion was seconded by Councilor Chandler. The motion was carried unanimously (6-0).

The meeting adjourned at 7:16 PM.

Attest:

John Graham, Mayor

Elena Krebs, City Clerk

If you need this document in an alternative format, such as large print, accessible PDF, or Braille, please contact the City Clerk's Office at cityclerk@manitouspringsco.gov or (719) 685-2554.



Memorandum

Title: Approval of a General Services Agreement with West Fork Construction for the Creek Walk Trail 4 Project

From: Ben Schmitt, Public Services Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

August 5, 2025

Purpose:

To request the City Council's approval of a construction contract with West Fork Construction for the construction of Creek Walk Trail 4.

Background:

Creek Walk Trail 4, the construction of a 10' wide attached concrete sidewalk on the north side of Manitou Ave. from May Fair Ave. to Old Man's Trail, was advertised for bids in July. The project has over \$1 Million from a combination of federal and state CDOT grants. The bids opened on July 30th with West Fork Construction as the low responsive bidder. With federal funding, the low responsive bidder must be selected for award.

The bids came in over the engineers' estimate for a total construction cost of \$1,369,037.00. The total cost of the construction of the project, including construction support/oversight, the total budget is estimated to be \$1,600,000. With the City budget of the local match and the Grants, an additional \$100,000 was needed to award the project.

It was determined that the City would request \$100,000 from PPRTA Capital-2 project for Manitou Springs Downtown Sidewalk, Drainage and Utility to provide the additional funds. The approval of the funds and the three-party contract with PPACG needs to be done at the August 13, 2025 board meeting in order to start construction by Sept. 2, 2025.

Timeline for the project:

- City Approve the contract on August 5, 2025
- The request to PPRTA Board with signed contract on August 13, 2025
- Complete CDOT process for Concurrence to Award by August 20, 2025
- Start construction by September 2, 2025



- Complete the sidewalk widening by Oct. 24, 2025 before the Coffin Races.

Reason for Request:

1. In order to keep the construction schedule on time, the three party Contract (PPRTA, City and Contractor) will need to be signed by the Mayor before the August 13, 2025 PPRTA Board meeting.
2. If the contract is delayed in getting approved at the August 19, 2025 City Council meeting, the start of construction would be delayed until that contract is approved at the September 10, 2025 PPRTA Board meeting. Construction delay would mean the sidewalk cannot be completed by October 24, 2025. Construction completion would go into November and be riskier to complete because of the winter weather.

Pros and Cons:

Pros: The Contract will be signed by the Mayor and then approved by the PPRTA Board in August 2025 and the City of Manitou Springs will be reimbursed accordingly.

Cons: The City of Manitou Springs cannot sign the contract and if delayed to the August 19th meeting, then construction can't begin until Sept. 11th, after the Sept 10th PPRTA Board meeting. If not approved at all, then Creek Walk Trail 4 will not be constructed in 2025 and the grant money would be in jeopardy.

Fiscal Impact:

Contract Amount: \$1,369,037

With approval of this contract with PPRTA, and West Fork Construction, the City of Manitou Springs will commit to contracting with West Fork Construction in the amount of \$1,369,037. The total project cost in addition to construction will be approximately \$1,600,000.

The grants are in the amount of \$1,050,000 and need to be spent in a timely manner for construction by April 2026. If the project is not awarded, then it could jeopardize the grant funding available.

Workload Impact:

The City Engineer will need to provide oversight of the construction support staff for construction of the project and approve invoices. The City Engineer will be the engineer



for construction oversight with the consultant construction support providing the necessary documentation needed for a federal-aid project.

Recommended Action:

Approve the General Services Agreement with West Fork Construction for the Creek Walk Trail 4 Project through the approval of the consent calendar.

AGREEMENT FOR GENERAL SERVICES (Federal Funds)

THIS AGREEMENT FOR GENERAL SERVICES (Federal Funds) is made and entered into this **5TH day of August, 2025**, by and between the City of Manitou Springs, 606 Manitou Avenue, Manitou Springs, Colorado 80829, a Colorado municipal corporation (the "City"), Pikes Peak Rural Transportation Authority, 15 S. 7th Street, Colorado Springs, CO 80905 (the "PPRTA"), and **West Fork Construction**, an independent contractor with a principal place of business at P.O. Box 88182, Colorado Springs, CO, 80908 and phone number of (719) 257-3245 ("Contractor") (collectively the "Parties").

For the consideration hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

I. SCOPE OF SERVICES

A. Contractor shall furnish all labor and materials required for the complete and prompt execution and performance of all duties, obligations, and responsibilities which are described or reasonably implied from the Scope of Services set forth in the attached **Exhibit A** and PPRTA requirements identified in **Exhibits C**.

B. The City intends to pay Contractor, in part or wholly, with federal funds, and, as such, Contractor shall fully cooperate and comply with the federally mandated obligations described or reasonably implied from the Federal Compliance Requirements set forth herein in Section X (Federal Compliance Requirements).

C. No change to the Scope of Services, including any additional compensation, shall be effective or paid unless authorized by written amendment executed by the City and PPRTA. If Contractor proceeds without such authorization, Contractor shall be deemed to have waived any claim for additional compensation, including a claim based on the theory of unjust enrichment, quantum merit or implied contract. Except as expressly provided herein, no agent, employee, or representative of the City is authorized to modify any term of this Agreement, either directly or implied by a course of action.

II. COMMENCEMENT AND COMPLETION OF WORK

Contractor shall commence work as set forth in the Scope of Services. Except as may be changed in writing by the City and the PPRTA, the Scope of Services shall be completed on schedule as identified in **Exhibit A**, and Contractor shall furnish the City the specified deliverables as provided in **Exhibit A**.

III. COMPENSATION

A. In consideration for the completion of the Scope of Services by Contractor, the City shall pay Contractor an amount not to exceed **One million three hundred sixty nine thousand thirty-seven Dollars (\$1,369,037.00)**. This maximum amount shall include all fees, costs and expenses incurred by Contractor, and no additional amounts shall be paid by the City or the PPRTA for such fees, costs and expenses. Notwithstanding the maximum amount specified in Paragraph A hereof, Contractor shall be paid only for work performed.

If Contractor completes the Scope of Services for a lesser amount than the maximum amount, Contractor shall be paid the lesser amount, not the maximum amount.

B. Unless specified otherwise in **Exhibit A**, Contractor shall submit monthly statements requesting payment for work satisfactorily completed. Such requests shall be based upon the amount and value of the work and services satisfactorily performed by Contractor under this Agreement. Invoices shall be itemized and include hourly breakdowns for all personnel and other charges. The City shall remit payment within thirty (30) days of receipt of an invoice meeting the requirements set forth herein.

C. Final payment will be made after all documentation is received by the City, including, but not limited to required documentation for projects funded by grants or federal loans and closeout documents and all work is completed to the City's standards.

IV. LIQUIDATED DAMAGES

A. Liquidated Damages will be as identified in the construction contract documents.

B. Contractor will provide a written schedule per the Project specifications.

C. Allowing Contractor to continue and finish the Work or any part thereof after the Final Completion date shall not operate as a waiver on the part of the City of any its rights. Any liquidated damages assessed shall not relieve Contractor from liability for any damages or costs of other contractors caused by a failure of Contractor to complete the work by or on Final Completion date. Liquidated damages may be deducted from any payment due Contractor or the retainage. If the liquidated damages exceed the amount owed to Contractor, Contractor shall reimburse the City.

V. CONTRACTOR RESPONSIBILITY

A. Contractor hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and licenses in good standing.

B. The services performed by Contractor shall be in accordance with generally accepted professional practices and the level of competency presently maintained by others in the same or similar type of work. The services to be performed by Contractor shall be done in compliance with applicable laws, ordinances, rules and regulations.

VI. INDEPENDENT CONTRACTOR

Contractor is an independent contractor. Notwithstanding any other provision of this Agreement, all personnel assigned by Contractor to perform work under the terms of this Agreement shall be, and remain at all times, employees or agents of Contractor for all purposes. Contractor shall make no representation that it is a City employee for any purposes.

VII. INSURANCE AND BONDS

A. Contractor shall procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Contractor under this Agreement, including the following, at a minimum:

1. Worker's compensation insurance as required by law; and

2. Commercial general liability insurance with minimum combined single limits of one million dollars (\$1,000,000) each occurrence and one million dollars (\$1,000,000) general aggregate naming the PPRTA, CDOT, the City and the City's officers, employees, and contractors as additional insured. The policy shall be with a carrier and in a form acceptable to the City at the City's sole discretion.

B. Any insurance carried by the City, its officers, or its employees or contractors is excess and not contributory insurance to that provided by Contractor. Contractor shall be solely responsible for any deductible losses under any policy.

C. Contractor shall procure and maintain, at its own cost the following Bonds:

1. Performance Bond in the amount of one hundred percent (100%) of the total project cost;

2. Payment Bond for fifty percent (50%) of project cost.

D. Contractor shall provide to the City a certificate of insurance and bond certificates as evidence that required policies and bonding are in full force and effect. As this project will be partially or fully paid by the PPRTA and CDOT, the certificate of insurance shall identify the City, CDOT and the PPRTA both as additionally insured; bond certificates shall include the City; and Contractor shall provide that the coverages and/or bonds afforded under the policies shall not be cancelled, terminated or materially changed until at least thirty (30) days prior written notice has been given to the City. The City reserves the right to request and receive a certified copy of any policy, bonds, and any endorsement thereto. The City must have all certificates and bonds on file prior to start of any project.

E. Failure on the part of Contractor to procure or maintain the insurance required herein shall constitute a material breach of this Agreement upon which the City may immediately terminate this Agreement, or at its discretion, the City may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the City shall be repaid by Contractor to the City upon demand, or the City may offset the cost of the premiums against any monies due to Contractor from the City.

VIII. INDEMNIFICATION

Contractor agrees to indemnify and hold harmless the City, CDOT, the PPRTA, and their officers, insurers, volunteers, representatives, agents, employees, heirs and assigns from and against all claims, liability, damages, losses, expenses and demands, including attorney fees, on account of injury, loss, or damage, including, without limitation, claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, or any other

loss of any kind whatsoever, which arise out of or are in any manner connected with this Agreement or the Scope of Services if such injury, loss, or damage is caused in whole or in part by, the act, omission, error, professional error, mistake, negligence, or other fault of Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor, or which arise out of any worker's compensation claim of any employee of Contractor or of any employee of any subcontractor of Contractor. Contractor's liability under this indemnification provision shall be to the fullest extent of, but shall not exceed, that amount represented by the degree or percentage of negligence or fault attributable to Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor or of any subcontractor of Contractor.

IX. TERMINATION AND REMEDIES

A. Contractor shall have an active SAM.gov registration from contract execution to project closeout. Agreement shall terminate when all the work described in the Scope of Services is completed to the City's satisfaction, or upon the City providing Contractor with seven (7) days advance written notice, whichever occurs first. If the Agreement is terminated by the City's issuance of written notice, the City shall pay Contractor for all work authorized and completed prior to the date of termination.

B. If Contractor defaults or fails or neglects to carry out the Agreement, or any part thereof, or fails to perform any provision of this Agreement, the City, after seven (7) days written notice to Contractor and without prejudice to any other remedy the City may have, may make good such deficiencies and may deduct the cost thereof, including compensation for any additional services made necessary thereby, from the payment then or thereafter due Contractor. Or, at the City's option after said notice, the City may terminate this Agreement and may finish the project by whatever method the City deems expedient, and if the unpaid balance of the compensation owed to Contractor at the time of termination exceeds the expense of finishing the project, such excess shall be paid to Contractor, but if such expense exceeds such unpaid balance, the Contractor shall upon demand pay the difference to the City.

X. FEDERAL COMPLIANCE REQUIREMENTS

A. Equal Employment Opportunity compliance - Contractor shall include the provisions of Section X of this contract and Exhibit B – Form 1273, in every subcontract.

B. The sub-grantee, Contractor, Subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits Subrecipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this Agreement (or agreement). Title VI also includes protection to persons with "Limited English Proficiency" in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this Agreement or agreement."

C. The IGA Exhibit containing references to Title 2 CFR 200.322, Domestic preferences for procurements, which requires adherence to the requirement in all subawards including all Agreements and purchase orders for work or products under the award, as follows:

D. The City of Manitou Springs has indicated a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).

XI. MISCELLANEOUS

A. **Governing Law and Venue.** This Agreement shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in El Paso County, Colorado.

B. **No Waiver.** Delays in enforcement or the waiver of any one or more defaults or breaches of this Agreement by the City shall not constitute a waiver of any of the other terms or obligation of this Agreement.

C. **Integration.** This Agreement and any attached exhibits constitute the entire Agreement between Contractor and the City, superseding all prior oral or written communications.

D. **Third Parties.** There are no intended third-party beneficiaries to this Agreement.

E. **Notice.** Any notice under this Agreement shall be in writing, and shall be deemed sufficient when directly presented, when sent pre-paid, first class United States Mail to the party at the address set forth on the first page of this Agreement, or when sent via electronic mail to the following addresses upon receipt by the recipient:

To the City at **Bschmitt@manitouspringsco.gov**

To Contractor at: **vlad@westforkconstruction.co**

F. **Severability.** If any provision of this Agreement is found by a court of competent jurisdiction to be unlawful or unenforceable for any reason, the remaining provisions hereof shall remain in full force and effect.

G. **Modification.** This Agreement may only be modified upon written agreement of the Parties.

H. **Assignment.** Neither this Agreement nor any of the rights or obligations of the Parties hereto, shall be assigned by either party without the written consent of the other.

I. **Governmental Immunity.** The City, its officers, and its employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.*, as amended, or otherwise available to the City and its officers or employees.

J. **Rights and Remedies.** The rights and remedies of the City and the PPRTA under this Agreement are in addition to any other rights and remedies provided by law. The expiration of this Agreement shall in no way limit the City's or the PPRTA's legal or equitable remedies, or the period in which such remedies may be asserted, for work negligently or defectively performed.

K. **Subject to Annual Appropriations.** Consistent with Article X, § 20 of the Colorado Constitution, any financial obligations of the City or the PPRTA not performed during the current fiscal year are subject to annual appropriation, and thus any obligations of the City and the PPRTA hereunder shall extend only to monies currently appropriated and shall not constitute a mandatory charge, requirement or liability beyond the current fiscal year.

[Remainder of page intentionally left blank. Signatures on following page.]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the date first set forth above.

CITY OF MANITOU SPRINGS, COLORADO

(Printed name and title of City Official)

ATTEST:

Office of the City Clerk

PPRTA

(print name), Board Chair for PPRTA

CONTRACTOR

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing Agreement for Professional Services was subscribed, sworn to and acknowledged before me this _____ day of _____, 20____ by _____, as _____ of _____.

My commission expires:

(S E A L)

Notary Public

EXHIBIT A

SCOPE OF SERVICES

PROJECT PLANS AND SPECIFICATIONS

For details, see the attached Plans, specifications, Addendums, and bids for Project Numbers TAP M850-032 (24310) MTF M850-031 (24000) consisting of 287 pages in total.

EXHIBIT B
FHWA Form 1273

EXHIBIT C

**PPRTA Special Provisions
Total of 2 pages**

Revision of Section 105 Project First Program

Revise Section 105 of the Standard Specifications as follows:

Replace the following in Subsection 105.10, “Cooperation by the Contractor”, as shown:

Project First Program. Project First is required on all projects with an Engineer’s Estimate of over one million dollars, is optional and is highly recommended for all other projects. The Project First Program shall not take precedence over any other Contract requirement and shall only apply to contracts with the Department.

Project First is a project partnering that focuses on managing risks, facilitating communication, and working together to achieve common goals within the guidelines and parameters established by the Contract. The Project First Program is structured to draw on the strengths of the Contractor and the Department to identify and achieve mutual goals. Project First is a scalable program that supports effective and efficient contract performance and is performed with reciprocal cooperation. The goal is a project completed within budget, on schedule, and per the Contract. The Project Engineer and the Superintendent are the lead representatives to address the issues promptly and at the appropriate level. Executives from both organizations are encouraged to be active supporters and to visit with the Project Teams. The Project First Program includes the Project Team, consisting of the Department and the Contractor, developing tools to identify and manage project risks and facilitate communication. The tools are developed and updated for the project’s duration in formal Workshops and project meetings.

Nothing in this Section or Project First Program waives or extinguishes any defenses, rights, or obligations set forth in the Contract and/or the Contract Documents, or at law in equity, including, but not limited to, any notice and/or disclosure requirements set forth in Sections and/or Subsections 104.02, 104.03, 105.22, 105.23, 105.24, 106.05, 106.06, 108.08(a), and 108.08(d) and/or the Disputes Resolution Process.

Project First Workshops

(a) *Workshop Facilitation.* All costs related to Project First shall be included in the work and shall not be paid for separately, except for the actual costs for the use

Revision of Section 105 Project First Program

of a third-party workshop facilitator. If the parties mutually agree to use a third-party workshop facilitator, payment will be made for the actual costs incurred. The cost for a workshop facilitator shall be agreed upon before engagement. The Project Team shall equally share the facilitation costs. The Contractor shall contract directly with the third party, and payment will be made per subsection 109.04.

- (b) *Initial Workshop.* The Project Team shall conduct an in-person initial workshop before the Preconstruction Conference. The Project Engineer and the Superintendent shall jointly agree on the individuals to invite to the initial workshop. They shall invite the members from their respective teams. The Region Transportation Director or the Program Engineer, the Resident Engineer, the Project Engineer, and other project personnel shall attend the initial workshop. The Contractor owner, executive, or representative, the Superintendent, project supervision personnel, and key subcontractors shall attend the initial workshop. The Engineer and the Superintendent shall jointly determine if other stakeholders shall attend. At the initial workshop, the parties will each discuss their planned approach to the project and develop the Project First Tools.
- (c) *Follow-up Workshops and Closeout Workshop.* The Project Team shall conduct follow-up workshops at least once every two months, unless the Project Engineer and the Superintendent jointly determine that the frequency of these meetings can be reduced, and one final closeout workshop. When there are open items on the Project Risk Assessment Tool, workshops shall continue during no-work periods. Workshops are not required during landscape establishment periods. The Project Team shall conduct the closeout workshop before Final Acceptance.

The Resident Engineer, the Project Engineer, the Superintendent, and project supervision personnel shall attend the follow-up workshop and closeout workshop. The Region Transportation Director or Program Engineer, the Contractor owner, executive, or representatives are not required to attend the follow-up workshops and closeout workshop. The subcontractors or stakeholders with open risk items and incomplete work shall attend the follow-up workshop and closeout workshop. The Project Engineer and the Superintendent shall jointly determine if other stakeholders shall attend.

Revision of Section 105 Project First Program

In the follow-up workshops, the parties will update Risk Assessment Tool risks, including adding any new risks and closing completed risks. The parties shall resolve all remaining risks and document lessons learned before or by the closeout workshop. The Project Team should also celebrate the project successes.

Project First Tools

(a) Project Risk Assessment Tool. The Project Team shall develop and update a Project Risk Assessment Tool. This Project Risk Assessment Tool shall support risk identification, analysis, response strategy, monitoring, and control. All parties shall use the Project Risk Assessment Tool to document and manage the project risks. A risk for Project First is an unexpected known event or potential future event that may positively or negatively affect the project costs, schedule, scope, or relationship. The Project Team may modify the Project Risk Assessment Tool to suit the project.

(b) Project First Escalation Ladder. Use the Escalation Ladder to communicate major or repeated concerns to the next person in the supervisory chain. The Escalation Ladder is a list that includes the name, title, and contact information of the individuals in the supervisory chain for the Contractor's project organization and for the Department's project organization. The Contractor and the Department shall keep the Escalation Ladder up to date. The Project Team shall use the Escalation Ladder when the following types of concerns occur to maintain project communication and resolve issues at the lowest level:

- **Bad Faith:** When an individual is knowingly or willingly dishonest, not fulfilling legal or contractual obligations, misleads others, enters into an agreement without the intention or means to fulfill it, and/or violates basic standards of honesty in dealing with others.
- **Administration Performance:** When an individual is not responsive in administrative performance, such as resolving requests for information, developing partial payments, submitting required documentation, delays in progressing issues, and in negotiations. When an individual is unable to or is not competent in performing construction administration duties.
- **Defiance:** When an individual disregards Contract requirements or the direction of the Project Engineer.

Revision of Section 105 Project First Program

- Professionalism: When an individual acts in an unprofessional manner, including disrespectful, vulgar, and/or aggressive behavior.

Project First may be utilized to communicate concerns and issues at the project level prior to the submission of a Dispute as defined pursuant to Subsection 105.22 of the Dispute Resolution Process. Although these concerns may contribute to the issues described in subsection 105.22, they are different and addressed separately. This subsection and the referenced Project First Escalation Ladder shall not be used to circumvent or replace the escalation process detailed in Subsection 105.22 Dispute Resolution. Subsection 105.22 is the Contract escalation process for Issues that may result in Disputes related to items included in but not limited to Subsections 104.02, 104.03, 106.05, 106.06, 108.08(a), and 108.08(d) for merit and quantum as described and detailed in Subsection 105.22.

(c) Project First Charter. The establishment of a Project First charter is optional. A Project First Charter shall not change the legal relationship of the parties to the Contract, nor act as a waiver of, nor supersede the terms of the Contract. If a Project First Charter is developed, the Project Team shall develop the Project First Charter jointly.

Revision of Section 105 Dispute Resolution

Revise Section 105 of the Standard Specifications as follows:

Remove and replace Subsections 105.22, “Dispute Resolution”; 105.23, “Dispute Review Board”; and 105.24, “Claims for Unresolved Disputes”, as follows:

105.22 Dispute Resolution. Subsections 105.22, 105.23, and 105.24 detail the process through which the parties (CDOT and the Contractor) agree to resolve any issue that may result in a Dispute. The process intends to resolve issues early, efficiently, and as close to the project level as possible. Figure 105-1 outlines the process. Specified time frames may be extended by mutual agreement of the Engineer and the Contractor. In these subsections, when a time frame ends on a Saturday, Sunday, or holiday, the time frame shall be extended to the next scheduled workday.

Definitions:

Issue. A disagreement concerning contract price, contract time, interpretation of the Contract, or a combination thereof between the parties at the project level regarding or relating to the Contract. Issues include, but are not limited to, a disagreement resulting from a delay, a change order, another written order, or an oral order from the Project Engineer, including any direction, instruction, interpretation, or determination by the Project Engineer, interpretations of the Contract provisions, plans, or specifications or the existence of alleged differing site conditions.

Dispute. An Issue that the Contractor and CDOT have not been able to resolve, and for which the Contractor submits a written formal notice of Dispute per subsection 105.22(c).

Claim. A Dispute not resolved at the Resident Engineer level or resolved after a DRB recommendation.

Merit. Refers to the right of a Contractor to recover on a Claim or Dispute, irrespective of Quantum, based on the substance, elements, and grounds of that Claim or Dispute.

Quantum. Refers to the quantity or amount of compensation or time (or both), if any, that may be granted to the Contractor when a Dispute or Claim is found to have Merit.

The Contractor shall bring the Issue(s) to the Project Engineer’s attention, in writing, within 15 days of the Contractor being aware of the Issue(s). Written notice must take the form of a stand-alone, non-chain e-mail or letter, addressed and delivered to the Project Engineer. If a Contractor provides written notice outside of the 15-day deadline, it shall be presumed that CDOT suffered prejudice. Where the Contractor

Revision of Section 105 Dispute Resolution

failed to provide the required notice, the failure to provide notice may be treated as a separate and threshold Dispute to be resolved before other related Dispute(s) are submitted, addressed, or resolved.

Disputes from subcontractors, material suppliers, or any other entity not party to the Contract shall be submitted through the Contractor. The review of a pass-through Dispute does not create privity of Contract between CDOT and the subcontractor.

An audit may be performed by the Department for any Dispute or Claim. All audits will be completed within 90 days of the request for an audit, provided the Contractor allows the auditors reasonable and timely access to the Contractor's books and records.

If CDOT does not respond within the specified timelines, the Contractor may advance the Dispute to the next review level in the dispute resolution process.

When the Project Engineer is a Consultant Project Engineer, actions, decisions, and determinations specified as made by the Project Engineer shall be made by the Resident Engineer.

The dispute resolution process set forth in this subsection shall be exhausted in its entirety before initiation of litigation. Failure to comply with the requirements set forth in this subsection, including notice requirements, shall bar either party from any further administrative, equitable, or legal remedies. Subject to the rebuttable presumption of prejudice to CDOT set forth above, if a deadline is missed that does not prejudice either party, further relief shall be allowed.

All written notices of Dispute shall be submitted within 30 days of the date of the Project Engineer's Final Acceptance letter; see subsection 105.21(b).

When a project has a landscape maintenance period, the Project Engineer will grant partial acceptance per subsection 105.21(a). This partial acceptance will be the project acceptance of all the construction work performed before this partial acceptance.

All Disputes and Claims related to the work in which this partial acceptance is granted shall be submitted within 30 days of the Project Engineer's partial acceptance.

Should the Contractor's Dispute use the Total Cost approach for calculating damages, damages will be determined by subtracting the contract amount from the total cost of performance. Should the Contractor's Dispute use the Modified Total Cost approach for calculating damages, if the Contractor's bid was unrealistic in part, or some of its costs were unreasonable or some of its damages were caused by its own errors, those costs and damages will be deducted from the total cost of performance to arrive at the Modified Total Cost. The Total Cost or Modified Total Cost basis for calculating damages shall not be available for any Disputes or Claims seeking damages where the

Revision of Section 105 Dispute Resolution

Contractor could have kept separate cost records at the time the Dispute arose as described in subsection 105.22(a).

(a) *Document Retention.* The Contractor shall keep full and complete records of the costs and additional time incurred for each Dispute for a period of at least three years after the date of final payment or until the Dispute is resolved, whichever is longer. The Contractor, subcontractors, and lower-tier subcontractors shall provide adequate facilities, acceptable to the Project Engineer, for an audit during normal business hours. The Contractor shall permit the Project Engineer or Department auditor to examine and copy those records and all other records required by the Project Engineer to determine the facts or contentions involved in the Dispute. The Contractor shall identify and segregate any documents or information that the Contractor considers particularly sensitive, such as confidential or proprietary information.

Throughout the Dispute, the Contractor and the Project Engineer shall keep complete daily records of extra costs and time incurred, per the following procedures:

1. Daily records shall identify each operation affected, the specific locations where work is affected, and the potential effect to the project's schedule. Such records shall also reflect all labor, material, and equipment applicable to the affected operations.
2. On the first workday of each week following the date of the written notice of Dispute, the Contractor shall provide the Project Engineer with the daily records for the preceding week. If the Contractor's records indicate costs greater than those kept by the Department, the Project Engineer will meet with the Contractor and present CDOT's records to the Contractor at the meeting. The Contractor shall notify the Engineer in writing within three workdays of any inaccuracies noted in, or disagreements with, the Department's records.

(b) *Initial Dispute Resolution Process.* To initiate the Dispute resolution process, the Contractor shall provide a written notice of Dispute to the Project Engineer upon the failure of the Parties to resolve the Issue through negotiation. Disputes will not be considered unless the Contractor has first complied with specified Issue resolution processes such as those specified in subsections 104.02, 106.05, 108.08(a), and 108.08(d).

The Contractor shall supplement the written notice of Dispute within 15 days with a written Request for Equitable Adjustment (REA) providing the following:

- (1) The date of the Dispute.
- (2) The nature of the circumstances that caused the Dispute.

Revision of Section 105 Dispute Resolution

- (3) A detailed explanation of the Dispute, citing specific provisions of the Contract and any basis, legal or factual, that supports the Dispute.
- (4) If any, the estimated Quantum, calculated per the methods set forth in subsection 105.24(b)12, with supporting documentation.
- (5) An analysis of the progress schedule showing the schedule change or disruption, if the Contractor is asserting a schedule change or disruption. This analysis shall meet the requirements of subsection 108.08(d).

The Contractor shall submit as much information on the Quantum and impacts to the Contract time as is reasonably available with the REA and then supplement the REA as additional information becomes available. If the Dispute escalates to the DRB process, neither party shall provide or present to the DRB any Issue or any information that was not contained in the REA and fully submitted in writing to the Project Engineer and Resident Engineer during the subsection 105.22 process.

- (c) *Project Engineer Review.* Within 15 days after receipt of the REA, the Project Engineer will meet with the Contractor to discuss the Merits of the Dispute. Within seven days after this meeting, the Project Engineer will issue a written decision on the Merits of the Dispute.

The Project Engineer will either deny the Merits of the Dispute or notify the Contractor that the Dispute has Merit. This determination will include a summary of the relevant facts, Contract provisions supporting the determination, and an evaluation of all scheduling issues that may be involved.

If the Dispute is determined to have Merit, the Contractor and the Project Engineer will determine the adjustment in payment, schedule, or both within 30 days. When a satisfactory adjustment is determined, it shall be implemented per subsections 106.05, 108.08, 109.04, 109.05, or 109.10, and the Dispute is resolved.

If the Contractor accepts the Project Engineer's denial of the Merits of the Dispute, the Dispute is resolved, and no further action will be taken. If the Contractor does not respond in seven days, it will be assumed he has accepted the denial. If the Contractor rejects the Project Engineer's denial of the Merits of the Dispute or a satisfactory adjustment of payment or schedule cannot be agreed upon within 30 days, the Contractor may further pursue resolution of the Dispute by providing written notice to the Resident Engineer within seven days, according to subsection 105.22(e).

- (d) *Resident Engineer Review.* Within seven days after receipt of the Contractor's written notice to the Resident Engineer of unsatisfactory resolution of the Dispute, the Project Engineer and Resident Engineer will hold at least one meeting (or more than one meeting upon mutual agreement of the parties) with the Contractor.

Revision of Section 105 Dispute Resolution

Meetings shall continue weekly for a period of up to 30 days. Meetings shall include a Contractor's representative with decision authority above the project level to discuss the Dispute. When the Project Engineer is a Consultant and the Resident Engineer rendered the Project Engineer's written decision, the Program Engineer will render the Resident Engineer's written decision. Within 7 days after this meeting, the Resident Engineer will issue a written decision on the Merits of the Dispute.

If these meetings result in the resolution of the Dispute, the resolution will be implemented per subsections 108.08, 109.04, 109.05, or 109.10, and the Dispute is resolved.

If these meetings do not result in a resolution or the participants mutually agree that they have reached an impasse, the Dispute shall be presented to the Dispute Review Board per subsection 105.23.

105.23 Dispute Review Board. A Dispute Review Board (DRB) is an independent third party that will provide specialized expertise in technical areas and the administration of construction contracts. The DRB will assist in and facilitate the timely and equitable resolution of Disputes between CDOT and the Contractor in an effort to avoid animosity and construction delays, and to resolve Disputes as close to the project level as possible. The DRB shall be established and operate as provided and shall serve as an independent and impartial board. A DRB member shall not be called as a witness for future litigation.

There are two types of DRBs: the "On Demand DRB" and the "Standing DRB". The DRB shall be an "On Demand DRB" unless a "Standing DRB" is specified in the Contract. An On Demand DRB may be established at any time during the project to assist with Issue and Dispute resolution and when the Project Engineer initiates a DRB review per subsection 105.23(a). A Standing DRB, when specified in the Contract, shall be established at the beginning of the project.

(a) *Initiation of Dispute Review Board Review.* When a Dispute has not been resolved per subsection 105.22, the Project Engineer will initiate the DRB review process within five days after the period described in subsection 105.22(e).

(b) *Formation of Dispute Review Board.* DRBs will be established per the following procedures:

1. CDOT, in conjunction with the Colorado Contractors Association (CCA), will maintain a statewide list of pre-approved DRB candidates experienced in construction processes and the interpretation of contract documents, and the resolution of construction Disputes. Only individuals who have completed training (currently titled DRB Administration and Practice Training) through the Dispute Resolution Board Foundation or otherwise approved by CDOT can be a

Revision of Section 105 Dispute Resolution

DRB member. DRB nominees shall be selected from the list of pre-approved candidates. When a DRB is formed, the parties shall execute the agreement set forth in subsection 105.23(m).

2. If the Dispute has a value of \$250,000 or less, the On Demand DRB shall have one member. The Contractor and CDOT shall select the DRB member and execute the Three-Party Agreement within 30 days of initiating the DRB process. If the parties do not agree on the DRB member, each shall select five candidates. Each party shall numerically rank their list using a scale of one to five, with one being their first choice and five being their last choice. If common candidates are listed, but the parties cannot agree, the common candidate with the lowest combined numerical ranking shall be selected. If there is no common candidate, the lists shall be combined, and each party shall eliminate three candidates from the list. Each party shall then numerically rank the remaining candidates, with Number 1 being the first choice. The candidate with the lowest combined numerical ranking shall be the DRB member. The CDOT Project Engineer will be responsible for having all parties execute the agreement.
3. If the Dispute has a value over \$250,000, the On Demand DRB shall have three members. The Contractor and CDOT shall each select a member, and those two members shall select a third. Once the third member is approved, the three members will nominate one of them to be the Chair and execute the Three-Party Agreement within 45 days of initiating the DRB process.
4. The Standing DRB shall always have three members. The Contractor and CDOT shall each select a member, and those two members shall select a third member. Once the third member is approved, the three members will nominate one of them to be the Chair. The Contractor and CDOT shall submit their proposed Standing DRB members within five days of execution of the Contract. The third member shall be approved before the Pre-construction Conference. The third member shall be selected within 15 days of the execution of the Contract. Before construction starts, the parties shall execute the Three-Party Agreement. The CDOT Project Engineer will be responsible for having all parties execute the agreement. The Project Engineer will invite the Standing DRB members to the Pre-construction and any Project First conferences.
5. DRB members shall not have been involved in the administration of the project under consideration. CDOT and the Contractor shall inform their selected DRB member who the major firms/people are on the project and request their selected DRB member to review the CDOT disclosure requirements and Canon of Ethics and then submit a disclosure statement, which shall also be submitted to the other party. DRB candidates shall complete the DRB Disclosure

Revision of Section 105 Dispute Resolution

Requirements and DRB Nominee Disclosure Form and disclose to the parties the following relationships:

- (1) Prior employment with either party
- (2) Prior or current financial interests or ties to either party
- (3) Prior or current professional relationships with either party
- (4) Anything else that might bring into question the impartiality or independence of the DRB member.
- (5) Before agreeing to serve on a DRB, members shall notify all parties of any other CDOT DRB's they are serving or that they will be participating in another DRB.

If either party objects to the selection of the chair or other DRB members based on the disclosures, or based on information not disclosed, which might bring into question the impartiality, independence, or performance of the potential member, that potential member shall not be placed on the Board.

6. There shall be no ex parte communications with the DRB at any time.
7. The service of a Board member may be terminated only by written agreement of both parties.

(c) If a Board member resigns, is unable to serve, or is terminated, a new Board member shall be selected within 30 days in the same manner as the Board member who was removed was originally selected.

(d) *Additional Responsibilities of the Standing Disputes Review Board*

1. General. No later than 10 days after the Three-Party Agreement has been signed by the Chief Engineer, the DRB will coordinate with the parties on the date and location of the initial DRB meeting.
 - (1) Obtain copies of the Contract documents and the Contractor's schedules for each of the Board members.
 - (2) Agree on the location of future meetings, which shall be reasonably close to the project site.
 - (3) Establish an address and telephone number for each Board member for the purposes of Board business.
2. Regular meetings. Regular meetings of the Board shall be held approximately every 120 to 180 days throughout the life of the Contract, except that this schedule may be modified to suit developments on the job as the work

Revision of Section 105 Dispute Resolution

progresses. Regular meetings shall be attended by representatives of the Contractor and the Department.

3. The Board shall establish an agenda for each meeting, which will cover all items that the Board considers necessary to keep it abreast of the project, such as construction status, schedule, potential problems and solutions, status of past Claims and Disputes, and potential Claims and Disputes. Copies of each agenda shall be submitted to the Contractor and the Department at least seven days before the meeting date. Oral or written presentations or both shall be made by the Contractor and the Department as necessary to give the Board all the data the Board requires to perform its functions. The Board will prepare minutes of each meeting, circulate them to all participants for comments and approval, and issue revised minutes before the next meeting. As a part of each regular meeting, a field inspection trip of all active segments of the work at the project site may be made by the Board, the Contractor, and the Department.

4. Advisory Opinions

- (1) Advisory opinions are typically used soon after the parties find they have a potential Dispute and have conducted preliminary negotiations, but before expenditure of additional resources and hardening their positions. Advisory opinions provide quick insight into the DRB's likely assessment of the Dispute. This process is quick and may be entirely oral and does not prejudice the opportunity for a DRB hearing.
- (2) Both parties must agree to seek an advisory opinion and notify the chairperson. The procedure for requesting and issuing advisory opinions should be discussed with the DRB at the first meeting with the parties.
- (3) The DRB shall issue a one-page written opinion within 5 days of the hearing.
- (4) The opinion is only advisory and does not require acceptance or rejection by either party. If the Dispute is not resolved and a hearing is held, the oral presentations and advisory opinion are completely disregarded, and the DRB hearing procedure is followed.

- (5) Advisory opinions should be limited to Merit Issues only.

(e) *Arranging a Dispute Review Board Hearing.* When the Project Engineer initiates the DRB review process, the Project Engineer will:

1. Contact the Contractor and the DRB to coordinate an acceptable hearing date and time. The hearing shall be held at the Resident Engineer's office unless an alternative location is agreed to by both parties. Unless otherwise agreed to by both parties, an On Demand DRB hearing will be held within 30 days after the Three-Party Agreement is signed by the CDOT Chief Engineer. Unless otherwise

Revision of Section 105 Dispute Resolution

agreed to by both parties, a Standing DRB hearing will be held within 30 days after the DRB has been requested per subsection 105.23(a).

2. Ensure DRB members have copies of all documents previously prepared by the Contractor and CDOT pertaining to the Dispute, the DRB request, the Contract documents, and the special provisions at least two weeks before the hearing.

(f) Pre-Hearing Submittal. All Pre-hearing Submittals shall include only arguments, supporting documentation, Quantum, and other information as previously submitted in writing and as previously disputed in the formal Dispute process covered in subsections 105.22(b), (c), (d), and (e). All Pre-hearing Submittals planned to be used at the hearing shall be submitted to the other party 35 days before the hearing for review for compliance with this requirement. If either party contends there are new arguments, supporting documents, new Quantum, or any new information in a pre-hearing Submittal, and the other party objects to this information being presented to the DRB, the objecting party shall submit its objections in writing to the other party within 10 days. The parties shall meet within five days to reconcile the objection before the submittal is submitted to the DRB. If the parties cannot reconcile the objection, but the new argument, supporting documentation, new Quantum, or new information does not change either party's position on Merit or Quantum, the information shall be allowed in the Pre-hearing submittal and presented to the DRB. If the parties cannot reconcile the objections within the five days allowed, each party shall submit a one-page brief on their objections, but not the actual information objected to, to the DRB for a decision on the use of the documents. The DRB shall not approve any information simply because it is relevant to the Dispute or referenced during the Dispute. Neither party shall attempt to present anything to the DRB that they did not present to the other party during the Dispute process. The Dispute process shall be delayed while this determination is being made and a new hearing date set, if necessary. Pre-hearing Submittals to the DRB are as follows:

1. Joint Statement: At least 20 days before the hearing, the Joint Statement(s) shall be submitted to the DRB. The parties shall make every attempt to agree upon a Joint Statement of the Dispute. If the parties cannot agree on the Joint Statement, each party's independent statement shall be submitted to the DRB. The Joint Statement shall summarize, in a few sentences, the nature of the Dispute(s) and the scope of the desired decision.
2. Position Paper: At least 15 days before the hearing, CDOT and the Contractor shall submit by email to the DRB Chairperson their party's Position Paper. The DRB Chairperson shall simultaneously distribute by email the Position Papers to

Revision of Section 105 Dispute Resolution

agreed to by both parties, a Standing DRB hearing will be held within 30 days after the DRB has been requested per subsection 105.23(a).

2. Ensure DRB members have copies of all documents previously prepared by the Contractor and CDOT pertaining to the Dispute, the DRB request, the Contract documents, and the special provisions at least two weeks before the hearing.

(f) Pre-Hearing Submittal. All Pre-hearing Submittals shall include only arguments, supporting documentation, Quantum, and other information as previously submitted in writing and as previously disputed in the formal Dispute process covered in subsections 105.22(b), (c), (d), and (e). All Pre-hearing Submittals planned to be used at the hearing shall be submitted to the other party 35 days before the hearing for review for compliance with this requirement. If either party contends there are new arguments, supporting documents, new Quantum, or any new information in a pre-hearing Submittal, and the other party objects to this information being presented to the DRB, the objecting party shall submit its objections in writing to the other party within 10 days. The parties shall meet within five days to reconcile the objection before the submittal is submitted to the DRB. If the parties cannot reconcile the objection, but the new argument, supporting documentation, new Quantum, or new information does not change either party's position on Merit or Quantum, the information shall be allowed in the Pre-hearing submittal and presented to the DRB. If the parties cannot reconcile the objections within the five days allowed, each party shall submit a one-page brief on their objections, but not the actual information objected to, to the DRB for a decision on the use of the documents. The DRB shall not approve any information simply because it is relevant to the Dispute or referenced during the Dispute. Neither party shall attempt to present anything to the DRB that they did not present to the other party during the Dispute process. The Dispute process shall be delayed while this determination is being made and a new hearing date set, if necessary. Pre-hearing Submittals to the DRB are as follows:

1. Joint Statement: At least 20 days before the hearing, the Joint Statement(s) shall be submitted to the DRB. The parties shall make every attempt to agree upon a Joint Statement of the Dispute. If the parties cannot agree on the Joint Statement, each party's independent statement shall be submitted to the DRB. The Joint Statement shall summarize, in a few sentences, the nature of the Dispute(s) and the scope of the desired decision.
2. Position Paper: At least 15 days before the hearing, CDOT and the Contractor shall submit by email to the DRB Chairperson their party's Position Paper. The DRB Chairperson shall simultaneously distribute by email the Position Papers to

Revision of Section 105 Dispute Resolution

all parties and other DRB members, if any. The Position Paper shall contain the following:

- (1) The basis and justification for the party's position, with reference to specific contract language and the supporting documents of each element of the Disputes.
 - (2) A list of proposed attendees for the hearing. In the event of any objection by a party, the DRB shall make a final determination as to who attends the hearing.
 - (3) When the scope of the hearing includes Quantum, full cost details will be calculated per the methods set forth in subsection 105.24(b)12. The Scope of the hearing will not include Quantum if CDOT has requested an audit that has not been completed.
3. **Supporting Documents:** At least 15 days before the hearing, each party shall submit a copy of all its supporting documents to the DRB and the other party. Supporting documents include any presentations, visuals, or handouts planned to be used at the hearing. To minimize duplication and repetitiveness, the parties are encouraged to identify a common set of documents that will be referred to by both parties and submit them in a separate package to the DRB at least 20 days before the hearing. Common documents are communications between parties, speed memos, change orders, schedules, request for equitable adjustment, correspondence, and any document used in the subsection 105.22 process. CDOT shall submit the common set of documents to the Board and the Contractor.
 4. If relevant to the Dispute and requested by the Board, the Engineer shall provide to the DRB either website links, electronic PDFs, or hard copies of pertinent contract documents such as plans, specifications, and M and S Standards.
- (g) *Pre-Hearing Phone Conference.* A pre-hearing phone conference with all Board members and the parties shall be conducted as soon as a hearing date is established, but no later than 10 days before the hearing. The DRB Chairperson shall explain the specifics of how the hearing will be conducted, including how the two parties will present their information. (Ex. Each party makes a full presentation of their positions, or presentations will be made on a "point by point" basis, with each party making a presentation only on the individual dispute issue before moving onto the next Issue.)

If the pre-hearing position papers and documents have been received by the DRB before the conference call, the Chairperson shall discuss the estimated hours of review and activities for the Disputes (such as time spent evaluating and preparing

Revision of Section 105 Dispute Resolution

a recommendation on specific Issues presented to the DRB). If the pre-hearing position papers and documents have not been received by the Board before the conference call, another conference call will be scheduled during the initial conference call to discuss the estimated hours of review. The Engineer shall coordinate the conference call.

(h) *Dispute Review Board Hearing.* The DRB shall preside over a hearing. The chairperson shall control the hearing and conduct it as follows:

1. An employee of CDOT presents a brief description of the project and the status of construction on the project.
2. The party that requested the DRB presents the Dispute in detail as supported by previously submitted information and documentation in the pre-hearing position paper. No new information or Disputes will be heard or addressed by the DRB. Rebuttals of the other party's arguments shall not be presented at this time.
3. The other party presents its position in detail as supported by previously submitted information and documentation.
4. The party that requested the DRB presents their rebuttals, followed by the other party's rebuttals.
5. Upon completion of their presentations and rebuttals, both parties and the DRB will be provided the opportunity to exchange questions and answers. Questions from the parties shall be directed to the Chairperson. Attendees may respond only when board members request a response.
6. Employees of each party are responsible for leading presentations at the DRB hearing.
7. Attorneys shall not participate in the hearing unless the DRB specifically addresses an Issue to them or unless agreed to by both parties. Should the parties disagree on attorney participation, the DRB shall decide on what, if any, participation will be permitted. Attorneys representing the parties are permitted to attend the hearing, provided their presence has been noted in the pre-hearing submittal.
8. Either party may use experts only if the expert has previously presented to the other party before the DRB process. A party intending to offer an outside expert's analysis at the hearing shall disclose such intention in the pre-hearing position paper. The expert's name and a general statement of the area of the Dispute that will be covered by his presentation shall be included in the disclosure. The other party may present an outside expert to address or respond to those Issues that may be raised by the disclosing party's outside expert.

Revision of Section 105 Dispute Resolution

9. If both parties approve, the DRB may retain an outside expert. The DRB chairperson shall include the cost of the outside expert in the DRB's regular invoice. CDOT and the Contractor shall equally bear the cost of the services of the outside expert employed by the DRB.
 10. If either party attempts to present an argument, documentation, Quantum, or new information that the other party feels was not in the Pre-hearing submittals, the chairperson shall require the party to demonstrate where in the Pre-hearing submittals the information in question resides.
 11. If either party fails to timely deliver a position paper, the DRB may reschedule the hearing one time. On the final date and time established for the hearing, the DRB shall proceed with the hearing using the information that has been submitted.
 12. If a party fails to appear at the hearing, the DRB shall proceed as if all parties were in attendance.
- (i) *Dispute Review Board Recommendation.* The DRB shall issue a Recommendation per the following procedures:
1. The DRB shall not make a recommendation on the Dispute at the meeting. Before the closure of the hearing, the DRB members and the Contractor and CDOT together will discuss the time needed for analysis and review of the Dispute and the issuance of the DRB's recommendation. The maximum time shall be 30 days unless otherwise agreed to by both parties.
 2. After the meeting has been closed, the DRB shall prepare a written Recommendation signed by each member of the DRB. In the case of a three-member DRB where one member dissents, that member shall prepare a written dissent and sign it. The DRB's recommendation shall include the following:
 - A. A summary of the Issues and factual evidence presented by the Contractor and CDOT concerning the Dispute.
 - B. Recommendations concerning the validity of the Dispute.
 - C. Recommendations concerning the value of the Dispute as to cost impacts if the Dispute is determined to be valid.
 - D. The contractual and factual bases supporting the recommendation(s) made, including an explanation as to why each and every position was accepted or rejected.
 - E. Detailed and supportable calculations that support any recommendation(s).

Revision of Section 105 Dispute Resolution

3. The chairperson shall transmit the signed Recommendation and any supporting documents to both parties.

- (j) *Clarification and Reconsideration of Recommendation.* Either party may request in writing clarification or reconsideration of a decision within 10 days following receipt of the Recommendation. Within 10 days after receiving the request, the DRB shall provide written clarification or reconsideration to both parties.

Requests for clarification or reconsideration shall be submitted in writing simultaneously to the DRB and the other party.

The Board shall not accept requests for reconsideration that amount to a renewal of a prior argument or additional argument based on facts available at the time of the hearing. The Board shall not consider any documents or arguments that have not been made a part of the pre-hearing submittal, other than clarification and data supporting previously submitted documentation.

Only one request for clarification or reconsideration per Dispute from each party will be allowed.

- (k) *Acceptance or Rejection of Recommendation.* CDOT and the Contractor shall submit their written acceptance or rejection of the Recommendation, in whole or in part, concurrently to the other party and the DRB within 14 days after receipt of the Recommendation or following receipt of responses to requests for clarification or reconsideration.

If the parties accept the Recommendation or a discreet part thereof, it will be implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the Dispute is resolved.

If either party rejects the Recommendation in whole or in part, it shall give a written explanation to the other party and the DRB within 14 days after receiving the Recommendation. When the Recommendation is rejected in whole or in part by either party, the other party may either abandon the Dispute or pursue a formal Claim per subsection 105.24.

If either party fails to submit its written acceptance or rejection of the Dispute Board's recommendation, according to these specifications, such failure shall constitute that party's acceptance of the Board's recommendation.

- (l) *Admissibility of Recommendation.* Recommendations of a DRB issued per subsection 105.23 are admissible in subsequent proceedings but shall be prefaced with the following paragraph:

This Recommendation may be taken under consideration with the understanding that:

Revision of Section 105 Dispute Resolution

1. The DRB Recommendation was a proceeding based on presentations by the parties.
2. No fact or expert witnesses presented sworn testimony or were subject to cross-examination.
3. The parties to the DRB were not provided with the right to any discovery, such as the production of documents or depositions.
4. There is no record of the DRB hearing other than the Recommendation.

(m) Cost and Payments.

1. General Administrative Costs. The Contractor and the Department shall equally share the entire cost of the following to support the Board's operation:
 - (1) Copies of the Contract and other relevant documentation
 - (2) Meeting space and facilities
 - (3) Secretarial services
 - (4) Telephone
 - (5) Mail
 - (6) Reproduction
 - (7) Filing
2. The Department and the Contractor shall bear the costs and expenses of the DRB equally. Each DRB board member shall be compensated at an agreed rate of \$1,200 per day if time spent on-site per meeting is greater than four hours. Each DRB board member shall be compensated at an agreed rate of \$800 per day if the time spent on-site per meeting is less than or equal to four hours. The time spent traveling to and from each meeting shall be reimbursed at \$50 per hour if the travel distance is more than 50 miles. The agreed daily and travel time rates shall be considered full compensation for on-site time, travel expenses, transportation, lodging, time for travel of more than 50 miles, and incidentals for each day, or portion thereof, that the DRB member is at an authorized DRB meeting. No additional compensation will be made for time spent by DRB members in review and research activities outside the official DRB meetings unless that time (such as time spent evaluating and preparing recommendations on specific Issues presented to the DRB) has been specifically agreed to in advance by the Department and Contractor. Time away from the project that has been specifically agreed to in advance by the parties will be compensated at an agreed rate of \$125 per hour. The agreed amount of \$125 per hour shall include all incidentals. Members serving on more than one DRB, regardless of the number of meetings per day, shall not be paid more than the all-inclusive rate per day or rate per hour for an individual project.

Revision of Section 105 Dispute Resolution

3. Payments to Board Members and General Administrative Costs. Each Board member shall submit an invoice to the Contractor for fees and applicable expenses incurred each month following a month in which the Board members participated in Board functions. Such invoices shall be in the format established by the Contractor and the Department. The Contractor shall submit to the Department copies of all invoices. No markups by the Contractor will be allowed on any DRB costs. The Department will split the cost by authorizing a 50 percent payment on the next progress payment. The Contractor shall make all payments in full to Board members within seven calendar days after receiving payment from the Department for this work.

(m) *Dispute Review Board Three Party Agreement.*

DISPUTE REVIEW BOARD THREE PARTY AGREEMENT COLORADO PROJECT NUMBER
THIS THREE-PARTY AGREEMENT, made as of the date signed by the Chief Engineer below, by and between: the Colorado Department of Transportation, hereinafter called the "Department"; and _____, hereinafter called the "Contractor"; and _____, _____, _____, and _____. hereinafter called the "Dispute Review Board" or "Board". WHEREAS, the Department is now engaged in the construction of the [Project Name] _____ and WHEREAS, the Contract provides for the establishment of a Board in accordance with subsections 105.22 and 105.23 of the specifications.

Revision of Section 105 Dispute Resolution

NOW, THEREFORE, it is hereby agreed:

ARTICLE I

DESCRIPTION OF WORK AND SERVICES

The Department and the Contractor shall form a Board in accordance with this agreement and the provisions of subsection 105.23.

ARTICLE II

COMMITMENT ON THE PART OF THE PARTIES HERETO

The parties hereto shall faithfully fulfill the requirements of subsection 105.23 and the requirements of this agreement.

ARTICLE III

COMPENSATION

The parties shall share equally in the cost of the Board, including general administrative costs (meeting space and facilities, secretarial services, telephone, mail, reproduction, and filing) and the member's individual fees. Reimbursement of the Contractor's share of the Board expenses for any reason is prohibited.

The Contractor shall make all payments in full to the Board members. The Contractor shall submit to the Department an itemized statement for all such payments, and the Department will split the cost by including a 50 percent payment on the next progress payment. The Contractor and the Department will agree to accept invoiced costs prior to payment by the Contractor.

Board members shall keep all fee records pertaining to this agreement available for inspection by representatives of the Department and the Contractor for a period of three years after the termination of the Board members' services.

Payment to each Board member shall be at the fee rates established in subsection 105.23 and agreed to by each Board member, the Contractor, and the Department. In addition, reimbursement will be made for applicable expenses.

Each Board member shall submit an invoice to the Contractor for fees incurred each month following a month in which the member participated in Board functions. Such invoices shall be in the format established by the Contractor and the Department.

Payments shall be made to each Board member within 60 days after the Contractor and Department have received all the applicable billing data and verified the data submitted by that member. The Contractor shall make payment to the Board member within seven calendar days of receipt of payment from the Department.

DISPUTE REVIEW BOARD

THREE PARTY AGREEMENT PAGE 2

COLORADO PROJECT NUMBER

ARTICLE IV

ASSIGNMENT

Board members shall not assign any of the work to be performed by them under this agreement. Board members shall disclose any conflicts of interest, including but not limited to any dealings

Revision of Section 105 Dispute Resolution

with either party in the previous five years other than serving as a Board member under other contracts.

ARTICLE V

COMMENCEMENT AND TERMINATION OF SERVICES

The commencement of the services of the Board shall be in accordance with subsection 105.23 of the specifications and shall continue until all assigned Disputes under the Contract, which may require the Board's services, have been heard and a Recommendation has been issued by the Board as specified in subsection 105.23. If a Board member is unable to fulfill his responsibilities for reasons specified in subsection 105.23(b)7, he shall be replaced as provided therein, and the Board shall fulfill its responsibilities as though there had been no change.

ARTICLE VI

LEGAL RELATIONS

The parties hereto mutually agree that each Board member in performance of his duties on the Board is acting as an independent contractor and not as an employee of either the Department or the Contractor. Board members will guard their independence and avoid any communication about the substance of the Dispute without both parties being present.

The Board members are absolved of any personal liability arising from the Recommendations of the Board. The parties agree that members of the Dispute review board panel are acting as mediators for purposes of C.R.S. § 13-22-302(4) and, as such, the liability of any Dispute review board member shall be limited to willful and wanton misconduct as provided for in C.R.S. § 13-22-305(6).

Board members shall not be called as witnesses for future litigation.

IN WITNESS HEREOF, the parties hereto have caused this agreement to be executed the day and year written below.

BOARD MEMBER: _____
_____.

BY: _____
_____.

BOARD MEMBER: _____
_____.

BY: _____
_____.

BOARD MEMBER: _____
_____.

BY: _____
_____.

CONTRACTOR: _____
_____.

BY: _____

Revision of Section 105 Dispute Resolution

_____ TITLE: _____ _____ COLORADO DEPARTMENT OF TRANSPORTATION BY: _____ _____ . DATE: _____ TITLE: CHIEF ENGINEER
--

105.24 Claims for Unresolved Disputes. The Contractor may file a Claim only if the Disputes resolution process described in subsections 105.22 and 105.23 has been exhausted without resolution of the Dispute. Other methods of nonbinding Dispute resolution, exclusive of litigation, can be used if agreed to by both parties.

This subsection applies to any unresolved Dispute or set of Disputes between CDOT and the Contractor with an aggregate value of more than \$15,000. Unresolved Disputes with an aggregate value of more than \$15,000 from subcontractors, materials suppliers, or any other entity not a party to the Contract shall be submitted through the Contractor per this subsection as a pass-through Claim. Review of a pass-through Claim does not create privity of Contract between CDOT and any other entity.

Subsections 105.22, 105.23, and 105.24 provide both contractual alternative Dispute resolution processes and constitute remedy-granting provisions pursuant to Colorado Revised Statutes (CRS), which must be exhausted in their entirety.

Litigation proceedings must commence within 180 calendar days of the Chief Engineer's decision, absent a written agreement otherwise by both parties.

The venue for all unresolved Disputes with an aggregate value of \$15,000 or less shall be the County Court for the City and County of Denver.

Non-binding Forms of alternative Dispute resolution, such as Mediation, are available upon mutual agreement of the parties for all Claims submitted per this subsection.

The cost of the non-binding ADR process shall be shared equally by both parties, with each party bearing its own preparation costs. The type of nonbinding ADR process shall be agreed upon by the parties and shall be conducted within the State of Colorado at a mutually acceptable location. Participation in a nonbinding ADR process does not in any way waive the requirement that litigation proceedings must commence within 180 calendar days of the Chief Engineer's decision, absent written agreement otherwise by both parties.

Revision of Section 105 Dispute Resolution

(a) *Notice of Intent to File a Claim.* Within 30 days after rejection of the Dispute Resolution Board's Recommendation issued per subsection 105.23, the Contractor shall provide the Region Transportation Director (RTD) with a written notice of intent to file a Claim. The Contractor shall also send a copy of this notice to the Resident Engineer. For the purpose of this subsection, Region Transportation Director shall mean the Region Transportation Director or the Region Transportation Director's designated representative. CDOT will acknowledge in writing receipt of the Notice of Intent within seven days.

(b) *Claim Package Submission.* Within 60 days after submitting the notice of intent to file a Claim, the Contractor shall submit, to the RTD, five copies of a complete Claim package representing the final position the Contractor wishes to have considered. All Claims shall be in writing and in sufficient detail to enable the RTD to ascertain the basis and amount of the Claim. The Claim package shall include all documents supporting the Claim, regardless of whether such documents were provided previously to CDOT.

If requested by the Contractor, the 60-day period may be extended by the RTD in writing before final acceptance. At a minimum, the following information shall accompany each Claim:

1. A claim certification containing the following language, as appropriate:

A. For a direct Claim by the Contractor:

CONTRACTOR'S CLAIM CERTIFICATION
Under penalty of law for perjury or falsification, the undersigned, _____ (name) , (title) _____ of _____ (company) _____, hereby certifies that the Claim of \$ _____ for extra compensation and ____ Days additional time, made for work on this Contract is true to the best of my knowledge and belief and supported under the Contract between the parties. This Claim package contains all available documents that support the Claims made, and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me. Dated _____ /s/ _____ _____ Subscribed and sworn before me this _____ day of _____ _____. _____ NOTARY PUBLIC My Commission Expires: _____

Revision of Section 105 Dispute Resolution

B. For a pass-through Claim:

PASS-THROUGH CLAIM CERTIFICATION
Under penalty of law for perjury or falsification, the undersigned, _____ (name) , (title) _____, of _____ (company) , hereby certify that the Claim of \$_____ for extra compensation and _____ Days additional time, made for work on this Project is true to the best of my knowledge and belief and supported under the Contract between the parties. This Claim package contains all available documents that support the claims made and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me. Dated _____ /s/ _____ Subscribed and sworn before me this _____ day of _____ . NOTARY PUBLIC My Commission Expires: _____ Dated _____ /s/ _____ The Contractor certifies that this Claim, being passed through to CDOT is passed through in good faith and is accurate and complete to the best of my knowledge and belief. Dated _____ /s/ _____ Subscribed and sworn before me this _____ day of _____ . NOTARY PUBLIC My Commission Expires: _____

2. A detailed factual statement of the Claim for additional compensation, time, or both, providing all necessary dates, locations, and items of work affected by the Claim. The Contractor's detailed factual statement shall expressly describe the basis of the Claim and factual evidence supporting the Claim. This requirement is not satisfied by simply incorporating into the Claim package other documents that describe the basis of the Claim and supporting factual evidence.
3. The date on which facts were discovered that gave rise to the Claim.
4. The name, title, and activity of all known CDOT, Consultant, and other individuals who may be knowledgeable about facts giving rise to such Claim.
5. The name, title, and activity of all known contractors, subcontractors, suppliers, and other individuals who may be knowledgeable about facts giving rise to such Claim.

Revision of Section 105 Dispute Resolution

6. The specific provisions of the Contract, which support the Claim, and a statement of the reasons why such provisions support the Claim.
7. If the Claim relates to a decision of the Project Engineer, which the Contract leaves to the Project Engineer's discretion, the Contractor shall set out in detail all facts supporting its position relating to the decision of the Project Engineer.
8. The identification of any documents and the substance of all oral communications that support the Claim.
9. Copies of all known documents that support the Claim.
10. The Dispute Review Board Recommendation.
11. If an extension of contract time is sought, the documents required per subsection 108.08(d), along with a statement defining if any liquidated damages should be released, if applicable.
12. If additional compensation beyond the Contract Amount is sought, the exact amount sought and a breakdown of that amount into the following categories:
 - A. These categories represent the only costs that, if applicable, are recoverable by the Contractor. All other costs or categories of costs are not recoverable:
 - (1) Actual wages and benefits, including FICA, paid for additional labor.
 - (2) Costs for additional bond, insurance, and tax.
 - (3) Increased costs for materials.
 - (4) Equipment costs calculated per subsection 109.04(c) for Contractor-owned equipment and based on certified invoice costs for rented equipment.
 - (5) Costs of extended job site overhead (only applies if the Dispute also includes a time extension).
 - (6) Salaried employees assigned to the project (only applies if the Dispute also includes a time extension or if the Dispute required salaried employee(s) to be added to the Project).
 - (7) Claims from subcontractors and suppliers at any level (the same level of detail as specified is required for all such Claims).
 - (8) An additional 16 percent will be added to the total of items (1) through (7) as compensation for items for which no specific allowance is provided, including profit and home office overhead.

Revision of Section 105 Dispute Resolution

(9) Interest shall be paid per CRS 5-12-102 beginning from the date of the Notice of Intent to File Claim.

B. In adjustment for the costs as allowed above, the Department will have no liability for the following items of damages or expense:

(1) Profit in excess of that provided in 12.A.(8) above.

(2) Loss of Profit.

(3) Additional cost of labor inefficiencies in excess of that provided in A. above.

(4) Home office overhead in excess of that provided in A. above.

(5) Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities, and insolvency.

(6) Indirect costs or expenses of any nature in excess of those provided in A. above.

(7) Attorney's fees, Claim preparation fees, and expert fees.

(c) *Region Transportation Director Decision.* When the Contractor properly files a Claim, the RTD will review the Claim and render a written decision to the Contractor to either affirm or deny the Claim, in whole or in part, per the following procedure.

The RTD may consolidate all related Claims on a project and issue one decision, provided that consolidation does not extend the time period within which the RTD is to render a decision. Consolidation of unrelated Claims will not be made. Within 15 days of the appeal, either party may submit a written request for a hearing with the RTD or duly authorized Region delegates.

The RTD will render a written decision to the Contractor within 45 days after the receipt of the Claim package or receipt of the audit, or after the hearing, whichever is later. In rendering the decision, the RTD: (1) will review the information in the Contractor's Claim; (2) will conduct a hearing if requested by either party; and (3) may consider any other information available in rendering a decision.

The RTD will assemble and maintain a Claim record comprised of all information physically submitted by the Contractor in support of the Claim and all other discoverable information considered by the RTD in reaching a decision. Once the RTD assembles the Claim record, the submission and consideration of additional information, other than for clarification and data supporting previously submitted documentation, at any subsequent level of review by anyone, will not be

Revision of Section 105 Dispute Resolution

permitted.

The RTD will provide a copy of the Claim record and the written decision to the Contractor, describing the information considered by the RTD in reaching a decision and the basis for that decision. If the RTD fails to render a written decision within the 45-day period, or within any extended time period as agreed to by both parties, the Contractor shall either: (1) accept this as a denial of the Claim, or (2) appeal the Claim to the Chief Engineer, as described in this subsection.

If the Contractor accepts the RTD decision, the provisions of the decision shall be implemented per subsections 108.08, 109.04, 109.05, or 109.10, and the Claim is resolved.

If the Contractor disagrees with the RTD decision, the Contractor shall either: (1) accept the RTD decision as final, or (2) file a written appeal to the Chief Engineer within 30 days from the receipt of the RTD decision. The Contractor hereby agrees that if a written appeal is not properly filed, the RTD decision is final.

(d) Chief Engineer Decision. When a Claim is appealed, the RTD will provide the Claim record to the Chief Engineer. Within 15 days of the appeal, either party may submit a written request for a hearing with the Chief Engineer or duly authorized Headquarters delegates. The Chief Engineer or a duly authorized Headquarters delegate will review the Claim and render a decision to affirm, overrule, or modify the RTD decision per the following.

The Chief Engineer will render a written decision within 45 days after receiving the written appeal. The Chief Engineer will not consider any information that was not previously made a part of the Claim record, other than clarification and data supporting previously submitted documentation.

The Contractor shall have 30 days to accept or reject the Chief Engineer's decision. The Contractor shall notify the Chief Engineer of its acceptance or rejection in writing.

If the Contractor accepts the Chief Engineer's decision, the provisions of the decision will be implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the Claim is resolved.

If the Contractor disagrees with the Chief Engineer's decision, the Contractor shall either (1) pursue an alternative Dispute resolution process per this specification or (2) initiate litigation per subsection 105.24(e).

If the Chief Engineer does not issue a decision as required, the Contractor may immediately initiate litigation per subsection 105.24(e).

Revision of Section 105 Dispute Resolution

For the convenience of the parties to the Contract, it is mutually agreed by the parties that any Merit binding or De Novo litigation shall be brought within 180 calendar days from the date of the Chief Engineer's decision. The parties understand and agree that the Contractor's failure to bring suit within the time period provided shall be a complete bar to any such Claims or causes of action.

(e) *De Novo Litigation.* If the Contractor disagrees with the Chief Engineer's decision, the Contractor may initiate de novo litigation to finally resolve the Claim that the Contractor submitted to CDOT. Such litigation shall be strictly limited to those Claims that were previously submitted and decided in the contractual Dispute and Claims processes outlined. This does not preclude the joining in one litigation of multiple Claims from the same project, provided that each claim has gone through the Dispute and Claim process specified in subsections 105.22 through 105.24. The parties may agree, in writing, at any time, to pursue some other form of alternative dispute resolution.

Any offer made by the Contractor or the Department at any stage of the Claims process, as set forth in this subsection, shall be deemed an offer of settlement pursuant to Colorado Rule of Evidence 408 and therefore inadmissible in any litigation.

De novo litigation shall proceed per the Colorado Rules of Civil Procedure, and the proper venue is the Colorado State District Court in and for the City and County of Denver.

Figure 105-1 summarizes the disputes and claims process described in subsections 105.22, 105.23, and 105.24.

(Insert Flow Chart)

Revision of Section 108 **Liquidated Damages**

Revise Section 108.09 of the Standard Specifications as follows:

In subsection 108.09 delete the schedule of Liquidated Damages and replace it with the following:

Original Contract Amount (\$)		Liquidated Damages per Calendar Day (\$)
From More Than	To And Including	
0	1,000,000	1,300
1,000,000	2,000,000	2,300
2,000,000	5,000,000	3,100
5,000,000	10,000,000	6,800
10,000,000	25,000,000	8,800
25,000,000	-----	9,700

Revision of Section 207 Topsoil

Delete Section 207 of the Standard Specifications for this project and replace it with the following:

Description

207.01 This work consists of salvaging topsoil from onsite locations, stockpiling, maintaining, and preparing the subsoils for the placement of the topsoil at locations shown on the plans. It also includes creating seeding media by amending subsoils, and importing offsite topsoil when shown on the plans.

Substitutions from this specification will not be allowed unless submitted in writing to the Engineer and approved by the Region or Headquarters Landscape Architect.

Materials

207.02 General. Topsoil shall be salvaged onsite, imported, or produced as shown on the plans. Topsoil shall be free of refuse and litter along with noxious weed seed and reproductive plant parts, as listed in current State of Colorado A and B Noxious Weed List and local agency weed lists. Topsoil shall not include heavy clay, hard clods, toxic substances, pathogens, or other material, which would be detrimental to growing native vegetation. All required amendments shall be thoroughly incorporated to parent material, onsite. All amendments shall conform to Section 212. Topsoil and parent material shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension for all material used within the designed clear zone for the project. Topsoil outside of the clear zone may contain rock larger than 4 inches in any dimension. For slopes with no structures being used to protect areas from falling rocks the Contractor shall remove or secure any rocks deemed unstable and could pose a safety hazard.

Topsoil shall be generated from one or more of the following as shown on the plans:

- (a) *Topsoil (Onsite).* Topsoil shall consist of the upper 6-inch layer of the A horizon, as defined by the Soil Science Society of America, or at the depths and locations shown on the Stormwater Management Plan (SWMP). It shall consist of loose friable soil, salvaged from onsite and stockpiled or windrowed. Litter and duff (layer of partially decomposed plant material) shall be collected as part of the salvaging of topsoil unless specified to be removed and hauled offsite on the plans.
- (b) *Topsoil (Wetland).* Wetland topsoil shall consist of moist, organic soil obtained from delineated wetlands, including any existing wetland vegetation and seeds. Wetland topsoil shall be extracted from the project site at locations shown on the plans or as directed, to a minimum depth of 12 inches or at the depths as shown on the plans.

(c) *Seeding Media*. Seeding Media shall consist of one or all of the following approved materials: sub-soil, overburden, or material generated from rock. Contractor shall select onsite or offsite locations to generate material that meet the requirements of Table 207-1. The Contractor shall provide a Certified Test Report (CTR) in accordance with subsection 106.13, excluding lot, heat, and batch confirming that the excavated material conforms to Table 207-1.

(d) *Topsoil (Offsite)*. The Contractor shall submit a CTR for Topsoil (Offsite) for approval a minimum of 60 days prior to import in accordance with subsection 106.13. The Contractor shall include with the CTR a complete Soil Nutrient Analysis for the properties listed in Table 207-2 from an independent laboratory that participates in the National Association for Proficiency Testing (NAPT). If topsoil nutrient analysis is deficient, an Amendment Protocol shall be submitted by the Contractor for approval. The Amendment Protocol shall contain a complete list of amendments and associated quantities to produce topsoil that conforms to Table 207-2.

The Contractor shall submit a Certificate of Compliance (COC) for Topsoil (Offsite) for approval a minimum of 60 days prior to import that the source has controlled noxious weeds in accordance with the State of Colorado Noxious Weed Act 35-5.5-115.

Table 207-1
Physical Properties of Seeding Media

Property	Range	Test
Soil pH (s.u.)	5.6 – 7.5	ASA Mono. #9, Part 2, Method 10-3.2 or TMECC 04.11-A
Soil Electrical Conductivity (EC) (mmhos/cm or ds/m)	< 5.0	ASA Mono. #9, Part 2, Method 10-3.3
Soil SAR (s.u.)	0 - 10	ASA Mono. #9, Part 2, Method 10-3.4
Rock Content (%)	≤ 25	USDA NRCS Rock Fragment Modifier Usage
Trace Contaminants (Arsenic, Cadmium, Copper, Mercury, Selenium, Zinc, Nickel, and Lead)	Meets US EPA, 40 CFR 503 Regulations	TMECC 04.06 or EPA6020/ASA (American Society of Agronomy)
Rock Content (%) greater than 3" diameter	≤ 25	USDA NRCS Rock Fragment Modifier Usage
USDA Soil Texture	No more than 70% clay, silt, and sand by percentage volume of topsoil.	ASA Monograph #9, Part 1, Method 15-4 or ASA 1 43-5
All Particle Sizes	< 6 Inches	
Physical contaminants (man-made inerts) (%)	< 1	TMECC 03.08-C
C:N ratio	<20	TMECC 05.02-A
* Fines % when manufacturing material from rock	>25% material passing through #4 sieve	ASTM D6913

Amendments to the base imported material shall have the quantities of material verified onsite prior to incorporation into parent material, either at the stockpiles or after placement of parent material. Topsoil amended at the stockpiles shall be distributed to the site within seven days. * Substitute this requirement for USDA Soil Texture requirement when project are approved to use material manufactured from native rock material on site.

**Table 207-2
Topsoil (Offsite) Properties**

Property	Range	Test Methods
Soil pH (s.u)	5.6 – 7.5	ASA Mono. #9, Part 2, Method 10-3.2 or TMECC 04.11-A
Salt by Electrical Conductivity (EC) (mmhos/cm or ds/m)	< 2.0	ASA Mono. #9, Part 2, Method 10-3.3
Soil SAR (s.u.)	0 – 10	ASA Mono. #9, Part 2, Method 10-3.4
Soil OM (%)	3 – 5	Methods of Soil Analysis, Part 3, Method 34
Soil N (NO ₃ -n, ppm)	≥ 20.0	Methods of Soil Analysis, Part 3. Chemical Methods. Ch. 38 Nitrogen – Inorganic Forms
Soil P (ppm)	≥ 13.0	ASA Mono. #9, Part 2, Method 24-5.4 or others as required based on soil pH
Soil K (ppm)	≥ 80	ASA Mono. #9, Part 2, Method 13-3.5
Rock Content (%) greater than 3" diameter	≤ 25	USDA NRCS Rock Fragment Modifier Usage
Bioassay (seedling emergence and relative vigor)	> 80% of control	TMECC 05.05-A or Approved Germination Test
Soil Texture	No more than 70% clay, silt and sand by percentage volume of topsoil	ASA Mono. #9, Part 1, Method 15-4
Physical contaminants (man-made inerts) (%)	< 1	TMECC 03.08-C
Trace Contaminants (Arsenic, Cadmium, Copper, Mercury, Selenium, Zinc, Nickel, and Lead)	Meets US EPA, 40 CFR 503 Regulations	TMECC 04.06 or EPA6020/ASA (American Society of Agronomy)
All Particle Sizes	< 6 Inches	
C:N ratio	<20	TMECC 05.02-A

The Contractor shall utilize a rod penetrometer for determining subgrade soil preparation and determining looseness of soil after ripping. The penetrometer shall have a psi pressure gage, and shall meet the following requirements:

- (1) Steel rod with a minimum diameter of ½ inch with graduations (tick marks) every 6 inches.
- (2) The rod shall be made of stainless steel or other metal that will not bend when weight is applied.
- (3) The end of the rod shall have a 30-degree cone tip.
- (4) The diameter of the cone at its tip shall be no more than 0.1 inch.
- (5) The top of the rod shall be a T-handled configuration.

CONSTRUCTION REQUIREMENTS

207.03 Site Pre-vegetation Conference. Prior to the start of the initial Subgrade Soil Preparation for the project, the Contractor shall request a Site Pre-vegetation Conference. The Engineer will set up the conference and will include: the Engineer or designated representative, the Superintendent or designated representative, the sub-contractor(s) performing the subgrade soil preparation and soil amendments, and the CDOT Landscape Architect representing the Region. Only one meeting is required for the project unless a new sub-contractor is brought on that did not attend the previous meeting.

The Agenda of the Pre-vegetation Conference can be found in Appendix A of the Construction Manual and includes the following:

- (1) Final review of the Topsoil (Offsite) Amendment Protocol
- (2) Review of the Method Statement detailing the equipment which will be used for the subgrade soil preparation operations
- (3) Review of rod penetrometer which will be used to determine subgrade soil preparation of topsoil
- (4) Permanent Stabilization Phasing Plan (identify strategies and site management measures to protect de-compacted, topsoil amended, seeded, and blanketed areas from foot, vehicle loads, and other disturbances).
- (5) Seeding. See subsection 212.03 for submittal requirements.
- (6) Meeting attendee sign-in log

207.04 Topsoil Stockpiling. Stockpiles of topsoil shall be created as shown on the plans or as approved by the Engineer. All Stockpiles of topsoil which are scheduled to remain in place for 14 days or more shall receive interim stabilization in accordance with subsection 208.04. All topsoil stockpiles shall be identified using white pin flags with "TOPSOIL" printed in black letters and shall have their locations shown on the SWMP Plans. Each individual stockpile shall require at least one flag, and one additional flag for each 10 cubic yards of salvaged topsoil. The contractor shall provide only perimeter flags for stockpile larger than 100 cubic yards with a minimum spacing of 25 feet.

Topsoil may be placed in stockpiles or windrowed at the edge of the disturbance. Windrowed topsoil shall not be used as perimeter erosion control or extensively compacted. When topsoil is windrowed, all stockpile requirements still apply.

(1) Upland Topsoil. If included on the plans, stockpiles shall be treated with herbicide, in accordance with Section 217, or as directed.

(2) Wetland Topsoil. Wetland stockpiles shall not be treated with herbicide. Weeds shall be hand pulled.

Wetland topsoil shall be placed within 24 hours from excavation, unless otherwise approved by the Engineer. Wetland topsoil shall not be stockpiled for more than six months.

207.05 Subgrade Soil Preparation. Before placement of topsoil, the subgrade shall be ripped to a minimum depth of 14 inches. Subgrade shall be mostly dry and friable. Subgrade shall crumble without sticking together, yet not be so dry and hard that it does not break apart easily.

Underground utilities shall be located prior to soil preparation.

Subgrade soil preparation equipment shall meet the requirements for either winged tip or parabolic shanks. Operation shall be performed to fracture the soil uniformly without lifting or furrowing the surface excessively. The Contractor shall submit a method statement for subgrade soil preparation other equipment will be considered.

1. Winged tip shanks (dozer equipment) shall be a minimum of 6 inches wide and have 2 inches of vertical profile change on the blade with a 40 – 60-degree sweep angle.

The Contractor shall calibrate the subgrade soil preparation equipment using a minimum 30 linear feet of the initial pass. The Contractor shall utilize the rod penetrometer to verify that that de-compaction was successfully done. The Contractor shall take penetration measurements every 6 inches across a transect perpendicular to the direction of the tractor and spanning the width of the subgrade soil preparation. Depths of penetration shall confirm that a minimum of 12 inches can be achieved without reaching 300 psi on the rod penetrometer pressure gage (approximately 30 pounds of pressure on the T-handle).

Existing subgrade shall be de-compacted to a depth of 14 inches. If multiple passes are needed, the subsequent passes shall be positioned so that the ripping equipment (subsoilers) from the previous pass are split by the subsequent pass. Following ripping, the Contractor

shall remove all sticks, stones, debris, clods, and all other substances greater than 6 inches in diameter. The Contractor shall restrict motorized vehicle and foot traffic from passing over the ripped area since this would recompact the areas that received subgrade soil preparation.

The first 4 feet from the edge of pavement shall be ripped to a depth of 6 inches. If the project is going to use aggregate base course or recycled asphalt as a shouldering technique, those areas will not require subgrade soil preparation. Depth of soil ripping for the subgrade soil preparation shall be checked with the rod penetrometer.

The Contractor shall verify adequate de-compaction of the entire area to have topsoil placed using a rod penetrometer in the presence of the Engineer. Tests shall be performed at a minimum of ten random locations per each acre as selected by the Engineer. The Test shall verify that a depth of 12 inches of penetration into the soil can be achieved without reaching 300 psi on the rod penetrometer pressure gage (approximately 30 pounds of pressure on the T-handle). If this depth cannot be achieved for 80 percent of the penetrations, the Contractor shall re-rip the area at no additional cost to the Department.

207.06 Placement of Topsoil and Seeding Media. Topsoil and Seeding Media shall be hauled and placed at the locations disturbed and will be re-vegetated or as shown on the plans. The contractor shall place a minimum thickness of 6 inches and should only be handled when it is dry enough to work without damaging soil structure. Topsoil and Seeding Media shall be placed a minimum depth of twelve (12) inches when placed over riprap as required on the plans. No Topsoil or Seeding Media shall be placed below ordinary high water mark except as otherwise specified in bio-stabilization bank treatments.

Salvaged topsoil placement deeper than 6 inches is allowed if additional approved material is on-site.

Contractor shall place topsoil in a method that does not re-compact subgrade material using low ground-contact pressure equipment, or by excavators and/or backhoes operating adjacent to it.

The final grade shall be free of all materials greater than 4 inches in diameter within the designed clear zone for the project. Equipment not required for revegetation work will not be permitted in the areas of placed topsoil.

Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e), at no additional cost to the Department. Time to perform the work may be extended for delays due to weather.

Method of Measurement

207.07 Topsoil material will be measured by the actual number of cubic yards of topsoil placed and accepted.

Subgrade soil preparation will be measured by the square yards of subgrade which is ripped and accepted for adequate de-compaction.

Basis of Payment

207.08 The accepted quantities measured will be paid for at the Contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item	Pay Unit
Topsoil (Onsite)	Cubic Yard
Seeding Media	Cubic Yard
Topsoil (Offsite)	Cubic Yard
Topsoil (Wetland)	Cubic Yard
Subgrade Soil Preparation	Square Yard

Amendments for Topsoil (Onsite) and Seeding Media will be measured and paid for in accordance with Section 212.

Amendments for Topsoil (Offsite) will not be measured and paid for separately, but shall be included in the work.

Noxious Weed Management will be measured and paid for in accordance with Section 217.

Stockpiling or windrowing of topsoil will not be measured and paid for separately, but shall be included in the work.

Testing of Seeding Media and Topsoil (Offsite) will not be measured and paid for separately but shall be included in the work.

Rod penetrometer and associated verification testing of random locations will not be measured and paid for separately, but shall be included in the work.

The Site Pre-vegetation Conference will not be paid for separately, but shall be included in the work.

Additional passes with the ripping equipment to achieve the desired de-compaction will not be measured and paid for separately, but shall be included in the work.

Removing of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension for all topsoil and Seeding Media used within the designed clear zone for the project will not be measured and paid for separately, but shall be included in the work.

1

**Revision of Section 212
Soil Amendments, Seeding, and Sodding**

Delete Section 212 of the Standard Specifications for this project and replace it with the following:

Description

212.01 This work consists of application of fertilizer, soil amendments, seedbed preparation, and placing seed and sod.

Substitutions from this specification will not be allowed unless submitted in writing to the Engineer and approved by the Region or Headquarters Landscape Architect.

Materials

212.02 Seed, Fertilizers, Soil Conditioners, Mycorrhizae, Elemental Sulfur, and Sod.

(a) *Seed.* Seed shall be delivered to the project site in sealed bags tagged by a registered seed supplier conforming to the requirements of the Colorado Seed Act, CRS 35-27-111(1). Seed used on the project shall not be in the Contractor's possession for more than 30 days from the date of pickup or delivery on the seed vendors packing slip. Bags which have been opened or damaged before Engineer inspection will be rejected. The State required legal tags shall remain on the bag until opened and the seed is placed in either the drill or hydraulic seeders in the presence of the Engineer. The Engineer shall remove all tags after seed has been planted. Each seed tag shall clearly show the following:

- (1) Name and address of the supplier
- (2) Botanical and common name for each species
- (3) Lot numbers
- (4) Percent by weight of inert ingredients
- (5) Guaranteed percentage of purity and germination
- (6) Pounds of Pure Live Seed (PLS) of each seed species
- (7) Total net weight in pounds of PLS in the sealed bag
- (8) Calendar month and year of test date

2

Seeds shall be free from all noxious weed seeds per Colorado Seed Act (CRS 35-17) prohibited noxious weed seed list.

Weed seed content shall not exceed the requirements in part 7.2 of the Colorado Department of Agriculture's Seed Act Rules and Regulations.

Seed which has become wet, moldy, or damaged in transit or in storage will not be accepted.

Seed and seed labels shall conform to all current State regulations and to the testing provisions of the Association of Official Seed Analysis. Computations for quantity of seed required on the project shall include the percent of purity and percent of germination.

The Contractor shall store seed under dry conditions, at temperatures between 35°F to 90°F, under low humidity and out of direct sunlight. The Contractor shall provide the location of where seed is stored and access to stored seed locations to the Engineer. Seed stored by the Contractor for longer than 30 days will be rejected.

(b) *Organic Fertilizer*. Fertilizer derived directly from plant or animal sources shall conform to Colorado Revised Fertilizer Rules 8 CCR 1202-4. Fertilizer shall be uniform in composition and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's name, address, and nutrient analysis. Fertilizer bags (containers) which arrive at the project site opened, damaged, or lacking a label will be rejected. The Contractor shall only use bulk shipments such as tote bags or super sacks that have a manufacturer's original label and sealed at the manufacturing facility. Fertilizer which becomes caked or damaged will not be accepted. Fertilizer shall be stored according to manufacturer's recommendations in a dry area where the fertilizer will not be damaged.

Organic fertilizer formulation being submitted for use must be registered with the Colorado Department of Agriculture.

Verification tests may be conducted by CDOT on grab samples of organic fertilizer delivered to the site to determine the reliability of bag label analysis and for ingredients which are injurious to plants. If a product of any supplier is found to consistently deviate from the bag level analysis, the acceptance of that product will be discontinued. Copies of the failing test reports will be furnished to the Colorado State Board of Agriculture for appropriate action under the "Colorado Fertilizer Law".

Fertilizer shall be supplied in one of the following physical forms:

- (1) A dry free-flowing granular fertilizer, suitable for application by agricultural fertilizer spreader.
- (2) A homogeneous pellet, suitable for application by agricultural fertilizer spreader. Pellet size shall be 2-3 mm. Smaller may be allowed when Seeding (Native) Hydraulic is shown on the plans.

3

- (3) A soluble form that will permit complete suspension of insoluble particles in water, suitable for application by power sprayer.

The application rate of the organic fertilizer shall be either as high or low nitrogen (N) fertilizer as shown on the plans.

High N organic fertilizer chemical analysis shall conform to Table 212-1.

Table 212-1
Chemical Analysis for High N Fertilizer

Ingredient	Range	Test Method
Nitrogen (N) (%)	6 - 10	AOAC Official Method 993.13 Nitrogen (Total) in Fertilizers Combustion Method
Phosphorus (P) (%)	1 - 8	AOAC Official Method 960.03 Phosphorus (Available) in Fertilizers
Potassium (K) (%)	1 - 8	AOAC Official Method 983.02 Potassium in Fertilizers

Low N organic fertilizer chemical analysis shall conform to Table 212-2.

Table 212-2
Chemical Analysis for Low N Fertilizer

Ingredient	Range	Test Method
Nitrogen (N) (%)	2 - 5	AOAC Official Method 993.13 Nitrogen (Total) in Fertilizers Combustion Method
Phosphorus (P) (%)	3 - 8	AOAC Official Method 960.03 Phosphorus (Available) in Fertilizers
Potassium (K) (%)	1 - 8	AOAC Official Method 983.02 Potassium in Fertilizers

Organic fertilizers shall conform to Table 212-3.

4

**Table 212-3
Organic Fertilizer Properties**

Criteria	Range
Moisture content by weight	< 6%

(c) *Compost (Mechanically Applied)*. Compost shall be suitable for use in Erosion Log (Type 2) and permanent seeding applications. Compost shall not contain visible refuse, other physical contaminants, or substances considered harmful to plant growth. Compost shall be used per all applicable EPA 40 CFR 503 standards for Class A biosolids including the time and temperature standards. Materials that have been treated with chemical preservatives as a compost feedstock will not be permitted.

The Contractor shall provide material that has been aerobically composted in a commercial facility. Compost shall be from a producer that participates in the United States Composting Council's (USCC) Seal of Testing Assurance (STA) program. The Department will only accept STA approved compost that is tested per the USCC Test Methods for Examining of Composting and Compost (TMECC) manual.

Verification tests may be conducted by CDOT on grab samples of compost delivered to the site to determine the gradation and physical properties. Testing may be done for indication of ingredients which are injurious to plants. Sampling procedures will follow the STA 02.01 Field Sampling of Compost Materials and 02.01-B Selection of Sampling Locations for Windrows and Piles. If a product is found to consistently deviate from the gradation and property analysis, the acceptance of that product will be discontinued. Copies of the failing test reports will be furnished to the USCC.

Compost for permanent seeding soil conditioner locations onsite and application rates shall be as shown on the plans.

Organic matter in compost shall be no more than 2 inches in length.

Compost (Mechanically Applied) for permanent seeding shall meet the gradation and physical properties as shown in Table 212-4 and Table 212-5. The Contractor shall provide a written explanation for compost tested parameters not within the acceptable requirements for review and consideration.

The Contractor shall provide documentation from the composting facility confirming that the material has been tested per USCC TMECC.

5

Table 212-4
Gradation for Permanent Seeding Compost
(Test Method TMECC 02.02-B,
“Sample Sieving for Aggregate Size Classification”)

Sieve Size	Minimum, Percent Passing	Maximum, Percent Passing
25.0 mm (1")	100	
19.0 mm (3/4")	90	100
6.25 mm (1/4")	70	100

Note: Compost shall be from a producer that participates in the USCC STA program.

6

**Table 212-5
Properties for Permanent Seeding Compost**

Compost Parameters	Reported as	Requirements	Test Method
pH	pH units	6.0 – 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS/m (mmhos/cm)	< 5.0	TMECC 04.10-A
Moisture Content	%, wet weight basis	25% - 50%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis	20% - 50%	TMECC 05.07-A
Organic Matter Content	pounds per cubic yard	>240	
Carbon to Nitrogen Ratio (C:N)		< 15:1	
Manufactured Inert Contamination (Plastic, concrete, ceramics, metal)	%, dry weight basis	< 1%	TMECC 03.08-A
Stability (respirometry)	mg CO ₂ -C per g TS per day mg CO ₂ -C per g OM per day	8 or below	TMECC 05.08-B
Select Pathogens and weed free	(PASS/FAIL) Limits: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 1000 MPN/gram	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg kg ⁻¹ , dw basis): Arsenic (As) 41, Cadmium (Cd) 39, Copper (Cu)1500, Lead (Pb) 300, Mercury (Hg) 17, Nickel (Ni) 420, Selenium (Se) 100, Zinc (Zn) 2800	Pass	TMECC 04.06

Use the STA Lab bulk density lb/cu ft as received, multiplied by organic matter % as received, multiplied by 27 to calculate pounds per cubic yard of organic matter.

7

1. Compost for Erosion Log (Type 2) shall meet the gradation and physical properties as shown in Table 212-6 and Table 212-7.

Table 212-6
Gradation for Erosion Log (Type 2) Compost
(Using Test Method TMECC 02.02-B,
“Sample Sieving for Aggregate Size Classification”)

Sieve Size	Percent Passing, Minimum	Percent Passing, Maximum
75.0 mm (3")	100	
25.0 mm (1")	90	100
9.5 mm (3/8")	10	50

Note: Organic matter for erosion log compost shall be no more than 4 inches in length. Compost shall be from a producer that participates in the USCC STA program.

8

Table 212-7
Properties for Erosion Log (Type 2) Compost

Compost Parameters	Reported as	Requirements	Test Method
pH	pH units	6.0 - 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS/m (mmhos/cm)	< 5.0	TMECC 04.10-A
Moisture Content	%, wet weight basis	< 60%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis	25% - 100%	TMECC 05.07-A
Manufactured Inert Contamination (plastic, concrete, ceramics, metal)	%, dry weight basis	< 0.5%	TMECC 03.08-A
Stability (respirometry)	mg CO ₂ -C per g TS per day mg CO ₂ -C per g OM per day	N/A	TMECC 05.08-B
Select Pathogens and weed free	(PASS/FAIL) Limits: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 1000 MPN/gram	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg kg ⁻¹ , dw basis): Arsenic (As) 41, Cadmium (Cd) 39, Copper (Cu)1500, Lead (Pb) 300, Mercury (Hg) 17, Nickel (Ni) 420, Selenium (Se) 100, Zinc (Zn) 2800	Pass	TMECC 04.06

(d) *Biotic Soil Amendments (Hydraulically Applied)*. Soil amendments shall be a combination of natural fibers, growth stimulants, and other biologically active material designed to improve seed germination and vegetation establishment as shown in Table 212-8. Biotic soil amendments shall be pre-packaged in ultraviolet and weather resistant packaging and labeled from the manufacturer. Bags (containers) which arrive at the project site opened, damaged, or lacking a label will be rejected. Bulk shipments such as tote bags will be rejected. Biotic soil amendments shall be stored in locations not exceeding 80 °F. Acceptance of material shall be subject to the requirements of the Department's Approved Product List (APL).

The application rate of the biotic soil amendments shall be per the rates shown on the

9

plans. Use of mulch tackifier (*Plantago Insularis* or pre-gelatinized corn starch polymer) shall be per Section 213. It shall be used as a wetting agent at a rate of 30 pounds per acre. Biotic soil amendments shall provide a continuous and uniform cover and shall consist of one of the components in Table 212-8 and all of the performance and physical properties in Table 212-9.

**Table 212-8
Required Percentage Ranges of Biotic Soil Amendments**

Components	Units	Requirement
Professional grade sphagnum peat moss, professional grade reed sedge peat moss or compost that meets the Seal of Testing Assurance Program of the US Composting Council	%, dry weight basis	> 41%
Mechanically processed straw consisting of weed free agricultural straw, flexible flax fiber or rice hulls	%, dry weight basis	< 57%

**Table 212-9
Performance and Physical Requirements of Biotic Soil Amendments**

Parameters	Reported as	Requirement	Test Method
pH	pH units	5.0 - 7.5	ASTM D1293
Moisture Content	%, wet weight basis	10% - 50%	ASTM D 2974
Organic matter content	%, dry weight basis	> 85%	ASTM D586
Carbon Nitrogen Ratio	Ratio C:N	< 38:1	ASTM E1508
Manufactured inert contamination	%, dry weight basis	< 1.0%	
Acute Toxicity	(Pass/Fail)	Pass (non-toxic)	ASTM E729-96(2014) or EPA Method 2021.0 or EPA Method 2002.0
Vegetative Minimum		> 400%	ASTM 7322

The Contractor shall provide a CTR with independent laboratory analysis for the required parameters per subsection 106.13.

- (e) *Humate*. The Contractor shall provide a screened dry granular form of organic humic and fulvic acid substance. Humate shall be pre-packaged and labeled from the

10

manufacturer. Bags (containers) which arrive at the project site opened, damaged, or lacking label will be rejected. The Contractor shall only use bulk shipments such as tote bags or super sacks that have a manufacture's original label and sealed at the manufacturing facility. Humate shall be stored in locations not exceeding 80°F. Humate shall be provided per the rates shown on the plans. Product shall conform to the parameters in Table 212-10 and Table 212-11.

Table 212-10
Screened Size Requirements for Humate

Seeding Method	Reported as	Requirement
Seeding (Native) Drill, Hydraulic and Broadcast	inches	< 1/4

11

Table 212-11
Performance and Physical Requirements of Humate

Parameters	Reported as	Requirement	Test Method
Organic Matter	%, dry weight basis	>70%	
Fines (material that is finer than the No. 200 (75- μ m) sieve)	%, dry weight basis	<2%	ASTM D7928
pH	pH units	3.0 - 4.5	ASTM D1293
Acute Toxicity	Pass / Fail	Non Toxic	ASTM 7101 or EPA Method 2021 or 2002
Humic and Fulvic Acids	%, dry weight basis	> 70%	A & L Western method; total alkali extractable
Carbon Content	%, dry weight basis	40% - 50%	
Moisture Content	%, dry weight basis	< 20%	
Heavy Metal / Ash Content	%, dry weight basis	< 15%	

The Contractor shall provide a CTR with independent laboratory analysis for the required parameters per subsection 106.13.

12

(f) *Mycorrhizae*. Mycorrhizae shall arrive onsite in original and undamaged packaging. Handling of this material shall follow manufacturer's safety recommendations. Mycorrhizae shall be stored onsite in such a way as to avoid exposure to direct sunlight for more than four hours and to prevent package temperatures to rise above 85 °F. The endo mycorrhizal inoculum shall provide at least 60,000 propagules per pound and shall contain all of the following species and conform to the parameters in Table 212-12:

- (1) *Glomus intraradices* (a.k.a. *Rhizophagus intraradices*)
- (2) *Glomus mosseae* (a.k.a. *Funneliformis mosseae*)
- (3) *Glomus aggregatum* (a.k.a. *rhizophagus aggregatus*)
- (4) *Glomus etunicatum* (a.k.a. *Claroideoglomus etunicatum*)

Table 212-12
Physical Requirements of Endo Mycorrhizae

Parameters	Reported as	Requirement	Test Method
Acute Toxicity	Pass or Fail	Non Toxic	ASTM 7101 or EPA Method 2021 or 2002

The Contractor shall provide a CTR with independent laboratory analysis for the required parameters per subsection 106.13.

The following rates shall be used for Seeding Methods:

- (1) For Seeding (Native) Drill, the mycorrhizae product shall be provided as a dry free-flowing granular material, suitable for application by agricultural drill seeder. Application rate shall be 8 pounds per acre.
- (2) For Seeding (Native) Hydraulic, the mycorrhizae product shall be provided as a fine granular (< 2 mm) or powdered form (particle size less than 300 microns) that will permit complete suspension and used with hydro-seeder equipment. Application rate shall be 20 pounds per acre.
- (3) For Seeding (Native) Broadcast, the mycorrhizae product shall be provided as a dry free-flowing granular material, suitable for application by fertilizer spreader. Application rate shall be 20 pounds per acre.

13

- (g) *Elemental Sulfur*. The Contractor shall provide a free-flowing granular material consistent in size suitable for application by agricultural spreader and conform to the parameters in Table 212-13. Elemental sulfur shall arrive onsite in original and undamaged packaging.

Table 212-13
Physical Requirements of Elemental Sulfur

Parameters	Reported as	Requirement
Guaranteed Analysis of Elemental Sulfur (S)	%	> 90
Bulk Density	Lb per cu. ft.	> 75

- (h) *Sod*. Sod shall be nursery grown and 99 percent weed free. Species shall be as shown on the plans. The 1 percent allowable weeds shall not include undesirable perennial or annual grasses or plants defined as noxious by current State statute or county noxious weed list. Soil thickness of sod cuts shall not be less than $\frac{3}{4}$ inch or more than 1 inch. Sod shall be cut in uniform strips with minimum dimensions of 18 inches in width and 48 inches in length. The Contractor shall submit a sample of the sod proposed for use, which shall serve as a standard if approved. Sod furnished, whether in place or not, that is not up to the standard of the sample will be rejected. CDOT will reject all sod that was cut more than 72 hours before installation.

Each load of sod shall be accompanied by a certificate from the grower stating the type of sod and the date and time of cutting. The Contractor shall submit the certificate to the Engineer before application of the sod. Only sod that is accompanied by the certificate from the grower will be accepted and paid for.

Construction Requirements

212.03 Submittals. The Contractor shall provide the name and contact information of the seeding contractor 30 days before start of seeding work. The Contractor shall provide two copies of items (1) - (14) listed below to the Pre-vegetation Conference per Section 207. When the Contractor provides resubmittals to meet Contract requirements, the Region or Headquarters Landscape Architect shall be copied on all correspondence.

- (1) Written confirmation from the registered seed supplier, on the Contractor's letterhead, that the Contract specified seed has been secured. No substitutions of the contract specified seed will be permitted unless evidence is submitted, from one of the registered seed suppliers that the Contract specified seed is not available and will not become available during the anticipated construction period.

14

- (2) Seed vendor's "seed dealer" endorsement.
- (3) A copy of each seed species germination report of analysis that verifies the lot has been tested by a recognized laboratory for seed testing within 13 months before the date of seeding.
- (4) A copy of each seed species purity laboratory report of analysis that verifies that the lot has been tested by a recognized laboratory for seed testing. The report shall list all identified species, seed count, and date of test.
- (5) Manufacturer's documentation stating that the fertilizer meets the Contract requirements.
- (6) Organic fertilizer documentation showing manufacturer and chemical analysis.
- (7) Permit issued from CDPHE confirming that the vendor can produce or sell compost per House Bill (HB) 1181.
- (8) Documentation from the compost manufacturer that it is a participating member of in the U.S. Composting Council's Seal of Testing Assurance Program (STA).
- (9) Results of compost testing on an STA Compost Technical Data Sheet confirming all required test methods are met using the STA Program.
- (10) Sample of physical compost (at least one cubic foot of material).
- (11) Manufacturer's documentation confirming that biotic soil amendment meets the required physical and performance criteria based on independent testing by the manufacturer.
- (12) Manufacturer's documentation confirming that humate meets the required physical and performance criteria based on independent testing by the manufacture.
- (13) Manufacturer's documentation confirming that mycorrhizae meet the physical criteria based on independent testing and that the minimum required species is provided.
- (14) Pictures and descriptions of seeding equipment proposed to be used on the project. Based on the seeding methods required at a minimum this should include the drill seeder, hydraulic seeder, cultipacker or seed bed roller implements.
- (15) Instructions and documentation on how seeders will be calibrated onsite, per subsection 212.05(a).

212.04 Seeding Seasons. Seeding in areas that are unirrigated shall be restricted according to the parameters in Table 212-14.

15

**Table 212-14
Seeding Seasons**

Areas other than the Western Slope

Zone	Spring Seeding	Fall Seeding
Below 6000'	Spring thaw to June 1	September 15 until consistent ground freeze
6000' - 7000'	Spring thaw to June 1	September 1 until consistent ground freeze
7000' - 8000'	Spring thaw to July 15	August 1 until consistent ground freeze
Above 8000'	Spring thaw to consistent ground freeze	

Western Slope

Zone	Spring Seeding	Fall Seeding
Below 6000'	Spring thaw to May 1	August 1 until consistent ground freeze
6000' - 7000'	Spring thaw to June 15	September 1 until consistent ground freeze
Above 7000'	Spring thaw to consistent ground freeze	

- (1) "Spring thaw" is the earliest date in a new calendar year in which seed can be buried 1/2 inch into the surface soil (topsoil) through normal drill seeding methods.
- (2) "Consistent ground freeze" is the time during the fall months in which the surface soil (topsoil), due to freeze conditions, prevents burying the seed 1/2 inch through normal drill seeding operations. Seed shall not be sown, drilled, or planted when the surface soil or topsoil is in a frozen or crusted state.

Seeding accomplished outside the time periods listed above will be allowed only when the Contractor's request is approved by the Engineer in writing, with coordination from the Region Landscape Architect. If requested by the Contractor, the Contractor must agree to perform the following work at no cost to the Department: reseed, remulch, and repair areas which fail to produce species indicated in the Contract.

If seeding is ordered by the Engineer outside the time periods listed above, the cost to repair areas that fail to produce species will be paid for by the Department.

16

212.05 Native Seeding Methods. Areas to be seeded shall be installed per SWMP Permanent Stabilization Plan.

All amendments and seeding shall be applied based on the seeding method and rates specified on the plans.

The Contractor shall complete the Amendments Verification Prerequisite for each of the seeding methods described herein. This shall be done by completing a Seed and Amendment Quantities Worksheet for each work area. This worksheet shall have a list of all amendments and the seed labels for each of the areas to be worked on. The State required legal tags shall remain on the bag until opened and the seed placed in either the drill or hydraulic seeders in the presence of the Engineer. Seeding work shall not begin until written approval of the worksheet has been received from the Engineer.

In determining the weight of seed required for each work area, the Contractor shall use the Pure Live Seed (PLS) weight shown on each bag of seed. Calculations based on net weight will not be accepted.

The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer before the Pre-revegetation Conference for approval showing how the SWMP Permanent Stabilization Plans will be implemented to minimize traffic loading damage to subgrade soil prepared and seeded areas. The proposed sequencing shall consider and identify strategies and site management control measures to protect seeded areas from foot, vehicle, and other disturbances. The strategic planning of the permanent seeding and mulch shall consider all other phasing of construction activities including traffic management and utility work. Areas damaged due to the Contractor's failing to protect the seeded areas shall be repaired at no cost to the Department. Seeded areas damaged due to circumstances beyond the Contractor's control shall be repaired and reseeded as ordered. Payment for corrective work, when ordered, shall be at the Contract prices shown and per subsection 109.04.

The following seeding application methods shall not be implemented during winds which are consistently higher than 20 MPH, or when the ground is frozen, excessively wet, or otherwise untillable. The Engineer may test to see if the moisture level in the soil is acceptable to work the soil by performing a Soil Plasticity Test as described in the Construction Manual. Multiple seeding operations shall be anticipated, based on acceptable seeding conditions. The seeding methods to be implemented shall be one or more of the following, as shown on the plans:

17**(a) Seeding (Native) Drill.**

1. Fertilizer, Compost, Humates and Elemental Sulfur. The Contractor shall uniformly apply compost and elemental sulfur on the surface of the topsoil using an agricultural spreader at the rate of application specified on the plans. All competitive, non-native vegetation shall be uprooted and hauled offsite before spreading amendments. Before starting incorporation of compost and elemental sulfur, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet. Verification Prerequisite for this method also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps are not included in the Contract, the Contractor shall use the Contract grading or roadway plan sheets.

Once the Quantities Verification Prerequisite is completed for an area, the Contractor shall homogenously incorporate the compost and elemental sulfur into the top 6 inches of topsoil. Tillage of the amendments shall be completed using a disc and harrow, field cultivator, vibra-shank, or other method suitable to site conditions. For small areas tillage shall be completed using rotary tillers. No measurable depth of organic amendment shall be present on the surface.

The shanks on the back of a grader or dozer shall not be used for tillage. Tillage may take multiple passes to achieve the desired harmonious incorporation. If multiple passes are required, the Contractor shall cross till the soil with the second pass occurring at a 30-degree angle to the first pass. On slope areas, all tillage shall be parallel to the contour. For project that will utilize aggregate or recycled asphalt shouldering material amendments, tillage is not required under shouldering material. Projects seeding up to the edge of pavement, tillage is not required for first 12 inches from the edge of pavement.

Once incorporation of compost and elemental sulfur is approved, the Contractor shall uniformly apply fertilizer and humates on the surface of the topsoil using an agricultural spreader, as shown in the Contract documents.

2. Seedbed Preparation. Amended topsoil shall be cultivated to a firm but friable seedbed using cultipacker or seed bed roller implements. Crusted hard soils shall be broken up and all areas shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension per Section 207. Areas shall be left in a rough and uncompacted condition with a surface variance of 2 to 4 inches.
3. Seed and Mycorrhizae. Before seeding, the finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, drives and other structures. Seeding shall be done within two days of seedbed preparation efforts (tilling or scarifying). If a rain event occurs that compacts or erodes the seedbed before performing seeding, the seedbed shall be re-prepared as directed by the Engineer.

18

Areas shall be seeded by mechanical power drawn drills suitable for area soils, topography, and size followed by packer wheels. Mechanical power drawn drills shall have furrow openers and depth bands set to maintain a planting depth of at least 1/4 inch and not more than 1/2 inch and shall be set to space the rows not more than 8 inches apart. Seeding equipment shall have a double disk opener, seed box agitator, and seed metering device.

The seeder shall be calibrated by collecting seed from a single drop tube in the presence of the Engineer based on the following procedure. The Contractor shall provide the tape measure, scale, collection cup, and seed bag with complete label from the supplier. The Contractor may submit an alternative method for approval at the site Pre-vegetation Conference.

- A. Measure the total width (W) of the drill seeder in feet.
- B. Count the number of drill rows (N) on the seeder.
- C. On drill seeders that the tire drives the seeding mechanism, measure the tire circumference (C) in feet.
- D. Calculate the number of rotations the tire will complete per acre using the following equation:

$$A = \text{one acre or } 43,560 \text{ square feet (SF)}$$

$$A / W = \text{feet (F) the drill seeder needs to travel for each acre}$$

$$F / C = \text{number of rotations (R) of the tire per acre}$$
- E. Reduce the amount of tire rotations by one tenth.

$$.90R = \text{\# Tire rotations to calibrate seeder (RCS)}$$
- F. Find the seeding rate (LBS PLS / Acre) on the Stormwater Management Plan.
- G. Using the information from the seed tag, convert the PLS seed rate to a bulk seeding rate using the following equations:

$$\% \text{ PLS} = (\% \text{ purity (in decimal form) from seed label}) \times (\% \text{ germination (in decimal form) from seed label})$$

$$(\text{LBS PLS} / \text{Acre}) \text{ from the SWMP} / \% \text{ PLS} = \text{Required bulk seed per acre in LBS}$$
- H. Reduce the required bulk seed per acre based on the number of seeder tubes.

$$\text{Required bulk seed per acre} / N = \text{Weight in LBS of bulk seed from one tube}$$
- I. Reduce the required bulk seed rate from the tube by one tenth.

$$0.90 \times \text{Weight of bulk seed from one tube} = \text{Collected bulk seed weight (CBS) in LBS}$$
- J. Set the drill seeder to the correct seeding rate using the manufacturer's recommendation.
- K. With the collection cup under one tube and the driving wheel jacked up, rotate the tire the RCS number of times. Use the value stem to count the rotations.
- L. Using the scale, weigh the seed in the collection cup.
- M. Adjust the drill calibration until the weight of bulk seed in the collection cup equals the CBS in LBS.

19

Drill seeders shall be recalibrated every time the drill is mobilized onsite. The Contractor shall submit a written statement that the equipment is calibrated and shall provide the correct depth based on conditions before seeding actions are initiated. The Contractor shall continuously monitor equipment to ensure that it is providing a uniform seed application.

If mycorrhizae are called for on the plans, the granules shall be included with the seed in the drill seeder such that the mycorrhizae are placed at or below the seed.

The distance between furrows produced using the drill shall not be more than 8 inches. If rows on the drill exceed 8 inches, the Contractor shall drill the areas twice (if achievable at 30-degree angles to each other) at no additional cost to the Department.

After seeding, the furrows that were created by the drill shall be maintained in place. Construction traffic, other than what is needed to mulch the areas, shall not be permitted on the areas completed.

Permanent stabilization mulching shall be accomplished within 24 hours of drill seeding.

(b) Seeding (Native) Hydraulic.

This method utilizes water as the carrying agent and mixes biotic soil amendments, seed, organic fertilizer, humates, mycorrhizae and elemental sulfur into a single slurry for hydraulic application. The Contractor shall furnish and place combined slurry with a hydro-seeder that will maintain a continuous agitation and apply homogenous mixture through a spray nozzle. The pump shall produce enough pressure to maintain a continuous, non-fluctuating spray that will reach the extremities of the seeding area. Water tanks shall have a means of measuring volume in the tank. Seed shall be added to the slurry onsite, no more than 60 minutes before starting application. Slurry shall be applied from a minimum of two opposing directions to achieve complete soil coverage.

The application of the single slurry shall be applied within four hours of adding Mycorrhizae.

The Contractor shall prevent seed, fertilizer, and mulch from falling or drifting onto areas occupied by rock base, rock shoulders, plant beds, or other areas where grass is detrimental. The Contractor shall remove material that falls on plants, roadways, gravel shoulders, structures, and other surfaces where material is not specified.

- A. *Seedbed Preparation.* All areas shall be loosened to at least 6 inches, leaving the surface in rough condition with a surface variance of 6 to 8 inches. On steep slopes, tillage shall be accomplished with appropriate equipment as the slope is constructed. Soil areas shall be tilled to produce loose and friable surfaces with crusted hard soils broken up. All slopes shall be free of clods, sticks, stones, debris, concrete, asphalt and all other materials in excess of 4 inches in any dimension. All competitive, non-

20

native vegetation shall be uprooted and hauled offsite before spreading amendments. Under no circumstances shall the ground surface be smooth and compacted.

- B. *Biotic Soil Amendment, Fertilizer, Humate, Mycorrhizae and Seed*. The Contractor shall assemble all materials for proposed areas to hydro-seed and review quantities with area of coverage with the Engineer as the Quantities Verification Prerequisite for this method. Before mixing in the tank, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet that the correct quantities are onsite. This quantities verification prerequisite also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps were not included in the Contract, grading or roadway plan sheets shall be used. For the verification process, the Contractor shall provide the Engineer with all documentation for materials in unopened packaging.

After the Quantities Verification Prerequisite has been approved, the hydro-seeder shall be filled with water to 1/3 of its required volume. Following this, water and biotic soil amendments shall be added to the hydro-seeder at a consistent rate. The ratio of water to Biotic Soil Amendments shall be per manufacturer's recommendations. Fertilizer, humates and mycorrhizae shall then be added until the tank has reached 3/4 of its required volume. The tank shall then be filled with water to the required volume. Uniform slurries shall be agitated or mixed for a minimum of ten minutes after all water and materials are in the tank.

Hydraulic seeding equipment shall include a pump capable of being operated at 100 gallons per minute and at 100 pounds per square inch pressure. The equipment shall have a nozzle adaptable to hydraulic seeding requirements. Storage tanks shall have a means of estimating the volume used or remaining in the tank.

Seed shall be added to the slurry onsite no more than 60 minutes before starting application. The Contractor shall increase the Seed Plan rates (LBS PLS / Acre) as shown on the plans by 1.5 times at no additional cost to the Department. The Contractor may be required to apply slurry using multiple hoses to ensure uniform application to all areas of the site. Coverage rates shall be based on the volume of material in the tank, as verified by the Engineer. Areas of lighter applications (covering more area than what is calculated) will require additional application, as directed.

An appropriate curing period shall be per manufacturer's recommendations and shall consider forecasted weather conditions.

Permanent stabilization mulching shall be accomplished within 24 hours of hydraulic application of native seed.

(c) Seeding (Native) Broadcast.

This method utilizes hand equipment to broadcast spread amendments and seed over

21

prepared seedbeds.

- A. *Fertilizing, Compost, Humate and Elemental Sulfur.* The Contractor shall uniformly apply compost and elemental sulfur on the surface of the placed topsoil using an agricultural spreader at the rate of application specified on the plans. All competitive non-native vegetation shall be uprooted and hauled offsite before spreading amendments. Before starting incorporation, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet that the correct quantities will be applied. The Quantities Verification Prerequisite for this method also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps are not included in the Contract, the grading or roadway plan sheets shall be used.

Once the Quantities Verification Prerequisite is completed for an area, the Contractor shall homogenously incorporate the Compost into the top 6 inches of soil. Tillage of the amendments shall be completed using appropriate tools depending on the size of the area to be worked. Contractor shall use hand tillers or approved small space implements.

Once incorporation of compost and elemental sulfur is approved, the Contractor shall uniformly apply organic fertilizer and humates on the surface of the topsoil using an agricultural spreader.

- B. *Seedbed Preparation.* Amended topsoil shall be cultivated to a firm but friable seedbed using tractor implements. Crusted hard soils shall be broken up and all areas shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension per Section 207. Areas shall be left in a rough condition with a surface variance of 2 to 4 inches. Under no circumstances shall the ground surface be smooth and compacted.
- C. *Seed and Mycorrhizae.* Before seeding, the finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, drives and other structures. Seeding shall be accomplished within two days of seedbed preparation efforts (tilling or scarifying) to make additional seedbed preparation unnecessary. If a rain event occurs that compacts or erodes the seedbed before performing seeding, the seedbed shall be re-prepared as directed.

22

Areas shall be seeded by broadcast-type seeders (cyclone or approved mechanical seeders). The Contractor shall increase the Seed Plan rates (LBS PLS / Acre) as shown on the plans by 1.5 times at no additional cost to the Department.

After seeding, mycorrhizae shall be evenly hand-distributed across the area. Seed and mycorrhizae shall be covered by hand raking and covering with $\frac{1}{4}$ to $\frac{1}{2}$ inch of topsoil. To ensure seeds have a firm contact with the soil the Contractor shall use a heavy roller as approved in the Site Pre-vegetation Conference. Mycorrhizae shall not be exposed to sunlight for more than four hours. Using equipment with continuous cleat tracks (cat-tracking) to cover seed is not permitted.

Permanent stabilization mulching shall be accomplished within 24 hours of broadcast seed application of native seed.

212.06 Seeding (Temporary). Areas of topsoil shall be seeded with annual grasses per SWMP Interim Site Maps or as directed by the Engineer.

Seeding may take place at any time during the year as long as the ground is not covered in snow and topsoil is not frozen. Topsoil may be placed in a stockpile or distributed on-grade after receiving subgrade soil preparation.

Interim stabilization for areas that receive temporary seeding shall be per subsection 208.04(e)2. Seed shall not be included with interim hydraulic mulch applications.

The Contractor shall wait to amend topsoil until the area is ready for permanent seeding with native seed mix shown on the SWMP. The Contractor shall use either the drill, hydraulic, or broadcast method of seeding. Seeding rates (LBS PLS / Acre) shall be increased by 1.5 times for hydraulic and broadcast methods at no additional cost to the Department.

Seed shall meet the requirements of 212.02(a) and shall be selected from Table 212-1 based on the application time.

**Table 212-15
Temporary Seed Mixes**

Common Name	Botanical Name	Application Time	Seeding Rates (LBS PLS / Acre)	Planting Depth (inches)
Oats	Avena sativa	October 1 - May 1	35	1 - 2
Foxtail Millet	Setaria italica	May 2 - September 30	30	1/2 - 3/4

The Contractor shall restrict motorized vehicle and foot traffic from areas that have received temporary seeding.

212.07 Seeding (Lawn). Lawn grass seeding shall be accomplished in the seeding seasons

23

per subsection 212.03.

- (a) *Fertilizing and Soil Conditioning.* The first application of fertilizer, soil conditioner, or both shall be incorporated into the soil immediately before seeding, and shall consist of a soil conditioner, commercial fertilizer, or both as designated in the Contract. Fertilizer called for on the plans shall be worked into the top 4 inches of soil at the rate specified in the Contract. Biological nutrient, culture, or humate based material called for on the plans shall be applied in a uniform application onto the soil service. Organic amendments shall be applied uniformly over the soil surface and incorporated into the top 6 inches of soil.

The second application of fertilizer shall consist of a fertilizer having an available nutrient analysis of 20-10-5 applied at the rate of 100 pounds per acre. It shall be uniformly broadcast over the seeded area three weeks after germination or emergence. The area shall then be thoroughly soaked with water to a depth of 1 inch.

Fertilizer shall not be applied when the application will damage the new lawn.

- (b) *Seedbed Preparation.* In preparation of seeding lawn grass, irregularities in the ground surface, except the saucers for trees and shrubs, shall be removed. Measures shall be taken to prevent the formation of low places and pockets where water will stand.

Immediately before seeding, the ground surface shall be tilled or hand worked into an even and loose seedbed to a depth of 6 inches, free of clods, sticks, stones, debris, concrete, and asphalt in excess of 2 inches in any dimension and brought to the desired line and grade.

- (c) *Seeding.* Seed shall be drilled with mechanical landscape type drills. Broadcast type seeders or hydraulic seeding will be permitted only on small areas not accessible to drills. Seed shall not be drilled or broadcast during windy weather or when the ground is frozen or untillable.

212.08 Sodding.

- (a) *Fertilizing and Soil Conditioning.* Before laying sod, the 4 inches of subsoil underlying the sod shall be treated by tilling in fertilizer, compost, or humates as specified on the plans. Amendments shall be applied uniformly over the soil surface and incorporated into the top 6 inches of soil.

After laying the sod, it shall be fertilized with a fertilizer having a nutrient analysis of 20-10-5 at the rate of 200 pounds per acre. Fertilizer shall not be applied when the application will damage the sod.

- (b) *Soil Preparation.* Before sodding, the ground shall be tilled or hand worked into an even and loose sod bed to a depth of 6 inches, and irregularities in the ground surface shall be removed. Sticks, stones, debris, clods, asphalt, concrete, and other material more than 2 inches in any dimension shall be removed. Depressions or variances from a smooth grade

24

shall be corrected. Areas to be sodded shall be smooth before sodding occurs.

- (c) *Sodding*. Sod shall be placed by staggering joints with all edges touching. On slopes, the sod shall run approximately parallel to the slope contours. Where the sod abuts a drop inlet, the subgrade shall be adjusted so that the sod shall be 1-½ inches below the top of the inlet.

Within one hour after the sod is placed and fertilized it shall be watered. After watering, the sod shall be permitted to dry to the point where it is still wet enough for effective rolling. The Contractor shall roll the sod in two directions with a lawn roller capable of applying between 50 - 80 pounds per square inch of surface pressure to eliminate air pockets.

Method of Measurement

212.09 The quantities of lawn seeding, and the three native seeding types will not be measured but shall be the quantities designated in the Contract, except that measurements will be made for revisions requested by the Engineer, or for discrepancies of plus or minus five percent of the total quantity designated in the Contract.

The quantity of sod will be by the actual number of square feet, including soil preparation, water, fertilizer, and sod, completed and accepted.

Organic Fertilizer, Compost (Mechanically Applied), Humates, Mycorrhizae soil amendments for Seeding (Native) methods drill, hydraulic, and broadcast will be measured by the actual quantity of material applied and accepted.

Measurement for acres will be by slope distances.

Basis of Payment

212.10 The accepted quantities of lawn seeding, native seeding, soil conditioning, and sod will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule. Rejected seed that has been stored longer than 30 days shall be re-ordered at the expense of the Contractor.

25

Payment will be made under:

Pay Item	Pay Unit
Organic Fertilizer	Pound
Compost (Mechanically Applied)	Cubic Yard
Biotic Soil Amendments (Hydraulic Applied)	Pound
Humate	Pound
Mycorrhizae	Pound
Elemental Sulfur	Pound
Seeding (Native) Drill	Acre
Seeding (Native) Hydraulic	Acre
Seeding (Native) Broadcast	Acre
Seeding (Wetland) Drill	Acre
Seeding (Wetland) Hydraulic	Acre
Seeding (Wetland) Broadcast	Acre
Seeding (Temporary)	Acre
Seeding (Lawn)	Acre
Sod	Square Foot

Topsoil preparation including incorporating and applying amendments, seedbed preparation, water, and seed mix (LBS PLS / Acre) will not be measured and paid for separately but shall be included in the work.

Calibrating, adjusting, or readjusting seeding or fertilizing equipment will not be measured and paid for separately but shall be included in the work.

No additional cost will be accepted for approved substitution of specified seed mix.

No payment will be made for areas seeded using one of the seeding methods without receiving signed Seed and Amendment Quantities Worksheet from the Engineer.

Additional seedbed preparation before seeding to correct compaction or erosion from storm events will not be measured and paid for separately but shall be included in the work.

Additional mobilizations as needed to complete seeding within allowed seeding seasons will not be measured and paid for separately but shall be included in the work.

Removal of all competitive, non-native vegetation before spreading amendments will not be measured and paid for separately but shall be included in the work.

Revision Of Section 401 Plant Mix Pavements - General

Section 401 of the Standard Specifications shall be revised as follows:

Delete Subsection 401.17 of the Standard Specifications and replace with the following:

401.17 Compaction. The hot mix asphalt shall be compacted by rolling. Both steel wheel and pneumatic tire rollers will be required. The number, weight, and type of rollers furnished shall be sufficient to obtain the required density while the mixture is in a workable condition. Compaction shall begin immediately after the mixture is placed and be continuous until the required density is obtained. When the mixture contains unmodified asphalt cement (PG 58-28 or PG 64-22) or modified (PG 58-34), and the surface temperature falls below 185 °F, further compaction effort shall not be applied unless approved, provided the Contractor can demonstrate that there is no damage to the finished mat. If the mixture contains modified asphalt cement (PG 76-28, PG 70-28 or PG 64-28) and the surface temperature falls below 230 °F, further compaction effort shall not be applied unless approved, provided the Contractor can demonstrate that there is no damage to the finished mat.

Warm Mix Asphalt compaction requirements shall conform to CP 59.

All roller marks shall be removed with the finish rolling. Use of vibratory rollers with the vibrator on will not be permitted during surface course final rolling and will not be permitted on any rolling on bridge decks covered with waterproofing membrane.

SMA shall be compacted to a density of 93 to 98 percent of the daily theoretical maximum specific gravity, determined according to CP 51. All other HMA shall be compacted to a density of 92 to 98 percent of the daily theoretical maximum specific gravity, determined according to CP 51. If more than one theoretical maximum specific gravity test is taken in a day, the average of the theoretical maximum specific gravity results will be used to determine the percent compaction. Field density determinations will be made per CP 44 or 81.

The longitudinal joints shall be compacted to a density of 90 to 98 percent of the theoretical maximum specific gravity. The theoretical maximum specific gravity used to determine the joint density will be the average of the daily theoretical maximum specific gravities for the material that was placed on either side of the joint. Density (percent relative compaction) will be determined per CP 44.

The Contractor shall obtain one 6-inch diameter core at a random location within each longitudinal joint sampling section for determination of the joint density. The Contractor shall mark and drill the cores at the location directed by the Engineer and

in the presence of the Engineer. The Engineer will take possession of the cores for testing. The Contractor may take additional cores at his own expense. Coring locations shall be centered on the visible line where the joint between the two adjacent lifts abuts the surface. The center of all joint cores shall be within 1 inch of this visible joint line. Core holes shall be repaired by the Contractor using materials and methods approved by the Engineer. PC and OA joint coring shall be completed within five calendar days of joint construction.

Longitudinal joint coring applies to all pavement layers. When constructing joints in an echelon paving process, the joints shall be clearly marked to ensure consistent coring location. In small areas, such as intersections, where the Engineer prescribes paving and phasing methods, the Engineer may temporarily waive the requirement for joint density testing.

Incentive or disincentive payment determined for joint density per subsection 105.05 will apply to the HMA on each side of the joint. If a layer of pavement has joints constructed on both sides, incentive or disincentive payment for each of those joints will apply to one half of the pavement between the joints.

Along forms, curbs, headers, walls, and all other places not accessible to the rollers, the mixture shall be thoroughly compacted with mechanical tampers.

Any mixture that becomes loose and broken, mixed with dirt, or is in any way defective, shall be immediately removed and replaced with fresh hot mixture, and compacted to conform to the surrounding area.

The Contractor shall construct a compaction pavement test section (CTS) for each job mix where 2,000 or more tons are required for the project. The CTS will be used to evaluate the number of rollers and the most effective combination of rollers and rolling patterns for achieving the specified densities. Factors to be considered include, but are not limited to, the following:

- (1) Number, size, and type of rollers.
- (2) Amplitude, frequency, size and speed of vibratory rollers.
- (3) Size, speed, and tire pressure of rubber tire rollers.
- (4) Temperature of mixture being compacted.
- (5) Roller patterns.

The CTS shall be constructed according to the following procedures:

The CTS shall be constructed to provide the nominal layer thickness specified. The first 500 tons of hot mix asphalt on the project location shall constitute the CTS. The production and placement rates of the CTS shall closely approximate the anticipated production and placement rates for the remainder of the Contract.

Compaction of the CTS shall commence immediately after the hot mix asphalt has been spread and shall be continuous and uniform over the entire CTS. For the CTS, compaction shall continue until no discernible increase in density is obtained by additional compactive efforts. All compaction shall be completed before the surface temperature of the mixture drops below 185 °F.

Approved types of rollers shall be used to achieve the specified density. The Contractor shall determine what methods and procedures are to be used for the compaction operation. The compaction methods and procedures shall be used uniformly over the entire last 200 tons. The Contractor shall record the following information and a copy of this data shall be furnished to the Engineer.

- (1) Type, size, amplitude, frequency, and speed of roller.
- (2) Tire pressure for rubber tire rollers, and whether the pass for vibratory rollers is vibratory or static.
- (3) Surface temperature of mixture behind the laydown machine and subsequent temperatures and densities after each roller pass.
- (4) Sequence and distance from laydown machine for each roller, and number of passes of each roller to obtain specified density.

Two sets of random cores shall be taken within the last 200 tons of the CTS. Each set shall consist of seven random cores. The Engineer will determine the coring locations using a stratified random sampling process. The locations of these cores will be such that one set can serve as a duplicate of the other. One set of these cores shall be immediately submitted to the Engineer. This set will be used for determining acceptance of the CTS and determining density correction factors for nuclear density equipment. Densities of the random samples will be determined by cores according to CP 44. Density correction factors for nuclear density equipment will be determined according to CP 81. Coring shall be performed under CDOT observation. Coring will not be measured and paid for separately but shall be included in the work. For SMA, a CTS is not used. The Contractor shall follow the requirements for the demonstration control strip per the Revision of Section 403, Stone Matrix Asphalt Pavement.

The CTS meets requirements if the Quality Level of the random samples is greater than or equal to 75. The Quality Level will be determined according to CP 71. Once constructed and accepted, the CTS shall remain in place and become part of the hot mix asphalt on the project.

When the Quality level is less than 75 the Contractor shall construct an additional test section, utilizing different rollers, or roller positions, or roller patterns as required. A written proposal detailing the changes in methods and procedures that will be used to obtain density is to be submitted to the Engineer for review before constructing the additional test section.

If the Quality Level of a CTS is less than 75 and greater than or equal to 44, the Engineer may accept the material at a reduced price per Section 105.

If the Quality Level of a CTS is less than 44, the Engineer may:

- (1) Require complete removal and replacement with specification material at the Contractor's expense.
- (2) Where the finished product is found to be capable of performing the intended purpose and the value of the finished product is not affected, as determined by the Engineer, permit the Contractor to leave the material in place with a pay factor, but not more than 75 percent of the bid price.

Each CTS shall be 500 tons. If in-place densities of the CTS, as determined by nuclear density equipment before determining density of the cores, meet the CTS density requirements, the Contractor may begin production paving and continue to place hot mix asphalt pavement under the following conditions:

- (1) The period during which the Contractor continues to pave without test results from cores shall not exceed one workday.
- (2) Construction proceeds at the Contractor's risk. If correlation with the cores reveals that the densities do not meet the CTS requirements, the hot mix asphalt pavement placed subsequently will be subject to price reduction or removal and replacement.

After production paving work has begun, a new CTS shall be required for different layers of pavement, unless otherwise approved by the Engineer. Each additional CTS shall be constructed and documented as specified herein, and shall be sampled, tested, and accepted or rejected as described herein.

All additional costs associated with construction of the CTS shall be at the Contractor's expense. The hot mix asphalt placed in the CTS will be paid for per subsection 401.22, at the contract price for the hot mix asphalt.

If the Contractor requests changes to the roller pattern that was established during the CTS, the Contractor must perform a Roller Pass Study to demonstrate that the specified density is obtained with the new roller pattern before proceeding with the paving operation with Engineer Approval.

Revision of Section 614

Rectangular Rapid Flashing Beacon

Revise Section 614 to include the following:

Description

This work consists of the procurement and installation of Rectangular Rapid Flashing Beacon (RRFB) units in accordance with the plans, specifications, and all Americans with Disability Act (ADA) requirements.

Materials

The RRFB unit shall be selected from CDOT's Approved Products List (APL). The following shall be included in the installation of the unit:

(a) RRFB Light-Emitting Diode (LED) Signs

1. RRFB LED

- A. Each RRFB unit shall consist of two rapid flashing rectangular-shaped yellow indications with an LED-array-based light source and a pedestrian-actuated pilot light or rectangular-shaped indication.
- B. The size of each RRFB indication facing vehicular traffic shall be at least 5 inches wide by at least 2 inches high. Pedestrian-actuated pilot lights or rectangular-shaped indications shall be visible from the actuation location, confirming the RRFB is in operation.
- C. The two yellow indications for each RRFB unit shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of at least 7 inches, measured from the nearest edge of one indication to the nearest edge of the other indication.
- D. The outside edges of any RRFB indication, including any housing, shall not extend beyond the outside edges of the sign it supplements.

2. Beacon Flashing Requirements

- A. The LEDs used in the light bar shall meet the Society of Automotive Engineers (SAE) J595 requirement for Class 1 Yellow peak luminous intensity.
- B. The flash rate of each individual RRFB indication, as applied over the full flashing sequence, shall not exceed 5 flashes per second.
- C. The RRFB shall provide 75 flash sequences per minute and operate using the sequences listed:

- (1) The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds.

Revision of Section 614

Rectangular Rapid Flashing Beacon

- (2) Both RRFB indications shall be dark for approximately 50 milliseconds.
- (3) The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds.
- (4) Both RRFB indications shall be dark for approximately 50 milliseconds.
- (5) The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds.
- (6) Both RRFB indications shall be dark for approximately 50 milliseconds.
- (7) The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds.
- (8) Both RRFB indications shall be dark for approximately 50 milliseconds.
- (9) Both RRFB indications shall be illuminated for approximately 50 milliseconds.
- (10) Both RRFB indications shall be dark for approximately 50 milliseconds.
- (11) Both RRFB indications shall be illuminated for approximately 50 milliseconds.
- (12) Both RRFB indications shall be dark for approximately 250 milliseconds.

D. An automatic signal dimming device shall be used to reduce the brilliance of the RRFB indications during nighttime conditions.

E. The vendor must submit a Certification of Compliance verifying that the RRFB meets this specification.

(b) Controls (Mounted within Enclosure Cabinet)

- 1. The RRFB may be powered by hard-wired electrical service or solar-powered systems, as indicated on the plans.
- 2. One each Enclosure Cabinet- NEMA 3R Aluminum w/Traffic Key (pole mount).
- 3. One each 12V DC Power Supply (4.2 Amp @ 110 to 120V, 50 Amp @ 12V) (Not needed for solar powered sign)
- 4. One 12V DC Programmable Timer. The timer shall be capable of timing crossing upon actuation and retiming crossing upon new actuation in the event that the crossing cycle has not completed.
- 5. The Control Cabinet shall include a disconnect for the RRFB unit.
- 6. The flasher shall be capable of operating in a temperature range of -30°F and +122°F.

Revision of Section 614

Rectangular Rapid Flashing Beacon

7. The battery shall be capable of operating in a temperature range of -40°F to +140°F.

(c) Solar-powered rectangular Rapid Flash Beacon signs shall include:

1. Solar Panels.
2. 900 MHz, or approved equivalent technology, wireless communication control.
3. Solar Panel Mounts.
4. Slip fitter for pole.
5. Battery.
6. Regulator Solar charge controller
7. Wiring kit- for solar panel and battery.

(d) Accessible Pedestrian Features:

RRFB units shall comply with R206 “Pedestrian Signal Heads and Pedestrian Activated Warning Devices” of the Public Right-of-Way Accessibility Guidelines (PROWAG). The following accessible features shall be included and available at all times for RRFB systems:

1. The pedestrian push button shall incorporate a locator tone that complies with R307.8 of PROWAG.
2. The pedestrian push button or passive detection device shall activate a speech message.
3. The volume of the speech message shall be louder than ambient sound up to a maximum volume of 5 dBA louder than ambient sound. Automatic volume adjustment in response to ambient traffic sound shall be a maximum volume of 100 dBA. Where audible beaconing is provided in response to an extended push button press, the beaconing can exceed 5 dBA louder than ambient sound.
4. The speech message shall not include vibrotactile features indicating a walk interval.
5. The pedestrian push button shall have a tactile arrow with high visual contrast that is aligned parallel to the direction of travel on its associated crosswalk.

RRFB units may incorporate an extended push button press to provide additional features and shall be installed as indicated on the plans. Where an extended push button is used to provide additional features:

- A. A push button press of less than one second shall actuate only the pedestrian timing and any associated accessible walk indication.

Revision of Section 614

Rectangular Rapid Flashing Beacon

- B. A push button press of one second or more shall actuate the pedestrian timing, any associated accessible walk indication, and any additional features.
- C. If additional crossing time is provided by means of an extended push button press, a sign so indicating shall be mounted adjacent to or integral with the pedestrian push button.

Construction Requirements

The Contractor is required to submit shop drawings of the RRFB unit to the Engineer for review and approval two weeks prior to purchasing equipment.

All wiring, electrical connections, and controls shall conform to manufacturer recommendations. The Control Cabinet shall be wired to the RRFB through a one-inch electrical conduit capable of a 120V power connection, unless otherwise shown on the plans or directed by the Engineer.

Method of Measurement

The RRFB unit shall include the LED signs, enclosure cabinet, all associated controls, pedestrian and vehicular indications, poles, signs, pushbutton, foundation, solar power system, and all other components necessary for a fully functional RRFB unit, will not be paid for separately, but shall be included in the cost of the work.

Basis of Payment

Payment will be made under:

Pay Item	Pay Unit
Rectangular Rapid Flashing Beacon	Each

1

AFFIRMATIVE ACTION REQUIREMENTS EQUAL EMPLOYMENT OPPORTUNITY

A. AFFIRMATIVE ACTION REQUIREMENTS

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area are as follows:

Goals and Timetable for Minority Utilization

Timetable - Until Further Notice			
Economic Area	Standard Metropolitan Statistical Area (SMSA)	Counties Involved	Goal
157 (Denver)	2080 Denver-Boulder	Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin, Jefferson.....	13.8%
	2670 Fort Collins	Larimer.....	6.9%
	3060 Greeley	Weld.....	13.1%
	Non SMSA Counties	Cheyenne, Clear Creek, Elbert, Grand, Kit Carson, Logan, Morgan, Park, Phillips, Sedgwick, Summit, Washington & Yuma.....	12.8%
158 (Colo. Spgs. - Pueblo)	1720 Colorado Springs	El Paso, Teller.....	10.9%
	6560 Pueblo	Pueblo.....	27.5%
	Non SMSA Counties	Alamosa, Baca, Bent, Chaffee, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Lake, Las Animas, Lincoln, Mineral, Otero, Prowers, Rio Grande, Saguache.....	19.0%
159 (Grand Junction)	Non SMSA	Archuleta, Delta, Dolores, Eagle, Garfield, Gunnison, Hinsdale, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel	10.2%
156 (Cheyenne - Casper WY)	Non SMSA	Jackson County, Colorado.....	7.5%
GOALS AND TIMETABLES FOR FEMALE UTILIZATION			
Until Further Notice.....			6.9% --
Statewide			

2**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this specification, and in the contract resulting from this solicitation, the "covered area" is the county or counties shown on the Invitation for Bids and on the plans. In cases where the work is in two or more counties covered by differing percentage goals, the highest percentage will govern.

3

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

B. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS

Standard Federal Equal Employment Opportunity Construction Contract Specifications
(Executive Order 11246)

1. As used in these Specifications:
 - a. “Covered area” means the geographical area described in the solicitation from which this contract resulted;
 - b. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. “Employer identification number” means the Federal Social Security number used on the Employer’s Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. “Minority” includes;
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required

4

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractor toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance Programs Office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following;
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with

5

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

specific attention to minority or female individuals working at such sites or in such facilities.

- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and maintain a record of the organization's responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source of community organization and of what action was taken with respect to each individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc., by specific review of the policy with all management personnel and with all minority and female employees at least once a year, and by posting the Contractor's EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

6

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

- g. Review, at least annually, the Contractor's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and Contractor's activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

7

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligation.
- 8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goal and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

8

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

- 13 The Contractor in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form, however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

C. SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES.

1. *General.*
 - a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract. Provisions (Form FHWA 1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract provisions.
 - b. The Contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.
 - c. The Contractor and all his/her subcontractors holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal

9

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The Contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. *Equal Employment Opportunity Policy.* The Contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program;

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include; employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.

3. *Equal Employment Opportunity Officer.* The Contractor will designate and make known to the State highway agency contracting officers and equal employment opportunity officer (herein after referred to as the EEO Officer) who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. *Dissemination of Policy.*

- a. All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum;

- (1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
- (2) All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official,

10

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

covering all major aspects of the Contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the Contractor.

- (3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor's procedures for locating and hiring minority group employees.
- b. In order to make the Contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:
 - (1) Notices and posters setting forth the Contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - (2) The Contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. *Recruitment.*

- a. When advertising for employees, the Contractor will include in all advertisements for employees the notation; "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
- b. The Contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the Contractor will, through his EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the Contractor for employment consideration.

In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the Contractor to do the same, such implementation violates Executive Order 11246, as amended.)

- c. The Contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. *Personnel Actions.* Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken

11

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

without regard to race, color, religion, sex, or national origin. The following procedures shall be followed;

- a. The Contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The Contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The Contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The Contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of his avenues of appeal.

7. Training and Promotion.

- a. The Contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
- b. Consistent with the Contractor's work force requirements and as permissible under Federal and State regulations, the Contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.
- c. The Contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

12

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

8. *Unions.* If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women with the unions, and to effect referrals by such unions of minority and female employees. Actions by the Contractor either directly or thorough a contractor's association acting as agent will include the procedures set forth below:

- a. The Contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- b. The Contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.
- c. The Contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the State highway department and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the Contractor with a reasonable flow of minority and women referrals within he time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such Contractor shall immediately notify the State highway agency.

9. *Subcontracting.*

- a. The Contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.
- b. The Contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

13

**AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY**

10. Records and Reports.

- a. The Contractor will keep such records as are necessary to determine compliance with the Contractor's equal employment opportunity obligations. The records kept by the Contractor will be designed to indicate:
 - (1) The number of minority and nonminority group members and women employed in each work classification on the project.
 - (2) The Progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source of their work force).
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and
 - (4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.
- c. The Contractors will submit an annual report to the State highway agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391.

1

**CERTIFIED PAYROLL REQUIREMENTS
FOR CONSTRUCTION CONTRACTS**

All applicable contractors subject to Davis-Bacon and Related Acts (DBRA) requirements shall submit all payrolls weekly (at least every seven days), related to Form FHWA 1273, *Required Contract Provisions for Federal-Aid Construction Contracts*, and the Colorado Senate Bill 19-196. The Contractor, all subcontractors, and applicable suppliers required to submit certified payrolls shall follow all DBRA requirements, including sections 5.5, 3.5, and 3.6 of the 29 CFR. Contractors shall upload a completed Contractor Fringe Benefit Statement (CFBS) into LCPtracker at least once per project, utilizing the following web link:

<https://prod-cdn.lcptracker.net/login/login>

The CFBS shall include benefit details for employees who perform work on the project. The CFBS shall provide an overview of the bona fide benefits provided by the employer. If a contractor's fringe benefits change during the project's life, a revised CFBS shall be submitted to reflect the changes accurately. Note other deductions by type and amount. Attach required supporting documentation in the LCPtracker system. Contractors, subcontractors, and applicable suppliers shall establish and utilize a process that allows all employees to verify the number of hours and classifications submitted to pay wages and benefits.

The Contractor, subcontractors, and applicable suppliers shall submit payrolls directly into LCPtracker for approval by the Contractor. The prime approver for the Contractor shall approve or reject payrolls within seven days after submission into LCPtracker.

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

1. Definitions.

Terms not defined in this special provision shall have the meaning provided in the *CDOT Standard Specifications for Road and Bridge Construction*.

- A. *CDOT Form 1414 Anticipated DBE Participation Plan*. Document that lists all of the bidder's DBE Commitments and submitted with the bid.
- B. *CDOT Form 1415 Commitment Confirmation*. Document confirming the bidder's Commitments and submitted post-bid.
- C. *CDOT Form 1416 Good Faith Effort Report*. Document that details the actions taken to meet the Contract Goal.
- D. *CDOT Form 1417 Approved DBE Participation Plan*. Document that lists the bidder's approved Commitments at the time of Contract award.
- E. *CDOT Form 1432 Commercially Useful Function Questionnaire*. Document that records and verifies each DBE's CUF for Eligible Participation.
- F. *Commitment*. A portion of the Contract, identified by dollar amount and work area, designated by the bidder or Contractor for participation by a particular DBE. Commitments are initially submitted to CDOT via Form 1414 and/or Form 1415.
- G. *Commercially Useful Function (CUF)*. Responsibility for the execution of the work and carrying out such responsibilities by actually performing, managing and supervising the work per Section 8 of this special provision.
- H. *Contract Goal*. The percentage of the Contract designated by CDOT for DBE participation as specified by the Project Special Provision *Disadvantaged Business Enterprise (DBE) Contract Goal*. For determining whether the Contract Goal was met before award, the Contract Goal will be based upon the proposal amount excluding force account items. In the event a Contract Modification Order increases the amount of the Contract, as described in Section 6 of this special provision, the Contract Goal shall be based on the Total Earnings Amount.
- I. *DBE Program Manual*. The manual maintained by the Civil Rights & Business Resource Center (CRBRC) detailing CDOT's policies and procedures for administering the DBE program.
- J. *Disadvantaged Business Enterprise (DBE)*. A Colorado-certified Disadvantaged Business Enterprise listed on the Colorado Unified Certification Program (UCP) DBE Directory.

**REVISION OF
DISADVANTAGED BUSINESS
ENTERPRISE (DBE) REQUIREMENTS**

- K. *Eligible Participation.* Work by a DBE which counts as valid DBE participation on the Contract and may be used towards fulfillment of a Commitment.
- L. *Good Faith Efforts.* All necessary and reasonable steps to meet the Contract Goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if not fully successful. Good Faith Efforts are evaluated before award and throughout performance of the Contract. For guidance on Good Faith Efforts, see Section 4 of this special provision below.
- M. *Joint Check.* A check issued by the Contractor or one of the Contractor's subcontractors to a DBE firm and a material supplier or other third party for materials or services to be incorporated into the work.
- N. *Race-Neutral.* DBE Participation on the Contract obtained through customary competitive procedures.
- O. *Reduction.* Lessening the Commitment amount to a DBE. A Reduction constitutes a partial termination and includes, but is not limited to, instances in which a Contractor seeks to perform work originally designated for a DBE with the Contractor's own forces or to have that work performed by a business entity other than the committed DBE.
- P. *Subcontractor.* An individual, firm, corporation or other legal entity to whom the Contractor sublets part of the Contract, as per Section 101 in the *Standard Specifications for Road and Bridge Construction*. For purposes of this special provision, the term Subcontractor includes suppliers.
- Q. *Substitution.* When a Contractor seeks to find another DBE to perform work on the Contract as a result of a Reduction or Termination.
- R. *Termination.* When a Contractor no longer intends to use a DBE for fulfillment of a Commitment.
- S. *Total Earnings Amount:* Amount of the Contract earned by the Contractor, including approved Contract Modification Orders and approved force account work performed, but not including deductions for liquidated damages, price reduced material, work time violations, overweight loads or liens. The amount of the Contract earned does not include plan force account items (i.e. OJT, pavement incentives, etc).
- T. *Work Code.* A code to identify the work that a DBE is certified to perform as a DBE. A work code includes a six digit North American Industry Classification System (NAICS) number plus a descriptor. Work Codes are listed on a firm's profile on the UCP DBE Directory. The Contractor may contact the CRBRC to receive guidance on whether a work code covers the work to be performed.

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

2. **Overview.** The Disadvantaged Business Enterprise (DBE) Program is a federally-mandated program that seeks to ensure non-discrimination in the award of U.S. Department of Transportation (DOT)-assisted contracts and to create a level playing field on which DBEs can compete fairly for DOT-assisted contracts. When a Contract Goal for DBE participation is set pursuant to the U.S. Department of Transportation's DBE Program, the apparent low responsible bidder must show that they have committed to DBE participation sufficient to meet the Contract Goal or has otherwise made Good Faith Efforts to do so in order to be awarded the Contract.

The Contractor's progress towards the Contract Goal will be monitored throughout the Contract to ensure the fulfillment of the Contractor's DBE Commitments. Modifications to the Commitments must receive prior approval. If the amount of the Contract increases during the performance of the Contract, the Contractor must make Good Faith Efforts to obtain additional DBE participation to meet the Contract Goal. Final payment to the Contractor may be reduced if the Contractor has failed to fulfill Commitments and/or make Good Faith Efforts to meet the Contract Goal following an increase in the amount of the Contract. The Contractor may be subject to the withholding of payment and/or other contractual remedies if the Contractor does not comply with the requirements of this special provision.

For general assistance regarding the DBE program and compliance, contact CDOT's CRBRC or the CDOT Region Civil Rights Office overseeing the project. For project specific issues, contact the Engineer or CDOT Regional Civil Rights Office.

All forms referenced by this special provision can be found on the CDOT website in the CDOT Forms Catalog: <http://www.codot.gov/library/forms>.

3. **Contract Assurance.** By submitting a proposal for this Contract, the bidder agrees to the following assurance and shall include the following paragraph verbatim in all subcontracts including those with non-DBE firms:

The Contractor, subrecipients of DOT-assistance through CDOT, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as CDOT deems appropriate, which may include, but is not limited to: (1) Withholding monthly progress payments; (2) Assessing sanctions; (3) Liquidated damages; and/or (4) Disqualifying the contractor from future bidding as non-responsible.

4. **Good Faith Efforts.** Good Faith Efforts may be required before award and/or during Contract performance. Good Faith Efforts should include, but are not limited to, reaching out to DBEs that could perform subcontracting opportunities on the Contract, breaking out contract work items into economically feasible units (e.g., smaller tasks or

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

quantities) to facilitate DBE participation even when the bidder/Contractor might otherwise self-perform these items, negotiating in good faith with DBEs and not refusing to utilize a DBE for price alone, and other efforts to obtain DBE participation on the Contract. For additional guidance on making Good Faith Efforts see 49 CFR Part 26 Appendix A.

(a) *Bidding Requirements.* When a Contract Goal is established, the Contract may not be awarded until the apparent low responsible bidder has demonstrated Good Faith Efforts to meet the Contract Goal by either

- Documenting sufficient Commitments to meet the Contract Goal, or
- Documenting adequate Good Faith Efforts to meet the Contract Goal even though they did not obtain enough Commitments to do so.

A Commitment may be made to a firm at any tier. The apparent low responsible bidder must have received a quote from a DBE in order to claim a Commitment to a DBE.

(1) *Anticipated Participation Plan.* All bidders shall submit Form 1414 listing Commitments obtained from DBEs, with their proposal, even if such Commitments do not meet the Contract Goal. If the apparent low responsible bidder has not obtained any Commitments or if the Contract Goal is 0% and the apparent low responsible bidder is electing not to make voluntary Commitments, they shall still submit Form 1414 documenting zero anticipated participation. Failure to submit a signed Form 1414 shall result in rejection of the proposal and the apparent low responsible bidder deemed non-responsive. The apparent low responsible bidder shall ensure that Commitments, and the resulting estimated Eligible Participation, have been properly calculated before submitting their proposal. If the apparent low responsible bidder is a DBE seeking Eligible Participation credit for self-performance, the apparent low responsible bidder shall include themselves in Form 1414, list the work to be self-performed, and the amount that the bidder intends to count as Eligible Participation.

(2) *Utilization Plan.*

- a. *CDOT Advertised Projects.* These projects will require the submission of a DBE Utilization Plan (UP) via B2GNow. The apparent low responsible bidder shall submit the UP within five days of bid opening. In order to complete the UP, the apparent low responsible bidder shall obtain and upload in B2GNow a completed Form 1415 for each DBE listed on Form 1414. If the total Eligible Participation submitted on the Form 1414 and/or confirmed on Form 1415 did not meet the Contract Goal, the

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

apparent low responsible bidder shall also submit Form 1416 with the UP in B2GNow. The Form 1416 should include any supporting documentation which the apparent low responsible bidder would like to be considered as evidence of their Good Faith Efforts. If a non-DBE was selected in lieu of a DBE, the apparent low responsible bidder shall include all quotes from the non-DBE and DBE firms.

The apparent low responsible bidder shall complete Section 1 of the Form 1415 and the DBE shall complete Section 2 of Form 1415. The Commitment in Form 1415 shall be consistent with the Commitment listed on Form 1414. If a Commitment is made to second tier or lower DBE subcontractor, the apparent low responsible bidder maintains responsibility for the fulfillment of the Commitment and shall sign the Form 1415. The apparent low responsible bidder shall not Terminate, Reduce, or Substitute a Commitment listed on Form 1414 without following the procedures outlined in Section 5 below. Increases in the Commitment amount do not require CDOT approval per the procedures in Section 5 below.

- b. *Projects Not Advertised by CDOT.* The apparent low responsible bidder shall submit to the project owner a completed Form 1415 for each DBE listed on the Form 1414 by 4:30 pm on the fifth day after bid opening. If the total Eligible Participation submitted on the Form 1414 and/or Form 1415 does not meet the Contract Goal, the apparent low responsible bidder shall also submit Form 1416 along with any supporting documentation of the apparent low responsible bidder's Good Faith Efforts. If a non-DBE was selected in lieu of a DBE, the apparent low responsible bidder shall include all quotes from the non-DBE and DBE firms.

The apparent low responsible bidder shall complete Section 1 of the Form 1415 and the DBE shall complete Section 2 of Form 1415. The Commitment in Form 1415 shall be consistent with the Commitment listed on Form 1414. If a Commitment is made to second tier or lower DBE subcontractor, the apparent low responsible bidder maintains responsibility for the fulfillment of the Commitment and shall sign the Form 1415. The apparent low responsible bidder shall not Terminate, Reduce, or Substitute a Commitment listed on Form 1414 without following the

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

procedures outlined in Section 5 below. Increases in the Commitment amount do not require approval per the procedures in Section 5 below.

- (3) *Good Faith Effort Review Before Award.* The Forms 1414, 1415, and UP (for CDOT advertised projects) will be evaluated to ensure that each Commitment is valid and all Eligible Participation has been properly calculated. The apparent low responsible bidder may be required to provide additional information in order to confirm the accuracy of a Commitment.

If the apparent low responsible bidder's Forms 1414, 1415, and UP (for CDOT advertised projects) claimed that the Contract Goal was met but the total estimated Eligible Participation of the Commitments does not meet the Contract Goal, the apparent low responsible bidder will be given two working days to amend their Commitments by submitting amended Form(s) 1415 and UP (for CDOT advertised projects). If the total Eligible Participation on the amended Commitments do not meet the Contract Goal, the apparent low responsible bidder shall submit Form 1416 and provide documentation of their Good Faith Efforts.

When the total estimated Eligible Participation of the Commitments does not meet the Contract Goal, the Form 1416 and all supporting documentation will be evaluated per Appendix A of 49 CFR Part 26. The apparent low responsible bidder will be deemed to not have made Good Faith Efforts if a Commitment lists a DBE for a work area for which the DBE is not certified and the apparent low responsible bidder cannot establish a reasonable basis for the error. Commitments made after submission of the bid will only be considered for acceptance if the bidder demonstrates that (1) Good Faith Efforts were made before submission of the bid, and (2) there is reasonable justification for not obtaining sufficient Commitments before submission of the bid.

The apparent low responsible bidder will be notified in writing if CRBRC determines that Good Faith Efforts to meet the Contract Goal were not demonstrated. The apparent low responsible bidder may request administrative reconsideration as outlined in subsection 4(a)(4) of this special provision. CDOT will include instructions on how to request administrative reconsideration in the written Good Faith Effort determination.

- (4) *Administrative Reconsideration.* The apparent low responsible bidder will be provided an opportunity to request administrative

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

reconsideration if the CRBRC determines that the apparent low responsible bidder did not demonstrate Good Faith Efforts to meet the Contract Goal. The independent Administrative Reconsideration Official is the CDOT Chief Engineer or designee, provided that such designee did not participate in the original determination. The CRBRC will provide the Administrative Reconsideration Official with a copy of the Good Faith Effort notice issued to the apparent low responsible bidder. The apparent low responsible bidder shall have five working days from the date of the Good Faith Effort determination notice to submit a written request for administrative reconsideration. The written request shall include the apparent low responsible bidder's basis for reconsideration, including any supporting documentation which they would like to be considered. The written request shall also include a statement as to whether the apparent low responsible bidder would like an in-person or telephonic hearing before the Administrative Reconsideration Official. If the apparent low responsible bidder does not specify a hearing request, the right to a hearing will be waived and administrative reconsideration will be based on the available record, as well as any written documentation provided by the apparent low responsible bidder. If the apparent low responsible bidder requests a hearing, the Administrative Reconsideration Official will establish a date and time for the hearing and send written notice at least two working days in advance of the hearing. The Administrative Reconsideration Official may waive the two-day requirement if holding the hearing sooner is determined to be in the public interest. The Administrative Reconsideration Official may request additional documentation. A copy of all requests and responses shall be provided to all parties. The Administrative Reconsideration Official will issue the final determination as to whether the apparent low responsible bidder demonstrated Good Faith Efforts to meet the Contract Goal. The determination of the Administrative Reconsideration Official is final.

- (5) *Approval*. Upon a determination that the apparent low responsible bidder has demonstrated Good Faith Efforts to meet the Contract Goal, the apparent low responsible bidder will be issued Form 1417 or an approved UP in B2GNow (for CDOT advertised projects), documenting the approved Commitments on the Contract.

5. **Commitment Modifications.** The Contractor shall fulfill Commitments unless the Contractor obtains approval for Termination, Reduction, or Substitution. Unless approved, the Contractor will not be entitled to payment for the work or materials

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

pertaining to an unapproved Termination, Reduction, or Substitution. During the performance of the Contract, the Contractor shall use Form 1420, *DBE Participation Plan Modification Request* to communicate all requests for Termination, Reduction, and/or Substitution. One Form 1420 may include multiple Commitment modification requests and must be submitted to CDOT at the time of the occurrence or, if that is not possible, within a reasonable time of the occurrence requiring Termination, Reduction, and/or Substitution. Failure by the Contractor to carry out the requirements of this section is a material breach of the Contract and may result in the termination of the Contract or other established remedies.

(a) *Good Cause Requirement.* Termination, Reduction, and/or Substitution will not be approved unless the Contractor has Good Cause to modify the Commitment. Good Cause includes, but is not limited to

- i. The DBE fails or refuses to execute a written contract;
- ii. The DBE fails or refuses to perform the work of their subcontract consistent with normal industry standards, provided that such failure is not the result of bad faith or discriminatory actions of the Contractor or one of their subcontractors;
- iii. The DBE fails to meet reasonable, nondiscriminatory bond requirements;
- iv. The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness;
- v. The DBE is ineligible to work because of suspension or debarment proceedings or other state law;
- vi. The DBE is not a responsible contractor;
- vii. The DBE voluntarily withdraws from the project and provides written notice;
- viii. The DBE is ineligible to receive DBE credit for the work required;
- ix. The DBE owner dies or becomes disabled and is unable to complete the work;
- x. The DBE ceases business operations or otherwise dissolves; or
- xi. Other documented Good Cause that compels termination.

Good Cause does not exist if the Contractor seeks Termination so that the Contractor can self-perform the work for which the DBE was engaged or solely so that the Contractor can Substitute another DBE or non-DBE contractor after Contract award. When work Committed to a DBE is eliminated or reduced and such change is not due to and/or initiated by the Contractor, the change shall be Good Cause for Termination or Reduction. Upon approval of a Termination and/or Reduction, the Contractor will be subject to the Substitution requirements of subsection 5(d) of this special provision.

**REVISION OF
DISADVANTAGED BUSINESS
ENTERPRISE (DBE) REQUIREMENTS**

- (b) *Notice to the DBE.* The Contractor shall notify the DBE in writing of the Contractor's intent to Terminate, Reduce, or Substitute, and the underlying reason(s) before submitting the Form 1420 requesting the proposed Commitment modification. In the notice of intent, the Contractor shall provide the DBE at least five days to respond to the notice and inform the Contractor of the reasons, if any, why the DBE objects to the proposed Commitment modification. The Contractor is not required to provide the five days written notice in cases where the DBE in question has provided written notice they are withdrawing from their subcontract or purchase order. The notice period may be reduced if determined to be in the public interest by the project owner.

Following the notice period, the Contractor shall submit a Form 1420 to request approval of the proposed Commitment modification, along with written documentation of the notice given to the DBE.

- (c) *Determination.* The Contractor will be notified in writing of the Good Cause determination and whether the modification request is approved or denied.
- (d) *Substitution Requirement.* When a Commitment is Terminated or Reduced (including when a DBE withdraws), the Contractor shall make Good Faith Efforts to find another DBE to Substitute for the original DBE. These Good Faith Efforts shall be directed at finding another DBE to perform at least the same amount, but not necessarily the same type, of work under the Contract as the participation that was Terminated or Reduced up to the Contract Goal. To make a Substitution, the Contractor may:
- i. Make a new Commitment to any unperformed work on the Contract by providing a completed Form 1415, *Commitment Confirmation* for each new DBE Commitment;
 - ii. Increase the amount of an existing Commitment for any unperformed work on the Contract by submitting a revised Form 1415 for that Commitment; or
 - iii. Utilize any Race-Neutral Eligible Participation on the Contract performed before the Form 1420 submission as part of their Good Faith Efforts pursuant to this subsection by submitting a completed Form 1420.

If the Contractor has not obtained sufficient Substitutions up to the Contract Goal, the Contractor shall submit evidence of Good Faith Efforts to Substitute via the Form 1416 *Good Faith Effort Report*. The Contractor shall have seven days from the submission date of the Commitment modification request (Form 1420) to submit documentation of Substitutions and/or Form 1416 evidencing

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

Good Faith Efforts to obtain sufficient Substitutions despite failing to do so.
This period may be extended at the discretion of CDOT.

6. **Contract Modification Orders.** When one or more Contract Modification Orders, as defined in CDOT's *Standard Specifications for Road and Bridge Construction*, adds new work items or increases the total dollar amount of the Contract, the Contractor is required to make Good Faith Efforts to obtain additional Eligible Participation sufficient to meet the Contract Goal on the Total Earnings Amount. Under this section, the Contractor may obtain additional Eligible Participation by:
- i. Making a new Commitment to any unperformed work on the Contract by providing a completed Form 1415, *Commitment Confirmation* for each new DBE Commitment;
 - ii. Increasing the amount of an existing Commitment for any unperformed work on the Contract by submitting a revised Form 1415 for that Commitment;
 - iii. Utilizing other Eligible Participation on the Contract as part of Good Faith Efforts pursuant to this Section by submitting a completed Form 1420.

When the Contractor elects to obtain additional Eligible Participation under subpart (iii), such Eligible Participation does not need to be included as part of an approved Commitment. However, the Contractor is responsible to provide a completed Form 1420 documenting all additional Eligible Participation obtained under subpart (iii) before, or at the time of, Contract finalization.

If the Contractor determines they will be unable to obtain additional Eligible Participation sufficient to meet the Contract Goal on the Total Earnings Amount following a Contract Modification Order(s), the Contractor shall provide documentation of Good Faith Efforts to obtain additional DBE participation by submitting a completed Form 1416, along with any supporting documentation which they would like considered as evidence of Good Faith Efforts. The Form 1416 must be submitted within a reasonable time of the Contractor's initial determination that they will be unable to obtain additional Eligible Participation sufficient to meet the Contract Goal on the Total Earnings Amount. The Contractor may be required to provide additional documentation. The Contractor's Good Faith Efforts to obtain additional Eligible Participation, or lack thereof, will be considered when assessing any potential payment reductions to the Contractor per Section 9 of this special provision.

When one or more Contract Modification Orders, as defined under subsection 101.18 of CDOT's *Standard Specifications for Road and Bridge Construction*, reduces work items or decreases the total dollar amount of the Contract, any approved Commitments on the

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

Contract continue to be binding on the Contractor unless Good Cause is established to Substitute, Terminate, and/or Reduce the Commitment per Section 5 of this special provision.

7. **Counting.** In order for work performed by a DBE to count as Eligible Participation, the following criteria must be met:

- (a) *DBE Certified to Perform the Work.* The DBE must be certified by the Colorado UCP in the work to be performed. DBEs are certified in particular areas of work which are designated by a Work Code. Each DBE's Work Codes can be found on their profile on the Colorado UCP DBE Directory.

The DBE must be certified to perform the work, and not under suspension, upon submission of the Commitment and upon execution of the DBE's subcontract. When a Commitment has been made, but upon review of the Form 205, *Sublet Permit Application*, or Form 1425, *Supplier Application Approval Request*, the DBE is no longer certified in the Work Code which covers the work to be performed, the Contractor may not use the DBE's participation as Eligible Participation. The Contractor shall Terminate the DBE Commitment and seek Substitution(s) per subsection 5(d) of this special provision. However, a DBE's work will continue to count as Eligible Participation if the DBE was certified upon approval of the Form 205 or Form 1425 but the certification status changes during the performance of the work. Suppliers must be certified upon execution of the purchase order.

- (b) *Work Included in Commitment and/or Verified via Form 205 or Form 1425.* The work performed by the DBE must be reasonably construed to be included in the work area and Work Code identified by the Contractor in an approved Commitment or verified via Form 205 or Form 1425. The work identified on a Form 1425 shall not count against the Contractor's 30 percent as required under CDOT's *Standard Specifications for Road and Bridge Construction*.

If the Contractor intends to use a DBE for work in order to fulfill an existing Commitment to that DBE but the work was not listed in the original Commitment (Form 1415), the Contractor shall submit a request for modification per Section 5 of this special provision to include the new area of work to be performed. Unapproved work may count as Eligible Participation on the Contract but may not be used towards the fulfillment of the original Commitment to the DBE. A DBE Commitment cannot be modified to include work for which the DBE was not certified at the time of the approval of the original Commitment unless such work is in addition to the original Commitment.

Form 205 will be reviewed to determine whether the work being sublet is consistent with the Contractor's Commitments. Approval of the sublet request may be withheld if the Contractor has Reduced, Terminated, or otherwise modified the

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

type or amount of work to be performed by a DBE without seeking advanced approval.

- (c) *Work Performed by DBE.* The work must be actually performed by the DBE with their own forces. For purposes of this specification, work performed by the DBE with their own forces includes work by temporary employees, provided such employees are under the control of the DBE; the cost of supplies and materials obtained by the DBE for their work on the Contract, provided that such supplies are not purchased or leased from the Contractor or a subcontractor that is subletting to the DBE; the cost of any equipment leased by the DBE, provided that such equipment is not leased from the Contractor or a subcontractor that is subletting to the DBE.

When a DBE subcontracts part of the work, the value of the subcontracted work shall be counted as Eligible Participation only if the subcontractor is a DBE and meets the criteria of this special provision. Performance of subcontracted work by non-DBE subcontractors, including non-DBE trucking firms and owner-operators, is not Eligible Participation and may not be used towards the fulfillment of a Commitment, the Substitution requirements under Section 5(d) of this special provision, and/or additional Eligible Participation under Section 6 of this special provision.

- (d) *Payment Received for Work.* The DBE must receive payment, including the release of their retainage, in order for the work to count as Eligible Participation.
- (e) *Special Calculations for Suppliers.* When a DBE supplies goods or materials for a project, the DBE may be classified as a manufacturer, dealer or broker. The DBE's status as a manufacturer, dealer or broker is determined on a contract-by-contract basis, based upon the actual work performed, per 49 CFR Part 26.55(e). When a DBE is deemed to be acting as a manufacturer, 100 percent of the cost of the materials and/or supplies will count as Eligible Participation. When a DBE is deemed to be acting as a regular dealer (non-manufacturer supplier), only 60 percent of the cost of the materials and/or supplies will count as Eligible Participation. When a DBE is deemed to be acting as a broker, only the reasonable brokerage fee will count as Eligible Participation.
- (f) *Service Fees.* For a DBE firm providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, the fees and commissions charged by the DBE shall count as Eligible Participation, provided the fees are not excessive as compared with fees customarily allowed for similar services. In the case of DBE temporary employment placement agencies, only the placement fee for a temporary employee that will be specifically and exclusively used for work on the contract shall count as Eligible Participation; the hourly fee

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

does not count as Eligible Participation unless the firm is also certified in the work to be performed.

- (g) *Joint Venture Calculation.* When a DBE is a participant in a joint venture, the DBE must submit Form 893, *Information for Determining DBE Participation when a Joint Venture Includes a DBE*, to determine how much of the work performed by the joint venture may be considered Eligible Participation. To ensure sufficient time for review, Form 893 shall be submitted to CDOT no less than ten days before the submission of the bid or, if requested during the Contract, the point at which the DBE will begin work.
- (h) *Commercially Useful Function.* Upon a determination that a DBE has not performed a Commercially Useful Function (CUF) on the project, no participation by such DBE is Eligible Participation. DBE performance on the Contract will be monitored to ensure each DBE is performing a CUF. The DBE, Contractor, and any other involved third parties may also be subject to additional enforcement actions as described in Section 9 of this special provision.

The amount of work subcontracted, industry practices, the amount the firm is to be paid compared to the work performed and eligible participation claimed, and any other relevant factors will be considered in evaluating whether a DBE is performing a CUF. With respect to material and supplies used on the Contract, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the material, installing the material, if applicable, and paying for the material itself in order to perform a CUF.

With respect to trucking, the DBE trucking firm must own and operate at least one fully licensed, insured, and operational truck used on the Contract in order to perform a CUF. Additionally, the DBE trucking firm must be responsible for the management and supervision of their entire trucking operation on the Contract. Work by a DBE trucking firm will count as Eligible Participation only if the work was performed (i) with trucks owned and insured by the DBE trucking firm and those trucks were operated by drivers employed by the DBE trucking firm or (ii) with trucks leased by the DBE trucking firm from another DBE firm including owner operators who are certified DBEs. The DBE who leases trucks from another DBE receives credit for the transportation services the lessee DBE provides on the contract.

A DBE does not perform a CUF when their role is limited to that of an extra participant in a transaction, contract or project through which funds are passed in order to obtain the appearance of DBE participation. Similar transactions involving non-DBEs will be evaluated in order to determine whether a DBE is an extra participant. If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of their contract or subcontract with their own work force, or the DBE subcontracts a greater portion of the work than would be

REVISION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE) REQUIREMENTS

expected on the basis of normal industry practice for the type of work involved, CDOT will presume the DBE is not performing a CUF. The DBE may present evidence to rebut this presumption.

CUF will be evaluated using Form 1432 per Section 8(a) below.

- (i) *Joint Checks.* All Joint Checks must be approved before they are used in payment to a DBE. Joint Checks used in payments to DBEs will be monitored closely to ensure the DBE is performing a CUF and the Joint Checks are not being used in a discriminatory manner. The Contractor shall request approval for the use of a Joint Check in a written letter signed by the DBE and the Contractor, stating the reason for the Joint Checks and the approximate number of checks that will be needed. Failure to receive approval of a Joint Check may result in not counting such payment as Eligible Participation.

8. **Contract Finalization**

- (a) *Form 1432.* In order to have work performed and/or supplies provided by a DBE on the Contract count as Eligible Participation, the Contractor must submit a Form 1432 for that DBE. The Form 1432 must be signed by the DBE, Contractor and Project Engineer. Work performed and/or supplies provided on the Contract by a DBE Commitment will not count as Eligible Participation without a corresponding Form 1432 and the Contractor may be subject to a payment reduction as described in subsection 8(b) of this special provision.

- (b) *Payment Reduction.* The Contractor's retainage will not be released until a determination is made as to whether the Contractor will be subject to a payment reduction. The Contractor will be subject to a payment reduction for any unapproved Termination, Reduction, and/or Substitution. Additionally, the Contractor will be subject to a payment reduction for any portion of a Commitment that was not fulfilled. The Contractor will not be subject to duplicate payment reductions for the same offense. The amount of the payment reduction may be adjusted if the Contractor demonstrates that a failure to fulfill a Commitment or otherwise meet their obligations under this special provision was due to circumstances outside of their control.

- 9. **Other Enforcement.** As necessary, participants may be reviewed or investigated. All participants, including, but not limited to, DBE firms and applicants for DBE certification, complainants, and contractors using DBE firms to meet contract goals, are required to cooperate fully and promptly with compliance reviews, certification reviews, investigations, and other requests for information.

Participants shall not intimidate, threaten, coerce, or discriminate against any individual or firm for the purpose of interfering with any right or privilege secured by the DBE

**REVISION OF
DISADVANTAGED BUSINESS
ENTERPRISE (DBE) REQUIREMENTS**

program or because the individual or firm has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under the DBE program. Failure to comply with this paragraph shall be a ground for appropriate action against the party involved (with respect to recipients, a finding of noncompliance; with respect to DBE firms, denial of certification or removal of eligibility, and/or suspension and debarment; with respect to a complainant or appellant, dismissal of the complaint or appeal; with respect to a contractor which uses DBE firms to meet goals, findings of non-responsibility for future contracts and/or suspension and debarment).

Upon a determination that a Contractor or subcontractor was a knowing and willing participant in any intended or actual subcontracting arrangement contrived to artificially inflate DBE participation or any other impermissible business arrangement, or if the Contractor engages in repeated violations, falsification or misrepresentation, any fraudulent or misrepresented DBE participation shall not count as Eligible Participation, progress payments may be withheld from the Contractor commensurate with the violation, the Contractor's prequalification status may be suspended, the matter may be referred to the Office of Inspector General of the U.S. Department of Transportation for investigation and/or any other available contractual remedy may be sought.

July 1, 2025

**Required Contract Provisions
Federal-Aid Construction Contracts**

Notice

The Standard Special Provision (SSP) on the following page revises or modifies CDOT's Standard Specifications for Road and Bridge Construction. The Construction Engineering Services Branch has reviewed, approved, and issued it. Use as written without change. Do not use modified versions of it on CDOT construction projects. Do not use the following special provision on CDOT projects in a manner other than specified in the instructions without approval by CDOT's Standards and Specifications Unit. The instructions for use appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

Instructions for use on CDOT construction projects:

Use this standard special provision all on federal-aid construction projects.

Include the revised 1273 where the bids or the responses to solicitations are **due after October 23, 2023**.

July 1, 2025

**Required Contract Provisions
Federal-Aid Construction Contracts**

Attached is Form FHWA 1273 titled *Required Contract Provisions Federal-Aid Construction Contracts*. As described in Section I. General, the provisions of Form FHWA 1273 apply to all work performed under the Contract and are to be included in all subcontracts with the following modification:

For TAP (Transportation Alternatives Program) funded Recreational Trails projects, Section I (4) regarding convict labor and all of Section IV of the FHWA 1273 do not apply.

Required Contract Provisions Federal-Aid Construction Contracts

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants /

Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) Information required. Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) Additional records relating to fringe benefits. Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) Additional records relating to apprenticeship. Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) Information required. The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDL/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) Statement of Compliance. Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) Use of Optional Form WH-347. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeymen on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeymen under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**
This provision is applicable to all Federal-aid projects funded
under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

1

On The Job Training

This On-the-Job Training (OJT) special provision is an implementation of 23 U.S.C, 140(a), a federal requirement to provide equal opportunity and training on federal-aid construction projects. The Contractor shall meet the requirements of the FHWA 1273 for all apprentices and trainees. For additional guidance, please look at the OJT Contractor Manual.

1. Goal Setting

CDOT will set OJT goals for every federally-assisted project. Goals for the projects will be set based on the criteria that is outlined in the 23 CFR Part 230, Appendix B to Subpart (A):

- A. Availability of minorities, women, and disadvantaged persons for training;
- B. The potential for effective training;
- C. Duration of the contract;
- D. Dollar value of the contract;
- E. Total normal workforce that the average bidder could be expected to use;
- F. Geographic location;
- G. Type of work;
- H. The need for journey-level workers in the area;
- I. Recognition of the state's goal;
- J. A satisfactory ratio of trainees to journeymen expected to be on the workforce.

The number of required training hours will be identified in the Contract. The following chart provides guidelines based on contract value, but the required number of hours will be determined by CDOT after consideration of the aforementioned variables.

Contract dollar value	Training hours to be provided on the project
Up to 1 million	0
>1 - 2 million	320
>2 - 4 million	640
>4 - 6 million	1280
>6 - 8 million	1600
>8 - 12 million	1920
>12 - 16 million	2240
>16 - 20 million	2560
For each increment of \$5 million, over \$20 million	1280

2 On The Job Training

2. Training Plan Options

CDOT accepts the following training programs:

- A. CDOT's pre-approved classifications utilization program (PAC-UP);
- B. A registered U.S. Department of Labor training program or apprenticeship program;
- C. Approved programs through workforce centers and through specific groups like Colorado Contractors Association (CCA) and Western Colorado Contractors Association (WCCA);
- D. A Contractor specific plan approved by CDOT and the Federal Highway Administration (FHWA).

The minimum length and type of training for each skilled craft shall be as established in the training program selected by the Contractor.

When one or more approved plans are chosen, the Contractor shall submit the OJT Contractor Commitment to Meet OJT Requirements, CDOT Form 1337 to the Engineer. Additional pre-approved training programs and/or additional apprentices/trainees may be utilized at any point throughout the project. The plan option(s) that the Contractor chooses will be effective for the duration of the project.

3. Journey-Level Worker to Apprentice/Trainee Ratio

The OJT goal requirement shall be met through approved trainee(s)/apprentice(s) working on the CDOT project under the supervision of a journey-level worker. For the CDOT Pre-Approved Classification Training Programs (PAC-UP), the apprentice/trainee ratio to journey-level worker shall not exceed a one to one ratio for all classifications, and the Contractor shall not exceed 25 percent of the workforce as trainees/apprentices at any time. Furthermore, it is at CDOT's discretion that a stricter ratio guideline may be imposed as outlined in the specific training classification. For all other approved programs, the apprentice/trainee ratio shall be as outlined in the specific program. When apprentices/trainees are on the job without proper supervision as outlined above, they shall be paid full Davis-Bacon wages.

4. Trainee Selection

Two components must be considered when choosing a trainee:

- A. The intent of this program is for Contractors to recruit and train entry-level individuals or individuals who will be working within new classifications and guide them toward journey-level status in that specific classification. A trainee will not be approved in any classification for which they have already obtained journey-level status.
- B. Another intent of the OJT program is the primary consideration for the Contractor to use minorities, women, and disadvantaged persons to fulfill the trainee roles, and as such, the Contractor shall make every effort to enroll such individuals in the program by using "systematic and direct recruitment through public and private sources."

3

On The Job Training

The consideration to include women and minorities is based on the regulation; however, it will not be used to systematically deny any one person or group from the opportunity to be a part of the OJT program. CDOT may reject non-minority male trainees for entry into the program if it is determined that a Contractor failed to make sufficient good faith efforts (GFE) to hire minorities or female trainees and/or the Contractor failed to document or submit evidence of its GFE to do so. CDOT will consider a Contractor's documentation of all GFE on a case-by-case basis and will take into account the items listed in the goal setting section of this specification. For more information, please see Section 11 of this specification.

5. OJT Apprentice/Trainee Approval

As a condition of the OJT program, the Contractor will:

- A. Notify all employees at the start of employment and at a minimum of at least once per year regarding the available training programs, positions, and eligibility requirements. The Contractor shall document that this information was conveyed to and received by employees.
- B. Provide each trainee with a copy of his or her enrollment form (if applicable) and the training program within a month of starting the chosen plan.

The OJT submittals (CDOT Form 1337, Contractor Commitment to Meet OJT Requirements; CDOT Form 832, Trainee Status and Evaluation; CDOT Form 838, OJT apprentice/trainee Record) shall be filled out completely and approved or rejected by CDOT. If the apprentice/trainee is working within the proposed classification before approval is granted, full Davis-Bacon prevailing wages shall be paid to the individual.

The Regional Civil Rights Office must approve the CDOT Form 838 prior to any of the hours counting toward the OJT goal. If there is a CDOT delay that is completely outside of the Contractor's responsibility for approval of the apprentices/trainees, and if approval is ultimately granted, the date that will be utilized will be ten business days after the date that the CDOT Form 838 was submitted.

The Contractor shall retain full responsibility for meeting the training requirements imposed by this special provision.

6. Eligible Work Activities that Count Toward the Training Goal

The work hours that are completed on the site of work and per the training documents for approved apprentices/trainees in approved classifications and programs will apply toward the project goal. Hours for work performed outside the individual's approved training classification will not count toward the project OJT goal and the individual shall be paid full applicable prevailing wage.

Job shadowing can apply toward the project goal if it is written into the specific training plan. If the Contractor is using CDOT's PAC-UP training program, job shadowing can apply toward the project goal when the approved employee is performing within the "Observation" component of the plan (hours vary by classification). Non-CDOT project hours will not be accepted toward the project goal.

Although US DOL apprenticeship programs can use the reduced wages for any CDOT job (with or without an OJT goal) with approval, none of these "additional" hours may be

4**On The Job Training**

banked or included for use as part of the required special provisions on any project other than that for which it was approved.

The Contractor may count OJT hours accomplished by a subcontractor with an approved plan. The subcontractor's trainee or apprentice, who is enrolled in any of the approved OJT programs and is contributing toward meeting a project's OJT goal hours, can count toward the project's OJT goal to satisfy the requirement of this specification. A subcontractor who chooses to participate in meeting the OJT goal shall follow the same process as the Contractor in terms of approving apprentices/trainees, submitting forms, etc. The Contractor retains the full responsibility for meeting the training requirements imposed by this special provision.

7. Contractor Training and Trainee Monitoring

The Contractor's representative (supervisor, manager, or other designee) will evaluate progress for the apprentice/trainee monthly and will provide a copy to the apprentice/trainee of the submitted CDOT Form 832 within 30 calendar days. This evaluation will include documentation of the apprentice/trainee's performance including what was done well and what needs to be improved. The Contractor training and monitoring will be evaluated through CDOT's use of the CDOT Form 200 Interview.

8. Wages

The Contractor may pay apprentice/trainee wages at a reduced rate for those that are in an approved program according to the following guidelines:

US DOL Apprenticeship Programs

Rates (at minimum) will be paid according to the scaled adjustments for a registered US DOL Apprentice. Fringe benefits (either in cash and/or bona fide benefits in lieu of cash) will be paid in full and as outlined by the bargained agreement. If fringe benefits are not mentioned as part of a bargained agreement or if there is no collectively bargained agreement, full fringe benefits will be paid as outlined through the US DOL wage decision. Approved US DOL apprenticeship programs can use the reduced wages for any CDOT project.

If the project does not have a training goal and the Contractor is seeking to pay apprenticeship rates as part of a registered US DOL Apprenticeship Program, the following documentation is required to ensure wages are being paid correctly: apprenticeship program registration, OA (formerly BAT) certificates, and collective bargaining agreement including the wage sheet.

Other Approved Programs

For all other OJT wage reductions, reduced percentages are allowed for the project if there is a goal greater than zero as outlined in the 23 CFR Appendix B to Subpart A of Part 230 (as described in this section), in the collectively bargained agreement, or as outlined in the specific plans. If the Contractor chooses to pay the trainee rates, the reduced percentage shall be based only on the base rate of pay. Fringe benefits shall be paid at 100 percent of the journey-level wage. If the apprentice/trainee is working

5 On The Job Training

within the proposed classification before approval is granted, full Davis-Bacon prevailing wages shall be paid to the apprentice/trainee.

The minimum trainee wage (base and fringe) shall be no less than \$13.00 per hour.

Trainees shall be paid at minimum:

First half of the training period -- at least 60 percent of the appropriate minimum journey-level rate

Third quarter of the training period -- at least 75 percent of the appropriate minimum journey-level rate

Last quarter of the training period -- at least 90 percent of the appropriate minimum journey-level rate

9. Contractor Reporting

The Contractor shall keep all data associated with the trainees and the project for a period of at least three years from the closing date of the Contract.

10. Reimbursement to Contractors

For the purposes of reimbursement, the Contractor will have satisfied its responsibilities under this specification if CDOT has determined that it has fulfilled the acceptable number of training hours. Contractors will be reimbursed at a rate of \$10.00 per hour per (approved) trainee for all OJT hours worked in approved classifications up to the project goal.

The Contractor will be reimbursed for no more than the amount outlined in the OJT Force Account budget.

11. OJT Good Faith Efforts (GFE)

CDOT recognizes two explanations of good faith efforts: (1) The Contractor will be required to prove an effort has been made to achieve a diversified workforce, but it has not yet been accomplished, or (2) The attempt has been made to meet the number of required OJT hours by using approved trainees or apprentices in approved classification(s) utilizing approved plans, but the Contractor cannot meet the required number of hours. In either case, a GFE will be required, and the Region Civil Rights Office will make the determination.

- A. If the Contractor does not meet its OJT project goal with the inclusion of some female and/or minority trainees, the Contractor may be requested to produce documentation of adequate good faith efforts taken to fill that position with a minority or female applicant. Good faith efforts are designed to achieve equal opportunity through positive, assertive, and continuous result-oriented measures. Good faith efforts should be taken as hiring opportunities arise.
- B. If the Contractor does not meet its OJT project goal, the Contractor may submit a CDOT Form 1336, Waiver Request for Contract's OJT Hours. On the form, the Contractor shall outline and submit all good faith efforts made when it is believed that the required number of training hours will not be met. If GFE is not demonstrated and approved, The Contractor will be subject to payment reductions outlined in the Disincentive Section.

6**On The Job Training**

If a good faith effort has been denied by CDOT, the Contractor may ask for reconsideration by the Region Civil Rights Manager and the Resident Engineer for the region where work is being performed. Additionally, if requested by the Contractor, the Region Civil Rights Office and the Project Engineer will meet with the Contractor to discuss the Contractor's initial Good Faith Effort determination.

12. Disincentive

A failure to provide the required training without the demonstration and approval of GFE to meet the project OJT goal may result in the Region Civil Rights Office assigning the following disincentive: A sum representing the total number of hours not met in the contract shall be multiplied by the journey worker hourly wages plus fringe benefits [(hours not met) × (dollar per hour + fringe benefits) = disincentive amount].

In order to obtain the disincentive amount, the journey worker wages will be figured using the prevailing wages for the classifications outlined on the CDOT Form 1337. If a single classification is noted on the submitted CDOT Form 1337, then that one wage will be used to figure the monetary amount owed. If multiple classifications are used, then the journey worker wages of all classifications will be used to determine an average wage rate. If the Contractor does not submit any documentation toward the OJT goal, the disincentive rate will be calculated at \$30.00 per hour. CDOT will provide the Contractor a written notice at the final acceptance stage of the project informing them of the noncompliance with this specification which will include a calculation of the disincentive(s) to be assessed.

Decision Nos. CO20250008 dated January 3, 2025 supersedes Decision Nos. CO20240008 dated January 5, 2024.		Modifications			ID
		Mod Number	Date	Page Number(s)	
When work within a project is located in two or more counties and the minimum wages and fringe benefits are different for one or more job classifications, the higher minimum wages and fringe benefits shall apply throughout the project.					
General Decision No. CO20250008 applies to the following counties: El Paso, Pueblo, and Teller counties.					
General Decision No. CO20250008 The wage and fringe benefits listed below reflect collectively bargained rates.					
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod	
	ELECTRICIAN:				
1199	El Paso, Teller	38.20	18.10		
1200	Pueblo	33.55	15.71		
	POWER EQUIPMENT OPERATOR:				
	Drill Rig Caisson				
1201	Smaller than Watson 2500 and similar	35.20	15.20		
1202	Watson 2500 similar or larger	35.41	15.20		
	Crane				
1203	50 tons and under	35.78	15.20		
1204	51 - 90 tons	35.41	15.20		
1205	91 - 140 tons	37.34	15.20		
General Decision No. CO20250008 The wage and fringe benefits listed below do not reflect collectively bargained rates.					
	CARPENTER:				
1206	Excludes Form Work	24.15	6.25		
	Form Work Only				
1207	El Paso, Teller	19.06	5.84		
1208	Pueblo	19.00	5.88		
	CEMENT MASON/CONCRETE FINISHER:				
1209	El Paso, Teller	17.36	3.00		
1210	Pueblo	17.74	3.00		

General Decision No. CO20250008				
The wage and fringe benefits listed below do not reflect collectively bargained rates.				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
1211	FENCE ERECTOR	13.02	3.20	
1212	GUARDRAIL INSTALLER	12.89	3.20	
	HIGHWAY/PARKING LOT STRIPING:			
1213	Painter	12.62	3.21	
	IRONWORKER:			
	Reinforcing (Excludes Guardrail Installation)			
1214	El Paso, Teller	20.49	1.65	
1215	Pueblo	16.69	5.45	
1216	Structural (Excludes Guardrail Installation)	18.22	6.01	
	LABORER:			
1217	Asphalt Raker	17.54	3.16	
1218	Asphalt Shoveler	21.21	4.25	
1219	Asphalt Spreader	18.58	4.65	
	Common or General			
1220	El Paso	17.05	3.69	
1221	Pueblo	16.29	4.25	
1222	Teller	16.88	3.61	
1223	Concrete Saw (Hand Held)	16.29	6.14	
1224	Landscape and Irrigation	12.26	3.16	
1225	Mason Tender - Cement/Concrete	16.29	4.25	
1226	Pipelayer	18.72	3.24	
1227	Traffic Control (Flagger)	9.55	3.05	
1228	Traffic Control (Sets Up/Moves Barrels, Cones, Installs signs, Arrow Boards and Place Stationary Flags), (Excludes Flaggers)	12.43	3.22	
1229	PAINTER (Spray Only)	16.99	2.87	

General Decision No. CO20250008				
The wage and fringe benefits listed below do not reflect collectively bargained rates.				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	POWER EQUIPMENT OPERATOR:			
1230	Asphalt Laydown	22.67	8.72	
1231	Asphalt Paver	21.50	3.50	
	Asphalt Roller			
1232	El Paso	24.42	6.96	
1233	Pueblo	23.67	9.22	
1813	Teller	24.42	6.96	
1234	Asphalt Spreader	22.67	8.72	
	Backhoe/Trackhoe			
1235	El Paso	23.31	5.61	
1236	Pueblo	21.82	8.22	
1237	Teller	23.32	5.50	
1238	Bobcat/Skid Loader	15.37	4.28	
1239	Boom	22.67	8.72	
	Broom/Sweeper			
1240	El Paso, Teller	23.43	8.04	
1241	Pueblo	23.47	9.22	
	Bulldozer			
1242	El Paso	26.56	7.40	
1243	Pueblo, Teller	26.11	6.92	
1244	Drill	17.59	3.45	
1245	Forklift	15.91	4.68	
	Grader/Blade			
1246	El Paso	22.83	8.72	
1247	Pueblo	23.25	6.98	
1248	Teller	23.22	8.72	
1249	Guardrail/Post Driver	16.07	4.41	

General Decision No. CO20250008				
The wage and fringe benefits listed below do not reflect collectively bargained rates.				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	POWER EQUIPMENT OPERATOR (con't.):			
	Loader (Front End)			
1250	El Paso	23.61	7.79	
1251	Pueblo	21.67	8.22	
1252	Teller	23.50	7.64	
	Mechanic			
1253	El Paso	22.35	6.36	
1254	Pueblo	24.02	8.43	
1255	Teller	22.16	6.17	
	Oiler			
1256	El Paso	23.29	7.48	
1257	Pueblo	23.13	7.01	
1258	Teller	22.68	7.11	
	Roller/Compactor (Dirt and Grade Compaction)			
1259	El Paso	16.70	3.30	
1260	Pueblo, Teller	18.43	4.62	
1261	Rotomill	16.22	4.41	
1262	Scraper	24.28	4.83	
	Screed			
1263	El Paso, Teller	25.22	5.74	
1264	Pueblo	23.67	9.22	
1265	Tractor	13.13	2.95	

General Decision No. CO20250008				
The wage and fringe benefits listed below do not reflect collectively bargained rates.				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	TRUCK DRIVER:			
	Distributor			
1266	El Paso, Teller	17.98	3.97	
1267	Pueblo	18.35	3.85	
	Dump Truck			
1268	El Paso, Teller	16.85	4.83	
1269	Pueblo	16.87	4.79	
1270	Lowboy Truck	17.25	5.27	
1271	Mechanic	26.69	3.50	
1272	Multi-Purpose Specialty & Hoisting Truck	17.27	3.71	
1273	Pickup and Pilot Car	13.93	3.68	
1274	Semi/Trailer Truck	16.00	2.60	
1275	Truck Mounted Attenuator	12.43	3.22	
	Water Truck			
1276	El Paso	17.24	4.15	
1277	Pueblo	20.93	4.98	
1278	Teller	17.31	4.07	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

Wage Determination Appeals Process

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to: davisbaconinfo@dol.gov, or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to: BCWD-Office@dol.gov, or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to: dba.reconsideration@dol.gov, or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

End of General Decision No. CO20250008

**Required Contract Statements
Federal American Rescue Plan ACT / State
and Local Fiscal Recovery Funds (ARPA /SLFRF) Construction Contracts**

The Contractor shall insert the following statements in each construction contract, subcontract and purchase order funded with Federal American Rescue Plan Act / State and Local Fiscal Recovery Funds (a.k.a. "ARPA/SLFRF").

- *On this construction project, in accordance with 2 CFR 200.322 - Domestic preference for procurements, to the greatest extent practicable, a preference is indicated for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).*
- *The sub-grantee, Contractor, Subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits Subrecipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this Agreement (or agreement). Title VI also includes protection to persons with "Limited English Proficiency" in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this Agreement or agreement.*

The Contractor shall further require the inclusion of these statements in all lower-tier subcontracts.

**CITY OF MANITOU SPRINGS
SPECIAL PROVISIONS
CREEK WALK TRAIL – PHASE 4**

The Colorado Department of Transportation (CDOT) 2025 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 SPECIAL PROVISIONS

	<u>Date</u>	<u>Page</u>
Index Pages	(July 1, 2025)	1-2
Notice to Bidders	(July 1, 2025)	3
Disadvantaged Business Enterprise (DBE) Contract Goal	(July 1, 2025)	4
Commencement and Completion of Work (Working Day)	(July 1, 2025)	5
On the Job Training Contract Goal	(July 1, 2025)	6
Revision of Section 101 – Definitions and Terms	(July 1, 2025)	7-8
Revision of Section 103 – Award and Execution of Contract	(July 1, 2025)	9
Revision of Section 106 – Control of Material	(July 1, 2025)	10
Revision of Section 107 – Legal Relationship and Responsibility to Public	(July 1, 2025)	11-12
Revision of Section 201 – Clearing and Grubbing	(July 1, 2025)	13
Revision of Section 202 – Removal of Parking Meter Pedestal	(July 1, 2025)	14
Revision of Section 202 – Removal of Tree	(July 1, 2025)	15
Revision of Section 202 – Removal of Inlet	(July 1, 2025)	16
Revision of Section 202 – Removal of Sidewalk	(July 1, 2025)	17
Revision of Section 202 – Removal of Curb and Gutter	(July 1, 2025)	18
Revision of Section 202 – Removal of Concrete Curb Ramp	(July 1, 2025)	19
Revision of Section 202 – Removal of Concrete Pavement	(July 1, 2025)	20
Revision of Section 202 – Removal of Asphalt Mat	(July 1, 2025)	21
Revision of Section 202 – Removal of Fence	(July 1, 2025)	22
Revision of Section 208 – Erosion Control	(July 1, 2025)	23-24
Revision of Section 210 – Reset Ground Sign	(July 1, 2025)	25
Revision of Section 210 – Reset Sign Panel	(July 1, 2025)	26
Revision of Section 210 – Reset Rectangular Rapid Flashing Beacon (RRFB)	(July 1, 2025)	27
Revision of Section 210 – Modify Inlet	(July 1, 2025)	28
Revision of Section 240 – Protection of Migratory Birds, Biological Work Performed by the Contractor’s Biologist	(July 1, 2025)	29-31
Revision of Section 304 – Aggregate Base Course	(July 1, 2025)	32
Revision of Section 508 – Pedestrian Stair Structure	(July 1, 2025)	33
Revision of Section 603 – Culvert and Sewers	(July 1, 2025)	34
Revision of Section 607 – Safety Rail	(July 1, 2025)	35
Revision of Sections 105 and 608 – Detectable Warnings	(July 1, 2025)	36-37
Revision of Section 626 – Public Information Management (Tier IV)	(July 1, 2025)	38-41
Revision of Sections 627 and 713 – Modified Epoxy Pavement Marking (Inlaid)	(July 1, 2025)	42
Revision of Sections 627 and 713 – Thermoplastic Pavement Marking	(July 1, 2025)	43-45
Revision of Section 630 – Construction Zone Traffic Control	(July 1, 2025)	46-47
Force Account Items	(July 1, 2025)	48
Traffic Control Plan – General	(July 1, 2025)	49-50
Utilities	(July 1, 2025)	51-53

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

STANDARD SPECIAL PROVISIONS

Name	Date	Pages
Revision of Section 105 – Project First	(June 11, 2025)	4
Revision of Section 105 – Dispute Review Board and Claims for Unresolved Disputes	(July 1, 2025)	9
Revision of Section 108 – Liquidated Damages	(July 1, 2025)	1
Revision of Section 207 – Topsoil	(July 1, 2025)	9
Revision of Section 212 – Soil Amendments, Seeding, and Sodding	(July 1, 2025)	25
Revision of Section 401 – Plant Mix Pavements – General	(July 1, 2025)	4
Revision of Section 614 – Rectangular Rapid Flashing Beacon	(June 11, 2025)	4
Affirmative Action Requirements Equal Employment Opportunity	(July 1, 2025)	13
Certified Payroll Requirements for Construction Contracts	(July 1, 2025)	1
Disadvantaged Business Enterprise (DBE) Requirements	(July 1, 2025)	15
On the Job Training	(October 1, 2023)	6
Required Contract Provisions – Federal-Aid Construction Contracts	(October 23, 2023)	15
U.S Dept. of Labor Davis Bacon Minimum Wages Colorado	(January 3, 2025)	6
Highway Construction, General Decision Number – CO20250008 Highway Construction for El Paso, Pueblo, and Teller counties.		
Required Contract Statements Federal American Rescue Plan ACT/STATE (October 1, 2023) And Local Fiscal Recovery Funds (ARAP/SLFRF)		1

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

NOTICE TO BIDDERS

The Proposal guaranty shall be a certified check, cashier's check or bid bond in the amount of 5 percent of the Contractor's total bid.

City of Manitou Springs City Engineer: Benjamin Schmitt

Email: BSchmitt@manitouspringsco.gov

Owner's Representative: Karen Rowe

Cell Phone: 719-425-0400

Project Engineer: To be determined

The above-mentioned individuals are the only representatives of the City with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other contract documents or requirements.

Questions received from bidders along with the City responses will be posted in Bidnet under the Invitation to Bid.

Questions and answers shall be used for reference only and shall not be considered part of the Contract.

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

DISADVANTAGED BUSINESS ENTERPRISE (DBE) CONTRACT GOAL

This is a federally-assisted construction project. As described in the CDOT DBE Standard Special Provision, the Bidder shall make good faith efforts to meet the following contract goal:

0.0 Percent DBE participation

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

**COMMENCEMENT AND COMPLETION OF WORK
(WORKING DAY)**

The Contractor shall commence work under the Contract on September 2, 2025. The Contractor shall complete all work within 39 working days per the "Notice to Proceed."

Working hours allowed are 7:00 am to 7:00 pm Monday through Thursday, and 7:00 am to 3:00 pm on Fridays, unless otherwise approved by the Project Engineer.

Contractor may work during the following holiday: Cabrini Day – October 6, 2025.

Subsection 108.05 shall include the following:

The Contractor shall complete the following discrete portions of the work (milestones) by the dates specified. A disincentive will be assessed for failure to complete the work for each milestone by the specified completion date.

Milestone No. 1

Completion Date: October 24, 2025

Description: Complete and open sidewalk on Manitou Ave throughout the project.

Project No.	TAP M850-032 & MTF M850-031
Project Name.	Creekwalk Trail 4

ON THE JOB TRAINING CONTRACT GOAL

The Department has determined that On the Job Training shall be provided to trainees with the goal of developing full journey workers in the types of trade or classification involved. The contract goal for On the Job Trainees working in an approved training plan in this Contract has been established as follows:

Minimum number of total On The Job Training required: 0.0 hours

REVISION OF SECTION 101 DEFINITIONS AND TERMS

Revise Section 101 of the Standard Specifications for this project as follows:

Add the following definitions in subsection 101.02:

City: The City of Manitou Springs acting through its authorized representative.

CDOT: Colorado Department of Transportation, however, when used in the contract as the Owner, it shall be replaced with The City of Manitou Springs as the owner of the contract and responsible charge.

Owner's Representative: Designated representative for the City of Manitou Springs, as it's authorized representative.

Delete the following definitions in subsection 101.02 and replace it with the following:

Contract. The written agreement between the City of Manitou Springs and the Contractor, setting forth the obligation of the parties for the performance of the work and the basis of payment. The Contract includes the invitation for bids, proposal, contract bonds, standard specifications, supplemental specifications, special provisions, general and detailed plans, Notice to Proceed, Contract Modification Orders, and authorized extensions of time, all of which constitute one instrument.

Contractor. The individual, firm, or corporation contracting with the City of Manitou Springs for performance of prescribed work.

Engineer. The City of Manitou Springs Engineer acting directly or through an authorized representative, responsible for engineering and administrative supervision of the project.

Holidays. Holidays recognized by the City of Manitou Springs are: New Year's Day, Dr. Martin Luther King, Jr.'s Birthday (observed), President's Day, Cesar Chavez Day, Memorial Day, Juneteenth Independence Day, Labor Day, Cabrini Day, Veterans' Day, Thanksgiving Day, and Christmas Day

Pre-construction Conference. A meeting of City of Manitou Springs project personnel, Contractor project personnel, and other stakeholders held before the beginning of construction, discussing pertinent topics for the successful completion of the work.

Project Engineer. The City's duly authorized representative who may be a City of Manitou Springs employee or an employee of a consulting engineer (consultant) under contract to City of Manitou Springs as defined below:

- (a) *City of Manitou Springs Project Engineer.* The City of Manitou Springs employee, assigned by the Project Engineer, who is the City's duly authorized representative. The Project Engineer is in direct charge of the work and is responsible for the administration and satisfactory completion of the project under contract.
- (b) *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 City of Manitou Springs Project Engineer per the scope of work in the consultant's contract with City of Manitou Springs. The Consultant Project Engineer is not authorized to sign or approve Contract Modification Orders.

Region Transportation Director. The City's representative, responsible for construction, maintenance and safety activities, within the geographical jurisdiction established by the City. The Region Transportation Director is responsible for acting on written appeals made by the Contractor relating to contract claims for additional compensation or extension of contract time.

Workplace Violence. Workplace violence is conduct in the workplace against employees, employers, or outsiders committed by a person who either has an employment related connection with the City of Manitou Springs or is a contractor working on a City of Manitou Springs project. This conduct includes:

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

- (1) Physical acts against persons or their property, or against City of Manitou Springs or Contractor property that are perceived to be harmful or threatening.
- (2) Veiled or direct verbal threats, profanity, or vicious statements or gestures that are meant to harm or create a threatening or intimidating work environment.
- (3) Written threats, profanity, vicious cartoons or notes that are meant to create a threatening or intimidating environment.
- (4) Any other acts that are perceived to be threatening or intended to injure or convey hostility.

Project No.
Project Name.

TAP M850-032 & MTF M850-031
Creekwalk Trail 4

**REVISION OF SECTION 103
AWARD AND EXECUTION OF CONTRACT**

Revise Section 103 of the Standard Specifications for this project as follows:

In subsection 103.01 delete the third paragraph and replace it with the following:

To be eligible for contracting with the City of Manitou Springs, the apparent low responsible bidder shall have an account in the B2GNow software system.

In subsection 103.04 delete and replace it with the following:

103.04 Execution and Approval of Contract. The Contract shall be signed and returned by the apparent low successful bidder together with the contract bonds, within 10 working days after the Notice of intent to award. If the Contract is not executed by the City within 30 days from date of award, the bidder shall have the right to withdraw the proposal without penalty. The Contract will not be considered effective until it has been fully executed by all of the parties to the Contract.

Project No.
Project Name.

TAP M850-032 & MTF M850-031
Creekwalk Trail 4

**REVISION OF SECTION 106
CONTROL OF MATERIAL**

Revise Section 106 of the Standard Special Provisions for this project as follows:

In subsection 106.01 delete the fourth paragraph through the end of the section.

In subsection 106.05 (b) delete the third paragraph and replace it with the following:

The Contractor shall choose a consultant laboratory not associated with the project to perform the third-party testing. The Contractor shall document this choice in writing at the Pre-Paving Conference.

In subsection 106.05 (e)3.A, first paragraph, delete the first sentence and replace it with the following:

The Contractor shall produce test material at a site other than a City of Manitou Springs project.

In subsection 106.11 (c)(i), delete “CDOT representatives”, and replace with “City of Manitou Springs representatives”.

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

Revise Section 107 of the Standard Special Provisions for this project as follows:

In subsection 107.16(a)5. delete the last sentence and replace it with the following:

The following form Excess Liability shall include the City of Manitou Springs as an additional insured.

In subsection 107.16(b) delete the first sentence and replace it with the following:

City of Manitou Springs shall be named as additional insured on the Commercial General Liability and Automobile Liability Insurance policies.

In subsection 107.16(d) delete the paragraph and replace it with the following:

The Contractor shall require all insurance policies in any way related to the Contract and secured and maintained by the Contractor to include clauses stating that each carrier will waive all rights of recovery, under subrogation or otherwise, against the City of Manitou Springs, its agencies, institutions, organizations, officers, agents, employees and volunteers.

In subsection 107.16(e) delete the paragraph and replace it with the following:

All policies evidencing the insurance coverages required hereunder shall be issued by insurance companies satisfactory to the City of Manitou Springs.

In subsection 107.16(f) delete the paragraph and replace it with the following:

The Contractor shall provide certificates showing insurance coverage required by this contract to the City of Manitou Springs before execution of the contract. No later than 15 days before the expiration date of any such coverage, the Contractor shall deliver to the City certificates of insurance evidencing renewals thereof. At any time during the term of this Contract, the City may request in writing, and the Contractor shall thereupon within 10 days supply to the City.

In subsection 107.16(g) delete the last two sentences and replace it with the following:

Upon request by the City, the Contractor shall show proof of such insurance satisfactory to the City.

In subsection 107.25(a)8. delete the last sentences and replace it with the following:

Owner. This is the party with ownership of, a long-term lease of, or easements on the property where the construction activity is occurring (City of Manitou Springs).

In subsection 107.25(c) delete the first five paragraphs and replace it with the following:

Stormwater Construction Permit. A Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) has been obtained from CDPHE by the City. An Air Permits for Construction permit from El Paso County will also be required. The Contractor shall provide copies of permit certification as the Operator to the Engineer before or at the Pre-construction Conference. No work shall begin until these permits with Owner and Operator has been approved by CDPHE and El Paso County. Copies of each permit shall be placed in the project SWMP.

The Contractor is legally required to obtain all other permits associated with specific activities within or outside of the right of way, such as borrow pits, concrete or asphalt plant sites, waste disposal sites, or other facilities. Staging areas within a quarter mile, but not within the City of Manitou Springs or CDOT right of way shall be considered a common plan of development and permits for these facilities require permitting in the Contractor's name as Owner and Operator. These permits include local agency, federal, or other stormwater permits. The Contractor shall consult with the Engineer and contact the CDPHE or other appropriate federal, state, or local agency to determine the need for any permit.

When a Utility Company has obtained a CDPS-SCP within a City of Manitou Springs project area, before the Contractor being on-site, the Contractor shall coordinate with the Engineer and the Utility Company to

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

transfer or reassign the permit area within the project's Limits of Construction to the Contractor and the City of Manitou Springs before work commencing. The Contractor shall not commence construction until CDPHE issues a new CDPS-SCP identifying the Contractor as the Operator, and the permit is put in the SWMP.

To initiate acceptance of the stormwater construction work (including seeding and planting required for erosion control), the Contractor shall request in writing a Stormwater Completion Walkthrough. The Engineer will set up the walkthrough. It will include the Engineer or designated representative, Superintendent or designated representative, Stormwater Management Plan (SWMP) Administrator, Region Water Pollution Control Manager (RWPCM), Landscape Architect, and a Regional Maintenance representative. Unsatisfactory and incomplete stormwater and sediment/erosion control work will be identified in this walkthrough and will be summarized by the Engineer in a punch list.

**REVISION OF SECTION 201
CLEARING AND GRUBBING**

Section 201 of the Standard Specifications is hereby revised for this project as follows:

Subsection 201.02, delete the 1st paragraph and replace with the following:

Clearing and grubbing shall include the removal of trees less than 4 inches in caliper measured at breast height (DBH), removal of dead branches found on the ground, and removal of all vegetation within disturbed areas, or as designated by the Owner's Representative. This work includes the preservation from injury or defacement of all vegetation and objects designated to remain.

Subsection 201.02 shall include the following:

Prior to beginning demolition work, the Contractor shall stake trail horizontal control alignments to walk with Owner's Representative and Arborist to finalize tree protection and removal. See Project Special Provision Section 202 Tree Trimming and Removal of Trees over 4 inches DBH.

BASIS OF PAYMENT

Delete Subsection 201.04, and replace with the following:

The accepted quantities of work shall be paid for at the contract price per unit of measurement for the pay items listed below.

Pay Item

Pay Unit

Clearing and Grubbing

Lump Sum

Payment for this work shall consists of removal and disposal of clearing and grubbing, vegetation, trail materials, asphalt millings.

Payment shall be full compensation for all work, equipment, labor, and disposal required for clearing and grubbing.

**REVISION OF SECTION 202
REMOVAL OF PARKING METER PEDESTAL**

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

Subsection 202.01 shall include the following:

This work includes removal of Parking Meter pedestal and shall be salvaged and returned to the Owner.

METHOD OF MEASUREMENT

Subsection 202.11 shall include the following:

Removal of Parking Meter Pedestal shall be paid for per each and accepted as completed work by the Owner's Representative. Parking meter pedestal shall be salvaged and returned to Owner.

BASIS OF PAYMENT

Subsection 202.12 shall include the following:

Pay Item

Pay Unit

Removal of Parking Meter Pedestal

Each

Payment shall be full compensation for all work, equipment, and materials required to remove the parking meter pedestal, and delivering it to the Owner.

REVISION OF SECTION 202 REMOVAL OF TREE

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

Subsection 202.01 shall include the following:

This work includes removal of trees greater than 4 inches in caliper as measured at breast height (DBH) as located on the plans or as directed by the Owner's Representative. This work includes the preservation from injury or defacement of all vegetation and objects designated to remain.

Subsection 202.02 shall include the following:

This work shall be done by a Contractor or Subcontractor who is a qualified arborist and a member of the National Arborist Association. The firm's or individual's name and qualifications shall be submitted to the Owner's Representative's for approval prior to beginning work.

Prior to beginning work the Contractor shall stake trail horizontal control alignments to walk with Owner's Representative and Arborist to finalize tree to remain in place, tree to be removed, and tree trimming.

Tree Removal: Removal of trees shown in the plans shall be field verified. The Owner's Representative may direct the Contractor to remove trees outside of the limits of disturbed area (LDA) that pose conflict to the project. All debris created as a result of tree removal shall be removed from the project site and shall become the property of the Contractor. Trees to be removed shall be removed in their entirety, up to a depth of 2 feet below the surface of the final grade, or sidewalk subgrade, and shall become the property of the Contractor.

Trees shall be removed at the risk of the Contractor. Any damages to private property or items designated to remain shall be repaired or replaced at the Contractor's expense at no additional cost to the Owner.

Once all directed trimming and removal is completed and accepted, no additional trimming, cutting, pruning or removal shall be allowed unless directed, in writing, by the Owner's Representative.

METHOD OF MEASUREMENT

Subsection 202.11 shall include the following:

Removal of trees shall be paid for by the number of trees removed and accepted as completed work by the Owner's Representative. Additional removals or trimming requested by the Owner's Representative shall be made at the unit price designated in the Contract.

BASIS OF PAYMENT

Subsection 202.12 shall include the following:

Pay Item

Pay Unit

Removal of Tree

Each

Payment shall be full compensation for all work, equipment, and materials required to trim or remove the trees, including disposal. Trees with a smaller DBH than 4 inches shall be removed and paid as a part of Section 201 Clearing and Grubbing.

**REVISION OF SECTION 202
REMOVAL OF INLET**

Revise Section 202 of the Standard Specifications for this project as follows:

Subsection 202.01 shall include the following:

This work includes removal and disposal of existing inlet and appurtenances within the project limits as shown on the plans or at locations directed by the Engineer.

Subsection 202.11 shall include the following:

Removal of Inlet shall include all work necessary to remove the inlet structure and portions of existing connecting pipe as shown on the plans, along with repairs and plugs required to existing structures as shown on the plans.

Subsection 202.12 shall include the following:

Payment will be made under:

Pay Item

Pay Unit

Removal of Inlet

Each

**REVISION OF SECTION 202
REMOVAL OF SIDEWALK**

Revise Section 202 of the Standard Specifications for this project as follows:

Subsection 202.01 shall include the following:

This work includes removal and disposal of 4" thick sidewalk within the project limits as shown on the plans or at locations directed by the Engineer.

Subsection 202.02 shall include the following:

The Contractor shall isolate sidewalk to be removed by saw cutting the edge of the removal area, as shown in plans. Saw cutting shall be to the full depth of the concrete paving and go through any existing paving reinforcements. The cuts shall be to a true line, leaving free vertical edges. Cuts shall be made on the nearest joint line. Saw cutting shall be done using motor driven equipment equipped with a diamond cutting blade.

After sawing work has been completed the Contractor shall break the concrete paving into pieces, taking care not to damage adjacent paving to remain in place.

All materials shall be removed from the site and shall be disposed of properly and in accordance with all local, state, and federal regulations.

Subsection 202.12 shall include the following:

Payment will be made under:

Pay Item

Removal of Sidewalk

Pay Unit

Square Yard

**REVISION OF SECTION 202
REMOVAL OF CURB AND GUTTER**

Revise Section 202 of the Standard Specifications for this project as follows:

Subsection 202.01 shall include the following:

This work includes removal and disposal of curb and gutter within the project limits as shown on the plans or at locations directed by the Engineer.

Subsection 202.02 shall include the following:

The Contractor shall isolate curb and gutter to be removed by saw cutting the edge of the removal area, as shown in plans. Saw cutting shall be to the full depth of the concrete paving and go through any existing paving reinforcements. The cuts shall be to a true line, leaving free vertical edges. Cuts shall be made on the nearest joint line. Saw cutting shall be done using motor driven equipment equipped with a diamond cutting blade.

After sawing work has been completed the Contractor shall break the concrete paving into pieces, taking care not to damage adjacent paving to remain in place.

All materials shall be removed from the site and shall be disposed of properly and in accordance with all local, state, and federal regulations.

Subsection 202.12 shall include the following:

Payment will be made under:

Pay Item

Removal of Curb and Gutter

Pay Unit

Linear Foot

**REVISION OF SECTION 202
REMOVAL OF CURB RAMP**

Revise Section 202 of the Standard Specifications for this project as follows:

Subsection 202.01 shall include the following:

This work includes removal and disposal of concrete curb ramps within the project limits as shown on the plans.

Subsection 202.11 shall include the following:

Removal of Concrete Curb Ramps shall be measured by the square yard and will include all ramp concrete and components within the ramp outline. Removal of all components including detectable warning pad, transition areas, and barrier curbs will not be measured and paid for separately but shall be included in the work.

Subsection 202.12 shall include the following:

Payment will be made under:

Pay Item

Removal of Curb Ramp

Pay Unit

Square Yard

**REVISION OF SECTION 202
REMOVAL OF CONCRETE PAVEMENT**

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

Subsection 202.01 shall include the following:

This work shall include the removal of concrete paving, saw cutting, excavation, and proper disposal of materials in accordance with these specifications. Removals shall include the bus pad and bump out concrete.

METHOD OF MEASUREMENT

Subsection 202.11 shall include the following:

Concrete Removal shall be paid for by the square yard of area removed including all work, equipment, and materials required to complete the work, including saw cutting, removal, and disposal of concrete.

BASIS OF PAYMENT

Subsection 202.12 shall include the following:

Payment shall be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Removal of Concrete Pavement	Square Yard

**REVISION OF SECTION 202
REMOVAL OF ASPHALT MAT**

Revise Section 202 of the Standard Specifications for this project as follows:

Subsection 202.01 shall include the following:

This work includes removal and disposal of existing asphalt mat within the project limits as shown on the plans or at locations directed by the Engineer.

In subsection 202.02 delete the seventh paragraph and replace with the following:

The Contractor shall isolate paving to be removed by saw cutting the edge of the removal area, as shown in plans. Saw cutting shall be to the full depth of the paving. The cuts shall be to a true line, leaving free vertical edges.

After sawing work has been completed the Contractor shall break the concrete paving into pieces, taking care not to damage adjacent paving to remain in place.

All materials shall be removed from the site and shall be disposed of properly and in accordance with all local, state, and federal regulations.

The existing asphalt mat which varies in thickness shall be removed in a manner that minimizes contamination of the removed mat with underlying material. The removed mat shall become the property of the Contractor and shall be either disposed of outside the project site, or used in one or more of the following ways:

1. Used in embankment construction in accordance with subsection 203.07(c).
2. Placed in bottom of fills as approved by the Engineer.
3. Recycled into the hot mix asphalt.
4. Placed in the subgrade soft spots as directed by the Engineer.

Subsection 202.11 shall include the following:

The removal of the existing asphalt mat will be measured by the square yard of mat removed to the required depth and accepted. Sawing asphalt material will not be measured and paid for separately but shall be included in the work. Unless otherwise specified in the Contract, the disposal of the asphalt mat or its use in other locations on the project will not be measured and paid for separately, but shall be included in the work.

Subsection 202.12 shall include the following:

Payment will be made under:

Pay Item

Removal of Asphalt Mat

Pay Unit

Square Yard

**REVISION OF SECTION 202
REMOVAL OF FENCE**

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

Subsection 202.01 shall include the following:

This work shall include the removal of fencing, fence posts, and footings in accordance with these specifications.

Subsection 202.02 shall include the following:

Fence Removal. The Contractor shall remove all fencing material, posts, and footings above and below the existing grade. All holes created from post or footing removal shall be backfilled with a clean topsoil material and shall be compacted to 95% SPD to limit settling.

The Contractor shall take great care to disturb as little of the existing vegetation as possible when performing all work associated with fence removal.

All materials shall be removed from site and shall be disposed of properly and in accordance with all local, state, and federal regulations.

METHOD OF MEASUREMENT

Subsection 202.11 shall include the following:

Fence Removal work shall be paid for by the linear foot of fence removed.

BASIS OF PAYMENT

Subsection 202.12 shall include the following:

Payment shall be made under:

Pay Item

Pay Unit

Removal of Fence

Linear Foot

Payment for fence removal shall be full compensation for work to remove fencing, fence posts, and footings.

Topsoil and compaction shall not be paid for separately, but shall be included in the work.

REVISION OF SECTION 208 EROSION CONTROL

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

Subsection 208.01 is hereby revised to include the following:

Water quality control during construction activity shall be in accordance with Section 107.25.

The Contractor shall take such precautions as may be necessary to construct the Project in a dry condition and provide for drainage, dewatering, control of all surface and subsurface water, and shall erect any necessary temporary structures or other facilities at their expense.

The Contractor is responsible for Erosion Control and Stormwater Management for this Project. An initial Grading and Erosion Control (GEC) Plan is provided in the plan set to give the Contractor guidance for bidding and conducting this work. The Contractor is responsible for reviewing this information and preparing a site-specific Stormwater Management Plan consistent with the City of Manitou Springs and CDPHE requirements, plan notes, and plan specifications.

The City will be the Permittee of the CDPS-SDP during the entire period that it remains open and is also responsible for termination of the permit once final stabilization of the construction site has been achieved and accepted.

The Contractor shall proceed with this permit activity as soon as they deem it necessary following the Notice to Proceed. No contract delays or extensions will be granted to the Contractor for failure to implement the required SWMP plan and obtain the required state permits in a timeframe necessary to begin the Work as specified in the Contract.

Prior to any ground disturbance, the Contractor shall install all initial BMP's, request an inspection of the BMP's, and receive approval from the Engineer prior to proceeding with excavation or removal activities. The Engineer will coordinate the inspection which shall include the Engineer or designated representative, the City of Manitou Springs' Stormwater Inspector, Superintendent or designated representative, and/or SWMP Administrator. Unsatisfactory and incomplete stormwater and sediment/erosion control work will be identified in this inspection and will be summarized by the Engineer.

Once Construction has been completed, the City of Manitou Springs Project Manager, Stormwater Inspector, and the Contractor shall complete a walk-through of the Project site. The purpose of which is to determine the areas where BMP's may be removed or maintained.

Section 208.02 (m), fourth paragraph shall be deleted and replaced with the following:

Prefabricated or manufactured vehicle tracking pads may be used at the Contractor's discretion as appropriate for the location and the work, following approval by the Engineer. Multi-use pads shall consist of industrial grade materials and shall be designed to minimize sediment leaving the project site. No additional compensation will be provided to the Contractor for their use.

Section 208.03 is hereby revised to include the following:

A. Surface Water Control:

The Contractor shall coordinate, evaluate, design, construct, and maintain temporary water control conveyance systems, as applicable and necessary. These systems shall not significantly alter major flow paths, increase sedimentation, or cause erosion or flooding of adjacent areas.

The Contractor will be responsible for diverting the quantity of surface flow around or through the Construction area so that Project elements remain free of surface water for the time it takes to install these items. The Contractor is cautioned that the minimum quantity of water to be diverted is for erosion control and construction purposes, and not for general protection of the Construction site. It shall be the Contractor's responsibility to determine the quantity of water which shall be diverted to protect their work

from damage caused by stormwater. The Contractor is responsible for designing and implementing temporary diversion of water as applicable and necessary.

The Contractor shall always maintain surface flows within the Construction site. Temporary structures such as pipes, berms, sandbags, pumps, etc., shall be permitted for control of surface flows, if such measures are not a major obstruction to flood flows, do not worsen flooding, or alter historic flow routes.

Section 208.04 is hereby revised to include the following:

Water Control: Work includes all equipment, labor, materials, earthwork, and incidentals for evaluation, design, construction, monitoring, and maintenance of measures to control surface water and groundwater during construction.

Section 208.12 is hereby revised to include the following:

No measurement or payment will be made for water control or temporary erosion control devices for which there is not a pay item in the bid schedule. If additional items are required and approved by the Engineer, pay items will be made via Force Account: Erosion Control. All additional temporary erosion control devices required as part of the Contractor's Water Control Plan will not be paid for separately but shall be included in the work.

**REVISION OF SECTION 210
RESET GROUND SIGN**

Section 210 of the Standard Specifications is hereby revised for this project as follows:

Subsection 210.01 shall include the following:

This work shall include removing, stockpiling (as needed) and resetting ground sign in accordance with these specifications and in the conformity as shown in plans.

Subsection 210.02 shall include the following:

Footings shall be Class B concrete as defined in section 601.02.

Delete Subsection 210.07 and replace with the following:

The sign designated to be reset shall be removed, cleaned, and reset at designated location shown in plans. Resetting the sign shall include footings. Footings shall be a minimum diameter of 12 inches and depth of 36 inches. Signs shall be set plumb and supported for 24 hours to avoid shifting as footing cures. Footings located in paved areas shall be poured flush with the top of existing paving.

The Contractor shall remove and store the sign in a secure location protected from damage. Cleaning operations shall be conducted when materials are removed from stockpile.

BASIS OF PAYMENT

Subsection 210.13 shall include the following:

Payment will be made under:

Pay Item

Pay Unit

Reset Ground Sign

Each

Payment for resetting the sign shall be full compensation for all work, equipment, excavation, stockpiling and materials required to relocate and reset ground signs, including footing, to locations as shown in plans.

**REVISION OF SECTION 210
RESET SIGN PANEL**

Section 210 of the Standard Specifications is hereby revised for this project as follows:

Subsection 210.01 shall include the following:

This work shall include removing, stockpiling (as needed) and resetting sign panels in accordance with these specifications and in the conformity as shown in plans.

Delete Subsection 210.08 and replace with the following:

The sign designated to be reset shall be removed, cleaned, and reset at designated location shown in plans.

The Contractor shall remove and store the sign in a secure location protected from damage. Cleaning operations shall be conducted when materials are removed from stockpile.

BASIS OF PAYMENT

Subsection 210.13 shall include the following:

Payment will be made under:

Pay Item

Pay Unit

Reset Sign Panel

Each

Payment for resetting the sign shall be full compensation for all work, equipment, excavation, stockpiling and materials required to relocate and reset sign panels to locations as shown in plans.

**REVISION OF SECTION 210
RESET RECTANGULAR RAPID FLASHING BEACON (RRFB)**

Section 210 of the Standard Specifications is hereby revised for this project as follows:

Subsection 210.01 shall include the following:

Reset Rectangular Rapid Flashing Beacon (RRFB) includes all work and materials necessary to remove, store, and resetting of the RRFB per plan location. The Contractor shall be responsible for furnishing new bolts, nuts, washers, and other needed connection hardware for the installation of the RRFB.

Subsection 210.02 shall include the following:

The Contractor shall furnish and install new bolts, nuts, washers, and other needed connection hardware for the RRFB installation.

Delete subsection 210.11 and replace it with the following:

210.11 Rectangular Rapid Flashing Beacon (RRFB). Reset RRFB shall consist of providing a new concrete foundation. The RRFB designated for reset shall be removed from the existing foundation, transported, stored, and reinstalled once the work on the road and Creek Walk trail is completed in a manner that will prevent damage to the RRFB. Damage to the RRFB caused by the Contractor's operation will be repaired or replaced to the satisfaction of the Engineer and at the Contractor's expense.

In subsection 210.12 delete the ninth (final) paragraph and replace it with the following:

Resetting or modification of the RRFB and related equipment, poles, controllers, cabinets, and related equipment and materials shall include all work necessary to remove the items from their existing location and reset them at the new location, and shall include all mounting hardware, footings, and all other materials and work necessary to complete the reset item in service at the new location.

Subsection 210.13 shall include the following:

Payment will be made under:

Pay Item

Pay Unit

Reset Rectangular Rapid Flashing Beacon

Each

Payment shall be full compensation for all work, material, equipment, excavation, stockpiling, and materials required to install all conduit and wiring to connect to the Pedestrian Push Button.

**REVISION OF SECTION 210
MODIFY INLET**

Section 210 of the Standard Specifications is hereby revised for this project as follows:

Subsection 210.10 is modified as follows:

Where the existing inlet is to be modified, the Contractor shall saw cut and remove sections of the inlet as shown on the plans. Any damage to sections to remain in place shall be repaired at the Contractor's expense. The proposed section of the inlet shall be constructed so that the rim elevation is flush with the finished grade of the proposed sidewalk and flow lines of curb angles are constructed as shown on the construction plans.

A traversable, steel cover shall be designed by the Contractor and approved by the Engineer, intended to cover the modified inlet throat as shown on the plans.

Section 210.12 of the Standard Specification is hereby modified as follows:

METHOD OF MEASUREMENT

"Modify Inlet" shall include all work necessary to remove portions of existing structure and shall include all concrete, concrete reinforcement, manhole ring and cover, curb face assembly, hardware, traversable steel cover, and all other appurtenances necessary to construct the inlet.

Section 210.13 of the Standard Specification shall include the following:

BASIS OF PAYMENT

All work necessary to remove portions of existing structure and construct new portions of the inlet shall not be measured and paid for separately but shall be included in the work.

<u>Pay Item</u>	<u>Pay Unit</u>
Modify Inlet	Each

**PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds during construction.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture, or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall retain a qualified wildlife biologist for this project. The wildlife biologist shall have a minimum of three years' experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications.

The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records shall be submitted to the Engineer.

(a) *Vegetation Removal.* When possible, vegetation shall be cleared before the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

1. **Tree and Shrub Removal or Trimming.** Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately before the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of tree and shrub removal or trimming.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges but will be charged as contract time.

2. *Grasses and Other Vegetation Management.* Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately before ground disturbing activities.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges but will be charged as contract time.

- (b) *Taking of a Migratory Bird.* The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

METHOD OF MEASUREMENT

240.03 Wildlife Biologist will be measured by the actual authorized number of hours a wildlife biologist is on site performing the required tasks.

Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just before and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests.

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

Pay Item

Wildlife Biologist
Removal of Nests
Netting

Pay Unit

Hour
Hour
Square Yard

Payment for Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method)

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately but shall be included in the work.

Clearing and grubbing will be measured and paid for per Section 201. Mowing will not be measured and paid for separately but shall be included in the work.

Removal and trimming of trees will be measured and paid for per Section 202.

Fence (Plastic) will not be measured and paid for separately, but shall be included in the work.

Project No.	TAP M850-032 & MTF M850-031
Project Name.	Creekwalk Trail 4

**REVISION OF SECTION 304
AGGREGATE BASE COURSE**

Revise Section 304 of the Standard Specifications for this project as follows:

Subsection 304.02 shall include the following:

Materials for the base course shall be Aggregate Base Course (Class 6) as shown in subsection 703.03.

**REVISION OF SECTION 508
PEDESTRIAN STAIR STRUCTURE (TIMBER)**

Section 508 of the Standard Specifications is hereby revised for this project as follows:

Subsection 508.01 shall include the following:

This work consists of constructing timber stairs for the earthen trail.

Subsection 508.05 shall include the following:

All reinforcing steel used in the construction of Pedestrian Stair Structure shall conform to the requirements in Section 709 and to the details shown on the plans or established.

In subsection 508.06, delete the third through the seventh (final) paragraph and relace it with the following:

Excavate and backfill Pedestrian Stair Structure according to Section 206. Compact the finished surface of the earthen trail with at least three passes of a lightweight mechanical tamper, roller, or vibratory system.

Saw timber for Pedestrian Stair Structure to meet the field conditions for step run length and overall width, and pre-drill holes for rebar pinning. Lay timbers on a prepared surface, pin with rebar, and backfill per Section 206.

METHOD OF MEASUREMENT

Delete subsection 508.10 and replace it with the following:

508.10 Pedestrian stair structure will not be measured but will be paid for on a lump sum basis.

BASIS OF PAYMENT

Delete subsection 508.11 and replace it with the following:

508.11 Payment for Pedestrian Stair Structure will be the contract lump sum bid and will be full compensation for all work necessary to complete the Pedestrian Stair Structure as shown on the plans.

Payment will be made under:

Pay Item

Pedestrian Stair Structure (Timber)

Pay Unit

Lump sum

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

**REVISION OF SECTION 603
CULVERT AND SEWERS**

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

Subsection 603.12 shall include the following:

No direct measurement will be made for concrete collar connections.

Subsection 603.13 shall include the following:

No direct payment will be made for concrete collar connections as the cost thereof shall be considered incidental to the pipe being installed as shown in the Drawings. Work shall include all materials, concrete, reinforcing steel, grout, curing, shoring, formwork, sono-tube, excavation, backfill, labor, and other incidental work to complete work, complete and in place.

**REVISION OF SECTION 607
SAFETY RAIL**

Revise Section 607 of the Standard Specifications for this project as follows:

Subsection 607.01 shall include the following:

This work includes installing safety rail.

Subsection 607.02 shall include the following:

Bolts, nuts, and washers shall be galvanized per AASHTO M 232, Class C, or AASHTO M 298, Class 50, Type 1. All other fittings shall be galvanized per AASHTO M 111. Bolts, nuts, and washers for corrosion resistant guardrail shall be of corrosion resistant material and conform to or exceed the requirements of ASTM A307.

Subsection 607.03 shall include the following:

Safety rail shall be constructed according to the details shown on the plans.

Subsection 607.04 shall include the following:

Safety rail will be measured by the linear foot. Measurement will be along the base of the safety rail from outside to outside of end posts for each continuous run of safety rail.

Subsection 607.05 shall include the following:

Payment will be made under:

Pay Item

Safety Rail

Pay Unit

Linear Feet

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 surface plates, concrete pavers, or masonry pavers.

Plates and 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.

Plates used shall be one of the products approved for use as detectable warnings listed on CDOT's Approved Products List.

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.

When plates are used, 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 plate, 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 curbs 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 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.

2. Plates. Prior to installation of the plates, concrete conforming to subsection 608.02 shall be installed and consolidated as a base for the plates. The concrete shall be placed to a thickness that will allow the base surface of the plates to be at the same elevation as the adjacent concrete. The plates shall be embedded into the plastic concrete in accordance with the manufacturer’s specifications.

Subsection 608.05 shall include the following:

Detectable Warnings will be measured by the square foot, installed in place and accepted.

Subsection 608.06 shall include the following:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Detectable Warnings	Square Foot

REVISION OF SECTION 626 PUBLIC INFORMATION MANAGEMENT (TIER IV)

Revise Section 626 of the Standard Specifications for this project to include the following:

Description

This work consists of providing Public Information Management for the duration of the project. The Contractor shall submit all documentation associated with the Public Information Management item to the Project Engineer. Before approval, the Engineer will coordinate review and approval with the Region Communications Manager (RCM).

Anticipated communications issues on this project include:

- Business access
- Traffic Impacts
- Tree Removals
- Sidewalk Closure

Construction Requirements

- (a) *Public Information Manager (PIM)*. The PIM shall perform all activities associated with Public Information Management for this project. In the event the PIM is not available, the Backup PIM shall perform the required activities. The PIM may be the Project Superintendent.

Within ten days of the Notice to Proceed date or five days before the Pre-construction Conference, whichever is later, and at least 7 days before starting PIM work, the Contractor shall submit the name, contact information, and resume of the PIM and the Backup PIM to the Engineer. The PIM and Backup PIM shall have a minimum of five years of professional experience in public or media relations, marketing, or other related field and appropriate verbal and written communication skills. Experience in administrative or business office duties is not a related field.

- (b) *Activities of the PIM*. The PIM duties are:

- (1) Project Onboarding/Offboarding Request Form. The PIM shall complete and update the Project Onboarding/Offboarding Request Form <https://form.jotform.com/71167524405150>) every month or as requested by the Engineer. The form will assist the PIM, the City and CDOT with tracking required activities and deliverables.
- (2) On-Call. The PIM shall be available or on-call each day there is work on the project and shall be available upon the Engineer's request outside of normal working hours. The PIM and the Contractor shall participate with the City in all meetings requested by the Engineer.
- (3) Public Information Office. The Contractor shall establish a public information office equipped with a telephone, a local telephone number with voicemail, which becomes the Project Hotline, a computer, and an email address. Acceptable locations for the project's public information office include the project office or off-site within the Contractor's office or the PIM's office. The Project Information signs shall include the Project Hotline telephone number. The PIM shall update the Project Hotline telephone message greeting weekly at a minimum and include the project's anticipated completion date and forthcoming activities for the update period. The PIM shall answer calls, listen to voicemail, and check email throughout each day that construction operations are in effect. The PIM, and when necessary, the Engineer, shall respond to all inquiries with a phone call, a voicemail message, or an email within one day. The PIM shall document the contact's name, contact phone number or email address, and the action taken. Within two days of receiving the message, the PIM shall enter message details and follow-up action into the electronic reporting system.

- (4) Project Meetings. The PIM shall participate in the weekly project meetings, discuss communication issues, and provide a status on the items in this specification.
- (5) Lane Closure Reporting.
 - (i) Electronic Reporting System. Before the Pre-construction Conference and at least 7 days before the project start, the PIM shall submit a request for access to the electronic reporting system through the Project Onboarding/Offboarding Request Form (b.1). At least once per week, the PIM shall enter project information into the electronic reporting system.
 - (ii) Weekly Lane Closures. The Superintendent or PIM shall notify the Engineer one week in advance of all planned “no work” periods and planned lane closures. The PIM shall enter the planned weekly lane closures and updates into the electronic reporting system for the upcoming work period, Sunday through Saturday, by Thursday at 12:00 P.M. The Engineer will approve the Lane Closure and Updates by Friday at 3:00 P.M. Each Monday by 12:00 P.M., the PIM shall review www.cotrip.org and verify that the lane closure and update information is accurate. If corrections are necessary, the PIM shall coordinate with the Engineer to make necessary corrections to www.cotrip.org.
 - (iii) Real-Time Lane Closure Changes. The Superintendent shall notify the PIM and the Engineer at least 24 hours in advance on approved Lane Closure changes. The Engineer will notify the PIM when the electronic reporting system is available for changes. After completing the changes, the PIM shall notify the Engineer that the changes are ready for review and approval.
- (6) Public Information Collateral. The PIM shall develop a variety of Public Information Collateral to share project information for project milestones such as long-term closures or impactful construction activities. The PIM shall ensure all public-facing deliverables are accessible to individuals with disabilities and to ensure nondiscrimination against persons with disabilities. For more information go to the CDOT Accessibility webpage: <https://www.codot.gov/topcontent/accessibility>.
- (7) Collateral includes the following:
 - (i) Photographs and Video Recordings. The PIM shall take digital photographs and video recordings at regular intervals and submit them to the Engineer. The PIM may use a cell phone camera. Photographs and video recordings shall capture various work activities and other areas of work as identified by the Contractor or the Engineer. Collateral shall include these photographs and video recordings. The PIM shall submit a minimum of two digital photographs or video recordings of the project activities and progress each week to the City Public Information Officer. Each photograph and video recording shall include the project number, project code, date, time, location, and name of the person taking the photograph or video recording.
 - (ii) Maps and Graphics. The PIM shall develop maps, detour maps, and graphics for use in Public Information Collateral.
 - (iii) Web Page Updates. The PIM shall submit information about the project per the City of Manitou Springs Public Information Officer to update the City’s webpage. The information will include the project cost, Contractor name, duration, location, scope, construction phasing or work schedule, and potential traffic impacts. The PIM shall visit and perform a weekly quality control check of the webpage to ensure the site is functioning correctly. The PIM shall provide updates with pertinent changes in schedule information, new photos, contact information, etc.
 - (iv) Public Information Management Contact Sheet. The PIM shall prepare and update a Public Information Management Contact Sheet with the names and contact information of the

individuals pertinent to the project's public information. At a minimum, the Contact Sheet shall include the City Staff such as the City Engineer, City Administrator, Owner's rep, and administration support staff, Project Engineer, the electronic reporting system administrator, PIM, Backup PIM, Contractor Superintendent, and Traffic Control Supervisor. The contact sheet shall include the applicable Traffic Management Centers. (Joint Operations Center-Pueblo). The Public Information Plan shall include the Public Information Management Contact Sheet.

- (v) Traffic Advisories and Project Updates. The PIM shall develop weekly traffic advisories and project updates developed from the weekly Lane Closure Report, including lane closures and project update information. The CDOT traffic advisories and project updates templates are available in the Project Onboarding/Offboarding Request Form PIM resources. The Engineer will approve traffic advisories and project updates before distribution. The PIM shall email the traffic advisory and project updates to the stakeholder list by Friday of each week to announce the following week's upcoming project activity. The emailed advisory may come from the project email box or an automated distribution platform.
- (vi) Media Relations. The City will address all media inquiries and media requests. The PIM shall immediately notify the Engineer of any project and on-site situations involving the media. When the media contacts the PIM or Contractor staff, the PIM shall provide the media the City's Public Information Officer's contact information.

The PIM shall prepare a media release announcing the project, summarizing the project scope, construction phasing, construction activities that affect traffic, the project end date, and a summary of project benefits. The PIM shall develop additional media releases for major construction milestones, traffic control or lane shifts, closures, project completion, and as directed by the City. The releases shall also include maps or other graphics. The City Public Information Officer shall determine the contacts for the media releases.

- (c) Response Protocol to the City and the Public. The PIM shall follow Table 626-1 in responding to correspondence from stakeholders and the public or as directed by the City Public Information Officer:

Table 626-1 – Response Timing

Type	Timing
Project Hotline calls and voice messages	Answer calls and check messages throughout each day. Respond within one day. Enter details into the electronic reporting system within two days.
Email messages	Respond within one day. For high-volume situations, respond within two days. Enter details into the electronic reporting system within two days.
Calls from City Staff	Respond as soon as possible and within 24 hours.
Web page inquiries	Respond within one day. For high-volume situations, respond within two days.

Method of Measurement

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

The Engineer will monitor the PIM and all public information services. When the PIM provides acceptable public information services per these specifications, partial payments for the pay item Public Information Services will be made as the work progresses. Failure to provide acceptable public information services will result in a withholding of payment for this item. These partial payments will be made as follows:

Partial payments for public information services will be made once each month as work progresses. The monthly partial payments will be determined by pro-rating the lump sum bid amount by the number of months in the actual construction schedule.

Basis of Payment

Payment will be made under:

Pay Item

Pay Unit

Public Information Services (Tier IV)

Lump Sum

Payment for Public Information Services will be full compensation for all work, materials, and equipment to provide public information throughout the project per this specification.

Construction Signs will be measured and paid for per Section 630.

REVISION OF SECTIONS 627 AND 713 MODIFIED EPOXY PAVEMENT MARKING (INLAID)

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

Subsection 627.05 shall include the following:

The surface area receiving marking shall be ground prior to placement of the Modified Epoxy Pavement Marking (Inlaid). This applies to new or existing concrete or asphalt pavements. Where there is extensive presence of crack-sealing material on the pavement surface, the Contractor shall obtain the Engineer's approval before grinding. The grooved width for inlaid pavement marking shall be the width of the material with a tolerance of (+) 1/4-inches, (-) 0-inches. The depth of the inlaid grooves shall be 60 mils below the surface of the existing pavement. The Contractor shall set the spacer width between blades such that there is less than a 5 mil rise in the pavement between the blade grooves.

The ground surface shall be cleaned with a high-pressure air blast to remove loose material prior to placement of the modified epoxy pavement marking material. Grooves shall be clean, dry and free of laitance, oil, dirt, grease, paint or other foreign contaminants. The Contractor shall prevent traffic from traversing the grooves, and shall re-clean grooves, as necessary, prior to application of the modified epoxy pavement markings.

The Contractor shall not perform inlaid grinding to locations that cannot have modified epoxy pavement marking materials applied during the same working day or working period, unless approved by the Engineer. If a rain event occurs during grinding and marking application, temporary raised flexible pavement markers shall be installed on all channelizing, center, and lane lines. Temporary markers shall be placed on edge lines where lighted curb or other delineation is not provided as directed by the Engineer. The frequency of temporary markers shall be according to Section 6F.79 of MUTCD. Marking application may proceed only when pavement is dry and has had no moisture for a minimum of 24 hours.

Modified Epoxy Pavement Marking shall have uniform mil thickness and bead distribution across the entire width of the material. Unless otherwise shown on the plans, typical pavement markings shall conform to the shapes and sizes as shown on Standard Plan S-627-1.

Modified Epoxy Pavement Marking materials shall conform to subsection 713.17.

Subsection 627.13 shall include the following:

<u>Pay Item</u>	<u>Pay Unit</u>
Modified Epoxy Pavement Marking (Inlaid)	Gallon

Section 713.17 shall include the following:

(n) *Performance.* Marking, when applied in accordance with manufactures recommendations shall demonstrate a uniform level of sufficient night time retro-reflection when tested in accordance to ASTM E1710-97. The applied material shall have an initial minimum intensity reading of $400 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for white and $250 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for yellow as measured with a retro-reflectometer.

REVISION OF SECTION 627 AND 713 PREFORMED THERMOPLASTIC PAVEMENT MARKING

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

Subsection 627.09 (a) is hereby replaced by the following:

(a) *Application.* An epoxy resin primer shall be applied to any existing surface (concrete, asphalt, existing markings, etc.) prior to the application of any new preformed thermoplastic, plastic pavement marking. The epoxy resin primer shall conform to CDOT Standard Specifications subsection 708.07. Primer shall be required for all markings used including markings that manufacture does not require a primer. Primer and application will not be measured and paid for separately but shall be included in the work.

Surface shall be dry and free of dirt, dust, chemicals, and/or significant oily substances. Application procedures for Portland concrete pavement shall be as described above except a compatible primer sealer shall be applied before application of marking to assure proper adhesion.

The markings shall not have minimum ambient and road temperature requirements for application, without any preheating of the pavement, special storage, handling, preheating or treatment of the material before application.

The preformed thermoplastic markings shall not be installed on top of existing preformed plastic pavement markings without first removing the existing markings to a depth that ensures removal of the adhesive backing of the preformed plastic. It shall not be installed on top of pavement marking paint without first removing the paint.

Subsection 627.09 shall include the following:

(c) Inlaid (Word-Symbol) (X-walk/Stop-bar) (Shield)

All Preformed Thermo-Plastic Pavement Marking surfaces shall be ground before placement of proposed marking. Depth of grinding shall be such as to completely remove any existing pavement markings and to have a nominal depth of **125 mils +/- 10 mils**. The inlaid area for the new Preformed Thermo-Plastic Pavement Marking shall be in the same shape or pattern as the Preformed Thermo-Plastic Pavement Marking that is being installed.

Colorado epoxy glass beads and anti-skid elements shall be applied to the surface of the material to ensure the required skid resistance and retroreflectivity.

Surface shall be dry and free of dirt, dust, chemicals, and/or significant oily substances. Existing pavement markings shall be removed prior to installation of preformed thermoplastic pavement marking in areas where markings overlap. Application procedures for Portland concrete pavement shall be as described above except a compatible primer sealer shall be applied before application of marking to ensure proper adhesion.

The Contractor shall require the stencil manufacturer to provide on-site training prior to installation of the first stencil. All crew members on the work site shall be certified by the stencil manufacturer. The training shall include surface preparation and stencil installation for both hot bituminous pavement and concrete pavement. The training shall be coordinated with and attended by the Engineer and inspector(s).

(1) **Use:** A durable, high skid resistant, retroreflective pavement marking material suitable for use as interstate shields, route shields, bike path, roadway, intersection, airport, commercial or private pavement delineation and markings.

1.1. The markings must be a resilient white, yellow, or other color thermoplastic product, the surface of which must contain glass beads and abrasives in an alternating pattern. The markings must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids, etc. Lines, legends,

and symbols are capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of the normal heat of a propane torch.

- 1.2. The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.
- (2) **Manufacturing Location, Control and International Organization for Standardization (ISO) Certification:** The marking material must be produced in the United States, and the manufacturer must be ISO 9001:2008 certified for design, development, and manufacturing of preformed thermoplastic pavement markings, and provide proof of current certification.
- (3) **Material:** Must be composed of an ester modified rosin resistant to degradation by motor fuels, lubricants, etc. in conjunction with aggregates, pigments, binders, abrasives, and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249, with the exception of the relevant differences due to the material being supplied in a preformed state.

3.1. Graded Glass Beads

- 3.1.1. The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall conform to AASHTO designation M247, with minimum 80% true spheres and minimum refractive index of 1.50.
- 3.1.2. The material must have factory applied coated surface beads and abrasives at a rate of 1/2 lb. (0.23 kg) [$\pm 20\%$] per 11 sq. ft. (1 sq. m) each in addition to the intermixed beads. The surface beads and abrasives must be applied evenly across the surface of the material so that the surface is covered completely with glass beads and abrasive materials. The abrasive material must have a minimum hardness of 9 (Mohs scale). The factory applied coated surface beads shall have a minimum of 80% true spheres, minimum refractive index of 1.50, and meet the following gradation:

Table – Bead Size Gradation

Size Gradation			
US Mesh	Um	Retained, %	Passing, %
12	1700	0-2%	98-100%
14	1400	0-6%	94-100%
16	1180	1-21%	79-99%
18	1000	28-62%	38-72%
20	850	62-71%	29-38%
30	600	67-77%	23-33%
50	300	86-95%	5-14%
80	200	97-100%	0-3%

3.2. Pigments:

3.2.1. White: The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

3.2.2. Red, Blue, and Yellow: The material shall be manufactured with sufficient pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal-free.

3.2.3. Other Colors: The pigments shall be heavy-metal-free.

3.3. Heating indicators: The top surface of the material (same side as the factory applied surface beads/abrasives) shall have regularly spaced indents. The closing of these indents during application shall act as a visual cue that the material has reached a molten state allowing for satisfactory adhesion and proper bead embedment, and as a post-application visual cue that the application procedures have been followed.

3.4. Skid Resistance: The surface of the preformed thermoplastic (anti-skid material) items shall contain factory applied anti-skid material with a minimum hardness of 9 (Mohs scale). Upon application the material shall provide a minimum skid resistance value of 60 BPN when tested according to ASTM E303. The surface beads and abrasives shall be applied evenly across the surface of the material so that the surface is covered completely with glass beads and abrasive materials.

3.5. Thickness: The material must be supplied at a minimum thickness of 125 mils (3.15 mm).

3.6. Retroreflectivity: The material, when applied in accordance with manufacturer's guidelines, shall demonstrate a uniform level of sufficient nighttime retroreflection when tested in accordance to ASTM E1710. The applied material must have an initial minimum intensity reading of $275 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ for white, as measured with a Delta pavement marking retroreflectometer.

3.7. Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt, or adverse weather conditions and impervious to oil and gasoline.

Only preformed thermoplastic pavement marking material listed on the Department's approved products list may be used.

BASIS OF PAYMENT

Subsection 627.13 shall include the following:

Pay item

Pay unit

Thermoplastic Pavement Marking (Word-Symbol)

Square Foot

Grinding of existing preformed thermoplastic pavement marking and existing asphalt shall not be measured and paid for separately, but shall be included in the work.

Beads and skid resistance installation will not be measured and paid for separately, but shall be included in the work.

Training shall be incidental to the work.

REVISION OF SECTION 630 CONSTRUCTION ZONE TRAFFIC CONTROL

Revise Section 630 of the Standard Specifications for this project to include the following:

Subsection 630.01 shall include the following:

The work includes the requirements in the Traffic Control Plan General specification.

Subsection 630.17 Method of Measurement will be removed and replaced with the following:

Traffic Control shall be measured and paid for Lump Sum

Subsection 630.18 Basis of Payment will be removed and replaced with the following:

Pay item

Pay unit

Traffic Control (Special)

Lump Sum

Payment for the individual traffic control devices necessary to complete the work shall be full compensation for furnishing, erecting, cleaning, maintaining, resetting, repairing, replacing, moving, removing, and disposing of the construction traffic control devices.

All construction traffic control devices that are not permanently incorporated into the project will remain the property of the Contractor.

Construction traffic control devices will be included in the Lump Sum payment of Traffic Control as determined by the project Traffic Control Plan (TCP). The percent of original contract amount earned will be determined by comparing the amount earned for bid items, other than traffic control devices and mobilization, with the original contract amount minus the amounts bid for traffic control devices and mobilization.

Lump Sum will be paid by percent complete based on working days up to the contract number of working days or 90% of the contract time. The remaining 10% of the lump sum payment will be made at completion and acceptance of the project.

This will include all the traffic control items needed for the work including any Construction Traffic Sign (Special) project specific sign. When Traffic Control Management and Traffic Control Inspection are not pay items, Traffic Control Management and Inspection will not be paid for separately, but shall be included in the work.

Flaggers and their hand devices will not be measured and paid for separately but shall be included in the work.

Cost of electrical power, including batteries, for all temporary lighting or warning devices shown on the TCP will not be paid for separately but will be included in the work.

Temporary masking signs, including the covering materials and fastening devices, will not be measured and paid for separately but shall be included in the work.

These items shall be provided at the Contractor's expense. Cleaning and patching of the roadway after removal of the Channelizing Device (Fixed) will not be paid for separately but shall be included in the work. Placement, unmasking, removal and masking of reduced speed limit signs and double fines signs, will not be measured and paid for separately but shall be included in the work.

Preparation and implementation of the Traffic Management Plan will not be measured and paid for separately but shall be included in the work. Traffic Control Management, vehicles, traffic control devices,

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

and all other work, materials and equipment necessary for the mobile pavement marking zone will not be measured and paid for separately but shall be included in the work.

Flagging required for the mobile pavement marking zone will not be measured and paid for separately but shall be included in the work.

Construction signing will not be measured and paid for separately but shall be included in the work. Portable Variable Message Signs (VMS) will not be measured and paid for separately but shall be included in the work. Flaggers will not be measured and paid for separately but shall be included in the work. Two-way radios will not be measured and paid for separately but shall be included in the work. Temporary concrete barrier walls, if required, will not be measured and paid for separately but shall be included

FORCE ACCOUNT ITEMS

DESCRIPTION

This special provision contains the City'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 in order 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>Amount</u>
F/A Minor Contract Revisions	\$50,000*
F/A Landscaping	\$27,000*
F/A Erosion Control	\$15,000

Descriptions:

F/A Minor Contract Revisions – Consists of minor work authorized and approved by the Engineer, which is not included in the contract plans or specifications, and is necessary to accomplish the scope of work of this contract.

F/A Landscape Design – This force account will include all work necessary to design, install and establish landscape within the bumpout areas, polinator gardens and other areas designated by the owner. Clearing and Grubbing intended for the polinator gardens shall be measuread and paid for under the F/A Landscape design. All items shall be approved by the Owner prior to installation.

F/A Erosion Control – Supplemental erosion control measures suggested by the Erosion Control Supervisor, but not provided for in the contract plans or specifications. All items shall be approved by the Engineer prior to installation or they will be at no cost to the project.

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:

- (1) Subsection 104.04 and Section 630 of the specifications.
- (2) Standard Plan S-630-1, Traffic Controls for Highway Construction and Standard Plan S-630-2.
- (3) Schedule of Construction Traffic Control Devices.

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.

CDOT may have entered into operating agreements with one or more law enforcement organizations for cooperative activities. Under such agreements, at the sole discretion of CDOT, law enforcement personnel may enter the work zone for enforcement purposes and may participate in the Contractor's traffic control activities. The responsibility under the Contract for all traffic control resides with the Contractor and any such participation by law enforcement personnel in Contractor traffic control activities will be referenced in either the Special Provisions or General Notes of the plans depending on whether the Contractor is to hire local law enforcement or if CDOT is contracting with Colorado State Patrol for uniformed traffic control. Nothing in this Contract is intended to create an entitlement, on the part of the Contractor, to the services or participation of the law enforcement organization.

Special Traffic Control Plan requirements for this project are as follows:

The Contractor shall provide the details and equipment required for the traffic control during the project including impact to pedestrians/bikes to be approved by the Engineer.

The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time.

The contractor shall provide at least one lane open in each direction along Manitou Ave. (US 24E) within the project limits. The middle turn lane may be used as a through lane. Removal of the traffic control devices or removal of lane shifts for weekends is required when there is no work or need for the project.

A single lane (one-way traffic) will not be permitted except during the hours of 8pm-6am as approved by the engineer with approved MHT.

Flagging operations may be allowed with stops not greater than 5 minutes in length only between 9am-4pm Monday through Thursday or 9am to 3pm on Friday or as approved by the Engineer.

Sidewalk impacts:

Sidewalk closures will be allowed from September 2nd through October 24th, then October 27th (if needed) to the end of the construction with a proper pedestrian/bike detour route provided.

At least three (3) working days' notice will be required to be given and approved by the Engineer with the approved MHT for the sidewalk closure on Manitou Ave. South Manitou Ave. sidewalk closure is allowed only if North Manitou Ave. is open for pedestrians or as approved by the Engineer.

Access to businesses shall remain open for the length of the project unless otherwise approved and with approved signing indicating access points.

Any temporary closures that may be required for business access will be discussed with property owners and documentation will be provided at least 7 calendar days prior to any closures.

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

Variance Process for Project Specific Working Time.

Contractor will have 10 working days to submit a variance request through the Engineer in advance of planned work requiring a proposed variance for review. At minimum, variance submittal request shall include: Current Project Schedule, Schedule (based on variance request), Proposed Working Times, MHT's or TMP, and Supportive reasoning narrative for variance request.

UTILITIES

Known utilities within the limits of this project are depicted on the SUE plans. Contacts for each of the known utilities are as follows:

UTILITY	CONTACT/EMAIL	PHONE/FAX
Colorado Springs Utilities – Water	Andy Rose arose@csu.org	719-668-8263
Colorado Springs Utilities – Gas	Tim Benedict tbenedict@csu.org	719-668-3574
Colorado Springs Utilities – Electric	Kyle Leibhart kleibhart@csu.org	719-313-1504
City of Manitou Springs	Sean Dearborn sdearborn@manitouspringsco.gov	719-401-7846
Fiber Optic & Telecom – CenturyLink/Lumen	Landavazo, William<William.Landavazo@lumen.com	
Fiber Optic & CATV – Comcast	Cindy VanBuren cndyvanburen@usicllc.com	720-601-5259

The work described in these plans and specifications requires coordination 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.

PART 1 - CONTRACTOR SHALL PERFORM THE WORK LISTED BELOW:

Coordinate project construction with the performance by the utility owner of each utility work element listed in Part 2 below. Perform preparatory work specified in Part 2 for each utility work element. 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 Project Engineer.

Notify each utility owner in writing, with a copy to the Project Engineer, prior to the time each utility work element is to be performed by the utility owner. Provide the notice the number of days specified in Part 2 immediately prior to the time the utility work must be begun to meet the project schedule.

Provide traffic control, as directed by the Project 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.

Perform each utility work element for every utility owner listed here in Part 1. Notify each utility owner in advance of any work being done by the Contractor to its facility, so that the utility owner can coordinate its

inspections for final acceptance of the work with the Project Engineer. Obtain written acceptance from the utility owner for work performed by Contractor.

COLORADO SPRINGS UTILITIES – WATER:

While no work is required by the Contractor related to the actual raw water lines, there are restrictions established by Colorado Springs Utilities (CSU) when working over top of, beneath, or when exposing CSU's raw water lines. The Contractor is responsible for protection of all of CSU's facilities within the project limits.

The Contractor shall coordinate with CSU - Water when crossing existing raw water lines with proposed infrastructure.

COLORADO SPRINGS UTILITIES – GAS:

While no work is required by the Contractor related to the actual gas lines, there are restrictions established by Colorado Springs Utilities (CSU) when working over top of, beneath, or when exposing CSU's gas lines. The Contractor is responsible for protection of all of CSU's facilities within the project limits.

The Contractor shall coordinate with CSU - Gas when crossing existing gas lines with proposed infrastructure.

CITY OF MANITOU SPRINGS:

While no significant work is required by the Contractor related to the actual water or sanitary sewer lines, the Contractor shall coordinate with the City during the excavation and tapping for the irrigation system. The Contractor is responsible for protection of all of the City's facilities within the project limits. Work associated with adjusting valve boxes shall be done in accordance with Section 210.

The Contractor shall coordinate with the City when crossing existing facilities with proposed infrastructure.

CENTURYLINK/LUMEN:

While no work is required by the Contractor related to the actual fiber optic telecom lines, there are restrictions established by CenturyLink/Lumen when working over top of, beneath, or when exposing CenturyLink/Lumen's telecom lines. The Contractor is responsible for protection of all of CenturyLink/Lumen's facilities within the project limits.

The Contractor shall coordinate with CenturyLink/Lumen when crossing existing telecom lines with proposed infrastructure. The Contractor shall also coordinate with CenturyLink/Lumen to establish the scheduling of the adjustment to the manhole lids within the project limits and within the concrete trail.

COMCAST:

While no work is required by the Contractor related to the actual telecom lines, there are restrictions established by Comcast when working over top of, beneath, or when exposing Comcast's telecom lines. The Contractor is responsible for protection of all of Comcast's facilities within the project limits.

The Contractor shall coordinate with Comcast when crossing existing telecom lines with proposed infrastructure.

COLORADO SPRINGS UTILITIES - ELECTRIC:

The Contractor shall notify CSU – Electric at the issuance of the Notice to Proceed to coordinate the accessibility to, and delivery of the street light foundations, and junction boxes. Additionally, Contractor shall coordinate with CSU – Electric prior to the installation of the foundations to schedule CSU – Electric's installation of the street lights. CSU – Electric shall be contacted when all street light conduit has been installed, for the pulling of wire to each street light.

PART 2 - UTILITY OWNERS SHALL PERFORM THE WORK LISTED BELOW:

Although the Contractor shall provide traffic control for utility work expected to be coordinated with construction, traffic control for utility work outside of typical project work hours shall be the responsibility of the utility owner. The utility owner shall prepare and submit to the Engineer a Method of Handling Traffic for utility work to be performed outside typical project work hours. The utility owner shall obtain acceptance of the Method of Handling Traffic from the Engineer prior to beginning the utility work to be performed outside typical project work hours.

COLORADO SPRINGS UTILITIES – ELECTRIC:

CSU – Electric forces shall work with the Contractor to remove all overhead street lights, including utility poles to accommodate the proposed improvements as shown on the plans. This work is expected to be coordinated with construction and completed prior to installation of the concrete trail.

CSU – Electric shall also coordinate with the Contractor to provide access to and delivery of all street light foundations and junction boxes. Upon notification by the Contractor, CSU – Electric shall install all street lights and pull all associated wire within the conduit infrastructure as shown on the plans. CSU – Electric shall take all necessary steps and processes to energize the street lighting system, and coordinate with the City on the illumination distribution.

COLORADO SPRINGS UTILITIES – GAS:

CSU – Gas shall coordinate with the Contractor to provide standby operations while the Contractor is working in close proximity to the gas main.

CENTURYLINK/LUMEN:

CenturyLink/Lumen forces shall work with the Contractor to remove all overhead facilities, including utility poles to accommodate the proposed improvements as shown on the plans. This work is expected to be coordinated with construction and completed prior to installation of the concrete trail.

COMCAST:

Comcast forces shall work with the Contractor to remove all overhead facilities, including utility poles to accommodate the proposed improvements as shown on the plans. This work is expected to be coordinated with construction and completed prior to installation of the concrete trail.

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.

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

**CITY OF MANITOU SPRINGS
SPECIAL PROVISIONS
CREEK WALK TRAIL – PHASE 4**

The Colorado Department of Transportation (CDOT) 2025 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 SPECIAL PROVISIONS

	<u>Date</u>	<u>Page</u>
Index Pages	(July 1, 2025)	1-2
Notice to Bidders	(July 1, 2025)	3
Disadvantaged Business Enterprise (DBE) Contract Goal	(July 1, 2025)	4
Commencement and Completion of Work (Working Day)	(July 1, 2025)	5
On the Job Training Contract Goal	(July 1, 2025)	6
Revision of Section 101 – Definitions and Terms	(July 1, 2025)	7-8
Revision of Section 103 – Award and Execution of Contract	(July 1, 2025)	9
Revision of Section 106 – Control of Material	(July 1, 2025)	10
Revision of Section 107 – Legal Relationship and Responsibility to Public	(July 1, 2025)	11-12
Revision of Section 201 – Clearing and Grubbing	(July 1, 2025)	13
Revision of Section 202 – Removal of Parking Meter Pedestal	(July 1, 2025)	14
Revision of Section 202 – Removal of Tree	(July 1, 2025)	15
Revision of Section 202 – Removal of Inlet	(July 1, 2025)	16
Revision of Section 202 – Removal of Sidewalk	(July 1, 2025)	17
Revision of Section 202 – Removal of Curb and Gutter	(July 1, 2025)	18
Revision of Section 202 – Removal of Concrete Curb Ramp	(July 1, 2025)	19
Revision of Section 202 – Removal of Concrete Pavement	(July 1, 2025)	20
Revision of Section 202 – Removal of Asphalt Mat	(July 1, 2025)	21
Revision of Section 202 – Removal of Fence	(July 1, 2025)	22
Revision of Section 208 – Erosion Control	(July 1, 2025)	23-24
Revision of Section 210 – Reset Ground Sign	(July 1, 2025)	25
Revision of Section 210 – Reset Sign Panel	(July 1, 2025)	26
Revision of Section 210 – Reset Rectangular Rapid Flashing Beacon (RRFB)	(July 1, 2025)	27
Revision of Section 210 – Modify Inlet	(July 1, 2025)	28
Revision of Section 240 – Protection of Migratory Birds, Biological Work Performed by the Contractor’s Biologist	(July 1, 2025)	29-31
Revision of Section 304 – Aggregate Base Course	(July 1, 2025)	32
Revision of Section 508 – Pedestrian Stair Structure	(July 1, 2025)	33
Revision of Section 603 – Culvert and Sewers	(July 1, 2025)	34
Revision of Section 607 – Safety Rail	(July 1, 2025)	35
Revision of Sections 105 and 608 – Detectable Warnings	(July 1, 2025)	36-37
Revision of Section 626 – Public Information Management (Tier IV)	(July 1, 2025)	38-41
Revision of Sections 627 and 713 – Modified Epoxy Pavement Marking (Inlaid)	(July 1, 2025)	42
Revision of Sections 627 and 713 – Thermoplastic Pavement Marking	(July 1, 2025)	43-45
Revision of Section 630 – Construction Zone Traffic Control	(July 1, 2025)	46-47
Force Account Items	(July 23, 2025)	48
Traffic Control Plan – General	(July 1, 2025)	49-50
Utilities	(July 23, 2025)	51-53
Revision of Section 403 – Hot Mix Asphalt	(July 23, 2025)	54-56
Revision of Section 629 – Survey Monumentation	(July 23, 2025)	57

FORCE ACCOUNT ITEMS

DESCRIPTION

This special provision contains the City'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 in order 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>Amount</u>
F/A Minor Contract Revisions	\$50,000*
F/A Erosion Control	\$15,000

Descriptions:

F/A Minor Contract Revisions – Consists of minor work authorized and approved by the Engineer, which is not included in the contract plans or specifications, and is necessary to accomplish the scope of work of this contract.

F/A Erosion Control – Supplemental erosion control measures suggested by the Erosion Control Supervisor, but not provided for in the contract plans or specifications. All items shall be approved by the Engineer prior to installation or they will be at no cost to the project.

UTILITIES

Known utilities within the limits of this project are depicted on the SUE plans. Contacts for each of the known utilities are as follows:

UTILITY	CONTACT/EMAIL	PHONE/FAX
Colorado Springs Utilities – Water	Andy Rose arose@csu.org	719-668-8263
Colorado Springs Utilities – Gas	Tim Benedict tbenedict@csu.org	719-668-3574
Colorado Springs Utilities – Electric	Kyle Leibhart kleibhart@csu.org	719-313-1504
City of Manitou Springs	Sean Dearborn sdearborn@manitouspringsco.gov	719-401-7846
Fiber Optic & Telecom – CenturyLink/Lumen	Ken Davis Ken.davis2@lumen.com	
Fiber Optic & CATV – Comcast	Cindy VanBuren cndyvanburen@usiellc.com	720-601-5259

The work described in these plans and specifications requires coordination 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.

PART 1 - CONTRACTOR SHALL PERFORM THE WORK LISTED BELOW:

Coordinate project construction with the performance by the utility owner of each utility work element listed in Part 2 below. Perform preparatory work specified in Part 2 for each utility work element. 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 Project Engineer.

Notify each utility owner in writing, with a copy to the Project Engineer, prior to the time each utility work element is to be performed by the utility owner. Provide the notice the number of days specified in Part 2 immediately prior to the time the utility work must be begun to meet the project schedule.

Provide traffic control, as directed by the Project 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.

Perform each utility work element for every utility owner listed here in Part 1. Notify each utility owner in advance of any work being done by the Contractor to its facility, so that the utility owner can coordinate its inspections for final acceptance of the work with the Project Engineer. Obtain written acceptance from the utility owner for work performed by Contractor.

COLORADO SPRINGS UTILITIES – WATER:

While no work is required by the Contractor related to the actual raw water lines, there are restrictions established by Colorado Springs Utilities (CSU) when working over top of, beneath, or when exposing CSU's raw water lines. The Contractor is responsible for protection of all of CSU's facilities within the project limits.

The Contractor shall coordinate with CSU - Water when crossing existing raw water lines with proposed infrastructure.

COLORADO SPRINGS UTILITIES – GAS:

While no work is required by the Contractor related to the actual gas lines, there are restrictions established by Colorado Springs Utilities (CSU) when working over top of, beneath, or when exposing CSU's gas lines. The Contractor is responsible for protection of all of CSU's facilities within the project limits.

The Contractor shall coordinate with CSU - Gas when crossing existing gas lines with proposed infrastructure. Contractor is to contact CSU – Gas when boring across the 4" high pressure gas main in Manitou Avenue.

CITY OF MANITOU SPRINGS:

While no significant work is required by the Contractor related to the actual water or sanitary sewer lines, the Contractor shall coordinate with the City during the excavation and tapping for the irrigation system. The Contractor is responsible for protection of all of the City's facilities within the project limits. Work associated with adjusting valve boxes shall be done in accordance with Section 210.

The Contractor shall coordinate with the City when crossing existing facilities with proposed infrastructure.

CENTURYLINK/LUMEN:

While no work is required by the Contractor related to the actual fiber optic telecom lines, there are restrictions established by CenturyLink/Lumen when working over top of, beneath, or when exposing CenturyLink/Lumen's telecom lines. The Contractor is responsible for protection of all of CenturyLink/Lumen's facilities within the project limits.

The Contractor shall coordinate with CenturyLink/Lumen when crossing existing telecom lines with proposed infrastructure. The Contractor shall also coordinate with CenturyLink/Lumen to establish the scheduling of the adjustment to the manhole lids within the project limits and within the concrete trail.

COMCAST:

While no work is required by the Contractor related to the actual telecom lines, there are restrictions established by Comcast when working over top of, beneath, or when exposing Comcast's telecom lines. The Contractor is responsible for protection of all of Comcast's facilities within the project limits.

The Contractor shall coordinate with Comcast when crossing existing telecom lines with proposed infrastructure.

COLORADO SPRINGS UTILITIES - ELECTRIC:

The Contractor shall notify CSU – Electric at the issuance of the Notice to Proceed to coordinate the accessibility to, and delivery of the street light foundations, and junction boxes. Additionally, Contractor shall coordinate with CSU – Electric prior to the installation of the foundations to schedule CSU – Electric's installation of the street lights. CSU – Electric shall be contacted when all street light conduit has been installed, for the pulling of wire to each street light. Contractor shall also coordinate with CSU –

Electric for the placement of the electrical transformer. The area for the transformer shall be prepared by the Contractor in accordance with CSU details prior to placement by CSU – Electric.

PART 2 - UTILITY OWNERS SHALL PERFORM THE WORK LISTED BELOW:

Although the Contractor shall provide traffic control for utility work expected to be coordinated with construction, traffic control for utility work outside of typical project work hours shall be the responsibility of the utility owner. The utility owner shall prepare and submit to the Engineer a Method of Handling Traffic for utility work to be performed outside typical project work hours. The utility owner shall obtain acceptance of the Method of Handling Traffic from the Engineer prior to beginning the utility work to be performed outside typical project work hours.

COLORADO SPRINGS UTILITIES – ELECTRIC:

CSU – Electric forces shall work with the Contractor to remove all overhead street lights, including utility poles to accommodate the proposed improvements as shown on the plans. This work is expected to be coordinated with construction and completed prior to installation of the concrete trail.

CSU – Electric shall also coordinate with the Contractor to provide access to and delivery of all street light foundations and junction boxes. Upon notification by the Contractor, CSU – Electric shall install all street lights and pull all associated wire within the conduit infrastructure as shown on the plans. CSU – Electric shall take all necessary steps and processes to energize the street lighting system, and coordinate with the City on the illumination distribution. CSU – Electric shall install the transformer and connect the project's electrical system within the transformer and to the distribution system.

COLORADO SPRINGS UTILITIES – GAS:

CSU – Gas shall coordinate with the Contractor to provide standby operations while the Contractor is working in close proximity to the gas main.

CENTURYLINK/LUMEN:

CenturyLink/Lumen forces shall work with the Contractor to remove all overhead facilities, including utility poles to accommodate the proposed improvements as shown on the plans. This work is expected to be coordinated with construction and completed prior to installation of the concrete trail.

COMCAST:

Comcast forces shall work with the Contractor to remove all overhead facilities, including utility poles to accommodate the proposed improvements as shown on the plans. This work is expected to be coordinated with construction and completed prior to installation of the concrete trail.

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.

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

REVISION OF SECTION 403 HOT MIX ASPHALT

Revise Section 403 of the Standard Specifications for this project as follows:

Subsection 403.02 shall include the following:

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

Table 403-1		
Property	Test Method	Value For Grading
		Patching SX (75)
Air Voids, percent at: N (design)	CPL 5115	3.5 – 4.5
Lab Compaction (Revolutions): N (design)	CPL 5115	75
Stability, minimum	CPL 5106	28
Aggregate Retained on the 4.75 mm (No. 4) Sieve for S, SX and SG, and on the 2.36mm (No. 8) Sieve for ST and SF with at least 2 Mechanically Induced fractured faces, % minimum*	CP 45	60
Accelerated Moisture Susceptibility Tensile Strength Ratio (Lottman), minimum	CPL 5109 Method B	80
Minimum Dry Split Tensile Strength, kPa (psi)	CPL 5109 Method B	205 (30)
Grade of Asphalt Cement, Top Layer (2’')		PG 64-22
Grade of Asphalt Cement, Layers below Top (2.25’')		PG 64-22
Voids in the Mineral Aggregate (VMA) % minimum	CP 48	See Table 403-2
Voids Filled with Asphalt (VFA), %	AI MS-2	65-80
Dust to Asphalt Ratio	CP 50	0.6 – 1.2
Fine Gradation		0.8 – 1.6
Coarse Gradation		
Note: AI MS-2 = Asphalt Institute Manual Series 2		
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.		
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. Gradations for mixes with a nominal maximum aggregate size of 3/4” to 3/8” are considered a coarse gradation if they pass below the maximum density line at the #8 screen.		
Gradations for mixes with a nominal maximum aggregate size of #4 or smaller are considered a coarse gradation if they pass below the maximum density line at the #16 screen.		
*Fractured face requirements for SF may be waived by RME depending on project conditions.		

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. Historically, Air Voids adjustments typically result in asphalt cement increases from 0.1 to 0.5 percent. Contractors bidding the project should anticipate this change and factor it into their unit price bid.

Table 403-2

	Minimum Voids in the Mineral Aggregate (VMA)			
Nominal Maximum Size*, mm (inches)	***Design Air Voids **			
	3.5%	4.0%	4.5%	5.0%
37.5 (1½)	11.6	11.7	11.8	N/A
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 (⅜)	15.6	15.7	15.8	
4.75 (No. 4)	16.6	16.7	16.8	16.9
	* 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 before 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 shall not contain any reclaimed asphalt pavement.

Hot mix asphalt for patching shall conform to the gradation requirements for Hot Mix Asphalt (Grading SX)(75)(PG 64-22).

BASIS OF PAYMENT

Delete subsection 403.05 and replace it with the following:

403.05 The accepted quantities of hot mix asphalt will be paid for per subsection 401.22, at the contract unit price per ton for the bituminous mixture.

Payment will be made under:

Pay Item

Hot Mix Asphalt (Patching)

Pay Unit

Ton

Aggregate, asphalt recycling agent, asphalt cement, additives, hydrated lime, and all other work and materials 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, any change to the submitted mix design optimum asphalt cement content to establish production targets on the Form 43 will not be measured and paid for separately but shall be included in the work. No additional compensation will be considered or paid for any additional asphalt cement, plant modifications and additional personnel required to produce the HMA as a result in a change to the mix design asphalt cement content.

Project No. TAP M850-032 & MTF M850-031
Project Name. Creekwalk Trail 4

Historically, typical asphalt cement increases reflected on the Form 43 are from 0.1 to 0.5 percent. However, the Contractor should anticipate the AC increases typical of his mixes. Contractors bidding the project should anticipate this change and factor it into their unit price bid.

Asphalt cement used in Hot Mix Asphalt (Patching) will not be measured and paid for separately but shall be included in the work.

Excavation, preparation, and tack coat of areas to be patched will not be measured and paid for separately but shall be included in the work.

Project No.
Project Name.

TAP M850-032 & MTF M850-031
Creekwalk Trail 4

REVISION OF SECTION 629 SURVEY MONUMENTATION

Revise Section 629 of the Standard Specifications for this project as follows:

Subsection 629.01 shall include the following:

All work on Colorado Springs Utilities (CSU) monuments shall follow the survey procedures established by CSU.

Subsection 629.02 shall include the following:

The Contractor shall utilize the existing monuments from the project. If new monumentation is required, the Contractor shall coordinate with either CDOT or CSU to obtain new monument material.

CITY OF MANITOU SPRINGS
CREEK WALK TRAIL - PHASE 4
PUBLIC IMPROVEMENTS
STATE OF COLORADO



PROJECT LOCATION MAP

SCALE: 1" = 200'

SHEET INDEX

- 1 - COVER SHEET
- 2 - STANDARD PLANS LIST
- 3-4 - GENERAL NOTES
- 5 - SUMMARY OF APPROX. QUANTITIES
- 6 - PROJECT CONTROL DIAGRAM
- 7 - GEOMETRIC CONTROL PLAN
- 8 - TYPICAL SECTIONS
- 9-11 - DEMOLITION PLAN
- 12-17 - TRAIL PLAN & PROFILE
- 18-20 - STORM SEWER PLAN & PROFILES
- 21-23 - ELECTRICAL & LIGHTING PLAN
- 24-26 - SIGNAGE & STRIPING PLAN
- 27-32 - DETAILS
- 33-38 - LANDSCAPE PLANS
- 39-54 - IRRIGATION PLANS

TOTAL - 54

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE CITY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



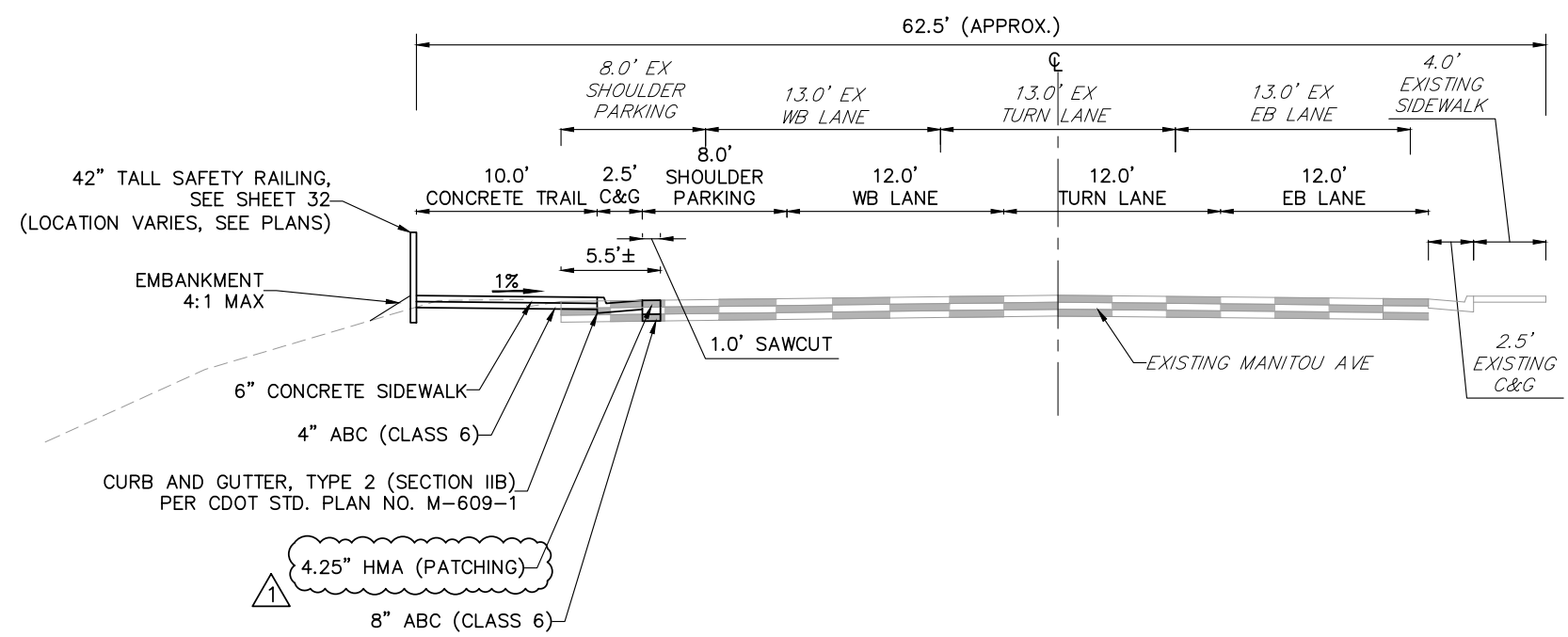
Date: 8/22/24		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 COVER SHEET		Project No./Code
File Name: 2531100_CV01.DWG		1	7/21/25	BID REVISIONS	EMM	No Revisions:			M850-031(24000)
						Revised:	Designer: ---	25311.00	M850-032(24310)
						Void:	Detailer: ---		Sheet Number 1
							Sheet Subset: COVER	Subset Sheet: 1 of 1	

CDOT ITEM NO.	DESCRIPTION	UNIT	QUANTITY
201-00001	Clearing and Grubbing	LS	1
202-00000	Removal of Parking Meter Pedestal	EA	1
202-00010	Removal of Tree	EACH	8
202-00019	Removal of Inlet	EACH	2
202-00200	Removal of Sidewalk	SY	747
202-00203	Removal of Curb and Gutter	LF	1656
202-00206	Removal of Curb Ramp	SY	38
202-00210	Removal of Concrete Pavement	SY	22
202-00220	Removal of Asphalt Mat	SY	1111
202-00250	Removal of Pavement Marking	SF	2210
202-01000	Removal of Fence	LF	448
203-01597	Potholing	HR	16
208-00020	Silt Fence	LF	1941
208-00045	Concrete Washout Structure	EA	1
208-00054	Inlet Protection	EA	3
208-00070	Vehicle Tracking Control	EA	1
208-00207	Erosion Control Management	DAY	39
210-00810	Reset Ground Sign	EACH	5
210-00815	Reset Sign Panel	EACH	15
210-00857	Reset Rectangular Rapid Flashing Beacon	EACH	1
210-04020	Modify Inlet	EACH	1
210-04050	Adjust Valve Box	EACH	3
212-00006	Seeding (Native)	ACRE	0.25
212-00048	Soil Preparation (Special)(Amended Soil)	CY	206
213-00002	Mulching (Weed Free Hay)	ACRE	0.25
214-00225	Deciduous Tree (2.5 Inch Caliper)	EA	9
240-00000	Wildlife Biologist	HR	1
240-00010	Removal of Nests	HR	1
240-00020	Netting	SY	1
304-06007	Aggregate Base Course (Class 6)	CY	259
403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON	52
508-00000	Pedestrian Stair Structure (Timber)	LS	1
603-01240	24 Inch Reinforced Concrete Pipe	LF	8
603-10180	18 Inch Corrugated Steel Pipe	LF	12
604-19305	Inlet Type R L 15 (5 Foot)	EACH	1
604-19510	Inlet Type R L 20 (5 Foot)	EACH	1

CDOT ITEM NO.	DESCRIPTION	UNIT	QUANTITY
607-00001	Safety Rail	LF	872
608-00000	Concrete Sidewalk	SY	1867
608-00010	Concrete Curb Ramp	SY	72
608-00015	Detectable Warnings	SF	44
609-20010	Curb Type 2 (Section B)	LF	282
609-21020	Curb and Gutter Type 2 (Section II-B)	LF	1688
613-00200	2 Inch Electrical Conduit	LF	3032
613-00408	4 Inch Electrical Conduit (Bored)	LF	75
613-07199	Pull Box (Install Only)	EACH	5
613-40010	Light Standard Foundation	EACH	5
614-00011	Sign Panel (Class 1)	SF	28
614-01503	Steel Sign Support (2-Inch Round) (Post and Socket)	EA	12
614-72863	Pedestrian Push Button Post Assembly	EA	1
614-99999	Art Panel Assembly	EA	5
619-40060	3/4 Inch Copper Pipe	LF	12
619-77000	3/4 Inch Saddle Tap	EA	1
620-00020	Sanitary Facility	EA	2
623-00000	Irrigation System	LS	1
625-00000	Construction Surveying	LS	1
626-00000	Mobilization	LS	1
626-01104	Public Information Services (Tier IV)	LS	1
627-00002	Preform Thermoplastic Pavement Marking	SF	90
627-00009	Modified Epoxy Pavement Marking (Inlaid)	GAL	32
629-01005	Survey Monument (Type 5)	EA	2
630-00016	Traffic Control (Special) LS	LS	1
700-70010	F/A Minor Contract Revisions	FA	1
700-70380	F/A Erosion Control	FA	1

623-00000 - IRRIGATION SYSTEM		
DESCRIPTION	UNIT	QUANTITY
3/4" Meter Vault and Meter	EA	1
3/4" Backflow Assembly with Cover	EA	1
Rain Bird Controller with Pedestal	EA	1
Rain Sensor on Pole	EA	1
Rain Bird Pop-ups (12" with nozzle)	EA	136
1" RB Electric Control Valve	EA	11
#14 UFUL Single Strand Wire	LF	12500
P7171D-A Communication Cable	LF	25
1" Manual Drain Assembly	EA	1
1" RB Electric Control Master Valve	EA	1
1" Flow Sensor	EA	1
1" Quick Coupler Valve	EA	7
1.5" Gate Valve	EA	3
1.5" PVC Main Line (Trenched)	LF	1240
Poly Lateral Line (1")	LF	1500
2" PVC Sleeves	LF	300
Drip Control Valve Assembly with Valve Box	EA	3
Poly Drip Line (3/4")	LF	1500
Drip Emitters	EA	1250
Blow-out Flush Valve Assembly	EA	7

Date: 8/22/24		1	Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 SUMMARY OF APPROX. QUANTITIES			Project No./Code	
File Name: 2531100 SAQ01.DWG			7/21/25	BID REVISIONS	EMM		No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer:	BSR		M850-032(24310)	
									Detailer:	BSR		25311.00	
							Void:		Sheet Subset:	SAQ	Subset Sheet:		1 of 1
										Sheet Number 5			



TYPICAL SECTION

MANITOU AVENUE – LOOKING EAST



Know what's below.
Call before you dig.

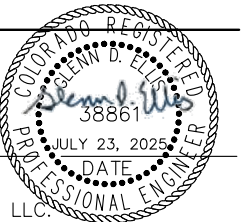
10 5 0 10

ORIGINAL SCALE: 1" = 10'

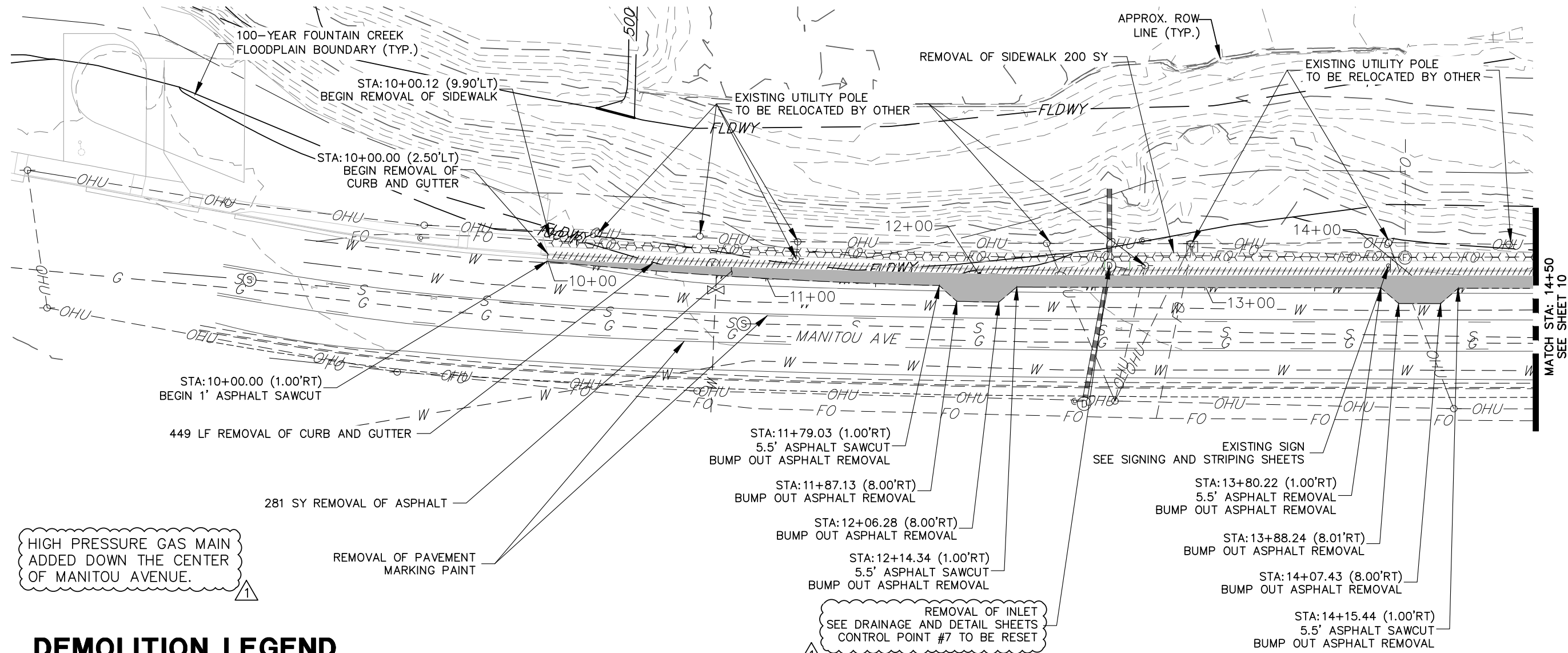
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TYPICAL SECTIONS			Project No./Code		
File Name: 2531100 TX01.DWG		1	7/21/25	BID REVISIONS		EMM	No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:	Designer:	BSR			M850-032(24310)	
							Void:	Detailer:	MKS		25311.00	Sheet Number 8	
								Sheet Subset: TYP SECTIONS	Subset Sheet: 1 of 1				



DEMOLITION LEGEND

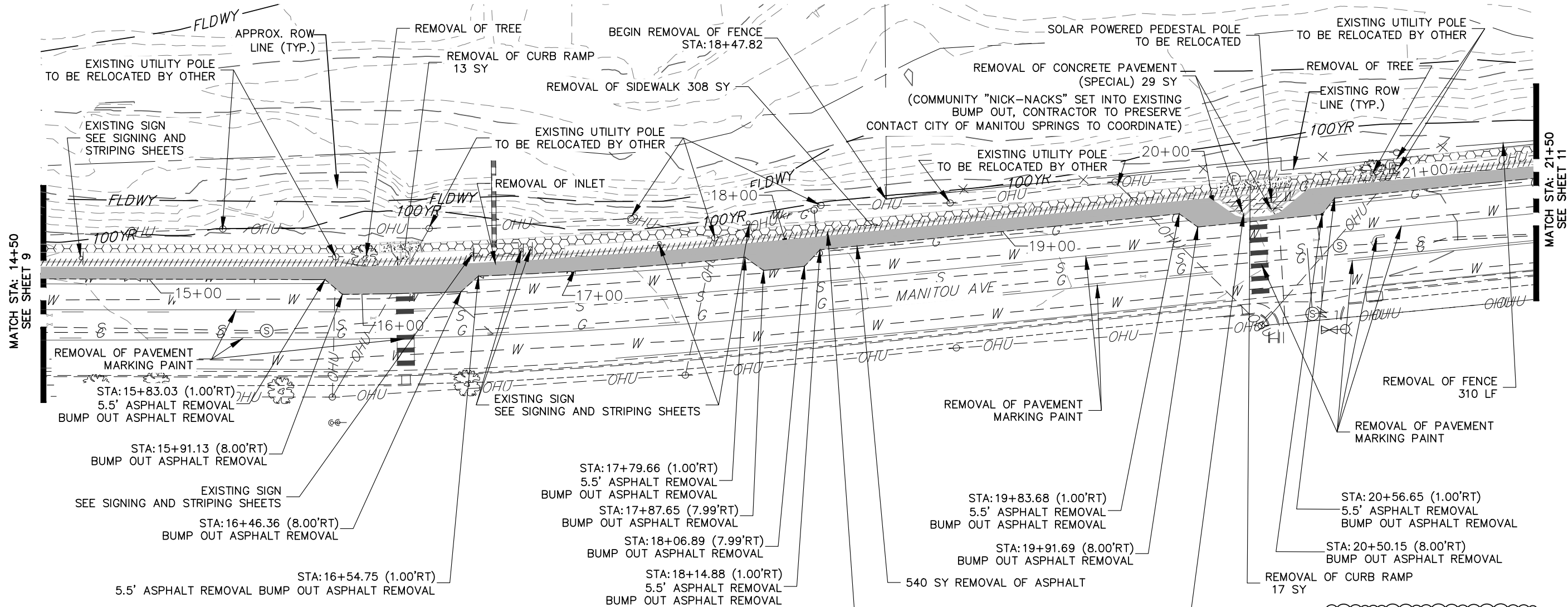
- ASPHALT REMOVAL
- CURB & GUTTER REMOVAL
- REMOVAL OF SIDEWALK
- REMOVAL OF CURB RAMP
- REMOVAL OF CONCRETE PAVEMENT
- FENCE REMOVAL

ORIGINAL SCALE: 1" = 50'

ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

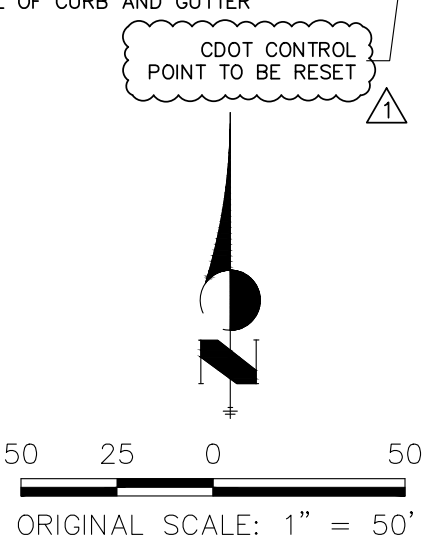
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

Date: 8/22/24	1	Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 DEMOLITION PLAN			Project No./Code	
File Name: 2531100 DEMO01.DWG		7/21/25	BID REVISIONS	EMM		No Revisions:				M850-031(24000)		
 J-R ENGINEERING A Westrian Company						Revised:			M850-032(24310)			
						Void:	Detailer:	MKS	25311.00			
							Sheet Subset:	DEMOLITION	Subset Sheet:	1 of 3		
										Sheet Number 9		



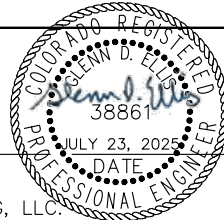
DEMOLITION LEGEND

- ASPHALT REMOVAL
- CURB & GUTTER REMOVAL
- REMOVAL OF SIDEWALK
- REMOVAL OF CURB RAMP
- REMOVAL OF CONCRETE PAVEMENT
- FENCE REMOVAL

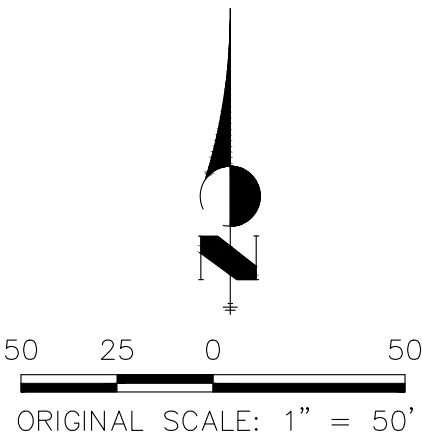


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

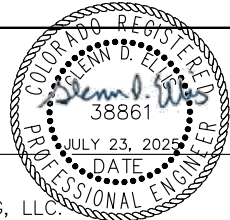
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



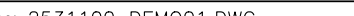
Date: 8/22/24		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 DEMOLITION PLAN		Project No./Code		
File Name: 2531100 DEMO01.DWG		1	7/21/25		BID REVISIONS	EMM			No Revisions:		M850-031(24000)
 J-R ENGINEERING A Westrian Company							Revised:	BSR	25311.00	M850-032(24310)	
							Detailer:	MKS		Sheet Number 10	
							Void:	Sheet Subset: DEMOLITION	Subset Sheet:	2 of 3	

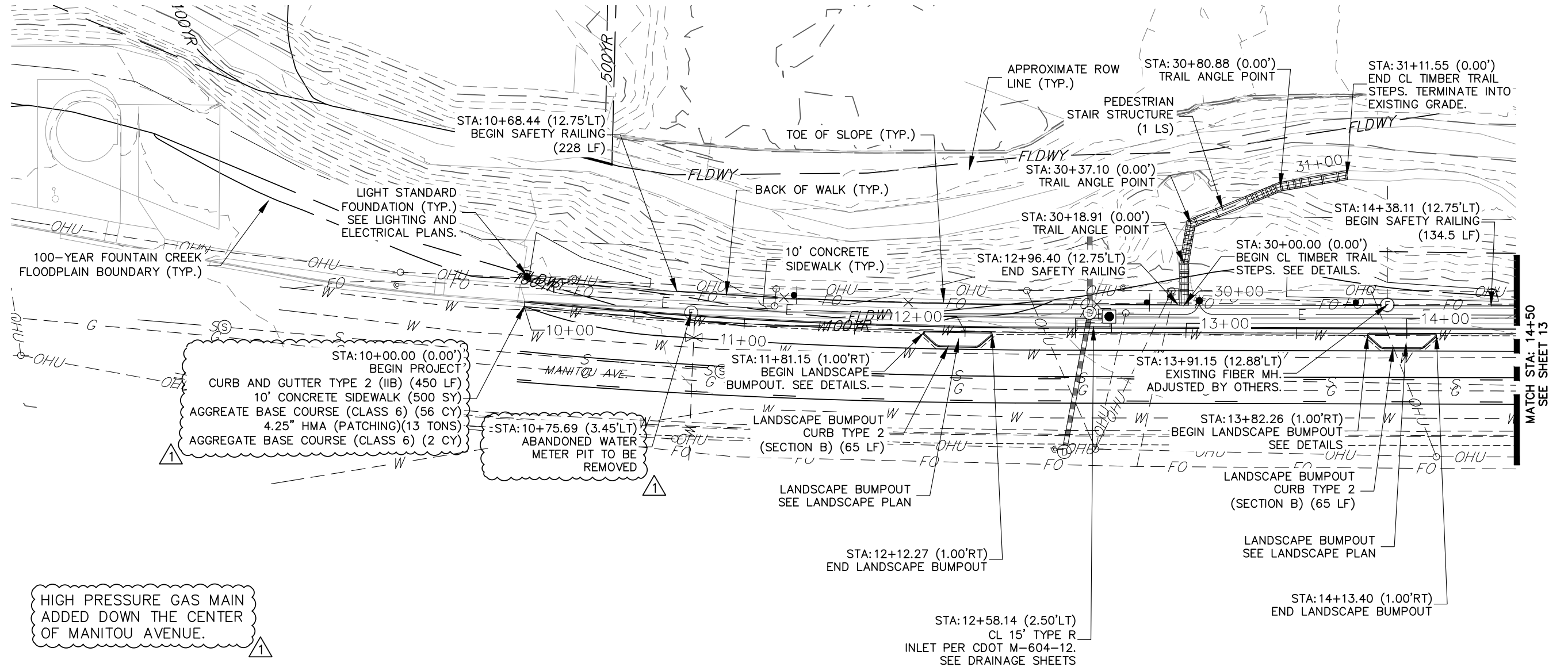


PREPARED UNDER MY SUPERVISION



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC

Date: 8/22/24		1		Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 DEMOLITION PLAN			Project No./Code		
File Name: 2531100 DEMO01.DWG				7/21/25 BID REVISIONS EMM			No Revisions:					M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		25311.00		M850-032(24310)	
									Detailer: MKS					
									Void:		Sheet Subset: DEMOLITION		Subset Sheet: 3 of 3	



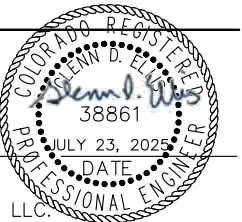
HIGH PRESSURE GAS MAIN
ADDED DOWN THE CENTER
OF MANITOU AVENUE.



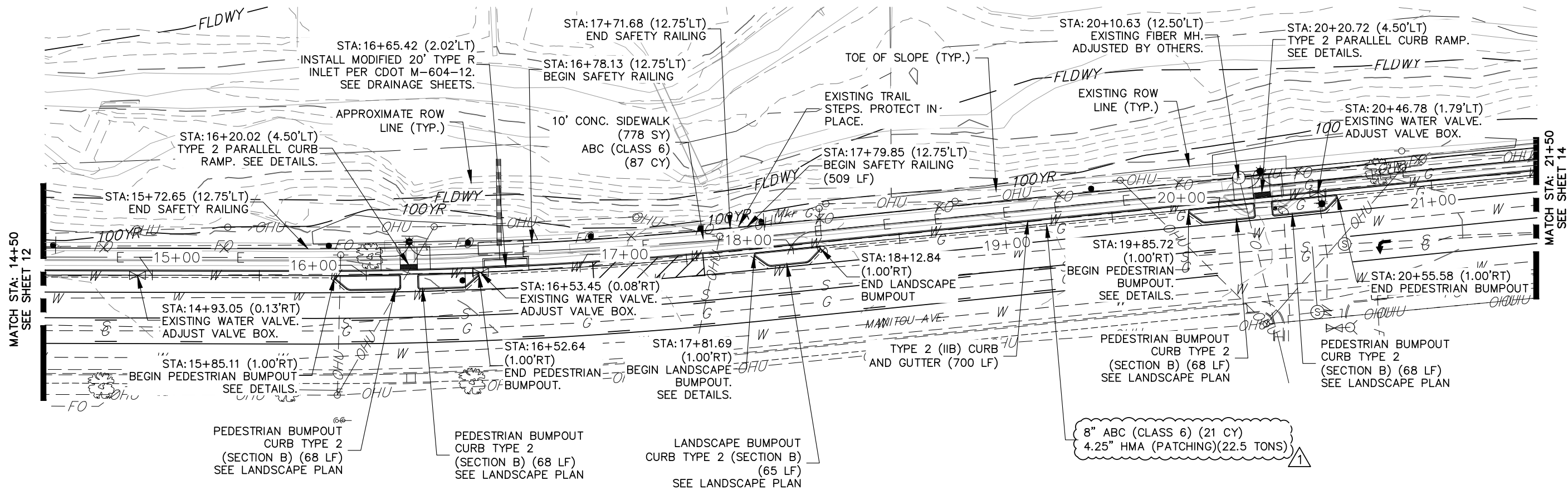
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TRAIL PLAN			Project No./Code		
File Name: 2531100 TP01.DWG		1	7/21/25		BID REVISIONS	EMM	No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer:	BSR		M850-032(24310)
							Void:		Detailer:	BSR		
									Sheet Subset:		PLAN	Subset Sheet:



HIGH PRESSURE GAS MAIN
ADDED DOWN THE CENTER
OF MANITOU AVENUE.



Know what's below.
Call before you dig.

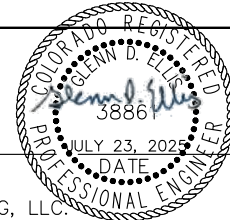


50 25 0 50
ORIGINAL SCALE: 1" = 50'

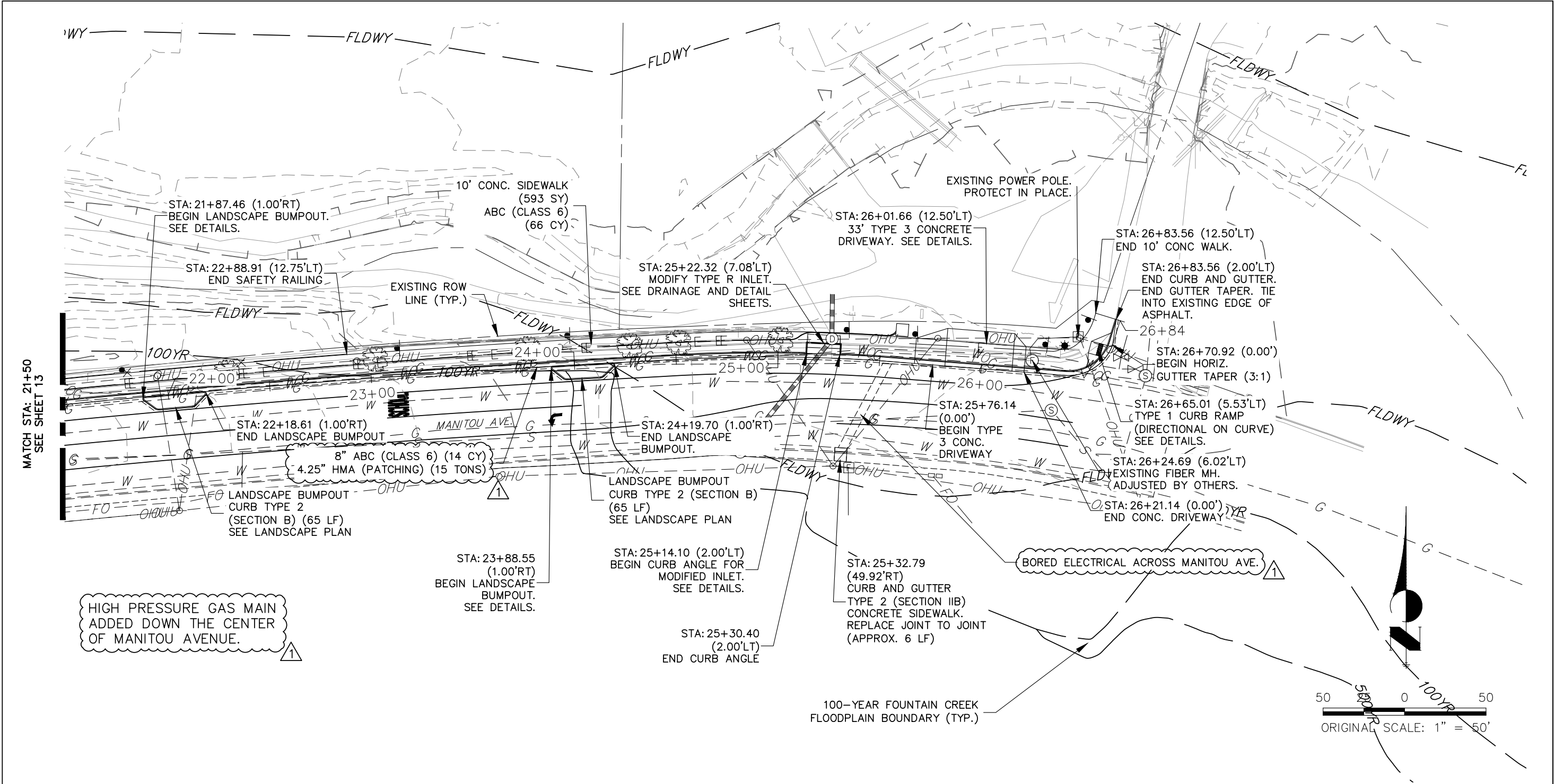
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions			As Constructed		CREEK WALK TRAIL - PHASE 4 TRAIL PLAN		Project No./Code	
File Name: 2531100 TP01.DWG		1	7/21/25	BID REVISIONS	EMM	No Revisions:			M850-031(24000)	
						Revised:	Designer:	BSR	M850-032(24310)	
							Detailer:	BSR	25311.00	
						Void:	Sheet Subset:	PLAN	Subset Sheet:	2 of 6
									Sheet Number 13	



HIGH PRESSURE GAS MAIN
ADDED DOWN THE CENTER
OF MANITOU AVENUE.

BORED ELECTRICAL ACROSS MANITOU AVE.

100-YEAR FOUNTAIN CREEK
FLOODPLAIN BOUNDARY (TYP.)



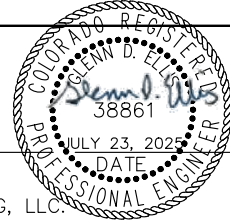
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION



Know what's below.
Call before you dig.

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24
File Name: 2531100 TP01.DWG

J-R ENGINEERING
A Westrian Company

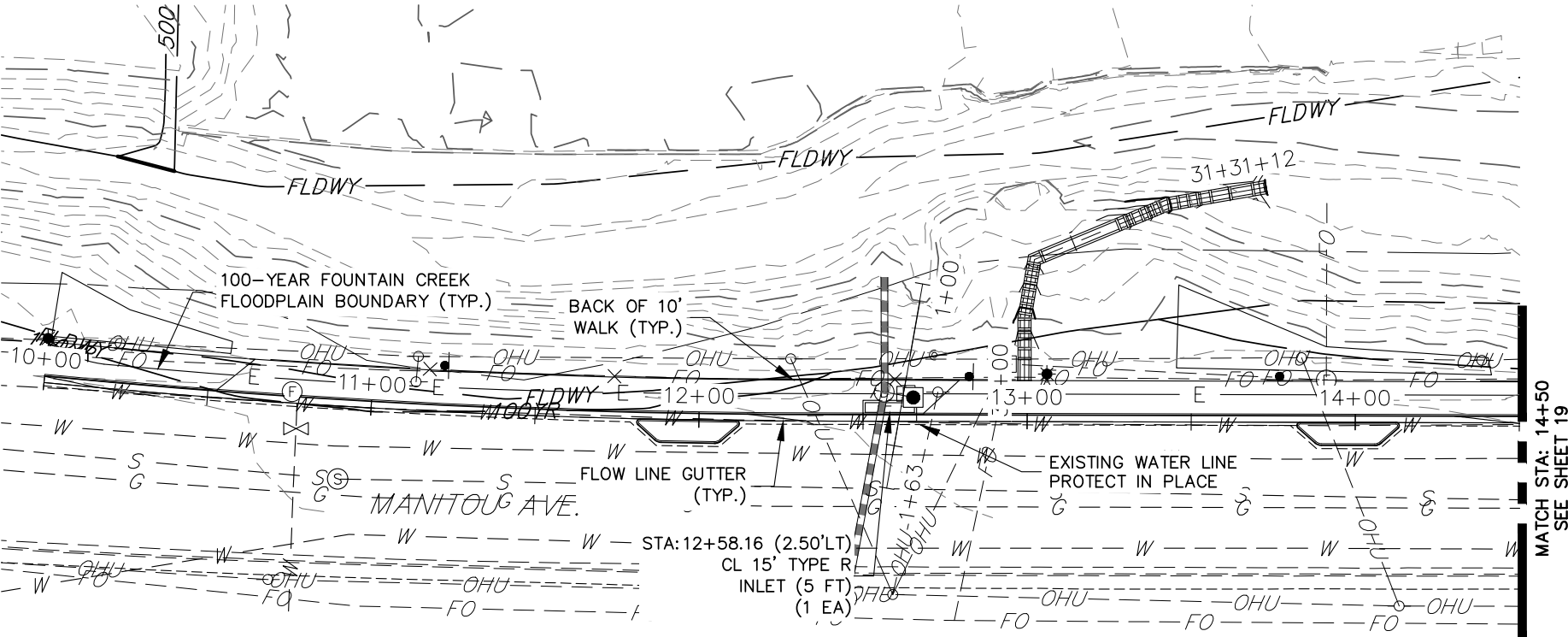
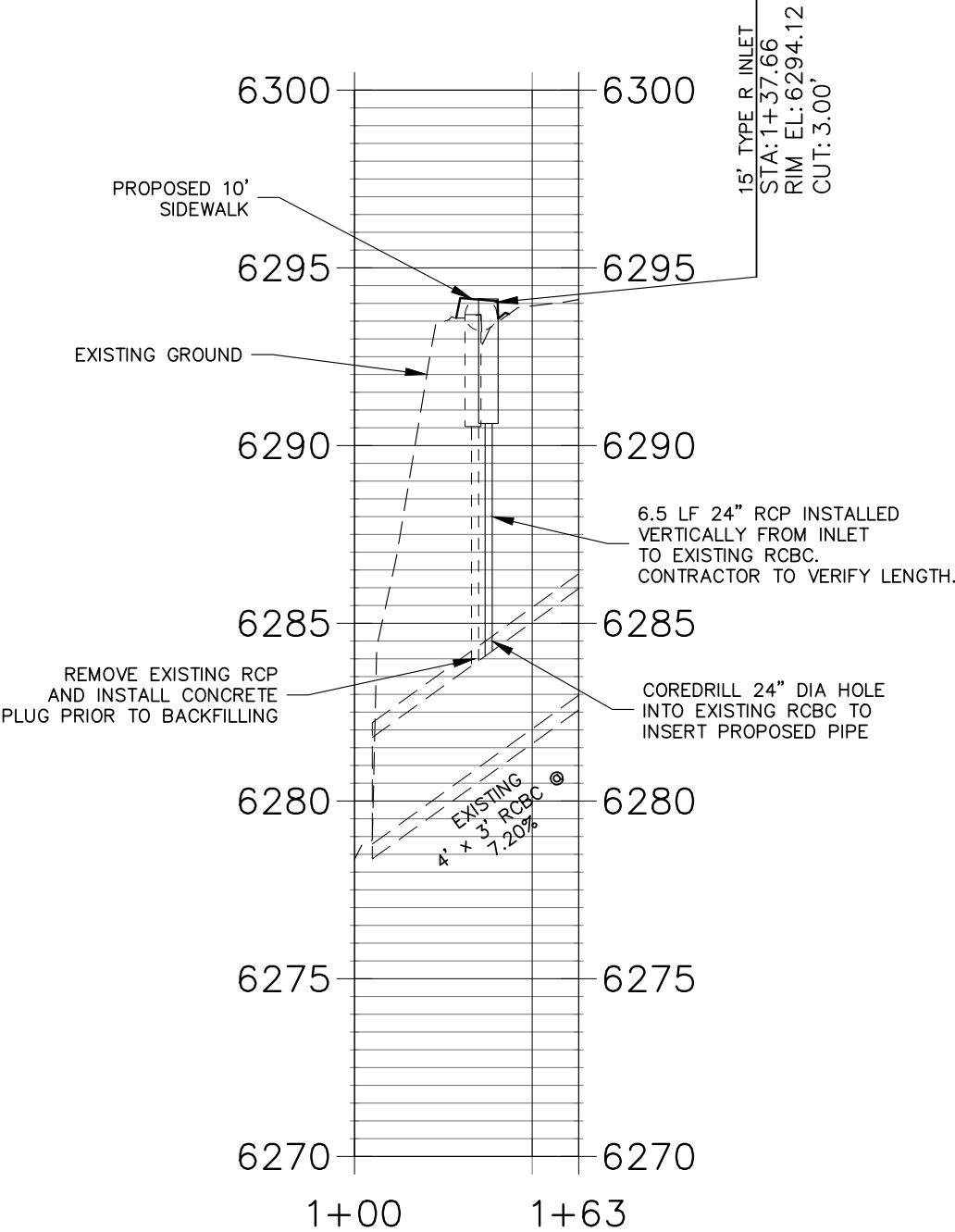
Index of Revisions			
1	7/21/25	BID REVISIONS	EMM



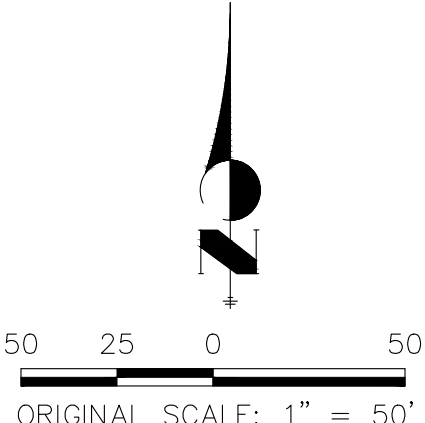
CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL - PHASE 4 TRAIL PLAN		Project No./Code
No Revisions:				M850-031(24000)
Revised:		Designer: BSR		M850-032(24310)
Void:		Detailer: BSR	25311.00	Sheet Number 14
		Sheet Subset: PLAN	Subset Sheet: 3 of 6	

EX DP01 PROFILE
STA 1+00.00 TO 1+63.11



HIGH PRESSURE GAS MAIN
ADDED DOWN THE CENTER OF
OF MANITOU AVENUE.

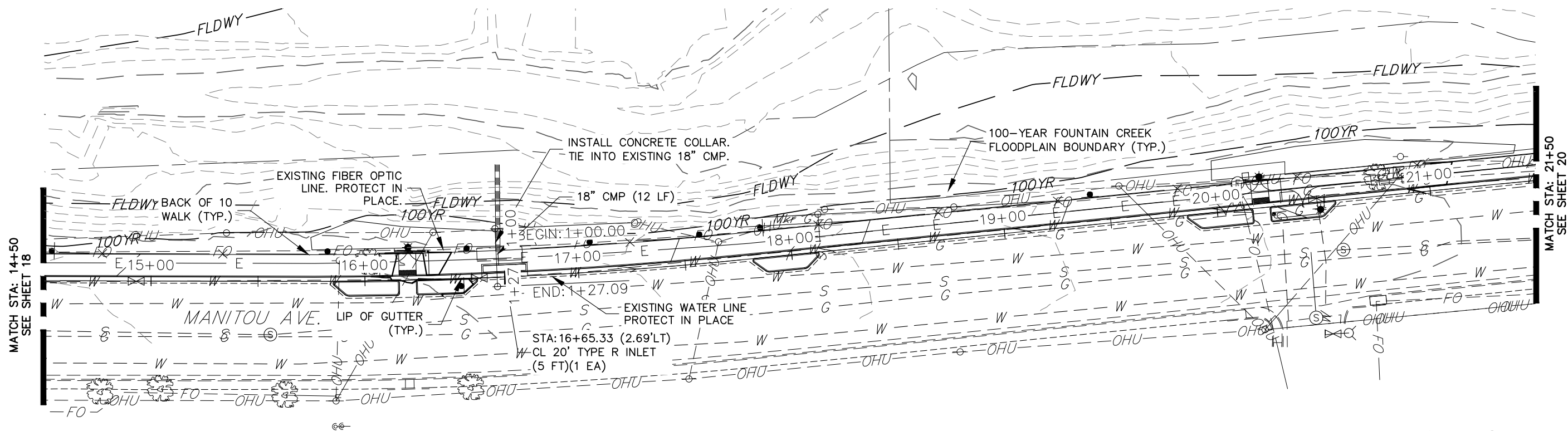


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

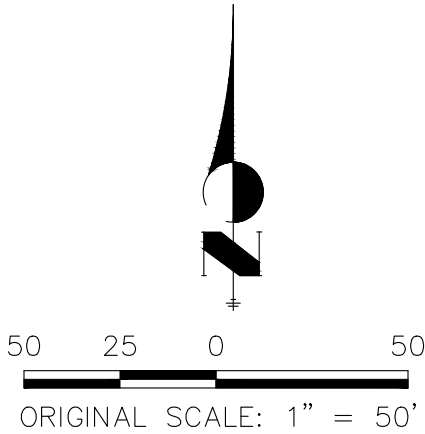
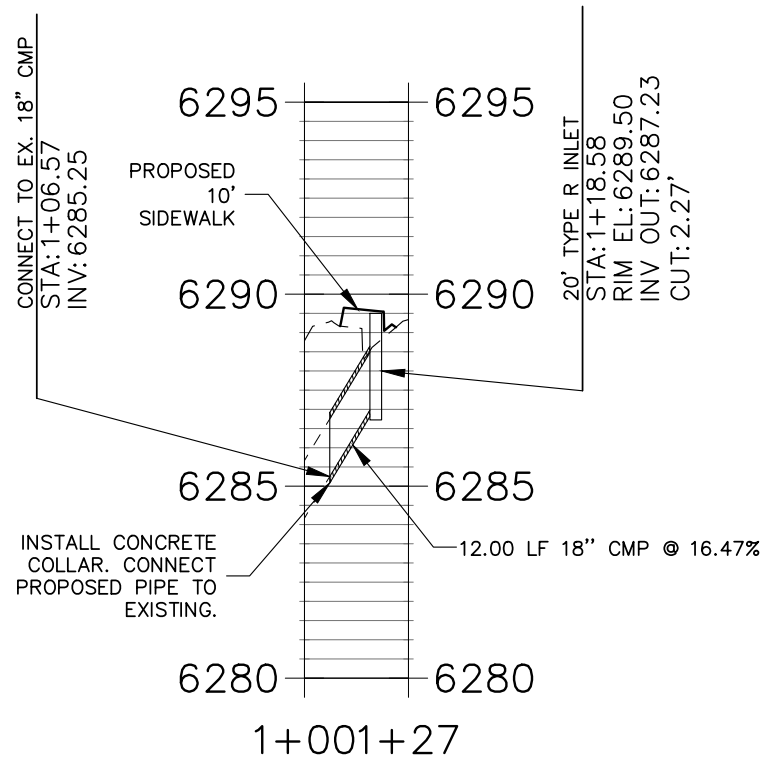
PROFESSIONAL ENGINEER
GLENN D. ELLIS
38861
JULY 23, 2025
DATE

Date: 8/22/24	1	Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 STORM SEWER PLAN & PROFILES		Project No./Code
File Name: 2531100 DR01.DWG		7/21/25	BID REVISIONS	EMM		No Revisions:				M850-031(24000)
 J-R ENGINEERING A Westrian Company						Revised:	BSR	25311.00	M850-032(24310)	
						Void:	BSR		Sheet Number 18	
							Sheet Subset: STORM SEWER		Subset Sheet: 1 of 3	



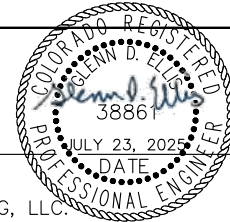
HIGH PRESSURE GAS MAIN
ADDED DOWN THE CENTER
OF MANITOU AVENUE.

DP01 PROFILE
STA 1+00.00 TO 1+27.09



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24

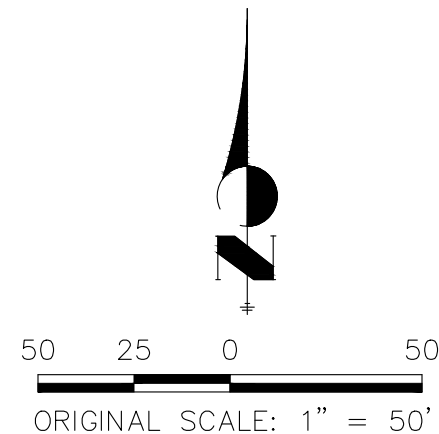
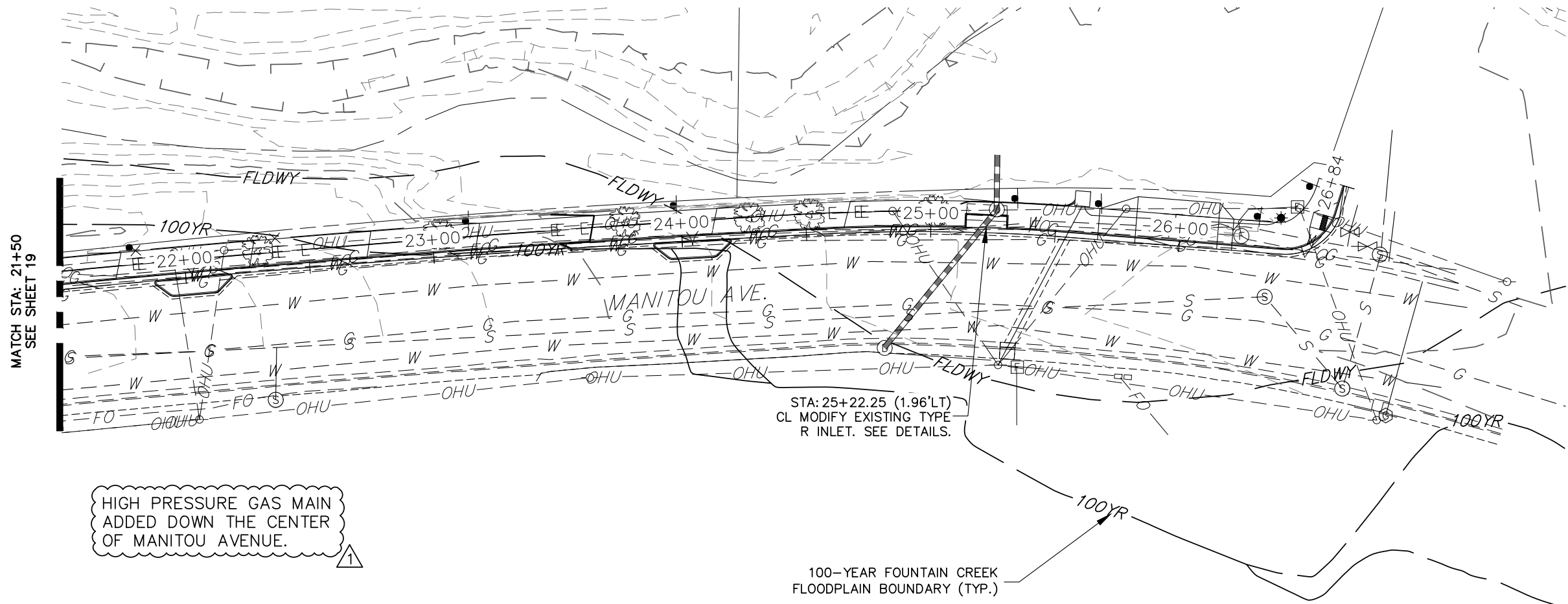
File Name: 2531100 DR01.DWG

 **J-R ENGINEERING**
A Westrian Company

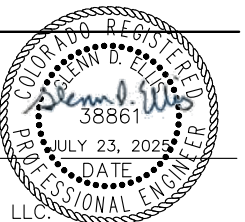
Index of Revisions			
1	7/21/25	BID REVISIONS	EMM

**CITY OF MANITOU SPRINGS**
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 STORM SEWER PLAN & PROFILES		Project No./Code
No Revisions:		Designer: BSR		M850-031(24000)
Revised:		Detailer: ---		M850-032(24310)
Void:		25311.00		Sheet Number 19
Sheet Subset: STORM SEWER		Subset Sheet: 2 of 3		



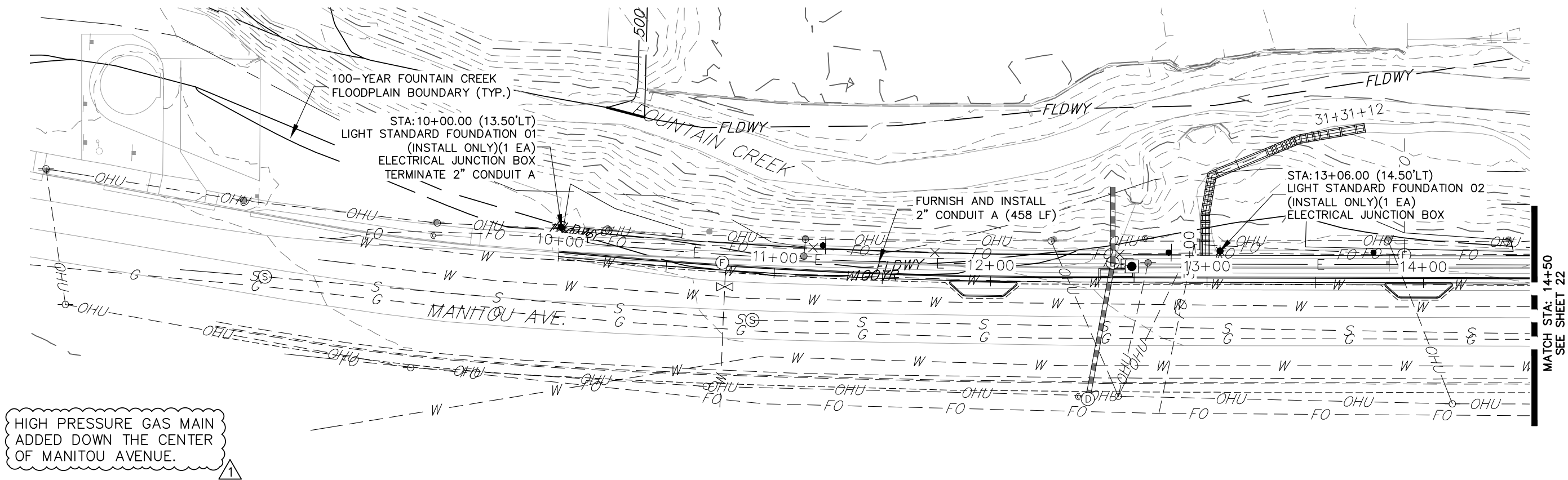
ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

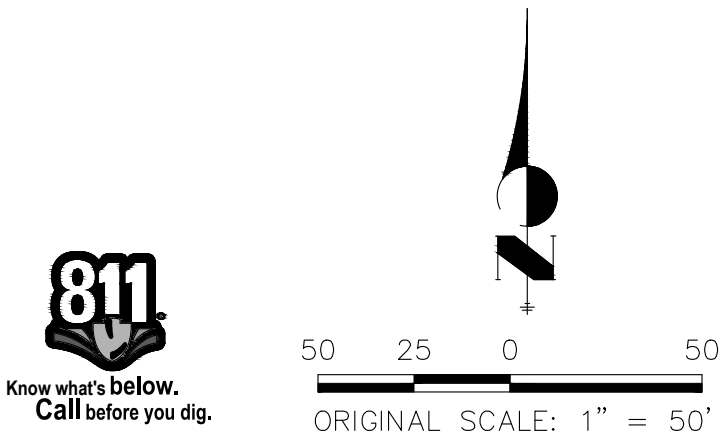
Date: 8/22/24 File Name: 2531100 DR01.DWG	1	Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 STORM SEWER PLAN & PROFILES	Project No./Code M850-031(24000) M850-032(24310) Sheet Number 20
		7/21/25	BID REVISIONS	EMM		No Revisions:	Designer: BSR		
						Revised:	Detailer: ---	25311.00	
						Void:	Sheet Subset: STORM SEWER	Subset Sheet: 3 of 3	





NOTES:

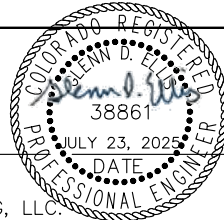
- AS SHOWN ON THE PLANS, FOUR SEPARATE RUNS OF CONDUIT (A, B, C & D) ARE TO BE INSTALLED. CONDUIT A IS 2 INCH AND DESIGNATED FOR LIGHTING. CONDUIT B IS 2" AND DESIGNATED FOR EV CHARGING STATIONS. CONDUIT C IS 2" AND DESIGNATED FOR POTENTIAL IRRIGATION METERING AND CONTROL, SEE LANDSCAPE AND IRRIGATION PLANS FOR NOTES. CONDUIT D IS 4" AND IS DESIGNATED FOR MAIN POWER TO PROPOSED TRANSFORMER AS SHOWN ON THE PLANS.
- LIGHT STANDARD FOUNDATIONS AND ELECTRICAL JUNCTION BOXES WILL BE FURNISHED BY COLORADO SPRINGS UTILITIES. CONTRACTOR TO PICK UP FOUNDATIONS AND JUNCTION BOXES FROM COLORADO SPRINGS UTILITIES.
- INSTALL JUNCTION BOXES AT BASE OF EACH FOUNDATION AS NOTED ON PLANS. EXACT LOCATION TO BE APPROVED BY COLORADO SPRINGS UTILITIES.
- ALL CONDUIT SHALL BE PVC SCHEDULE 80. SIZE SHOWN ON DRAWINGS.
- ALL UNDERGROUND CONDUIT RACEWAY(S) SHALL BE BURIED AS FOLLOWS
CONDUIT A - 24" (MINIMUM) BELOW FINISHED GRADE.
CONDUIT B - 30" (MINIMUM) BELOW FINISHED GRADE.
CONDUIT C - 30" (MINIMUM) BELOW FINISHED GRADE.
CONDUIT D - 42" (MINIMUM) BELOW FINISHED GRADE.



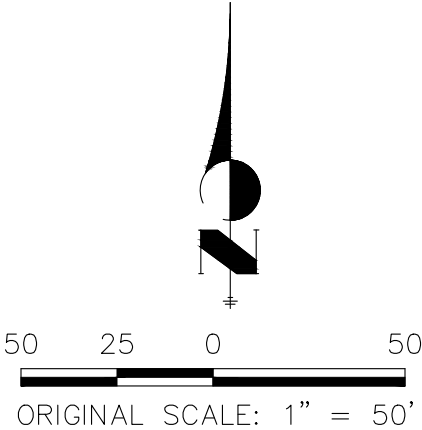
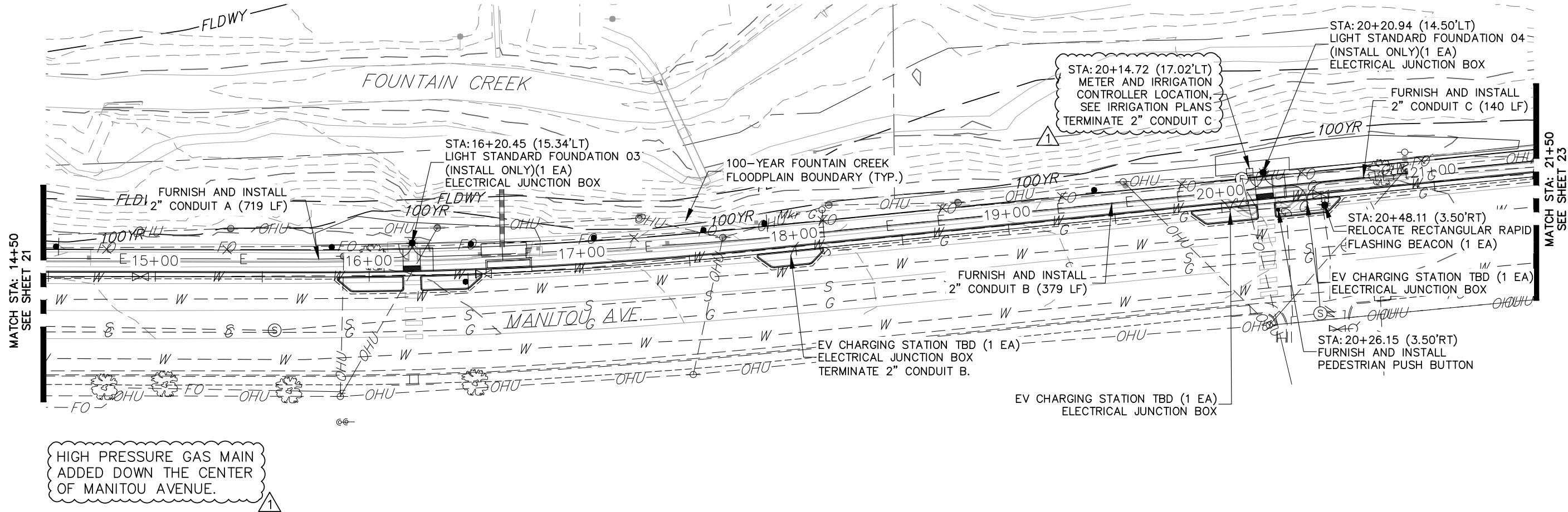
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

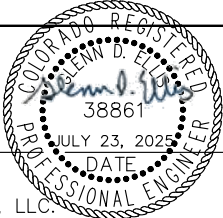
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 ELECTRICAL & LIGHTING PLAN		Project No./Code
File Name: 2531100 EL01.DWG		1	7/21/25	BID REVISIONS	EMM	No Revisions:			M850-031(24000)
						Revised:	Designer: BSR	25311.00	M850-032(24310)
						Void:	Detailer: BSR		Sheet Number 21
							Sheet Subset: ELEC & LIGHT	Subset Sheet: 1 of 3	

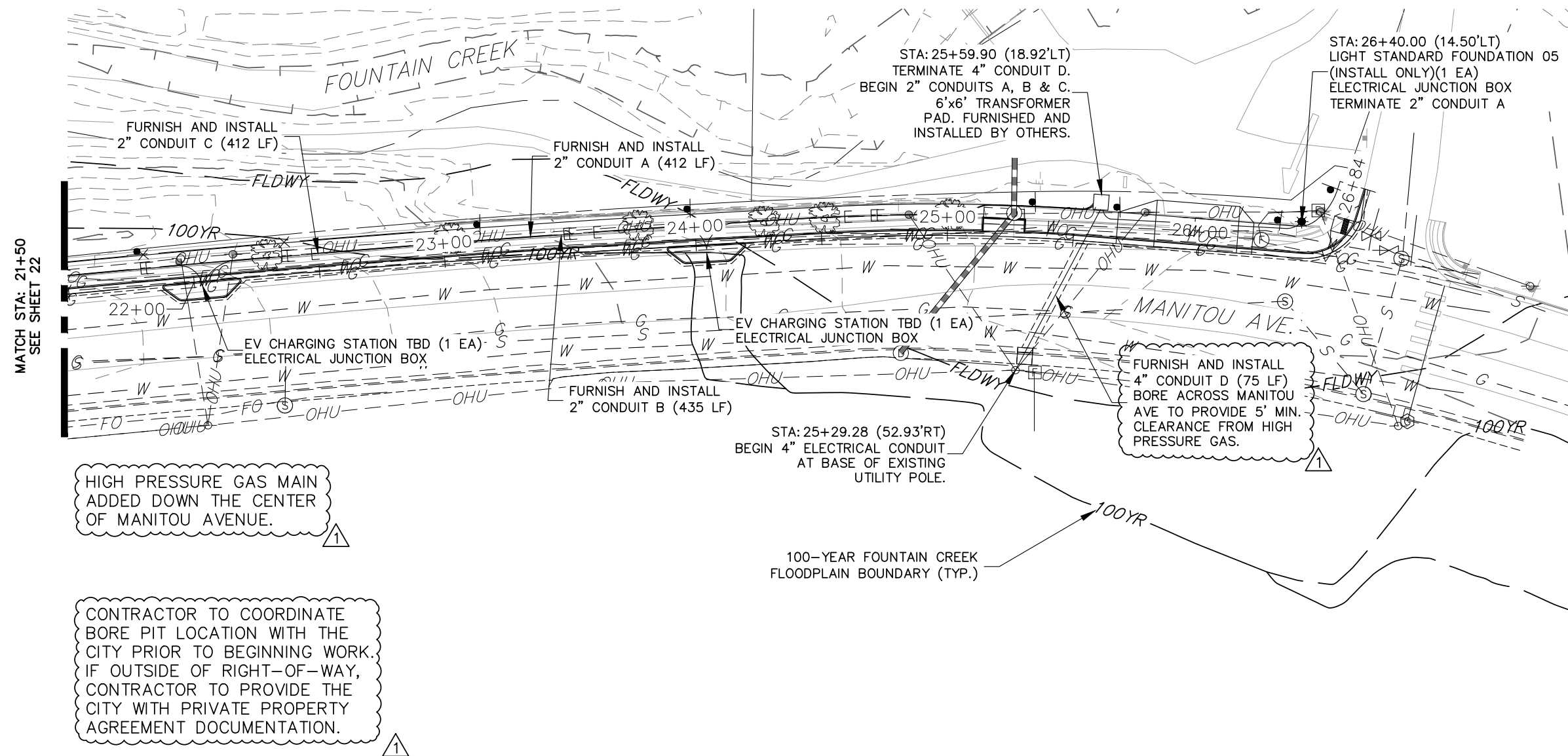


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

Date: 8/22/24		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 ELECTRICAL & LIGHTING PLAN		Project No./Code		
File Name: 2531100 ELO1.DWG		1	7/21/25	BID REVISIONS		EMM	No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		M850-032(24310)	
							Void:		Detailer: BSR			
									25311.00			
									Sheet Subset: ELEC & LIGHT		Subset Sheet: 2 of 3	



Know what's **below**.
Call before you dig.

ENGINEER'S STATEMENT

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



CREEK WALK TRAIL - PHASE 4
SUBSURFACE UTILITY ENGINEERING PLAN



VICINITY MAP
SCALE: 1" = 200'



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, INC.

8/16/24 DATE

Date: 8/16/24			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: ANDREW MORREN, PE PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 SUE PLANS			Project No./Code	
File Name: 2531100 SUE01.DWG							No Revisions:					CI 2020-15/24000	
 J-R ENGINEERING A Westrian Company							Revised:	BSR		25311.00			
							Void:	MKS			Sheet Subset: SUE	Subset Sheet: 1 of 4	Sheet Number 1

X:\2530000.a\12531100\Drawings\Sheet Dwg\SUE\SUE Plans\2531100 SUE01.dwg, SUE01, 8/16/2024 12:21:14 PM, schonebaum

GENERAL NOTES

1. ALL UTILITY INFORMATION DEPICTED WITHIN THESE PLANS WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR SUBSURFACE UTILITY ENGINEERING AS OUTLINED IN THE ASCE 38-22 GUIDELINES AND COLORADO REVISED STATUTES SECTION 9-1.5-101, WHICH DEFINE QUALITY LEVELS AS FOLLOWS:
- **QUALITY LEVEL A (QLA):** A VALUE ASSIGNED TO THAT PORTION (X-, Y-, AND Z-GEOMETRY) OF A UTILITY SEGMENT OR SUBSURFACE UTILITY FEATURE THAT IS DIRECTLY EXPOSED AND MEASURED AND WHOSE LOCATION AND DIMENSIONS ARE TIED TO THE PROJECT SURVEY DATUM. THE UTILITY SEGMENT OR SUBSURFACE UTILITY FEATURE SHALL BE TIED TO THE PROJECT SURVEY DATUM WITH AN ACCURACY OF 0.1 FT VERTICAL AND TO 0.2 FT HORIZONTAL FOR THE MEASUREMENTS OF THE OUTSIDE LIMITS OF THE UTILITY FEATURE OR UTILITY SEGMENT THAT IS EXPOSED. OTHER MEASURABLE, OBSERVABLE, AND JUDGED UTILITY ATTRIBUTES ARE ALSO RECORDED. IF OBTAINED BY MEANS OF A TEST HOLE OBSERVATION, A VERIFICATION EFFORT IS MADE, AND PROFESSIONAL JUDGMENT IS USED TO ASSERT THAT THE EXPOSED INFRASTRUCTURE IS INDEED THE SOUGHT TARGET. THE ASSIGNMENT OF QLA CONVEYS THE LOWEST LEVEL OF RELATIVE (NONQUANTIFIABLE) UNCERTAINTY OF MEASURABLE AND JUDGED ATTRIBUTES AND LOCATION. QLA IS MORE CERTAIN THAN QLB, QLC, OR QLD.

•

QUALITY LEVEL B (QLB): A VALUE ASSIGNED TO A UTILITY SEGMENT OR SUBSURFACE UTILITY FEATURE WHOSE EXISTENCE AND HORIZONTAL POSITION IS BASED ON GEOPHYSICAL METHODS COMBINED WITH PROFESSIONAL JUDGEMENT AND WHOSE LOCATION IS TIED TO THE PROJECT SURVEY DATUM. A QLB VALUE IS ASSIGNED TO A UTILITY SEGMENT WHEN THE FOLLOWING CONDITIONS ARE MET: (1) THE UTILITY SEGMENT WAS DETECTED THROUGH THE APPLICATION OF APPROPRIATE GEOPHYSICAL METHODS; (2) THE GEOPHYSICAL SIGNAL WAS JUDGED TO BE RELIABLE; (3) THE INTERPRETED POSITION WAS JUDGED BASED ON KNOWLEDGE AND USE OF GEOPHYSICAL SCIENCE, UTILITY DESIGN AND INSTALLATION PRACTICES, AVAILABLE RECORDS, VISUAL FEATURES, AND INFLUENCE OF SITE CONDITIONS; AND (4) THE SOURCE DESIGNATION HAS BEEN TIED TO THE PROJECT SURVEY DATUM WITH AN ACCURACY OF 0.2 FT HORIZONTALLY. QLB IS MORE UNCERTAIN THAN QLA AND MORE CERTAIN THAN QLC OR QLD.

•

QUALITY LEVEL C (QLC): A VALUE ASSIGNED TO A UTILITY SEGMENT NOT VISIBLE AT THE GROUND SURFACE WHOSE ESTIMATED POSITION IS JUDGED THROUGH CORRELATING UTILITY RECORDS OR SIMILAR EVIDENCE TO UTILITY FEATURES, VISIBLE ABOVEGROUND AND/OR UNDERGROUND. THE UTILITY ANCHOR POINT ON THE UTILITY FEATURES SHALL BE TIED TO THE PROJECT SURVEY DATUM WITH AN ACCURACY OF 0.2 FT HORIZONTAL. A QLC VALUE JUDGMENT IS ASSIGNED TO A UTILITY SEGMENT BY USING VISIBLE UTILITY FEATURES TO APPROXIMATE THE POSITION OF A UTILITY SEGMENT BETWEEN OR IN PROXIMITY TO THE VISIBLE UTILITY FEATURES AND IN CONTEXT WITH OTHER ACHIEVED UTILITY QUALITY LEVELS. QLC ONLY PERTAINS TO THE UNDERGROUND UTILITY SEGMENT(S), NOT THE UTILITY FEATURE(S). QLC DATA IS MORE CERTAIN THAN QLD AND IS MORE UNCERTAIN THAN QLB AND QLA.
- **QUALITY LEVEL D (QLD):** A VALUE ASSIGNED TO A UTILITY SEGMENT OR UTILITY FEATURE NOT VISIBLE AT THE GROUND SURFACE WHOSE ESTIMATED POSITION IS JUDGED THROUGH UTILITY RECORDS, INFORMATION FROM OTHERS, FROM VISUAL CLUES SUCH AS PAVEMENT CUTS, OBVIOUS TRENCHES, OR EXISTENCE OF SERVICE. A QLD DATA ATTRIBUTE IS ASSIGNED TO A UTILITY SEGMENT OR UTILITY FEATURE AFTER REVIEW AND COMPILATION OF EXISTING RECORDS, ORAL RECOLLECTIONS, ONE-CALL OR “PRIVATE-LOCATE” MARKINGS, MANAGED DATA REPOSITORIES, CONTEXT WITH OTHER ACHIEVED UTILITY QUALITY LEVELS, AND/OR OTHER EVIDENCE OF EXISTENCE. QLD DATA IS MORE UNCERTAIN THAN QLC, QLB, AND QLA. QLD DATA IS LESS UNCERTAIN THAN UTILITIES DOCUMENTED WITHOUT ANY UTILITY QUALITY LEVEL BARRING A PROFESSIONAL'S STATEMENT OF FACT TO THE CONTRARY.

2. JR ENGINEERING IS NOT LIABLE TO REPRESENT OR DEPICT ANY UTILITY CHANGES WITHIN THE PROJECT LIMITS BEYOND THE COMPLETION DATE OF THE FIELD INVESTIGATION.

3. RELIANCE UPON THIS INFORMATION FOR RISK MANAGEMENT PURPOSES DURING BIDDING DOES NOT RELIEVE THE CONTRACTOR OR UTILITY OWNERS FROM FOLLOWING ALL APPLICABLE UTILITY DAMAGE PREVENTION POLICIES AND PROCEDURES DURING EXCAVATION. THESE PLANS HAVE BEEN PREPARED SOLELY FOR THE USE OF JR ENGINEERING'S CLIENT FOR DESIGN PURPOSES ONLY, AND MAY NOT BE USED OR REPRODUCED BY THIRD PARTIES WITHOUT WRITTEN CONSENT FROM JR ENGINEERING AND THEIR CLIENT.

4. THE EXACT LOCATIONS OF SUBSURFACE UTILITIES DEPICTED IN THESE PLANS CANNOT BE CONFIRMED WITHOUT BEING VISUALLY EXPOSED AND SURVEYED.

5. THE HORIZONTAL LIMITS OF THE SUBSURFACE UTILITIES DEPICTED IN THESE PLANS IS NOT INDICITIVE OF THE FULL EXTENT OF THE UTILITIES EXISTING IN THE AREA. IT SHOULD BE ASSUMED THE LIMITS OF THE UTILITIES SHOWN EXTENDS BEYOND THE BOUNDARY OF THIS PROJECT.

PROJECT SPECIFIC NOTES

1. DATA COLLECTION:
- THE PROJECT QL-B INVESTIGATION OCCURRED ON OF JULY 18, 2024.

• ALL UTILITY DESIGNATION AND SURVEYING FIELD WORK WAS COMPLETED BY JR ENGINEERING.

• QL-B DESIGNATING WAS PERFORMED USING A RD8100 RADIODETECTION RECEIVER AND A TX-10 TRANSMITTER.
2. SITE CONDITIONS:
- THE SITE CONDITIONS WERE UNREMARKABLE AND FIELD WORK WAS COMPLETED BETWEEN PRECIPITATION EVENTS ON DRY CLEAN GROUND.
3. SURVEY NOTES:
- THE DESIGNATING MARKS WERE SURVEYED WITH AN ACCURACY OF 0.2 FEET, WHICH MEETS THE TOLERANCE REQUIREMENTS OUTLINED IN ASCE 38-22 FOR UTILITY QUALITY LEVEL B.

• VERTICAL DATUM: THE BENCHMARK USED FOR THE SITE IS NGS BENCHMARK S 292, BEING A 3.5" BRASS CAP STAMPED "US COAST BM S292 1951", WITH A PUBLISHED ELEVATION OF 6355.60 FEET (NAVD 88).

• COORDINATE DATUM: PROJECT COORDINATES ARE COLORADO STATE PLANE CENTRAL ZONE NAD '83 DATUM (GRID).

TABLE OF SURVEY CONTROL POINTS:

CONTROL POINT #	NORTHING	EASTING	ELEVATION (FEET)	DESCRIPTION
2	1372790.855	3166776.602	6400.477	1" BRASS DISK 1100
3	1373203.74	3166798.982	6349.966	1" BRASS DISK 1090
7	1373528.192	3168516.67	6293.536	2" ALUM. CAP STAMPED "CSU FIMS MU07"
10	1374455.145	3167575.067	6438.755	3.5" BRASS CAP IN ROCK - QUILLEN 1992
292	1365511.179	3177802.524	6355.6	3.5" BRASS CAP STAMPED "US COAST BM S292 1951"
700	1373746.02	3167747.83	6294.72	2" ALUM. CAP STAMPED "JACOBS CP700"
701	1373597.373	3171722.197	6236.382	2" ALUM. CAP STAMPED "JACOBS CP701"

TABLE OF UTILITY OWNERS/CONTACTS:

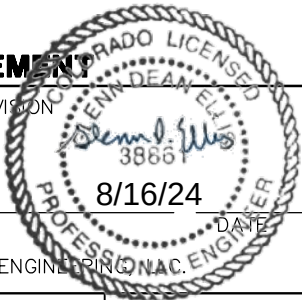
UTILITY OWNER	CONTACT PERSON	PHONE NUMBER	EMAIL ADDRESS	811 RESPONSE
COLORADO SPRINGS UTILITIES (WATER)	Andy Rose	719-668-8263	arose@csu.org	MAPS/RECORDS PROVIDED
COLORADO SPRINGS UTILITIES (GAS)	Tim Benedict	719-668-3574	tbenedict@csu.org	MAPS/RECORDS PROVIDED
CITY OF MANITOU SPRINGS	Dan Olson	719-492-2335	dolson@manitouspringsco.gov	NO RESPONSE
COMCAST	Cindy VanBuren	720-601-5259	Ccndyvanburen@usidlc.com	MAPS/RECORDS PROVIDED
LUMEN	Ken Davis		ken.davis2@lumen.com	MAPS/RECORDS PROVIDED
T-MOBILE				NO RESPONSE
ZAYO	Eric Boe	303-841-6121	eric.boe@zayo.com	CLEAR – NO CONFLICT

*NOTE: ONLY UTILITY ROWS HIGHLIGHTED GRAY WERE ENCOUNTERED WITHIN THE LIMITS AND SCOPE OF THIS SPECIFIC PROJECT.



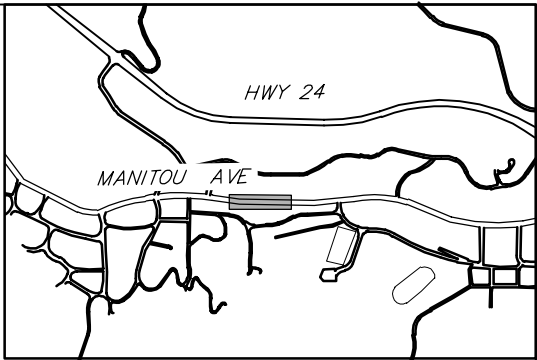
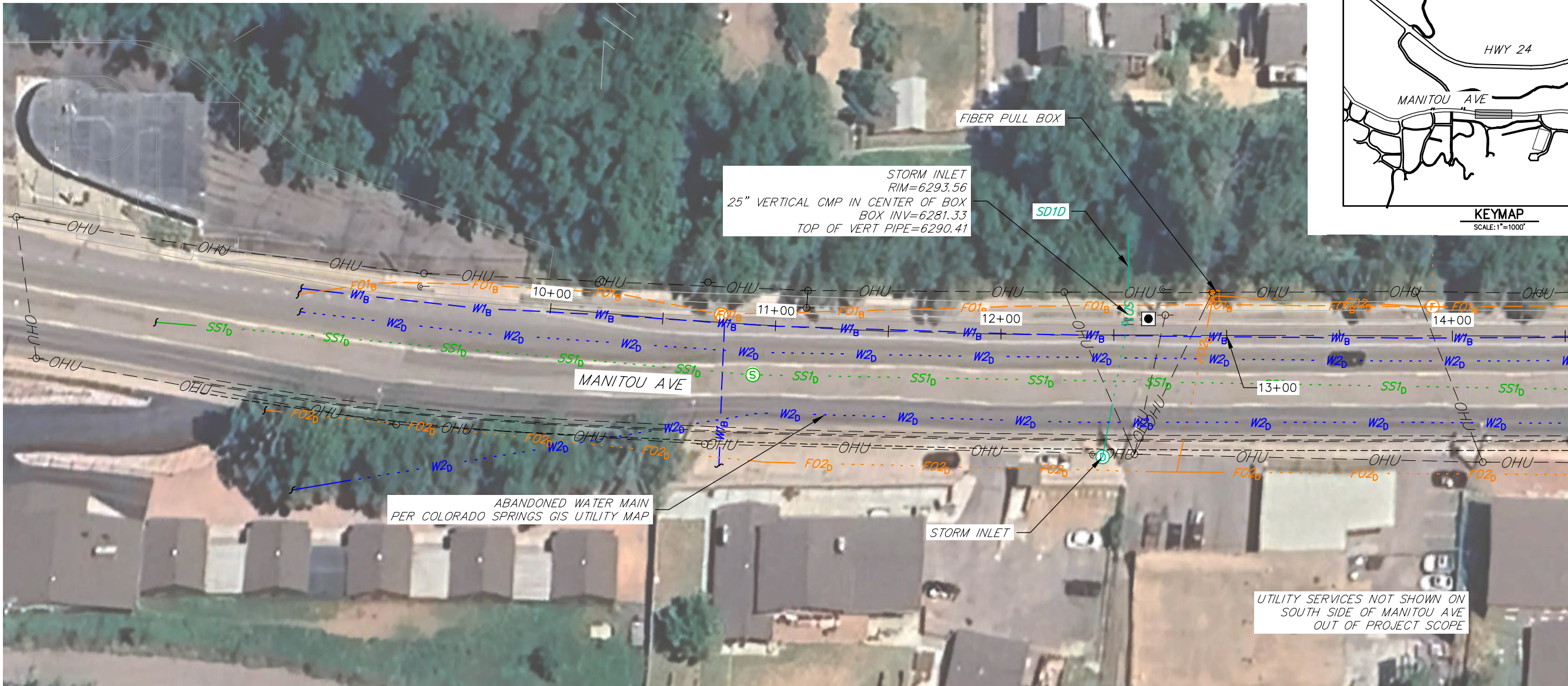
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION



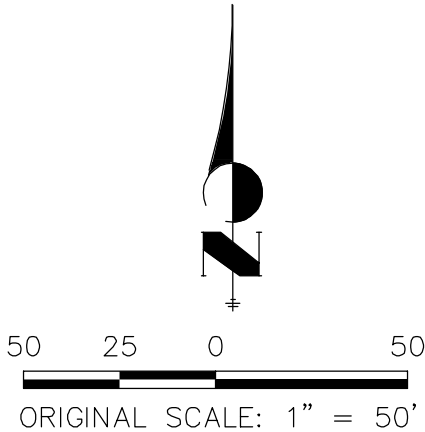
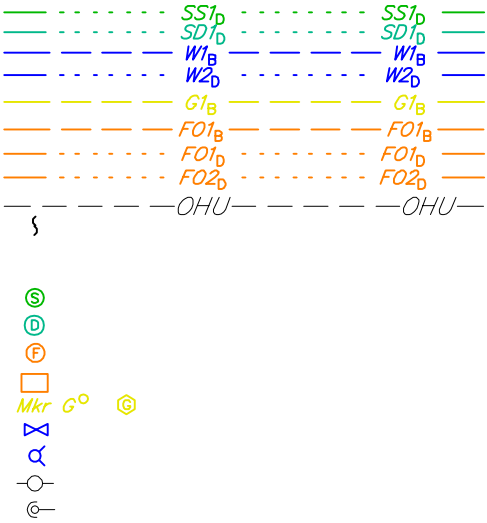
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING

Date: 8/16/24		Index of Revisions			Historic MANITOU SPRINGS EST. 1871 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: ANDREW MORREN, PE PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 SUE PLANS			Project No./Code		
File Name: 2531100 SUE01.DWG							No Revisions:				CI 2020-15/24000		
J-R ENGINEERING A Westrian Company						Revised:	Designer:	BSR			25311.00		
						Void:	Detailer:	MKS					
								Sheet Subset:	SUE	Subset Sheet:	1 of 4		Sheet Number 2



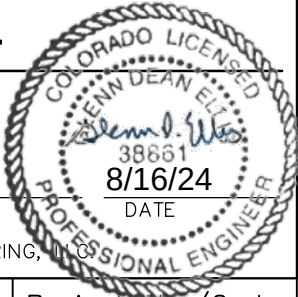
SUE LINETYPE LEGEND

- SANITARY SEWER – QLD (MANITOU SPRINGS)
STORM DRAIN – QLD (MANITOU SPRINGS)
WATER – QLB (MANITOU SPRINGS)
WATER – QLD (CSU)
GAS – QLB (CSU)
FIBER OPTIC – QLB (LUMEN)
FIBER OPTIC – QLD (LUMEN)
FIBER OPTIC – QLD (COMCAST)
OVERHEAD UTILITY (CSU/ LUMEN/ COMCAST)
CHANGE IN QUALITY LEVEL/LOSS OF SIGNAL
CSU = COLORADO SPRINGS UTILITIES
SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
FIBER MANHOLE
FIBER PULL BOX
GAS METER
WATER VALVE
FIRE HYDRANT
OVERHEAD UTILITY POLE
UTILITY POLE GUY WIRE ANCHORS



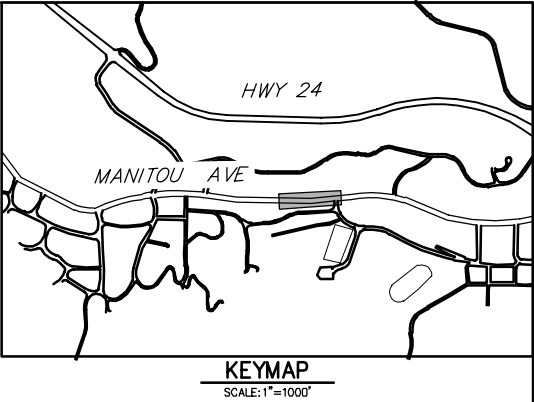
ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, INC.



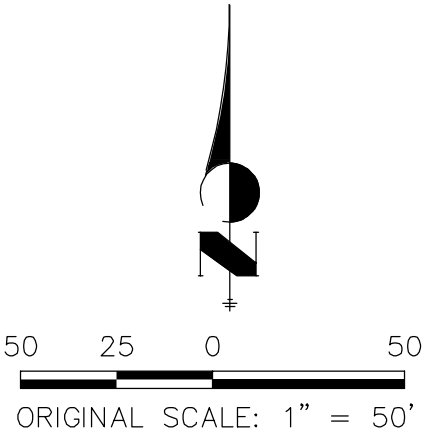
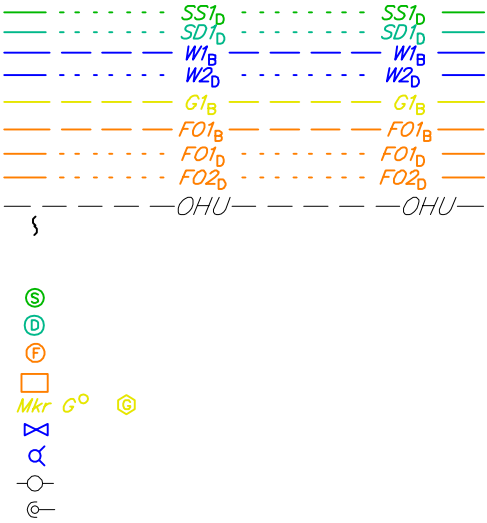
Date: 8/16/24			Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: ANDREW MORREN, PE PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4			Project No./Code	
File Name: 2531100 SUE01.DWG							No Revisions:	SUE PLANS			CI 2020-15/24000	
 J-R ENGINEERING A Westrian Company							Revised:	Designer:	BSR		25311.00	
							Void:	Detailer:	MKS		Sheet Number 3	
								Sheet Subset:	SUE	Subset Sheet:		

X:\2530000.all\2531100\Drawings\Sheet Dwg\SUE\SUE Plans\2531100 SUE01.dwg, SUE03, 8/16/2024 12:21:31 PM, schonebaummm



SUE LINETYPE LEGEND

- SANITARY SEWER – QLD (MANITOU SPRINGS)
STORM DRAIN – QLD (MANITOU SPRINGS)
WATER – QLB (MANITOU SPRINGS)
WATER – QLD (CSU)
GAS – QLB (CSU)
FIBER OPTIC – QLB (LUMEN)
FIBER OPTIC – QLD (LUMEN)
FIBER OPTIC – QLD (COMCAST)
OVERHEAD UTILITY (CSU/ LUMEN/ COMCAST)
CHANGE IN QUALITY LEVEL/LOSS OF SIGNAL
CSU = COLORADO SPRINGS UTILITIES
SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
FIBER MANHOLE
FIBER PULL BOX
GAS METER
WATER VALVE
FIRE HYDRANT
OVERHEAD UTILITY POLE
UTILITY POLE GUY WIRE ANCHORS



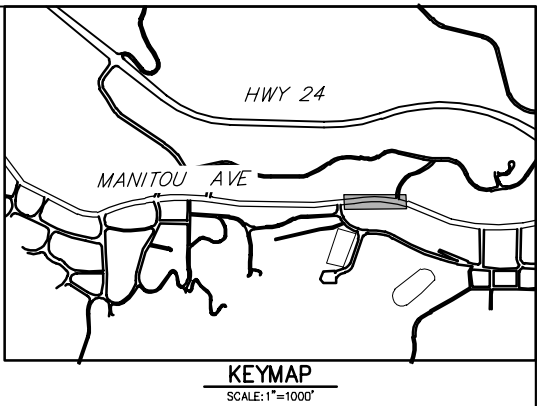
ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



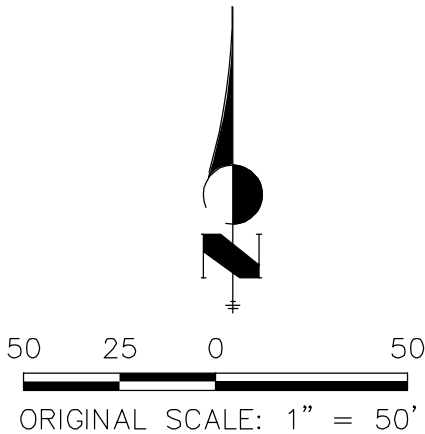
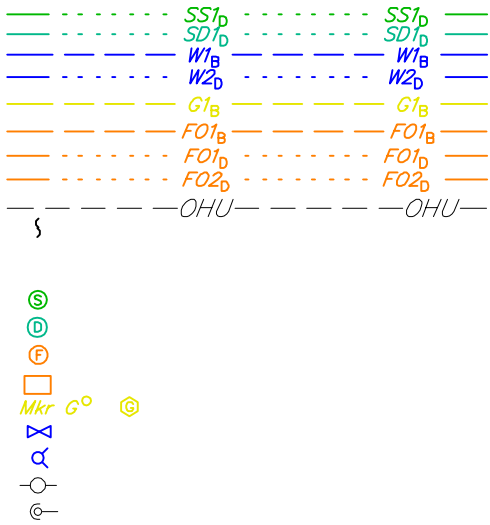
Date: 8/16/24			Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: ANDREW MORREN, PE PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4			Project No./Code		
File Name: 2531100 SUE01.DWG							No Revisions:		SUE PLANS			CI 2020-15/24000	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR			25311.00	
							Void:		Detailer: MKS			Sheet Number 4	
									Sheet Subset: SUE		Subset Sheet: 3 of 4		

X:\2530000.all\2531100\Drawings\Sheet Dwg\SUE\SUE Plans\2531100 SUE01.dwg, SUE04, 8/16/2024 12:21:36 PM, schonebaummm



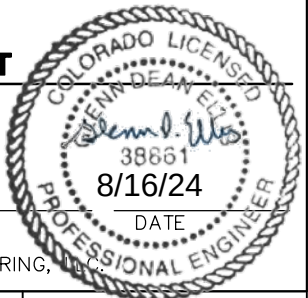
SUE LINETYPE LEGEND

SANITARY SEWER – QLD (MANITOU SPRINGS)
STORM DRAIN – QLD (MANITOU SPRINGS)
WATER – QLB (MANITOU SPRINGS)
WATER – QLD (CSU)
GAS – QLB (CSU)
FIBER OPTIC – QLB (LUMEN)
FIBER OPTIC – QLD (LUMEN)
FIBER OPTIC – QLD (COMCAST)
OVERHEAD UTILITY (CSU/ LUMEN/ COMCAST)
CHANGE IN QUALITY LEVEL/LOSS OF SIGNAL
CSU = COLORADO SPRINGS UTILITIES
SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
FIBER MANHOLE
FIBER PULL BOX
GAS METER
WATER VALVE
FIRE HYDRANT
OVERHEAD UTILITY POLE
UTILITY POLE GUY WIRE ANCHORS



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, INC.



Date: 8/16/24		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: ANDREW MORREN, PE PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4			Project No./Code	
File Name: 2531100 SUE01.DWG						No Revisions:		SUE PLANS			CI 2020-15/24000	
 J-R ENGINEERING A Westrian Company						Revised:	Designer:	BSR			25311.00	
						Void:	Detailer:	MKS			Sheet Number 5	
							Sheet Subset:	SUE	Subset Sheet:	4 of 4		

IRRIGATION SCHEDULE				
SYMBOL	MANUFACTURER	MODEL NO.	DESCRIPTION	DETAIL NO.
◆ ■ ◆ ■	RAIN BIRD	RD-12-S-P30-F WITH HE-VAN SERIES NOZZLE	HI-POP SPRAY HEAD	1
⊙	RAIN BIRD	PEB SERIES	ELECTRIC CONTROL VALVE	2
▼	RAIN BIRD	44-LRC	QUICK COUPLING VALVE	3
⬡	RAIN BIRD	ESP-LXMEF SERIES W/ IQ4G-USA COMM. CARTRIDGE	ELECTRIC CONTROLLER	4
⬡	RAIN BIRD	WR2-RFC	WEATHER SENSOR DEVICE	5
⬡	FEBCO	825YA	RP BACKFLOW PREVENTER	6
N/S	STRONG BOX	SBBC-22AL	BACKFLOW PREVENTER ENCLOSURE	7
N/S	OLDCASTLE / CARSON	REFER TO SPECIFICATIONS AND DETAILS	VALVE BOXES	VARIOUS
N/S	MACDONALD	AY 1/4 TURN - 3/4"	MANUAL DRAIN VALVE	8
N/S	MUELLER CORP.	H10284N SERIES - 3/4" DIA.	STOP & WASTE VALVE	6
⬡	NIBCO	T113K - LINE SIZE	GATE VALVE	9
⊙	RAIN BIRD	EFB-CP SERIES - 1" DIA.	MASTER CONTROL VALVE	10
⬡	RAIN BIRD	FS-100B - 1" DIA.	FLOW SENSOR	11
---		SCHEDULE 40 SOLVENT WELD	PVC MAINLINE	12
---		TYPE K COPPER	HARD COPPER PIPE	6
---		100 PSI NSF - 1" DIA. UNLESS OTHERWISE NOTED	POLY LATERAL	12
---		SCHEDULE 40 SOLVENT WELD	PVC SLEEVING	13
⊕	RAIN BIRD	XCZ-100-PRB-COM	DRIP VALVE ASSEMBLY	14
~ ~ ~	TORO	BLUE STRIPE	POLY DRIP TUBING - 3/4" MIN. WIDTH	14-16
N/S	RAIN BIRD	XERI-BUG	DRIP EMITTERS	15
▶			DRIP LINE BLOW-OUT STUB	16
 CONTROLLER & STATION NO.  CONTROL VALVE SIZE				
 A (controller) NUMBER OF SPARE WIRES - 2 CONTROL AND 1 SPARE WIRES TO INDICATED CONTROLLER - SEE CONSTRUCTION NOTES				

DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

Date: 7/17/2025

File Name: 8268-MSC WALK TRAIL PH4-IRR-CD - REV 0000



Index of Revisions



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed

No Revisions:

Revised:

Void:

CREEK WALK TRAIL – PHASE 4
IRRIGATION SCHEDULE

Designer: HAC

Detailer:

Sheet Subset: IRRIGATION

25311.00

Subset Sheet: 1 of 16

Project No./Code

M850-031(24000)

M850-032(24310)

Sheet Number 39



IRRIGATION CONSTRUCTION NOTES

1. DRAWINGS AND BASE INFORMATION - ALL BASE AND PLANTING INFORMATION HAVE BEEN PROVIDED BY DHM DESIGN. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY HYDROSYSTEMS*KDI OF ANY DISCREPANCIES BETWEEN THE UTILITY OR PLANTING PLANS AND THE IRRIGATION PLAN. IF CONTRACTOR FAILS TO NOTIFY HYDROSYSTEMS*KDI AND MAKES CHANGES TO THE IRRIGATION SYSTEM DESIGN, THEY ASSUME ALL COSTS AND LIABILITIES ASSOCIATED WITH THOSE FIELD CHANGES. REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS. CONTACT IRRIGATION CONSULTANT FOR CURRENT SPECIFICATIONS IF NOT PROVIDED.
2. SYSTEM PRESSURE - HYDROSYSTEMS*KDI HAS CONTACTED THE PLUMBING ENGINEER THAT DESIGNED THIS SITE AND THEY HAVE BEEN TOLD THAT THE STATIC WATER PRESSURE IN THIS AREA SHOULD BE 80 PSI. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY PRESSURE PRIOR TO COMMENCING ANY CONSTRUCTION AND NOTIFY HYDROSYSTEMS*KDI OF ANY VARIANCE FROM THE STATED PRESSURE IMMEDIATELY. WRITTEN DOCUMENTATION OF PRESSURE TEST AND RESULTS SHALL BE PROVIDED TO HYDROSYSTEMS*KDI AT CONSTRUCTION ONSET. IF CONTRACTOR FAILS TO FIELD VERIFY PRESSURE AND/OR NOTIFY HYDROSYSTEMS*KDI OR ANY VARIATIONS FROM THIS PRESSURE, THEN THEY ASSUME ALL CONSTRUCTION AND ENGINEERING COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE ACTUAL SITE PRESSURE. THIS SYSTEM HAS BEEN DESIGNED FOR A REQUIRED STATIC PRESSURE OF 70 PSI MINIMUM.
3. IRRIGATION SYSTEM OPERATION INTENT - THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO IRRIGATE THE ESTABLISHED LANDSCAPE WITHIN A THREE NIGHT PER WEEK, SIX HOUR PER NIGHT WATERING WINDOW. ESTABLISHMENT WATERING WILL REQUIRE UP TO TWICE AS MUCH IRRIGATION FOR A FOUR TO SIX WEEK PERIOD. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES ARE BASED ON A 30-YEAR AVERAGE WEATHER DATA AND WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND WEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.
- ORNAMENTAL PLANTINGS

0.68" PER WEEK PEAK SEASON
- NATIVE SEED MIXES

0.56" PER WEEK PEAK SEASON (TWO SEASONS)
- NOTE: IT IS THE INTENT OF THIS DESIGN THAT NATIVE AREAS WOULD ONLY BE IRRIGATED FOR ESTABLISHMENT. SYSTEM WILL REMAIN FOR USE DURING YEARS WITH LESS THAN NORMAL RAINFALL.
6. EQUIPMENT INSTALLATION - IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN PROPERTY LIMITS AND WITHIN LANDSCAPED AREAS. INSTALLATION SHALL BE COORDINATED WITH OTHER UTILITY WORK, ALL OTHER UTILITIES SHALL TAKE PRECEDENCE OVER IRRIGATION LOCATION. ANY EQUIPMENT OTHER THAN VALVE BOXES OR SLEEVING THAT CONTAINS PIPE OR WIRES SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 2'-0" FROM EDGE OF ANY PAVED SURFACES UNLESS SPECIFICALLY INDICATED ON PLANS. BOXES INSTALLED IN OPEN TURF AREAS SHALL BE KEPT TO EDGES AND STAKED FOR REVIEW IF ALONG HIGH TRAFFIC AREAS. ALL VALVE BOXES SHALL BE PLACED A MINIMUM OF 3'-0" FROM THE CENTERLINE OF ANY DRAINAGE SWALE. ALL VALVE BOXES WITHIN PAVEMENT SHALL BE TIER 15 RATED BOXES FOR HEAVY DUTY NON-DELIBERATE TRAFFIC. BOX LID COLOR SHALL MATCH ADJACENT MATERIALS, I.E. GREEN IN TURF, TAN IN WOOD MULCH, GRAY IN STONE MULCH, PURPLE FOR RECLAIMED WATER SYSTEMS (IF REQUIRED). REFER TO LANDSCAPE PLANS FOR MATERIAL COLORS AND TYPES. ALL BOXES SHALL BE INSTALLED TO BE FLUSH WITH GRADE AND IN AN ORDERLY MANNER. WHERE MORTAR PAVING LIDS ARE INSTALLED ABOVE BOXES, IRRIGATION BOX WITH LID SHALL BE LOWERED TO ACCOMMODATE PAVING LID. REFER TO LANDSCAPE FOR ADDITIONAL INFORMATION, TO BE INSTALLED PER MANUFACTURE RECOMMENDATIONS.
7. PIPING INSTALLATION - IRRIGATION PIPING SHALL MAINTAIN A MINIMUM DISTANCE FROM BUILDING FOUNDATIONS OF 5 FEET OR AS DESCRIBED IN SOILS REPORT, WHICHEVER IS GREATER. NO SPRAY IRRIGATION SHALL OCCUR WITHIN 10 FEET OF THE FOUNDATION. NO DRIP IRRIGATION SHALL OCCUR WITHIN 5 FEET OF THE FOUNDATION UNLESS SOIL MOISTURE SENSORS ARE INSTALLED ON VALVES SERVICING THESE AREAS. ALL IRRIGATION PIPING AND EMISSION DEVICES LOCATED ON TOP OF OR WITHIN BUILDING STRUCTURE SHALL CONFORM TO WATERPROOFING CONSULTANT REQUIREMENTS. PIPE ROUTING MAY BE SHOWN WITHIN THESE DISTANCES FOR GRAPHICAL CLARITY ONLY.
8. MANUAL DRAIN VALVES - CONTRACTOR TO INSTALL ONE MANUAL DRAIN VALVE ON PRESSURE SUPPLY LINE DIRECTLY DOWNSTREAM OF BACKFLOW PREVENTER AND AT ALL LOW POINTS AND DEAD ENDS OF PRESSURE SUPPLY PIPING TO ENSURE COMPLETE DRAINAGE OF SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE LOCATIONS IN-FIELD AND INSTALLATION LOCATIONS SHALL BE NOTED ON AS-BUILTS.
9. POP-UP SPRAY NOZZLES - CONTRACTOR TO INSTALL PLASTIC NOZZLES ON ALL POP-UP SPRAY HEADS. INSTALL 15 SERIES NOZZLES ON ALL HEADS SPACED AT 12' TO 14'. INSTALL 12 SERIES NOZZLES ON ALL HEADS SPACED 10' TO 11'. INSTALL 10 SERIES NOZZLES ON ALL HEADS SPACED AT 8' TO 9'. INSTALL 8 SERIES NOZZLES ON ALL HEADS SPACED AT 6' TO 7'. INSTALL SIDE STRIP NOZZLES ON ALL HEADS WITH AN "S" DESIGNATION AND RIGHT AND LEFT CORNER STRIP NOZZLES ON ALL HEADS WITH AN "L" OR "R" DESIGNATION. VARIABLE ARC NOZZLES SHOULD BE UTILIZED ADJACENT TO CURVILINEAR SHRUB BEDS OR FOR ANY ANGLES THAT ARE NOT A STANDARD NOZZLE ANGLE. HIGH EFFICIENCY POPUP NOZZLES HAVE BEEN SELECTED FOR THEIR DISTRIBUTION UNIFORMITY AND FLOW CHARACTERISTICS. NO SUBSTITUTION WILL BE ALLOWED.
10. DRIP IRRIGATION - REFER TO IRRIGATION DETAIL SHEET FOR DRIP EMITTER QUANTITIES / DRIP TUBING FLOW AND PLACEMENT.
11. UNLABELED PIPING - ALL UNLABELED LATERAL PIPING SHALL BE 1" MINIMUM UNLESS OTHERWISE NOTED.

12. SLEEVING - ALL SLEEVING UNDER PAVED SURFACES SHOWN ON PLANS IS BY CONTRACTOR UNLESS OTHERWISE NOTED. SLEEVING SHALL BE INSTALLED IN THE SIZES AND QUANTITIES SHOWN ON PLANS OR BASED ON THE SCHEDULE BELOW. WHERE SLEEVES ARE SHOWN, BUT NOT LABELED, FOLLOW THE SCHEDULE BELOW. ALL MAINLINE, CONTROL WIRES AND DRIP LINES UNDER PAVED SURFACES ARE TO BE INSTALLED IN SLEEVING. ALL MAINLINE SLEEVE LOCATIONS TO INCLUDE A SEPARATE WIRE SLEEVE.
- | SLEEVED PIPE SIZE/WIRE QUANTITY | REQUIRED SLEEVE SIZE & (QUANTITY) |
|---------------------------------|-----------------------------------|
| ¾" - 1¼" PIPING | 2" PVC (1) |
| 1½" - 2" PIPING | 4" PVC (1) |
| COMMUNICATION CABLE | 2" PVC (1) |
13. SPARE CONTROL WIRES - CONTRACTOR SHALL EXTEND THREE SPARE WIRES (ONE COMMON AND 2 CONTROL WIRES) FROM EACH CONTROLLER TO THE END OF THE MAINLINE SERVING THAT CONTROLLER OR AS SHOWN ON THE PLANS. INSTALL SPARE WIRES IN 10" ROUND VALVE BOX WITH QUICK COUPLING VALVE. REFER TO SPECIFICATIONS FOR WIRE COLOR. SEE IRRIGATION SCHEDULE FOR ADDITIONAL INFORMATION.
14. ADJUSTMENT - CONTRACTOR SHALL FINE TUNE/ADJUST THE IRRIGATION SYSTEM TO REDUCE/AVOID OVERSPRAY ONTO HARD SURFACES BY ADJUSTING NOZZLE DIRECTION AND NOZZLE RADIUS.
15. PLANS AND SPECIFICATIONS - CONTRACTOR RESPONSIBLE TO ENSURE WORK CONFORMS TO PLANS AND SPECIFICATIONS, INCLUDING ANY REVISED SETS. AT ONSET OF CONSTRUCTION, VERIFY PLANS ARE CURRENT. DO NOT CONSTRUCT ANY PORTIONS OF THE IRRIGATION OFF OF PLANS MARKED NOT FOR CONSTRUCTION OR FOR REVIEW ONLY. FAILURE TO VERIFY CURRENT PLANS MAY RESULT IN RECONSTRUCTION AT CONTRACTOR'S EXPENSE. WHERE REQUIRED BY CITY, TOWN OR WATER DISTRICT ENTITY, CONTRACTOR SHALL CONSTRUCT ONLY OFF PLANS STAMPED WITH APPROVAL. PLANS PREPARED FOR CITY SUBMITTAL MAY BE MARKED "ISSUE FOR CONSTRUCTION", BUT ARE NOT VALID WITHOUT CITY APPROVAL STAMP BELOW. IF NO STAMP IS PRESENT, CONFIRM NO CITY APPROVAL IS REQUIRED. REVISIONS TO APPROVED OR STAMPED PLANS SHALL CONFORM TO FIELD CHANGE PROCEDURES AND DOCUMENTATION AS REQUIRED BY THE CITY OR DISTRICT.
16. SIMULTANEOUS ZONE OPERATION - THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE MULTIPLE ZONES SIMULTANEOUSLY BASED ON INDIVIDUAL ZONE FLOW. THE DESIGN IS INTENDED TO OPERATE MULTIPLE VALVES, UP TO THE MAXIMUM FLOW IN THE POINT OF CONNECTION NOTE. REFER TO CONTROLLER SPECIFICATION FOR MAXIMUM SIMULTANEOUS VALVE COUNT.
17. BACKFLOW DEVICES: ALL CONNECTION COMPONENTS AND BACKFLOW DEVICES SHALL BE LEAD-FREE. CONTRACTOR SHALL CONTACT WATER SERVICE PROVIDER FOR ANY ADDITIONAL REQUIREMENTS REGARDING BACKFLOW TESTING.
18. WATER BUDGETS AND PROJECTIONS - HYDROSYSTEMS-KDI HAS BASED THE IRRIGATION DESIGN AND THE ASSOCIATED PROJECTED WATER USE UPON SUCH FACTORS AS CITY OR WATER DISTRICT IMPOSED REQUIREMENTS, PUBLISHED PLANT SPECIES WATER NEEDS, SELECTED IRRIGATION METHOD EFFICIENCIES AS REPORTED BY INDEPENDENT TESTING FACILITIES, HISTORICAL WEATHER DATA FOR THE PROJECT LOCATION, AND PROPER MAINTENANCE PROCEDURES. HYDROSYSTEMS*KDI IS NOT RESPONSIBLE, AND ACCEPTS NO RESPONSIBILITY, FOR THE ACTUAL WATER USAGE VARIATION THAT IS A RESULT OF FIELD MODIFICATIONS TO THE SYSTEM NOT MATCHING CONSTRUCTION DOCUMENTS, IMPROPER MAINTENANCE, WASTE DUE TO SYSTEM DAMAGE OR VANDALISM, OR WEATHER CONDITIONS THAT DEVIATE FROM PUBLISHED 30 YEAR HISTORICAL AVERAGES.
19. PRESSURE TESTING - CONDUCT MAINLINE TEST IN PRESENCE OF CONSULTANT. ARRANGE FOR PRESENCE OF CONSULTANT 48 HOURS IN ADVANCE OF TESTING. SUPPLY FORCE PUMP AND ALL OTHER TEST EQUIPMENT. COMPRESSED AIR SHALL NOT BE USED FOR PRESSURE TESTING SYSTEM.
- 19.1.

AFTER BACKFILLING, AND INSTALLATION OF ALL CONTROL VALVES, FILL PRESSURE SUPPLY LINE WITH WATER, AND PRESSURIZE TO 40 PSI OVER THE DESIGNATED STATIC PRESSURE OR 120 PSI, WHICHEVER IS GREATER, FOR A PERIOD OF 2 HOURS.
- 19.2.

LEAKAGE, PRESSURE LOSS - TEST IS ACCEPTABLE IF NO LOSS OF PRESSURE IS EVIDENT DURING THE TEST PERIOD.
- 19.3.

LEAKS - DETECT AND REPAIR LEAKS.
- 19.4.

RETEST SYSTEM UNTIL TEST PRESSURE CAN BE MAINTAINED FOR DURATION OF TEST.
- 19.5.

BEFORE FINAL ACCEPTANCE, PRESSURE SUPPLY LINE SHALL REMAIN UNDER PRESSURE FOR A PERIOD OF 48 HOURS.
- 19.6.

PRESSURE TEST SHALL BE SCHEDULED AND PASSED PRIOR TO SCHEDULING OF SUBSTANTIAL COMPLETION WALK-THROUGH.

DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

811

Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



KDI

Irrigation Consulting & Water Management

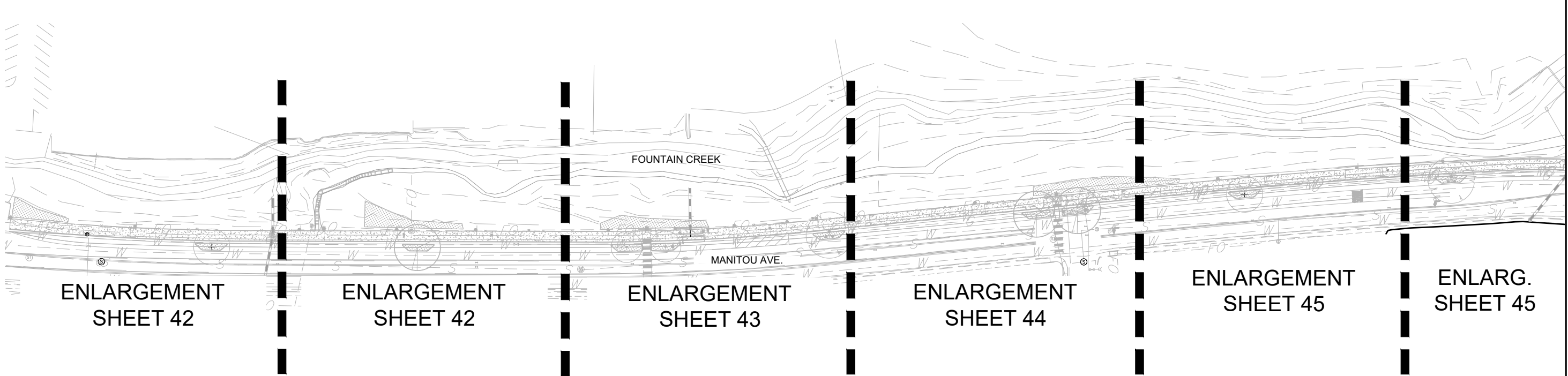
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401

o: 303.980.5327 w: hydrosystemskdi.com

Date: 7/17/2025		Index of Revisions			As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION NOTES		Project No./Code	
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV 1 DWD										
 LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN					No Revisions:		Designer:	HAC		
					Revised:		Detailer:		25311.00	
					Void:		Sheet Subset:	IRRIGATION	Subset Sheet:	2 of 16
									Sheet Number 40	

CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719–600–8317

Page 241 of 338

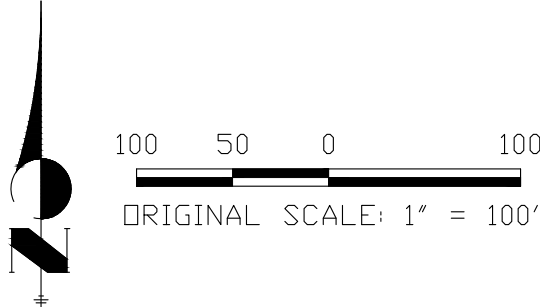


A

41

OVERALL IRRIGATION PLAN

SCALE: 1" =100'-0"



DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

Date: 7/17/2025		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION PLANS		Project No./Code				
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV 1 DWG					No Revisions:				M850–031(24000)				
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN					Revised:		Designer: HAC		M850–032(24310)				
					Void:		Detailer:						
							Sheet Subset: IRRIGATION		Subset Sheet: 3 of 16		Sheet Number 41		

811

Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRAZE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

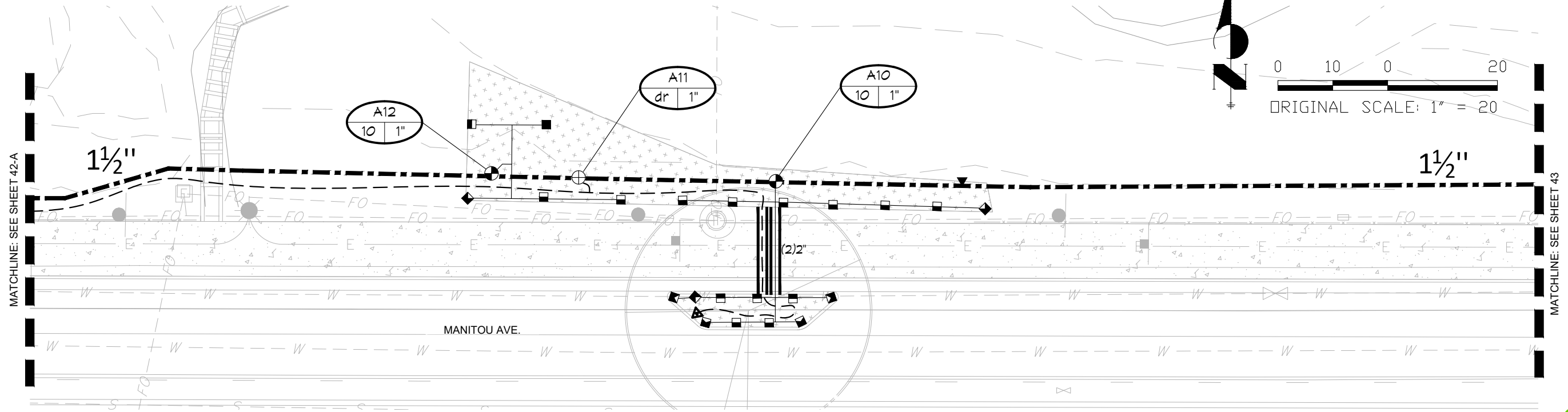
Hydro

Systems

KDI
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o: 303.980.5327 www.hydrosystemsmdi.com

DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

A
42
IRRIGATION PLAN
SCALE: 1" = 20'-0"



B
42
IRRIGATION PLAN
SCALE: 1" = 20'-0"



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.



Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260
o: 303.980.5327
Lakewood, Colorado 80401
www.hydrosystemsmdi.com

Date: 7/17/2025
File Name: 8268-MSC WALK TRAIL PH4-IRR-CD - REV. CDWG

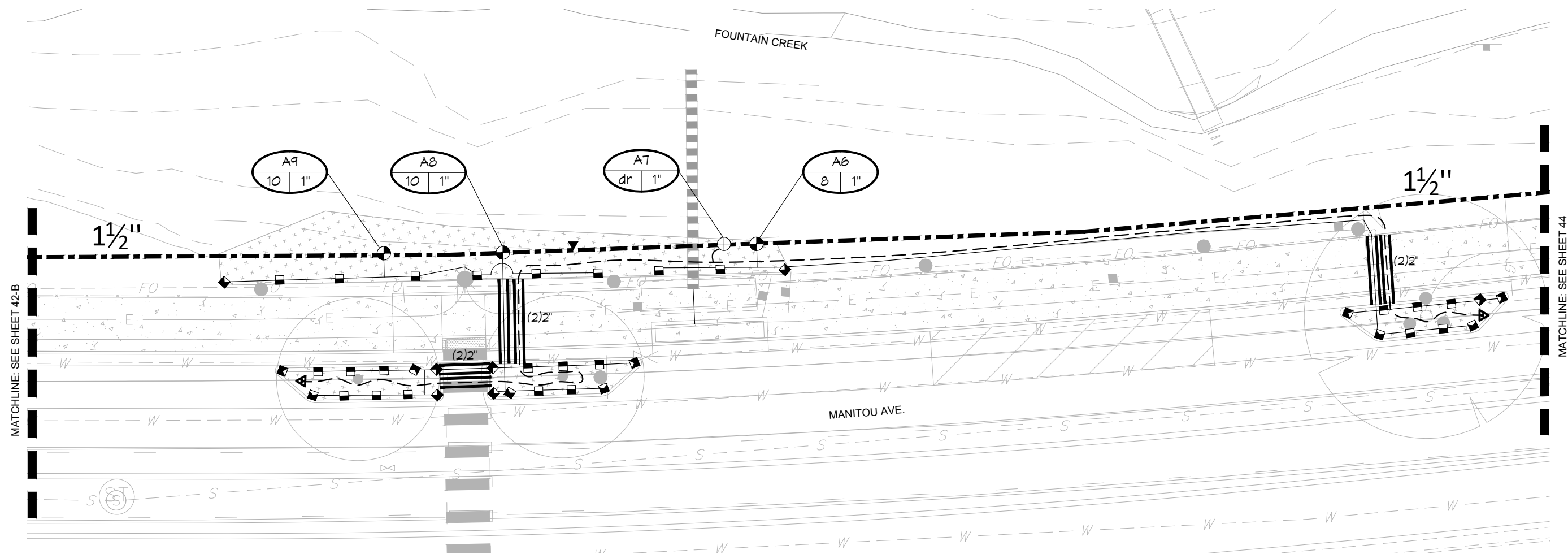
DHM DESIGN
LANDSCAPE ARCHITECTURE
LAND PLANNING
URBAN DESIGN

Index of Revisions		



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL - PHASE 4 IRRIGATION PLANS		Project No./Code
No Revisions:		Designer: HAC		M850-031(24000)
Revised:		Detailer:	25311.00	M850-032(24310)
Void:		Sheet Subset: IRRIGATION	Subset Sheet: 4 of 16	Sheet Number 42



A
43
IRRIGATION PLAN
SCALE: 1" = 20'-0"

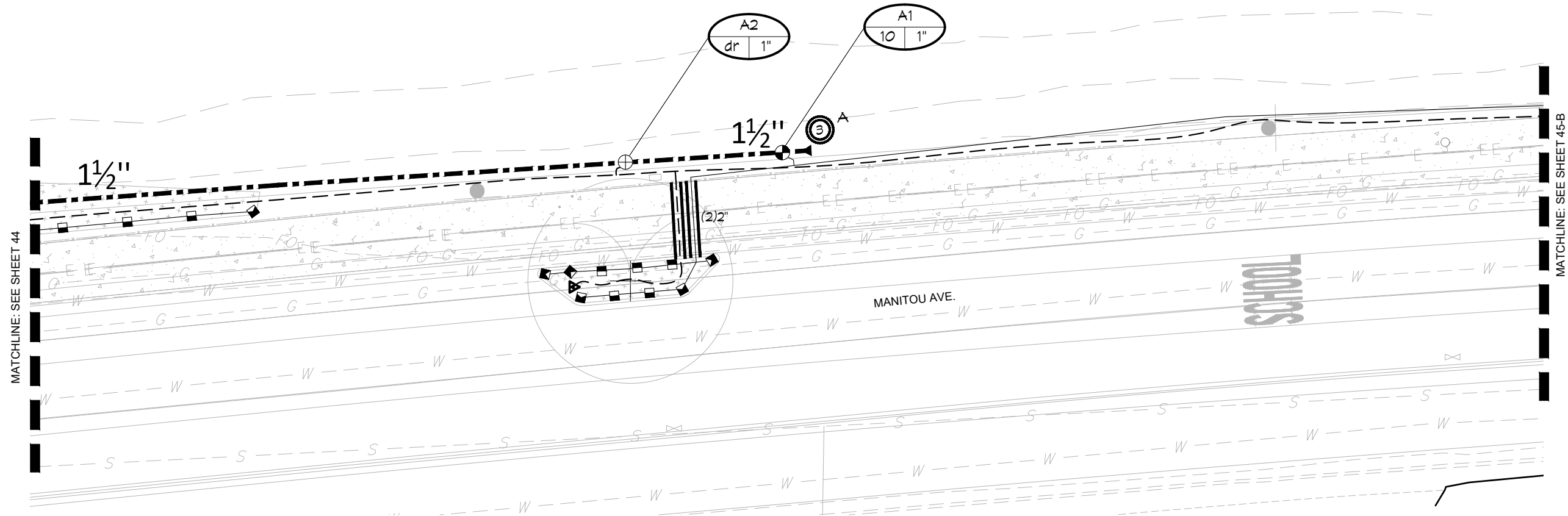
DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

ORIGINAL SCALE: 1" = 20'

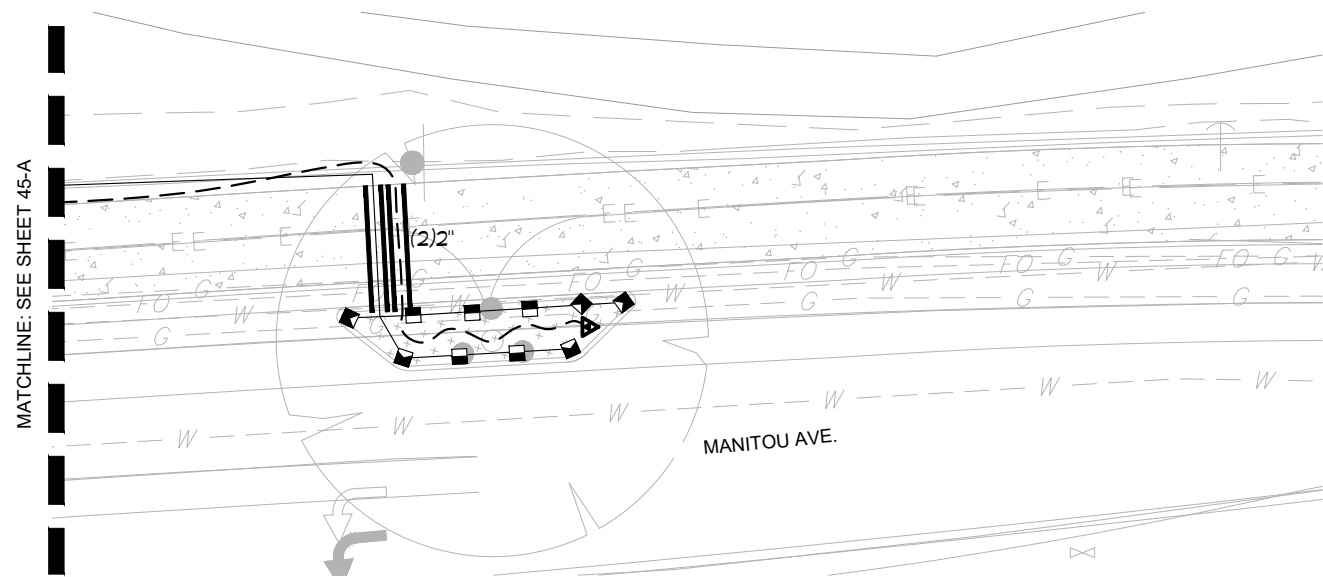
Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave., Suite 260 Lakewood, Colorado 80401
o: 303.980.5327 www.hydrosystemsmdi.com

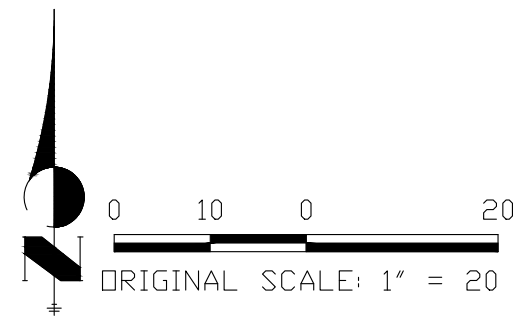
Date: 7/17/2025		Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION PLANS			Project No./Code		
File Name: 8268—MSC WALK TRAIL PH4—IRR—CD – REV 1.DWG					No Revisions:					M850-031(24000)		
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN					Revised:		Designer: HAC			M850-032(24310)		
					Void:		Detailer:			25311.00		
							Sheet Subset: IRRIGATION		Subset Sheet: 5 of 16		Sheet Number 43	



A
45
IRRIGATION PLAN
SCALE: 1" = 20'-0"



B
45
IRRIGATION PLAN
SCALE: 1" = 20'-0"



DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.



Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o: 303.980.5327 www.hydrosystemsksi.com

Date: 7/17/2025
File Name: 8268-MSC WALK TRAIL PH4-IRR-CD - REV 1 DWG

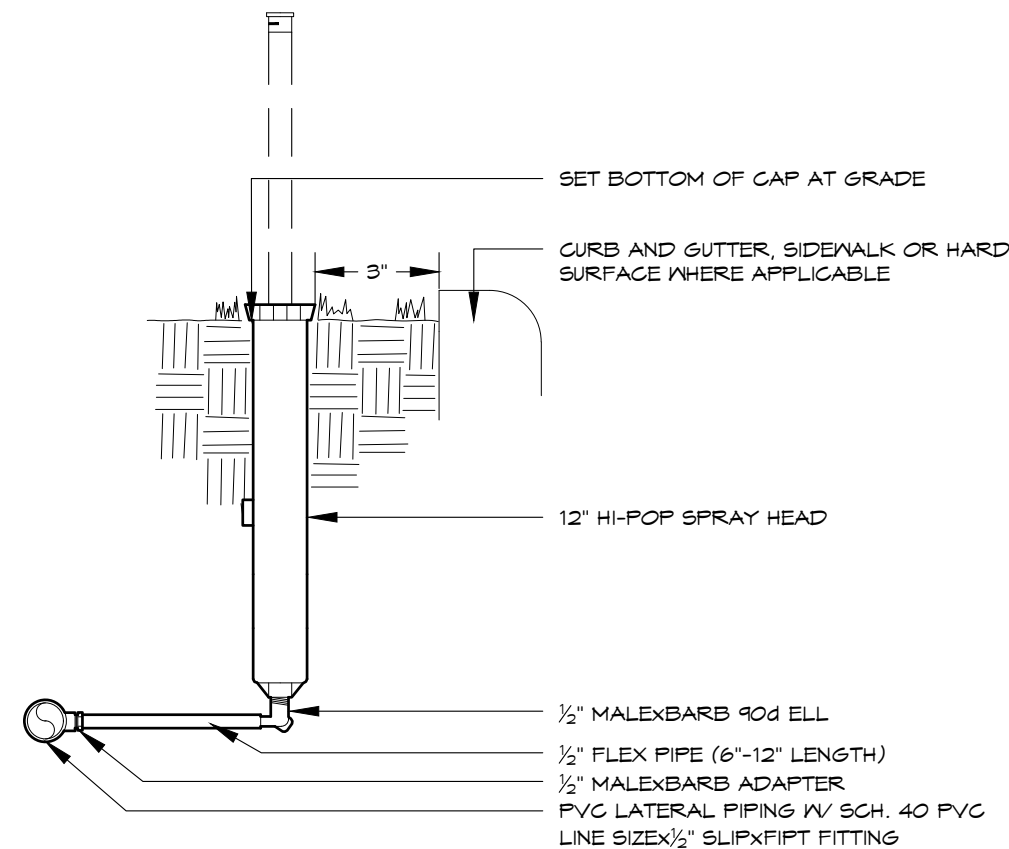
DHM DESIGN
LANDSCAPE ARCHITECTURE
LAND PLANNING
URBAN DESIGN

Index of Revisions			



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION PLANS		Project No./Code
No Revisions:		Designer: HAC		M850-031(24000)
Revised:		Detailer:	25311.00	M850-032(24310)
Void:		Sheet Subset: IRRIGATION	Subset Sheet: 7 of 16	Sheet Number 45

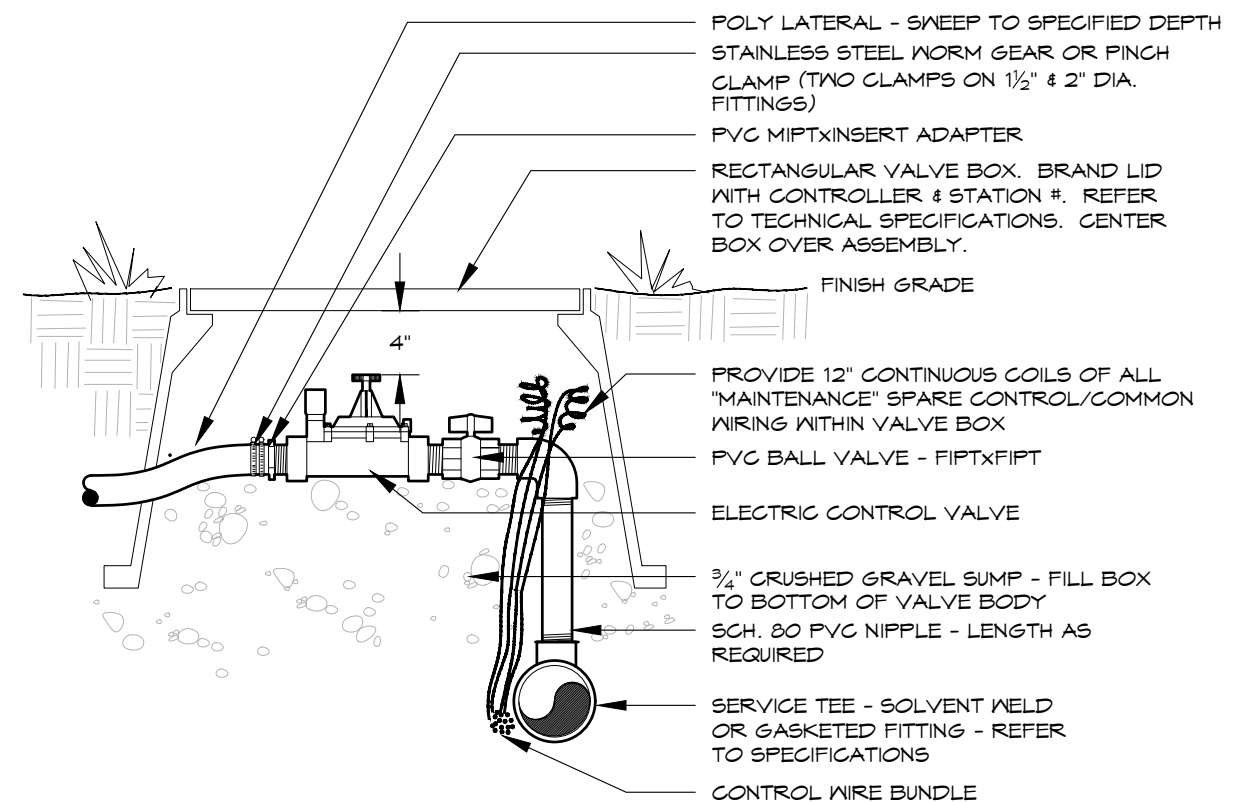


- NOTE:
- SET HEAD PERPENDICULAR TO FINISH GRADE SWING.
 - FLEX PIPE SHALL BE ATTACHED TO BOTTOM SPRAY HEAD INLET ONLY.
 - APPLY TEFLON TAPE TO ALL MALE PVC THREADED FITTINGS AND NIPPLES.

HI-POP SPRAY HEAD

SWING PIPE - PVC

1



- NOTE: DIAMETERS OF BALL VALVES, PVC FITTINGS AND NIPPLES SHALL EQUAL ELECTRIC CONTROL VALVE DIAMETER. VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACENT SIDEWALKS AND HARD SURFACES WHERE APPLICABLE. APPLY TEFLON TAPE TO ALL MALE THREADED FITTINGS AND THREADED NIPPLES.

ELECTRIC CONTROL VALVE

24V - Poly Lateral

2

DIRECTORY

IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54



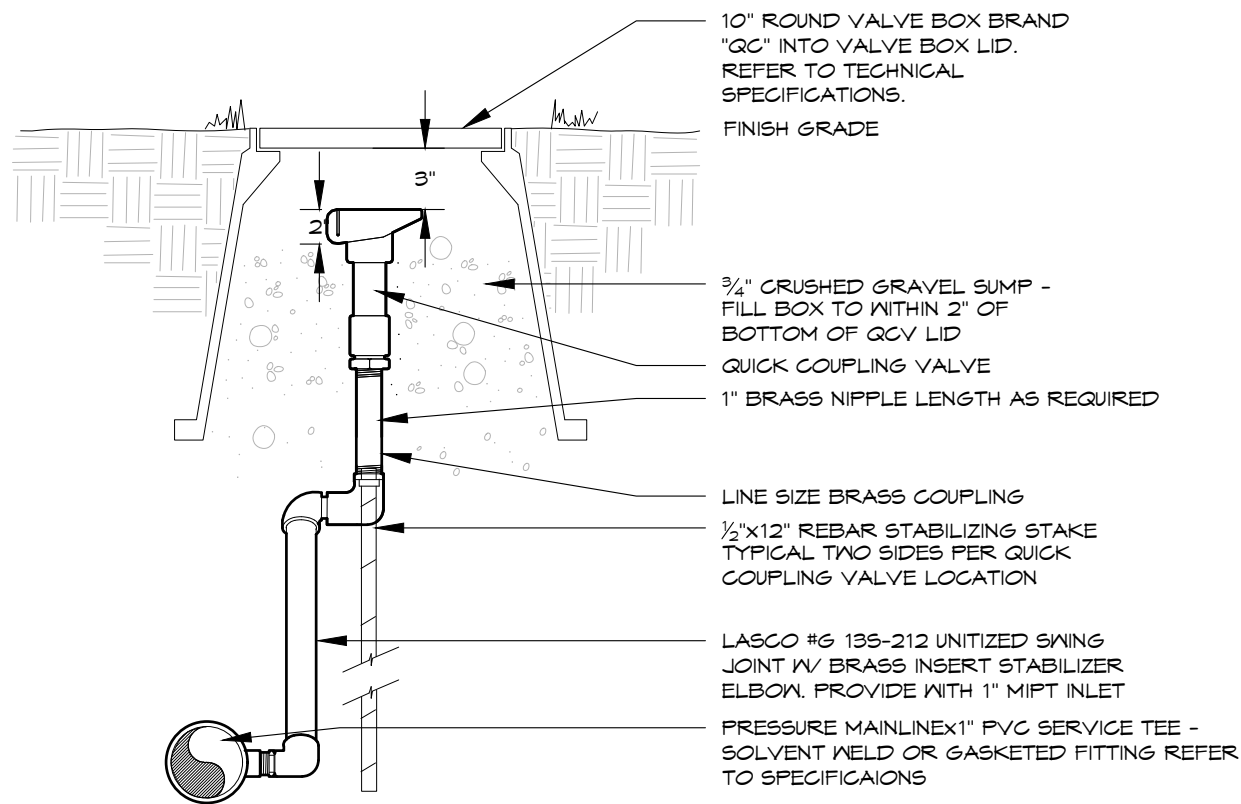
Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG. GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o: 303.980.5327 www.hydrosystemsdi.com

KDI

Date: 7/17/2025		Index of Revisions			Historic MANITOU SPRINGS CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS			Project No./Code	
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV 1.DWG							No Revisions:				M850–031(24000)	
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN							Revised:	Designer: HAC			M850–032(24310)	
								Detailer:		25311.00		
								Void:	Sheet Subset: IRRIGATION	Subset Sheet:	8 of 16	Sheet Number 46

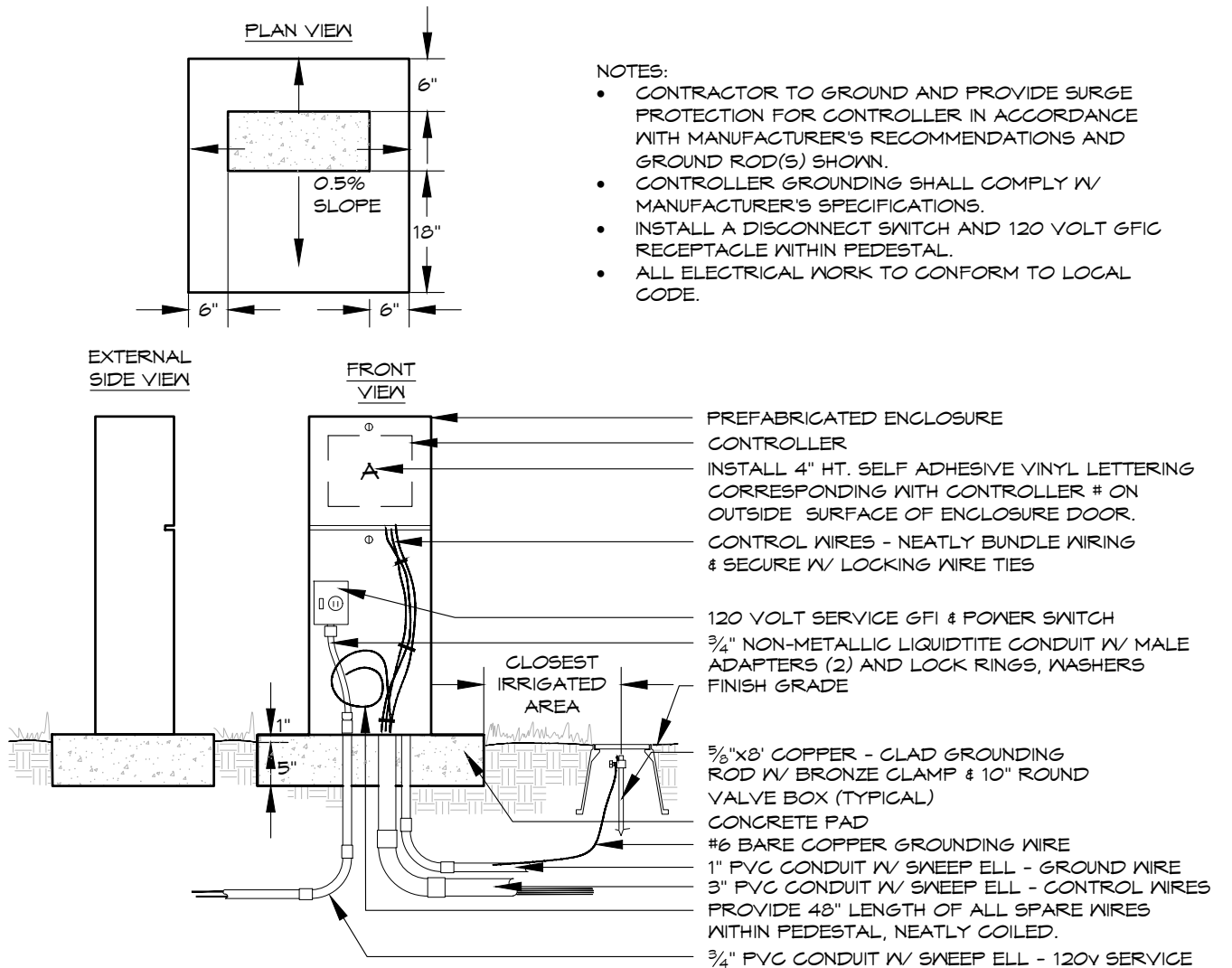


APPLY TEFLON TAPE TO ALL THREADED NIPPLES

QUICK COUPLING VALVE

LASCOSWING - TYPICAL

3



NOTES:

- CONTRACTOR TO GROUND AND PROVIDE SURGE PROTECTION FOR CONTROLLER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GROUND ROD(S) SHOWN.
- CONTROLLER GROUNDING SHALL COMPLY W/ MANUFACTURER'S SPECIFICATIONS.
- INSTALL A DISCONNECT SWITCH AND 120 VOLT GFI RECEPTACLE WITHIN PEDESTAL.
- ALL ELECTRICAL WORK TO CONFORM TO LOCAL CODE.

ELECTRIC CONTROLLER

PEDESTAL - FRONT OPENING - TYPICAL

4

DIRECTORY

IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

Date: 7/17/2025	File Name: 8268-MSK WALK TRAIL PH4-IRR-CD - REV 1 DWD
DHM DESIGN	
LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN	

Index of Revisions		



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

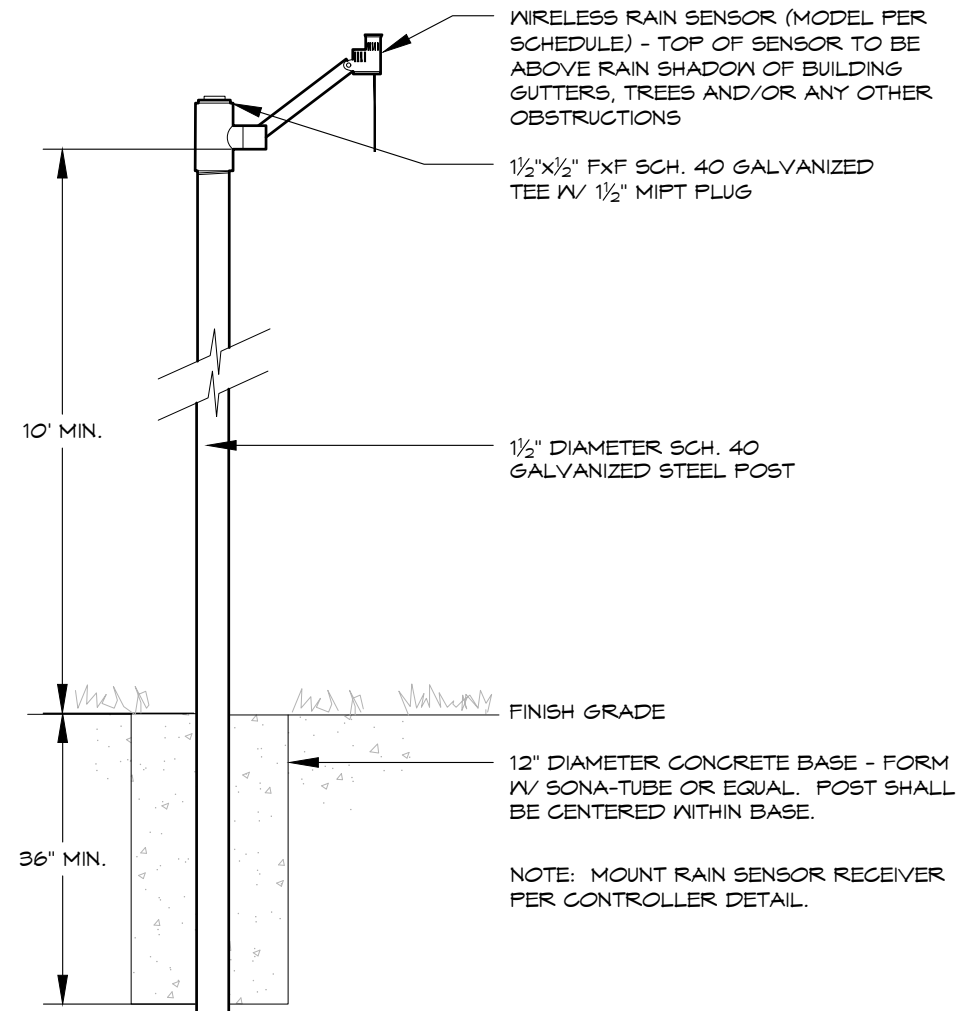
As Constructed	CREEK WALK TRAIL - PHASE 4 IRRIGATION DETAILS		Project No./Code
No Revisions:	Designer: HAC		M850-031(24000)
Revised:	Detailer:	25311.00	M850-032(24310)
Void:	Sheet Subset: IRRIGATION	Subset Sheet: 9 of 16	Sheet Number 47



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



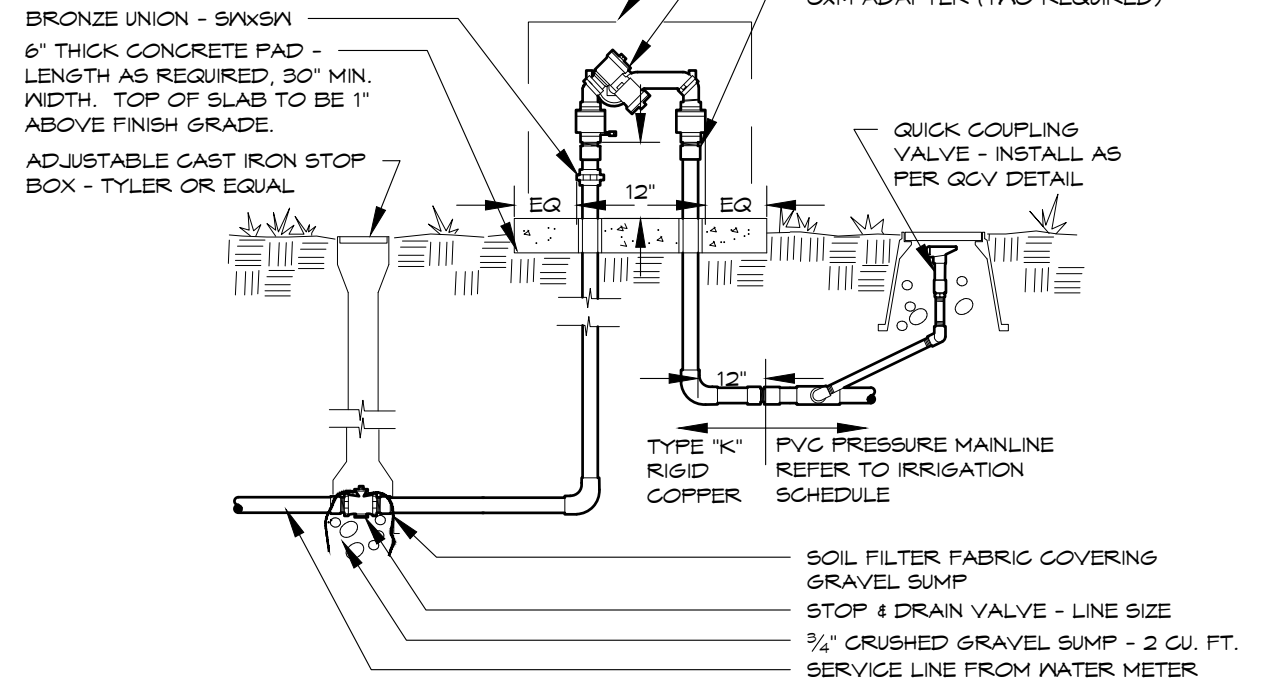
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327 www.hydrosystemsdi.com



WEATHER SENSOR
POLE MOUNTED - Wireless

5

- NOTE:
- CONCRETE PAD PENETRATIONS TO BE 1" LARGER THAN TUBING DIAMETER.
 - REFER TO ENCLOSURE DETAIL FOR CONCRETE PAD DIMENSIONS.
 - DIAMETER OF FITTINGS, NIPPLE AND TUBING SHALL EQUAL DIAMETER OF BACKFLOW PREVENTER UNLESS NOTED OTHERWISE.



BACKFLOW PREVENTER
3/4" - 2" SYSTEMS WITH PVC CONNECTION

6

DIRECTORY

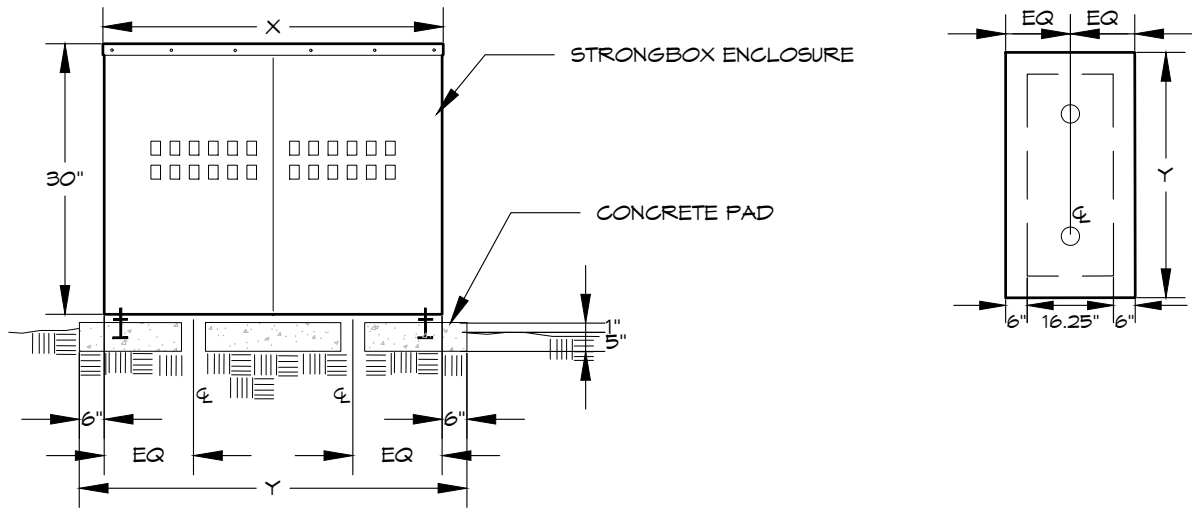
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327
www.hydrosystemsdi.com

Date: 7/17/2025		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS		Project No./Code	
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV 1 DWP					No Revisions:			M850–031(24000)		
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN					Revised:	Designer: HAC		M850–032(24310)		
						Detailer:	25311.00			
						Void:	Sheet Subset: IRRIGATION	Subset Sheet: 10 of 16	Sheet Number 48	

BFP MODEL/SIZE	ENCLOSURE MODEL	X	Y
FEBCO 825Y 3/4" & 1"	SBBC-30AL	30"	42"
FEBCO 825Y 1 1/2" & 2"	SBBC-45AL	45"	57"
FEBCO 825YA 3/4" & 1"	SBBC-22AL	22"	34"
FEBCO 825YA 1 1/2" & 2"	SBBC-30AL	30"	42"

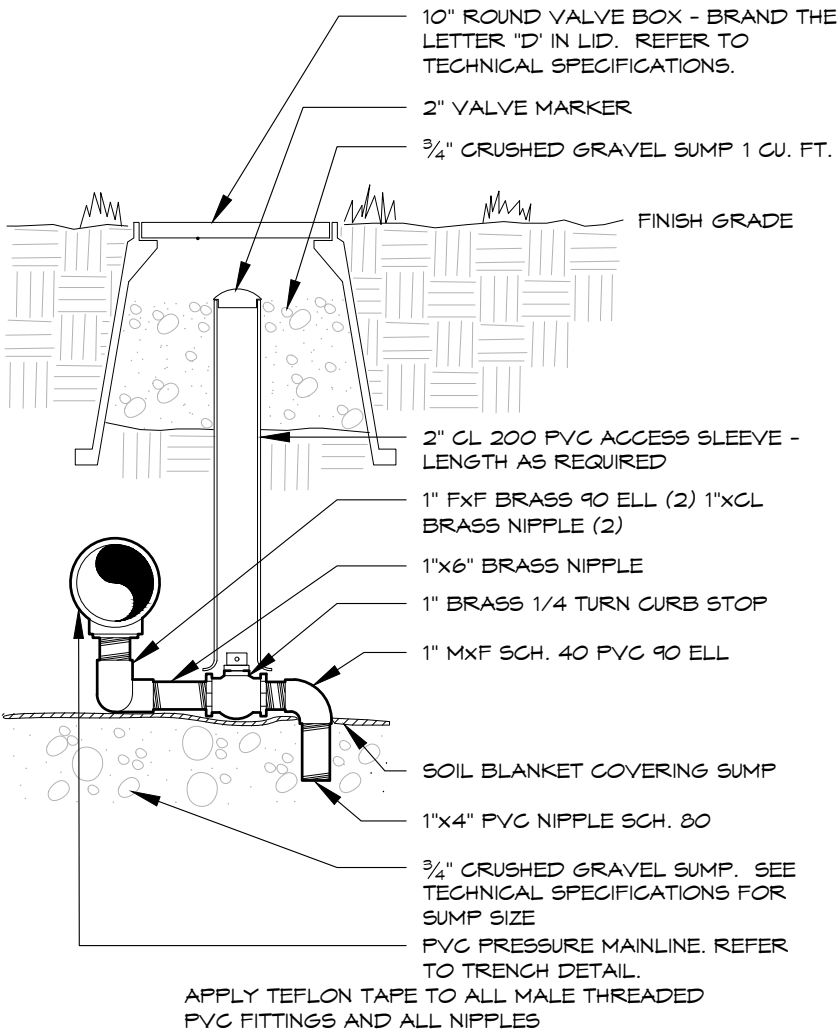


- NOTES:
- PAD PENETRATIONS FOR BACKFLOW PREVENTER RISERS TO BE 1" LARGER THAN RISER DIAMETER.
 - TOP SURFACE OF CONCRETE PAD SHALL BE 1" ABOVE FINISH GRADE.
 - INSTALL ENCLOSURE ANCHORS AS PER MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE OWNER WITH KEYED PADLOCK FOR ENCLOSURE.

BACKFLOW ENCLOSURE

STRONGBOX - 3/4" - 2" SYSTEMS

7



MANUAL DRAIN VALVE

TYPICAL

8

DIRECTORY

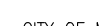
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG. GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

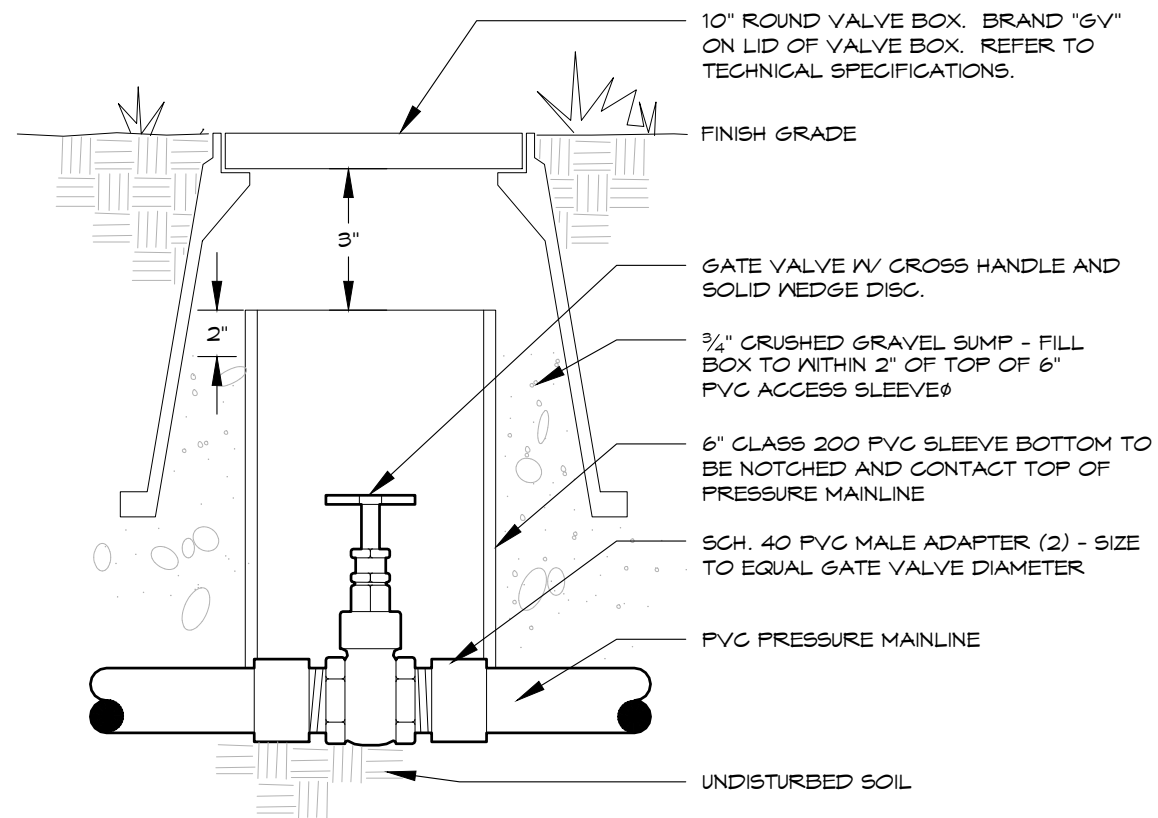


HydroSystems KDI
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327 www.hydrosystemsdi.com

Date: 7/17/2025		Index of Revisions			As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS		Project No./Code	
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV 1 DWD					No Revisions:				M850–031(24000)	
 LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN					Revised:	Designer: HAC		M850–032(24310)		
					Void:	Detailer:	25311.00			
						Sheet Subset: IRRIGATION	Subset Sheet:	11 of 16	Sheet Number 49	
										
					CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719–600–8317					

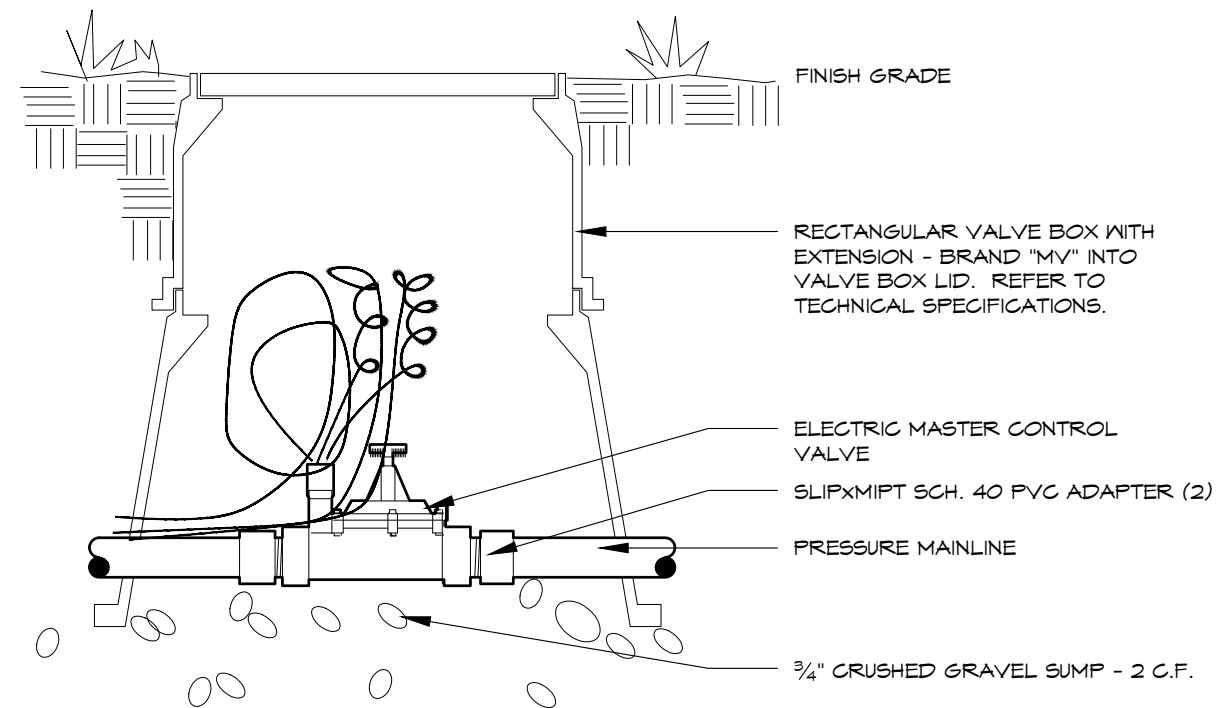


CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719–600–8317



GATE VALVE
2.5" & SMALLER - X-HANDLE

9



MASTER VALVE
24V - Small - Typical

10

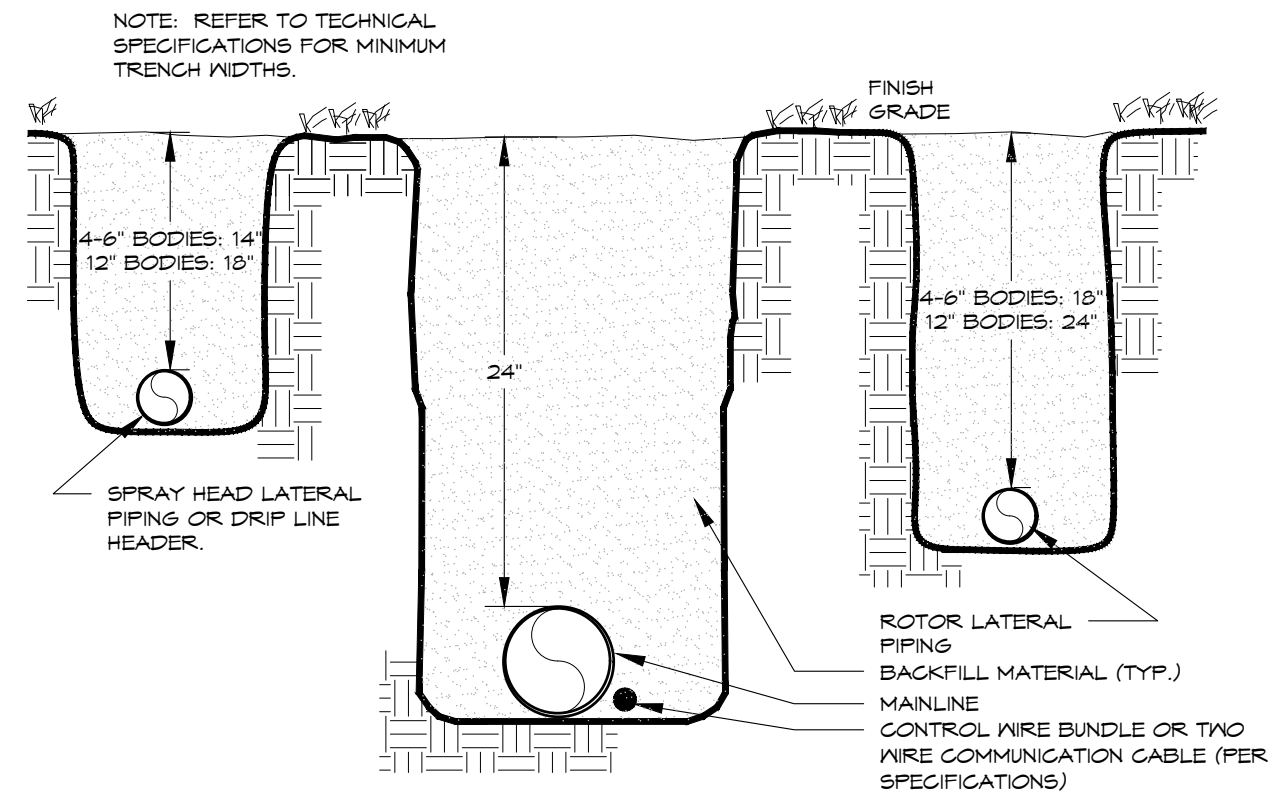
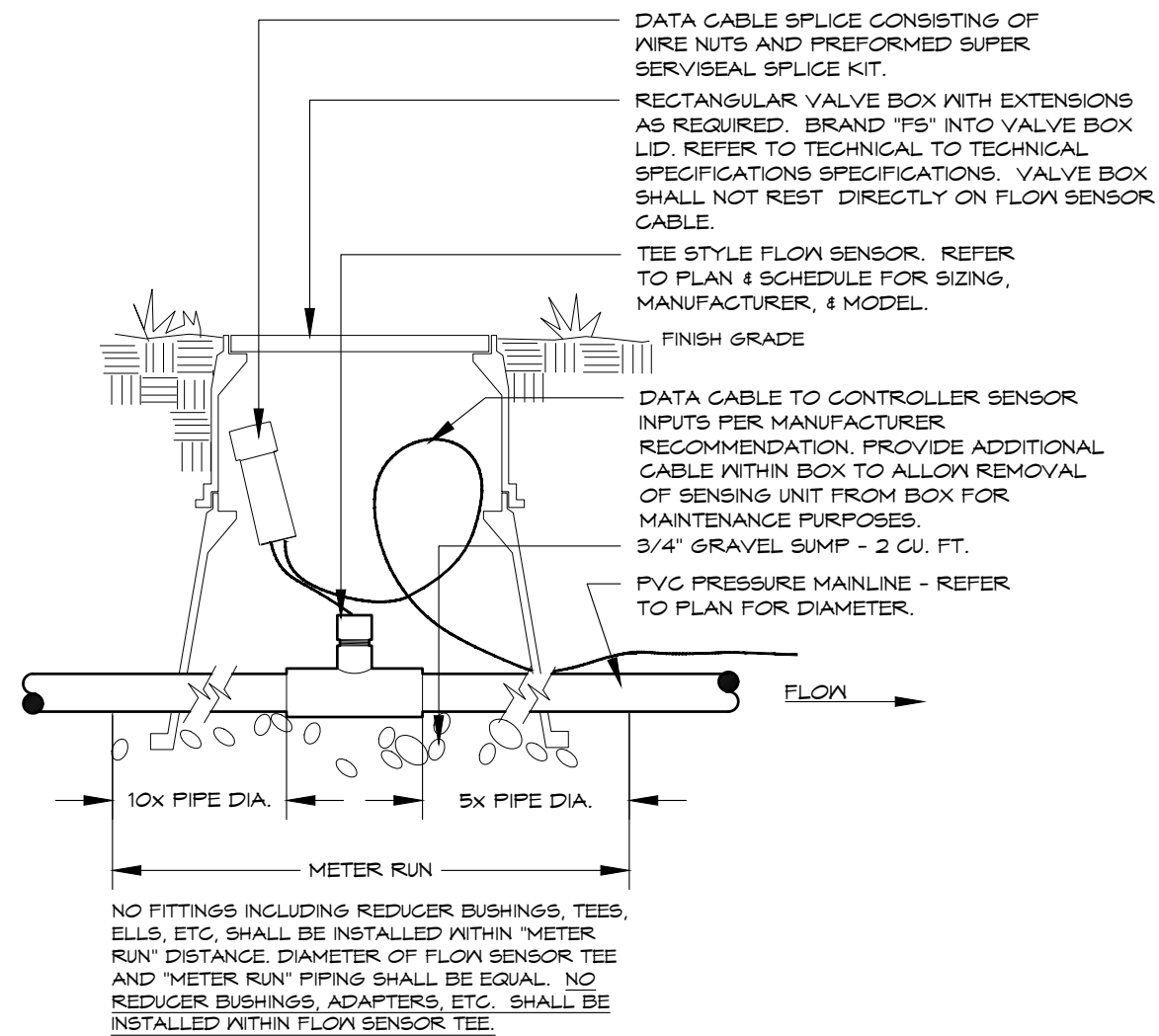
DIRECTORY

IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327
www.hydrosystemsco.com

Date: 7/17/2025		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS			Project No./Code	
File Name: 8268-MSC WALK TRAIL PH4-IRR-CD -- REV 1 DWP						No Revisions:				M850-031(24000)		
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN						Revised:	Designer: HAC			M850-032(24310)		
							Detailer:		25311.00			
							Void:	Sheet Subset: IRRIGATION	Subset Sheet:	12 of 16	Sheet Number 50	



FLOW SENSOR

VIA DATA CABLE - TEE STYLE

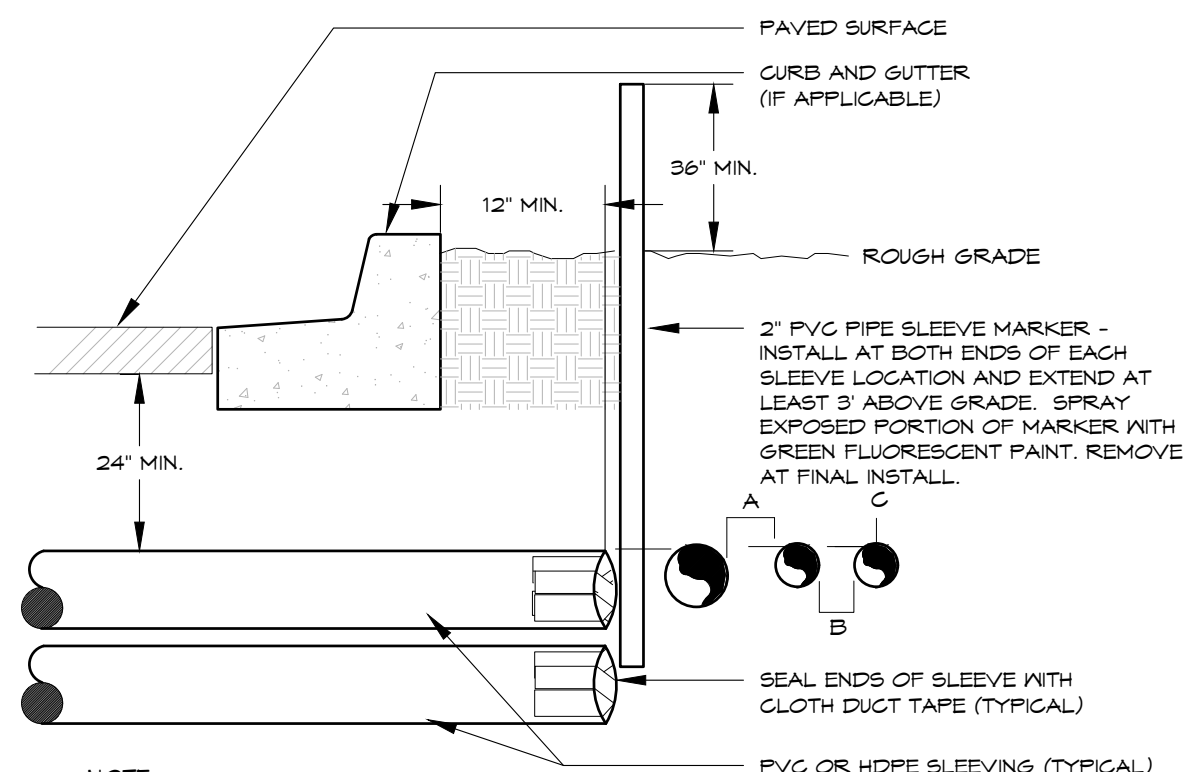
11

TRENCH
24" MAINLINE

12

<u>DIRECTORY</u>	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

[illegible]

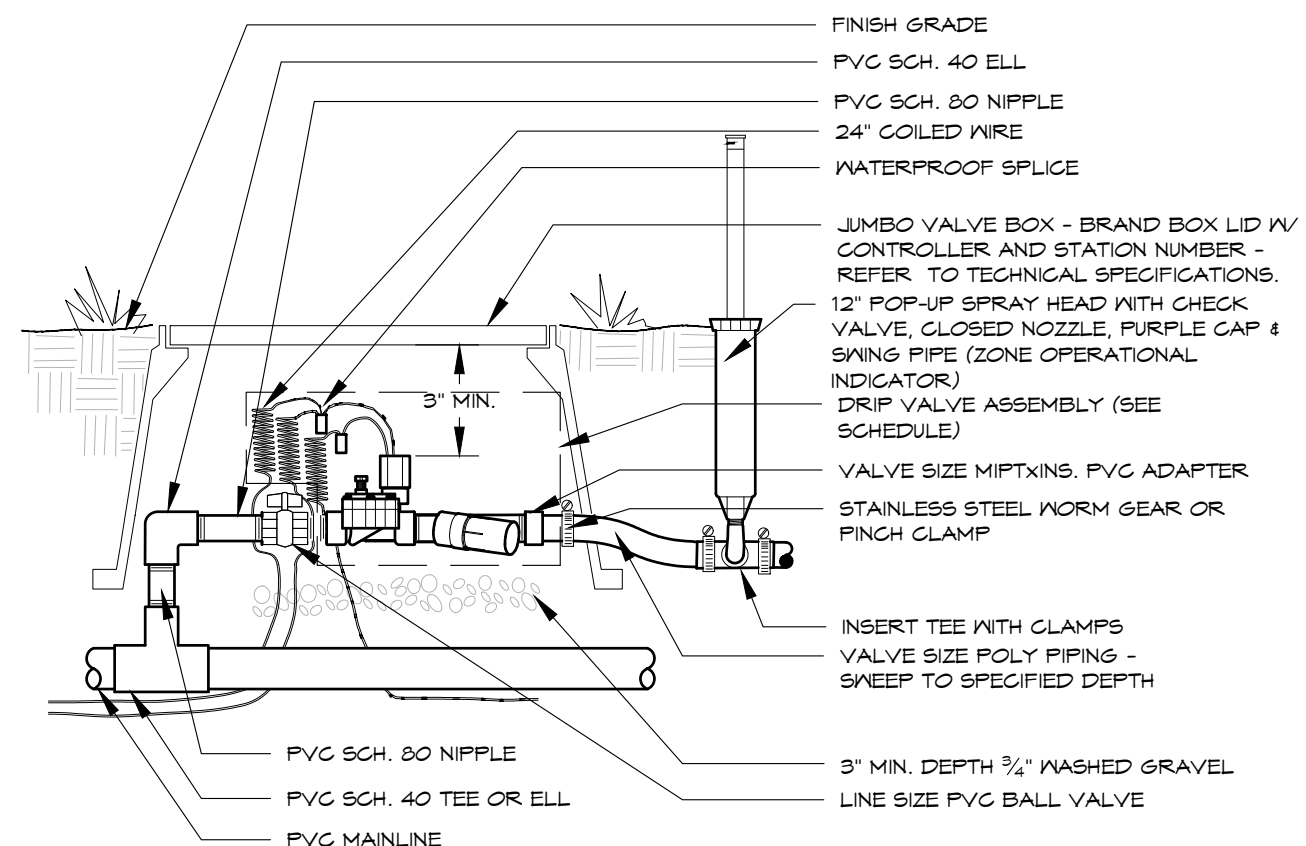


- NOTE:
- ALL SLEEVE MATERIAL PER IRRIGATION SCHEDULE, SIZE AS NOTED ON PLAN.
 - INSTALL SLEEVES IN SIDE-BY-SIDE CONFIGURATION WHERE MULTIPLE SLEEVES ARE TO BE INSTALLED. SPACE SLEEVES 4" TO 6" APART. DO NOT STACK SLEEVES VERTICALLY.
 - CONTRACTOR TO COORDINATE WITH FLATWORK INSTALLER TO BRAND A "V" IN SIDEWALK OR CURB AT BOTH ENDS OF SLEEVE CROSSING.
 - SLEEVING THROUGH OR UNDER RETAINING WALLS, PLANTER WALLS, POND LINING, OR WATER QUALITY AREAS SHALL BE COORDINATED WITH CIVIL WORK AT APPROXIMATE LOCATIONS SHOWN.
 - AN INDIVIDUAL SLEEVE SHALL CONTAIN NO MORE THAN ONE PIPE OR WIRE BUNDLE.

IRRIGATION SLEEVING

TYPICAL

13



- NOTE:
- INSTALL ASSEMBLY TO REST ON GRAVEL SUMP. CONTAIN ENTIRE ASSEMBLY WITHIN BOX. NO VALVE BOX EXTENSIONS WILL BE ACCEPTED. PROVIDE 3"-4" CLEARANCE BETWEEN TOP OF CONTROL VALVE SOLENOID AND BOTTOM OF VALVE BOX LID. TOP OF VALVE BOX TO BE FLUSH WITH FINISH GRADE. VALVE BOX SHALL NOT REST ON DRIP TUBING.

DRIP VALVE

24V - POLY LATERAL

14

DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

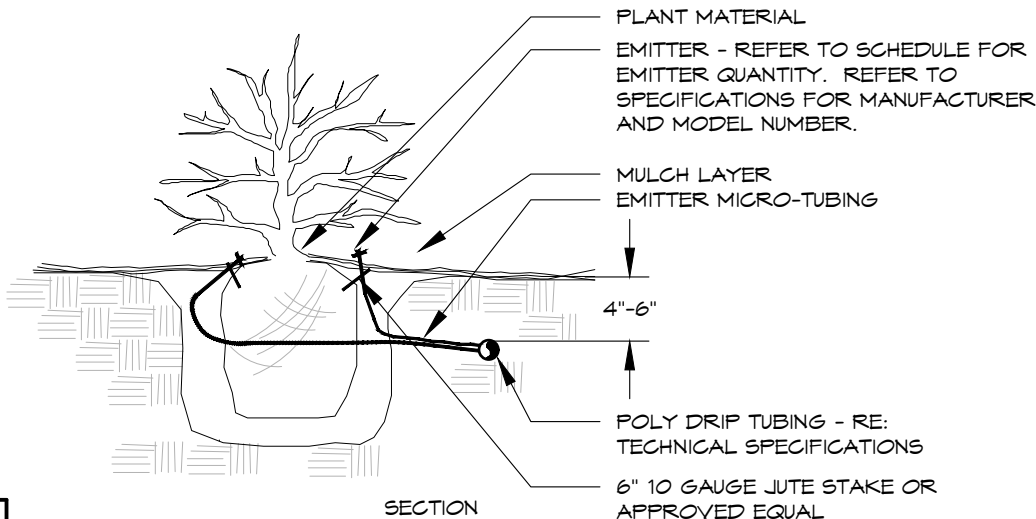
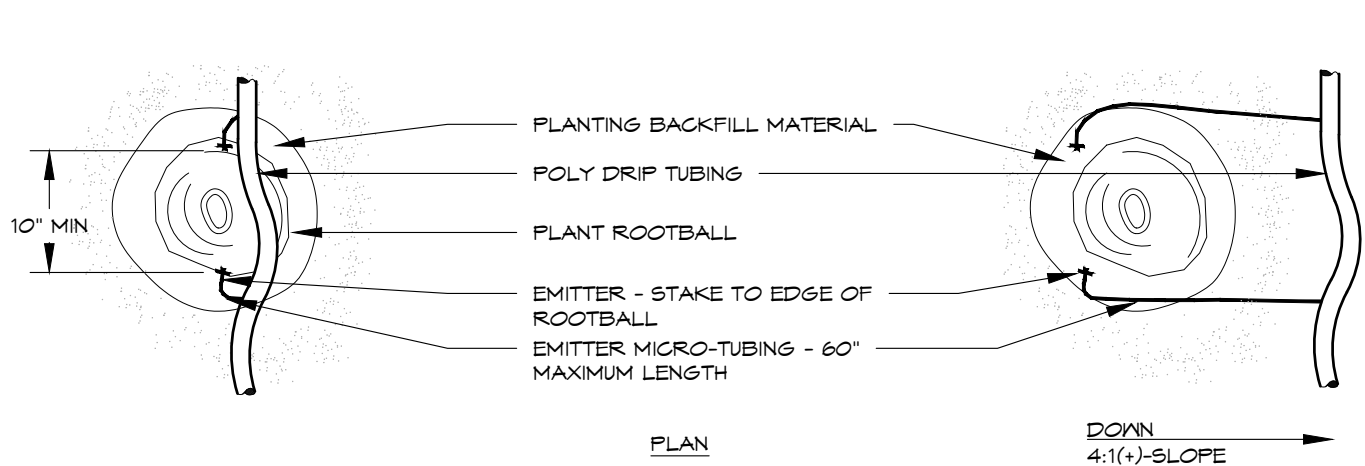
Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG. GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

HydroSystems
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327
www.hydrosystemsdi.com

Date: 7/17/2025		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS			Project No./Code		
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV. DWG						No Revisions:					M850–031(24000)	
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN						Revised:		Designer: HAC			M850–032(24310)	
						Void:		Detailer:		25311.00		
								Sheet Subset: IRRIGATION	Subset Sheet:	14 of 16		Sheet Number 52



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719–600–8317



PLANT SIZE	EMITTER FLOW RATE	EMITTER QTY. AT MULCHED BED LOCATIONS	EMITTER QTY. AT NATIVE SEED LOCATIONS
1 - 2 GALLON MATERIAL	0.5 GPH	ONE EACH	ONE EACH
5 GALLON MATERIAL	0.5 GPH	TWO EACH	TWO EACH
1½" CALIPER TREE	1.0 GPH	THREE EACH	FOUR EACH
2" CALIPER TREE	1.0 GPH	FOUR EACH	SIX EACH
2½" CALIPER TREE	1.0 GPH	SIX EACH	EIGHT EACH
3" CALIPER TREE	1.0 GPH	EIGHT EACH	TEN EACH
3½" CALIPER TREE	1.0 GPH	NINE EACH	ELEVEN EACH
4" CALIPER TREE	1.0 GPH	TEN EACH	TWELVE EACH
6 FT. CONIFEROUS TREE	1.0 GPH	FOUR EACH	SIX EACH
8 FT. CONIFEROUS TREE	1.0 GPH	SIX EACH	NINE EACH
10 FT. CONIFEROUS TREE	1.0 GPH	EIGHT EACH	TWELVE EACH
12 FT. CONIFEROUS TREE	1.0 GPH	TEN EACH	FOURTEEN EACH

- NOTES:
- INSTALL EMITTERS ON OPPOSING SIDES OF ROOTBALL. THREE OR MORE EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL.
 - EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MINIMUM OF 1" AND A MAXIMUM OF 2".
 - FLUSH ALL LINES THOROUGHLY, INCLUDING EMITTER MICRO-TUBING PRIOR TO EMITTER INSTALLATION.
 - IF PLANTING ON A 4:1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOT BALL.
 - EMITTERS SHALL BE SELF-FLUSHING, PRESSURE COMPENSATING-TYPE UNLESS NOTED OTHERWISE WITHIN TECHNICAL SPECIFICATIONS.
 - DRIP VALVE ZONES ARE DESIGNED TO ACCOUNT FOR DIFFERENCES IN PLANT REQUIREMENTS (HYDROZONES) AND SUN EXPOSURE.
 - CONTRACTOR SHALL ENSURE HYDROZONES ARE VALVED SEPARATELY AS SHOWN ON PLAN.
 - SITE CONDITIONS MAY DICTATE THAT MULTIPLE SUN EXPOSURES ARE VALVED TOGETHER DURING THE DESIGN PROCESS. CONTRACTOR SHALL ADJUST EMITTER SCHEDULE AS FOLLOWS:
 - EMITTER QUANTITIES SHALL REMAIN THE SAME BUT EMITTER GALLONAGES SHALL BE DOUBLED FOR PLANTS WITH SOUTH AND WEST EXPOSURES.
 - EMITTER QUANTITIES AND GALLONAGE SHALL BE AS SHOWN IN SCHEDULE FOR PLANTS WITH NORTH AND EAST EXPOSURES.
 - PLANTINGS WITH NORTH AND EAST EXPOSURE SHALL DICTATE VALVE RUN-TIMES AND CONTRACTOR SHALL ADJUST SCHEDULING ACCORDINGLY.

DRIP EMITTER
BELOW GRADE

15

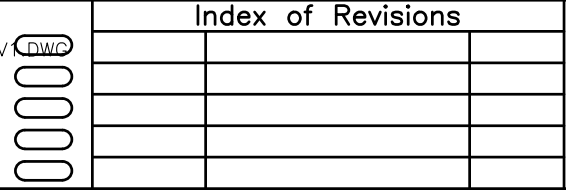
DIRECTORY	
IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54

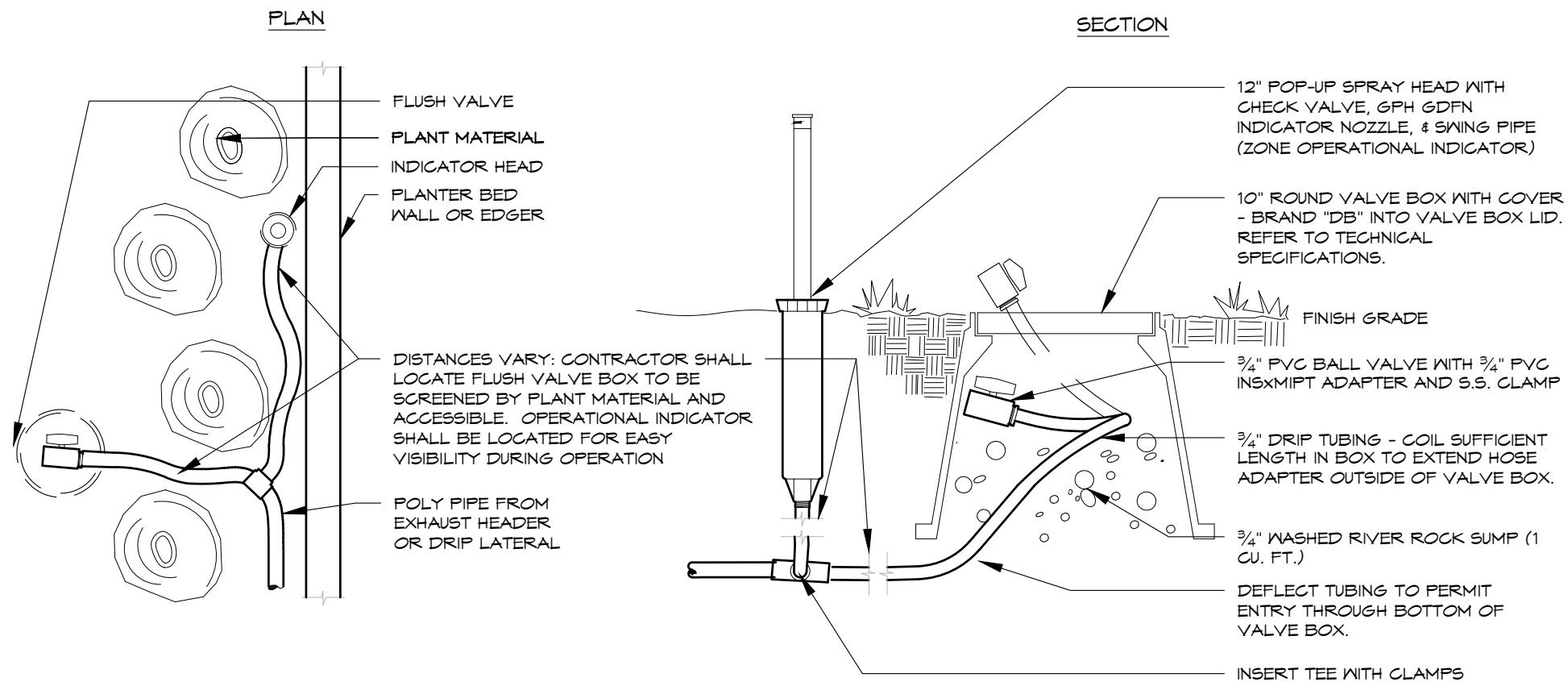


Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



HydroSystems KDI
Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327 www.hydrosystemsdi.com

Date: 7/17/2025		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS		Project No./Code
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV 0 DWD			No Revisions:			M850–031(24000)
 LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN			Revised:	Designer: HAC	M850–032(24310)	
			Void:	Detailer:	25311.00	Sheet Number 53
			Sheet Subset: IRRIGATION	Subset Sheet: 15 of 16		



DRIP FLUSH VALVE WITH OPERATIONAL INDICATOR

16

DIRECTORY

IRRIGATION SCHEDULE	39
IRRIGATION NOTES	40
OVERALL IRRIGATION	41
IRRIGATION PLANS	42 - 47
IRRIGATION DETAILS	48 - 54



Know what's below.
Call before you dig.
CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.



Irrigation Consulting & Water Management
13949 W. Colfax Ave, Suite 260 Lakewood, Colorado 80401
o. 303.980.5327
www.hydrosystemsdi.com

KDI

Date: 7/17/2025		0000	Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 IRRIGATION DETAILS		Project No./Code	
File Name: 8268–MSC WALK TRAIL PH4–IRR–CD – REV. CDWG							No Revisions:			M850–031(24000)	
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN							Revised:	Designer: HAC		M850–032(24310)	
								Detailer:	25311.00		
							Void:	Sheet Subset: IRRIGATION	Subset Sheet: 16 of 16	Sheet Number 54	

ADDENDUM NUMBER 1

July 10, 2025

**TO THE CONTRACT DOCUMENTS
AND CONSTRUCTION SPECIFICATIONS FOR**

**CITY OF MANITOU SPRINGS
CREEKWALK TRAIL 4**

FROM: Ben Schmitt, Director of Public Services, Manitou Springs

TO: All Prospective Bidders.

The following revisions, clarifications, additions and/or deletions are hereby made a part of the Contract Documents and plans for the above referenced project as fully and completely as if the same were fully set forth therein:

ATTACHMENTS

Note: The following is attached to this addendum, thus becoming a part of the Contract Documents.

1. Invitation for Bid

END OF ADDENDUM NUMBER 1

Offeror shall acknowledge receipt of this addendum by signing below, and this addendum must be returned as part of the proposal

Signature

Date

Company

ADDENDUM NUMBER 2

July 22, 2025

**TO THE CONTRACT DOCUMENTS
AND CONSTRUCTION SPECIFICATIONS FOR**

**CITY OF MANITOU SPRINGS
CREEKWALK TRAIL 4**

FROM: Ben Schmitt, Director of Public Services, Manitou Springs

TO: All Prospective Bidders.

The following revisions, clarifications, additions and/or deletions are hereby made a part of the Contract Documents and plans for the above referenced project as fully and completely as if the same were fully set forth therein:

RESPONSES TO QUESTIONS

Note: The City has responded to seven (7) questions on BidNet. Contractor can login to BidNet to access the questions and responses.

END OF ADDENDUM NUMBER 2

Offeror shall acknowledge receipt of this addendum by signing below, and this addendum must be returned as part of the proposal

Signature

Date

Company

ADDENDUM NUMBER 3

July 23, 2025

TO THE CONTRACT DOCUMENTS AND CONSTRUCTION SPECIFICATIONS FOR

CITY OF MANITOU SPRINGS CREEKWALK TRAIL 4

FROM: Ben Schmitt, Director of Public Services, Manitou Springs

TO: All Prospective Bidders.

The following revisions, clarifications, additions and/or deletions are hereby made a part of the Contract Documents and plans for the above referenced project as fully and completely as if the same were fully set forth therein:

REVISIONS TO THE PLANS

The Plans have been updated as follows:

1. Sheet 1 – Updated Sheet Index.
2. Sheet 5 – Updated Summary of Approximate Quantities.
3. Sheet 8 – Modified HMA callout.
4. Sheets 9 – 14 – Added high pressure gas line.
5. Sheet 9 – Add Control Point #7 callout.
6. Sheet 10 – Added CDOT monument callout.
7. Sheet 11 – Removed trench asphalt callout.
8. Sheets 12 – 14 – Revised HMA callout.
9. Sheet 12 – Revised manhole adjustment to removal.
10. Sheet 14 – Revised callout for conduit crossing Manitou Avenue.
11. Sheets 18 – 23 – Added high pressure gas line.
12. Sheet 22 – Revised meter and controller callout.
13. Sheet 23 – Revised callout for conduit crossing Manitou Ave, and added note regarding bore pit.
14. Sheets 39 – 54 – Irrigation Plans.

Subsurface Utility Engineering Plans were not originally included in the advertisement documentation. These are being provided with this addendum.

REVISIONS TO BID SCHEDULE

The Bid Schedule associated with this Addenda takes precedence over any previously issued Bid Schedule. This Bid Schedule (not included as an attachment) has been updated in BidNet, and Contractor must use BidNet to provide unit pricing.

REVISIONS TO SPECIFICATIONS

The following specifications have been added to the project.

1. Revision to Section 403 – Hot Mix Asphalt – This section has been added as a result of changing the Hot Mix Asphalt bid items.
2. Revision to Section 629 – Survey Monumentation – This section has been added to address impacts to the control monuments within the project limits.

The following specifications have been modified.

1. Force Account Items – This section has been modified to remove the Landscaping Force Account item.
2. Utilities – This section has been modified to add information pertaining to Colorado Springs Utilities' (CSU) high pressure gas main that will be within the work zone. Additionally, information has been added pertaining to coordination with CSU regarding the placement of the transformer.

ATTACHMENTS

Note: The following are attached to this addendum, thus becoming a part of the Contract Documents.

1. Subsurface Utility Engineering Plans
2. Revised Plan sheets
3. Irrigation Plan sheets
4. New and Revised Specifications

END OF ADDENDUM NUMBER 3

Offeror shall acknowledge receipt of this addendum by signing below, and this addendum must be returned as part of the proposal.

Signature

Date

Company

CITY OF MANITOU SPRINGS

CREEK WALK TRAIL - PHASE 4

GRADING AND EROSION CONTROL PLANS

STATE OF COLORADO

SHEET INDEX

1	—	COVER SHEET
2	—	GENERAL NOTES
3–5	—	INITIAL EROSION CONTROL
6–8	—	INTERIM EROSION CONTROL
9–11	—	FINAL EROSION CONTROL
12–14	—	EROSION CONTROL DETAILS

TOTAL — 14

GRADING AND EROSION CONTROL NOTES

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON–SITE OR OFF–SITE WATERS, INCLUDING WETLANDS.

2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED CITY STANDARDS, INCLUDING THE CITY OF MANITOU SPRINGS MUNICIPAL CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND A GRADING AND EROSION CONTROL PERMIT ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

4. ONCE THE GRADING AND EROSION CONTROL PERMIT IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND CITY OF MANITOU SPRINGS WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH CITY STAFF.

5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.

6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.

7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.

8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE–DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.

9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO IMPLEMENTATION.

10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE–EXISTING

VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.

11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).

12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.

13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.

14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.

15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY THE CITY IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF–SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF–SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.

20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON–SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.

21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

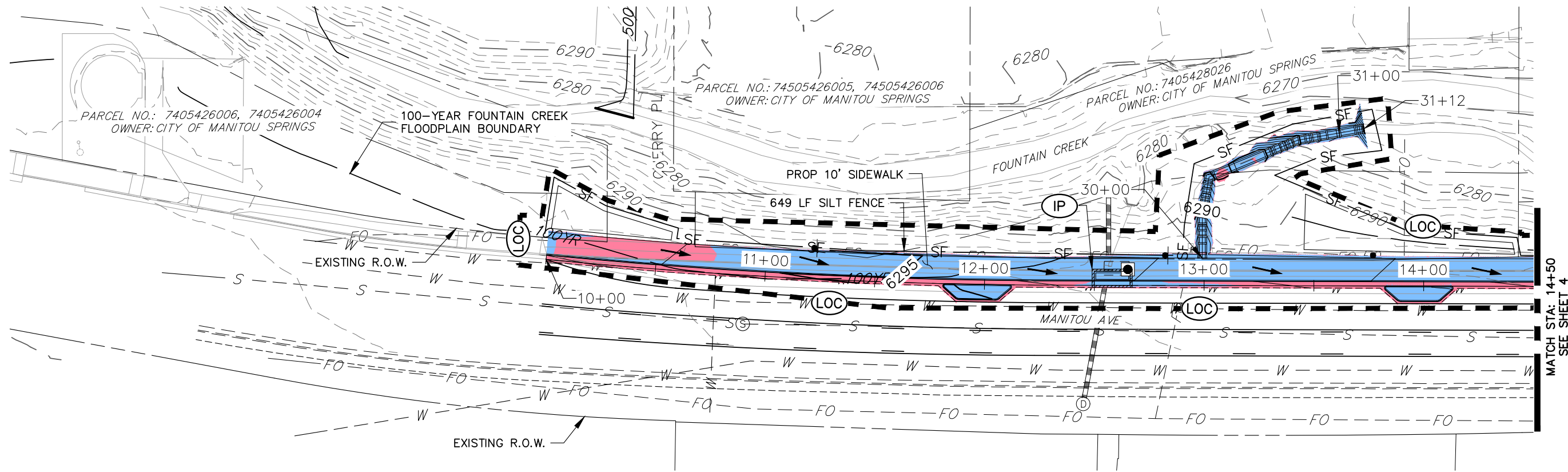
28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY [NONE COMPLETED] AND SHALL BE CONSIDERED A PART OF THESE PLANS.

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD –PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246–1530
ATTN: PERMITS UNIT

Date: 6/23/25		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719–600–8317	As Constructed	CREEK WALK TRAIL – PHASE 4 GENERAL NOTES		Project No./Code	
File Name: 2531100 GN01.DWG		No Revisions:	M850–031(24000)							
 J-R ENGINEERING A Westrian Company		Revised:	Designer: EMM	25311.00		M850–032(24310)				
		Void:	Detailer: EMM			Sheet Number 2				
		Sheet Subset: GENERAL NOTES		Subset Sheet: 1 of 1						

Page 261 of 338



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

SILT FENCE

INLET PROTECTION

SEEDING & MULCHING, EROSION CONTROL BLANKET

FLOW ARROW

LOC

SF

IP

FO

CONCRETE WASHOUT AREA

VEHICLE TRACKING CONTROL

AREA OF CUT

AREA OF FILL

CWA

VTC

50 25 0 50

ORIGINAL SCALE: 1" = 50'

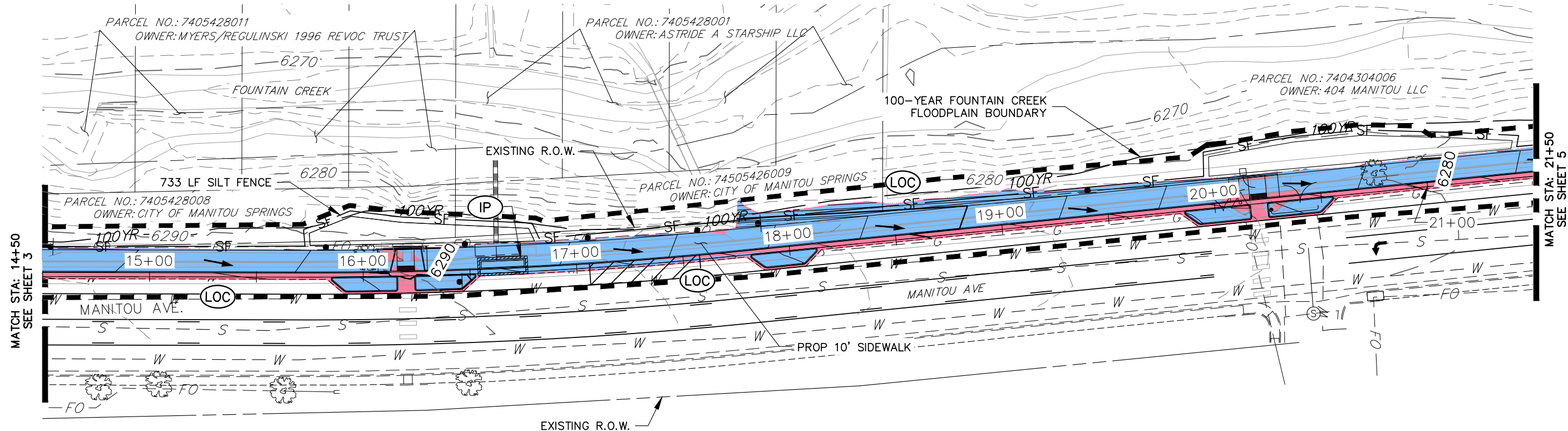
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 INITIAL EROSION CONTROL		Project No./Code
File Name: 2531100 INITIALGESC.DWG						No Revisions:			M850-031(24000)
 J-R ENGINEERING A Westrian Company						Revised:	Designer: EMM	M850-032(24310)	
						Void:	Detailer: EMM		25311.00
							Sheet Subset: GESC INITIAL	Subset Sheet: 1 of 3	Sheet Number 3



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

SILT FENCE

INLET PROTECTION

SEEDING & MULCHING, EROSION CONTROL BLANKET

FLOW ARROW

CONCRETE WASHOUT AREA

VEHICLE TRACKING CONTROL

AREA OF CUT

AREA OF FILL

LOC

SF

IP

CWA

VTC

50 25 0 50

ORIGINAL SCALE: 1" = 50'

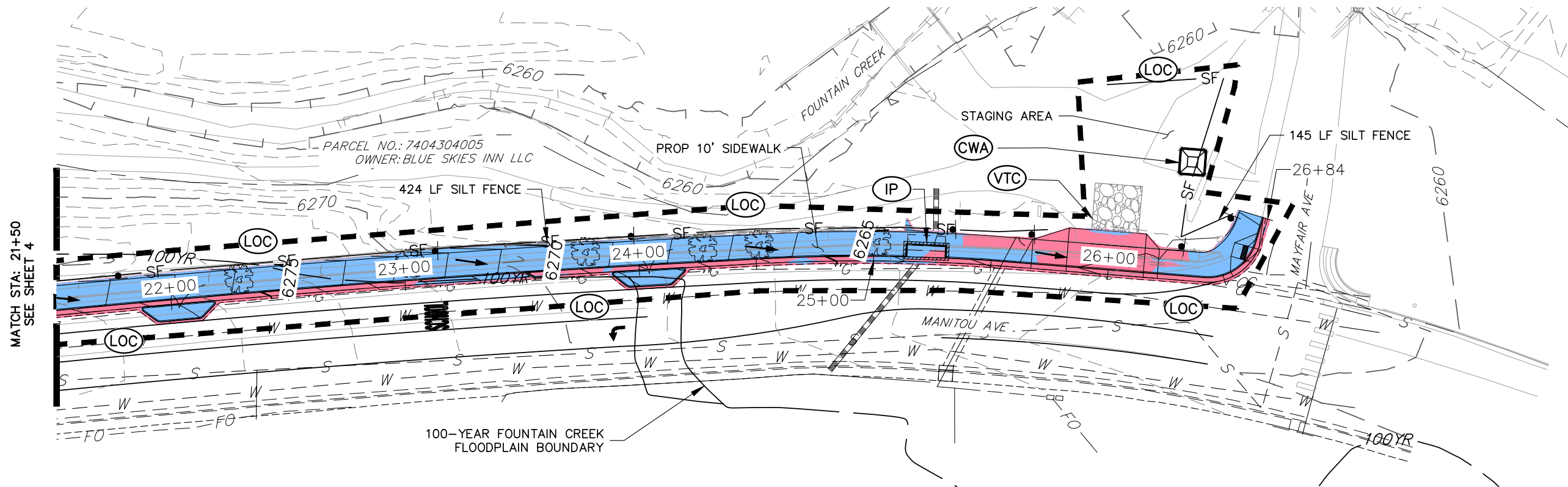
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 INITIAL EROSION CONTROL		Project No./Code	
File Name: 2531100 INITIALGESC.DWG						No Revisions:			M850-031(24000)	
 J-R ENGINEERING A Westrian Company					Revised:	Designer: EMM			M850-032(24310)	
					Void:	Detailer: EMM		25311.00		
								Sheet Subset: GESC INITIAL	Subset Sheet:	2 of 3



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

SILT FENCE

INLET PROTECTION

SEEDING & MULCHING, EROSION CONTROL BLANKET

FLOW ARROW

LOC

SF

IP

Area of Cut

Area of Fill

CONCRETE WASHOUT AREA

VEHICLE TRACKING CONTROL

CWA

VTC

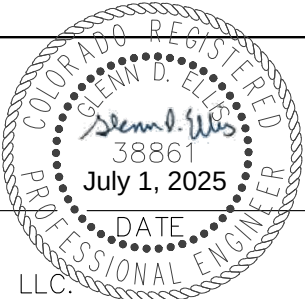
50 25 0 50

ORIGINAL SCALE: 1" = 50'

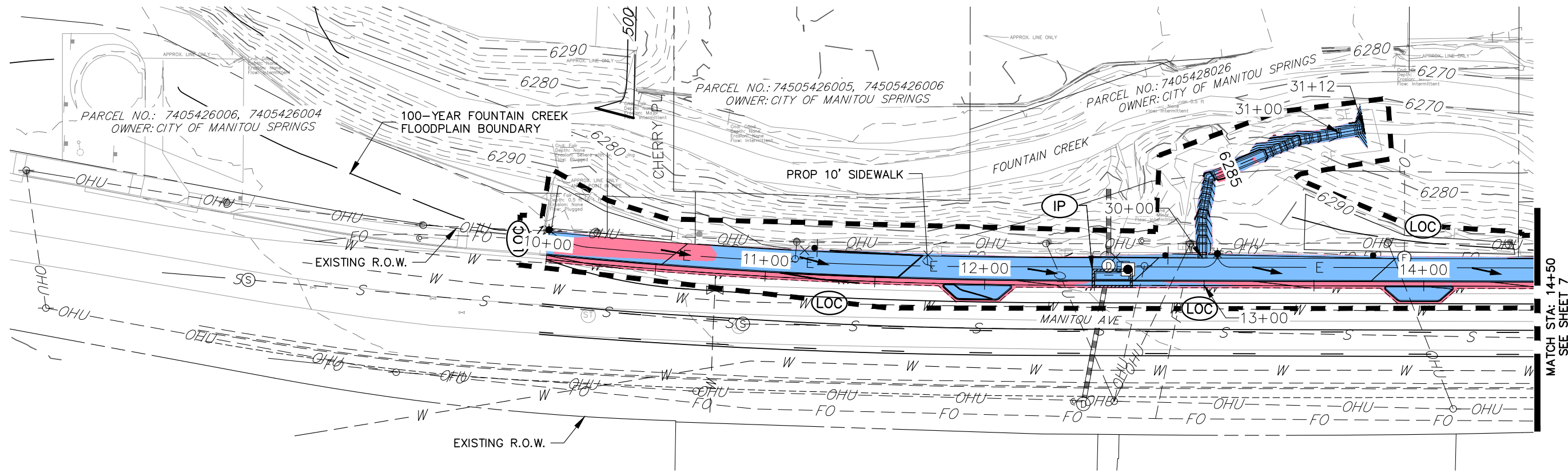
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 INITIAL EROSION CONTROL		Project No./Code		
File Name: 2531100 INITIALGESC.DWG							No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		EMM			M850-032(24310)
							Detailer:		EMM	25311.00		
							Void:			Sheet Subset: GESC INITIAL	Subset Sheet: 3 of 3	Sheet Number 5



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

SILT FENCE

INLET PROTECTION

SEEDING & MULCHING, EROSION CONTROL BLANKET

FLOW ARROW

LOC

SF

IP

Area with dots

Arrow

CONCRETE WASHOUT AREA

VEHICLE TRACKING CONTROL

AREA OF CUT

AREA OF FILL

CWA

VTC

Area with circles

Red rectangle

Blue rectangle

50 25 0 50

ORIGINAL SCALE: 1" = 50'

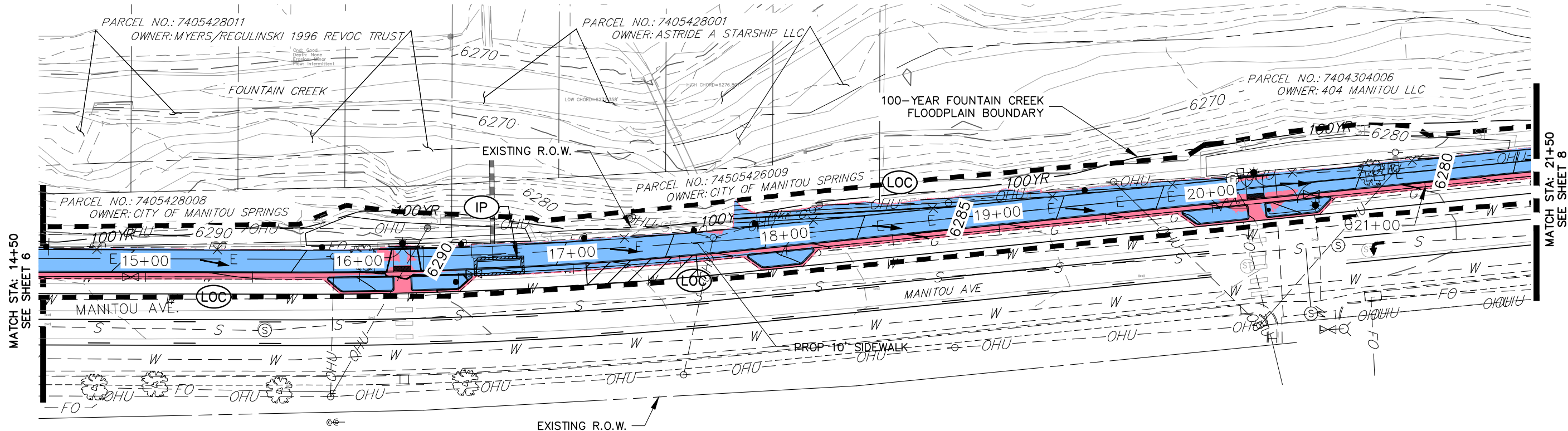
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 INTERIM EROSION CONTROL		Project No./Code			
File Name: 2531100 INTERIMGESC.DWG							No Revisions:				M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:	Designer: EMM			M850-032(24310)		
								Detailer: EMM	25311.00				
							Void:	Sheet Subset: GESC INTERIM		Subset Sheet: 1 of 3		Sheet Number 6	



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

— LOC —

SILT FENCE

— SF —

INLET PROTECTION

IP

SEEDING & MULCHING,
EROSION CONTROL BLANKET

[Pattern]

FLOW ARROW

[Arrow]

CONCRETE WASHOUT AREA

CWA

VEHICLE TRACKING CONTROL

VTC

AREA OF CUT

[Pink Box]

AREA OF FILL

[Blue Box]

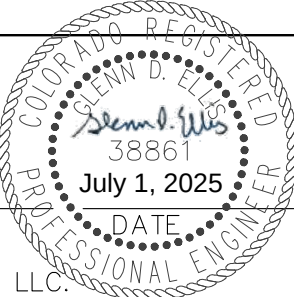
50 25 0 50

ORIGINAL SCALE: 1" = 50'

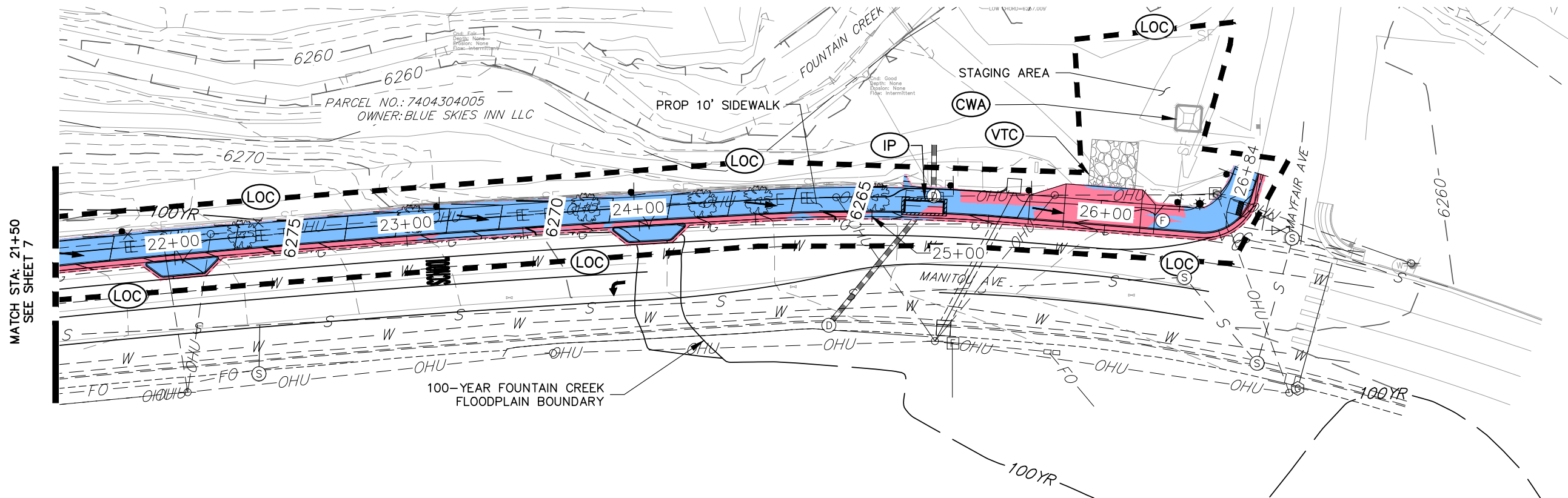
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions		Historic MANITOU SPRINGS CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 INTERIM EROSION CONTROL		Project No./Code		
File Name: 2531100 INTERIMGESC.DWG						No Revisions:				M850-031(24000)	
J-R ENGINEERING A Westrian Company						Revised:		Designer: EMM		M850-032(24310)	
						Void:		Detailer: EMM			
									Sheet Subset: GESC INTERIM		Subset Sheet: 2 of 3



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

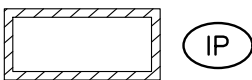
LIMITS OF CONSTRUCTION/DISTURBANCE



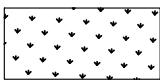
SILT FENCE



INLET PROTECTION



SEEDING & MULCHING, EROSION CONTROL BLANKET



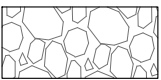
FLOW ARROW



CONCRETE WASHOUT AREA



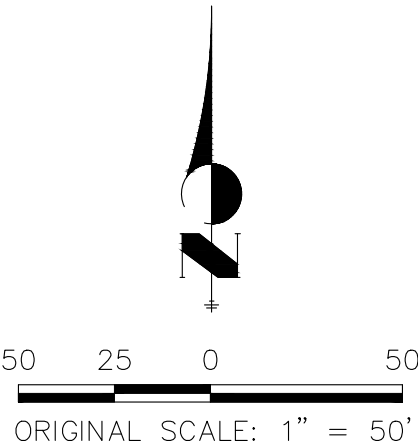
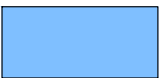
VEHICLE TRACKING CONTROL



AREA OF CUT



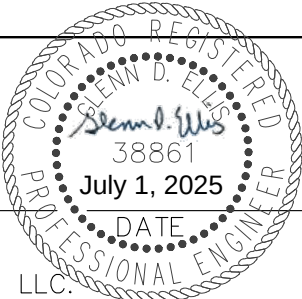
AREA OF FILL

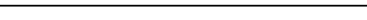


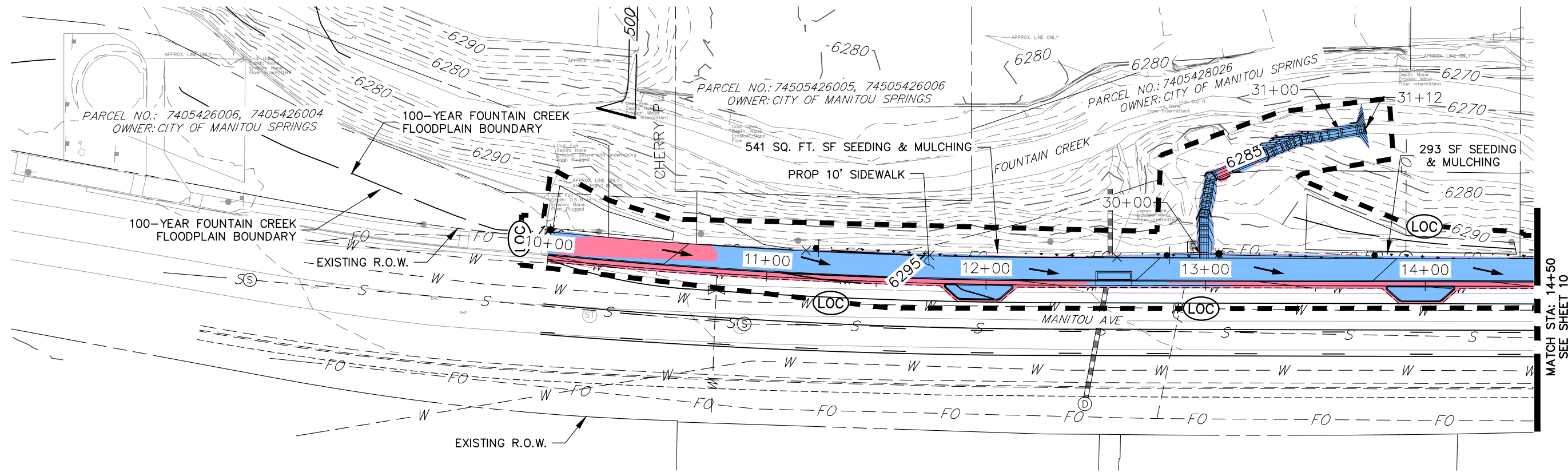
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 INTERIM EROSION CONTROL		Project No./Code			
File Name: 2531100 INTERIMGESC.DWG							No Revisions:				M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:		Designer: EMM			M850-032(24310)	
							Void:		Detailer: EMM		25311.00		
									Sheet Subset: GESC INTERIM	Subset Sheet:		3 of 3	Sheet Number 8



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

— (LOC) —

CONCRETE WASHOUT AREA

(CWA)

SILT FENCE

— SF —

VEHICLE TRACKING CONTROL

(VTC)

INLET PROTECTION

(IP)

AREA OF CUT

SEEDING & MULCHING, EROSION CONTROL BLANKET

AREA OF FILL

FLOW ARROW

50 25 0 50

ORIGINAL SCALE: 1" = 50'

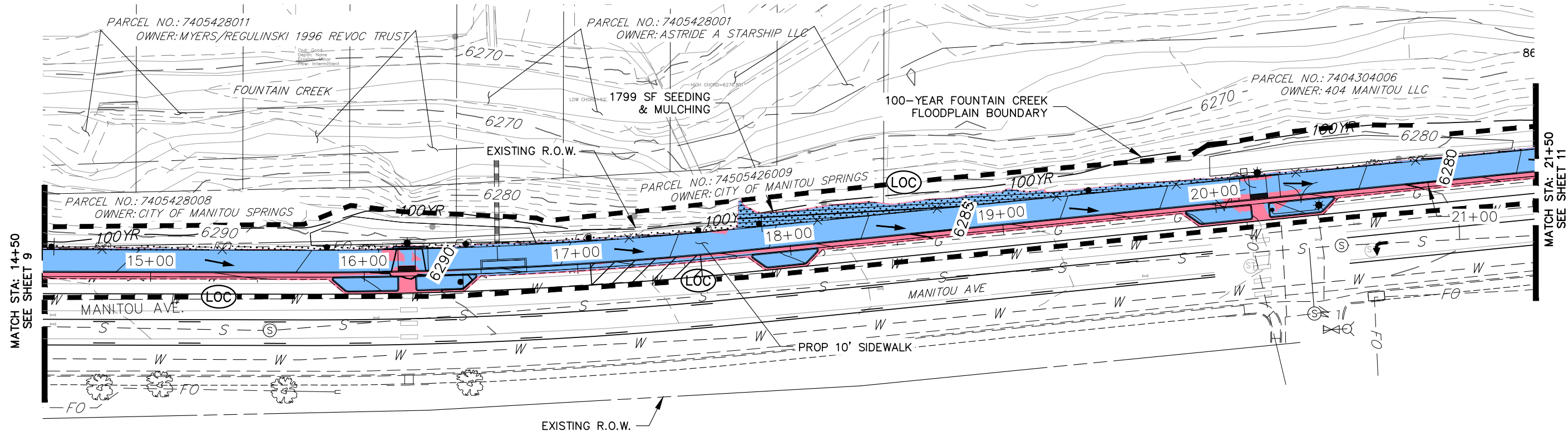
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 FINAL EROSION CONTROL		Project No./Code
File Name: 2531100 FINALGESC.DWG					No Revisions:	Designer: EMM		M850-031(24000)
 J-R ENGINEERING A Westrian Company					Revised:	Detailer: EMM	25311.00	M850-032(24310)
					Void:	Sheet Subset: GESC FINAL	Subset Sheet: 1 of 3	Sheet Number 9



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

SILT FENCE

INLET PROTECTION

SEEDING & MULCHING, EROSION CONTROL BLANKET

FLOW ARROW

LOC

SF

IP

Area with dots

Arrow

CONCRETE WASHOUT AREA

VEHICLE TRACKING CONTROL

AREA OF CUT

AREA OF FILL

CWA

VTC

Stippled box

Pink box

Blue box

North arrow pointing up

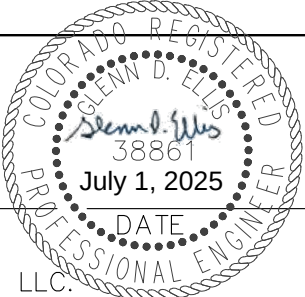
Scale bar: 50, 25, 0, 50 feet

ORIGINAL SCALE: 1" = 50'

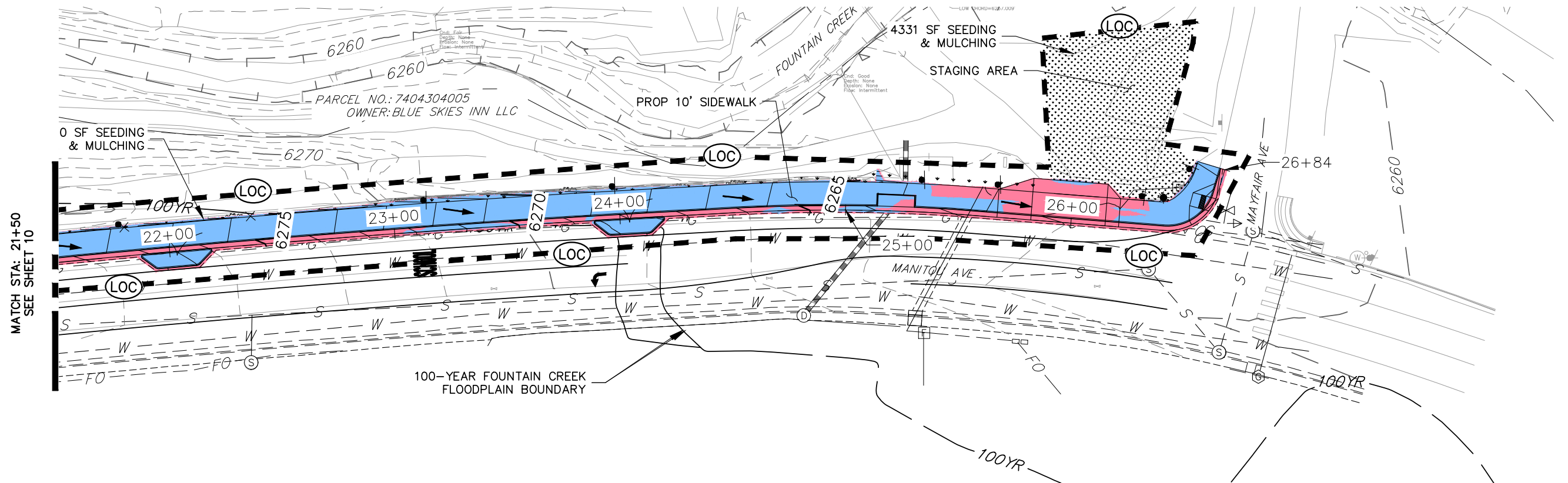
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 FINAL EROSION CONTROL		Project No./Code	
File Name: 2531100 FINALGESC.DWG						No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company						Revised:	EMM	25311.00	M850-032(24310)		
						Void:	EMM		Sheet Number 10		
									Sheet Subset: GESC FINAL	Subset Sheet: 2 of 3	



NOTES

- 1. THE STAGING AREA SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LOCATION AND EXTENTS OF STAGING AREA, VTC, CWA, AND OTHER BMP'S. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM PROPERTY OWNER PRIOR TO UTILIZING STAGING AREAS OUTSIDE OF THE RIGHT-OF-WAY.
- 2. NO NOTABLE VEGETATION EXISTS ON THE SOUTH SIDE OF THE PROJECT. THE NORTH SIDE OF THE TRAIL IS POPULATED WITH VARIOUS SPECIES OF TREES AND GRASS. ALL VEGETATION IS TO BE PROTECTED WHEN POSSIBLE.
- 3. CONTRACTOR IS NOT TO DISTURB ANY AREA OUTSIDE OF THE LIMITS OF CONSTRUCTION ESTABLISHED IN THIS PLAN.

LEGEND

LIMITS OF CONSTRUCTION/DISTURBANCE

SILT FENCE

INLET PROTECTION

SEEDING & MULCHING, EROSION CONTROL BLANKET

FLOW ARROW

LOC

SF

IP

FO

CONCRETE WASHOUT AREA

VEHICLE TRACKING CONTROL

AREA OF CUT

AREA OF FILL

CWA

VTC

50 25 0 50

ORIGINAL SCALE: 1" = 50'

ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

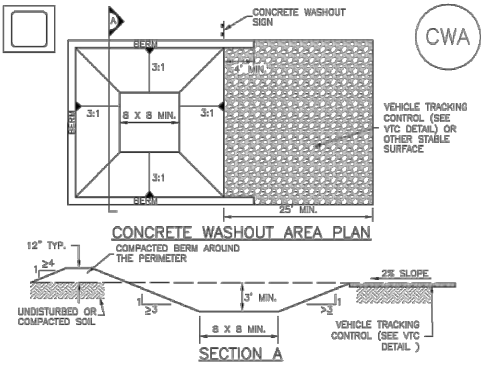
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 6/23/25		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 FINAL EROSION CONTROL		Project No./Code		
File Name: 2531100 FINALGESC.DWG							No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:	Designer: EMM			M850-032(24310)	
							Void:	Detailer: EMM		25311.00		
						Sheet Subset: GESC FINAL	Subset Sheet:	3 of 3		Sheet Number 11		

Concrete Washout Area (CWA)

MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

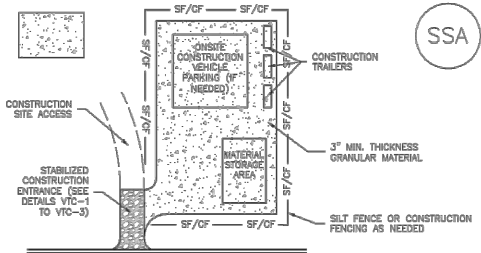
1. SEE PLAN VIEW FOR:
-CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS IMPERFECT, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREPARATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8" BY 8" SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

CWA-3

Stabilized Staging Area (SSA)

SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-LOCATION OF STAGING AREA(S).
-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REPLACED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

SSA-3

MM-1

Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

November 2010

SM-6

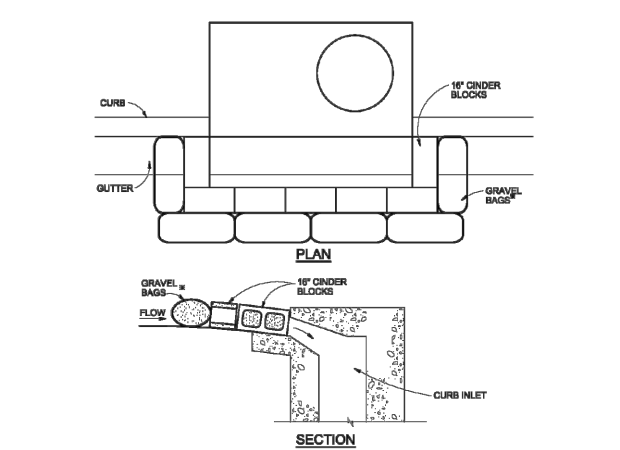
Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

1. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDING AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

SSA-4 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

November 2010



BLOCK AND GRAVEL BAG CURB INLET PROTECTION

NTS

BLOCK AND GRAVEL BAG CURB INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. CONCRETE BLOCKS ARE TO BE LAID AROUND THE INLET IN A SINGLE ROW ON THEIR SIDES, ABUTTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCK FACING OUTWARD.
3. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.
4. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
5. BAGS ARE TO BE MADE OF 1/4" INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

* AN ALTERNATE 3/4" TO 1" GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS.

City of Colorado Springs
Stormwater Quality

Figure IP-3
Block & Gravel Bag Curb Inlet Protection
Construction Detail and Maintenance Requirements

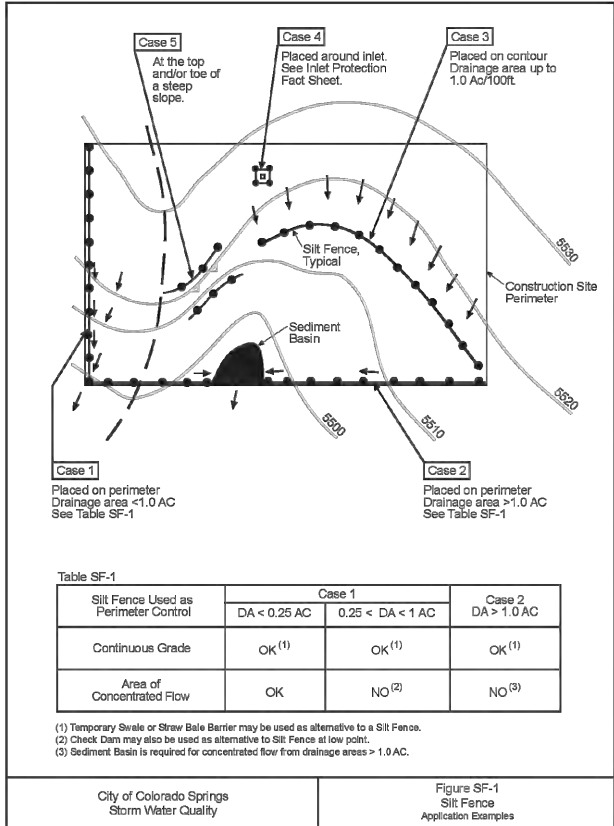


Table SF-1

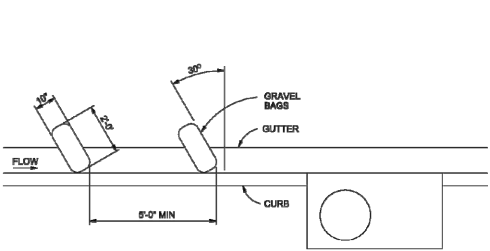
Silt Fence Used as	Case 1		Case 2
	DA < 0.25 AC	0.25 < DA < 1 AC	DA > 1.0 AC
Continuous Grade	OK ⁽¹⁾	OK ⁽¹⁾	OK ⁽¹⁾
Area of Concentrated Flow	OK	NO ⁽²⁾	NO ⁽³⁾

- (1) Temporary Silt or Straw Bale Barrier may be used as alternative to a Silt Fence.
- (2) Check Dam may also be used as alternative to Silt Fence at low point.
- (3) Sediment Basin is required for concentrated flow from drainage areas > 1.0 AC.

City of Colorado Springs
Storm Water Quality

Figure SF-1
Silt Fence
Application Examples

DEM1133721.05.CB(16)F-10-00



CURB SOCK INLET PROTECTION

NTS

CURB SOCK INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

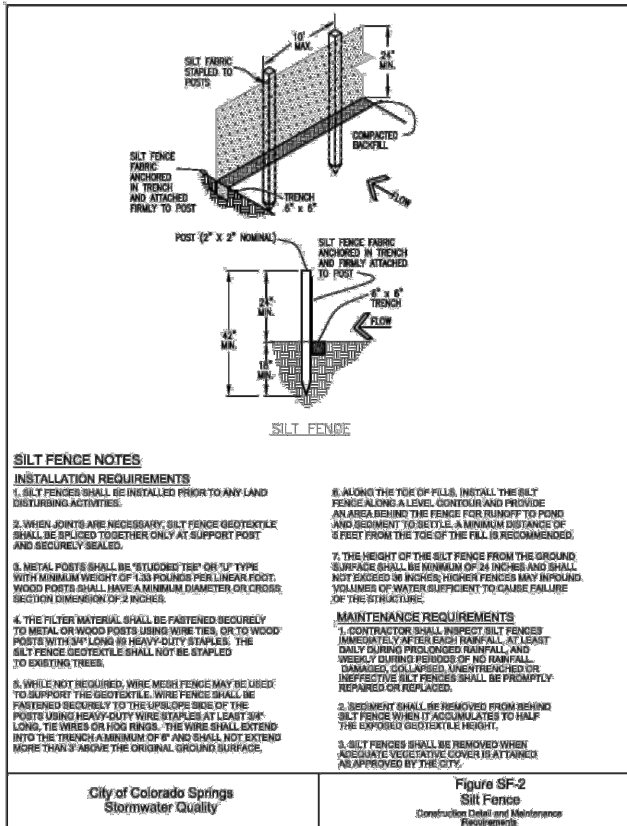
1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. SOCK IS TO BE MADE OF 1/4 INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.
3. WASHED SAND OR GRAVEL 3/4 INCH TO 4 INCHES IN DIAMETER IS PLACED INSIDE THE SOCK.
4. PLACEMENT OF THE SOCK IS TO BE 90 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
5. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED AT A MINIMUM 6 FEET APART.
6. AT LEAST 2 CURB SOCKS IN SERIES IS REQUIRED.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SOCK WHEN GUTTER WIDTH IS FILLED.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

City of Colorado Springs
Stormwater Quality

Figure IP-4
Curb Sock Inlet Protection
Construction Detail and Maintenance Requirements



SILT FENCE NOTES

INSTALLATION REQUIREMENTS

1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPUN TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.
3. METAL POSTS SHALL BE "TUBED" TYPE OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAL FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 3 INCHES.
4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG 16 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG, 16 WIRES OR 1600 BARS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3" ABOVE THE ORIGINAL GROUND SURFACE.

6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL, CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 3 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.
7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES. HIGHER FENCES MAY IMPROVE VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNRETRAINED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

City of Colorado Springs
Stormwater Quality

Figure SF-2
Silt Fence
Construction Detail and Maintenance Requirements

Date: 6/23/25
File Name: 2531100_DT01.DWG



Index of Revisions	



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed

No Revisions:

Revised:

Void:

CREEK WALK TRAIL – PHASE 4
EROSION CONTROL DETAILS

Designer: EMM

Detailer: EMM

Sheet Subset: GESC DETAILS

25311.00

Subset Sheet:

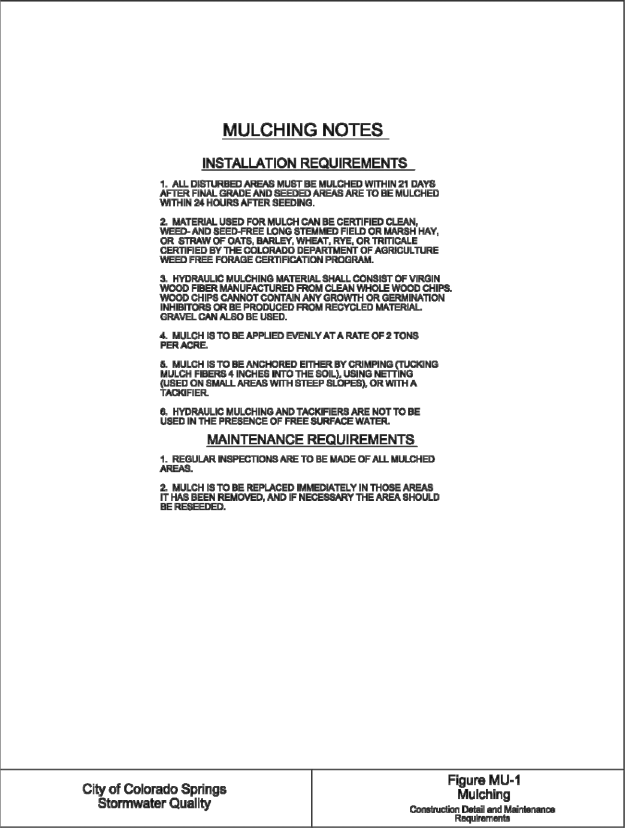
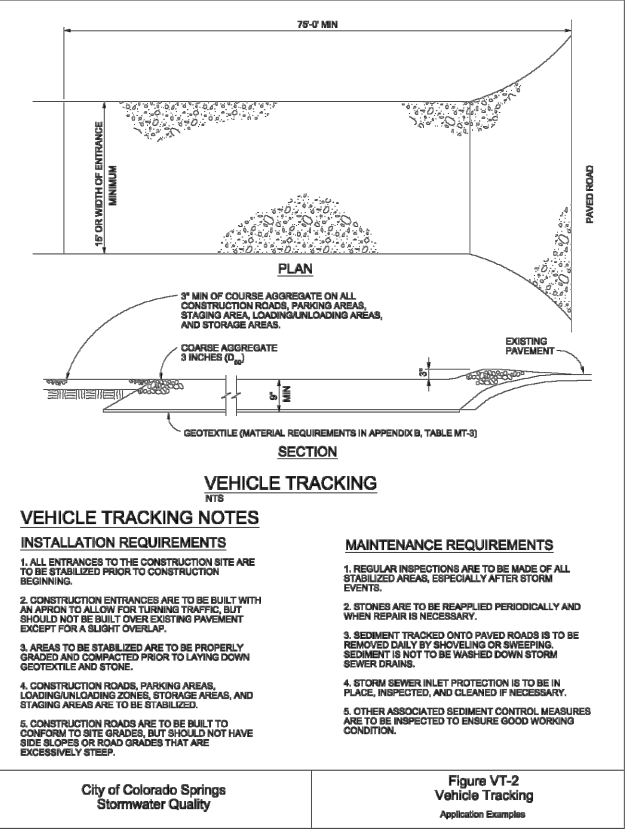
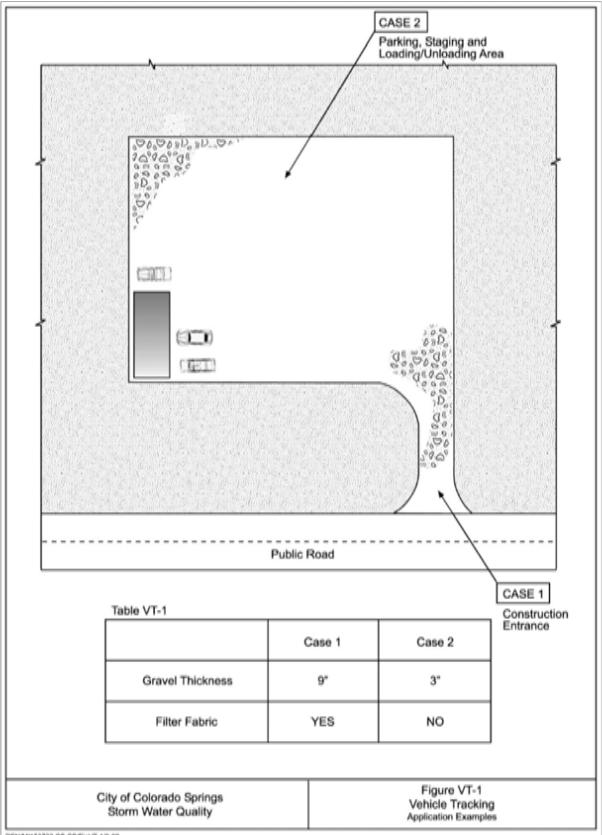
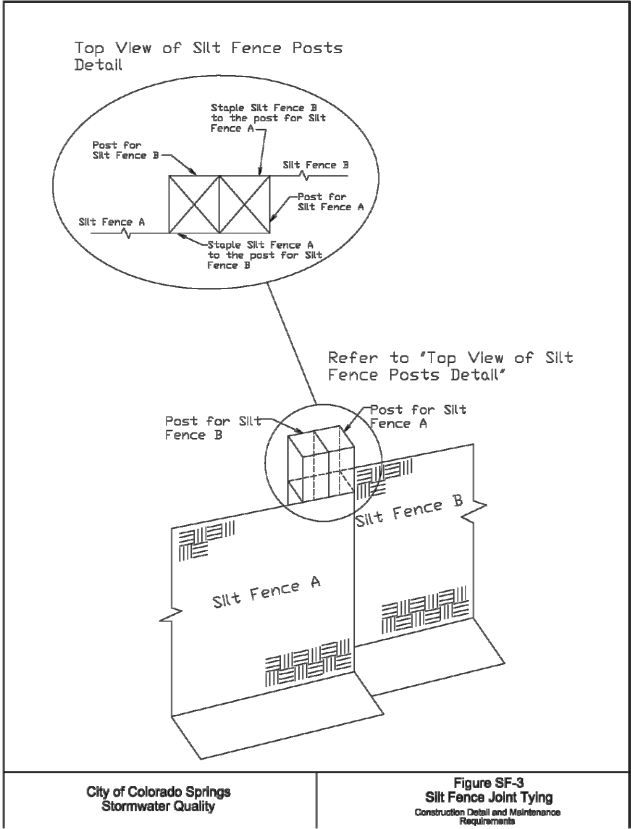
1 of 3

Project No./Code

M850-031(24000)

M850-032(24310)

Sheet Number 12



Temporary and Permanent Seeding (TS/PS) EC-2

Description

Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextiles, or other appropriate measures.

Appropriate Uses

When the soil surface is disturbed and will remain inactive for an extended period (typically 30 days or longer), proactive stabilization measures should be implemented. If the inactive period is short-lived (on the order of two weeks), techniques such as surface roughening may be appropriate. For longer periods of inactivity, temporary seeding and mulching can provide effective erosion control. Permanent seeding should be used on finished areas that have not been otherwise stabilized.

Typically, local governments have their own seed mixes and timelines for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

Design and Installation

Effective seeding requires proper seedbed preparation, selection of an appropriate seed mixture, use of appropriate seeding equipment to ensure proper coverage and density, and protection with mulch or fabric until plants are established.

The USDCM Volume 2 *Revegetation* Chapter contains detailed seed mix, soil preparations, and seeding and mulching recommendations that may be referenced to supplement this Fact Sheet.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand seed and mulch. Some jurisdictions do not allow hydroseeding or hydromulching.

Seedbed Preparation

Prior to seeding, ensure that areas to be revegetated have soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil, resulting in poor quality subsoils at the ground surface that have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other



Photograph TS/PS-1. Equipment used to drill seed. Photo courtesy of Douglas County.

Temporary and Permanent Seeding			
Functions			
Erosion Control	Yes		
Sediment Control	No		
Site/Material Management	No		

June 2012	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	TS/PS-1
-----------	--	---------

EC-2 Temporary and Permanent Seeding (TS/PS)

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common ^a Name	Botanical Name	Growth Season ^b	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Alkali Soil Seed Mix					
Alkali sacaton	<i>Sporobolus airoides</i>	Cool	Bunch	1,750,000	0.25
Basin wildrye	<i>Elymus cinereus</i>	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	<i>Agropyron riparium 'Sodar'</i>	Cool	Sod	170,000	2.5
Jose tall wheatgrass	<i>Agropyron elongatum 'Jose'</i>	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	5.5
Total					17.75
Fertile Loamy Soil Seed Mix					
Ephraim crested wheatgrass	<i>Agropyron cristatum 'Ephraim'</i>	Cool	Sod	175,000	2.0
Dural hard fescue	<i>Festuca ovina 'duriuscula'</i>	Cool	Bunch	565,000	1.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	<i>Agropyron riparium 'Sodar'</i>	Cool	Sod	170,000	2.5
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	7.0
Total					15.5
High Water Table Soil Seed Mix					
Meadow foxtail	<i>Alopecurus pratensis</i>	Cool	Sod	900,000	0.5
Redtop	<i>Agrostis alba</i>	Warm	Open sod	5,000,000	0.25
Reed canarygrass	<i>Phalaris arundinacea</i>	Cool	Sod	68,000	0.5
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Pathfinder switchgrass	<i>Panicum virgatum 'Pathfinder'</i>	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	<i>Agropyron elongatum 'Alkar'</i>	Cool	Bunch	79,000	5.5
Total					10.75
Transition Turf Seed Mix^c					
Ruebens Canadian bluegrass	<i>Poa compressa 'Ruebena'</i>	Cool	Sod	2,500,000	0.5
Dural hard fescue	<i>Festuca ovina 'duriuscula'</i>	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	<i>Lolium perenne 'Citation'</i>	Cool	Sod	247,000	3.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Total					7.5

TS/PS-4	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	June 2012
---------	--	-----------

EC-2 Temporary and Permanent Seeding (TS/PS)

soil amendments and rototill them into the soil to a depth of 6 inches or more.

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content. The rooting depth of most native grasses in the semi-arid Denver metropolitan area is 6 to 18 inches. At a minimum, the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placement of a stable topsoil layer on steeper slopes, and allow infiltration and root penetration to greater depth.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

Seed Mix for Temporary Vegetation

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Annual grasses suitable for the Denver metropolitan area are listed in Table TS/PS-1. These are to be considered only as general recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

Seed Mix for Permanent Revegetation

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. Each site will have different characteristics and a landscape professional or the local jurisdiction should be contacted to determine the most suitable seed mix for a specific site. In lieu of a specific recommendation, one of the perennial grass mixes appropriate for site conditions and growth season listed in Table TS/PS-2 can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment.

If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush (*Chrysothamnus nauseosus*), fourwing saltbush (*Atriplex canescens*) and skunkbrush sumac (*Rhus trilobata*) could be added to the upland seedmixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, planting root stock of such species as American plum (*Prunus americana*), woods rose (*Rosa woodsii*), plains cottonwood (*Populus sargentii*), and willow (*Populus spp.*) may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen for perennial grasses.

TS/PS-2	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	June 2012
---------	--	-----------

Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season ^b	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	<i>Bouteloua gracilis</i>	Warm	Sod-forming bunchgrass	825,000	0.5
Campier little bluestem	<i>Schizachyrium scoparium 'Campier'</i>	Warm	Bunch	240,000	1.0
Prairie sandreed	<i>Calamovilfa longifolia</i>	Warm	Open sod	274,000	1.0
Sand dropseed	<i>Sporobolus cryptandrus</i>	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	<i>Bouteloua curtipendula 'Vaughn'</i>	Warm	Sod	191,000	2.0
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	5.5
Total					10.25
Heavy Clay, Rocky Foothill Seed Mix					
Ephraim crested wheatgrass ^d	<i>Agropyron cristatum 'Ephraim'</i>	Cool	Sod	175,000	1.5
Oshe Intermediate wheatgrass	<i>Agropyron intermedium 'Oshe'</i>	Cool	Sod	115,000	5.5
Vaughn sideoats grama ^e	<i>Bouteloua curtipendula 'Vaughn'</i>	Warm	Sod	191,000	2.0
Lincoln smooth brome	<i>Bromus inermis leys 'Lincoln'</i>	Cool	Sod	130,000	3.0
Arriba western wheatgrass	<i>Agropyron smithii 'Arriba'</i>	Cool	Sod	110,000	5.5
Total					17.5
^a All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.					
^b See Table TS/PS-3 for seeding dates.					
^c If site is to be irrigated, the transition turf seed rates should be doubled.					
^d Crested wheatgrass should not be used on slopes steeper than 6H to 1V.					
^e Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.					

June 2012	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	TS/PS-5
-----------	--	---------

Temporary and Permanent Seeding (TS/PS) EC-2

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species ^a (Common name)	Growth Season	Pounds of Pure Live Seed (PLS)/acre	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Sudangrass	Warm	5-10	½ - ¾
7. Sorghum	Warm	5-10	½ - ¾
8. Winter wheat	Cool	20-35	1 - 2
9. Winter barley	Cool	20-35	1 - 2
10. Winter rye	Cool	20-35	1 - 2
11. Triticale	Cool	25-40	1 - 2

^a Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

^b See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

^c Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

June 2012	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	TS/PS-3
-----------	--	---------

EC-2 Temporary and Permanent Seeding (TS/PS)

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

Seeding Dates	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
	Warm	Cool	Warm	Cool
January 1–March 15			✓	✓
March 16–April 30	4	1,2,3	✓	✓
May 1–May 15	4		✓	
May 16–June 30	4,5,6,7			
July 1–July 15	5,6,7			
July 16–August 31				
September 1–September 30		8,9,10,11		
October 1–December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

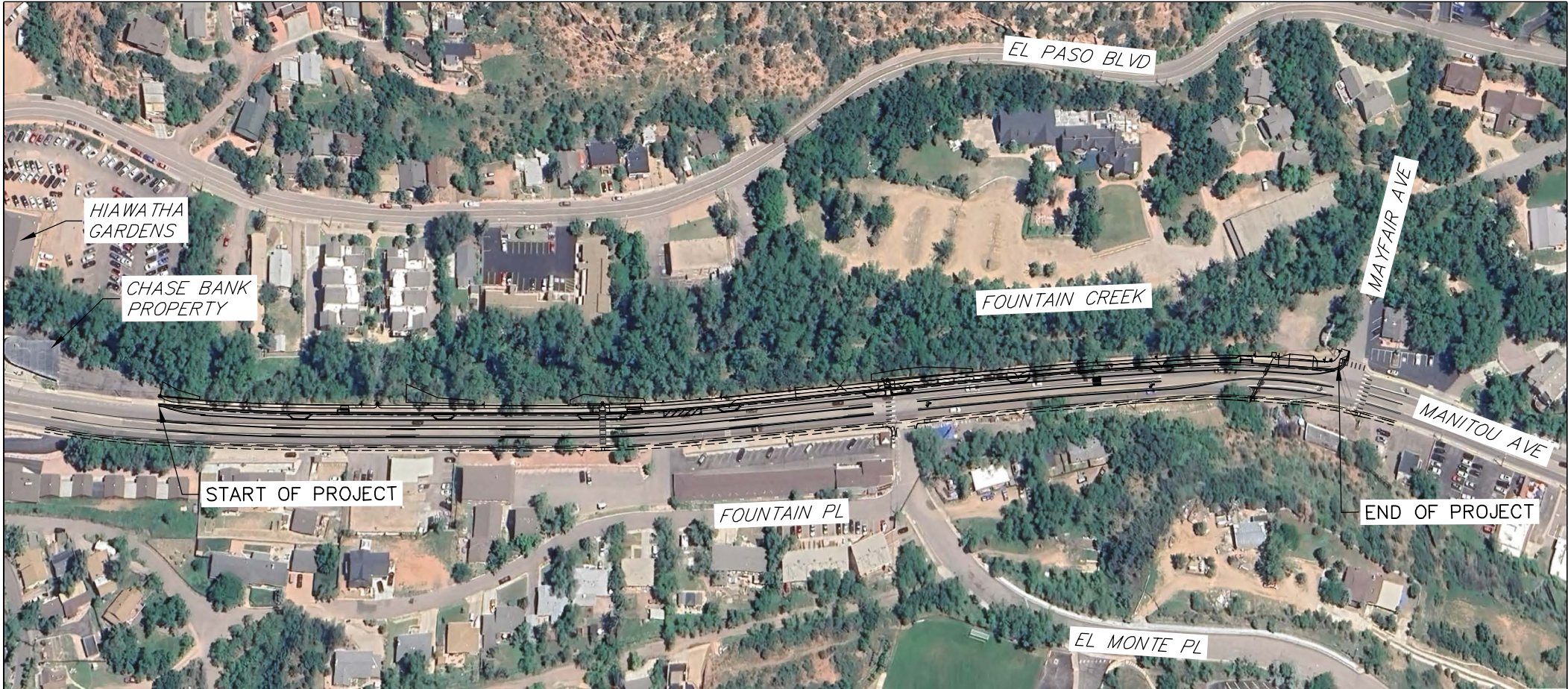
Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

TS/PS-6	Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3	June 2012
---------	--	-----------

Date: 6/23/25			Index of Revisions			Historic MANITOU SPRINGS CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 EROSION CONTROL DETAILS		Project No./Code					
File Name: 2531100 DT01.DWG							No Revisions:				M850-031(24000)					
J-R ENGINEERING A Westrian Company							Revised:		Designer: EMM	25311.00	M850-032(24310)					
							Void:		Detailer: EMM		Sheet Number 14					
													Sheet Subset: GESC DETAILS		Subset Sheet: 3 of 3	

CITY OF MANITOU SPRINGS
CREEK WALK TRAIL - PHASE 4
PUBLIC IMPROVEMENTS
STATE OF COLORADO



PROJECT LOCATION MAP

SCALE: 1" = 200'

SHEET INDEX

- 1 - COVER SHEET
- 2 - STANDARD PLANS LIST
- 3-4 - GENERAL NOTES
- 5 - SUMMARY OF APPROX. QUANTITIES
- 6 - PROJECT CONTROL DIAGRAM
- 7 - GEOMETRIC CONTROL PLAN
- 8 - TYPICAL SECTIONS
- 9-11 - DEMOLITION PLAN
- 12-17 - TRAIL PLAN & PROFILE
- 18-20 - STORM SEWER PLAN & PROFILES
- 21-23 - ELECTRICAL & LIGHTING PLAN
- 24-26 - SIGNAGE & STRIPING PLAN
- 27-32 - DETAILS
- 33-41 - LANDSCAPE & IRRIGATION PLAN

TOTAL - 41

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE CITY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 COVER SHEET		Project No./Code		
File Name: 2531100_CV01.DWG							No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:				M850-032(24310)	
								Detailer:		25311.00		
								Void:		Sheet Subset: COVER	Subset Sheet: 1 of 1	Sheet Number 1

PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	S STANDARD TITLE	PAGE NUMBER
■ M-100-1	STANDARD SYMBOLS (3 SHEETS).....	1-3	□ M-606-1	MIDWEST GUARDRAIL SYSTEM TYPE 3 W-BEAM.....	79-97	□ S-612-1	DELINEATOR INSTALLATIONS (8 SHEETS)	171-178
■ M-100-2	ACRONYMS AND ABBREVIATIONS (4 SHEETS).....	4-7		31 INCHES (19 SHEETS) <i>(REVISED ON MARCH 5, 2020)</i>			<i>(REVISED ON APRIL 3, 2025)</i>	
□ M-203-1	APPROACH ROADS.....	8	□ M-606-13	GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS).....	98-101	□ S-613-1	ROADWAY LIGHTING (6 SHEETS)	179-186
□ M-203-2	DITCH TYPES	9	□ M-606-14	PRECAST TYPE 7 CONCRETE BARRIER (4 SHEETS).....	102-104		<i>(REVISED ON APRIL 3, 2025)</i>	
□ M-203-11	SUPERELEVATION CROWNED AND.....	10-12		<i>(REVISED ON FEBRUARY 9, 2023)</i>		□ S-613-2	ALTERNATIVE ROADWAY LIGHTING (4 SHEETS)	
	DIVIDED HIGHWAYS (3 SHEETS)		□ M-606-15	GUARDRAIL TYPE 9 SINGLE SLOPE BARRIER	105-115		<i>(NEW, ISSUED ON SEPTEMBER 30, 2020)</i>	
□ M-203-12	SUPERELEVATION STREETS (2 SHEETS).....	13-14		(11 SHEETS) <i>(REVISED ON FEBRUARY 17, 2023)</i>		□ S-613-3	PULL BOX DETAIL (2 SHEETS) <i>(NEW, ISSUED ON APRIL 4, 2024)</i>	
■ M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES	15-16	□ M-607-1	WIRE FENCES AND GATES (3 SHEETS).....	116-118	□ S-613-4	TRAFFIC SIGNAL ONE-LINE DIAGRAMS (6 SHEETS)	
	(2 SHEETS)		□ M-607-2	CHAIN LINK FENCE (3 SHEETS).....	119-121		<i>(NEW, ISSUED ON JUNE 15, 2023)</i>	
□ M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES (2 SHEETS)....	17-18	□ M-607-3	BARRIER FENCE.....	122	■ S-614-1	GROUND SIGN PLACEMENT (2 SHEETS)..	187-188
■ M-208-1	TEMPORARY EROSION CONTROL (11 SHEETS)	19-29	□ M-607-4	DEER FENCE, GATES, AND GAME RAMPS (7 SHEETS).....	123-127	■ S-614-2	CLASS I SIGNS ... <i>(REVISED ON MARCH 1, 2024)</i>	189
	<i>(REVISED ON MAY 16, 2024)</i>			<i>(REVISED ON JULY 13, 2020)</i>		■ S-614-3	CLASS II SIGNS ... <i>(REVISED ON MARCH 1, 2024)</i>	190
□ M-210-1	MAILBOX SUPPORTS (2 SHEETS)	30-31	□ M-607-10	PICKET SNOW FENCE	128	□ S-614-4	CLASS III SIGNS (3 SHEETS) ...	191-193
□ M-214-1	NURSERY STOCK DETAILS	32	□ M-607-15	ROAD CLOSURE GATE (9 SHEETS).....	129-137	□ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS	194-195
□ M-216-1	SOIL RETENTION COVERING (2 SHEETS)	33-34	■ M-608-1	CURB RAMPS (10 SHEETS).....	138-147		FOR CLASS III SIGNS (2 SHEETS)	
□ M-400-1	SAFETYEDGE FOR PAVEMENT		■ M-609-1	CURBS, GUTTERS, AND SIDEWALKS (4 SHEETS).....	148-151	□ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS.....	196-197
	<i>(REVISED ON APRIL 25, 2025)</i>		□ M-611-1	CATTLE GUARD (2 SHEETS).....	152-153		FOR CLASS III SIGNS (2 SHEETS)	
□ M-412-1	CONCRETE PAVEMENT JOINTS (9 SHEETS)	35-39	□ M-611-2	DEER GUARD (2 SHEETS).....	154-155	■ S-614-8	TUBULAR STEEL SIGN SUPPORT DETAILS (7 SHEETS).....	198-204
	<i>(REVISED ON JANUARY 31, 2022)</i>		□ M-614-1	RUMBLE STRIPS (3 SHEETS).....	156-158		<i>(REVISED ON MARCH 1, 2024)</i>	
□ M-412-2	CONCRETE PAVEMENT CRACK REPAIR (6 SHEETS)		□ M-614-2	SAND BARREL ARRAYS (2 SHEETS).....	159-160	□ S-614-9	PEDESTRIAN PUSH BUTTON POST ASSEMBLY (2 SHEETS).....	205-206
	<i>(REVISED ON SEPTEMBER 6, 2022)</i>		□ M-615-1	EMBANKMENT PROTECTOR TYPE 3	161		<i>(SUPERSEDED ON JANUARY 23, 2020 BY S-614-45)</i>	
□ M-510-1	STRUCTURAL PLATE PIPE H-20 LOADING	40	□ M-615-2	EMBANKMENT PROTECTOR TYPE 5	162	□ S-614-10	MARKER ASSEMBLY INSTALLATIONS	207
□ M-601-1	SINGLE CONCRETE BOX CULVERT (CAST-IN-PLACE).....	41-42	□ M-616-1	INVERTED SIPHON.....	163	□ S-614-11	MILEPOST SIGN DETAIL FOR HIGH SNOW AREAS	208
	(2 SHEETS)		□ M-620-1	FIELD LABORATORY CLASS 1.....	164	□ S-614-12	STRUCTURE NUMBER INSTALLATION (2 SHEETS).....	209-210
□ M-601-2	DOUBLE CONCRETE BOX CULVERT (CAST-IN-PLACE).....	43-44	□ M-620-2	FIELD LABORATORY CLASS 2 (2 SHEETS).....	165-166	■ S-614-14	FLASHING BEACON AND SIGN INSTALLATIONS (4 SHEETS).	211-214
	(2 SHEETS)		□ M-620-11	FIELD OFFICE CLASS 1.....	167	□ S-614-15	CHAIN STATION SIGNAGE (1 SHEET) <i>(NEW, ISSUED ON APRIL 30, 2024)</i>	
□ M-601-3	TRIPLE CONCRETE BOX CULVERT (CAST-IN-PLACE).....	45-46	□ M-620-12	FIELD OFFICE CLASS 2.....	168	□ S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATIONS..	215
	(2 SHEETS)		□ M-629-1	SURVEY MONUMENTS (2 SHEETS).....	169-170	□ S-614-21	CONCRETE BARRIER SIGN POST INSTALLATIONS.....	216-217
□ M-601-10	HEADWALL FOR PIPES	47					(2 SHEETS) <i>(REVISED ON SEPTEMBER 21, 2020)</i>	
□ M-601-11	TYPE "S" SADDLE HEADWALLS FOR PIPE.....	48				□ S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS.....	218
■ M-601-12	HEADWALLS AND PIPE OUTLET PAVING	49				□ S-614-23	J-POST SIGN SUPPORT (3 SHEETS). <i>(NEW, ISSUED ON MAR. 1, 2024)</i>	
□ M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS (2 SHEETS) ...	50-51				□ S-614-40	TYPICAL TRAFFIC SIGNAL 30'-75' DOUBLE MAST ARMS.....	219-223
■ M-603-1	METAL PIPE (4 SHEETS).....	52-55					65'-75' SINGLE MAST ARMS (5 SHEETS) <i>(REVISED ON JULY 22, 2022)</i>	
■ M-603-2	REINFORCED CONCRETE PIPE	56				□ S-614-40A	ALTERNATIVE TRAFFIC SIGNAL.....	224-227
□ M-603-3	PRECAST CONCRETE BOX CULVERT.....	57					25'-55' SINGLE MAST ARMS (4 SHEETS) <i>(REVISED ON JULY 22, 2022)</i>	
	<i>(REVISED ON SEPTEMBER 10, 2020)</i>					□ S-614-41	TEMPORARY SPAN WIRE SIGNALS (13 SHEETS).....	228-240
■ M-603-4	CORRUGATED POLYETHYLENE PIPE (AASHTO M294) AND	58				□ S-614-42	CABINET FOUNDATION DETAIL (4 SHEETS). <i>(REVISED ON</i>	241-244
	CORRUGATED POLYPROPYLENE PIPE (AASHTO M330) (2 sheets)					□ S-614-43	TRAFFIC LOOP AND MISCELLANEOUS SIGNAL DETAILS.....	245-252
	<i>(REVISED ON MARCH 7, 2022)</i>						(7 SHEETS) <i>(REVISED ON APRIL 4, 2024)</i>	
□ M-603-5	POLYVINYL CHLORIDE (PVC) PIPE (AASHTO M304).....	59				□ S-614-44	PEDESTAL POLE SIGNALS (2 SHEETS).....	253-254
□ M-603-6	STEEL REINFORCED POLYETHYLENE	60				□ S-614-45	PEDESTRIAN PUSH BUTTON POST ASSEMBLY DETAILS (6 SHEETS)	
	RIBBED PIPE (AASHTO MP 20)						<i>(REVISED ON DECEMBER 3, 2020)</i>	
□ M-603-10	CONCRETE AND METAL END SECTIONS	61				□ S-614-50	STATIC SIGN MONOTUBE STRUCTURES (12 SHEETS).....	255-266
□ M-603-12	TRAVERSABLE END SECTIONS AND SAFETY GRATES.....	62-64				□ S-614-60	DYNAMIC SIGN MONOTUBE STRUCTURES (14 SHEETS).....	267-280
	(3 SHEETS)					■ S-627-1	PAVEMENT MARKINGS (11 SHEETS) <i>(REV. DEC. 20, 2024)</i>	281-289
□ M-604-10	INLET, TYPE C	65				■ S-630-1	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION.....	290-313
□ M-604-11	INLET, TYPE D	66					(26 SHEETS) <i>(REVISED ON APRIL 30, 2024)</i>	
■ M-604-12	CURB INLET TYPE R (2 SHEETS).....	67-68				□ S-630-2	BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP).....	314
□ M-604-13	CONCRETE INLET TYPE 13.....	69					AND VERTICAL PANELS	
□ M-604-20	MANHOLES (3 SHEETS).....	70-72				□ S-630-3	FLASHING BEACON (PORTABLE) DETAILS	315
□ M-604-25	VANE GRATE INLET (5 SHEETS).....	73-77				□ S-630-4	STEEL SIGN SUPPORT (TEMPORARY) INSTALLATION.....	316-317
	<i>(REVISED ON FEBRUARY 3, 2023)</i>						DETAILS (2 SHEETS)	
□ M-605-1	SUBSURFACE DRAINS	78				□ S-630-5	PORTABLE RUMBLE STRIPS (TEMPORARY) (2 SHEETS)	318-319
						□ S-630-6	EMERGENCY PULL-OFF AREA (TEMPORARY).....	320
						□ S-630-7	ROLLING ROADBLOCKS FOR TRAFFIC CONTROL .(3 SHEETS)	321-323

COLORADO
DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST

July 31, 2019

Revised on April 25, 2025

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED
AND REVISED, APPLY TO THIS PROJECT WHEN USED
BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE
INDICATED BY A MARKED BOX ■, AND WILL BE ATTACHED TO THE
PLANS. ALL OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR USE
IN CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

Computer File Information		(R-X) (R-X) (R-X) (R-X)	Sheet Revisions		Colorado Department of Transportation 2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868 Construction Engineering Services DLK	STANDARD PLANS LIST		STANDARD PLAN NO.	
Creation Date: 07/31/19			Date:	Comments				STANDARDS PLANS LIST	
Designer Initials: DLK								Standard Sheet No. 1 of 1	
Last Modification Date: 04/25/25									
Detailer Initials: LTA									
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English								Issued by the Project Development Branch: July 31, 2019	

Date: 8/22/24			Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 STANDARD PLANS LIST			Project No./Code	
File Name: 2531100 SPL01.DWG							No Revisions:				M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:				M850-032(24310)		
							Void:			25311.00			
									Sheet Subset:STANDARD PLANS LIST	Subset Sheet:	1 of 1	Sheet Number 2	

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE THE CITY OF MANITOU SPRINGS AT LEAST 24 HOURS ADVANCE NOTICE BEFORE BEGINNING CONSTRUCTION. A PRE–CONSTRUCTION MEETING WITH THE OWNER’S REPRESENTATIVE SHALL BE HELD A MINIMUM OF 7 DAYS IN ADVANCE OF CONSTRUCTION.

2. ALL CONSTRUCTION SHALL BE PER THE MOST CURRENT CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS DIRECTED BY THE OWNER’S REPRESENTATIVE.

3. ALL CONTRACTORS AND SUBCONTRACTORS SHALL HAVE A SET OF APPROVED CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTHS OF ALL UTILITIES THAT CROSS THE PROJECT AREA. CONTRACTOR SHALL CONTACT OWNER’S REPRESENTATIVE IF POTENTIAL CONFLICTS ARE IDENTIFIED AND STOP WORK AT THAT LOCATION.

5. PROJECT SURVEY DOES NOT DISPLAY TREES UNDER 3 IN. CALIPER, OR SOME TREES ADJACENT TO PROJECT AREA. IT IS THE CONTRACTOR’S RESPONSIBILITY TO IDENTIFY AND COORDINATE WITH THE OWNER’S REPRESENTATIVE, ON ALL TREES NOT SHOWN IN THE DRAWINGS THAT ARE OVER A 3 IN CALIPER, OVER A 6 FT. HEIGHT, OR CLUSTERED TOGETHER WITHIN THE LIMITS OF DISTURBANCE.

6. PROTECTION OF AREA/LIMITS OF DISTURBANCE: THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND CROSS SECTIONS. ANY DISTURBANCES BEYOND THESE LIMITS SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT THE CONTRACTOR’S EXPENSE. CONSTRUCTION ACTIVITIES, IN ADDITION TO NORMAL CONSTRUCTION PROCEDURE, SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS. ANY OFF ROAD STAGING AREAS MUST BE PRE–APPROVED BY THE OWNER’S REPRESENTATIVE AND REMAIN WITHIN THE LIMITS OF DISTURBANCE (LDA).

7. ALL DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL AND RESPONSIBLE MANNER. ALL DEMOLISHED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS NOTED IN THE PLANS.

8. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE WORK, AND SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL CODE REQUIREMENTS REGARDING UTILITY CROSSINGS AND CLEARANCES AT NO ADDITIONAL COST TO THE PROJECT. NOTIFY THE OWNER’S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS IMMEDIATELY.

9. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE STATE OF COLORADO PERMITTING PROCESS FOR "STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY". FOR INFORMATION CONTACT THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY CONTROL DIVISION, SQCD–PE–B2, 4300 CHERRY CREEK DRIVE SOUTH, DENVER, COLORADO 80246–1530, ATTENTION PERMITS AND ENFORCEMENT SECTION. (303) 692–3575. THE WATER QUALITY PERMITTING PAGE CAN BE ACCESSED AT WW.CDPHE.STATE.CO.US/WQ/PERMITSUNIT/WQCDPMT.HTML. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING, MAINTAINING AND CLOSING OUT STORMWATER PERMIT.

10. ALL WORK, INCLUDING WARRANTY WORK, SHALL BE INSPECTED BY THE OWNER’S REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN PROPER CONSTRUCTION PRACTICES ARE NOT BEING ADHERED TO.

11. THERE SHALL BE NO WORK PERFORMED ON THE WEEKENDS OR HOLIDAYS EXCEPT BY APPROVAL OF THE CITY OF MANITOU SPRINGS WITH A MINIMUM OF 24 HOURS NOTICE. CONTRACTOR SHALL REQUEST IN ADVANCE, AND PROVIDE DETAILED REASONING, FOR APPROVAL OF WEEKEND CONSTRUCTION ACTIVITIES.

12. CONSTRUCTION HOURS SHALL BE MONDAY THROUGH FRIDAY, 7AM TO 7PM. CONSTRUCTION SHALL BE COMPLETED BY 3 PM ON ALL FRIDAYS.

13. THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CLEAN, NEAT MANNER WITH DEMOLISHED MATERIAL AND DEBRIS BEING REMOVED FROM THE SITE IMMEDIATELY.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY. REFER TO O.S.H.A. PUBLICATION 2226, EXCAVATING AND TRENCHING.

15. THE PROJECT IS SUBJECT TO ALL CITY STANDARD SPECIFICATIONS AS WELL AS THE PROJECT SPECIFICATIONS PARTICULAR TO THE PROJECT. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER’S REPRESENTATIVE FOR RESOLUTION. GENERALLY, THE MORE STRINGENT AND MORE COSTLY SOLUTION WILL APPLY.

16. THE CONTRACTOR IS EXPECTED TO FOLLOW ALL O.S.H.A AND ANY OTHER PERTINENT WORKER SAFETY GUIDELINES TO ENSURE WORKER SAFETY ON THE PROJECT SITE.

17. ALL BID QUANTITIES ARE BASED ON PLAN–VIEW DISTANCE AND AREAS. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL QUANTITIES BASED ON ACTUAL FIELD CONDITION AND PROPOSED WORK.

18. ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.

19. ALL DIMENSIONAL CALLOUTS AND RADII ARE TO EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

20. ORDER PRECEDENCE FOR INFORMATION AND INSTRUCTION: ADDENDA, PLANS, SPECIFICATIONS, AND THEN NOTES, EXCEPT IF THERE IS A DISCREPANCY. IN CASES OF DISCREPANCY, THE HIGHER QUALITY OR MORE COSTLY SOLUTION SHALL APPLY FOR BIDDING PURPOSES. OBTAIN FINAL DETERMINATION FROM THE OWNER’S REPRESENTATIVE PRIOR TO COMMENCING WITH CONSTRUCTION OR PURCHASE. THIS APPLIES TO MAINTENANCE AND WARRANTIES IN ADDITION TO CONSTRUCTION ITEMS.

21. THE WORK AREAS SHALL BE LEFT WITH A CLEAN AND FINISHED APPEARANCE. IN NO CASE SHALL MATERIAL REMOVED FROM THE PROJECT AREA BE STOCKPILED AND LEFT IN SUCH MANNER AS TO POSE A HAZARD TO THE PUBLIC. THE CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SIDEWALKS, CURB AND GUTTERS, PANS, AND DRIVEWAYS AT THE CONSTRUCTION SITE AND DISPOSE OF THE DEBRIS IN AN APPROPRIATE LOCATION.

22. IT IS THE CONTRACTOR’S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL ON SITE ELEMENTS AND UTILITIES PRIOR TO CONSTRUCTION. AS SUCH, IT IS THE CONTRACTOR’S RESPONSIBILITY TO NOTIFY THE OWNER’S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE EXISTING SITE CONDITIONS EXIST.

23. ALL CONSTRUCTION ACTIVITY MUST BE CONTAINED WITH IN THE INDICATED AND ESTABLISHED LIMITS OF DISTURBANCE (LDA). VERIFY MATERIALS AND EQUIPMENT STORAGE/STAGING AREAS WITH THE OWNER’S REPRESENTATIVE.

24. ALL EXISTING ARTWORK SHALL BE PROTECTED, SALVAGED, AND RETURNED TO THE CITY. INLAID ARTWORK SHALL BE PROTECTED AND REMOVED WITHOUT DAMAGE AND RETURNED TO THE CITY FOR REPLACEMENT BY CITY DURING RE–POUR OF CONCRETE BUMP OUTS.

Date: 8/22/24		Index of Revisions			Historic MANITOU SPRINGS CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719–600–8317	As Constructed	CREEK WALK TRAIL – PHASE 4 GENERAL NOTES			Project No./Code
File Name: 2531100 GN01.DWG		No Revisions:	M850–031(24000)							
J-R ENGINEERING A Westrian Company		Revised:	Designer: ---	25311.00		M850–032(24310)				
		Void:	Detailer: ---			Sheet Number 3				
		Sheet Subset: GENERAL NOTES	Subset Sheet: 1 of 2							

25. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION DESIGNATED TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS. ALL PROPERTY PINS, INTERSECTION MONUMENTS, AND SECTION CORNERS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR RELOCATION MUST BE REFERENCED AND REPLACED UNDER THE SUPERVISION OF A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE PROJECT. THE CONTRACTOR AND OWNER’S REPRESENTATIVE SHALL NOTE THOSE MONUMENTS IN THE FIELD PRIOR TO CONSTRUCTION. 26. WHERE IT IS REQUIRED TO CUT EXISTING ASPHALT OR CONCRETE, THE CUTTING SHALL BE DONE FULL DEPTH TO A NEAT WORK LINE WITH A SAW AS APPROVED BY THE OWNER’S REPRESENTATIVE. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK, EXCEPT AS DESIGNATED IN THE PLANS. 27. CONSTRUCTION EQUIPMENT WILL BE TURNED OFF DURING PROLONGED PERIODS OF NON–USE TO ELIMINATE NOISE FROM CONSTRUCTION EQUIPMENT DURING THOSE PERIODS. 28. THE CONTRACTOR SHALL TAKE MEASURES TO REDUCE ENERGY CONSUMPTION. MEASURES TAKEN WILL INCLUDE LIMITING IDLING OF CONSTRUCTION EQUIPMENT, LOCATING CONSTRUCTION STAGING AREA CLOSE TO THE WORK SITE, MINIMIZING MOTORIST DELAYS AND VEHICLE IDLING, AND COORDINATING GENERAL MAINTENANCE ACTIVITIES DURING CONSTRUCTION TO AVOID EXCESSIVE QUEUING AND CONSTRUCTION DELAYS. 29. STATIONARY EQUIPMENT WILL BE LOCATED AWAY FROM RECEIVING PROPERTIES TO DECREASE NOISE IMPACTS WHERE FEASIBLE. 30. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR EQUIPMENT IN, OR DISTURB ANY AREAS NOT APPROVED BY THE OWNER’S REPRESENTATIVE. 31. ALL SLOPES OF 3:1 OR GREATER SHALL RECEIVE EROSION CONTROL BLANKET IN ADDITION TO REVEGETATION SEEDING APPLICATION. ALL SLOPE APPLICATIONS OF EROSION CONTROL BLANKETS SHALL BE ANIMAL FRIENDLY. ONLY BIODEGRADABLE EROSION CONTROL BLANKETS WILL BE ACCEPTED. NO PHOTO–DEGRADABLE BLANKETS SHALL BE USED ON THIS PROJECT. 32. ANY CURB AND GUTTER OR OTHER ELEMENTS WHICH ARE TO REMAIN AND IS DAMAGED AS A RESULT OF THE CONTRACTOR’S OPERATIONS, SHALL BE REPLACED AT THE CONTRACTOR’S EXPENSE. 33. LOCATION OF CONTROL LINES AND GRADE LINES SHALL BE WHERE SHOWN ON THE PLANS AND TYPICAL SECTIONS AND SHALL COINCIDE WITH THE FINISHED SURFACE OF THE PAVEMENT TO BE PLACED ON THIS PROJECT UNLESS SPECIFIED OTHERWISE. 34. ALL STOCKPILES AND VEHICLES HAULING SOIL AND OTHER MATERIALS SHALL BE COVERED EACH WORKING DAY, PRIOR TO LEAVING THE CONSTRUCTION SITE. 35. THE CONTRACTOR SHALL REPAIR OR REPLACE, AT THE CONTRACTOR’S EXPENSE, ANY EXISTING SIGNS DAMAGED BY CONTRACTOR. 36. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN EXISTING DRAINAGE DURING THE WORK. ANY DAMAGE TO COMPLETED WORK OR MATERIALS DUE TO LACK OF DRAINAGE OR MAINTENANCE SHALL BE REPAIRED AT THE CONTRACTOR’S EXPENSE. DRAINAGE MAINTENANCE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. 37. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER THAT STORM WATERS MAY PROCEED TO DRAINAGE COURSES. BY SUBMITTING A BID, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS INVESTIGATED STORM WATERS, HAS PREPARED HIS BID ACCORDINGLY, AND ASSUMES ALL OF SAID RISK. ANY DAMAGE TO PARTIALLY COMPLETED STRUCTURES OR RESULTING FROM THE CONTRACTORS OPERATIONS SHALL BE AT THE CONTRACTOR’S OWN EXPENSE. 38. ALL SUBSTITUTIONS SHALL BE APPROVED BY OWNER’S REPRESENTATIVE PRIOR TO BID AWARD. 39. CONTRACTOR SHALL COORDINATE WITH THE CITY OF MANITOU SPRINGS FOR ALL EASEMENTS NECESSARY TO COMPLETE THE WORK. <u>ENVIRONMENTAL/EROSION CONTROL</u> 1. THE CONTRACTOR SHALL PERFORM ALL WORK IN SUCH A MANNER THAT THE LEAST ENVIRONMENTAL DAMAGE WILL RESULT. ANY QUESTIONABLE AREAS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER’S REPRESENTATIVE FOR APPROVAL PRIOR TO WORK COMMENCING. 2. THE CONTRACTOR SHALL NOT DISTURB THE STREAMBED AND/OR STREAM BANKS UNLESS OTHERWISE NOTED IN THE PLANS, OR AS DIRECTED BY OWNER’S REPRESENTATIVE. 3. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE WILD FIRE HAZARDS AND FOLLOW ALL REQUIRED ORDINANCES. 4. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED OR AS DIRECTED BY THE OWNER’S REPRESENTATIVE. MAGNESIUM CHLORIDE SHALL NOT BE ALLOWED. DUST PALLIATIVE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK. CONTRACTOR SHALL FOLLOW SECTION 209 OF THE 2025 CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND TERMS AND CONDITIONS FOR ALL WATERING AND DUST PALLIATIVE PRACTICES. 5. EROSION & SEDIMENT CONTROL: EROSION/SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED BEFORE CONSTRUCTION AND GRADING OPERATIONS BEGIN. ALL EROSION/SEDIMENT CONTROL BMPS SHALL BE PLACED AND MAINTAINED CONTINUALLY AND REPLACED AS NECESSARY DURING CONSTRUCTION AS APPROVED BY THE OWNER’S REPRESENTATIVE. 6. BMP PROTECTIONS SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETE. ALL EROSION/SEDIMENT CONTROL AND STORMWATER RESPONSIBILITIES STATED IN THE PROJECT SPECIAL PROVISIONS AND 2025 CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTIONS 101, 107, AND 108 SHALL BE FOLLOWED. 7. THE CONTRACTOR SHALL PREVENT TOOLS, CONCRETE, DIRT AND DEBRIS OF ANY KIND FROM FALLING INTO THE CHANNEL OF ANY IRRIGATION DITCH OR STREAM. THE CONTRACTOR SHALL CLEAN OR REMOVE FROM THE CHANNEL ALL SUCH ITEMS THAT ENTER IT AS A RESULT OF THE CONTRACTOR’S OPERATIONS. 8. SAW RESIDUE: THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE WATERS OF THE STATE, THROUGH INLETS, STORM DRAINS, VEGETATIVE SWALES, RIVERS, STREAMS, ETC IS PROHIBITED. THE CONTRACTOR SHALL PROTECT ALL FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING, SAND BLASTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTAINMENT, REMOVAL AND PROPER DISPOSAL OF ALL WATER, SAW RESIDUE OR SAND PRODUCTS GENERATED BY SAID CUTTING OR SAND BLASTING OPERATIONS ON A DAILY BASIS FOLLOWING M–208–1 TEMPORARY EROSION CONTROL MEASURES. CONTAINMENT AND DISPOSAL SHALL BE INCLUDED IN THE COST OF THE WORK. 9. USE THE CLEANEST FUELS AVAILABLE AT THE TIME IN CONSTRUCTION EQUIPMENT AND VEHICLES TO REDUCE EXHAUST EMISSIONS. KEEP CONSTRUCTION EQUIPMENT WELL MAINTAINED TO ENSURE THAT EXHAUST SYSTEMS ARE IN GOOD WORKING ORDER. <u>TRAFFIC CONTROL</u> 1. CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR WRITTEN APPROVAL BY OWNER’S REPRESENTATIVE. THE TRAFFIC CONTROL PLAN SHALL CONSIDER PEDESTRIANS AND CYCLISTS. 2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE BLUE SKIES INN AND BRIARHURST PROPERTIES AT ALL TIMES DURING CONSTRUCTION. 3. THE CONTRACTOR SHALL PROVIDE ALL SAFETY BARRIERS, FENCING AND SIGNAGE AROUND THE CONSTRUCTION SITE AS REQUIRED BY LOCAL REGULATION AS A MINIMUM SAFETY STANDARD. 4. THE CONTRACTOR SHALL PROMPTLY REMOVE ANY PEDESTRIAN DETOUR SIGNS AT THE COMPLETION OF WORK FOR WHICH THE DETOUR SIGNS WERE INSTALLED.											
Date: 8/22/24		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719–600–8317	As Constructed		CREEK WALK TRAIL – PHASE 4 GENERAL NOTES		Project No./Code	
File Name: 2531100 GN01.DWG						No Revisions:			M850–031(24000)		
 JR ENGINEERING A Westrian Company						Revised:	Designer: ---	25311.00	M850–032(24310)		
						Void:	Detailer: ---				
								Sheet Subset: GENERAL NOTES	Subset Sheet:	2 of 2	

CDOT ITEM NO.	DESCRIPTION	UNIT	QUANTITY
201-00001	Clearing and Grubbing	LS	1
202-00000	Removal of Parking Meter Pedestal	EA	1
202-00010	Removal of Tree	EACH	8
202-00019	Removal of Inlet	EACH	2
202-00200	Removal of Sidewalk	SY	747
202-00203	Removal of Curb and Gutter	LF	1656
202-00206	Removal of Curb Ramp	SY	38
202-00210	Removal of Concrete Pavement	SY	22
202-00220	Removal of Asphalt Mat	SY	1111
202-00250	Removal of Pavement Marking	SF	2210
202-01000	Removal of Fence	LF	448
208-00020	Silt Fence	LF	1941
208-00045	Concrete Washout Structure	EA	1
208-00054	Inlet Protection	EA	3
208-00070	Vehicle Tracking Control	EA	1
208-00207	Erosion Control Management	DAY	45
210-00810	Reset Ground Sign	EACH	5
210-00815	Reset Sign Panel	EACH	15
210-00857	Reset Rectangular Rapid Flashing Beacon	EACH	1
210-04020	Modify Inlet	EACH	1
210-04050	Adjust Valve Box	EACH	3
212-00006	Seeding (Native)	ACRE	0.25
212-00048	Soil Preparation (Special)(Amended Soil)	CY	206
213-00002	Mulching (Weed Free Hay)	ACRE	0.25
214-00225	Deciduous Tree (2.5 Inch Caliper)	EA	9
240-00000	Wildlife Biologist	HR	1
240-00010	Removal of Nests	HR	1
240-00020	Netting	SY	1
304-06007	Aggregate Base Course (Class 6)	CY	259
403-32741	Hot Mix Asphalt (Grading SX)(75)(PG 64-22)	TON	25
403-33741	Hot Mix Asphalt (Grading S)(75)(PG 64-22)	TON	27
508-00000	Pedestrian Stair Structure (Timber)	LS	1
603-01240	24 Inch Reinforced Concrete Pipe	LF	8
603-10180	18 Inch Corrugated Steel Pipe	LF	12
604-19305	Inlet Type R L 15 (5 Foot)	EACH	1
604-19510	Inlet Type R L 20 (5 Foot)	EACH	1

CDOT ITEM NO.	DESCRIPTION	UNIT	QUANTITY
607-00001	Safety Rail	LF	872
608-00000	Concrete Sidewalk	SY	1867
608-00010	Concrete Curb Ramp	SY	72
608-00015	Detectable Warnings	SF	44
609-20010	Curb Type 2 (Section B)	LF	282
609-21020	Curb and Gutter Type 2 (Section II-B)	LF	1688
613-01200	2 Inch Electrical Conduit (Plastic)	LF	3032
613-01400	4 Inch Electrical Conduit (Plastic)	LF	75
613-07199	Pull Box (Install Only)	EACH	5
613-40010	Light Standard Foundation	EACH	5
614-00011	Sign Panel (Class 1)	SF	28
614-01503	Steel Sign Support (2-Inch Round) (Post and Socket)	EA	12
614-72863	Pedestrian Push Button Post Assembly	EA	1
614-99999	Art Panel Assembly	EA	5
620-00020	Sanitary Facility	EA	2
625-00000	Construction Surveying	LS	1
626-00000	Mobilization	LS	1
626-01104	Public Information Services (Tier IV)	LS	1
627-00002	Preform Thermoplastic Pavement Marking	SF	90
627-00009	Modified Epoxy Pavement Marking (Inlaid)	GAL	32
630-00016	Traffic Control (Special) LS	LS	1
700-70010	F/A Minor Contract Revisions	FA	1
700-70310	F/A Landscaping	FA	1
700-70380	F/A Erosion Control	FA	1

Date: 8/22/24			Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 SUMMARY OF APPROX. QUANTITIES			Project No./Code	
File Name: 2531100 SAQ01.DWG							No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:	Designer:	BSR	25311.00	M850-032(24310)	
								Detailer:	BSR			
							Void:	Sheet Subset:	SAQ	Subset Sheet:	1 of 1	

GENERAL NOTES

1. DATE OF FIELD SURVEY: JULY 22, 2024
2. PER C.R.S. 13–80–105, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.
3. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY JR ENGINEERING, LLC OR THE SURVEYOR OF RECORD.
4. PER C.R.S. 38–51–106, "ALL LINEAL UNITS DEPICTED ON THIS LAND SURVEY PLAT ARE U.S. SURVEY FEET. ONE METER EQUALS 39.37/12 U.S. SURVEY FEET, EXACTLY ACCORDING TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY."

PROJECT CONTROL

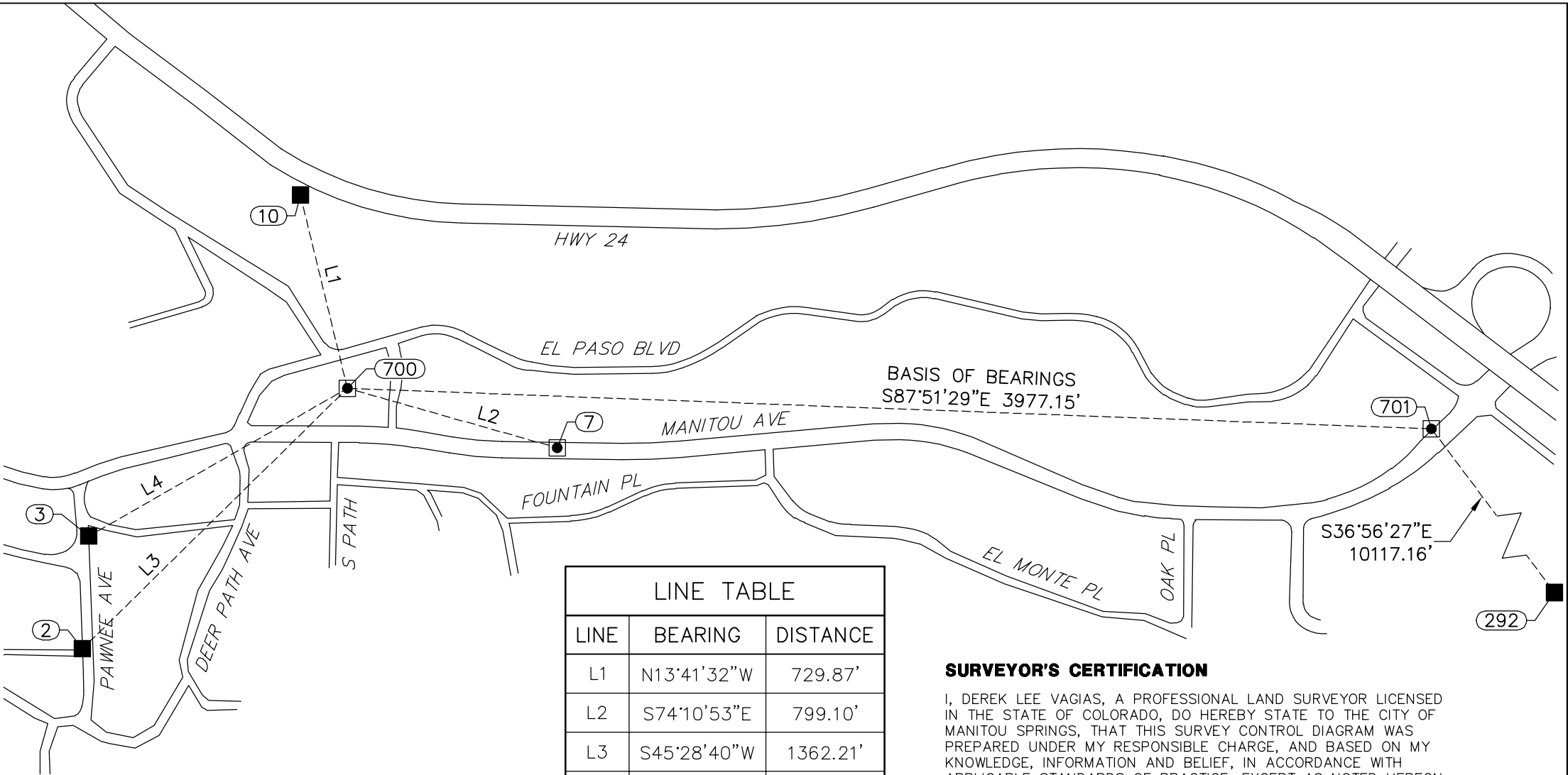
PROJECT COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED ON COLORADO STATE PLANE GRID. CONTROL POINTS WERE COLLECTED USING RTK GLOBAL TECHNIQUES.

HORIZONTAL POSITIONS

HORIZONTAL POSITIONS ARE COLORADO STATE PLANE CENTRAL ZONE (0502) NAD83(2011) EPOCH 2010.00.

BASIS OF BEARINGS
BEARINGS ARE BASED ON A GRID BEARING OF S87°51'29"E BETWEEN CONTROL POINT 700, BEING A 2" ALUMINUM CAP STAMPED "JACOBS CP700" AND CONTROL POINT 701, BEING A 2" ALUMINUM CAP STAMPED "JACOBS CP701".

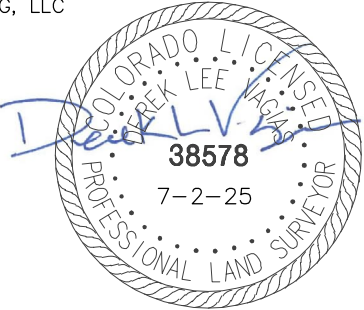
VERTICAL BENCHMARK
ELEVATIONS SHOWN HEREON ARE BASED ON NGS BENCHMARK S 292, BEING A 3.5" BRASS CAP STAMPED "US COAST BM S292 1951", WITH A PUBLISHED ELEVATION OF 6355.60 FEET NAVD 88. ELEVATIONS ESTABLISHED UTILIZING GPS TECHNIQUES USING GEOID18.



SURVEYOR'S CERTIFICATION

I, DEREK LEE VAGIAS, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF COLORADO, DO HEREBY STATE TO THE CITY OF MANITOU SPRINGS, THAT THIS SURVEY CONTROL DIAGRAM WAS PREPARED UNDER MY RESPONSIBLE CHARGE, AND BASED ON MY KNOWLEDGE, INFORMATION AND BELIEF, IN ACCORDANCE WITH APPLICABLE STANDARDS OF PRACTICE, EXCEPT AS NOTED HEREON. THIS STATEMENT IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED.

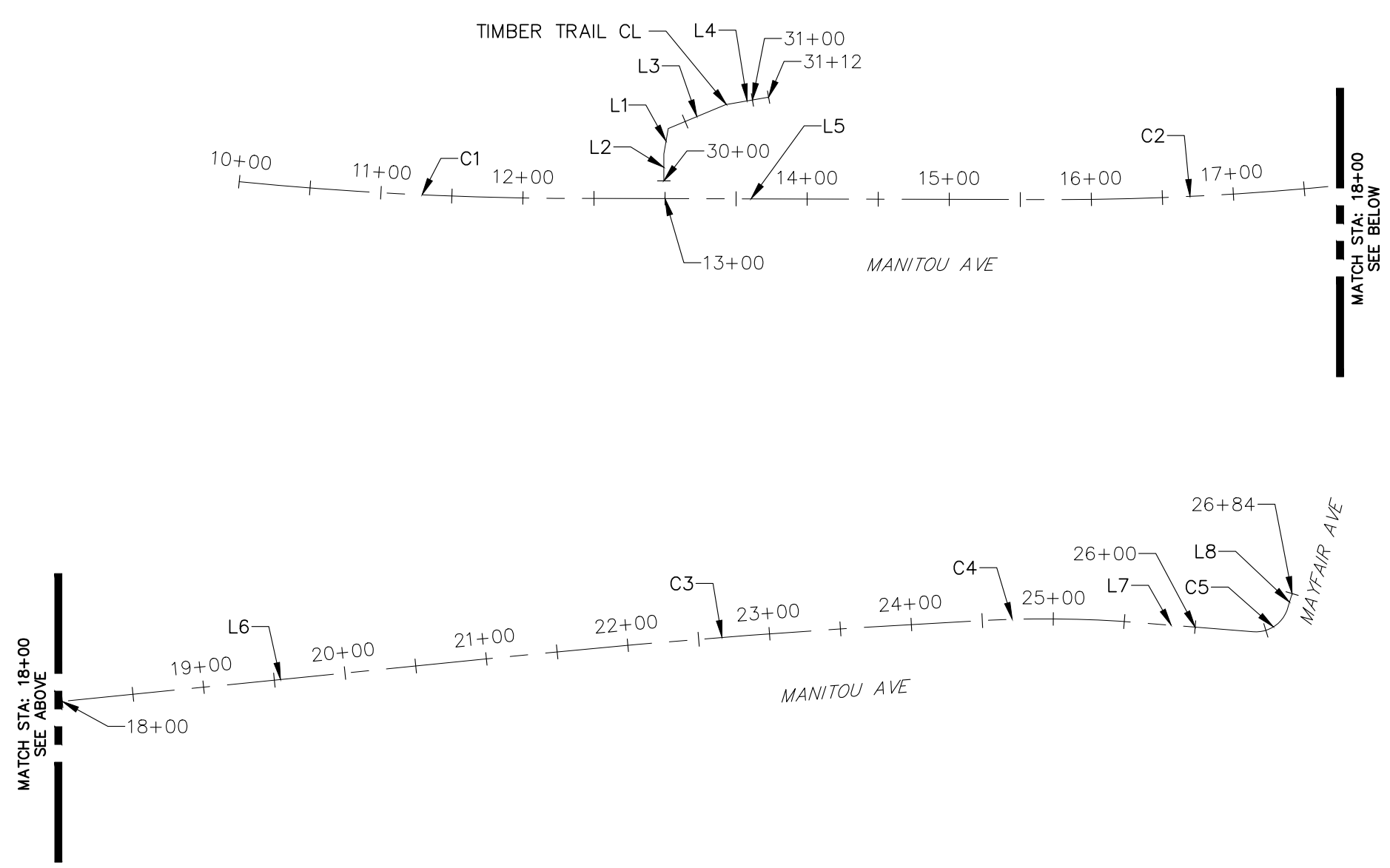
DEREK LEE VAGIAS, COLORADO PLS 38578
FOR AND ON BEHALF OF JR ENGINEERING, LLC
7200 S ALTON WAY, SUITE C250
CENTENNIAL, CO 80112
DVAGIAS@JRENGINEERING.COM



POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	1372790.855	3166776.602	6400.48	1" BRASS DISK 1100
3	1373203.740	3166798.982	6349.97	1" BRASS DISK 1090
7	1373528.192	3168516.670	6293.54	2" ALUM. CAP STAMPED "CSU FIMS MU07"
10	1374455.145	3167575.067	6438.76	3.5" BRASS CAP IN ROCK – QUILLEN 1992
292	1365511.179	3177802.524	6355.60	3.5" BRASS CAP STAMPED "US COAST BM S292 1951"
700	1373746.020	3167747.830	6294.72	2" ALUM. CAP STAMPED "JACOBS CP700"
701	1373597.373	3171722.197	6236.38	2" ALUM. CAP STAMPED "JACOBS CP701"

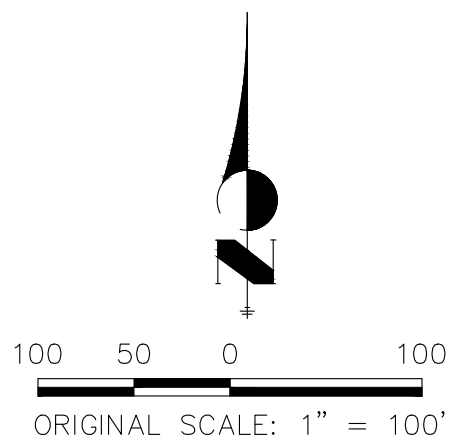


Date: 8/22/24			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 PROJECT CONTROL DIAGRAM			Project No./Code	
File Name: 2531100 PC01.DWG							No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: ---		25311.00	M850-032(24310)	
							Void:		Detailer: ---			Sheet Number 6	
										Sheet Subset: PROJECT CTRL		Subset Sheet: 1 of 1	



CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	ALIGNMENT
C1	5°10'59"	2463.69'	222.87'	HC MANITOU AVE
C2	5°42'35"	2041.60'	203.46'	HC MANITOU AVE
C3	2°48'49"	6350.85'	311.87'	HC MANITOU AVE
C4	7°17'41"	832.78'	106.03'	HC MANITOU AVE
C5	74°17'45"	23.22'	30.11'	HC MANITOU AVE

LINE TABLE			
LINE	BEARING	DISTANCE	ALIGNMENT
L1	N9°37'34"E	18.19'	TIMBER TRAIL CL
L2	N0°02'10"E	18.91'	TIMBER TRAIL CL
L3	N67°26'28"E	43.78'	TIMBER TRAIL CL
L4	N80°08'52"E	30.67'	TIMBER TRAIL CL
L5	S89°51'18"E	353.59'	HC MANITOU AVE
L6	N84°17'04"E	348.97'	HC MANITOU AVE
L7	S85°28'31"E	94.03'	HC MANITOU AVE
L8	N17°00'02"E	12.63'	HC MANITOU AVE



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

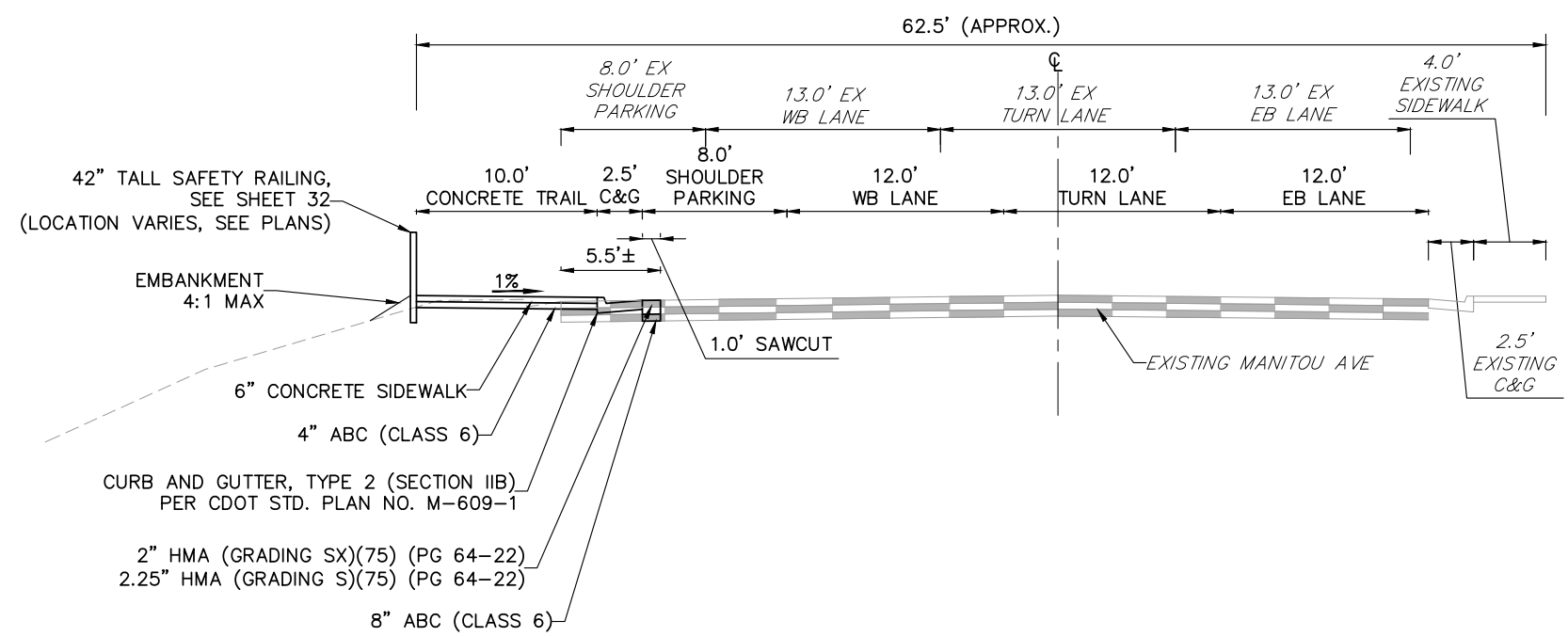
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



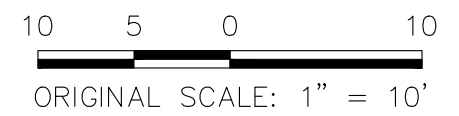
Date: 8/22/24			Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 GEOMETRIC CONTROL PLAN			Project No./Code	
File Name: 2531100 GC01.DWG							No Revisions:				M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:				M850-032(24310)		
									Detailer:		25311.00		
							Void:		Sheet Subset:	GEOM CTRL	Subset Sheet:	1 of 1	Sheet Number 7



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

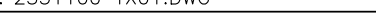


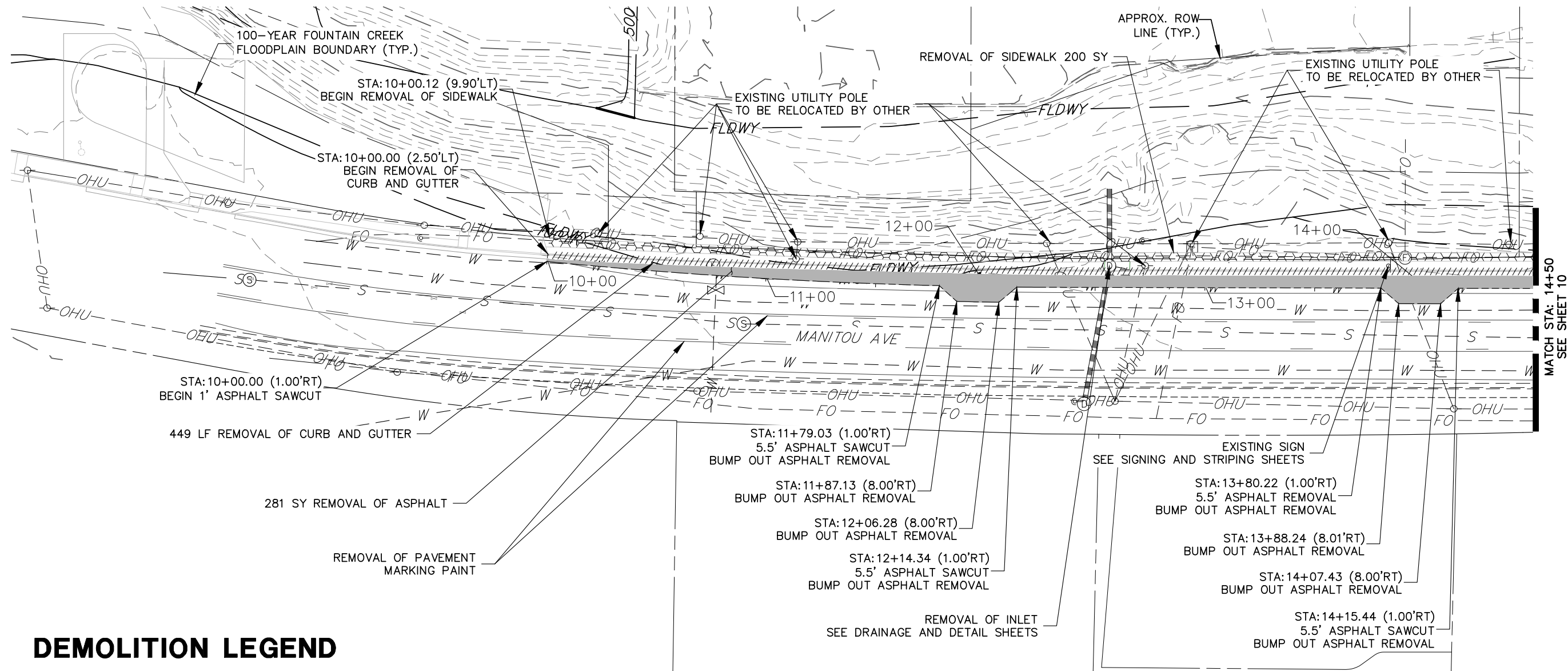
TYPICAL SECTION
MANITOU AVENUE – LOOKING EAST



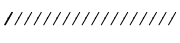
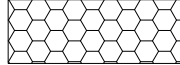
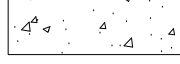
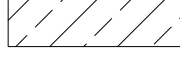
ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

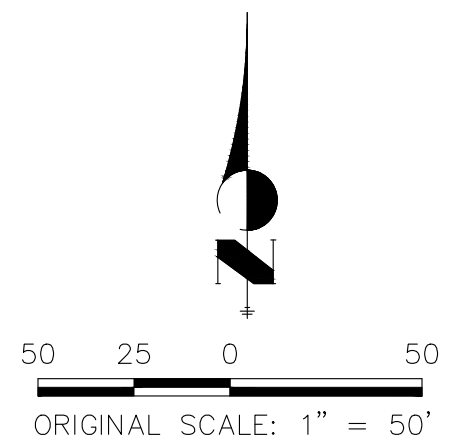
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

Date: 8/22/24		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TYPICAL SECTIONS		Project No./Code	
File Name: 2531100 TX01.DWG					No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company		☐			Revised:	Designer: BSR	25311.00	M850-032(24310)		
		☐				Detailer: MKS			Sheet Number 8	
		☐			Void:	Sheet Subset: TYP SECTIONS	Subset Sheet: 1 of 1			



DEMOLITION LEGEND

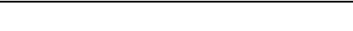
-  ASPHALT REMOVAL
-  CURB & GUTTER REMOVAL
-  REMOVAL OF SIDEWALK
-  REMOVAL OF CURB RAMP
-  REMOVAL OF CONCRETE PAVEMENT
-  FENCE REMOVAL

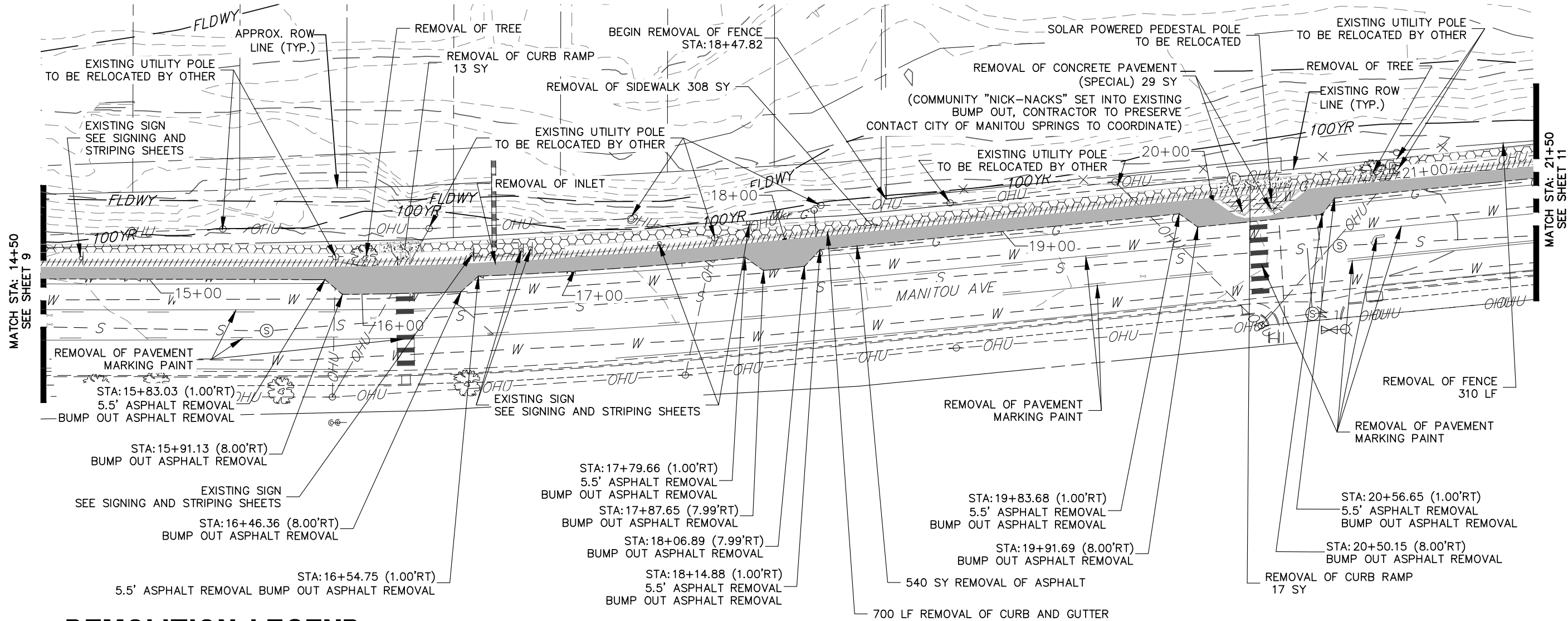


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

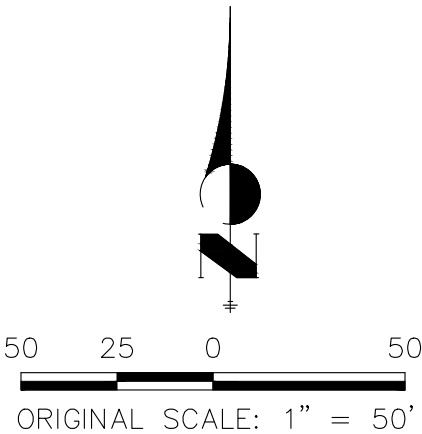


Date: 8/22/24			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 DEMOLITION PLAN			Project No./Code	
File Name: 2531100 DEMO01.DWG							No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		M850-032(24310)		
							Void:		Detailer: MKS	25311.00			Sheet Number 9
							Sheet Subset: DEMOLITION	Subset Sheet:	1 of 3				



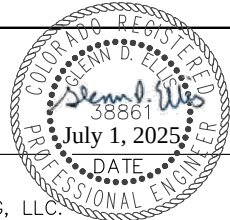
DEMOLITION LEGEND

- ASPHALT REMOVAL
- CURB & GUTTER REMOVAL
- REMOVAL OF SIDEWALK
- REMOVAL OF CURB RAMP
- REMOVAL OF CONCRETE PAVEMENT
- FENCE REMOVAL



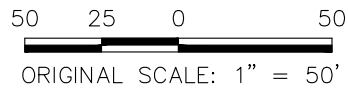
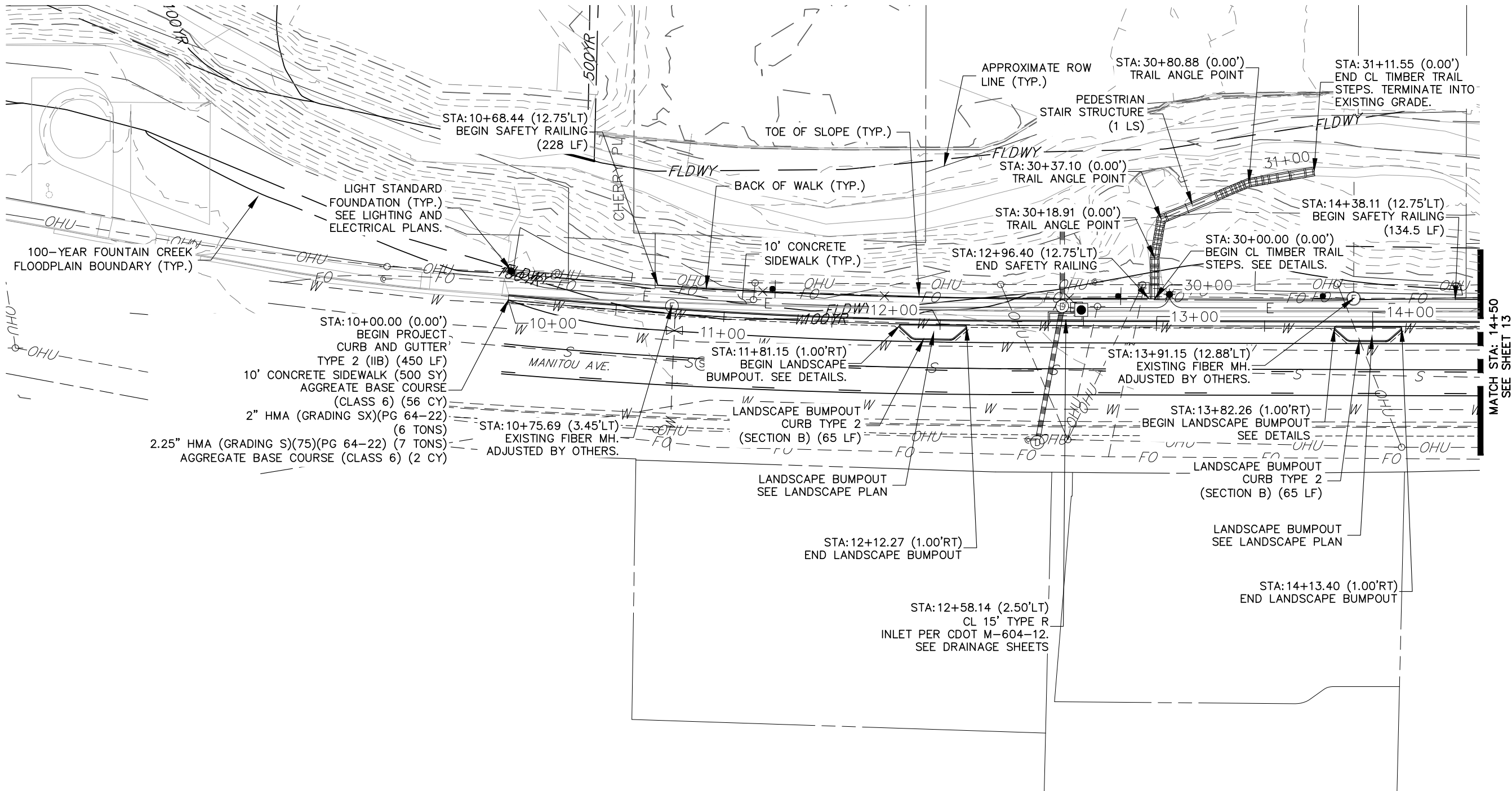
ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 DEMOLITION PLAN		Project No./Code
File Name: 2531100 DEMO01.DWG					No Revisions:	Designer: BSR		M850-031(24000)
					Revised:	Detailer: MKS	25311.00	M850-032(24310)
					Void:	Sheet Subset: DEMOLITION	Subset Sheet: 2 of 3	Sheet Number 10

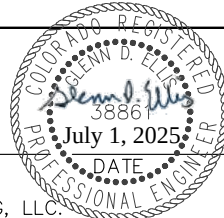




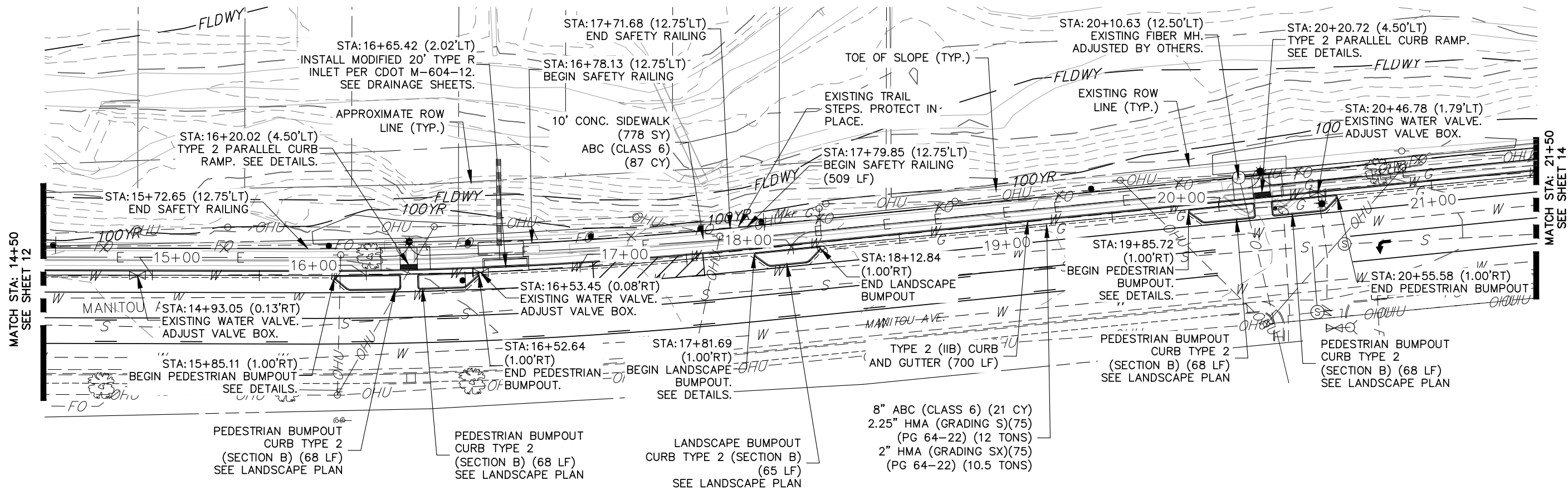
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



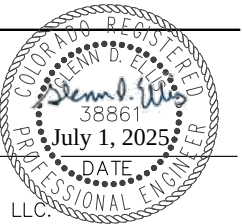
Date: 8/22/24			Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TRAIL PLAN		Project No./Code		
File Name: 2531100 TP01.DWG							No Revisions:			M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:	BSR		25311.00	M850-032(24310)	
							Void:	BSR				
										Sheet Subset: PLAN	Subset Sheet:	1 of 6



ENGINEER'S STATEMENT

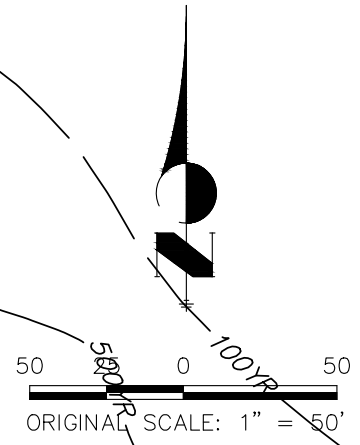
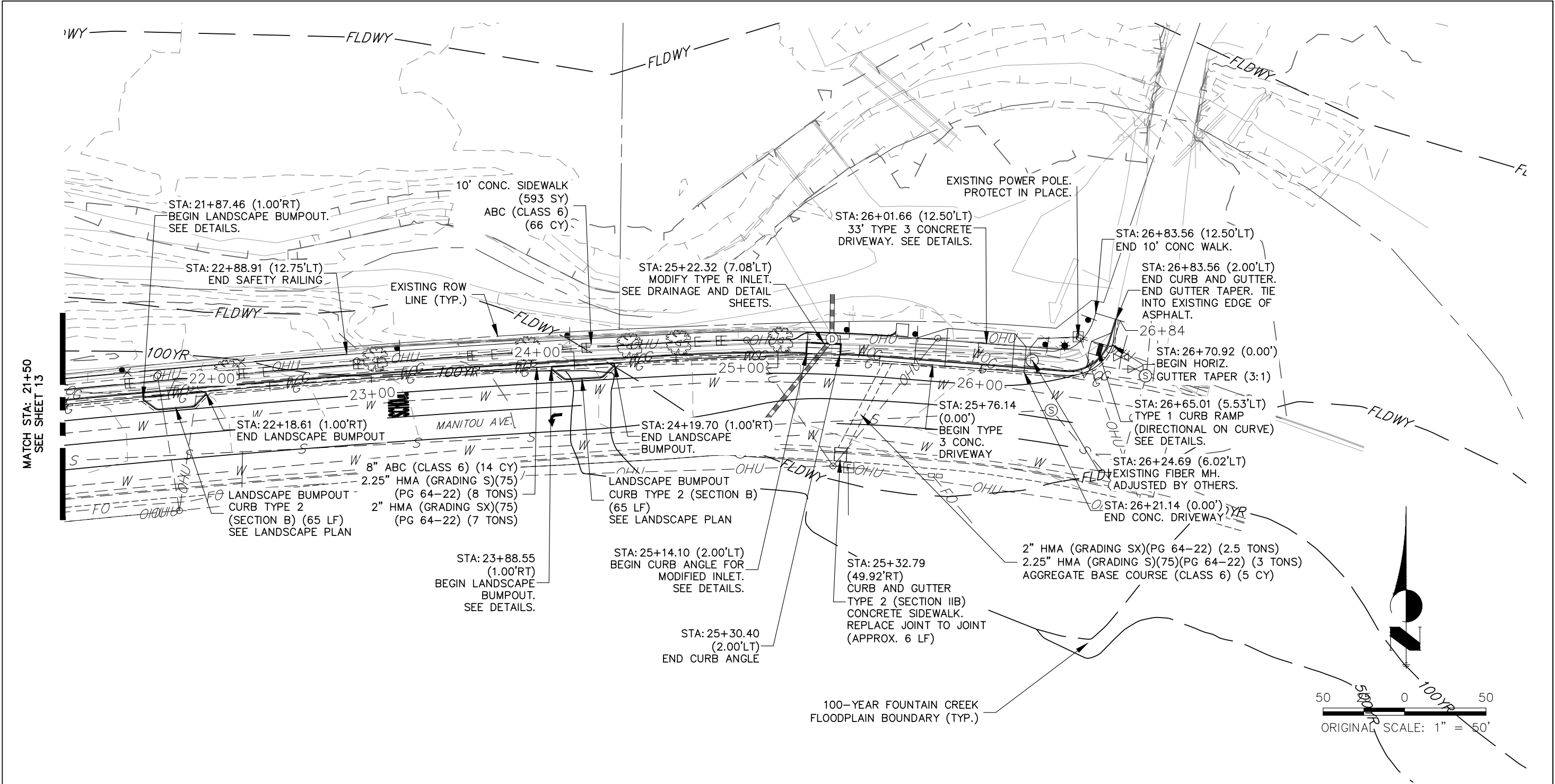
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24		Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 TRAIL PLAN		Project No./Code
File Name: 2531100 TP01.DWG					No Revisions:	Designer: BSR		M850-031(24000)
					Revised:	Detailer: BSR	25311.00	M850-032(24310)
					Void:	Sheet Subset: PLAN	Subset Sheet: 2 of 6	Sheet Number 13





ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

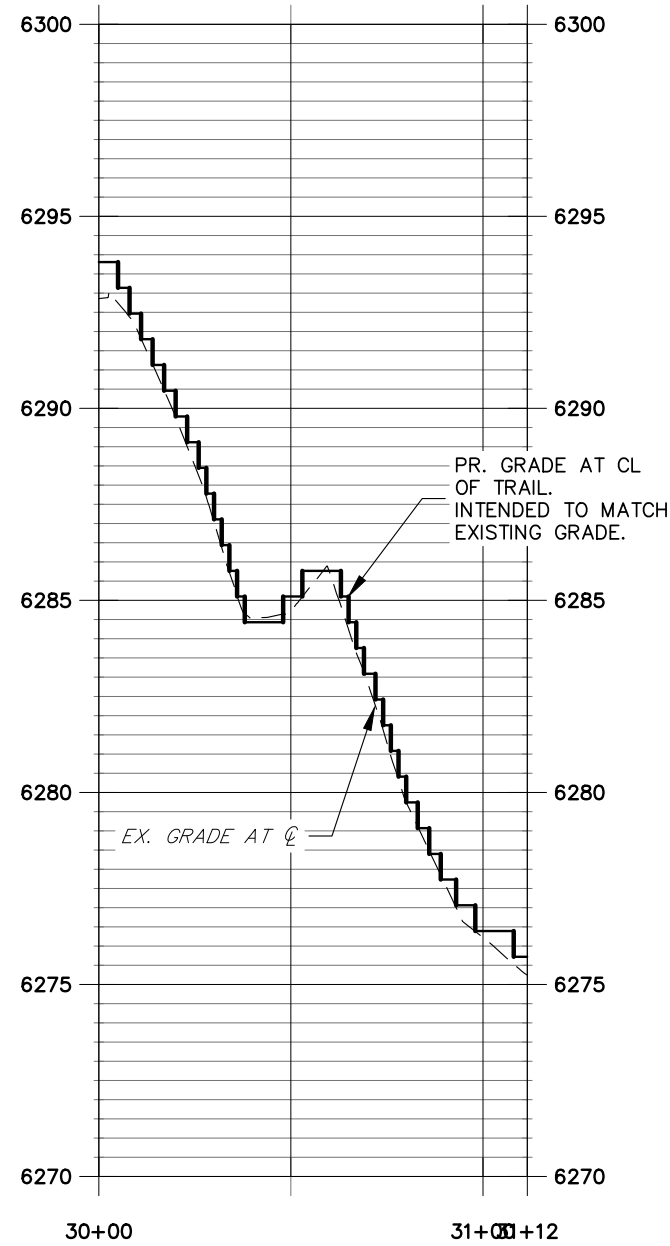


GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

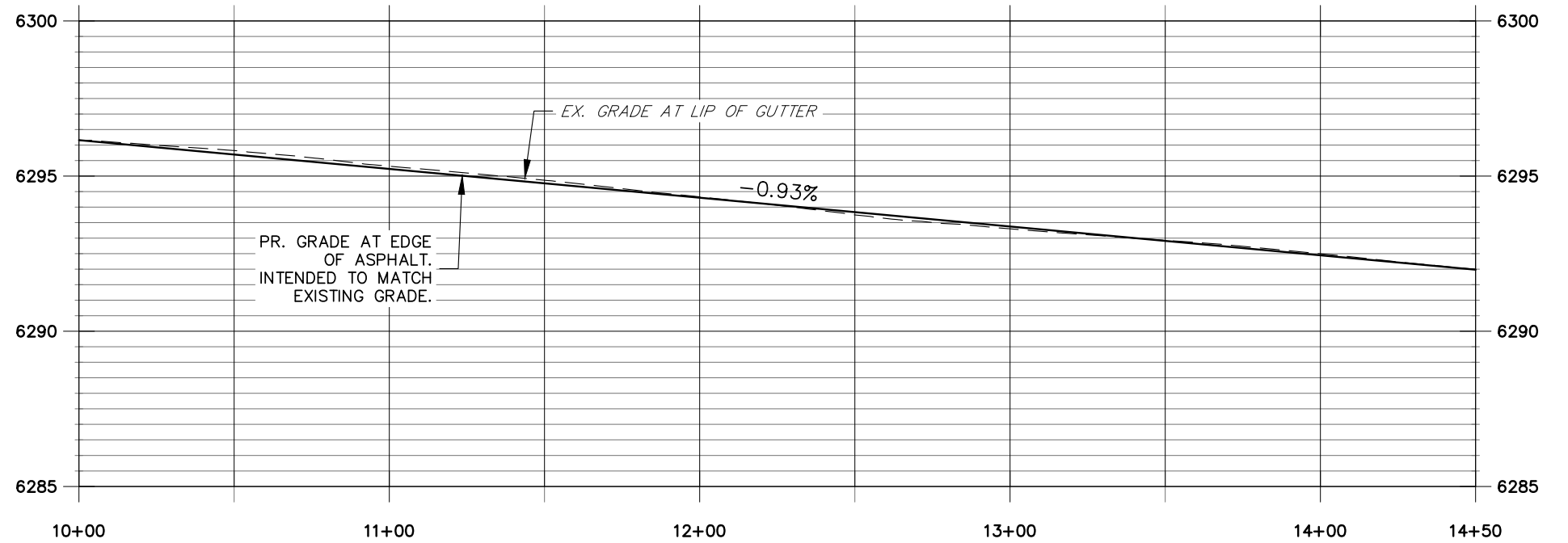


Date: 8/22/24			Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TRAIL PLAN			Project No./Code	
File Name: 2531100 TPO1.DWG								No Revisions:				M850-031(24000)	
 J-R ENGINEERING A Westrian Company								Revised:	BSR		25311.00	M850-032(24310)	
								Void:	BSR			Sheet Number 14	
							Sheet Subset: PLAN	Subset Sheet:	3 of 6				

TIMBER TRAIL CL PROFILE
STA 30+00.00 TO 31+11.55



HC MANITOU AVE PROFILE
STA 10+00.00 TO 14+50.00

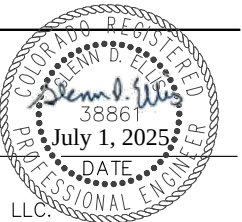


50 25 0 50
HORIZONTAL
ORIGINAL SCALE: 1" = 50'
VERTICAL
ORIGINAL SCALE: 1" = 5'

ENGINEER'S STATEMENT

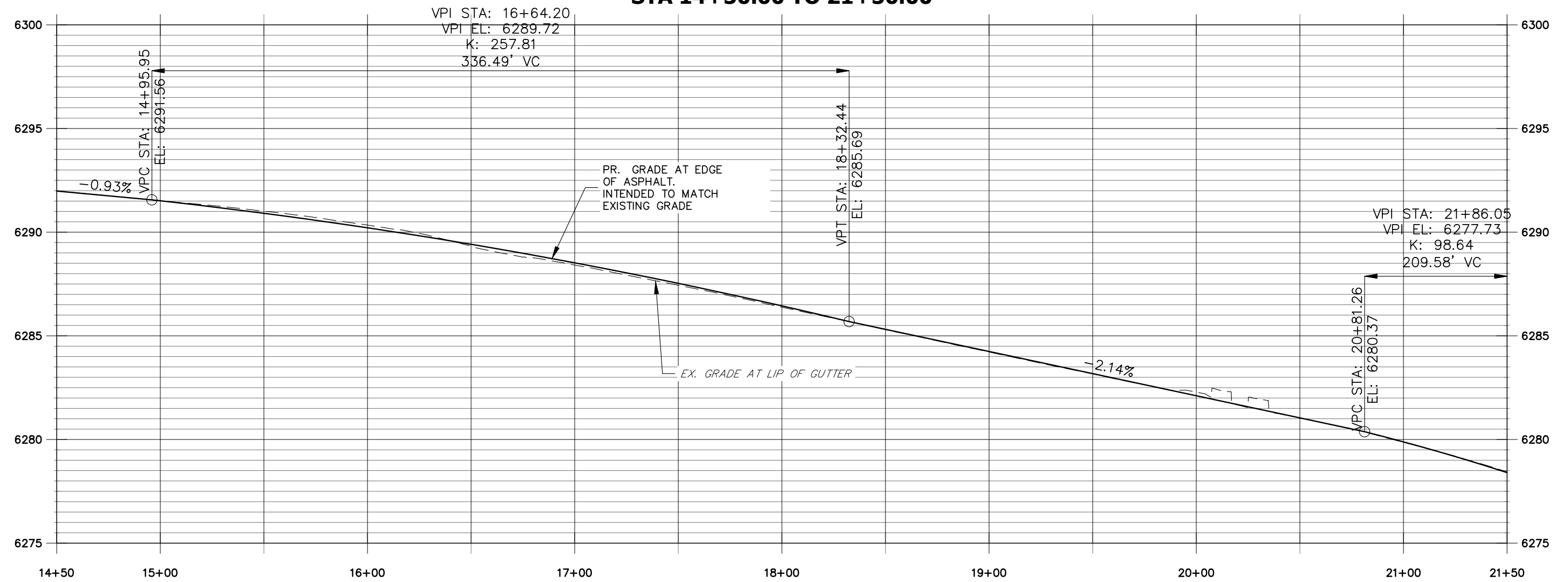
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

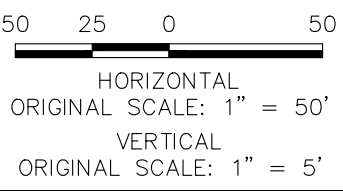


Date: 8/22/24			Index of Revisions		 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TRAIL PROFILE		Project No./Code			
File Name: 2531100 TP01.DWG							No Revisions:			M850-031(24000)			
 J-R ENGINEERING A Westrian Company							Revised:	Designer: BSR		M850-032(24310)			
							Detailer: BSR	25311.00					
							Void:	Sheet Subset: PROFILE		Subset Sheet: 4 of 6		Sheet Number 15	

HC MANITOU AVE PROFILE (1)
STA 14+50.00 TO 21+50.00



Know what's below.
Call before you dig.



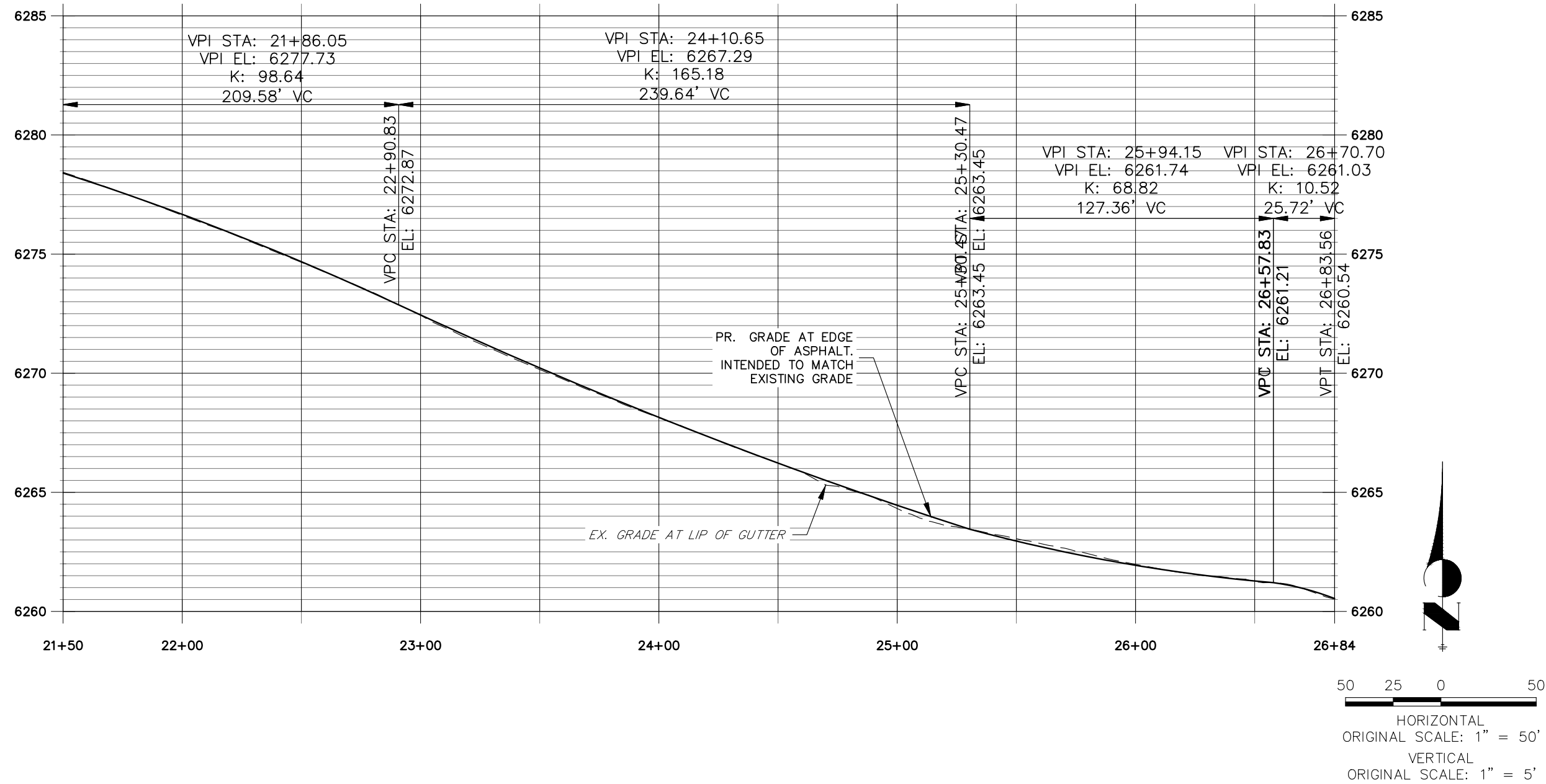
ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24			Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 TRAIL PROFILE			Project No./Code	
File Name: 2531100 TP01.DWG							No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:				M850-032(24310)		
							Void:		25311.00		Sheet Number 16		
						Designer: BSR		25311.00		M850-032(24310)			
						Detailer: BSR		5 of 6		Sheet Number 16			
						Sheet Subset: PROFILE							

HC MANITOU AVE PROFILE (2)
STA 21+50.00 TO 26+83.56



ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

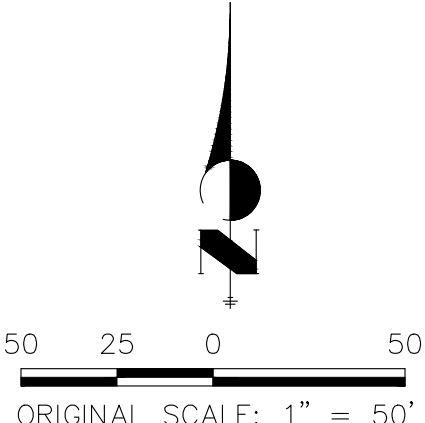
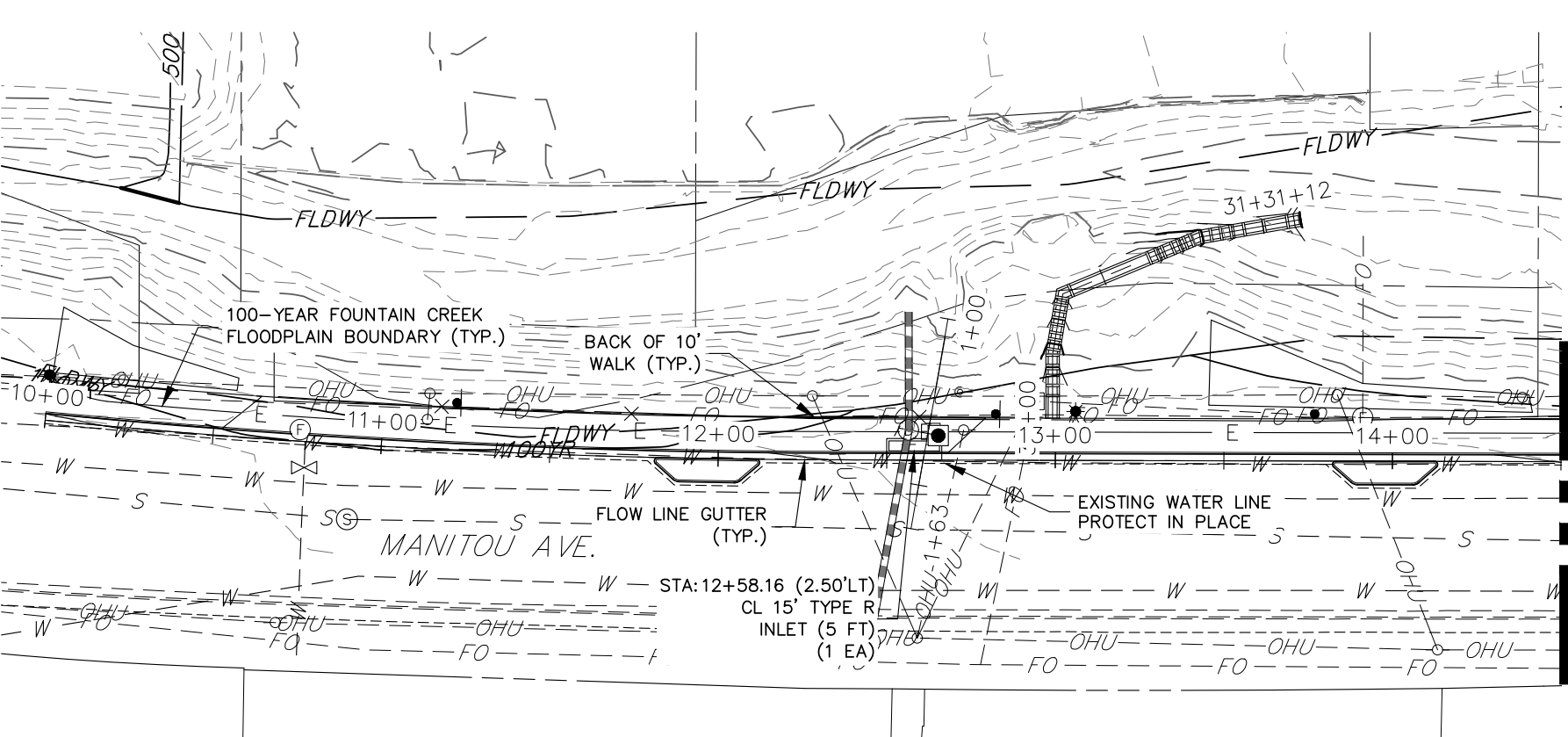
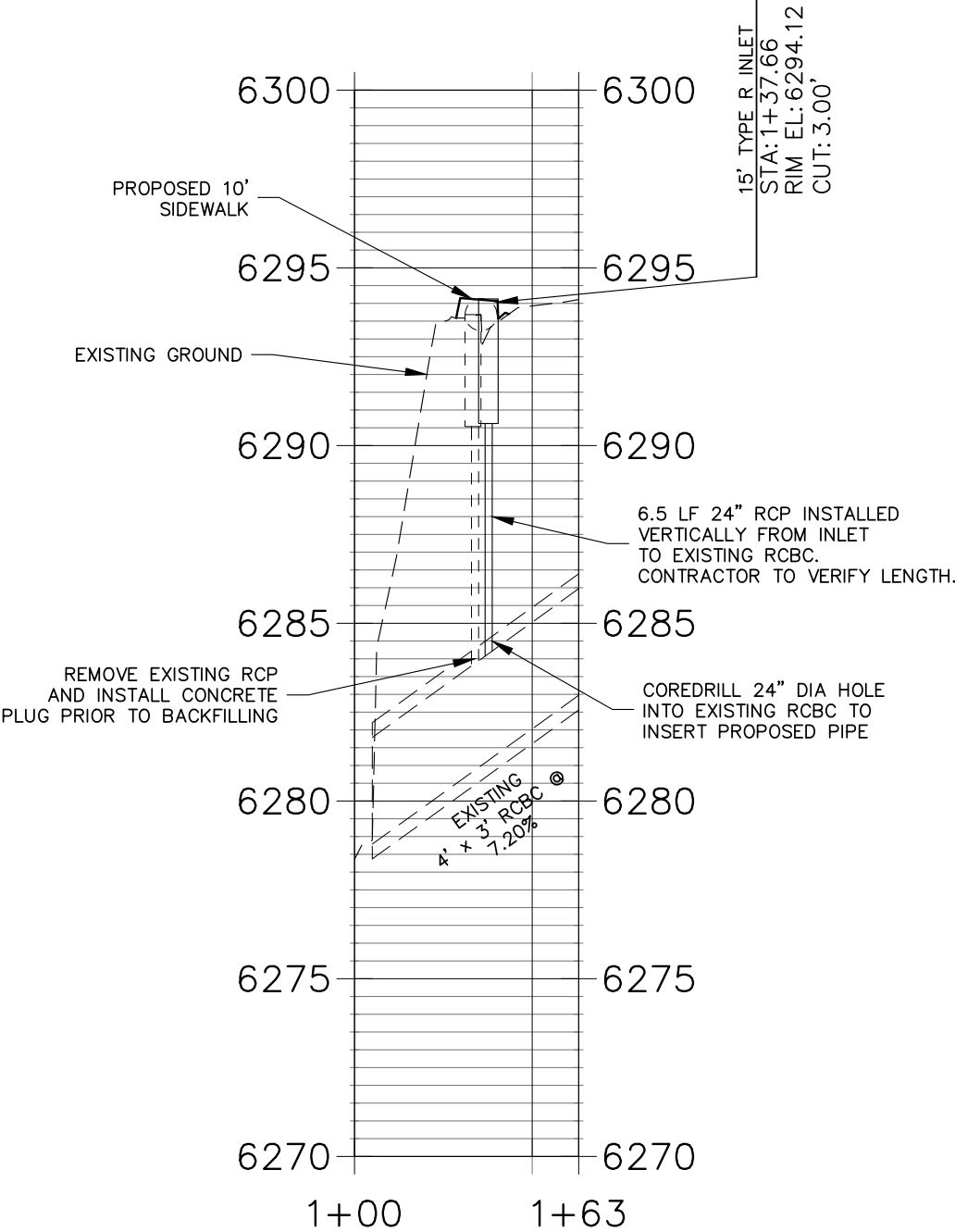


Date: 8/22/24		Index of Revisions		As Constructed		CREEK WALK TRAIL – PHASE 4 TRAIL PROFILE		Project No./Code			
File Name: 2531100 TPO1.DWG								M850-031(24000)			
J-R ENGINEERING A Westrian Company					No Revisions:	Designer:	BSR	25311.00	M850-032(24310)		
					Revised:	Detailer:	BSR		Sheet Subset: PROFILE	Subset Sheet: 6 of 6	Sheet Number 17
					Void:						



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

EX DP01 PROFILE
STA 1+00.00 TO 1+63.11



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



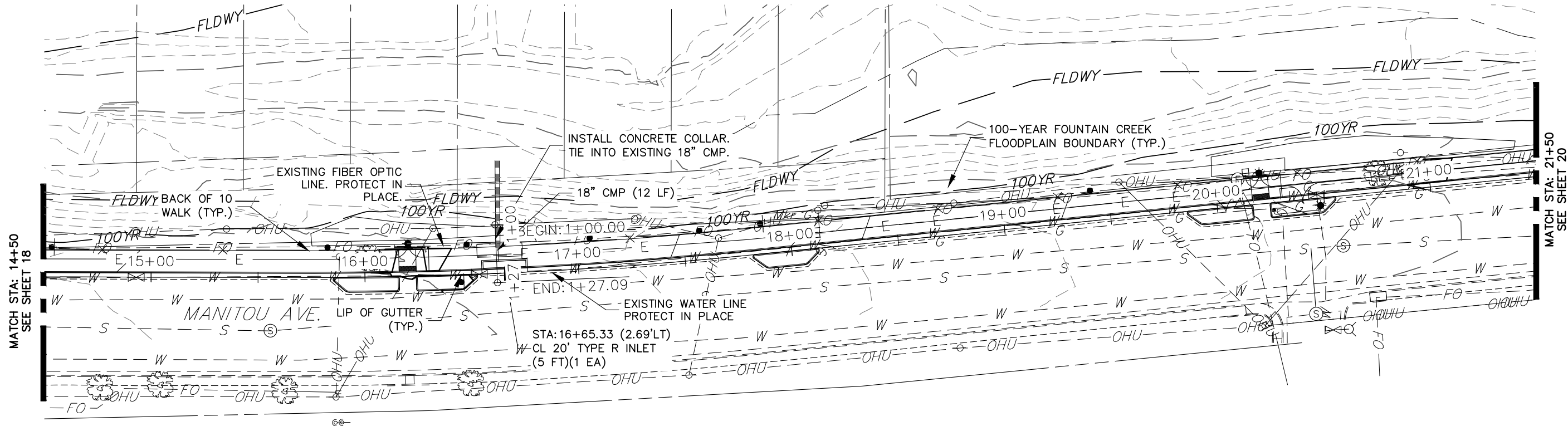
Date: 8/22/24
File Name: 2531100 DR01.DWG

 **J-R ENGINEERING**
A Westrian Company

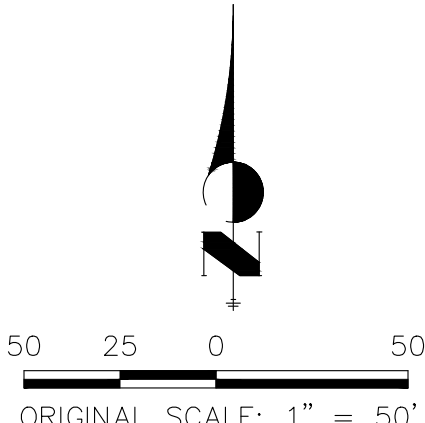
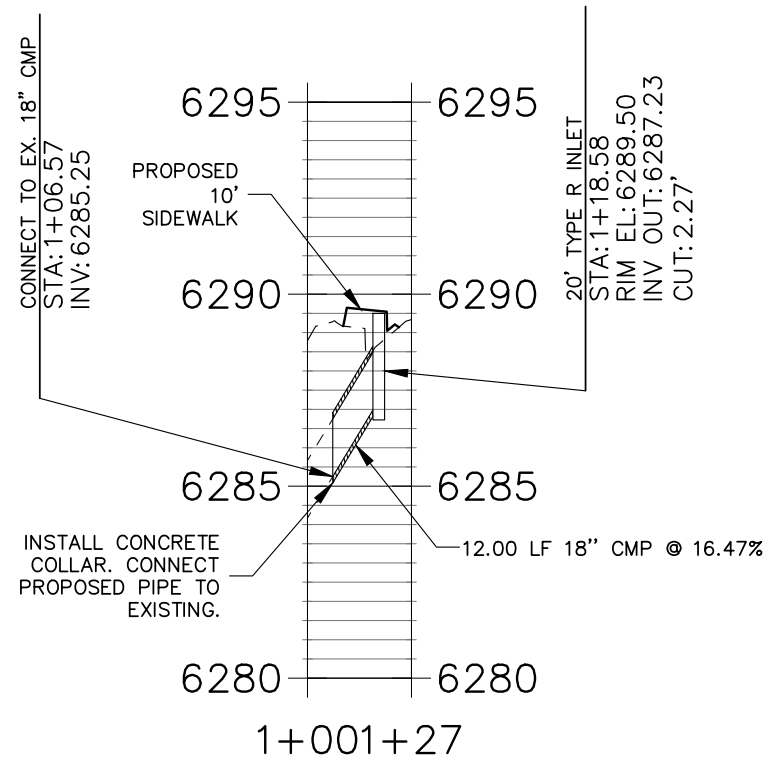
Index of Revisions		

 CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed	CREEK WALK TRAIL – PHASE 4 STORM SEWER PLAN & PROFILES		Project No./Code
No Revisions:			M850-031(24000)
Revised:	Designer: BSR		M850-032(24310)
	Detailer: BSR	25311.00	
Void:	Sheet Subset: STORM SEWER	Subset Sheet: 1 of 3	Sheet Number 18

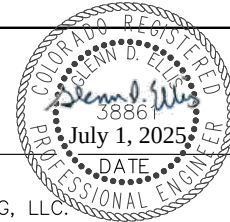


DP01 PROFILE
STA 1+00.00 TO 1+27.09



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24

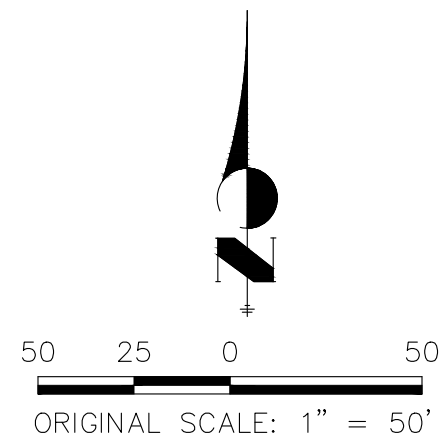
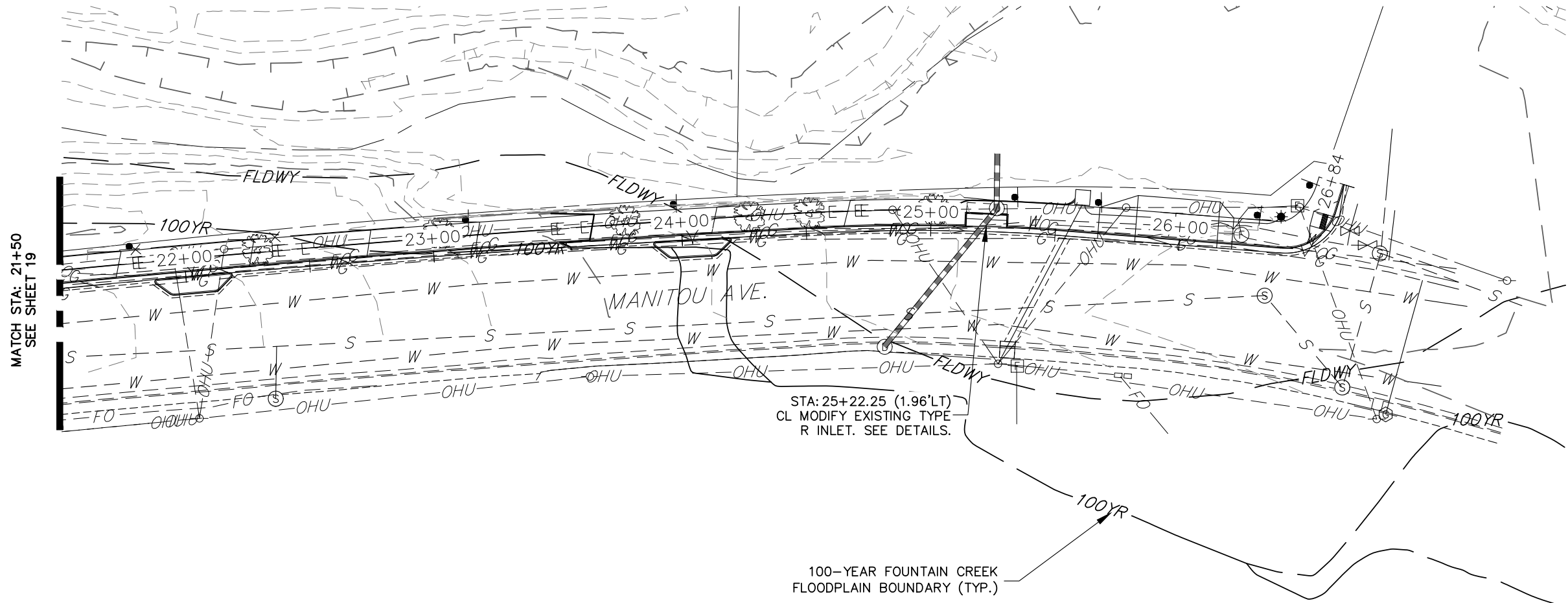
File Name: 2531100 DR01.DWG

**J-R ENGINEERING**
A Westrian Company

Index of Revisions			
0000			
0001			
0002			
0003			

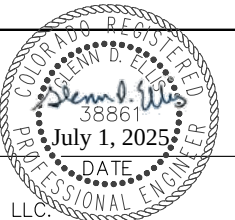
**CITY OF MANITOU SPRINGS**
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 STORM SEWER PLAN & PROFILES		Project No./Code
No Revisions:				M850–031(24000)
Revised:	Designer:	BSR		M850–032(24310)
	Detailer:	---		
Void:	Sheet Subset: STORM SEWER		Subset Sheet: 2 of 3	Sheet Number 19



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24
File Name: 2531100 DR01.DWG

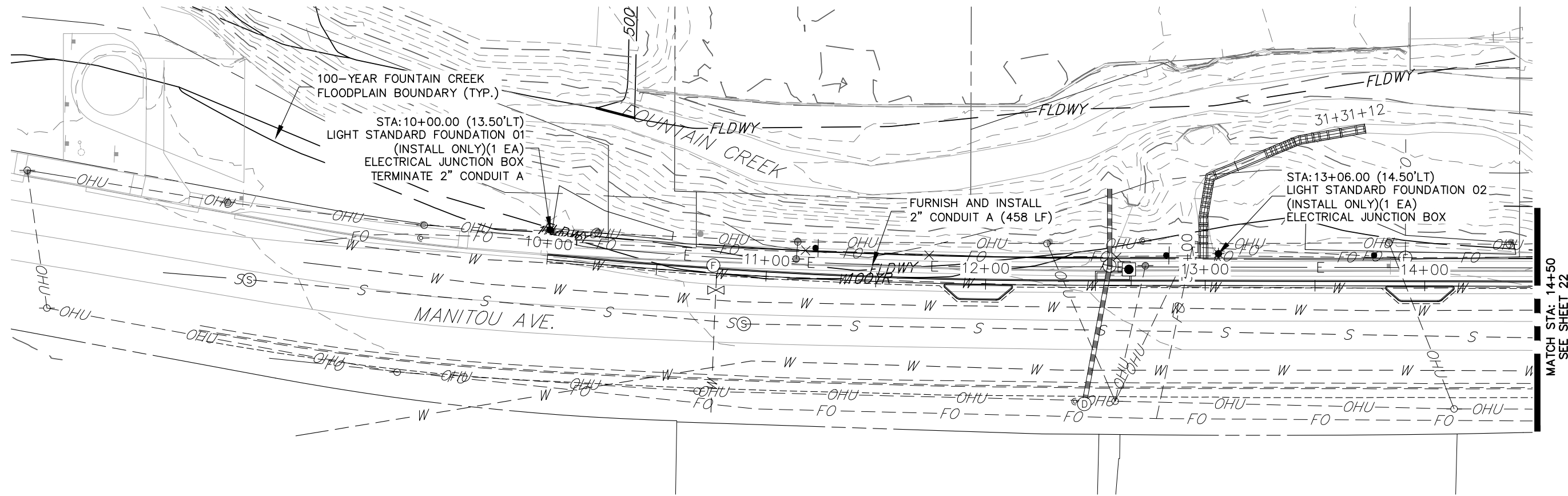


Index of Revisions		



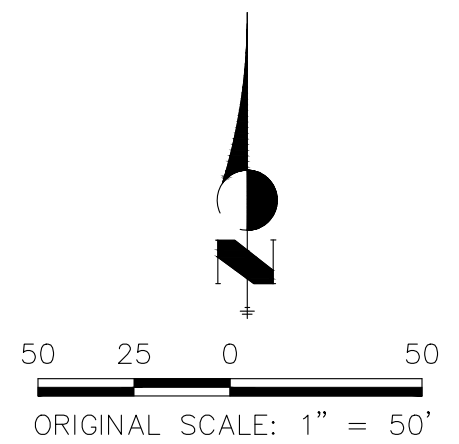
CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 STORM SEWER PLAN & PROFILES		Project No./Code
No Revisions:		Designer: BSR		M850-031(24000)
Revised:		Detailer: ---	25311.00	M850-032(24310)
Void:		Sheet Subset: STORM SEWER	Subset Sheet: 3 of 3	Sheet Number 20



NOTES:

1. AS SHOWN ON THE PLANS, FOUR SEPARATE RUNS OF CONDUIT (A, B, C & D) ARE TO BE INSTALLED. CONDUIT A IS 2 INCH AND DESIGNATED FOR LIGHTING. CONDUIT B IS 2" AND DESIGNATED FOR EV CHARGING STATIONS. CONDUIT C IS 2" AND DESIGNATED FOR POTENTIAL IRRIGATION METERING AND CONTROL, SEE LANDSCAPE AND IRRIGATION PLANS FOR NOTES. CONDUIT D IS 4" AND IS DESIGNATED FOR MAIN POWER TO PROPOSED TRANSFORMER AS SHOWN ON THE PLANS.
2. LIGHT STANDARD FOUNDATIONS AND ELECTRICAL JUNCTION BOXES WILL BE FURNISHED BY COLORADO SPRINGS UTILITIES. CONTRACTOR TO PICK UP FOUNDATIONS AND JUNCTION BOXES FROM COLORADO SPRINGS UTILITIES.
3. INSTALL JUNCTION BOXES AT BASE OF EACH FOUNDATION AS NOTED ON PLANS. EXACT LOCATION TO BE APPROVED BY COLORADO SPRINGS UTILITIES.
4. ALL CONDUIT SHALL BE PVC SCHEDULE 80. SIZE SHOWN ON DRAWINGS.
5. ALL UNDERGROUND CONDUIT RACEWAY(S) SHALL BE BURIED AS FOLLOWS
CONDUIT A - 24" (MINIMUM) BELOW FINISHED GRADE.
CONDUIT B - 30" (MINIMUM) BELOW FINISHED GRADE.
CONDUIT C - 30" (MINIMUM) BELOW FINISHED GRADE.
CONDUIT D - 42" (MINIMUM) BELOW FINISHED GRADE.

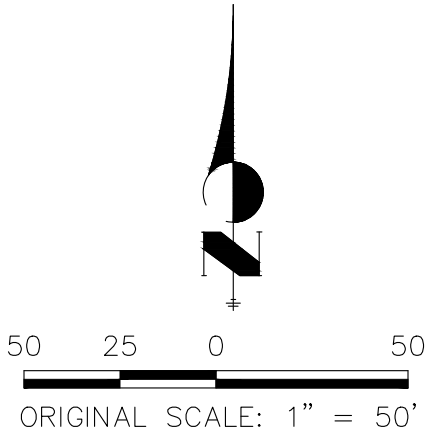
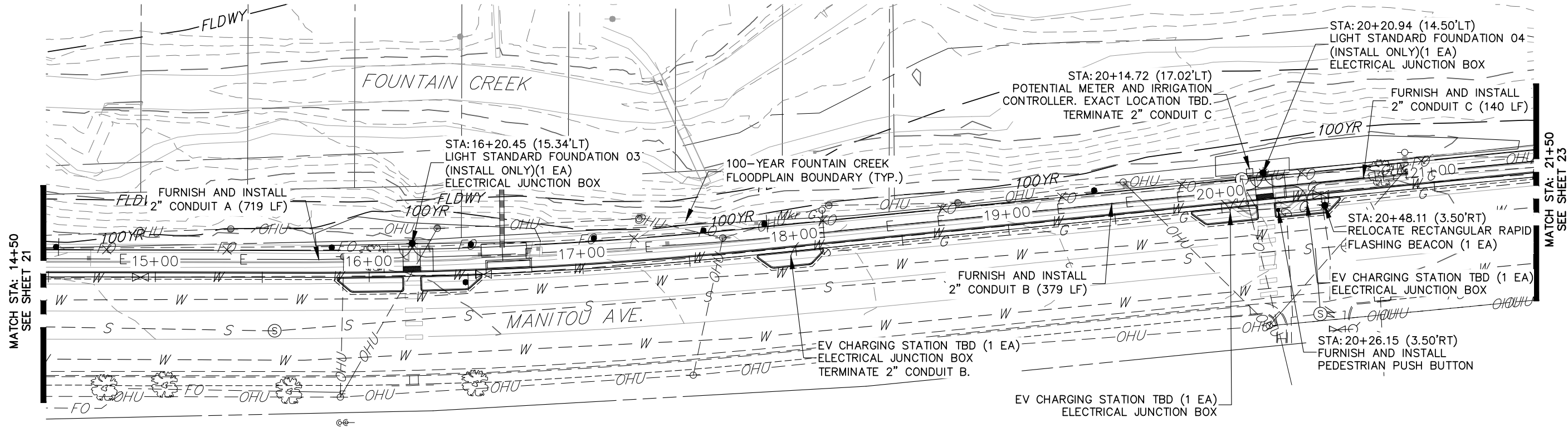


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION



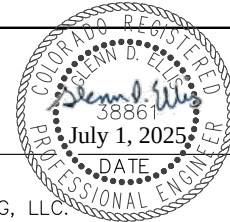
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

Date: 8/22/24			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 ELECTRICAL & LIGHTING PLAN			Project No./Code	
File Name: 2531100 ELO1.DWG							No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		25311.00	M850-032(24310)	
							Void:		Detailer: BSR			Sheet Number 21	
						Sheet Subset: ELEC & LIGHT		Subset Sheet:		1 of 3			



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24
File Name: 2531100 EL01.DWG

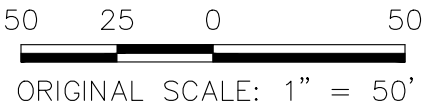
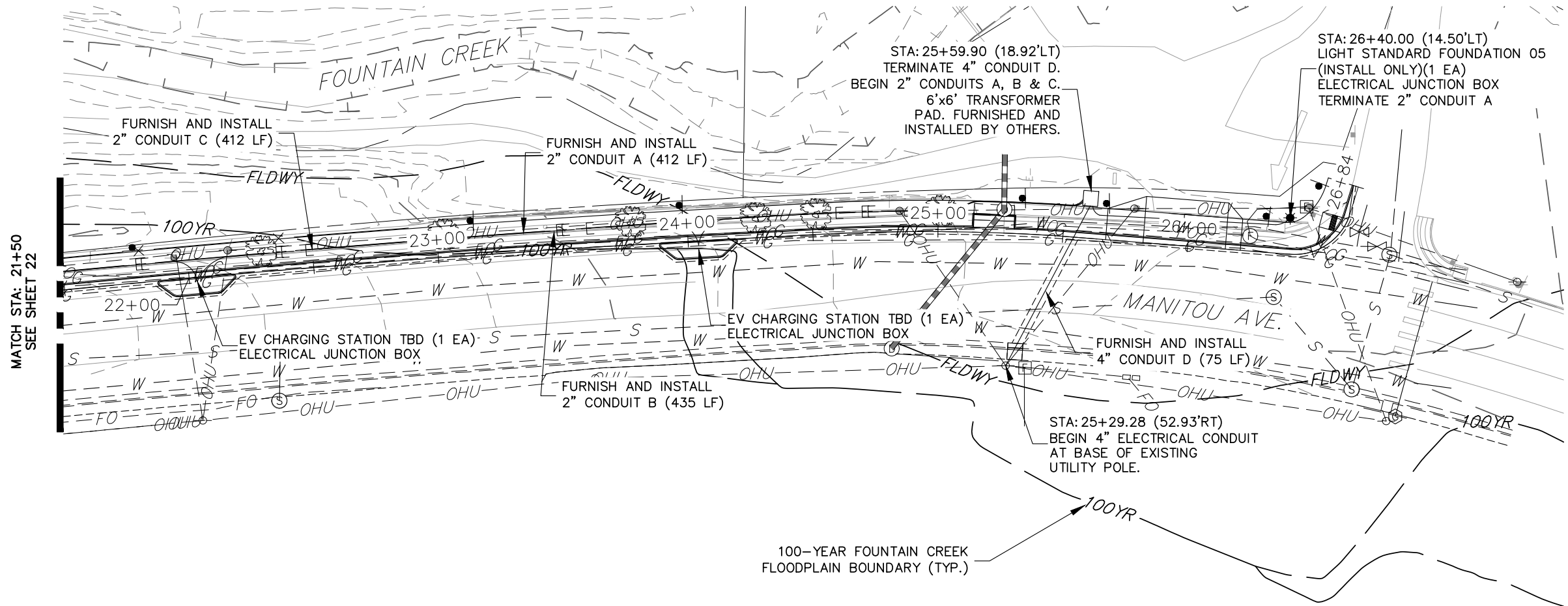


Index of Revisions		



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 ELECTRICAL & LIGHTING PLAN		Project No./Code
No Revisions:				M850-031(24000)
Revised:	Designer: BSR			M850-032(24310)
	Detailer: BSR		25311.00	
Void:	Sheet Subset: ELEC & LIGHT	Subset Sheet:	2 of 3	Sheet Number 22

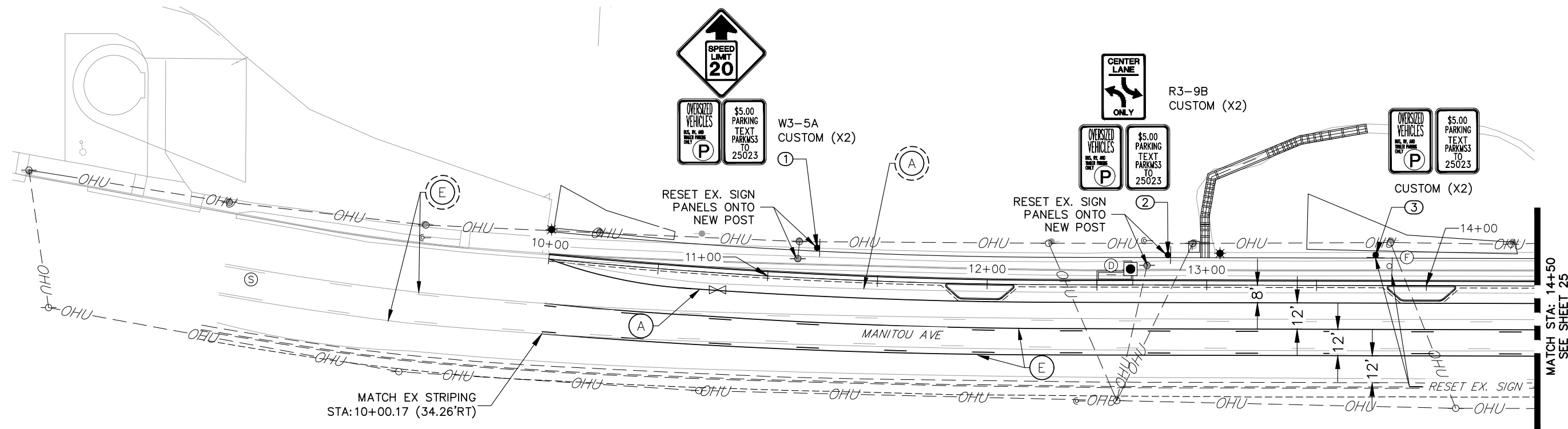


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

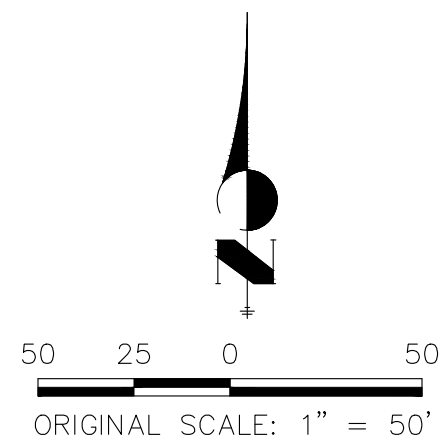
Date: 8/22/24			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 ELECTRICAL & LIGHTING PLAN			Project No./Code	
File Name: 2531100 ELO1.DWG							No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		25311.00	M850-032(24310)	
							Void:		Detailer: BSR			Sheet Number 23	
							Sheet Subset: ELEC & LIGHT		Subset Sheet: 3 of 3				



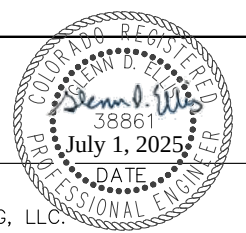
LEGEND

- PROPOSED SIGN ○ EXISTING SIGN
- (X) PROPOSED STRIPE (X) EXISTING STRIPE
- (A) EDGE LINE – 6" WIDE, SOLID WHITE, MODIFIED EPOXY
- (B) CENTER LINE – 4" WIDE, SOLID DOUBLE YELLOW, MODIFIED EPOXY
- (C) LEFT TURN ARROW – 6' TALL, WHITE, THERMOPLASTIC
- (D) CHANNELIZING LINE – 8" WIDE, SOLID WHITE, MODIFIED EPOXY
- (E) 2-WAY LEFT TURN LANE – OUTSIDE: 4" WIDE, SOLID YELLOW – INSIDE: 4" WIDE, BROKEN YELLOW (10' SEGMENTS WITH 30' GAPS)

SIGN TABULATION					
SIGN NUMBER	STATION	OFFSET	ALIGNMENT	DESCRIPTION	
1	11+21.83	14.08' (LT)	2531100 – HC MANITOU AVE	W3-5A (36"X36") CUSTOM X2 (12" X18")	
2	12+82.30	13.68' (LT)	2531100 – HC MANITOU AVE	R3-9B (24" X 36") CUSTOM X2 (12" X 18")	
3	13+76.91	13.94' (LT)	2531100 – HC MANITOU AVE	CUSTOM X2 (12" X 18")	

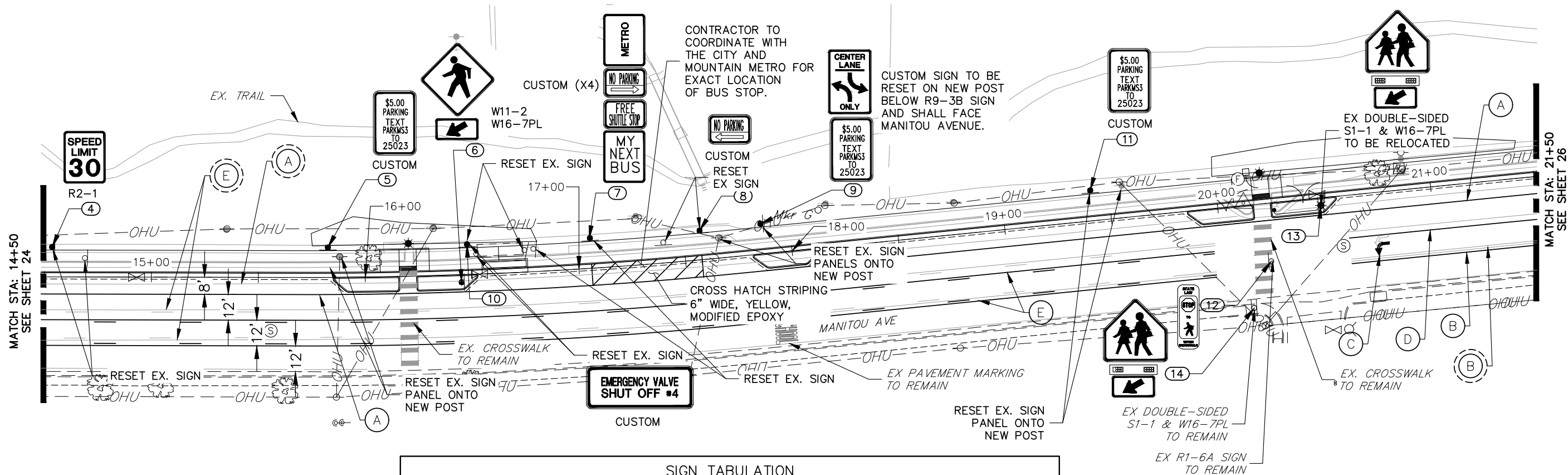


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION



GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

Date: 8/22/24			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 SIGNAGE & STRIPING PLAN			Project No./Code	
File Name: 2531100 SG01.DWG							No Revisions:					M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		25311.00	M850-032(24310)	
							Void:		Detailer: RJO				
										Sheet Subset: SIGNAGE & STRIPING		Subset Sheet: 1 of 3	



LEGEND

- PROPOSED SIGN ○ EXISTING SIGN
- (X) PROPOSED STRIPE (X) EXISTING STRIPE
- (A) EDGE LINE – 6" WIDE, SOLID WHITE, MODIFIED EPOXY
- (B) CENTER LINE – 4" WIDE, SOLID OR 4' GAP YELLOW, MODIFIED EPOXY
- (C) LEFT TURN ARROW – 6' TALL, WHITE, THERMOPLASTIC
- (D) CHANNELIZING LINE – 8" WIDE, SOLID WHITE, MODIFIED EPOXY
- (E) 2-WAY LEFT TURN LANE – OUTSIDE: 4" WIDE, SOLID YELLOW – INSIDE: 4" WIDE, BROKEN YELLOW (10' SEGMENTS WITH 30' GAPS)

SIGN TABULATION				
SIGN NUMBER	STATION	OFFSET	ALIGNMENT	DESCRIPTION
4	14+53.56	13.89' (LT)	2531100 – HC MANITOU AVE	R2-1 (24" X 30")
5	15+82.57	14.00' (LT)	2531100 – HC MANITOU AVE	CUSTOM (12" X 18")
6	16+44.97	3.45' (RT)	2531100 – HC MANITOU AVE	W11-2 (18" X 18") W16-7PL (12" X 9")
7	17+05.73	13.97' (LT)	2531100 – HC MANITOU AVE	CUSTOM (24" X 12" AND 24" X 30")
8	17+57.79	13.66' (LT)	2531100 – HC MANITOU AVE	CUSTOM (24" X 12")
9	17+86.49	13.98' (LT)	2531100 – HC MANITOU AVE	R3-9B (24" X 36")
10	16+48.06	14.14' (LT)	2531100 – HC MANITOU AVE	CUSTOM (24" X 12")
11	19+41.50	14.31' (LT)	2531100 – HC MANITOU AVE	CUSTOM (12" X 18")
12	20+22.45	27.11' (RT)	2531100 – HC MANITOU AVE	R1-6A (12" X 36")
13	20+48.09	3.55' (RT)	2531100 – HC MANITOU AVE	S1-1 (36" X 36") W16-7PL (21" X 15")
14	20+12.33	48.10' (RT)	2531100 – HC MANITOU AVE	S1-1 (36" X 36") W16-7PL (21" X 15")



ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



50 25 0 50

ORIGINAL SCALE: 1" = 50'

Date: 8/22/24

File Name: 2531100 SG01.DWG

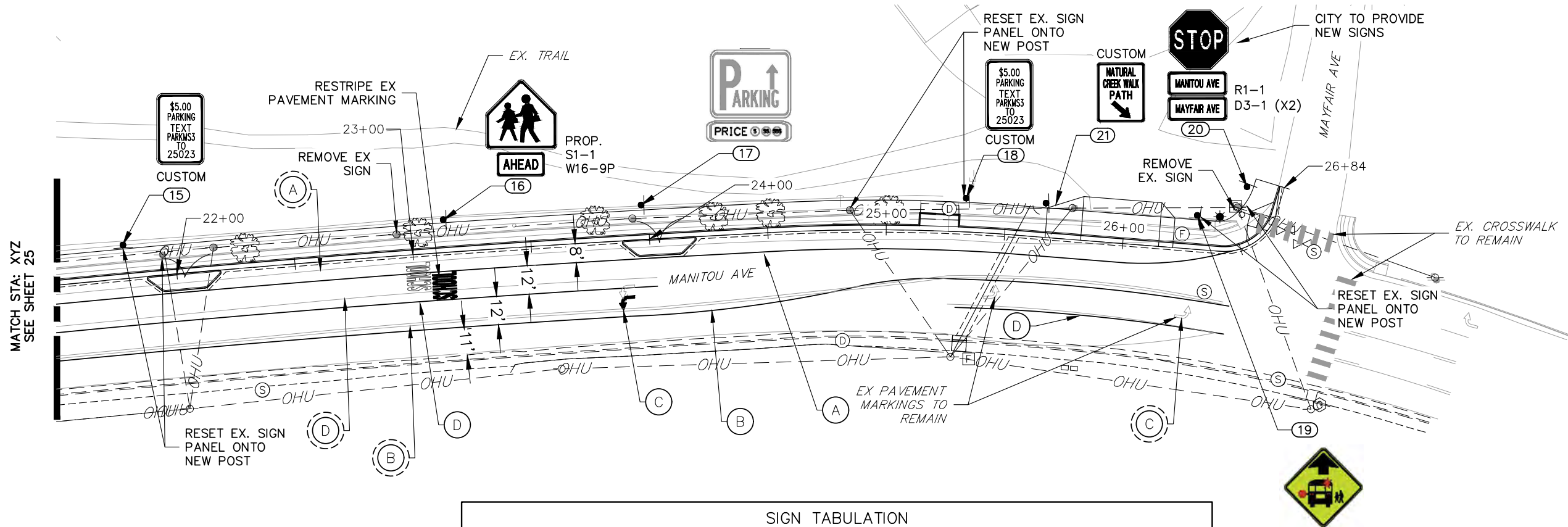
 **J-R ENGINEERING**
A Westrian Company

Index of Revisions		



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 SIGNAGE & STRIPING PLAN		Project No./Code
No Revisions:				M850-031(24000)
Revised:		Designer: BSR		M850-032(24310)
Void:		Detailer: RJO	25311.00	Sheet Number 25
		Sheet Subset: SIGNAGE & STRIPING	Subset Sheet: 2 of 3	



LEGEND

- PROPOSED SIGN ○ EXISTING SIGN
- (X) PROPOSED STRIPE (X) EXISTING STRIPE
- (A) EDGE LINE – 6" WIDE, SOLID WHITE, MODIFIED EPOXY
- (B) CENTER LINE – 4" WIDE, SOLID OR 4' GAP YELLOW, MODIFIED EPOXY
- (C) LEFT TURN ARROW – 6' TALL, WHITE, THERMOPLASTIC
- (D) CHANNELIZING LINE – 8" WIDE, SOLID WHITE, MODIFIED EPOXY
- (E) 2-WAY LEFT TURN LANE – OUTSIDE: 4" WIDE, SOLID YELLOW – INSIDE: 4" WIDE, BROKEN YELLOW (10' SEGMENTS WITH 30' GAPS)

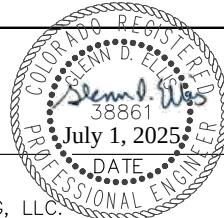
SIGN TABULATION				
SIGN NUMBER	STATION	OFFSET	ALIGNMENT	DESCRIPTION
15	21+78.35	14.22' (LT)	2531100 – HC MANITOU AVE	CUSTOM (12" X 18")
16	23+13.87	13.71' (LT)	2531100 – HC MANITOU AVE	S1-1 (36" X 36") W16-9P (24" X 12")
17	23+97.30	14.63' (LT)	2531100 – HC MANITOU AVE	CUSTOM X2 (12" X 18" AND 24" X 24")
18	25+33.17	14.17' (LT)	2531100 – HC MANITOU AVE	CUSTOM (12" X 18")
19	26+30.43	14.37' (LT)	2531100 – HC MANITOU AVE	S3-1 (36" X 36")
20	26+79.24	15.27' (LT)	2531100 – HC MANITOU AVE	R1-1 (30" X 30") D3-6 (12" X 6")
21	25+70.53	14.07' (LT)	2531100 – HC MANITOU AVE	CUSTOM (24" X 30")



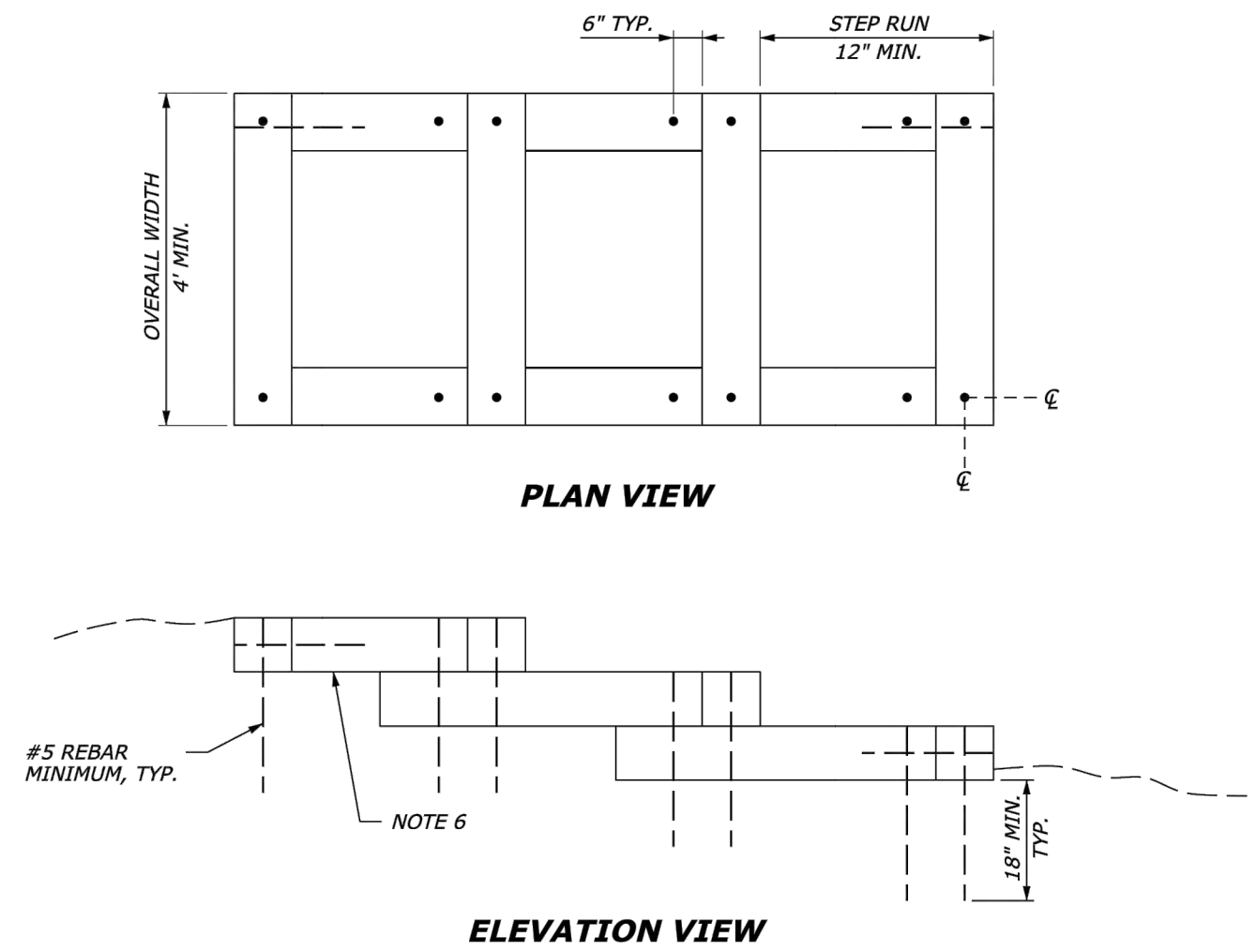
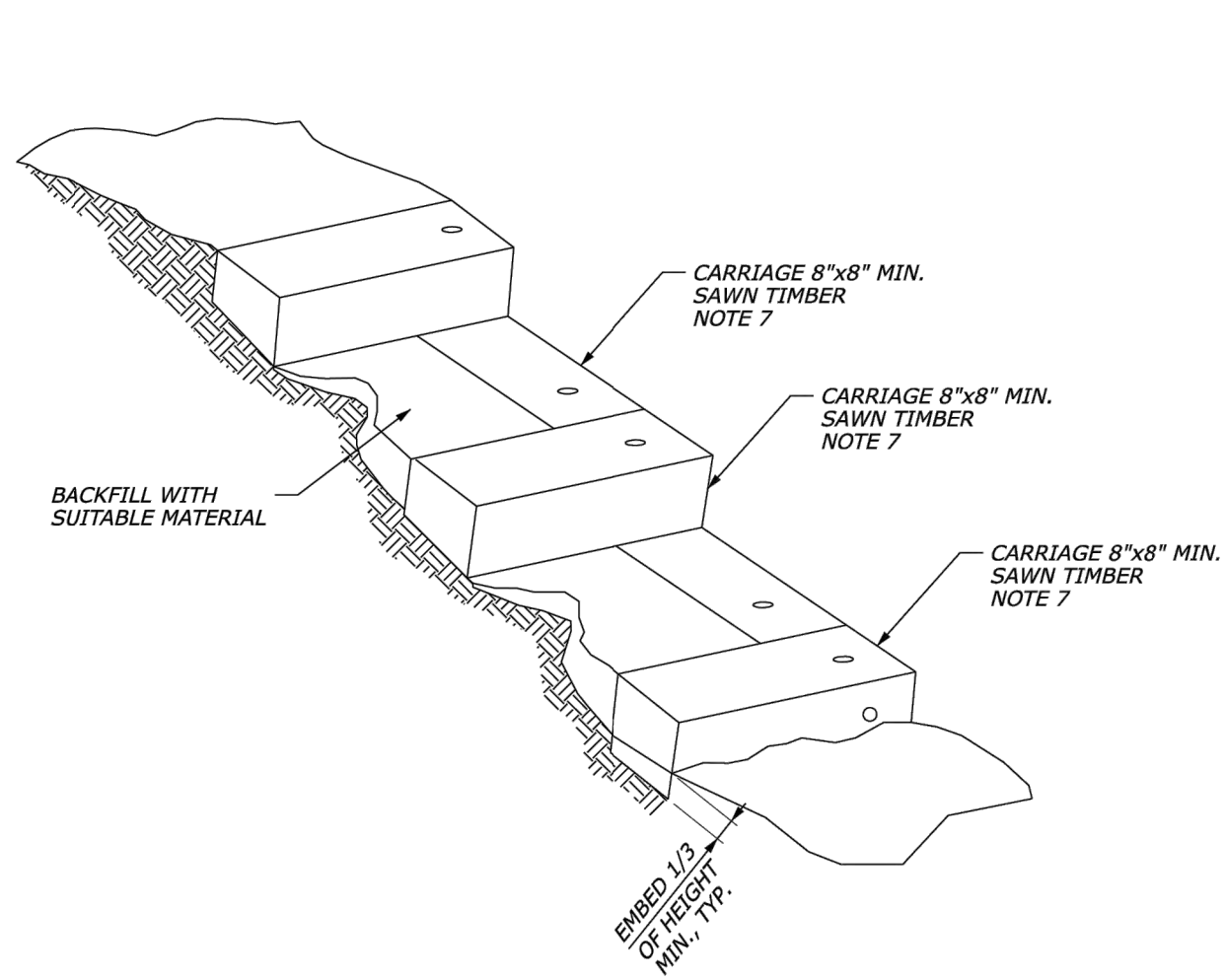
50 25 0 50
ORIGINAL SCALE: 1" = 50'

ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/22/24			Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 SIGNAGE & STRIPING PLAN			Project No./Code			
File Name: 2531100 SG01.DWG						No Revisions:					M850-031(24000)			
 J-R ENGINEERING A Westrian Company						Revised:		Designer: BSR			25311.00		M850-032(24310)	
						Void:		Detailer: RJO						
										Sheet Subset: SIGNAGE & STRIPING		Subset Sheet: 3 of 3		Sheet Number 26



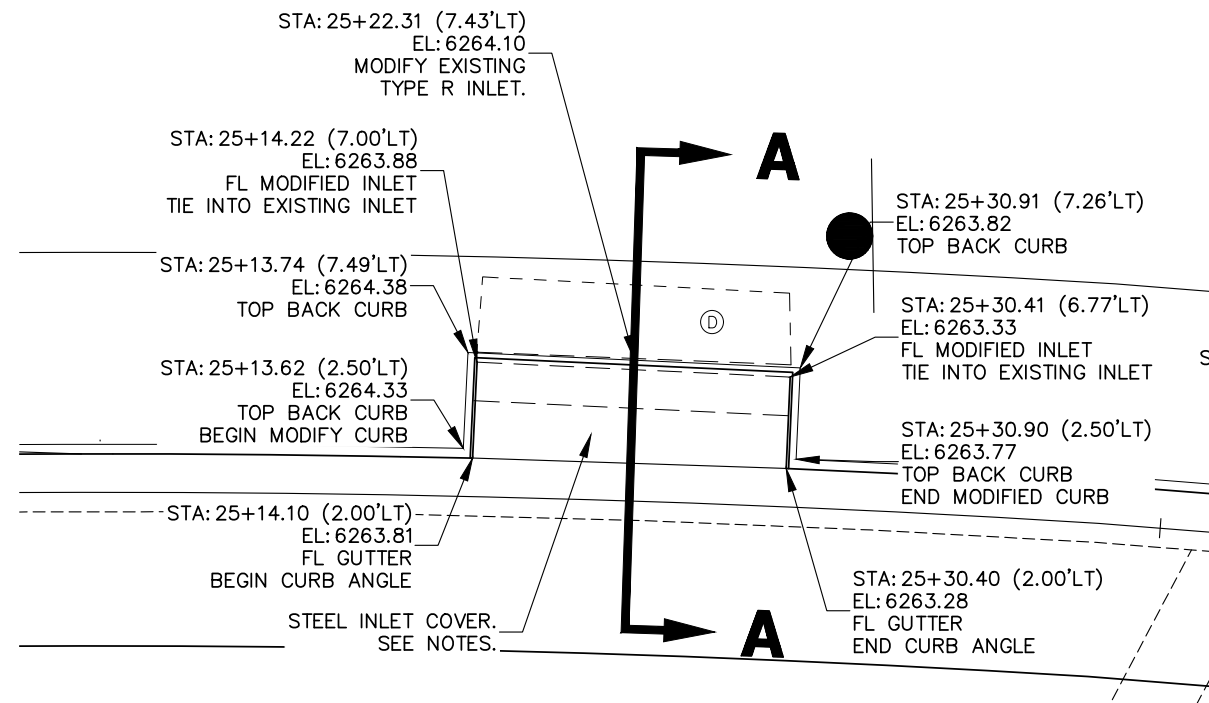
- NOTES:**
1. PRE-DRILL HOLES FOR REBAR AND PINS TO PREVENT SPLITTING OF TIMBERS.
 2. RECESS END OF REBAR 1/2" BELOW TOP OF TIMBER.
 3. COMPACT BACKFILL IN 6" LIFTS UNTIL NO VISUAL DISPLACEMENT.
 4. MINIMUM OVERLAP OF BOTTOM CARRIAGE IS THE SAME AS THE STEP RUN LENGTH.
 5. PROVIDE RISERS AND CARRIAGE WITH THE SAME CROSS SECTIONAL DIMENSIONS.
 6. NO DIRECT PAYMENT FOR EXCAVATION.
 7. PROVIDE SAWN TIMBER PRESSURE TREATED WITH A WATERBORNE PRESERVATIVE COMPLIANT WITH APWA USE CATEGORY UC4A.



Know what's below.
Call before you dig.

TIMBER STAIRS

Date: 8/22/24		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4			Project No./Code		
File Name: 2531100 DT01.DWG							No Revisions:		DETAILS			M850-031(24000)	
 J-R ENGINEERING A Westrian Company							Revised:	Designer: ---			M850-032(24310)		
								Detailer: ---		25311.00			
								Void:	Sheet Subset: DETAILS	Subset Sheet:	1 of 6	Sheet Number 27	



MODIFIED TYPE R – PLAN DETAIL

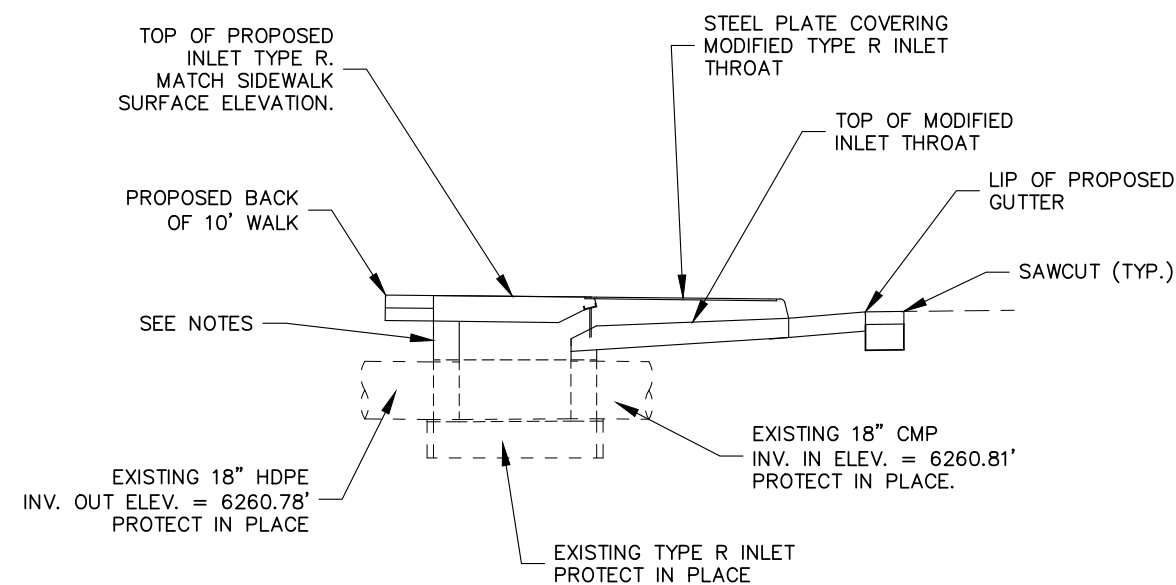
SCALE: 1"=10'

NOTES:

1. SAWCUT AND REMOVE UPPER SECTION OF EXISTING TYPE R INLET AS SHOWN.
2. PROTECT EXISTING INLET IN PLACE ENSURING EXISTING PIPES IN AND OUT REMAIN UNDISTURBED.
3. CONSTRUCT CONCRETE INLET THROAT AS SHOWN IN THE DETAILS, ALLOWING DRAINAGE TO FLOW FROM PROPOSED CURB LINE INTO EXISTING INLET.
4. REBUILD THE UPPER SECTION OF THE TYPE R INLET PER CDOT M-604-12. THE TOP OF INLET SHALL MATCH PROPOSED SIDEWALK SURFACE ELEVATION.
5. INSTALL A TRAVERSABLE STEEL PLATE, FLUSH WITH THE PROPOSED SIDEWALK FINISHED GRADE. THE STEEL COVER DESIGN AND INSTALLATION METHOD SHALL BE APPROVED BY THE ENGINEER.

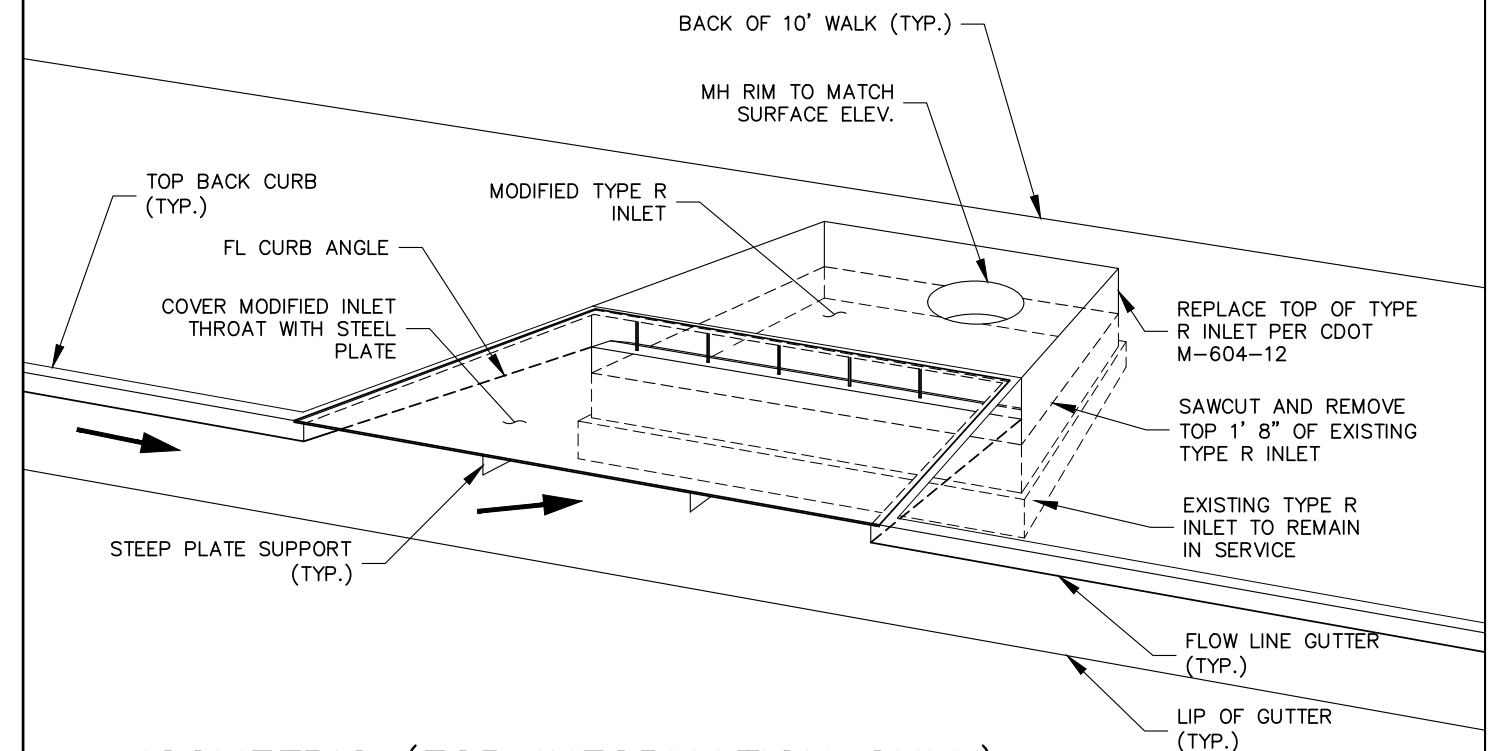


Know what's below.
Call before you dig.



SECTION A-A – DETAIL

SCALE: 1"=5'



ISOMETRIC (FOR INFORMATION ONLY)

SCALE: N.T.S

Date: 8/22/24

File Name: 2531100 DT01.DWG



Index of Revisions



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed

No Revisions:

Revised:

Void:

CREEK WALK TRAIL – PHASE 4 DETAILS

Designer: BSR

Detailer: BSR

Sheet Subset: DETAILS

25311.00

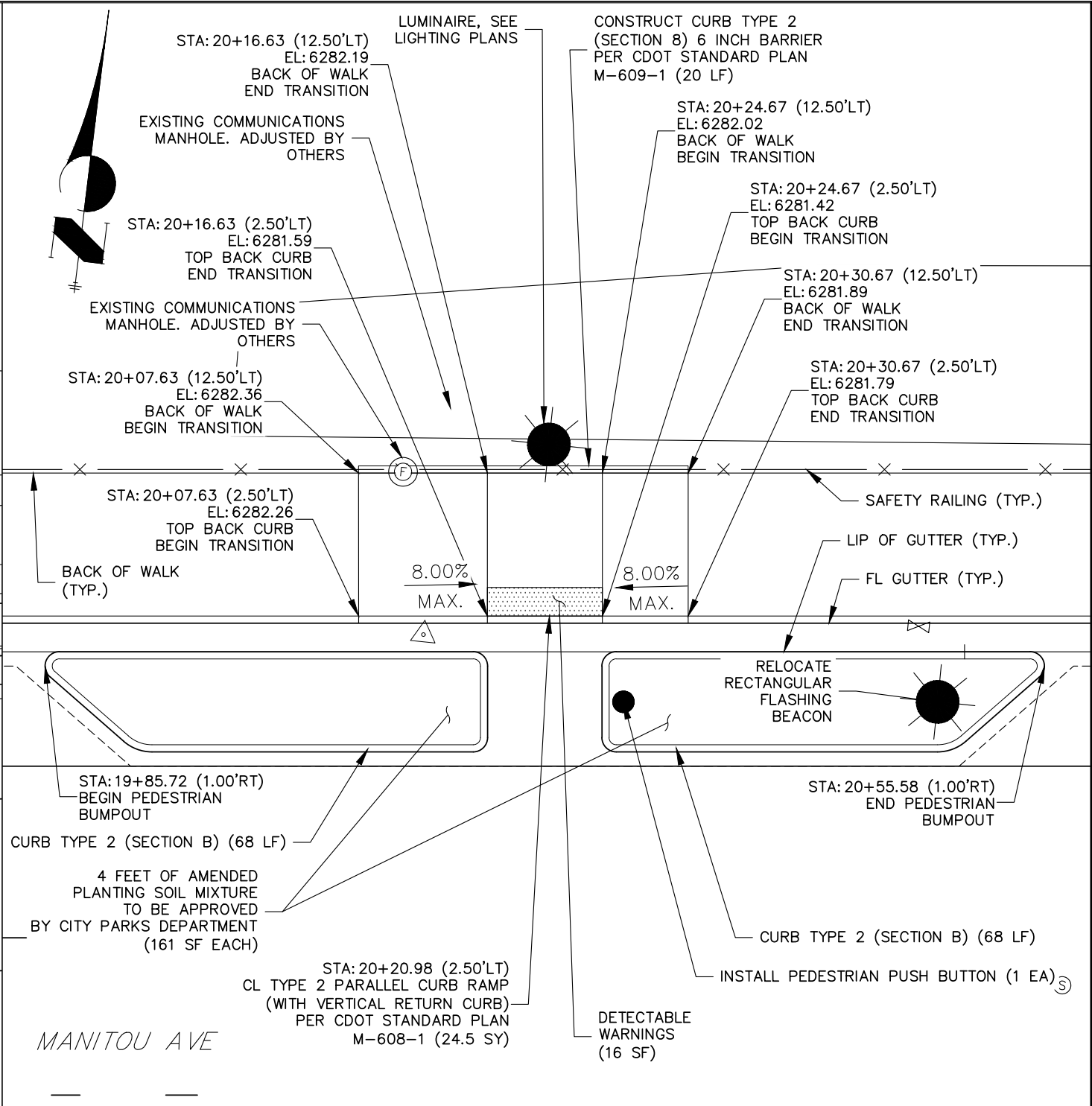
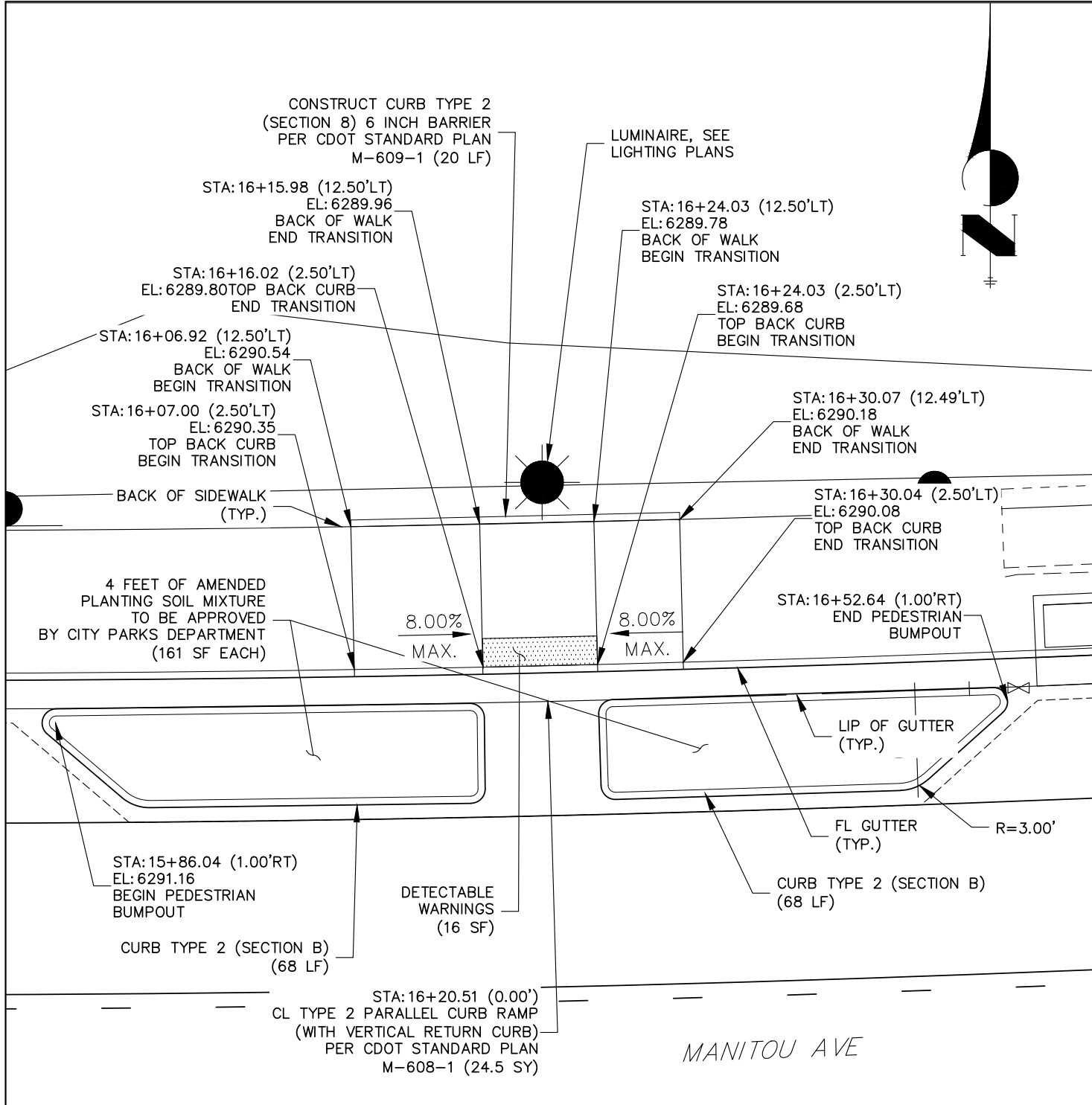
Subset Sheet: 2 of 6

Project No./Code

M850-031(24000)

M850-032(24310)

Sheet Number 28



PARALLEL CURB RAMP 1 – DETAIL
SCALE: 1" = 10'

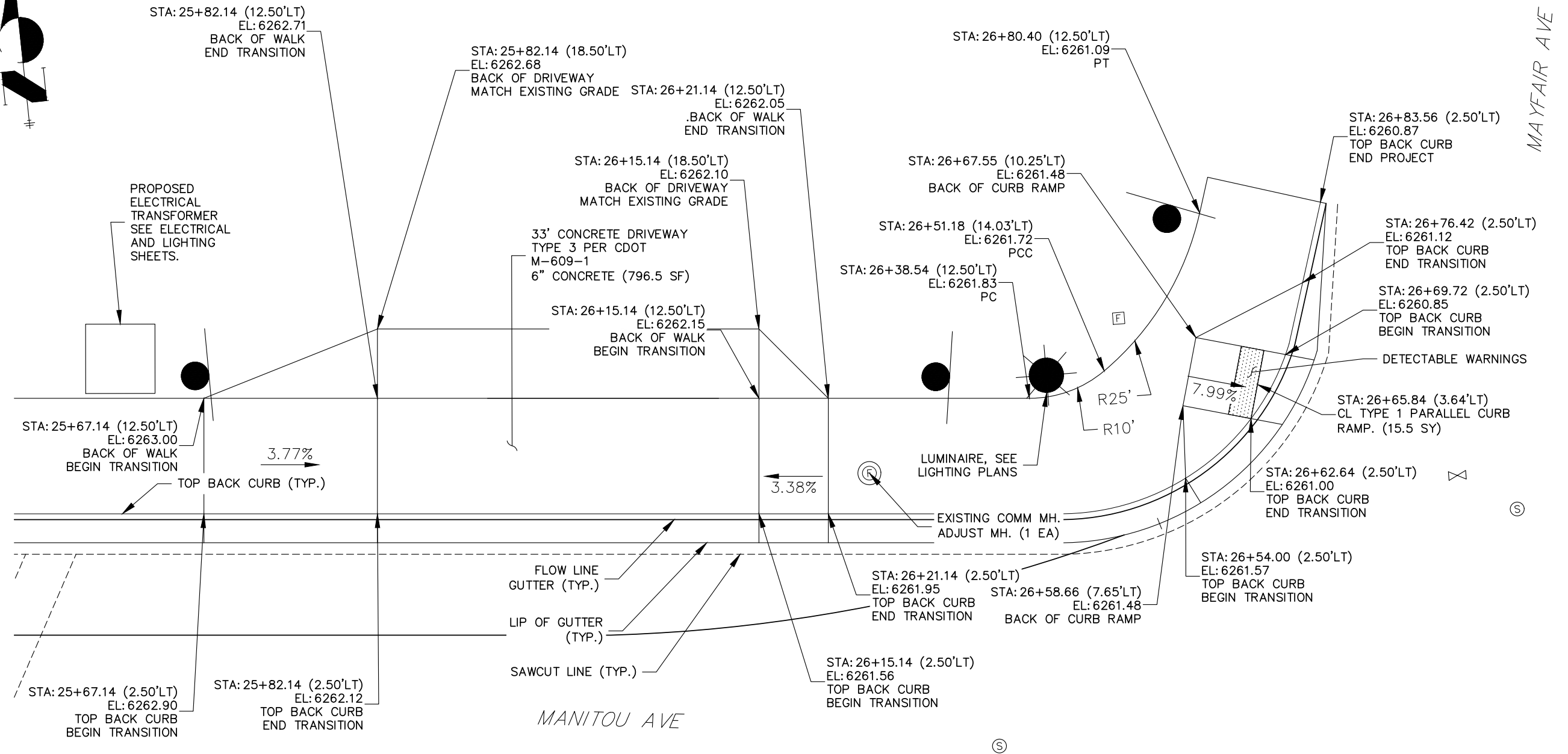
PARALLEL CURB RAMP 2 – DETAIL
SCALE: 1" = 10'



Know what's below.
Call before you dig.

Date: 8/22/24		Index of Revisions			Historic MANITOU SPRINGS CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed	CREEK WALK TRAIL – PHASE 4 DETAILS			Project No./Code
File Name: 2531100 DT01.DWG						No Revisions:	Designer: BSR			M850-031(24000)
						Revised:	Detailer: BSR	25311.00		M850-032(24310)
						Void:	Sheet Subset: DETAILS	Subset Sheet: 3 of 6		Sheet Number 29





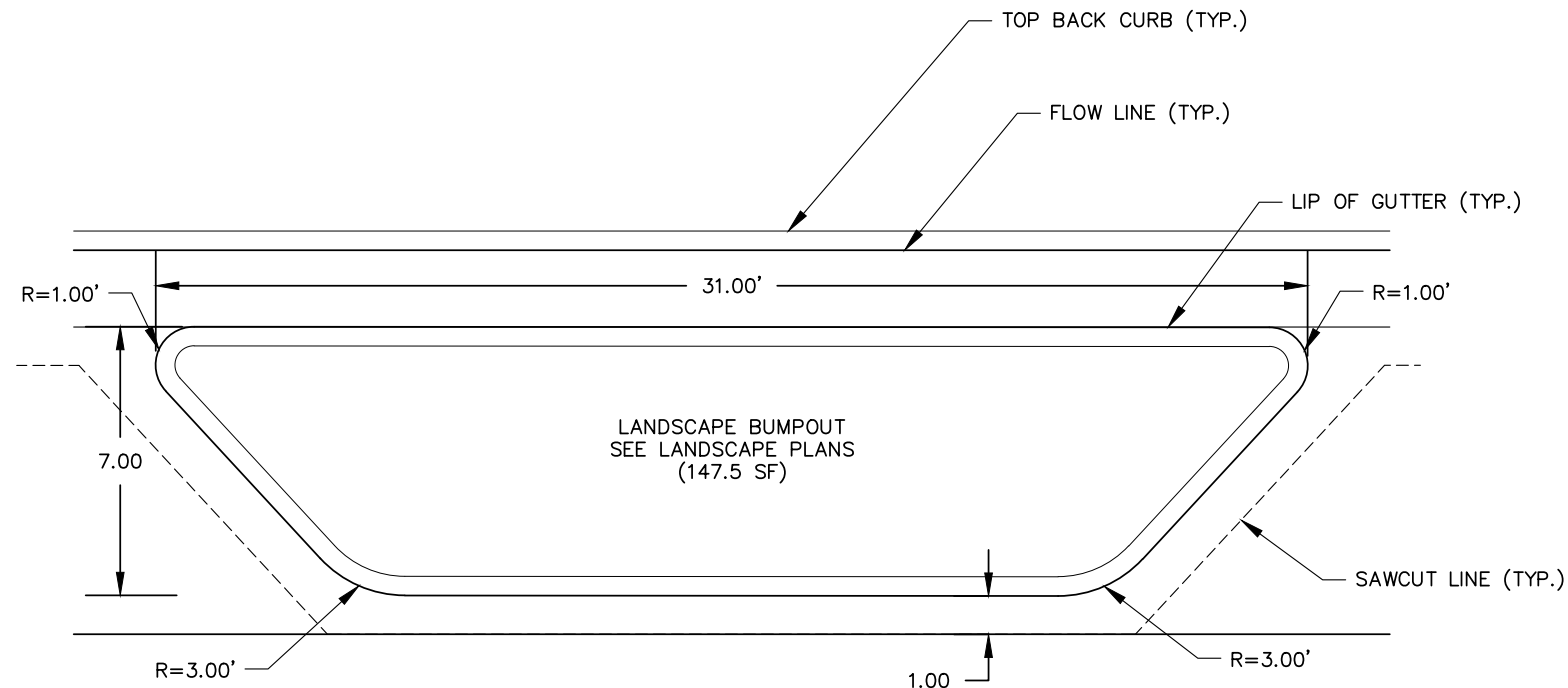
CONCRETE DRIVEWAY & CURB RAMP 3 – DETAIL

SCALE: 1" = 10'

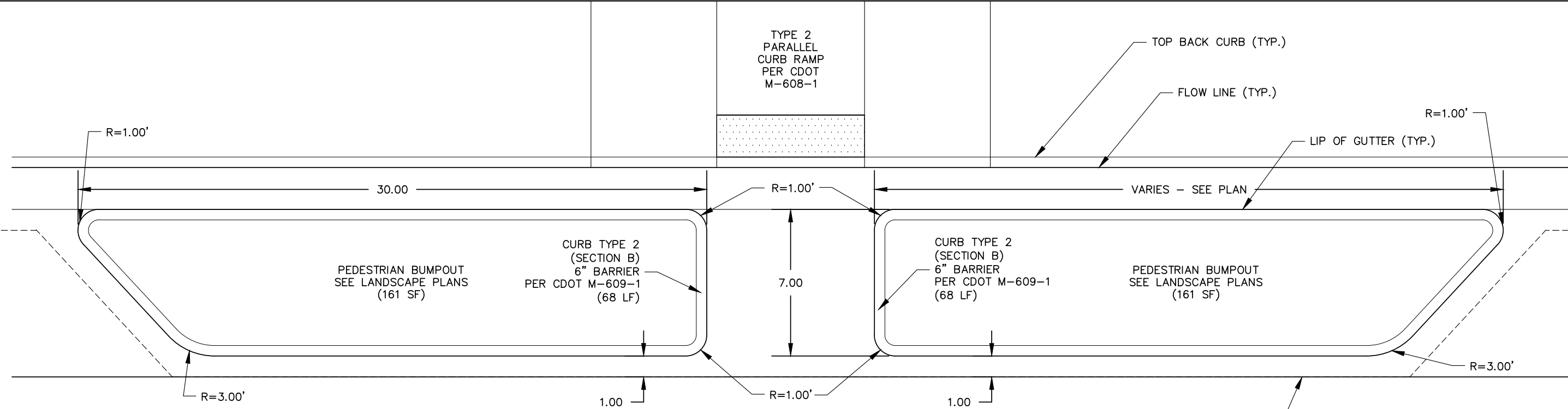


Know what's below.
Call before you dig.

Date: 8/22/24		Index of Revisions		As Constructed		CREEK WALK TRAIL – PHASE 4 DETAILS			Project No./Code		
File Name: 2531100 DT01.DWG									M850-031(24000)		
J-R ENGINEERING A Westrian Company					 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	Revised:		Designer: BSR		25311.00	M850-032(24310)
						Detailer: BSR		Sheet Subset: DETAILS Subset Sheet: 4 of 6			Sheet Number 30
						Void:					



LANDSCAPE BUMPOUT DETAIL
SCALE: 1" = 5'



PEDESTRIAN BUMPOUT DETAIL
SCALE: 1" = 5'

Date: 8/22/24
File Name: 2531100 DT01.DWG



Index of Revisions			

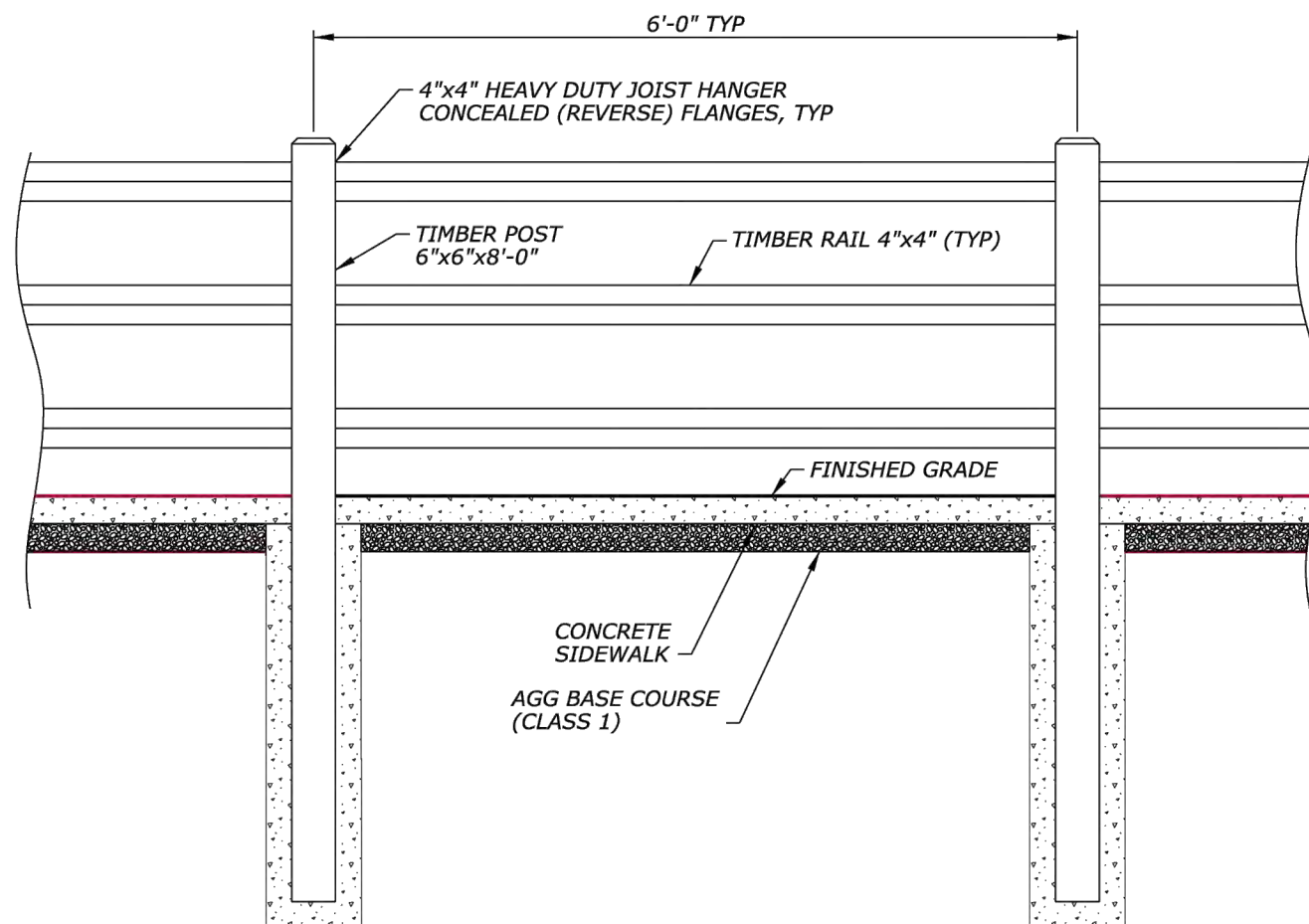


CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

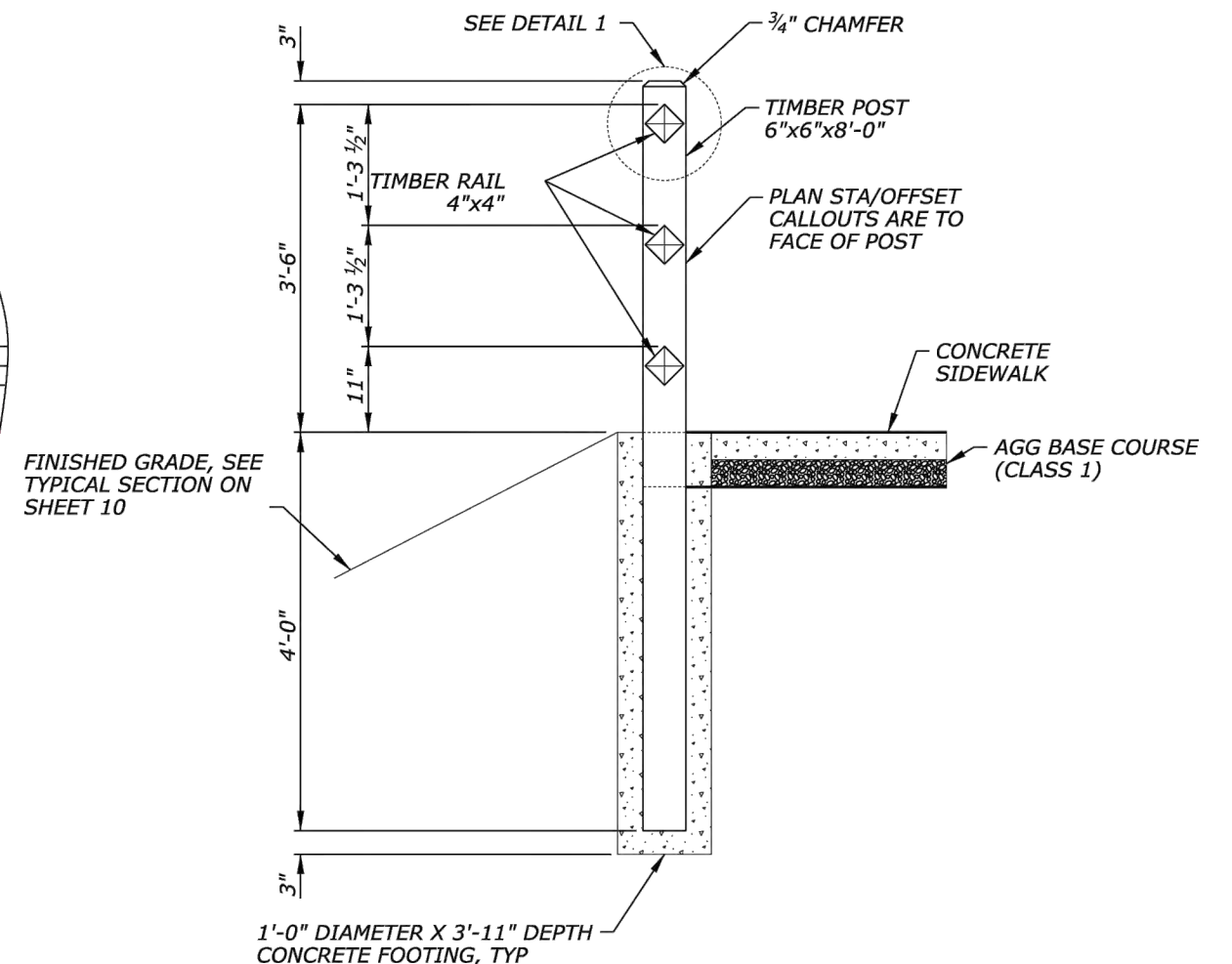
As Constructed
No Revisions:
Revised:
Void:

CREEK WALK TRAIL – PHASE 4 DETAILS			
Designer:	BSR		
Detailer:	BSR	25311.00	
Sheet Subset:	DETAILS	Subset Sheet:	5 of 6

Project No./Code
M850-031(24000)
M850-032(24310)
Sheet Number 31



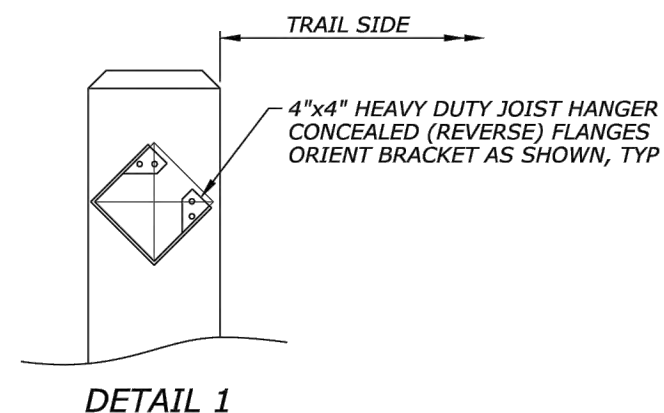
ELEVATION



TYPICAL SECTION AT POST

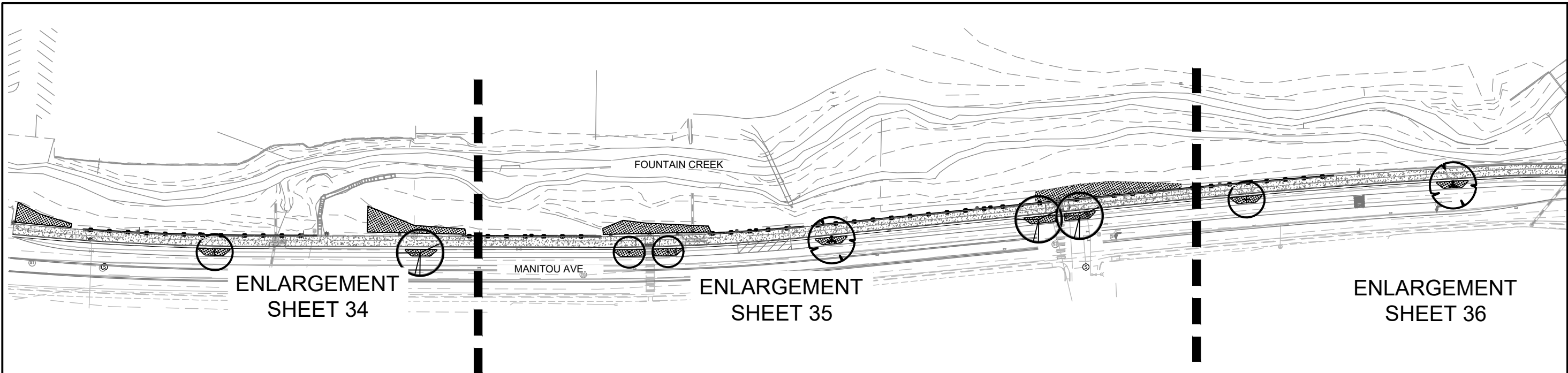
NOTES:

1. TIMBER RAILS AND POSTS TO BE PRESSURE TREATED DOUGLAS-FIR TIMBER WITH AN ALLOWABLE BENDING STRESS $F_b=1,200$ psi MIN. TIMBER DIMENSIONS SHOWN ARE NOMINAL.
2. METAL RAIL BRACKETS TO BE HEAVY DUTY JOIST HANGERS WITH CONCEALED (REVERSED) FLANGES. BRACKET TO BE ZINC GALVANIZED. AT EACH BRACKET INSTALL 4-16d GALV COMMON NAILS TO ATTACH BRACKET TO POST AND 2-10d GALV COMMON NAILS TO ATTACH BRACKET TO RAIL.
3. ALL POSTS TO BE PLUMB AND RAILS INSTALLED PARALLEL TO TRAIL.



DETAIL 1

Date: 8/22/24		Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 DETAILS		Project No./Code		
File Name: 2531100 DT01.DWG							No Revisions:			M850-031(24000)		
 J-R ENGINEERING A Westrian Company							Revised:	Designer: ---		25311.00	M850-032(24310)	
							Void:	Detailer: ---			Sheet Number 32	
									Sheet Subset: DETAILS	Subset Sheet: 6 of 6		



A

Sheet 33

OVERALL LANDSCAPE PLAN

SCALE: 1" =100'-0"

- LANDSCAPE NOTES:
1. ALL PLANT MATERIAL IS TO BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 2. ALL SHRUB BED AND TREE LOCATIONS ARE TO BE STAKED OUT ON THE SITE FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. PROVIDE SHRUB BED LAYOUT BASED UPON THIS LANDSCAPE PLAN AND NOT THE IRRIGATION PLAN.
 3. THE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED. THE CONTRACTOR SHALL REMOVE REQUIRED DEPTH OF SOIL ALONG CURBS AND WALKWAYS TO ACCOMMODATE SEED, SOD OR MULCH.
 4. ALL PLANT MATERIALS WILL CONFORM TO THE AMERICAN ASSOCIATION OF NURSEREYMEN AND STATE OF COLORADO INDUSTRY STANDARDS.
 5. THE CONTRACTORS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. SYMBOLS ON ALL SHRUBS AND TREES SHALL TAKE PRECEDENCE OVER WRITTEN QUANTITIES.
 6. CONTRACTOR TO INSTALL TEMPORARY ORANGE CONSTRUCTION FENCING AROUND ALL SEEDED AREAS.
 7. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES AND WALKWAYS. HAVE ALL FINE GRADING APPROVED PRIOR TO SEEDING.
 8. CONTRACTOR SHALL INSTALL SLEEVING FOR IRRIGATION IMPROVEMENTS PRIOR TO INSTALLING CONCRETE FLATWORK.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING UTILITIES, CURB AND GUTTER, WALKWAYS, IRRIGATION SYSTEM AND OTHER EXISTING STRUCTURES THAT IS A RESULT OF HIS WORK. THE REPAIR OF SUCH DAMAGE WILL BE AT NO ADDITIONAL COST TO THE OWNER.
 10. ALL FINE GRADING TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO SODDING.

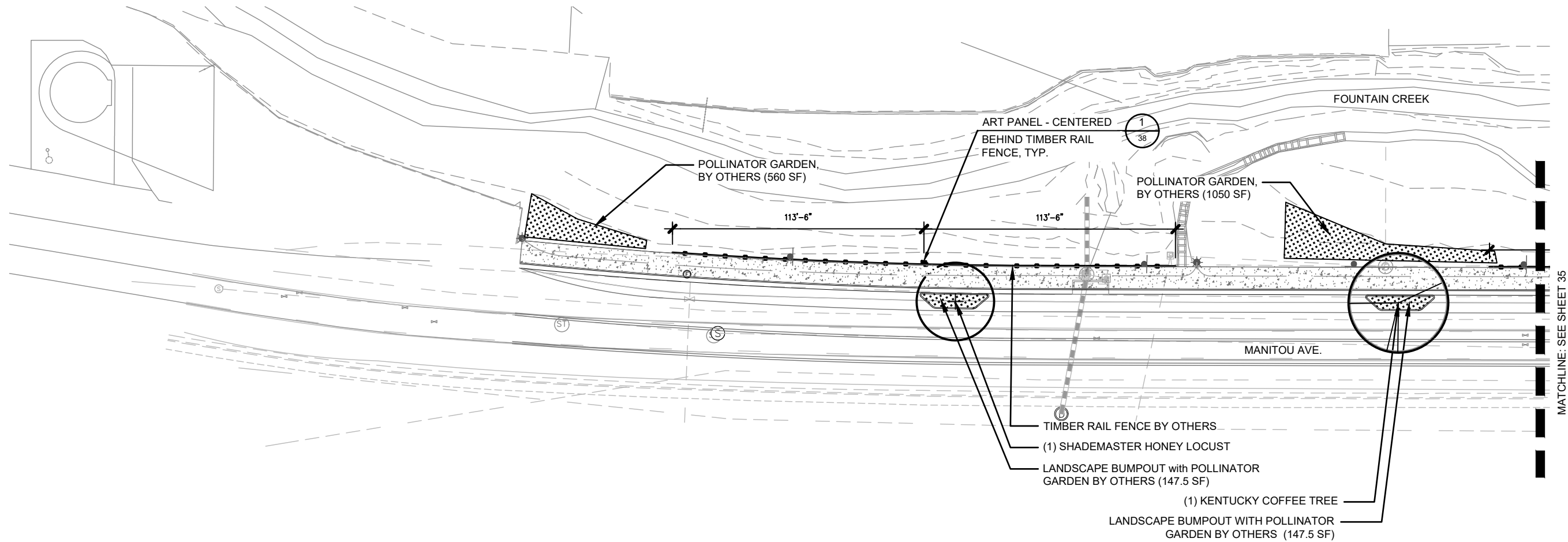
811

Know what's below.
Call before you dig.

100 50 0 100

ORIGINAL SCALE: 1" = 100'

Date: 6/18/2025		
-----------------	--	---



A LANDSCAPE PLAN
 Sheet 34 SCALE: 1" = 50'-0"

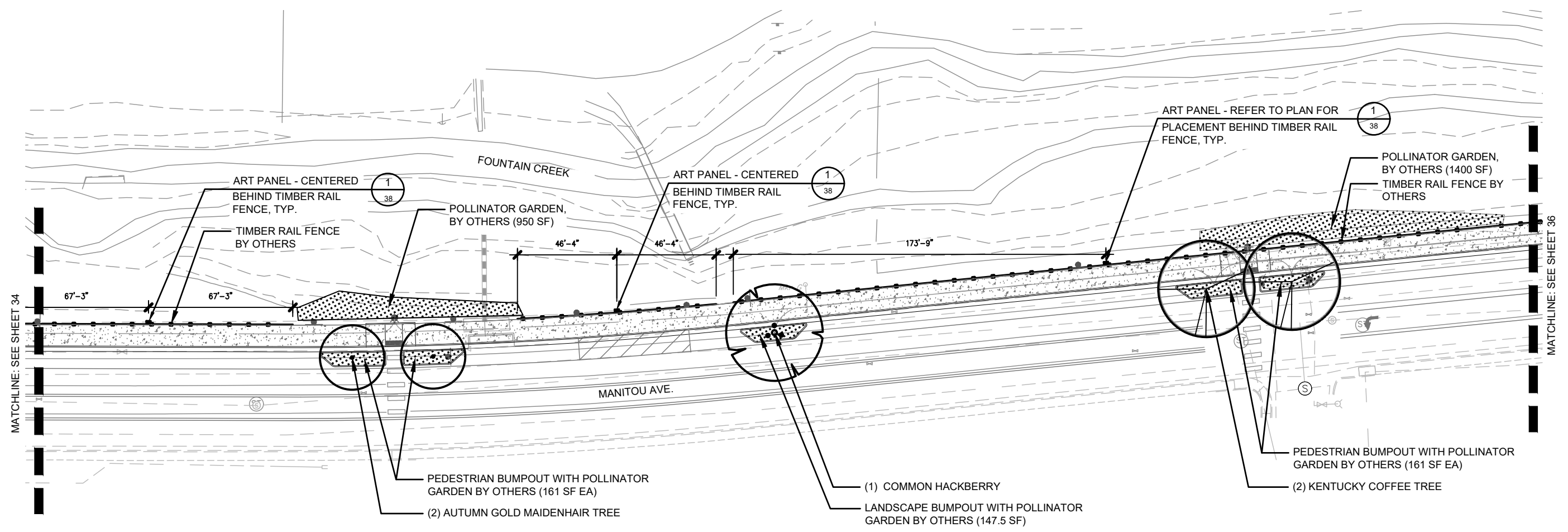
- LEGEND**
- DECIDUOUS STREET TREE
 - POLLINATOR GARDEN BY OTHERS
 - CREEK WALK BY OTHERS
 - ART PANEL

- NOTE:**
- ALL LANDSCAPE AREAS TO BE POLLINATOR GARDENS BY OTHERS.
 - REFER TO CIVIL SHEETS FOR ALL UTILITIES AND HARDSCAPE UPDATES.

811
Know what's below.
Call before you dig.

ORIGINAL SCALE: 1" = 50'

Date: 6/18/2025			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317		As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE PLANS			Project No./Code			
M850-031(24000)													
File Name: 01_CWP5_LANDSCAPE.DWG							No Revisions:		Designer: AKH			M850-032(24310)	
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN							Revised:		Detailer: EA			25311.00	
		Void:		Sheet Subset: LANDSCAPE		Subset Sheet: 2 of 6		Sheet Number 34					



A

Sheet 35

LANDSCAPE PLAN

SCALE: 1" = 50'-0"

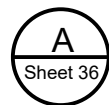
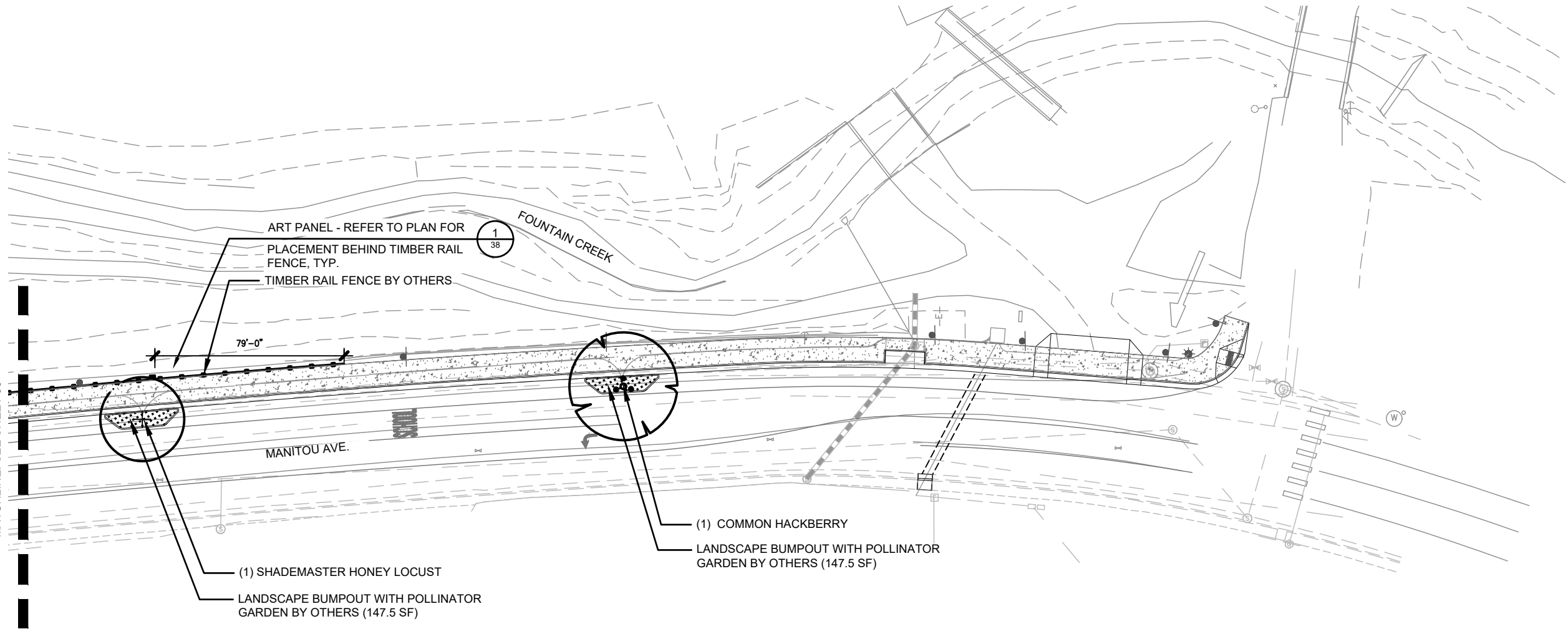
- LEGEND
- DECIDUOUS STREET TREE
 - POLLINATOR GARDEN BY OTHERS
 - CREEK WALK BY OTHERS
 - ART PANEL

NOTE:
1. ALL LANDSCAPE AREAS TO BE POLLINATOR GARDENS BY OTHERS.
2. REFER TO CIVIL SHEETS FOR ALL UTILITIES AND HARDSCAPE UPDATES.

ORIGINAL SCALE: 1" = 50'

Date: 6/18/2025			Index of Revisions			 CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE PLANS			Project No./Code	
File Name: 01_CWP5_LANDSCAPE.DWG							No Revisions:					M850-031(24000)	
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN							Revised:		Designer: AKH			M850-032(24310)	
							Void:		Detailer: EA			25311.00	
							Sheet Subset: LANDSCAPE		Subset Sheet: 3 of 6		Sheet Number 35		

MATCHLINE: SEE SHEET 35



LANDSCAPE PLAN

SCALE: 1" = 50'-0"

LEGEND



DECIDUOUS STREET TREE



POLLINATOR GARDEN BY OTHERS



CREEK WALK BY OTHERS



ART PANEL

NOTE:

1. ALL LANDSCAPE AREAS TO BE POLLINATOR GARDENS BY OTHERS.
2. REFER TO CIVIL SHEETS FOR ALL UTILITIES AND HARDSCAPE UPDATES.



Know what's below.
Call before you dig.



50 25 0 50
ORIGINAL SCALE: 1" = 50'

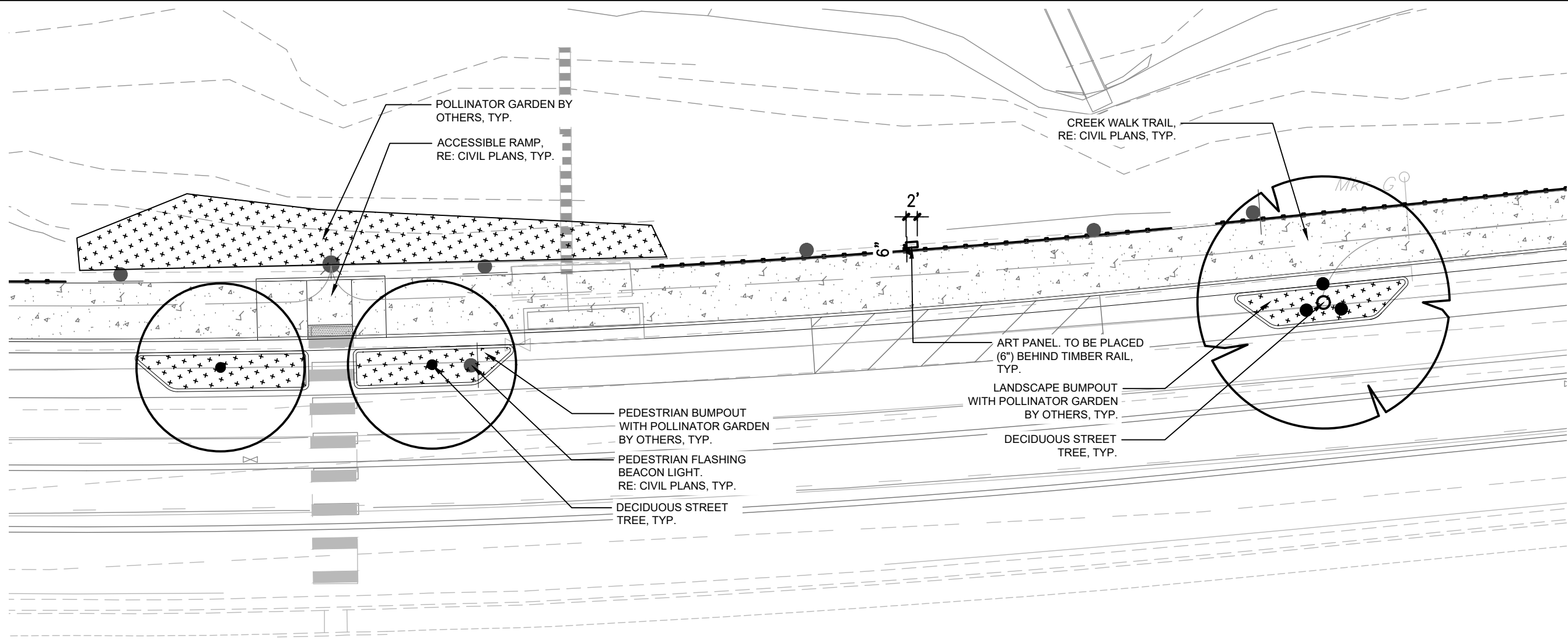
Date: 6/18/2025
File Name: 01_CWP5_LANDSCAPE.DWG
DHM DESIGN
LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN

Index of Revisions			
0000			
0000			
0000			
0000			



CITY OF MANITOU SPRINGS
606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829
CONTACT: BEN SCHMITT
PHONE: 719-600-8317

As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE PLANS		Project No./Code
No Revisions:		Designer: AKH		M850-031(24000)
Revised:		Detailer: EA	25311.00	M850-032(24310)
Void:		Sheet Subset: LANDSCAPE	Subset Sheet: 4 of 6	Sheet Number 36



A
Sheet 37

LANDSCAPE ENLARGEMENT PLAN

SCALE: 1" = 20'-0"

LEGEND

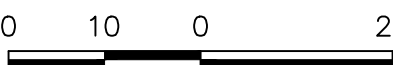
-  DECIDUOUS STREET TREE
-  POLLINATOR GARDEN BY OTHERS
-  CREEK WALK BY OTHERS
-  ART PANEL

- NOTE:
- ALL LANDSCAPE AREAS TO BE POLLINATOR GARDENS BY OTHERS.
 - REFER TO CIVIL SHEETS FOR ALL UTILITIES AND HARDSCAPE UPDATES.



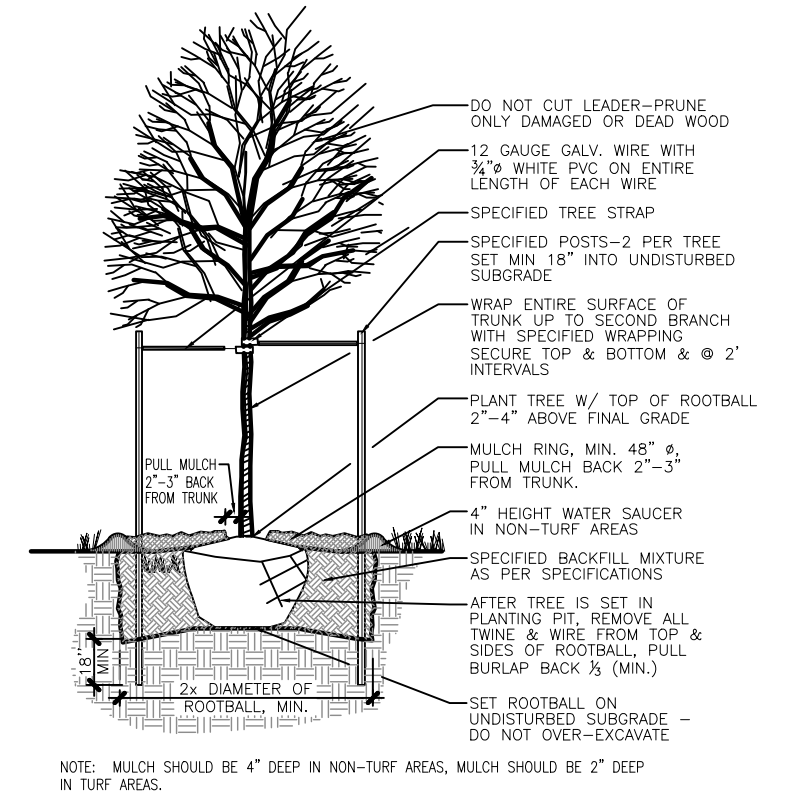
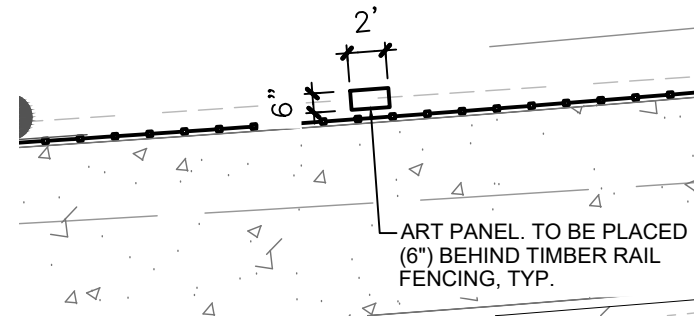
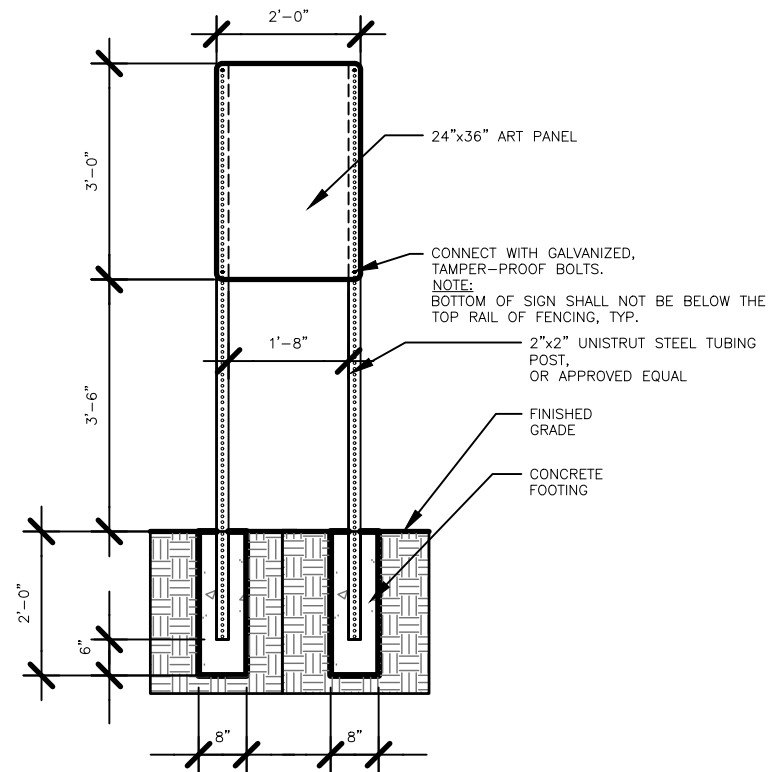
Know what's below.
Call before you dig.





0 10 0 20
ORIGINAL SCALE: 1" = 20

Date: 6/18/2025		00000	Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE PLANS			Project No./Code	
File Name: 01_CWP5_LANDSCAPE.DWG							No Revisions:		Designer: AKH			M850-031(24000)	
DHM DESIGN LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN							Revised:		Detailer: EA		25311.00	M850-032(24310)	
							Void:		Sheet Subset: LANDSCAPE	Subset Sheet:	5 of 6	Sheet Number 37	

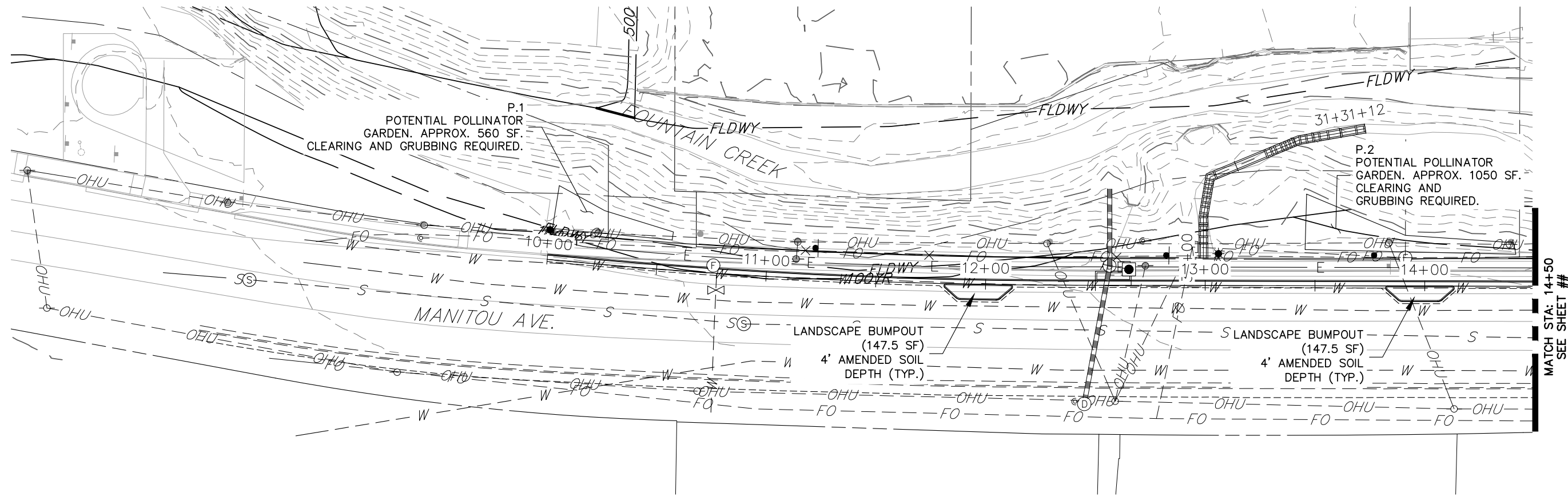


CONSTRUCTION DOCUMENTATION PLANT SCHEDULE- RRP							
Plant List							
Quantity	Botanical Name	Common Name	Size	Mature Height	Mature Spread	Light	Water
Deciduous Trees							
2	Celtis occidentalis	Common Hackberry	2.5" Cal.	40' to 60'	40' to 50'	Full Sun, Partial Shade	Moderate
2	Ginkgo Biloba 'Autumn Gold'	Autumn Gold Maidenhair Tree	2.5" Cal.	40' to 50'	25' to 30'	Full Sun	Moderate
2	Gleditsia triacanthos 'Shademaster'	Shademaster Honeylocust	2.5" Cal.	50' to 75'	25' to 40'	Full Sun	Low
3	Gymnocladus dioicus 'Espresso'	Kentucky Coffeetree	2.5" Cal.	60' to 75'	40' to 50'	Full Sun	Low



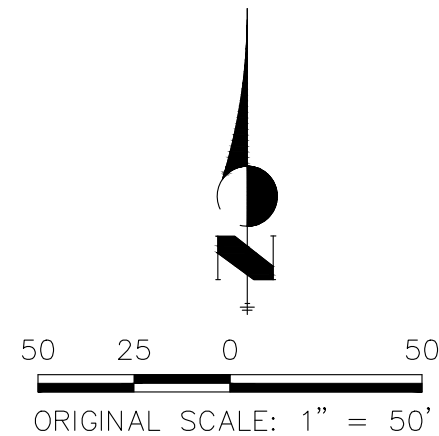
Know what's **below**.
Call before you dig.

Date: 6/18/2025		CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317		As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE PLANS				Project No./Code	
File Name: 01_CWP5_LANDSCAPE.DWG				No Revisions:						M850-031(24000)	
0000000000 LANDSCAPE ARCHITECTURE LAND PLANNING URBAN DESIGN				Revised:		Designer: AKH				M850-032(24310)	
				Void:		Detailer: EA				25311.00	
						Sheet Subset: LANDSCAPE		Subset Sheet: 6 of 6		Sheet Number 38	



NOTES:

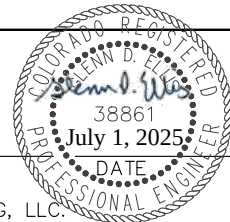
- 1. CONTRACTOR SHALL SUBMIT AN IRRIGATION DESIGN TO PROVIDE DRIP IRRIGATION TO ALL BUMPOUTS, PROPOSED TREES, AND AREAS P.1, P.2, P.3 & P.4. COSTS WILL BE PAID VIA THE F/A LANDSCAPING PAY ITEM.
- 2. CONTRACTOR TO INSTALL A BENCH FURNISHED BY OTHERS IN AREAS P.2 AND P.4. AREA FROM BACK OF WALL TO BENCHES, AND AROUND BENCHES SHALL BE CRUSHER FINES (4" DEPTH).
- 3. CLEARING AND GRUBBING FOR POLLINATOR AREAS P.1, P.2, P.3 AND P.4 SHALL BE INCLUDED IN THE F/A LANDSCAPING PAY ITEM.
- 4. CONTRACTOR SHALL COORDINATE WITH THE CITY AND COLORADO SPRINGS UTILITIES FOR EXACT LOCATION OF THE ELECTRICAL METER AND CONTROLLER. CONDUIT LOCATION SHALL BE APPROVED BY THE CITY AND COLORADO SPRINGS UTILITIES.
- 5. CONTRACTOR SHALL COORDINATE WITH THE CITY TO FINALIZE THE PROPOSED POLLINATOR GARDENS AND TREES WITHIN ALL BUMPOUTS AND AREAS P.1 – P.4. CONTRACTOR SHALL ALSO COORDINATE WITH THE CITY REGARDING THE FINAL FOOTPRINT OF AREAS P.1 – P.4.
- 6. THE IRRIGATION TAP ON THE WATER MAIN SHALL BE IN THE VICINITY OF THE CONTROLLER AND COORDINATED WITH THE CITY. COST TO BE PAID VIA THE F/A LANDSCAPING PAY ITEM.



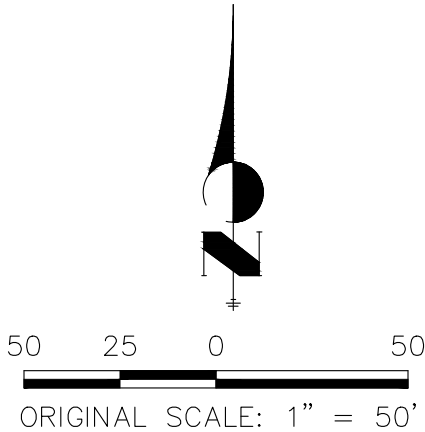
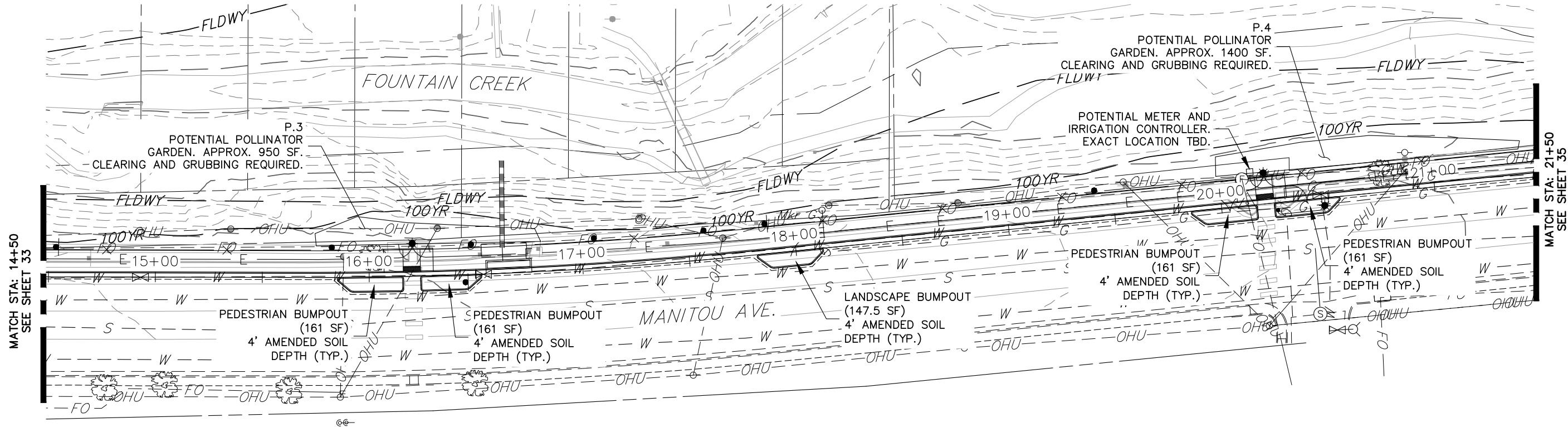
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

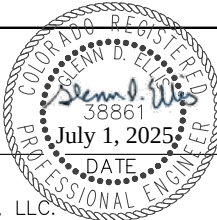


Date: 8/29/2024			Index of Revisions		Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE AND IRRIGATION PLAN		Project No./Code	
File Name: 2531100 LI01.DWG							No Revisions:				M850-031(24000)
 J-R ENGINEERING A Westrian Company							Revised:	Designer: BSR			M850-032(24310)
								Detailer: BSR		25311.00	
							Void:	Sheet Subset: LDSCP & IRR	Subset Sheet:	1 of 3	Sheet Number 39

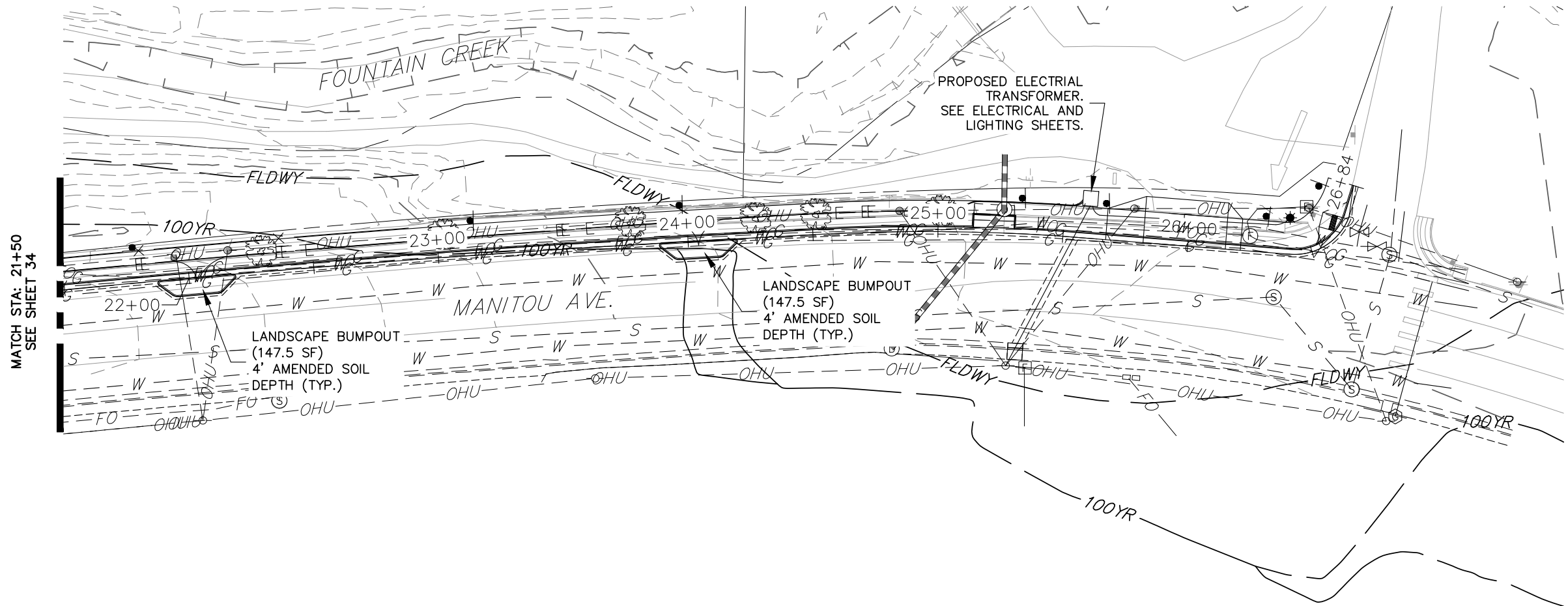


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

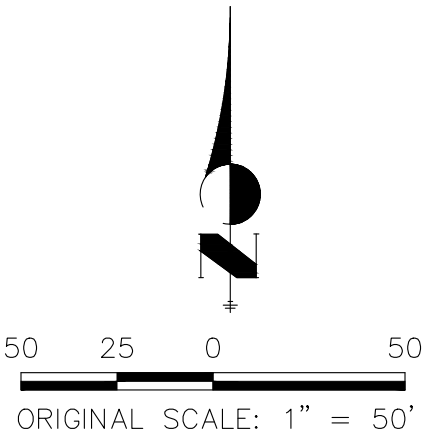
GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.



Date: 8/29/2024		Index of Revisions				CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE AND IRRIGATION PLAN		Project No./Code		
File Name: 2531100 LIO1.DWG							No Revisions:		Designer: BSR		M850-031(24000)		
		☐					Revised:				M850-032(24310)		
		☐					Detailer:	BSR	25311.00				
		☐					Void:	Sheet Subset: LDSCP & IRR		Subset Sheet: 2 of 3		Sheet Number 40	
		☐											



MATCH STA: 21+50
SEE SHEET 34



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN ELLIS, P.E.
COLORADO NO. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC.

Date: 8/29/2024			Index of Revisions			Historic MANITOU SPRINGS  CITY OF MANITOU SPRINGS 606 MANITOU AVENUE MANITOU SPRINGS, CO 80829 CONTACT: BEN SCHMITT PHONE: 719-600-8317	As Constructed		CREEK WALK TRAIL – PHASE 4 LANDSCAPE AND IRRIGATION PLAN			Project No./Code	
File Name: 2531100 LI01.DWG							No Revisions:		M850-031(24000)				
 J-R ENGINEERING A Westrian Company							Revised:		Designer: BSR		M850-032(24310)		
							Void:		Detailer: BSR		25311.00		
									Sheet Subset: LDSCP & IRR		Subset Sheet: 3 of 3		
									Sheet Number 41				



Memorandum

Title: Resolution No. 0925, A Resolution of the City of Manitou Springs, Colorado, Approving an IGA with the Pikes Peak Regional Transportation Authority Concerning the Reimbursement to the City for Hiawatha Gardens Architectural Services Performed by Workshop 40

From: Ben Schmitt, Public Services Director and Karen Rowe, Consultant Project Manager and PPRTA Liaison for the City of Manitou Springs

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

August 5, 2025

Purpose:

Consider approving the resolution to sign the IGA with PPRTA for the reimbursement of funds for work performed by workshop 40 in 2024.

Background:

The four contracts with Workshop 40 who performed work for the Hiawatha Garden Mobility hub under PPRTA-2 Capital Projects in 2024 were approved and the percent eligible for reimbursement was agreed upon in April and May 2025 by the PPRTA CAC and Board.

Reason for Request:

1. The four contracts between the City of Manitou Springs and Workshop 40 were signed in 2024 and the work was completed in 2024 and paid by the City without the PPRTA being a party to the agreements or any other three-party agreement in place.
2. At the request of the City, the PPRTA Board approved the four contracts and percentages of eligible work for reimbursement at the April and May 2025 PPRTA CAC and Board meetings.
3. The invoices (less than the full contract amounts) for the work submitted by Workshop 40 have been broken down by approved contract percentages and amount previously paid for an amount of \$130,351.88.
4. Since the work was completed before the contracts were presented to and approved by the PPRTA Board and it would be administratively difficult for the City to now add the PPRTA to contracts for work that has already been completed, PPACG Board attorney Jennifer Ivey has worked with the City's attorney and they jointly recommended that the attached IGA would be an



allowable alternative to having included PPRTA in the original contracting process and provide legal assurances from the City to the PPRTA for the completed work

5. Approval of this IGA would allow PPACG to pay the invoices owed to the City.

Pros and Cons:

Pros: This resolution will allow the IGA to be signed by the Mayor and then approved by PPRTA Board in August 2025 and the City of Manitou Springs will be reimbursed accordingly.

Cons: the City of Manitou Springs will not be reimbursed for work performed and paid for relating the Hiawatha Gardens Mobility Hub by PPRTA.

Fiscal Impact:

With approval of this resolution and processing of the IGA with PPRTA, the City of Manitou Springs will be reimbursed by \$130,351.88.

Workload Impact:

None.

Recommended Action:

Move to adopt Resolution No. 0925, a Resolution of the City of Manitou Springs, Colorado, approving an IGA with the Pikes Peak Regional Transportation Authority concerning the reimbursement to the City for Hiawatha Gardens architectural services performed by Workshop 40.

RESOLUTION

**A RESOLUTION OF THE CITY OF MANITOU SPRINGS, COLORADO,
APPROVING AN IGA WITH THE PIKES PEAK REGIONAL
TRANSPORTATION AUTHORITY CONCERNING THE
REIMBURSEMENT TO THE CITY FOR HIAWATHA GARDENS
ARCHITECTURAL SERVICES PERFORMED BY WORKSHOP 40**

WHEREAS, the City entered into certain contracts with the architecture firm Workshop 40;

WHEREAS, the City inadvertently did not include the PPRTA as a party to the Contracts as contemplated by that certain Second Amended and Restated Intergovernmental Agreement for Pikes Peak Rural Transportation Authority Funded Capital Projects and Maintenance Programs by and between the City and the PPRTA and effective January 1, 2015;

WHEREAS, the work under the Contracts has been completed and the City has paid the consultant, Workshop 40, all amounts owed for a total amount of \$217,015.00, of which \$165,465.90 is eligible for payment by PPRTA as a PPRTA 2 Capital Project; and

WHEREAS, rather than PPRTA paying Workshop 40 directly, as is the standard practice of PPRTA for eligible expenses when PPRTA is named as a party to the agreements as contemplated in the Comprehensive IGA, PPRTA will reimburse the City for these eligible expenses pursuant to the terms of the Intergovernmental Agreement Reimbursing the City of Manitou Springs for Eligible Expenditures (Hiawatha Gardens Architectural Services), attached hereto as **Exhibit A** (the “IGA”).

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

SECTION 1: The IGA is hereby approved and the Mayor is authorized to execute the same.

Adopted at the meeting of the City Council of the City of Manitou Springs, Colorado, on this 5th day of August 2025, and effective immediately.

Mayor and Council:

By: _____
John Graham, Mayor

Attest:

Elena Krebs, City Clerk

INTERGOVERNMENTAL AGREEMENT REIMBURSING THE CITY OF MANITOU
SPRINGS FOR ELIGIBLE EXPENDITURES
(HIAWATHA GARDENS ARCHITECTURAL SERVICES)

This Intergovernmental Agreement (the “IGA”), which is effective the ___ day of _____, 2025 is made by and between the City of Manitou Springs, a municipal corporation and home rule city (the “City”), and the Pikes Peak Rural Transportation Authority, a political subdivision of the state of Colorado (the “PPRTA”) (alternatively the “Party” or “Parties”). The Parties agree as follows:

WHEREAS, the City entered into an agreement dated March 18, 2024, with Workshop 40 Architects for architectural services related to the City’s planned restoration of the Hiawatha Gardens property in an amount not to exceed \$49,910.00 (“Workshop 40 Contract 1”);

WHEREAS, the City entered into another agreement dated June 25, 2024 with Workshop 40 Architects for architectural services related to the City’s planned restoration of the Hiawatha Gardens property in an amount not to exceed \$122,605.00, which agreement was modified via an additional services order (Additional Services #01) on August 9, 2024 for additional services in an amount of \$4,500.00, and which agreement was again amended on November 1, 2024 for additional services in an amount of \$37,250.00 plus additional time and materials, if required (“Workshop 40 Contract 2” and with Workshop 40 Contract 1 collectively the “Contracts” which are incorporated herein by this reference);;

WHEREAS, the Contracts as modified and/or amended included within their scope expenses for the services which were eligible for payment by PPRTA in accordance with a ballot question approved at the November 6, 2012 general election authorizing an extension until December 31, 2024 of the PPRTA sales and use tax authority for the purposes of funding certain regional transportation capital improvements, including, as applicable here “Manitou Springs Transit Shuttle and Surface or Structure Parking” (the “PPRTA 2 Capital Project”);

WHEREAS, the City inadvertently did not include the PPRTA as a party to the Contracts as contemplated by that certain Second Amended and Restated Intergovernmental Agreement for Pikes Peak Rural Transportation Authority Funded Capital Projects and Maintenance Programs by and between the City and the PPRTA and effective January 1, 2015 (in effect at the time and which has since been superseded by the Third Amended and Restated Intergovernmental Agreement for Pikes Peak Rural Transportation Authority Funded Capital Projects and Maintenance Programs with materially similar terms) (the Comprehensive IGA”); and

WHEREAS, the work under the Contracts has been completed and the City has paid the consultant, Workshop 40, all amounts owed in the total amount of \$182,014.20, of which \$130,351.88 is eligible for payment by PPRTA as a PPRTA 2 Capital Project; and

WHEREAS, rather than PPRTA paying the consultant directly as is the standard practice of PPRTA for eligible expenses when PPRTA is named as a party to the agreements as

contemplated in the Comprehensive IGA, the Parties agree that PPRTA will reimburse the City for these eligible expenses.

NOW, THEREFORE, for the consideration hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. PPRTA shall pay the City \$130,351.88 as reimbursement to the City for the City's direct payment to Workshop 40 for the eligible PPRTA 2 Capital Project expenses under the Contracts.

2. To the extent permitted by law, the City shall indemnify, defend, and hold harmless PPRTA and each of the governmental entities that is now or may in the future become a party to the Sixth Amended and Restated Intergovernmental Agreement among El Paso County, the City of Colorado Springs, the City, the Town of Green Mountain Falls, the Town of Ramah, and the Town of Calhan Regarding the Pikes Peak Rural Transportation Authority, as it may be further amended or supplemented from time to time (the "PPRTA IGA"), and each of their directors, employees, agents, and consultants, from and against any and all claims, demands, suits, actions, proceedings, judgments, losses, damages, injuries, penalties, costs, and expenses (including reasonable attorneys' fees), and liabilities, of, by, or with respect to third parties ("Any Claims") to the extent they arise from or may be alleged to arise, directly or indirectly, in whole or in part, from the intentional or negligent acts or omissions of the City or any of its subcontractors, material suppliers, agents, representatives, or employees, or the agents, representatives, or employees of any subcontractors or material suppliers, in connection with this IGA and/or the Contracts including, without limitation, any claims which cause or allow to continue a condition or event which deprives the PPRTA or any of the governmental entities that is now or may in the future become a party to the PPRTA IGA, or any of their directors or employees of their sovereign immunity under the Colorado Governmental Immunity Act, Sections 24-10-101, et seq., Colorado Revised Statutes. Provided, however, that the City shall not be liable for any claim, loss, damage, injury, or liability arising out of the negligence of the PPRTA, its directors, employees, agents, and consultants. The City's defense, indemnification, and insurance obligations shall be to the fullest extent permitted by law and nothing in this IGA shall be construed as requiring the City to defend in litigation, indemnify, or insure the PPRTA against liability for damage arising out of the death or bodily injury to persons or damage to property caused by the negligence or fault of the PPRTA or any third party under the control or supervision of the PPRTA. The obligations of the indemnifications extended by the City under this Section shall survive termination or expiration of this IGA.

[Remainder of page intentionally left blank.]

FOR THE PIKES PEAK RURAL TRANSPORTATION AUTHORITY:

By: _____ this ____ day of _____, 2025

Chairperson, Board of Directors
Pikes Peak Rural Transportation Authority

ATTEST:

By: _____
Its: _____

APPROVED AS TO FORM:

PPRTA General Counsel

FOR THE CITY OF MANITOU SPRINGS, COLORADO:

By: _____ this ____ day of _____, 2025
_____, Mayor

ATTEST:

By: _____
Its: _____

APPROVED AS TO FORM:

City Attorney



Memorandum

Title: Resolution No. 1025, A Resolution of the City of Manitou Springs, Colorado, Approving a Land Donation Agreement and Authorizing the Acceptance of the Donation of Parcels of Real Property with El Paso County Assessor Parcel Numbers 74043-03-011, 74043-03-013, and 74043-03-015

From: Gillian Rossi, Parks & Recreation Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

August 5, 2025

Purpose:

To have City Council consider approving the proposed resolution, accepting the land donations of three parcels.

Background:

Three parcels of land have been offered to the City of Manitou Springs as donations. The parcels are connected and adjacent to the south side of Black Canyon Open Space. The total County assigned market value of the parcels is \$10,000. OSAC voted to recommend the approval of these donations at their July 28th, 2025 Regular Meeting.

Pros and Cons:

Pros: Approval of these donations, along with re-zoning to Open Space, will add 1.5 acres to the Black Canyon Open Space property.

Cons: None identified.

Fiscal Impact:

Land is to be donated; no additional costs are associated at this time.

Workload Impact:

N/A

Recommended Action:

Move to adopt Resolution No. 1025, a resolution of the City of Manitou Springs, Colorado, approving a land donation agreement and authorizing the acceptance of the donation of parcels of real property with El Paso County Assessor parcel numbers 74043-03-011, 74043-03-013, and 74043-03-015.



RESOLUTION

**A RESOLUTION OF THE CITY OF MANITOU SPRINGS, COLORADO,
APPROVING A LAND DONATION AGREEMENT AND AUTHORIZING
THE ACCEPTANCE OF THE DONATION OF PARCELS OF REAL
PROPERTY WITH EL PASO COUNTY ASSESSOR PARCEL NUMBERS
74043-03-011, 74043-03-013, AND 74043-03-015**

WHEREAS, the City Council desires to approve a land donation agreement and authorize the Mayor and/or City Administrator accept the conveyance via quit claim deed of certain parcels of real property with El Paso County Assessor Parcel Numbers 74043-03-011, 74043-03-013, and 74043-03-015 and to authorize the Mayor and/or City Administrator to take any and all actions and execute any and all documents necessary to complete the City's acquisition of the subject property.

NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

SECTION 1: The City Council hereby approves the Land Donation Agreement attached hereto as **Exhibit A** and authorizes the Mayor and/or the City Administrator to execute said agreement.

SECTION 2: The Mayor and/or the City Administrator are hereby authorized to accept the donation of the subject property provided they determine there are no title or other substantial issues affecting the subject property. The Mayor and/or the City Administrator are hereby further authorized to take any and all actions and execute any and all documents necessary to complete the City's acquisition of the subject property.

Adopted at the meeting of the City Council of the City of Manitou Springs, Colorado, on this 5th day of August, 2025, and effective immediately.

Mayor and Council:

By: _____
John Graham, Mayor

Attest:

Elena Krebs, City Clerk

REAL PROPERTY DONATION AGREEMENT

THIS REAL PROPERTY DONATION AGREEMENT (the "Agreement") is made and entered into this 5th day of August, 2025 (the "Effective Date"), by and between the Estate of Gordon and Marta Price, with an address of 650 Bear Paw Lane N, Colorado Springs, Colorado, 80906 ("Owner") and the City of Manitou Springs, 606 Manitou Avenue, Manitou Springs, Colorado 80829, a Colorado municipal corporation (the "City").

WHEREAS, Owner is the owner of the following parcels of real property located in the City of Manitou Springs, El Paso County, Colorado:

1. THAT PART OF LOTS 9, 10 NOT INCLUDED IN HWY RESUB OF LOTS 9 TO 15 INC BLK 16 RED CRAGS FIL 2 MANITOU SPGS

El Paso Assessor Office Parcel No. 7404303011

2. TRACT IN SW4 SEC 4-14-67 WHICH IS THAT PART OF FORMER LOTS 6, 7, 8 BLK 16 RED CRAGS FIL 2 -NOW VAC- LY N OF HWY

El Paso Assessor Office Parcel No. 7404303013

3. TRACT IN N2SE4 SEC 4-14-67 WHICH IS THAT PART OF FORMER LOTS 1 TO 5 INC BLK 16 RED CRAGS FIL 2 MANITOU SPGS -NOW VAC- LY N OF HWY

El Paso Assessor Office Parcel No. 7404303015

(collectively, the "Property"). The legal description of the Property shall be updated upon receipt of a title commitment (the "Property"); and

WHEREAS, Owner desires to donate the Property to the City and the City desires to accept the donation.

NOW, THEREFORE, in consideration of the foregoing recitals which shall be deemed a substantive part hereof, and for and in consideration of the mutual covenants, promises and agreements of each of the parties contained herein, the City and Owner agree as follows:

1. Donation. Owner shall donate the Property to the City via quitclaim deed for zero dollars, subject to the terms and conditions set forth in this Agreement.

2. Title Company. The title and escrow company for this transaction shall be chosen by the City (the "Title Company").

3. The Property. The Property subject to the terms and conditions set forth in this Agreement shall include the Property together with all interest of Owner in vacated streets and alleys adjacent thereto, all easements, rights, benefits and other appurtenances thereto, all mineral interests appurtenant to the Property, and all water rights, ditch rights, water stock and other water rights, if any, appurtenant to the Property.

4. Price. The purchase price for the Property shall be Zero Dollars (\$0.00) (the "Purchase Price").

5. Inspection; Due Diligence Period. The City shall have thirty (30) days from the

Effective Date during which to review all title documents and to make the physical inspections of the Property. The City has the right to enter upon the Property at reasonable times to conduct a physical inspection, review, and analysis of the Property on such matters and subjects and in such detail as the City, in the exercise of its sole discretion, deems advisable or appropriate, including but not limited to the following: surveying, performing physical inspections, conducting soil tests, engineering studies, environmental studies, market studies, feasibility studies, reviewing zoning and other regulatory matters, and conducting such other tests and reviews as the City, in its sole subjective discretion, reasonably believes to be related to the transaction contemplated hereunder.

6. Closing. The closing of this Agreement (the "Closing") shall be held at the office of the Title Company no later than forty-five (45) days from the Effective Date or upon a date mutually acceptable to the parties. At Closing, Owner shall execute and deliver to the City a good and sufficient quitclaim deed conveying the Property free and clear of all taxes except the general taxes for the year of Closing, free and clear of all liens and encumbrances, except those matters reflected by the Title Documents accepted by the City. At any time prior to Closing, the City may choose in its sole discretion to not accept the donation of the Property by notifying Owner in writing.

7. Owner's Representations and Warranties. As of the date of the Closing, Owner represents and warrants as follows:

a. Owner has not previously conveyed either their legal or beneficial interest in the Property.

b. To the best of Owner's knowledge, there are no pending or threatened actions, suits, proceedings, investigations, or lawsuits of any other kind against or affecting the Property.

c. To the best of Owner's knowledge, Owner is in compliance with the laws, orders, and regulations of each governmental department, commission, board, or agency having jurisdiction over the Property.

d. Owner is not a party to or subject to or bound by any agreement, contract or lease of any kind relating to the Property.

e. To the best of Owner's knowledge, no representation, warranty, or statement made herein by Owners contains any untrue statement of any material fact or omits to state any material fact necessary in order to make such representation, warranty, or statement not misleading.

f. Owner is duly authorized and has taken all necessary actions to execute and perform this Agreement and this Agreement is enforceable against Owner in accordance with its terms.

g. As of the Closing Date, no third party will have any possessory interest in the Property whether by license, lease, prescription, or other legal means.

8. Possession. Upon delivery of title at Closing, possession of the Property shall

be delivered to the City.

9. Costs and Fees. Closing fees and escrow fees shall be paid by the City. Per page recording costs and transfer taxes, if any, shall be paid by the City. The premium for the title insurance policy shall be paid by the City.

10. Taxes. Except for the property taxes to be paid by the City with the Purchase Price, all general real estate taxes for all years prior to Closing assessed on the Property shall be paid in full by Owner prior to Closing. General real estate taxes for 2024, based on the most recent mill levy and the most recent assessed valuation, shall be prorated to the date of Closing.

11. Survival of Representations and Warranties. All of the representations, warranties, covenants, promises and conditions of the parties contained in this Agreement (or in any document delivered or to be delivered pursuant to this Agreement or in connection with the Closing) shall survive execution and delivery of the quitclaim deed and the consummation of the transactions contemplated by this Agreement.

12. Governing Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Colorado. Any legal action concerning the provisions of this Agreement shall be brought in El Paso County, Colorado.

13. Modification. This Agreement may only be modified upon written agreement of the parties.

14. Integration. This Agreement constitutes the full, entire and integrated agreement between the parties and no additional or different oral representation, promise or agreement shall be binding on any of the parties hereto. No subsequent modification of any of the terms of this Agreement is valid, binding upon the parties, or enforceable unless made in writing and signed by the parties.

15. Severability. If any provision of this Agreement is found by a court of competent jurisdiction to be unlawful or unenforceable for any reason, the remaining provisions hereof shall remain in full force and effect.

16. No Third-Party Beneficiaries. There are no intended third-party beneficiaries to this Agreement and nothing in this Agreement, express or implied, is intended to confer upon any other person any rights, remedies, obligations, or liabilities.

17. Assignability. The Agreement is not assignable by either party without the other party's prior written consent, which consent may not be unreasonably conditioned, withheld or delayed by the other party.

18. Governmental Immunity. The City, its officers, and its employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq., as amended, or otherwise available to the City and its officers or employees.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first set forth above.

[Signatures on following page.]

OWNER:

**THE ESTATE OF GORDON AND MARTA
PRICE**

*Eric T. Ryan, Personal Representative for
The Estate of Gordon and Marta Price*

CITY:

CITY OF MANITOU SPRINGS, COLORADO

By: _____

Title: _____

ATTEST:

Office of the City Clerk



Memorandum

To: City of Manitou Springs City Council

From: Gillian Rossi, Parks & Recreation Director

Date: July 30th, 2025

Re: OSAC Recommendation in Support of Approving Proposed Land Donations

At the OSAC Regular Meeting on Monday, July 28th, 2025, committee members voted in support of recommending City Council approve three (3) proposed land donations adjacent to Black Canyon Open Space. The Parks & Recreation Department is also in support of accepting the donations. The land donations consist of the following parcels:

- 7404303015
- 7404303013
- 7404303011

Maps showing the location of each parcel are included at the end of this memo. The following email was sent on July 29th, 2025, by OSAC Chair, David Conley, regarding OSAC's vote.

Gillian: I wanted to confirm to you the decision by the Open Space Advisory Committee to recommend that the City Council approve the proposed donation of three lots adjacent to the Black Canyon Open Space on the City's north side. This recommendation was made at the Committee's regular meeting on July 28, 2025. These parcels are identified by the Assessor as follows:

7404303015

7404303013

7404303011

Should the City Council decide to accept the proposed donation, these parcels would add about 1.5 acres to the open space parcel. The Committee would recommend that the Planning Department evaluate re-zoning these parcels to open space.

David C. Conley

Attorney

David C. Conley P.C.

24 South Weber, Suite 300, Colorado Springs, CO 80903

Parcel 7404303011

Location: BLACK CANON AVE

Description: THAT PART OF LOTS 9, 10 NOT INCLUDED IN HWY RESUB OF LOTS 9 TO 15 INC BLK 16 RED CRAGS FIL 2 MANITOU SPGS

County assigned market value: \$3,300

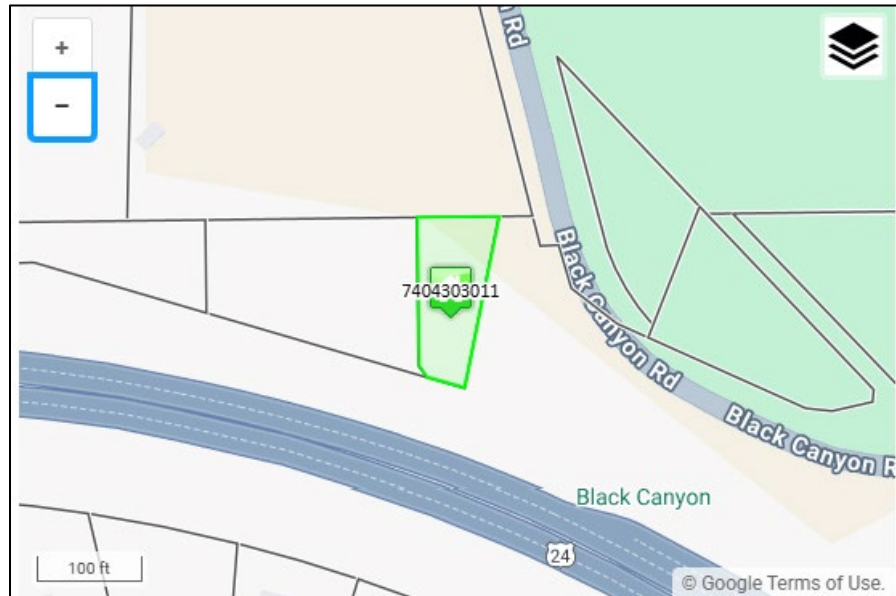


Figure 1 Parcel 7404303011

Parcel 7404303013

Location: W HIGHWAY 24

Description: TRACT IN SW4 SEC 4-14-67 WHICH IS THAT PART OF FORMER LOTS 6, 7, 8 BLK 16 RED CRAGS FIL 2 -NOW VAC- LY N OF HWY

County assigned market value: \$3,400

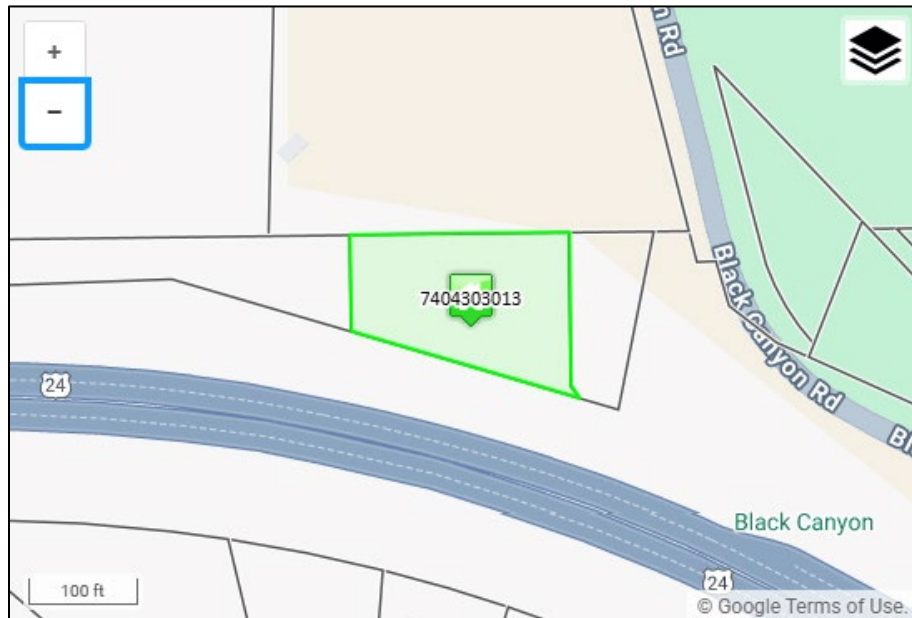


Figure 2 Parcel 7404303013

Parcel 7404303015

Location: W HIGHWAY 24

Description: TRACT IN N2SE4 SEC 4-14-67 WHICH IS THAT PART OF FORMER LOTS 1 TO 5 INC BLK 16
RED CRAGS FIL 2 MANITOU SPGS -NOW VAC- LY N OF HWY

County assigned market value: \$3,300

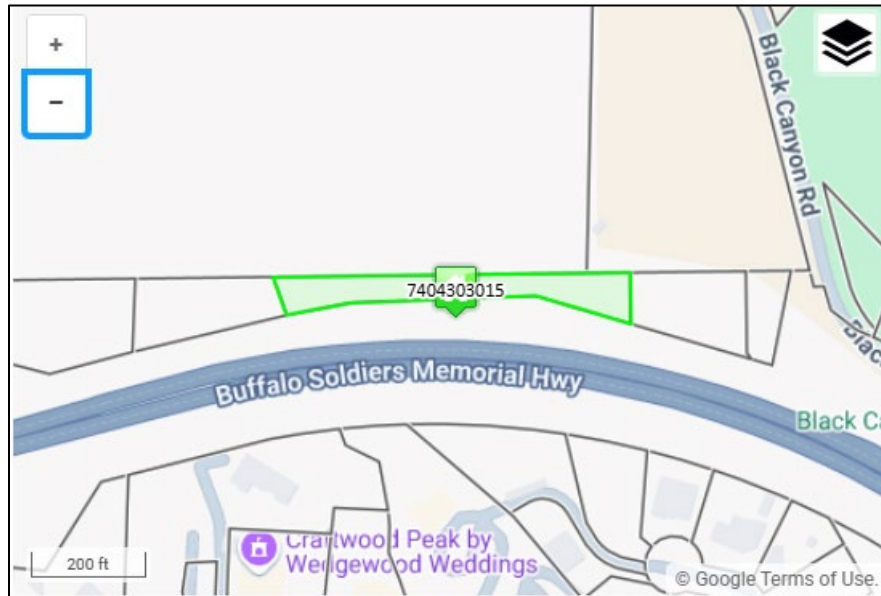
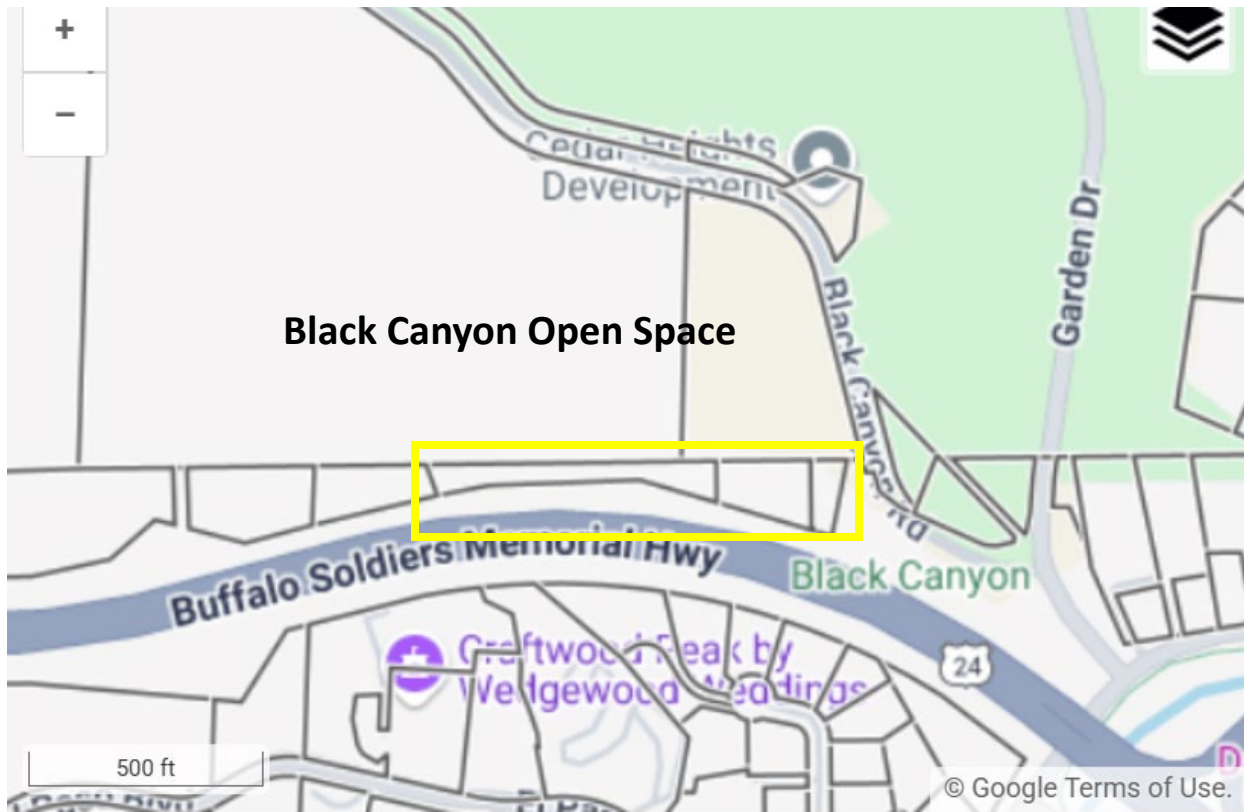


Figure 3 Parcel 7404303015



Proposed parcels outlined in yellow.

From left to right: 7404303015, 7404303013, 7404303011



Memorandum

Title: Resolution No. 1125, A Resolution of the City of Manitou Springs, Colorado, Finding that the Construction of the Mesa Tank II Water Tank is Completed

From: Rebecca Director, CPFO, Finance Director

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 5 Minutes

August 5, 2025

Purpose:

The purpose of this resolution is to provide official documentation that the construction of the new Mesa Tank II is now completed.

Background:

The Mesa Tank II water tank construction contract was signed on July 23, 2024.

Construction began in August 2024 and reached substantial completion in just eight months.

The new tank was brought online on April 9, 2025. It increased the City's total finished water storage capacity to more than 3.5 million gallons, alongside the original Mesa Tank (2.0 million gallons) and the Crystal Hills Tank. This expanded capacity enhances water pressure, supports fire protection and ensures service continuity during maintenance.

The ribbon-cutting that officially commissioned the completed 1.1-million-gallon water tank was held on April 17, 2025.

The Mesa Tank II project was funded in part by a DOLA grant. In order to close out the grant, DOLA requires official documentation that the facility has been completed. This resolution provides that documentation.

Pros and Cons:

There are no cons to adopting this resolution. If it is not adopted, recovery of DOLA funds will be delayed.

Fiscal Impact:

Delay in receiving final reimbursement of \$294,287.



Workload Impact:

2 Hours

Recommended Action:

Move to adopt Resolution No. 1125, a Resolution of the City of Manitou Springs, Colorado, finding that the Construction of the Mesa Tank II is completed.

RESOLUTION

**A RESOLUTION OF THE CITY OF MANITOU SPRINGS, COLORADO,
FINDING THAT THE CONSTRUCTION OF THE MESA TANK II IS
COMPLETED**

WHEREAS, on July 23, 2024, the City entered in an agreement (the “Construction Agreement”) for the construction of a second water tank upon property owned by the City where the City’s water treatment plant and original water tank are located;

WHEREAS, the construction of the Mesa Tank II is now completed with notice of final payment published on May 30, 2025; and

WHEREAS, the City Council now, therefore, desires to formally find and determine that the construction of the Mesa Tank II is completed pursuant to the terms of the Construction Agreement.

**NOW, THEREFORE, BE IT HEREBY RESOLVED BY THE CITY COUNCIL
OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:**

SECTION 1: The City Council hereby finds and determines that the Mesa Tank II construction is completed, pursuant to the terms of the Construction Agreement.

Adopted at the meeting of the City Council of the City of Manitou Springs, Colorado, on this 5th day of August 2025, and effective immediately.

Mayor and Council:

By: _____
John Graham, Mayor

Attest:

Elena Krebs, City Clerk



Memorandum

Title: First Reading of Ordinance No. 1625, An Ordinance Submitting a Ballot Issue to the Registered Electors of the City of Manitou Springs at the City's November 4, 2025 Regular Election to Increase the City's Excise Tax on Ticket Sales and Admission Fees

From: Denise Howell, City Administrator

To: Mayor and City Council

CC: City Administrator Denise Howell

Allocated Time: 15 Minutes

August 5, 2025

Purpose:

To have the City Council review and consider approving on first reading the proposed ordinance.

Background:

At their July 29, 2025 Work Session, City Council directed staff to have an ordinance ready for first reading. The proposed ordinance is attached.

Pros and Cons:

Fiscal Impact:

Substantial

Workload Impact:

10 Hours

Recommended Action:

Move to approve on first reading, Ordinance No. 1625, an ordinance submitting a ballot issue to the registered electors of the City of Manitou Springs at the City's November 4, 2025 regular election to increase the City's excise tax on ticket sales and admission fees, and set a public hearing for August 19, 2025, at 6:00 p.m.

ORDINANCE

AN ORDINANCE SUBMITTING A BALLOT ISSUE TO THE REGISTERED ELECTORS OF THE CITY OF MANITOU SPRINGS AT THE CITY'S NOVEMBER 4, 2025 REGULAR ELECTION TO INCREASE THE CITY'S EXCISE TAX ON TICKET SALES AND ADMISSION FEES

WHEREAS, the City's November 4, 2025 election shall be coordinated with El Paso County, and shall include the submission of the following ballot issue to the electors of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MANITOU SPRINGS, COLORADO, THAT:

Section 1. Pursuant to Article X, § 20 of the Colorado Constitution, the City Council submits the following ballot issue to the registered electors of the City of Manitou Springs at the City's November 4, 2025 regular election:

SHALL CITY OF MANITOU SPRINGS' TAXES BE INCREASED BY TWO MILLION FIVE HUNDRED THOUSAND DOLLARS (\$2,500,000.00) ANNUALLY IN THE FIRST FULL FISCAL YEAR COMMENCING JANUARY 1, 2026, AND BY SUCH AMOUNTS AS ARE RAISED ANNUALLY THEREAFTER BY ADDING AN ADDITIONAL NINE PERCENT (9%) TO THE CITY'S CURRENT FIVE PERCENT (5%) EXCISE TAX RATE ON TICKET SALES AND ADMISSIONS FEES WITH THE RESULTING TAX REVENUE BEING ALLOWED TO BE COLLECTED AND SPENT BY THE CITY WITHOUT REGARD TO ANY EXPENDITURE, REVENUE-RAISING, OR OTHER LIMITATION CONTAINED IN ARTICLE X, § 20 OF THE COLORADO CONSTITUTION OR ANY OTHER LAW?

YES _____ NO _____

Section 2. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 3. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 4. This ordinance shall take effect five (5) days after publication following final passage.

Passed on first reading and ordered published this 5th day of July 2025.

City Clerk, Elena Krebs

A Public Hearing on this ordinance will be held at the August 19, 2025 City Council meeting. The City Council Meeting will be held at 6:00 P.M. at City Hall, 606 Manitou Avenue, Manitou Springs, Colorado.

Ordinance Published: _____, 2025. (in full)

City's Official Website and City Hall

Passed on second reading and adopted by Council this ____ day of _____ 2025.

Mayor, John Graham

Attest: _____
City Clerk, Elena Krebs

Published: _____, 2025 (in full)
City's Official Website and City Hall