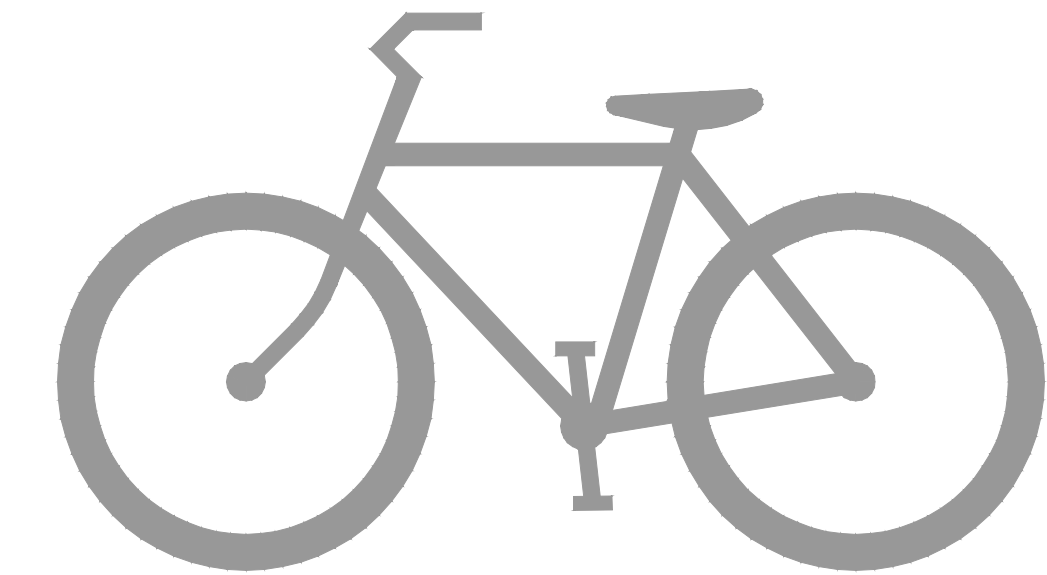


STATE OF COLORADO
DEPARTMENT OF TRANSPORTATION
CITY OF COLORADO SPRINGS
Parks, Recreation and Cultural Services Department
CAPITAL IMPROVEMENT PROJECT
TRAIL IMPROVEMENT PROGRAM
COMBINED FEDERAL AID PROJECT No. TAP M240-162, SubAccT. No.20391
STREET IMPROVEMENTS
PLAN of the ROCK ISLAND MULTI-USE TRAIL
SAND CREEK TO CONSTITUTION AVENUE
COLORADO SPRINGS & EL PASO COUNTY, COLORADO

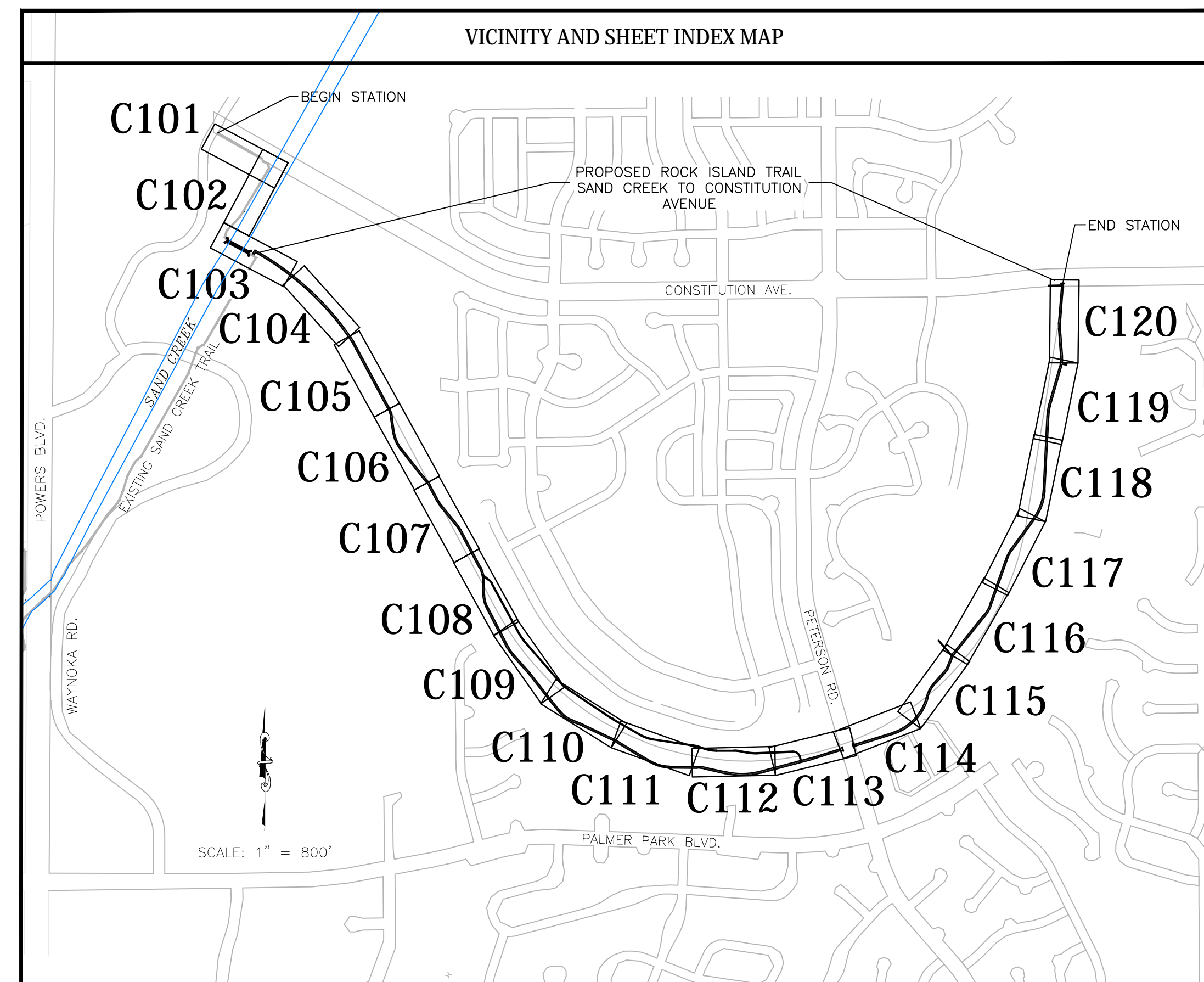


21 JULY 2024

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C002	GENERAL NOTES	
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C204	PEDESTRIAN BRIDGE SECTION	
C205	PEDESTRIAN BRIDGE ABUTMENT DETAILS	
C501	TYPICAL STANDARD DETAILS	
C502	TYPICAL MISCELLANEOUS DETAILS	
C503	TYPICAL HANDRAIL AND FENCE DETAILS	
C504	SITE SPECIFIC DETAILS	
C511	SIGNAGE & STRIPING PLAN - PETERSON ROAD	

APPROVAL SIGNATURES			
TITLE	NAME	SIGNATURE	DATE
DIRECTOR, PARKS, REC. & CULT. SVS PARKS OPERATION & DEVELOPMENT MANAGER	BRITT HALEY	_____	_____
CITY FORESTER		_____	_____
REG. SUPERVISOR, PARKS, TRAILS & OPEN SPACE	SCOTT ABBOTT	_____	_____
CONSTRUCTION PROJECT MANAGER	EMILY DUNCAN	_____	_____
COLORADO DEPARTMENT OF TRANSPORTATION		_____	_____
EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS	JENNIFER IRVINE, PE	_____	_____

TRAIL DATA DESIGN	
BEGIN STATION ROCK ISLAND TRAIL	10+00
END STATION ROCK ISLAND TRAIL	106+25
MAXIMUM GRADE	8.33%
MINIMUM HORIZONTAL CURVE	25'
MINIMUM WIDTH 8'	8'
TYPICAL WIDTH	10'
CROSS-SLOPE	2%
LENGTH ROCK ISLAND TRAIL	10,906.62 LF
AREA OF DISTURBANCE	18.2 ACRES
CONSTRUCTION AREA	22.8 ACRES
ANTICIPATED START	09/01/2024
ANTICIPATED CONSTRUCTION END	08/01/2024
ANTICIPATED STABILIZATION	10/01/2025
RECEIVING WATER	SAND CREEK
SITE IS NATIVE GRASS AND WILL REMAIN NATIVE GRASS.	
BENCHMARK: FIMS MONUMENT SR10 IS A 2-INCH DIAMETER ALUMINUM CAP STAMPED "CSU FIMS CONTROL SR10" ON TOP OF THE NORTH CURB OF CONSTITUTION AVENUE AT THE NORTHWEST CORNER OF THE BRIDGE OVER SAND CREEK.	



STATEMENTS	
Engineer's Statement:	
This Street Improvement Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Street Improvement Plans. I accept responsibility for any liability caused by any negligent acts or omissions on my part in preparing this Plan.	
Engineer of Record signature	Date
Owner's Statement:	
I, the owner/developer have read and will comply with the requirements of this Street Improvement Plan.	
Signature	Date
El Paso County:	
County Plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.	
Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual as amended.	
In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the Plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion.	
County Engineer/ECM Administrator	Date

*A.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE

NATURAL GAS	YELLOW
ELECTRIC	RED
WATER	BLUE
WASTEWATER	GREEN

Know what's below.
Call before you dig.



IN PROGRESS
NOT FOR CONSTRUCTION

For and on Behalf of
Kiowa Engineering Corporation Date

Please remove the
because this design
is for final
construction



1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

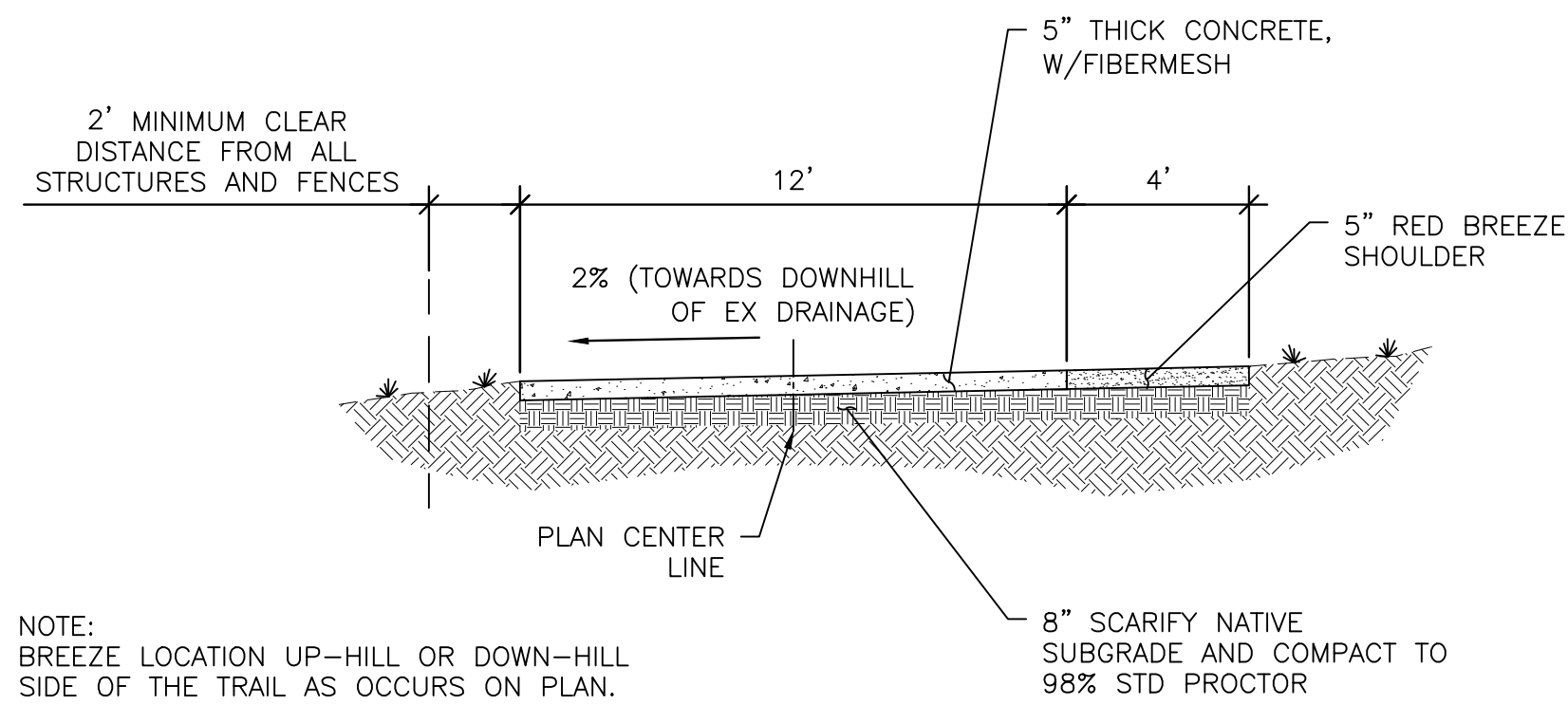
Sheet Revisions	100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue COVER SHEET		Kiowa Proj. No. 16028
	No Revisions:			TAP M240-162
	Revised:	Designer: TAC		SubAcct No. 20391
	Void:	Detailer: TEG		Sheet Number C000
		Date: 9/30/2024		

SUMMARY OF APPROXIMATE QUANTITIES			
CONTRACT ITEM NO.	CONTRACT ITEM	PROJECT TOTALS	
		Quantity	Units
1.1	Construction staking	1	EA
1.2	Construction zone traffic control signs 30" x 30"	1	LS
1.3	Mobilization	1	EA
2.1	Concrete wash out area	2	EA
2.2	Erosion Control Blanket (ECB)	18,068	SF
2.3	Sanitary facility	2	EA
2.4	Seeding & Mulching	40,279	SY
2.5	Silt Fencing	13,451	LF
2.6	Stabilized staging area	1	EA
2.7	Storm Drain/Inlet protection	2	EA
2.8	Vehicle tracking control	3	EA
3.1	Clearing and grubbing (Includes trees less than 10" DBH)	18.2	AC
3.2	Remove and dispose concrete curb and gutter	54	LF
3.4	Remove all concrete rubble located near sta 39+50	1	LS
3.5	Remove and dispose concrete sidewalk	144	SF
3.6	Remove and dispose trees (Includes trees 10" DBH or greater)	12	EA
3.7	Remove east concrete bridge abutment	1	EA
3.3	Remove west concrete bridge abutment	1	LS
4.1	Topsoil	950	CY
4.2	Excavation - cut to fill on site	2,000	CY
4.3	Scarify, rake and revegetate existing trails, 5-foot avg width	9,742	LF
5.1	Trail Section A - Concrete - 12' wide	9,518	LF
5.2	Trail Section B - Concrete - 10' wide attached	300	LF
5.3	Trail Section C - Concrete - 10' wide detached	619	LF
5.4	Trail Section D - Concrete - 8' wide	114	LF
5.5	Trail Section E - Concrete - 6' wide	140	LF
5.6	Trail Section F - Breeze - 6' wide	2,675	LF
6.1	Aggregate base course, Class 6	4,636	CY
6.2	Smooth rail fence	7,876	LF
6.3	Removable locking steel posts	3	EA
7.1	Concrete - curb and gutter - COS Type 1	30	LF
7.2	Concrete - curb and gutter - COS Type 3	176	LF
7.3	Concrete - patterned - 4-inch thick	652	SF
7.4	Concrete - pedestrian ramp - COS standard	4	EA
7.5	Concrete - refuge island - 6-inch thick	144	SF
7.6	Hot Mix Asphalt Pavement - 6-inch thick	65	SY
7.7	Inlet - CDOT std. Type C	1	EA
8.1	Bridge - 210' x 12' (inside)	1	EA
8.2	MSE retaining wall	390	SF
9.1	flared end section - HDPE - 18-inch	2	EA
9.2	Pipe - HDPE - 18-inch	67	LF
9.3	riprap - Type L 18-inch	88	CY
10.1	pavement markings - Epoxy coated - 12"x18" Ped xing	6	EA
10.2	pavement markings - Epoxy coated - stripe - 4" yellow dbl	28	LF
10.3	pavement markings - Epoxy coated - stripe - 4" yellow "island warning"	71	LF
11.1	Signage - Traffic - R1-6 "Yield to Pedestrians", 12" x 36"	2	EA
11.2	Signage - Traffic - R4-7 "Keep Right", 24" x 30"	2	EA
11.3	Signage - Traffic - W11-1 "Trail Crossing Ahead", 30" x 30"	2	EA
11.4	Signage - Traffic - W11A-2 "Pedestrian Crossing", 24" x 24"	2	EA
11.5	Signage - Traffic - W16-7P Arrow, 12" x 18"	2	EA
11.6	Signage - Trail - "Riders Dismount", 12" x 18"	2	EA
11.7	Signage - Trail - "Stop Ahead", 12" x 18"	2	EA

SWENT STANDARD GRADING AND EROSION CONTROL PLAN NOTES	
1.	No clearing, grading, excavation, or other land disturbing activities shall be allowed (except for work directly related to the installation of Initial Control Measures) until a City GEC Permit has been issued.
2.	All land disturbing activities must be performed in accordance with and the approved GEC Plan and CSWMP.
3.	Initial Control Measures shall be installed and inspected prior to any land disturbance activities taking place. An initial site inspection will not be scheduled until a City GEC Permit has been "conditionally approved." Call City Stormwater Inspections, 385-5980, at least 48 hours prior to construction to schedule an initial inspection and obtain full permit approval.
4.	Individuals shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS) and the "Clean Water Act" (33 USC 1344), including regulations promulgated and certifications or permits issued, in addition to the requirements included in the City's MS4 Permit, Stormwater Construction Manual. In the event of conflicts between these requirements and water quality control laws, rules, or regulations of other Federal or State agencies, the more restrictive laws, rules, or regulations shall apply.
5.	Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters.
6.	All Construction Control Measures shall be maintained until permanent stabilization measures are implemented. Temporary Construction Control Measures must be removed prior to permit closeout.
7.	Concrete wash water shall not be discharged to or allowed to runoff to State Waters or any surface or subsurface storm drainage system or facilities.
8.	Building, construction, excavation, or other 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. Construction Control Measures may be required by the GEC Inspector if deemed necessary based on specific conditions and circumstances (e.g., estimated time of exposure, season of the year, etc.).
9.	All wastes composed of building materials must be removed from the construction site for disposal in accordance with local and state regulatory requirements. No building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
10.	The permittee shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system as a result of construction activities.
11.	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. Materials shall not be stored in a location where they may be carried by stormwater runoff into the storm sewer system at any time.
12.	Spill prevention and containment measures shall be used at all storage, equipment fueling, and equipment servicing areas so as to contain oil spills and prevent any spilled material from entering the MS4, including any surface or subsurface storm drainage system or facility. Bulk storage structures for petroleum products and other chemicals shall have secondary containment or equivalent adequate protection. All spills shall be cleaned up immediately after discovery, or contained until appropriate cleanup methods can be employed. Manufacturer's recommended methods for spill cleanup shall be followed, along with proper disposal methods.
13.	Sediment (mud and dirt) transported onto a public road, regardless of the size of the site, shall be cleaned as soon as possible after discovery.
14.	No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the State. In granting the use of such chemicals, special conditions and monitoring may be required.
15.	Control Measures for all slopes, channels, ditches, or any disturbed land area shall be completed within fourteen (14) calendar days after final grading or final land disturbance has been completed. Disturbed areas which are not at final grade but will remain dormant for longer than fourteen (14) days shall be roughened, mulched, tackified, or stabilized with tarps within fourteen (14) days after interim grading. An area that is going to remain in an interim state for more than sixty (60) days shall also be seeded, unless an alternative stabilization measure is accepted at the inspector's discretion. All temporary Construction Control Measures shall be maintained until final stabilization is achieved.
16.	The GEC Plan will be subject to re-review and re-acceptance by the Stormwater Enterprise should any of the following occur: grading does not commence within twelve (12) months of the City's acceptance of the plan, the construction site is idle for twelve (12) consecutive months, a change in property ownership occurs, the planned development changes, or any other major modifications are proposed as defined in the Stormwater Construction Manual.
17.	It is not permissible for any person to modify the grade of the earth on any utility easement or utility right-of-way without written approval from the utility owner. City acceptance of the GEC Plan and CSWMP does not satisfy this requirement. The plan shall not increase or divert water towards utility facilities. Any changes to existing utility facilities to accommodate the plan must be approved by the affected utility owner prior to implementing the plan. The cost to relocate or protect existing utilities or to provide interim access shall be at the applicant's expense.
18.	Applicant represents and warrants that they have the legal authority to grade and/or construct improvements on adjacent property. The City has not reviewed the developer's authority to modify adjacent property. An approved GEC Permit does not provide approval for the Applicant to perform work on adjacent property.

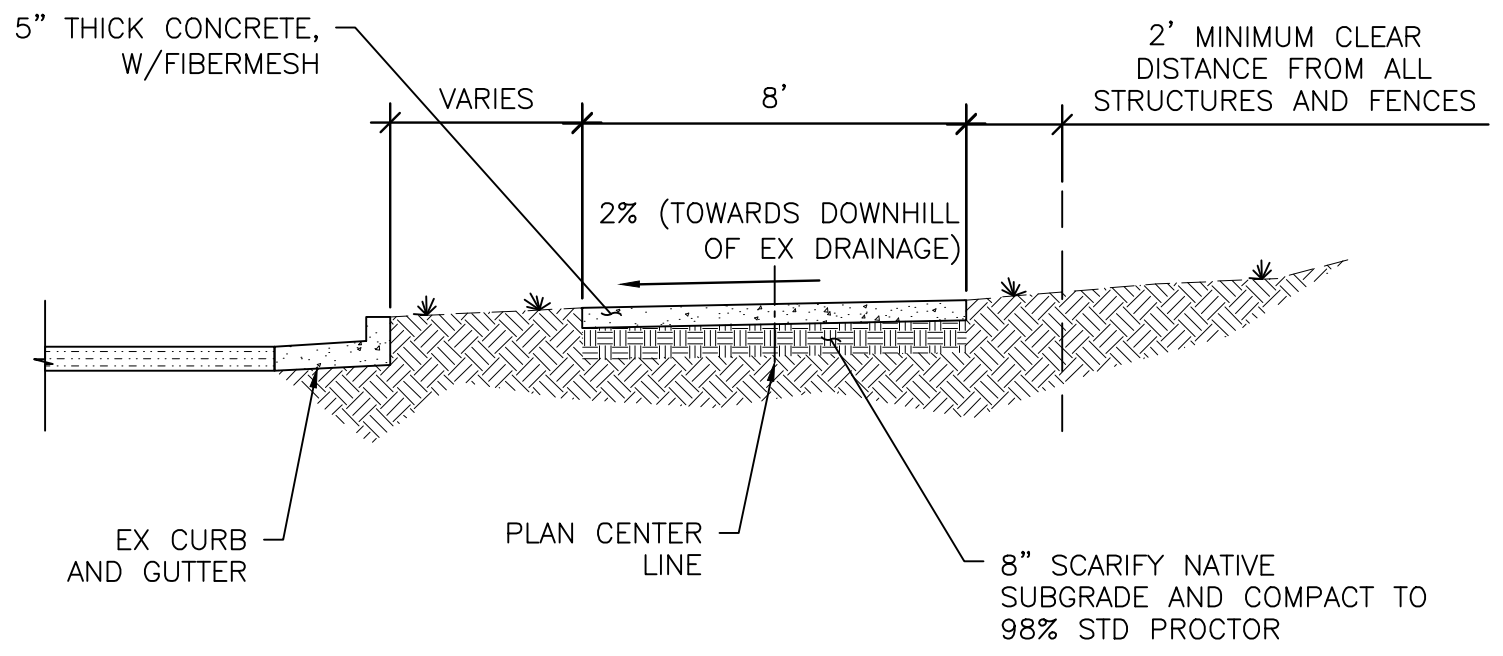
KIOWA GENERAL NOTES	
1.	All materials and workmanship shall be in conformance with the latest version of Colorado Department of Transportation (CDOT) standard specifications for road and bridge construction and supplemented with the City of Colorado Springs standard specifications.
2.	The contractor shall notify the owner (city) and engineer of any problem in conforming to the approved plans for any element of the proposed improvements prior to its construction.
3.	The contractor shall protect all existing facilities in the general area of construction. The contractor shall repair any damage caused by construction operations at no cost to the project.
4.	Utility lines as shown on these drawings are plotted from the best available information. The contractor shall call 811 for utility locations at least two working days prior to any digging. The contractor shall determine the exact location of all utilities prior to construction and shall protect them from damage during construction.
5.	Surveying for this project shall be conducted in accordance with CDOT standards.
6.	Benchmark: firms monument SR10 is a 2-inch diameter aluminum cap stamped "CSU FIMS control SR10" on top of the north curb of constitution avenue at the northwest corner of the bridge over sand creek.
7.	All existing manholes to be marked with t-posts and caution tape prior to commencing with the construction.
8.	water shall be used as a dust palliative where required. Locations shall be as directed by the engineer. Water will not be paid for separately, but will be subsidiary to the excavation item.
9.	All removed asphalt will become the property of the contractor and will be disposed of outside project limits.
10.	The soil to be placed as topsoil material shall be free of refuse, stumps, roots, rocks, brush, weeds, hard clods, toxic substances or other material which would be detrimental to its use on the project. It shall have a minimum p.l. Of 5 but shall not be such heavy clay as to preclude placement with a shoulder machine.
11.	Salvageable material: material that can be saved or salvaged. Unless otherwise specified in the contract, all salvageable material shall become the property of the contractor.
12.	Topographic data indicated on these drawings was compiled from field surveys. Contractor must verify extent of work within these areas. Dimensions, elevations, and locations of existing structures, pipelines, and utilities are approximate. Where such dimensions or locations determine the limits of the work, such dimensions or locations shall be verified in the field prior to construction.
13.	The locations of existing structures, pipelines, utilities, etc., shown on the drawings have been approximated. There may be other structures, pipelines, utilities, etc., not shown on the drawings which presently exist in the area of construction. The engineer and/or owner assumes no responsibility for the accuracy or completeness of the information shown. The contractor will be responsible for locating and protecting all impacted existing structures, pipelines, utilities, etc., in the project site.
14.	The contractor shall carefully preserve all monuments, benchmarks, property markers, reference points, and stakes. In case of his destruction of these, the contractor will be responsible for resetting same, at no cost to the owner, and shall be responsible for any loss of time that may be caused.
15.	The contractor shall notify the engineer where utilities conflict with the work in conformance with the specifications. Where field verification is noted on the plans, this shall require the contractor to determine the location of the facility in question prior to construction. A determination shall be made by the contractor if the current design will conflict with the existing facility and notify the engineer in writing.
16.	All existing areas disturbed outside the limits of construction activities shall be re-vegetated in conformance with the specifications at no additional cost to the project. All existing roadways and sidewalks damaged during construction shall be repaired or reconstructed in conformance with the specifications.
17.	Signage shall follow the "manual on uniform traffic control devices" latest edition and the city of Colorado Springs traffic engineering signage & pavement marking standards. Contractor shall submit to the county a traffic control plan prior to commencing with the work.
18.	Contractor shall establish trail corridor with stakes. The owner will then mark all trees to be saved in a walkthrough of the trail corridor with the contractor.
19.	All discharges to drainage courses and storm sewer systems must comply with the applicable provisions of the Colorado water quality control act and the Colorado discharge permit regulations, and are subject to inspection by El Paso county and CDPHE. El Paso has a ms-4 permit. Contractor shall devise and implement a permanent plan for periodic removal and disposal of sediment from erosion control facilities and for maintenance of erosion control facilities.
20.	The contractor shall obtain construction stormwater discharge permit from CDPHE.

	<p style="text-align: center; color: red;">IN PROGRESS NOT FOR CONSTRUCTION</p>	 <p style="text-align: center; font-size: small;">1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>	Sheet Revisions	100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue SUMMARY OF QUANTITIES	Kiowa Proj. No. 16028	
			○	No Revisions:		TAP M240-162	
			○	Revised:		Designer: TAC	SubAcct No. 20391
			○	Void:		Detailer: TEG	Sheet Number C001
○			Date: 9/30/2024				

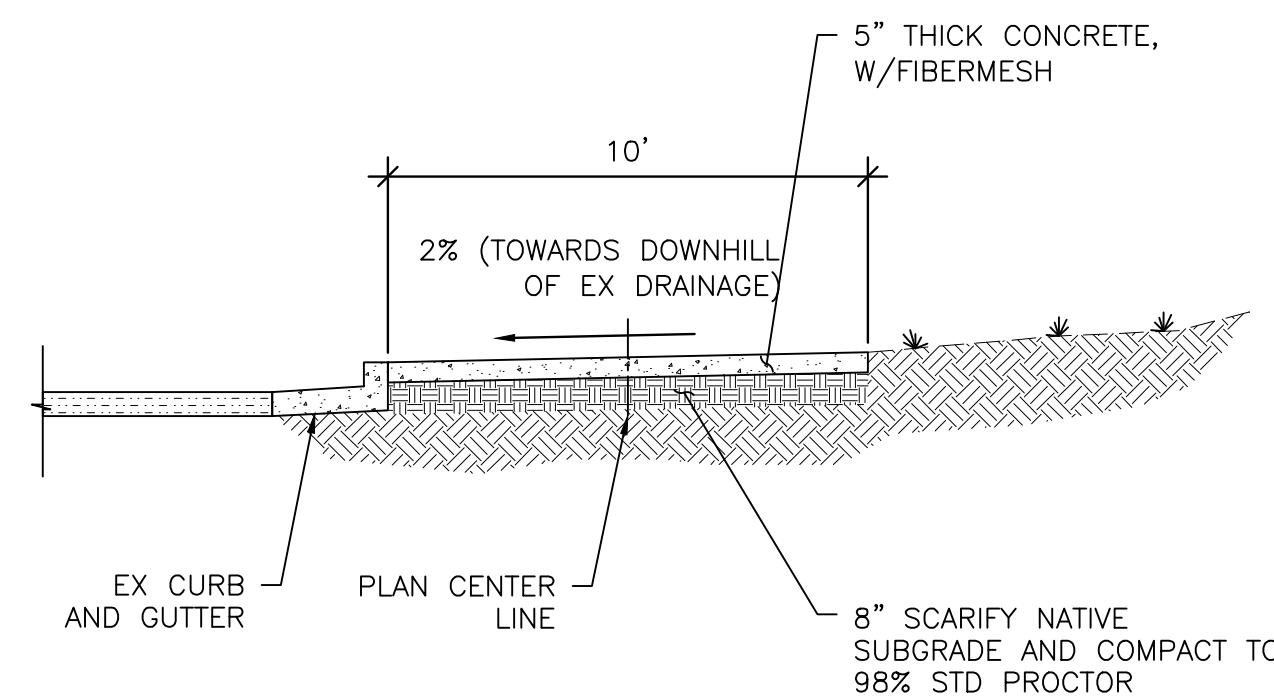


NOTE: BREEZE LOCATION UP-HILL OR DOWN-HILL SIDE OF THE TRAIL AS OCCURS ON PLAN.

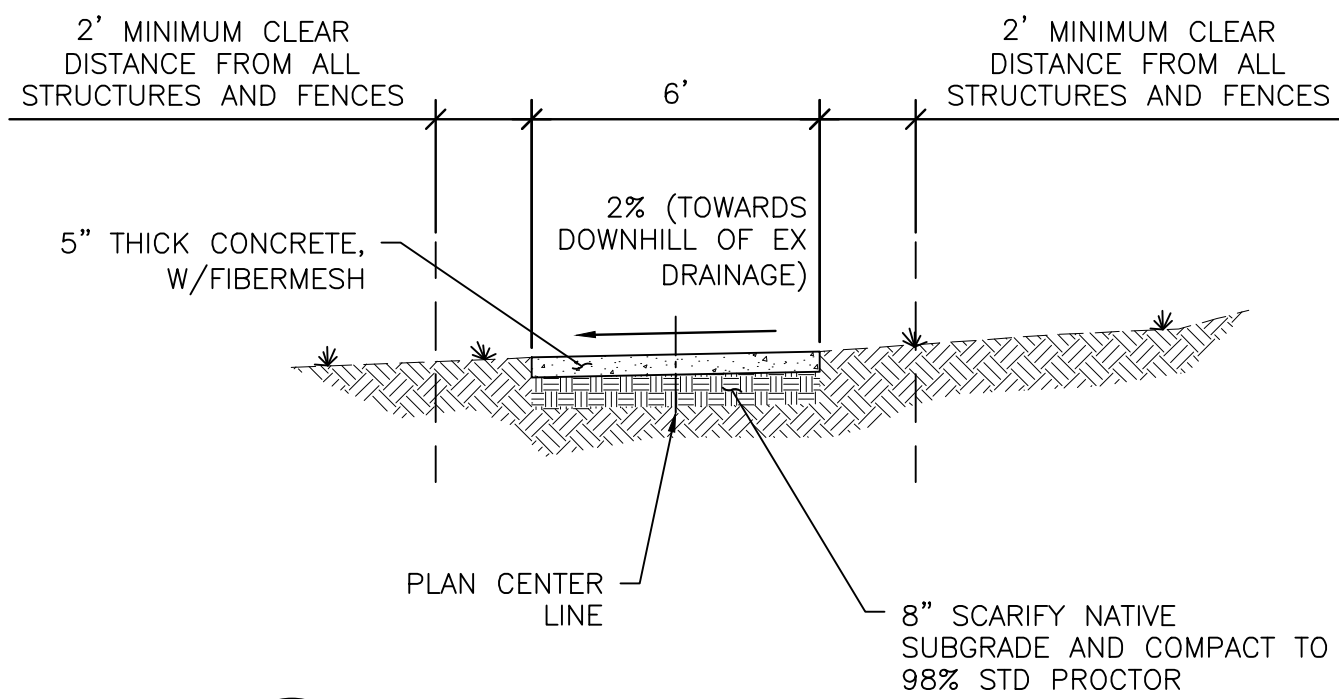
A TRAIL SECTION A - 12' CONCRETE TRAIL
C002 Scale: 1" = 4'



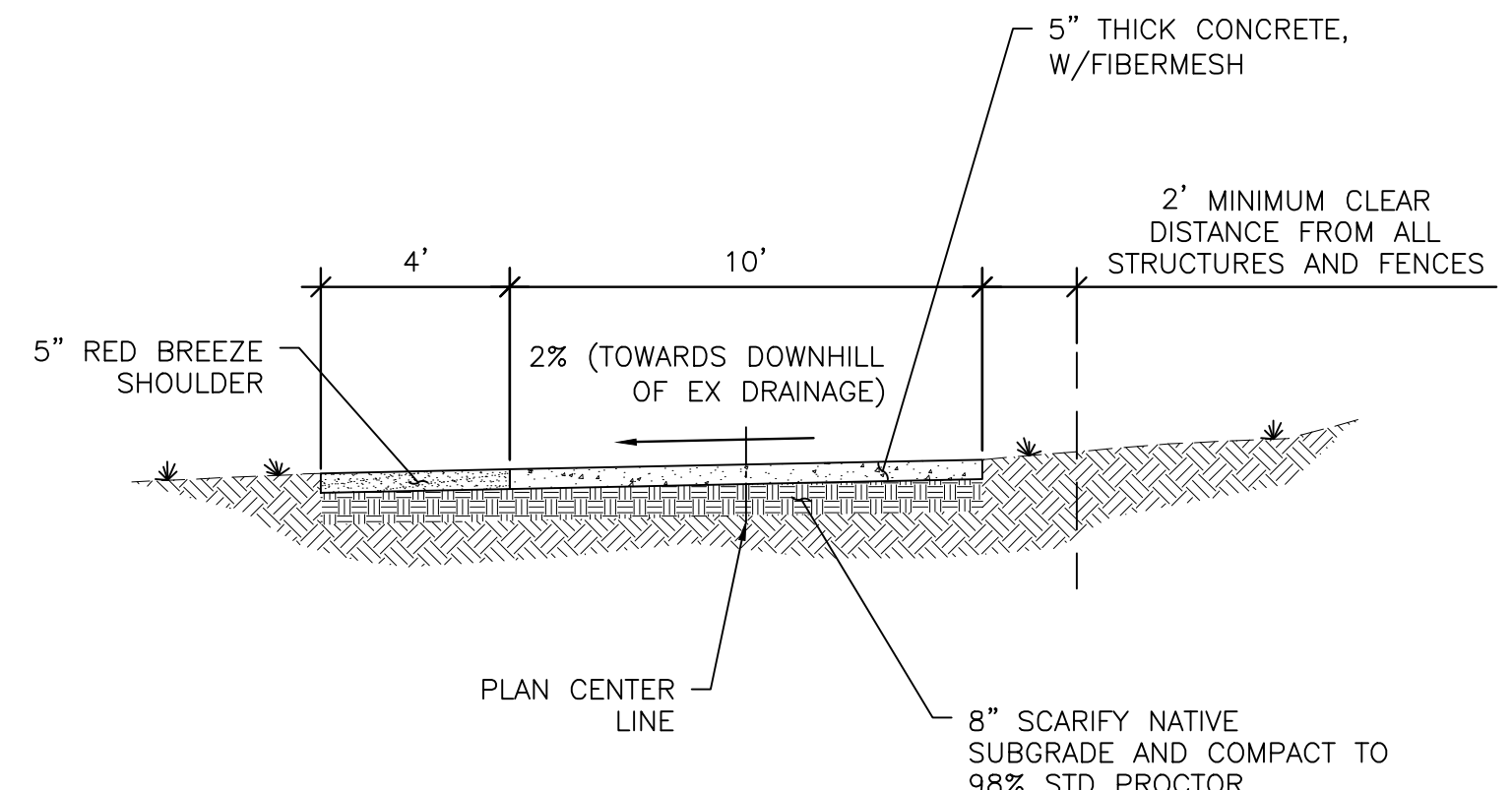
D TRAIL SECTION D - 8' CONCRETE TRAIL DETACHED
C002 Scale: 1" = 4'



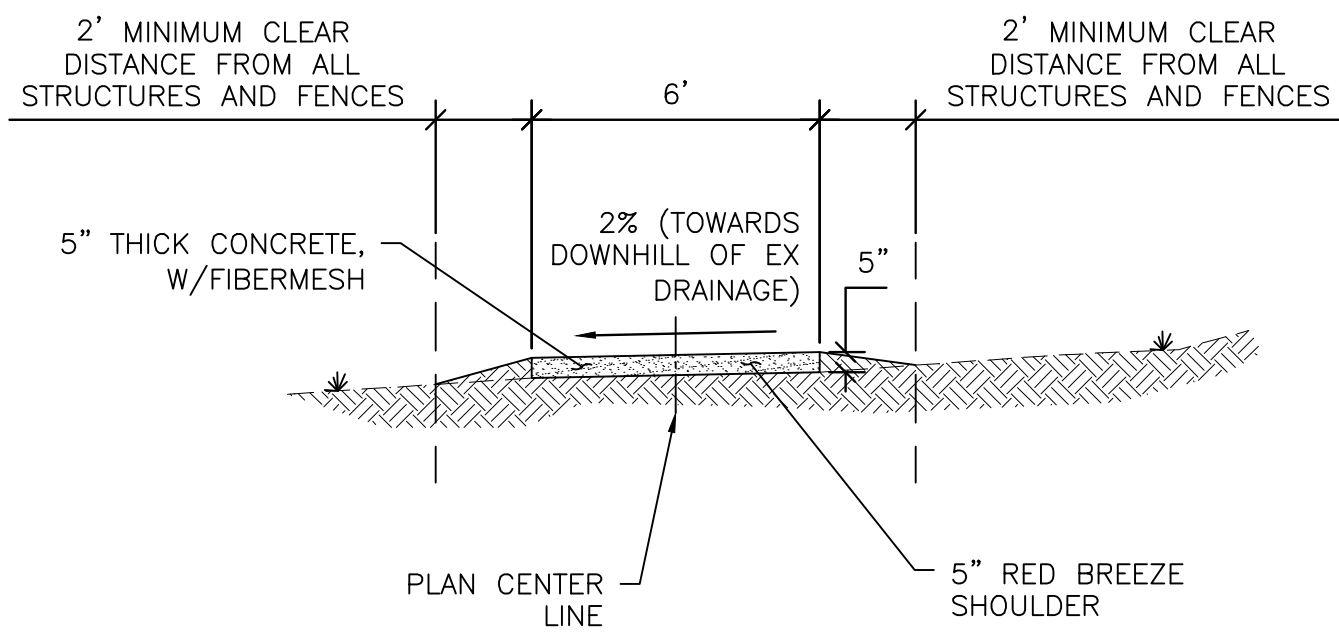
B TRAIL SECTION B - 10' CONCRETE TRAIL
C002 Scale: 1" = 4'



E TRAIL SECTION E - 6' CONCRETE TRAIL
C002 Scale: 1" = 4'



C TRAIL SECTION C - 10' CONCRETE TRAIL DETACHED
C002 Scale: 1" = 4'



F TRAIL SECTION F - 6' BREEZE TRAIL
C002 Scale: 1" = 4'

KNOWN UTILITIES WITHIN PROJECT LIMITS


- CONTRACTOR MUST VERIFY ALL UTILITIES PRIOR TO EXCAVATION
1. COLORADO SPRINGS UTILITIES: ELECTRIC & GAS DIVISIONS
 2. CENTURY LINK
 3. LEVEL 3 COMMUNICATIONS
 4. CIMARRON WATER AND SANITATION DISTRICT
 5. CHEROKEE METRO DISTRICT

PRE-EXCAVATION CHECKLIST

- GAS AND OTHER UTILITY LINES OF RECORD SHOWN ON PLANS.
- UTILITIES CENTRAL LOCATING CALLED AT LEAST 2 BUSINESS DAYS AHEAD. (811)
- UTILITIES LOCATED AND MARKED.
- EMPLOYEES BRIEFED ON MARKING AND COLOR CODES.*
- EMPLOYEES TRAINED ON EXCAVATION AND SAFETY PROCEDURES FOR NATURAL GAS LINES.
- WHEN EXCAVATION APPROACHES GAS LINES, EMPLOYEES EXPOSE LINES BY CAREFUL PROBING AND HAND DIGGING.

*A.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE

NATURAL GAS	YELLOW
ELECTRIC	RED
WATER	BLUE
WASTEWATER	GREEN



Know what's below.
Call before you dig.

LEGEND

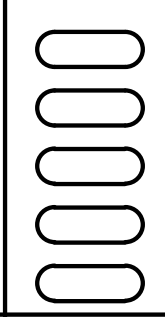
- BOLLARD
- × × FENCE
- GUARDRAIL
- SIGN
- ELECTRIC POWER POLE
- E ELECTRIC LINE
- ELECTRIC VAULT
- G GAS MAIN
- Gv GAS VENT
- SS SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- T TELEPHONE MAIN
- ⊕ TELEPHONE MANHOLE
- TELEPHONE RISER
- WATER MAIN
- ⊕ WATER VALVE



**IN PROGRESS
NOT FOR CONSTRUCTION**

Kiowa
Engineering Corporation

1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342



Sheet Revisions

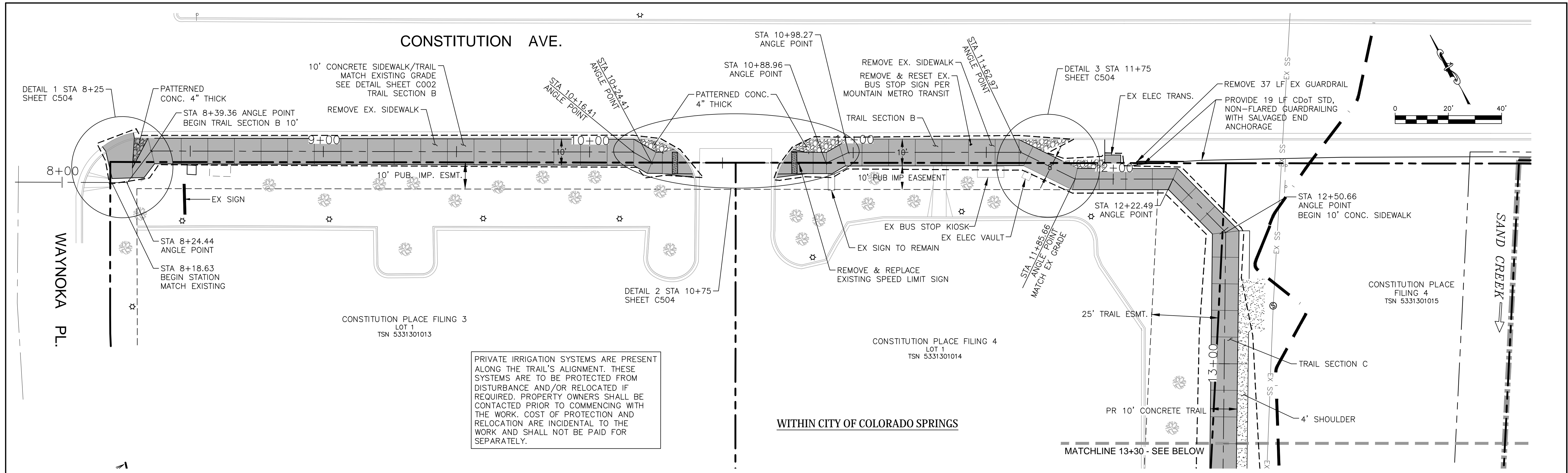
100% SET

- No Revisions:
- Revised:
- Void:

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
GENERAL NOTES

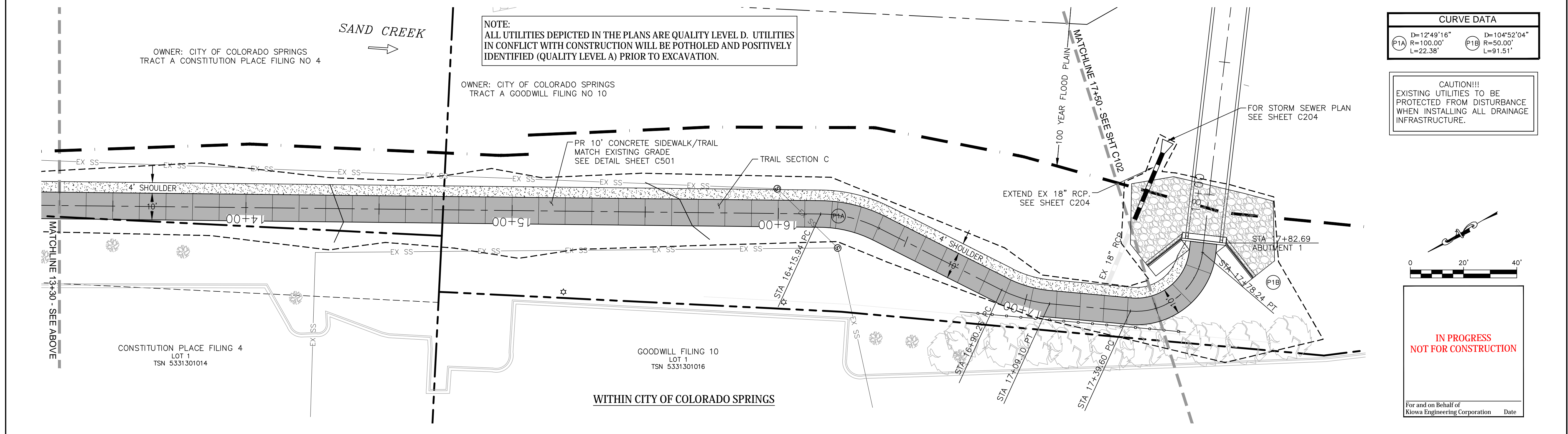
Designer: TAC
Detailer: TEG
Date: 9/30/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C002



PRIVATE IRRIGATION SYSTEMS ARE PRESENT ALONG THE TRAIL'S ALIGNMENT. THESE SYSTEMS ARE TO BE PROTECTED FROM DISTURBANCE AND/OR RELOCATED IF REQUIRED. PROPERTY OWNERS SHALL BE CONTACTED PRIOR TO COMMENCING WITH THE WORK. COST OF PROTECTION AND RELOCATION ARE INCIDENTAL TO THE WORK AND SHALL NOT BE PAID FOR SEPARATELY.

WITHIN CITY OF COLORADO SPRINGS



CURVE DATA	
P1A	D=12'49'16" R=100.00' L=22.38'
P1B	D=104'52'04" R=50.00' L=91.51'

CAUTION!!! EXISTING UTILITIES TO BE PROTECTED FROM DISTURBANCE WHEN INSTALLING ALL DRAINAGE INFRASTRUCTURE.

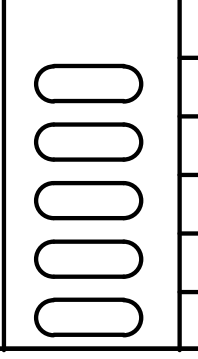
IN PROGRESS NOT FOR CONSTRUCTION

For and on Behalf of
Kiowa Engineering Corporation Date



IN PROGRESS NOT FOR CONSTRUCTION
For and on Behalf of
Kiowa Engineering Corporation Date

Kiowa Celebrating 30 years
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

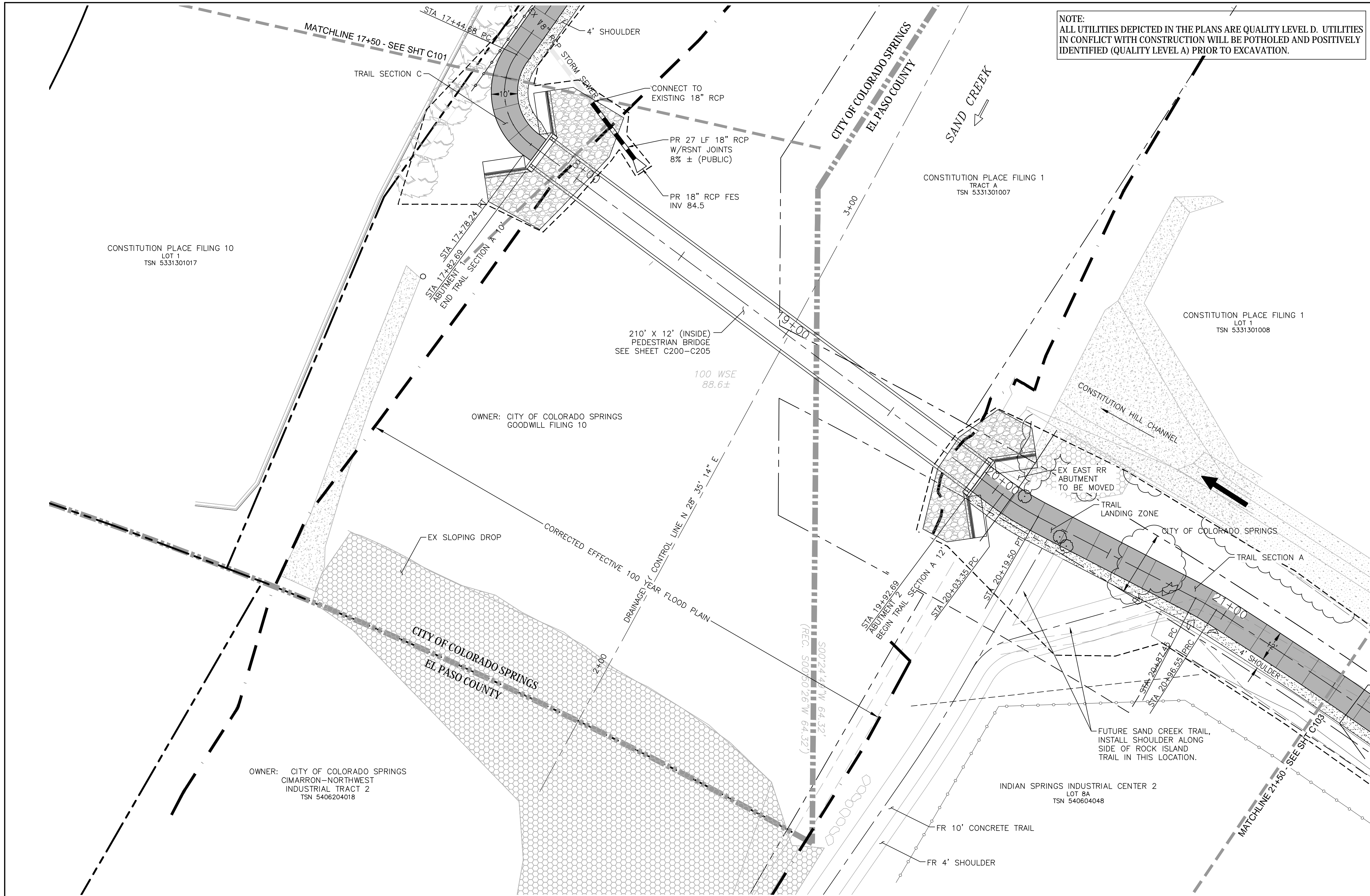


Sheet Revisions

100% SET
No Revisions:
Revised:
Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 8+00 TO STA 17+50	
Designer:	TAC
Detailer:	TEG
Date:	9/30/2024

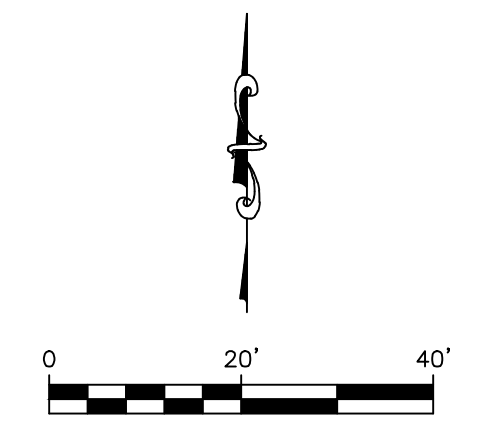
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C101



NOTE:
ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D. UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A) PRIOR TO EXCAVATION.

CAUTION!!!
EXISTING UTILITIES TO BE PROTECTED FROM DISTURBANCE WHEN INSTALLING ALL DRAINAGE INFRASTRUCTURE.

CURVE DATA	
(P2A)	D=104°52'04" R=50.00' L=91.51'



**IN PROGRESS
NOT FOR CONSTRUCTION**

For and on Behalf of
Kiowa Engineering Corporation Date

CONSTITUTION PLACE FILING 10
LOT 1
TSN 5331301017

OWNER: CITY OF COLORADO SPRINGS
GOODWILL FILING 10

OWNER: CITY OF COLORADO SPRINGS
CIMARRON-NORTHWEST
INDUSTRIAL TRACT 2
TSN 5406204018

CONSTITUTION PLACE FILING 1
TRACT A
TSN 5331301007

CONSTITUTION PLACE FILING 1
LOT 1
TSN 5331301008

INDIAN SPRINGS INDUSTRIAL CENTER 2
LOT 8A
TSN 540604048

210' X 12' (INSIDE)
PEDESTRIAN BRIDGE
SEE SHEET C200-C205

TRAIL LANDING ZONE

FUTURE SAND CREEK TRAIL,
INSTALL SHOULDER ALONG
SIDE OF ROCK ISLAND
TRAIL IN THIS LOCATION.

Sheet Revisions

100% SET

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
FINAL TRAIL PLAN STA 17+50 TO STA 21+50

Kiowa Proj. No. 16028

No Revisions:

Designer: TAC
Detailer: TEG

TAP M240-162

Revised:

Date: 9/30/2024

SubAcct No. 20391

Void:

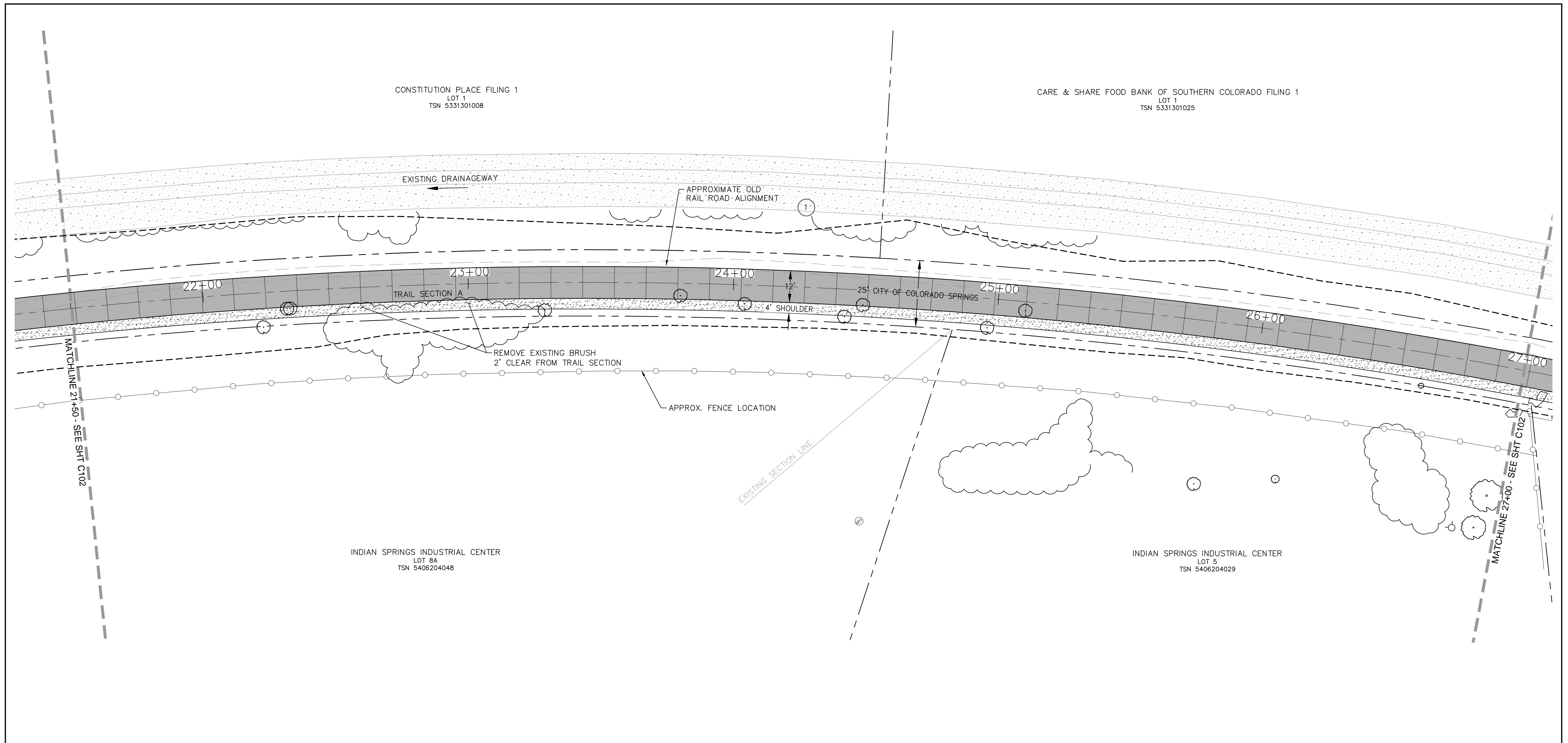
Sheet Number C102



**IN PROGRESS
NOT FOR CONSTRUCTION**

Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

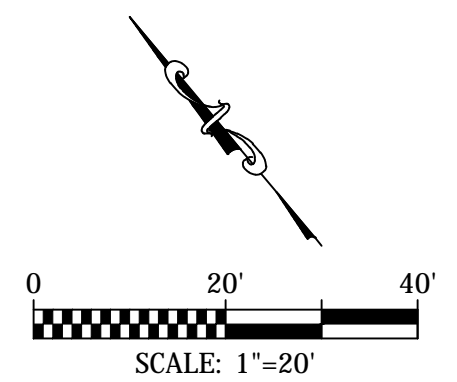
For and on Behalf of
Kiowa Engineering Corporation Date



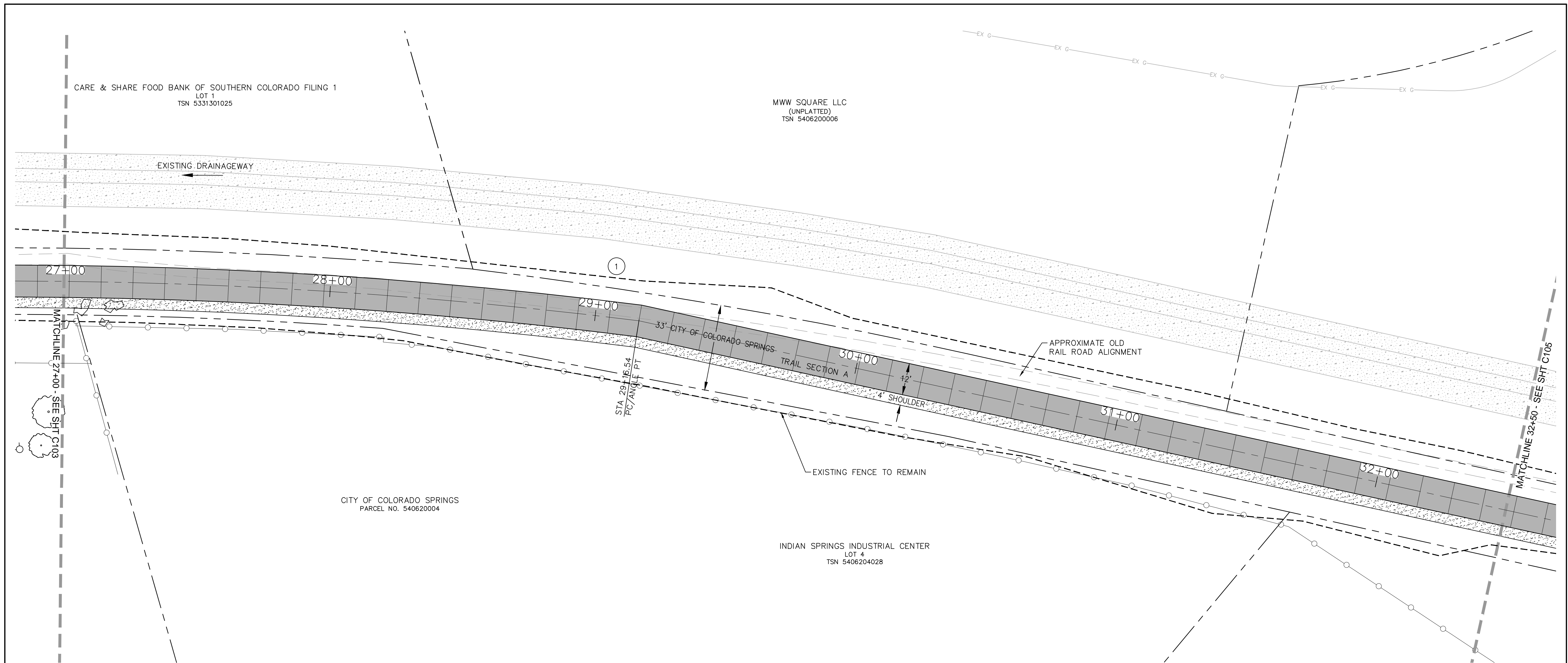
NOTE:
 ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
 UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
 POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
 PRIOR TO EXCAVATION.

COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
100	1378591.13	3224761.21	BEGIN TRAIL	6394.8
101	1388610.98	3224772.35	PC	6394.9

CURVE DATA
 ① R=1910.00'
 L=916.54'
 $\Delta=27^{\circ}29'39''$



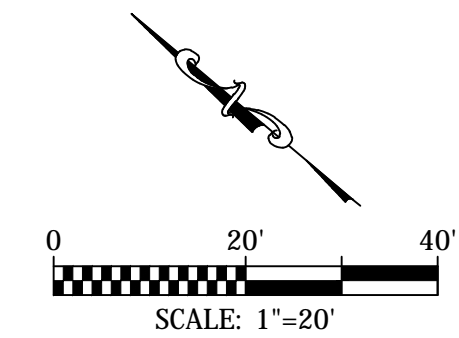
 COLORADO SPRINGS	IN PROGRESS NOT FOR CONSTRUCTION	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions	100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 21+50 TO STA 27+00		Kiowa Proj. No. 16028
			No Revisions:	Designer: TAC		TAP M240-162	
			Revised:	Detailer: TEG		SubAcct No. 20391	
			Void:	Date: 9/30/2024		Sheet Number C103	



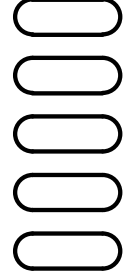


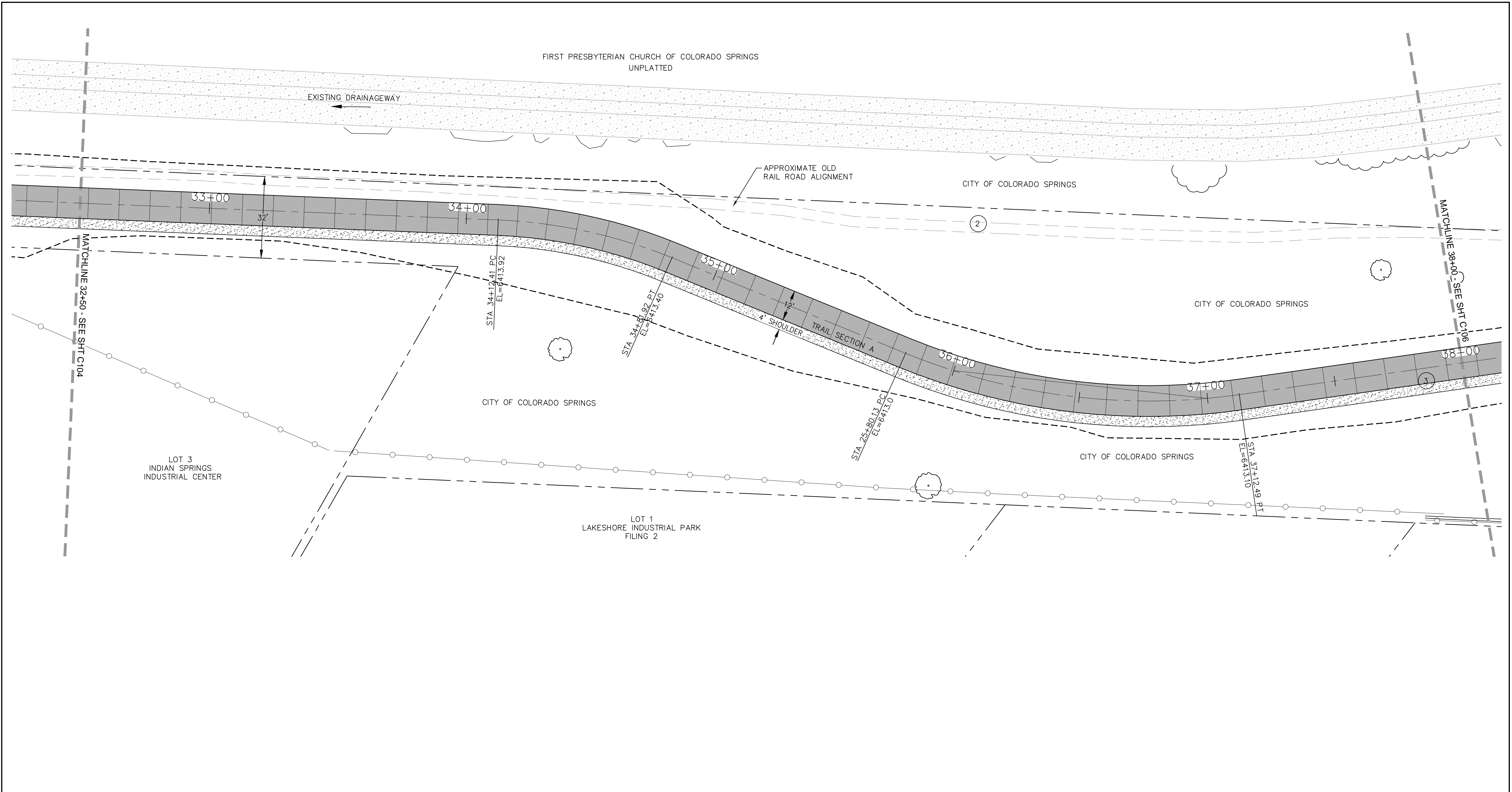
COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
102	1377992.88	3225437.19	PC/ANGLE PT	6411.2

CURVE DATA	
①	R=1910.00' L=916.54' Δ=27°29'39"

NOTE:
ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
PRIOR TO EXCAVATION.



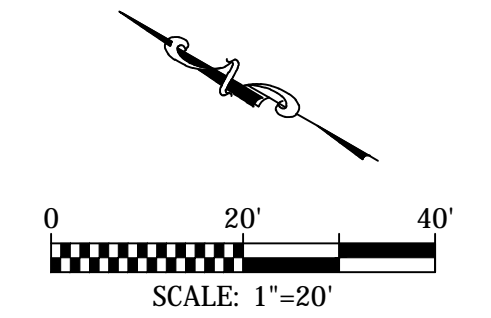
	<p style="color: red; font-weight: bold;">IN PROGRESS NOT FOR CONSTRUCTION</p>	 <p style="font-size: small;">1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>		Sheet Revisions	100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 27+00 TO STA 32+50		Kiowa Proj. No. 16028
				No Revisions:	Revised:	Void:	Designer: TAC Detailer: TEG Date: 9/30/2024	TAP M240-162 SubAcct No. 20391 Sheet Number C104





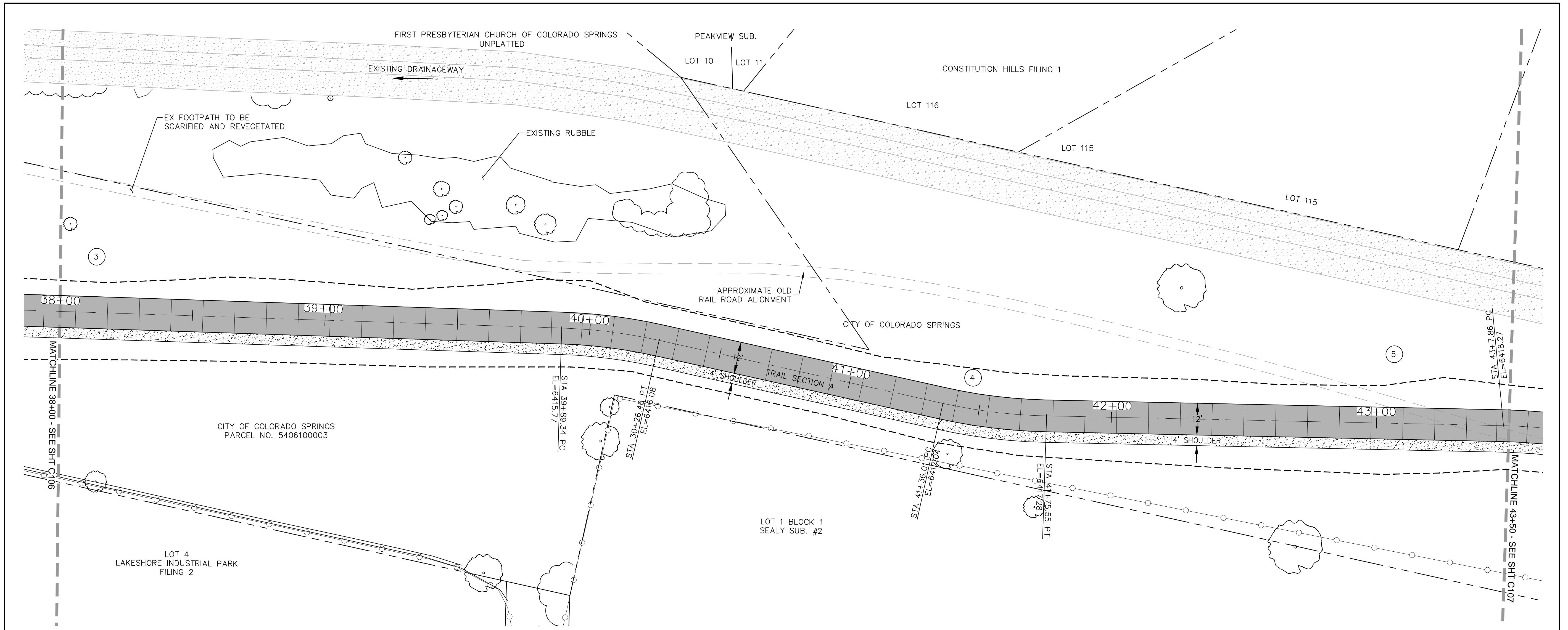
COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
103	1377555.89	3225671.54	PC	6413.92
104	1377490.20	3225693.19	PT	6413.40
105	1375707.35	3225707.35	PC	6413.10

CURVE DATA	
②	R=200.00' L=69.51' Δ=19°54'52"
③	R=250.00' L=132.27' Δ=30°20'11"

NOTE:
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POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
PRIOR TO EXCAVATION.



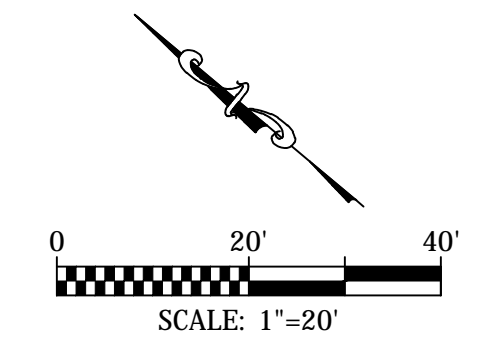
 IN PROGRESS NOT FOR CONSTRUCTION	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions _____ _____ _____ _____	100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 32+50 TO STA 38+00 Designer: TAC Detailer: TEG Date: 9/30/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C105
		For and on Behalf of Kiowa Engineering Corporation Date			



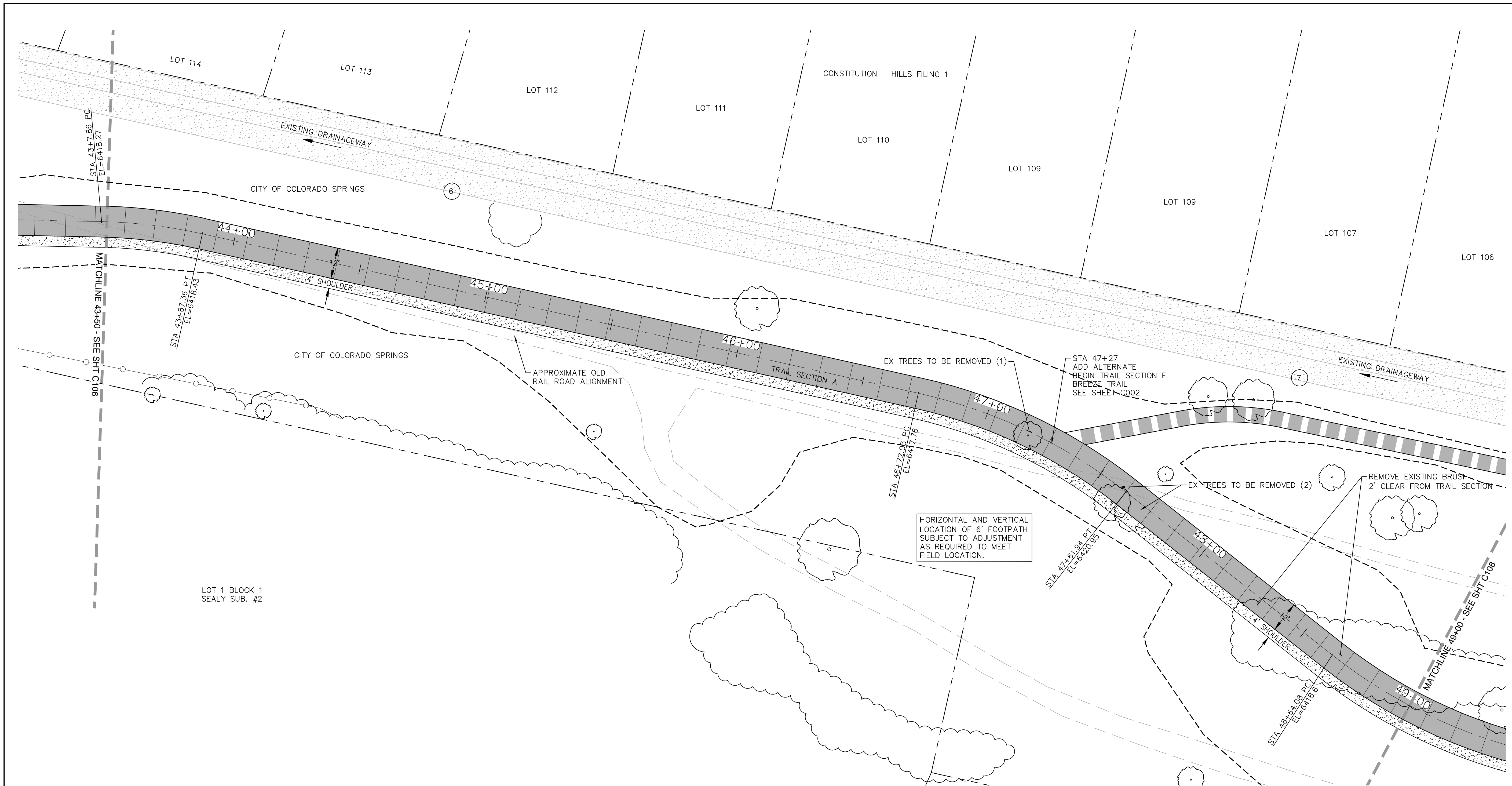
COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
106	1377272.22	3225760.05	PT	6413.10
107	1377056.72	3225932.24	PC	6415.77
108	1377026.62	3225952.13	PT	6416.08
109	1376928.93	3226004.06	PC	6417.04
110	1376896.14	3226025.87	PT	6417.28

CURVE DATA			
3	R=250.00'	L=132.27'	$\Delta=30^{\circ}20'11''$
4	R=200.00'	L=37.13'	$\Delta=10^{\circ}38'09''$
5	R=200.00'	L=39.45'	$\Delta=11^{\circ}18'04''$

NOTE:
 ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
 UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
 POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
 PRIOR TO EXCAVATION.



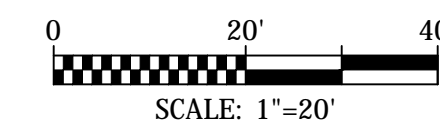
 COLORADO SPRINGS	IN PROGRESS NOT FOR CONSTRUCTION	 Kiowa Engineering Corporation <small>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</small>	Sheet Revisions	100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 38+00 TO STA 43+50	Kiowa Proj. No. 16028
				No Revisions: Revised: Void:	Designer: TAC Detailer: TEG Date: 9/30/2024	TAP M240-162 SubAcct No. 20391 Sheet Number C106



COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
111	1376762.79	3226134.99	PC	6418.25
112	1376729.95	3226156.83	PT	6418.45
113	1376478.54	3226290.37	PC	6419.71
114	1376393.46	3226313.55	PT	6420.95

CURVE DATA		
6	R=200.00'	L=39.50'
	Δ=11°18'58"	
7	R=200.00'	L=89.91'
	Δ=25°45'27"	

NOTE:
 ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
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 POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
 PRIOR TO EXCAVATION.

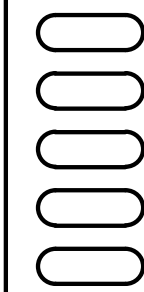


**IN PROGRESS
 NOT FOR CONSTRUCTION**

For and on Behalf of
 Kiowa Engineering Corporation Date



1604 South 21st Street
 Colorado Springs, Colorado 80904
 (719) 630-7342



Sheet Revisions

100% SET

No Revisions:

Revised:

Void:

ROCK ISLAND TRAIL
 Sand Creek to Constitution Avenue
FINAL TRAIL PLAN STA 43+50 TO STA 49+00

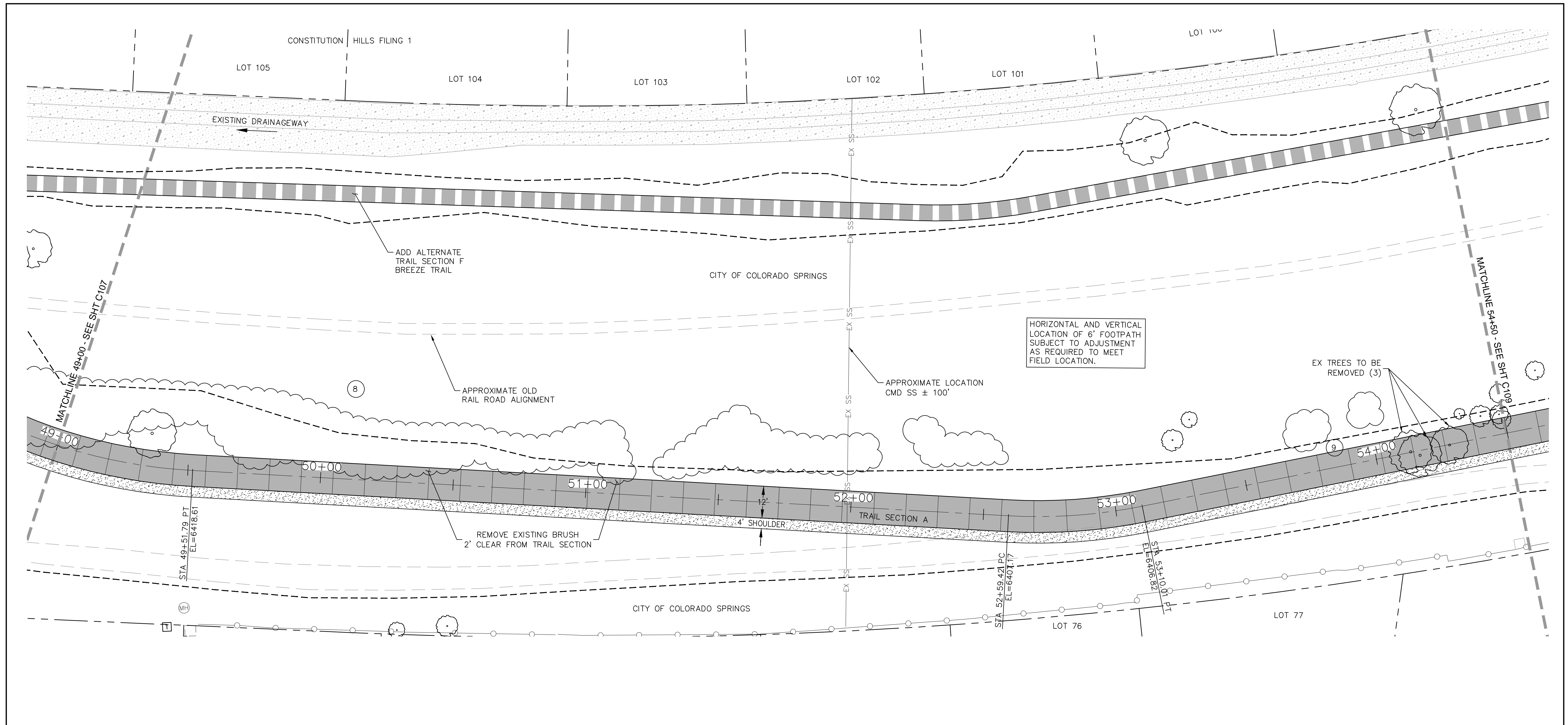
Designer: TAC
 Detailer: TEG
 Date: 9/30/2024

Kiowa Proj. No. 16028

TAP M240-162

SubAcct No. 20391

Sheet Number C107

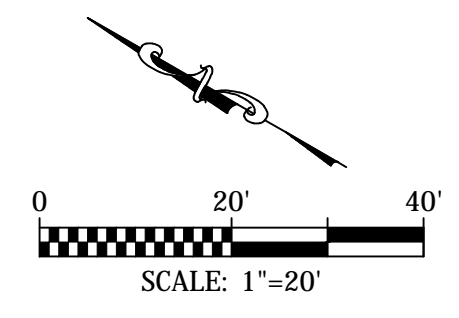




NOTE:
 ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
 UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
 POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
 PRIOR TO EXCAVATION.

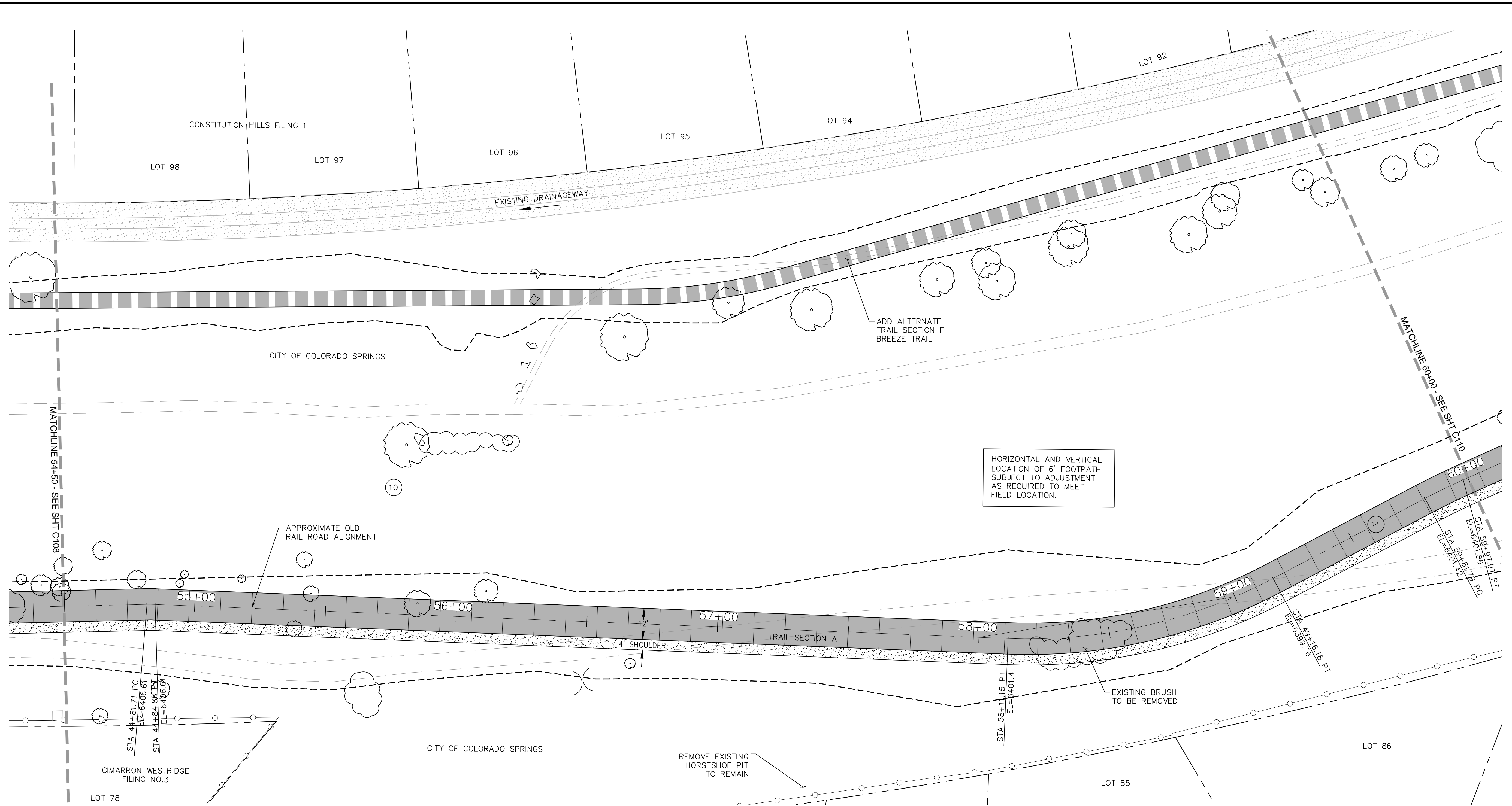
PT#	N	E	DESCRIPTION	ELEVATION
115	1376290.41	3226317.15	PC	6418.82
116	1376206.27	3226339.74	PT	6415.40
117	1375933.01	3226481.05	PC	6407.15
118	1375891.41	3226509.75	PT	6406.82

CURVE DATA

⑧	R=200.00' L=87.71' Δ=25°7'38"	⑨	R=200.00' L=50.68' Δ=14°31'08"
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 COLORADO SPRINGS	IN PROGRESS NOT FOR CONSTRUCTION	 Kiowa Engineering Corporation <small>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</small>	Sheet Revisions _____ _____ _____ _____	100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL <small>Sand Creek to Constitution Avenue</small> FINAL TRAIL PLAN STA 49+00 TO STA 54+50 Designer: TAC Detailer: TEG Date: 9/30/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C108
			For and on Behalf of Kiowa Engineering Corporation Date	16028-C103-C120.dwg/Oct 01, 2024		



MATCHLINE 54+50 - SEE SHT C108

MATCHLINE 60+00 - SEE SHT C110

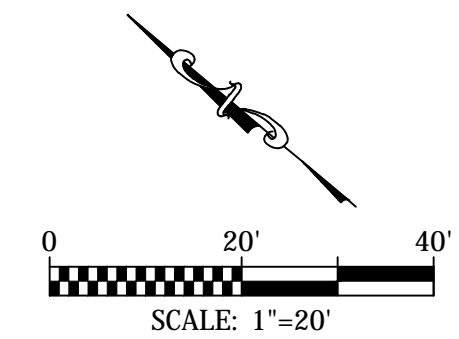
HORIZONTAL AND VERTICAL LOCATION OF 6' FOOTPATH SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION.

CIMARRON WESTRIDGE FILING NO.3
LOT 78

COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
119	1375763.61	3226624.28	PC	6406.18
120	1375761.18	3226626.32	PT	6406.13
121	1376828.23	3225504.85	PC	6401.42

CURVE DATA	
⑩	R=50.00' L=3.17' Δ=3°37'52"
⑪	R=200.00' L=105.03' Δ=30°05'19"

NOTE:
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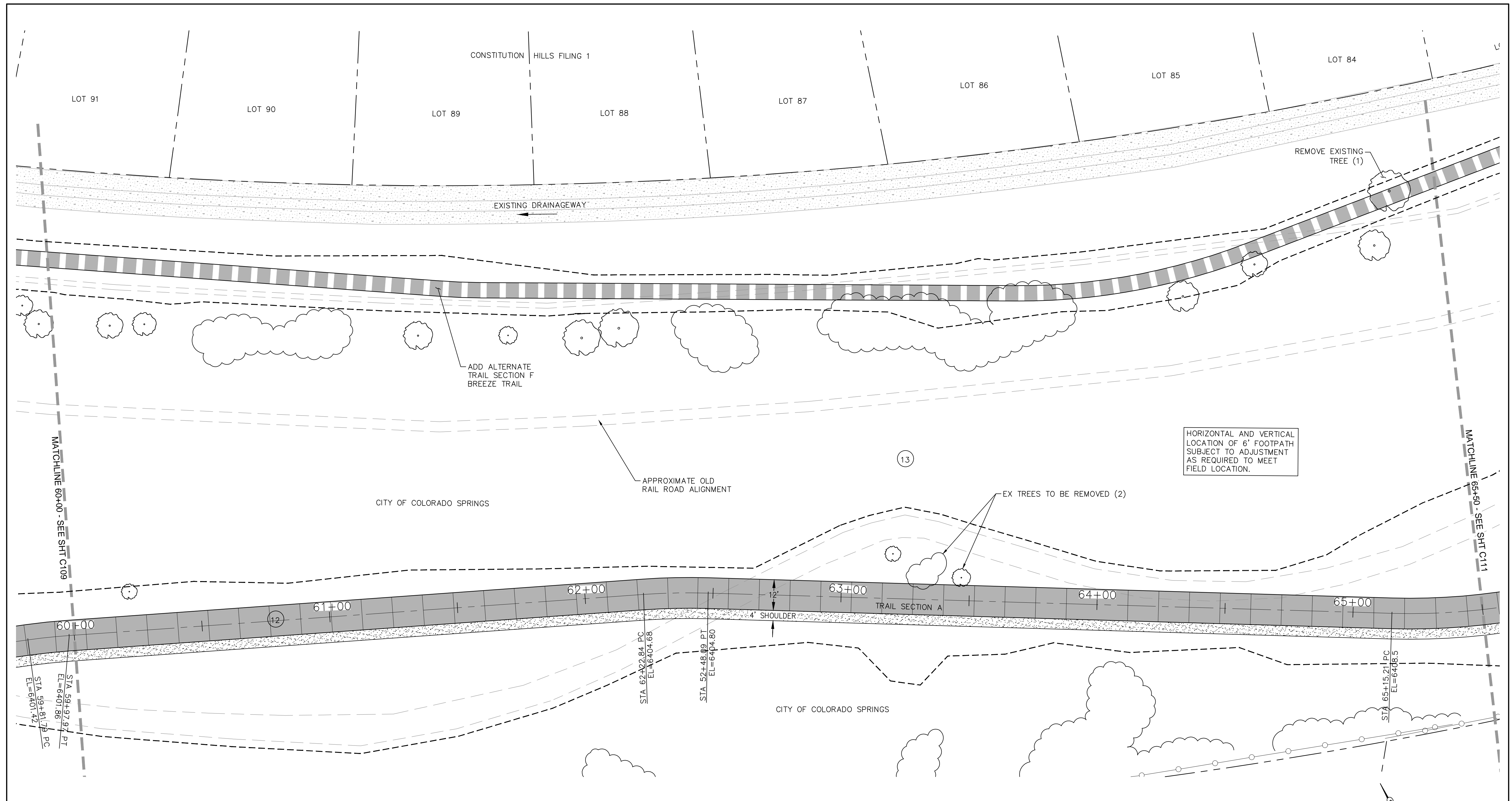
**IN PROGRESS
NOT FOR CONSTRUCTION**

Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

Sheet Revisions	100% SET
	No Revisions:
	Revised:
	Void:

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
FINAL TRAIL PLAN STA 54+50 TO STA 60+00
Designer: TAC
Detailer: TEG
Date: 9/30/2024

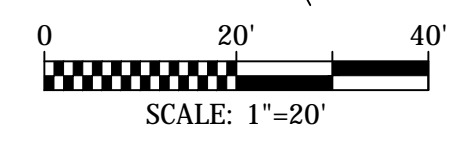
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C109



COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
122	1375442.81	3226911.45	PT	6399.76
123	1375418.57	3226972.42	PC	6401.42
124	1375412.12	3226987.25	PT	6401.85
125	1375315.71	3227190.40	PC	6404.68
126	1375303.75	3227212.63	PT	6404.80

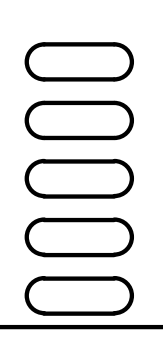
CURVE DATA	
12	R=250.00' L=16.18' Δ=3°42'29"
13	R=250.00' L=25.25' Δ=5°47'11"

NOTE:
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**IN PROGRESS
NOT FOR CONSTRUCTION**

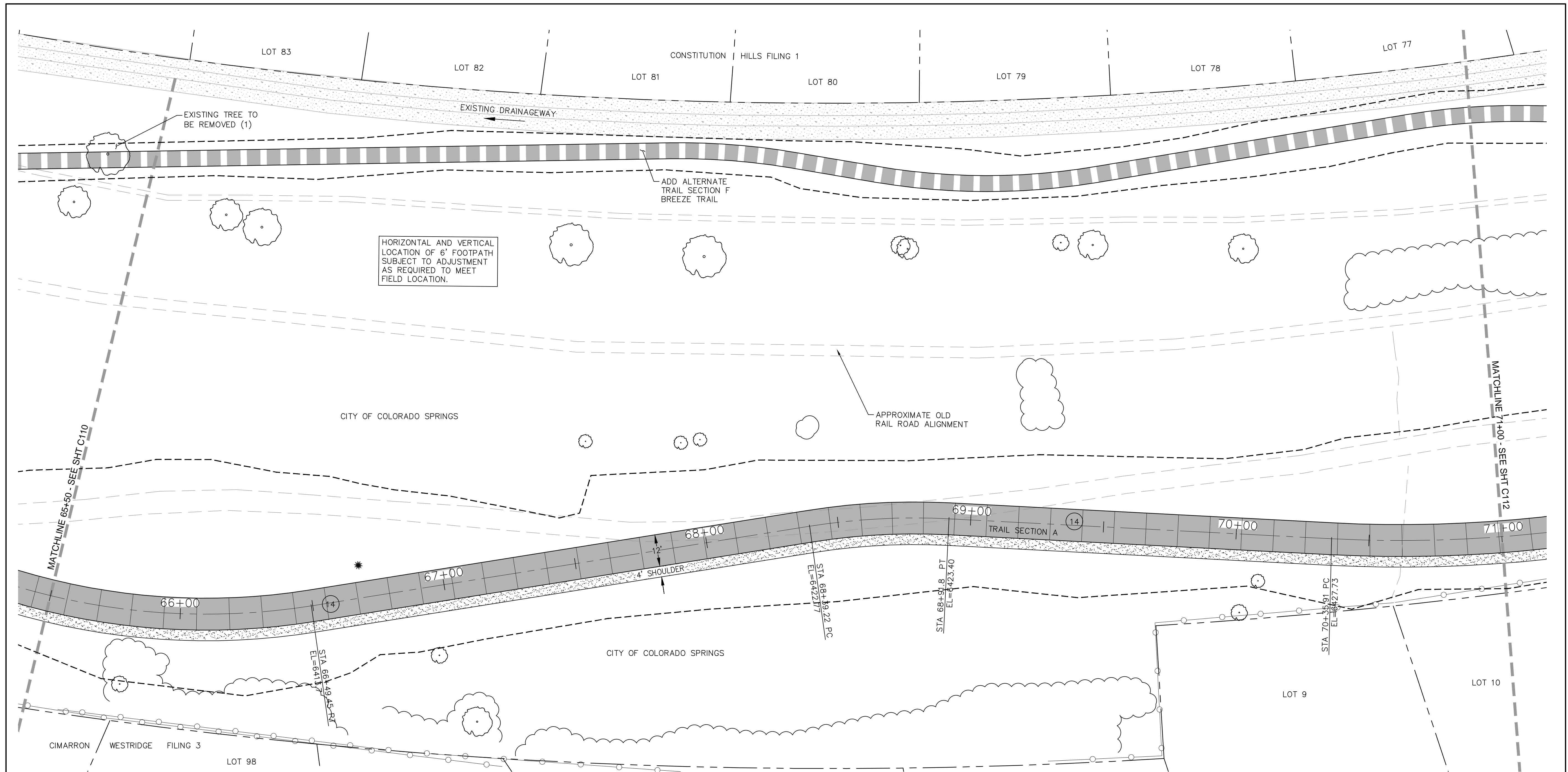
For and on Behalf of
Kiowa Engineering Corporation Date



Sheet Revisions	100% SET
	No Revisions:
	Revised:
	Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue	
FINAL TRAIL PLAN STA 60+00 TO STA 65+50	
Designer:	TAC
Detailer:	TEG
Date:	9/30/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C110



HORIZONTAL AND VERTICAL LOCATION OF 6' FOOTPATH SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION.

ADD ALTERNATE TRAIL SECTION F BREEZE TRAIL

APPROXIMATE OLD RAIL ROAD ALIGNMENT

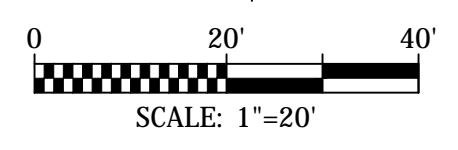
CITY OF COLORADO SPRINGS

CITY OF COLORADO SPRINGS

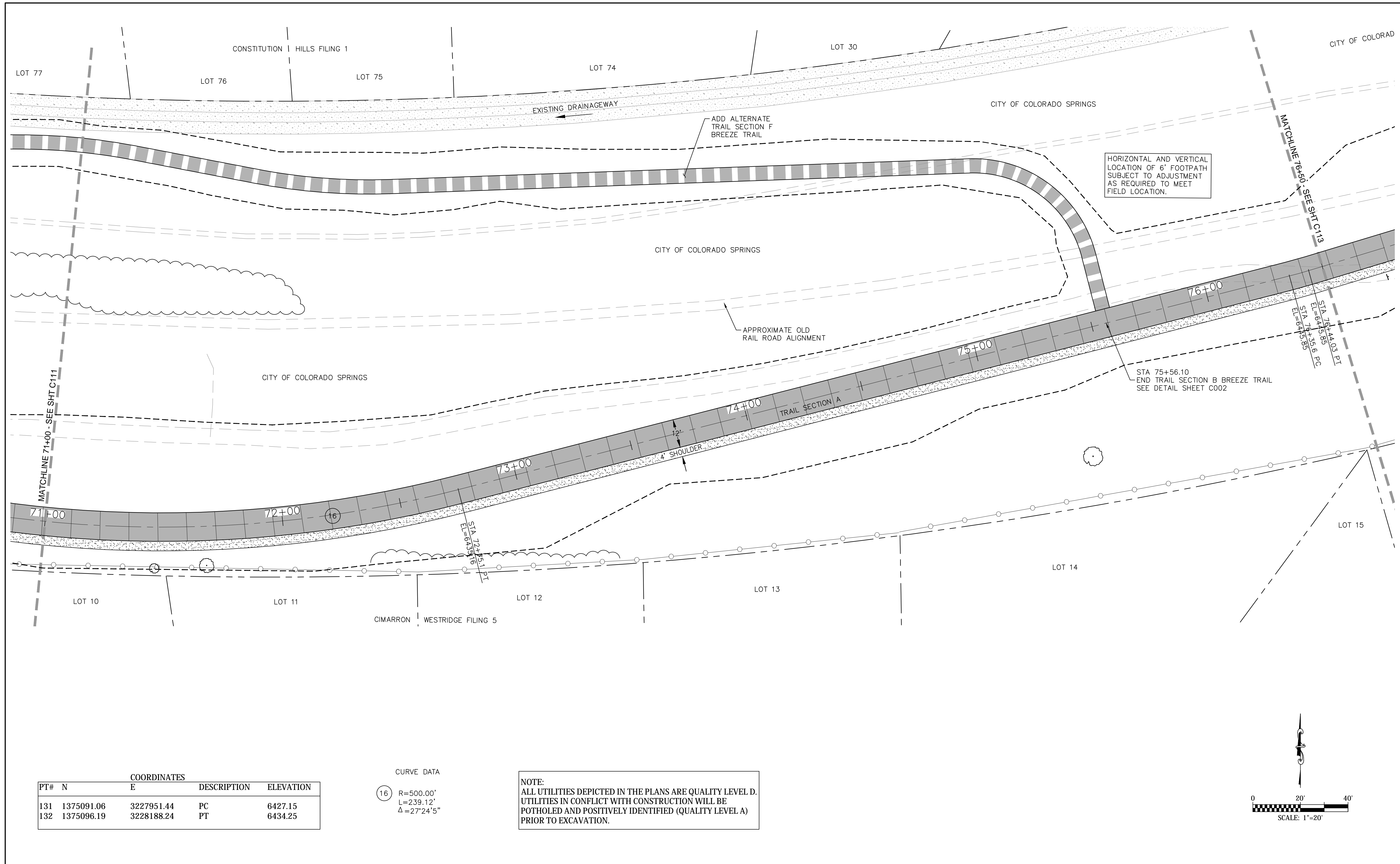
PT#	COORDINATES		DESCRIPTION	ELEVATION
	N	E		
127	1375165.48	3227441.18	PC	6408.0
128	1375129.39	3227568.81	PT	6413.93
129	1375128.03	3227758.58	PC	6422.41
130	1375122.15	3227810.73	PT	6423.56

CURVE DATA	
14	R=250.00' L=134.24' Δ=30°45'53"
15	R=250.00' L=52.58' Δ=12°3'2"

NOTE:
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 COLORADO SPRINGS	IN PROGRESS NOT FOR CONSTRUCTION	 Kiowa Engineering Corporation 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342		100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 65+50 TO STA 71+00 Designer: TAC Detailer: TEG Date: 9/30/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C111
	For and on Behalf of Kiowa Engineering Corporation Date					



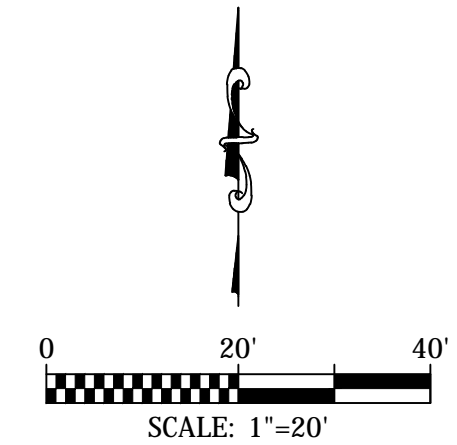
HORIZONTAL AND VERTICAL LOCATION OF 6" FOOTPATH SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION.



STA 75+56.10
END TRAIL SECTION B BREEZE TRAIL
SEE DETAIL SHEET C002

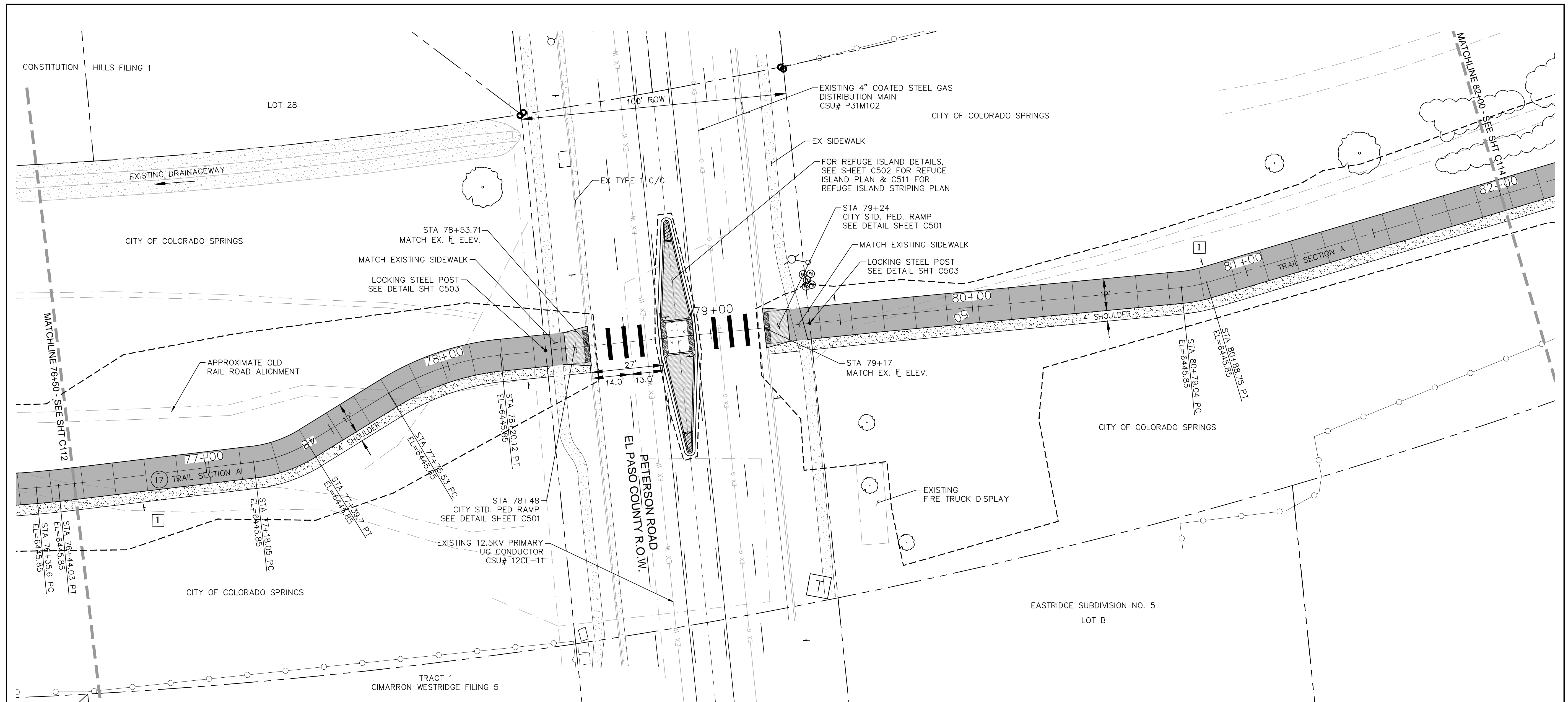
PT#	COORDINATES		DESCRIPTION	ELEVATION
	N	E		
131	1375091.06	3227951.44	PC	6427.15
132	1375096.19	3228188.24	PT	6434.25

CURVE DATA
 (16) R=500.00'
 L=239.12'
 $\Delta = 27^{\circ}24'5''$

NOTE:
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 PRIOR TO EXCAVATION.



 COLORADO SPRINGS	IN PROGRESS NOT FOR CONSTRUCTION	 Kiowa Engineering Corporation <small>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</small>	Sheet Revisions _____ _____ _____ _____	100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 71+00 TO STA 76+50 Designer: TAC Detailer: TEG Date: 9/30/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C112
			For and on Behalf of Kiowa Engineering Corporation Date		16028-C103-C120.dwg/Oct 01, 2024	



NOTE:
ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
PRIOR TO EXCAVATION.

PT#	N	E	DESCRIPTION	ELEVATION
133	1375189.16	3228536.61	PC	6444.85
134	1375191.51	3228544.71	PT	6446.0
135	1375252.48	3228739.76	EX.WEST FL	MATCH EX.
136	1375271.64	3228803.12	EX. EAST FL	MATCH EX.
137	1375277.35	3228822.28	ANGLE PT	6451.4

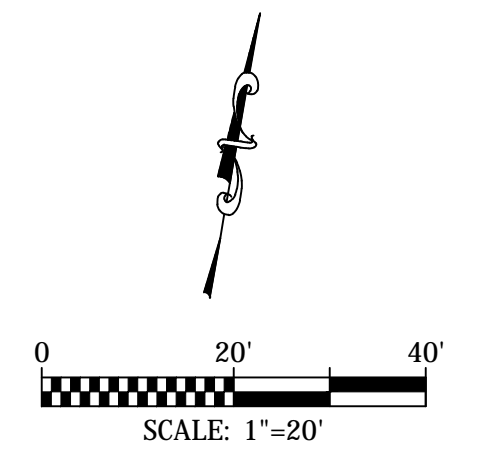
CURVE DATA
 (17) R=200.00'
 L=8.23'
 Δ=2°24'54"

TRAIL SIGNAGE		
SIGNAGE	#	PANEL SIZE
1	2	12x18
2	2	12x18

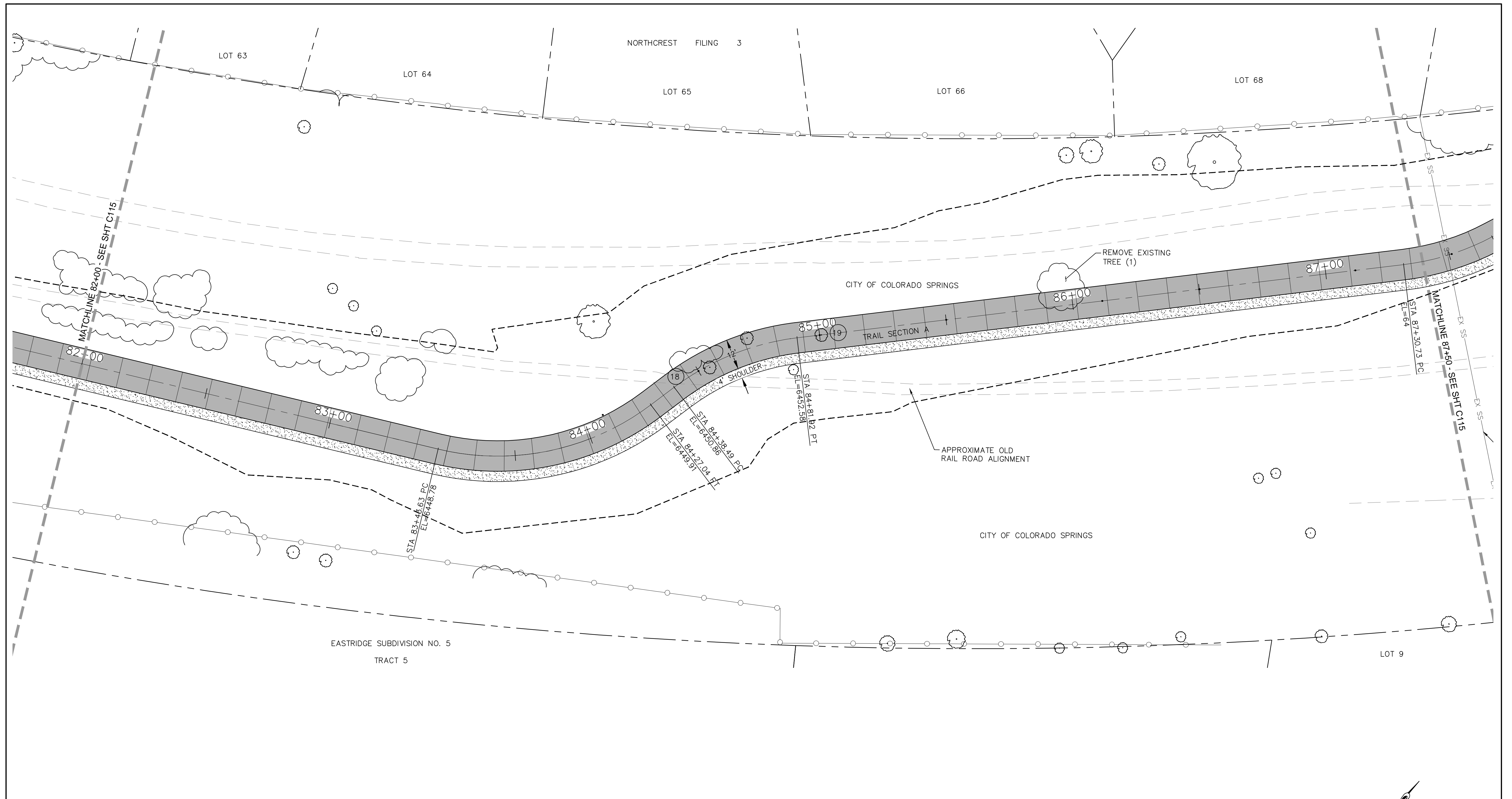
FOR REFUGE ISLAND SIGNAGE,
SEE SHEET C511

TRAFFIC SIGNAGE		
SIGNAGE	#	PANEL SIZE
1	2	30x30 W11-1
2	2	24x30 R4-7
3	2	24x24 W11A-2
4	2	12x36 R1-6
5	2	12X18 W16-7P

NOTES:
 1. CONTRACTOR TO OBTAIN EPC-DPW ROAD CUT WORK PERMIT FOR WORK IN RIGHT-OF-WAY.
 2. CONTRACTOR TO SUPPLY TO EPC-DPW CONSTRUCTION TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WITH ANY WORK WITHIN THE PETERSON ROAD RIGHT-OF-WAY.



 IN PROGRESS NOT FOR CONSTRUCTION	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions		100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue		Kiowa Proj. No. 16028	
				No Revisions:	FINAL TRAIL PLAN STA 76+50 TO STA 82+00		TAP M240-162	
				Revised:	Designer: TAC			SubAcct No. 20391
				Void:	Detailer: TEG			Sheet Number C113
					Date: 9/30/2024			

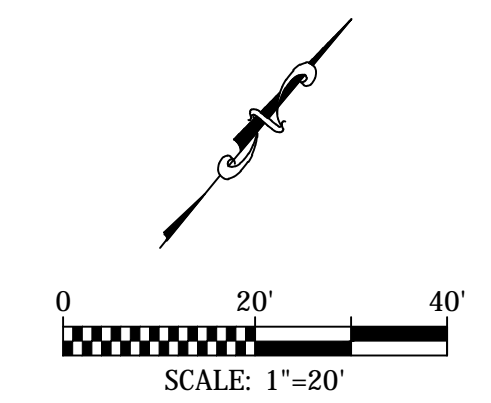


COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
138	1375475.97	3229211.44	PC	6448.78
139	1375522.69	3229258.66	PT	6449.91
140	1375536.62	3229238.05	PC	6450.75
141	1375572.64	3229251.20	PT	6452.20

CURVE DATA

(18)	R=50.00'	(19)	R=50.00'
	L=57.13'		L=39.36'
	$\Delta=65^{\circ}27'56''$		$\Delta=45^{\circ}6'10''$

NOTE:
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 POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
 PRIOR TO EXCAVATION.



**IN PROGRESS
 NOT FOR CONSTRUCTION**

For and on Behalf of
 Kiowa Engineering Corporation Date

Kiowa
 Engineering Corporation

1604 South 21st Street
 Colorado Springs, Colorado 80904
 (719) 630-7342

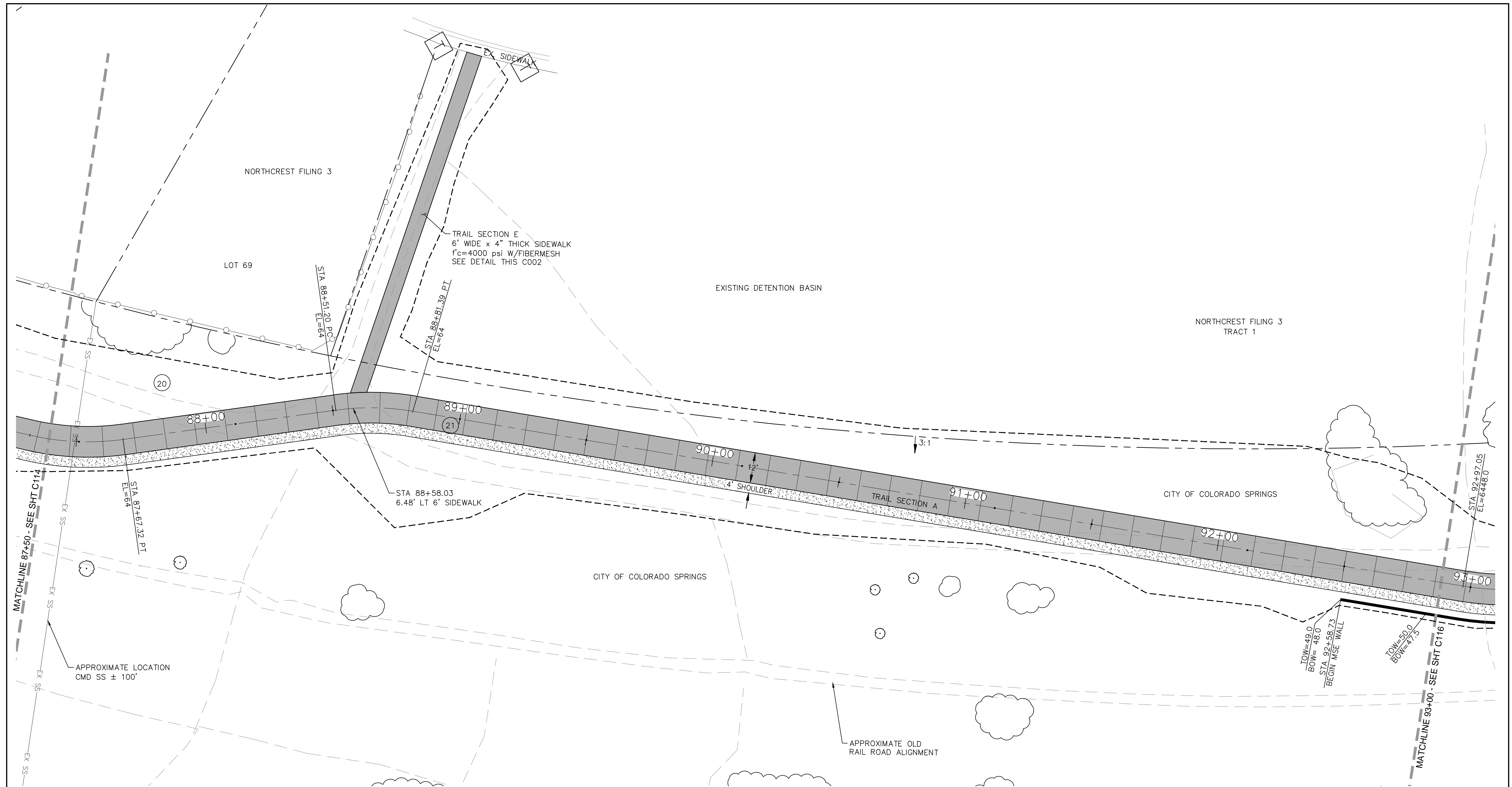
Sheet Revisions	100% SET
	No Revisions:
	Revised:
	Void:

ROCK ISLAND TRAIL
 Sand Creek to Constitution Avenue

FINAL TRAIL PLAN STA 82+00 TO STA 87+50

Designer: TAC
 Detailer: TEG
 Date: 9/30/2024

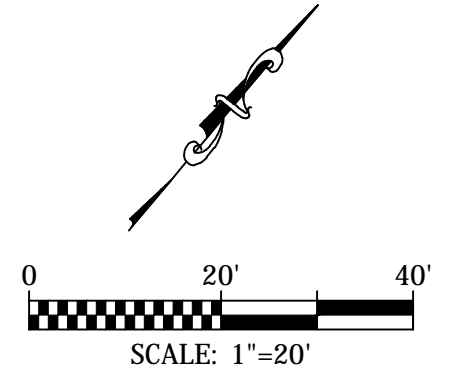
Kiowa Proj. No. 16028
 TAP M240-162
 SubAcct No. 20391
 Sheet Number C114





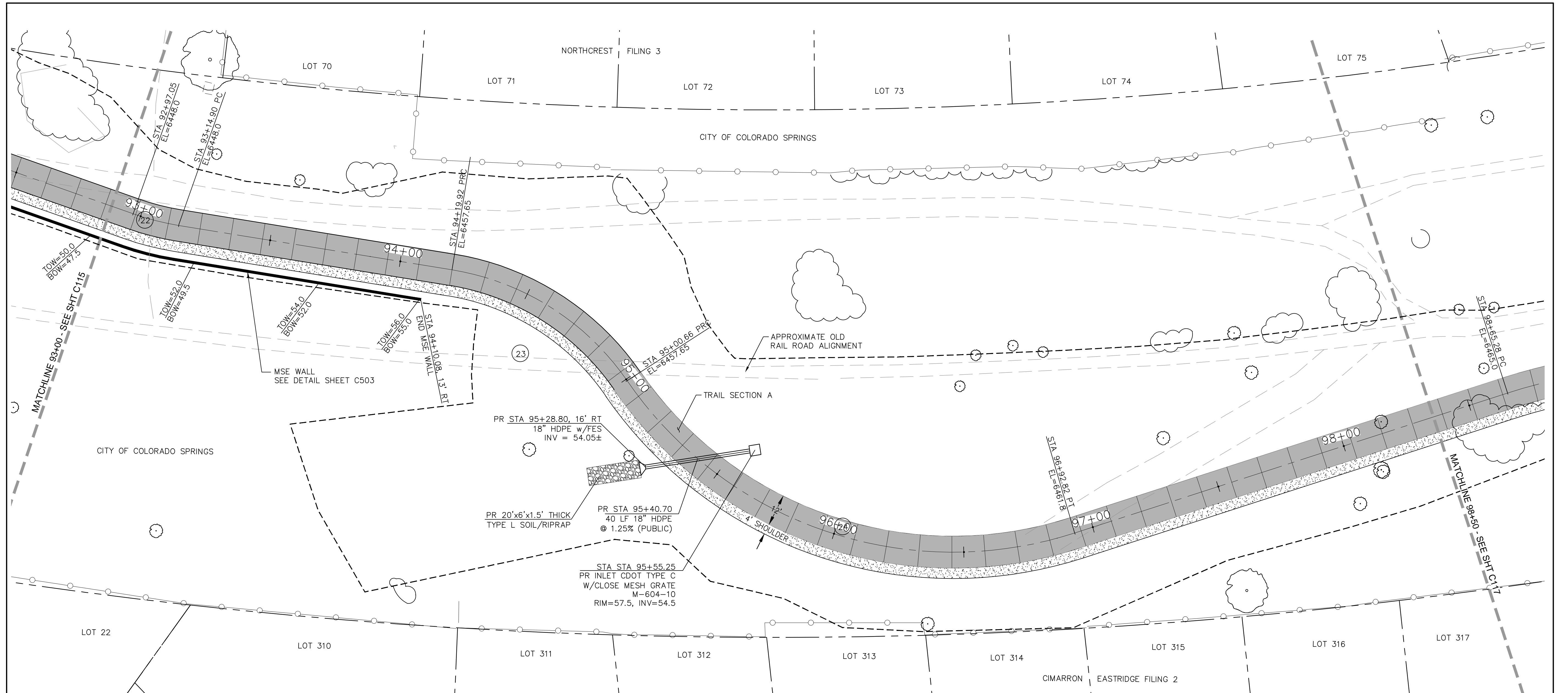
NOTE:
 ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
 UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
 POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
 PRIOR TO EXCAVATION.

COORDINATES				
PT#	N	E	DESCRIPTION	ELEVATION
142	1375764.36	3229427.48	PC	6447.66
143	1375795.19	3229446.82	PT	6447.46
144	1375873.15	3229477.74	PC	6446.68
145	1375899.13	3229492.91	PT	6445.13

CURVE DATA	
(20) R=100.00' L=36.59' Δ=20°58'0"	(21) R=100.00' L=30.20' Δ=17°18'4"



 IN PROGRESS NOT FOR CONSTRUCTION	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions	100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 87+50 TO STA 93+00		Kiowa Proj. No. 16028		
		No Revisions:	Revised:	Void:	Designer: TAC	Detailer: TEG	TAP M240-162	
					Date: 9/30/2024			SubAcct No. 20391
								Sheet Number C115

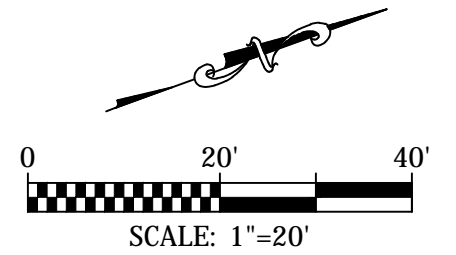
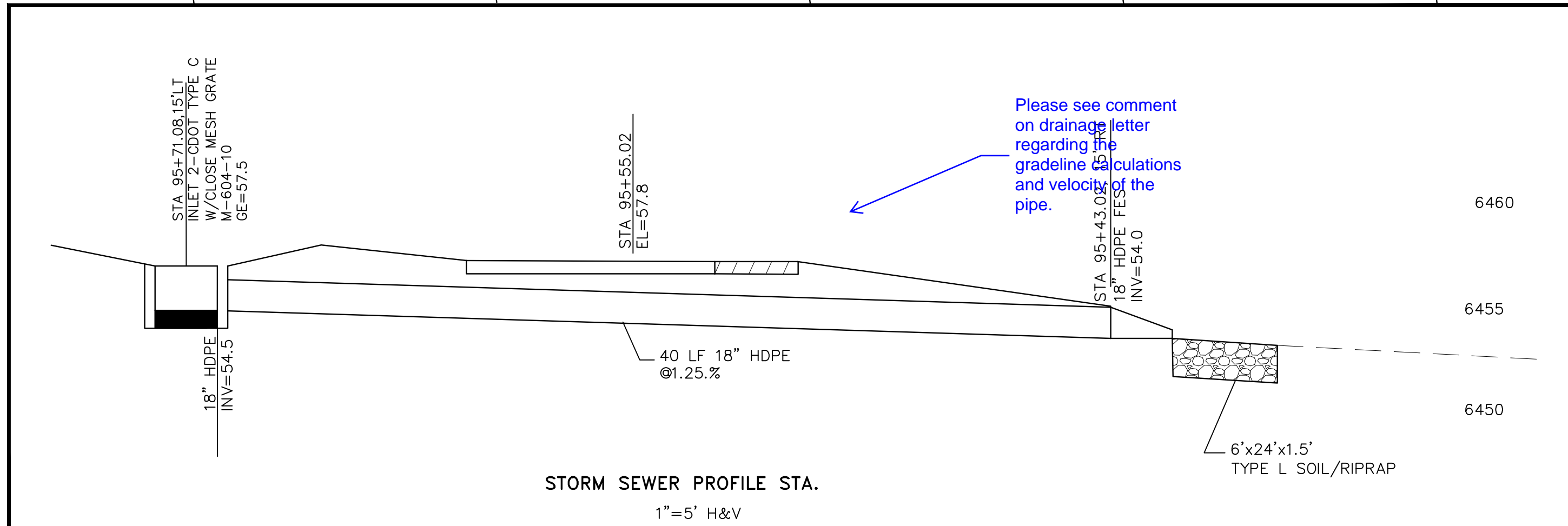


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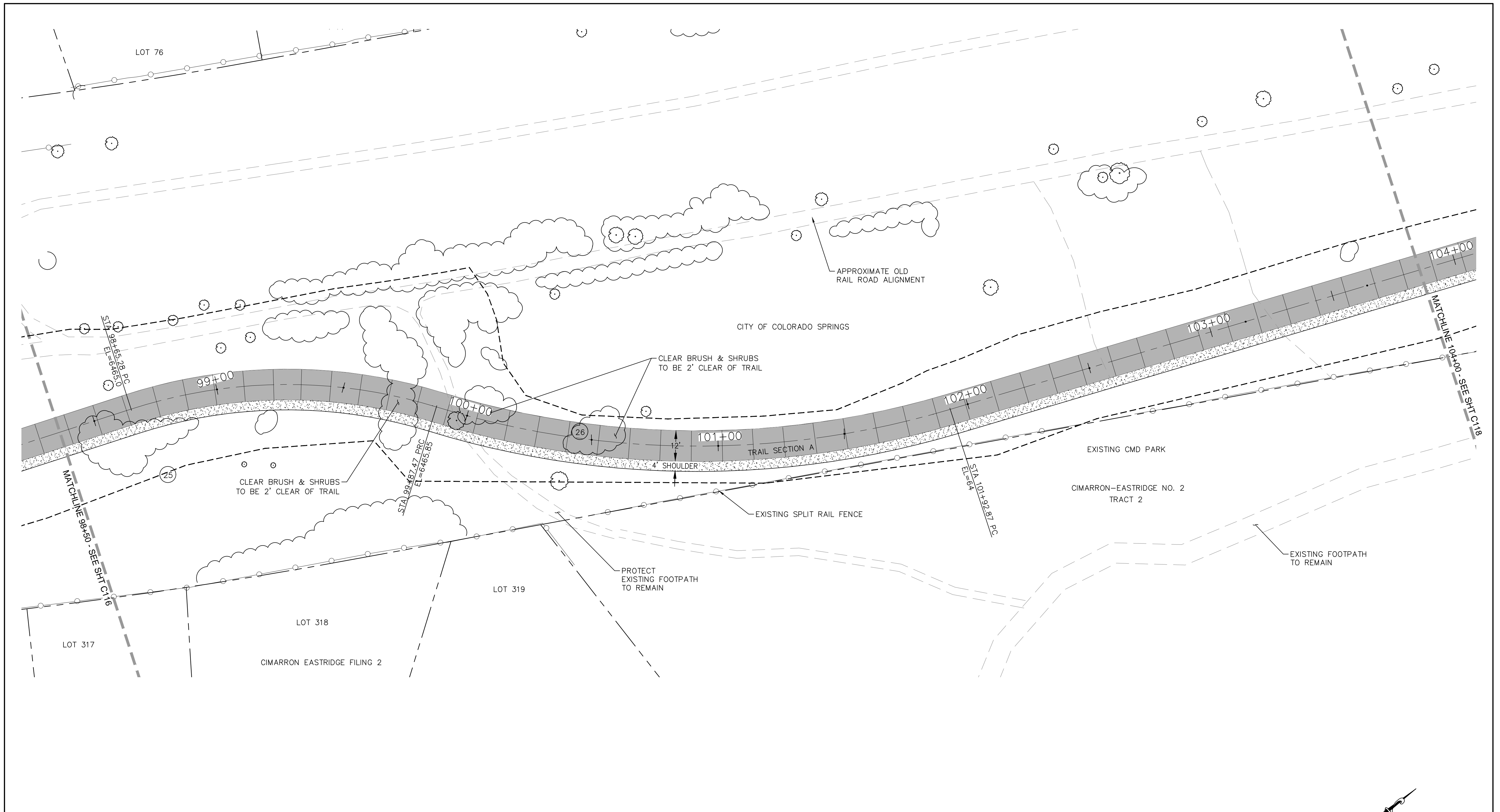
PT#	N	COORDINATES		DESCRIPTION	ELEVATION
		E			
146	1376222.47	3229754.11		PC	6448.21
147	1376237.28	3229764.03		PT	6449.20
148	1376349.33	3229825.39		PC	6456.0
149	1376373.35	3229857.16		PT	6457.90
150	1376376.78	3229871.63		PC	6458.30
151	1376393.39	3229913.16		CL 18" HDPE	6457.8
152	1376518.71	3229987.26		PT	6461.78
153	1376691.11	3229991.97		PC	6464.95

CURVE DATA

22	R=100.00' L=17.85' Δ=10°13'45"	23	R=50.00' L=41.87' Δ=47°58'28"
24	R=150.00' L=196.65' Δ=75°6'53"		



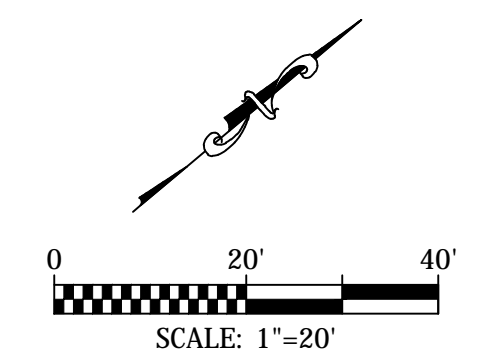
 COLORADO SPRINGS	IN PROGRESS NOT FOR CONSTRUCTION	 Kiowa Engineering Corporation <small>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</small>	Sheet Revisions _____ _____ _____ _____	100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 93+00 TO STA 98+50 Designer: TAC Detailer: TEG Date: 9/30/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C116
			For and on Behalf of Kiowa Engineering Corporation Date	16028-C103-C120.dwg/Oct 01, 2024		





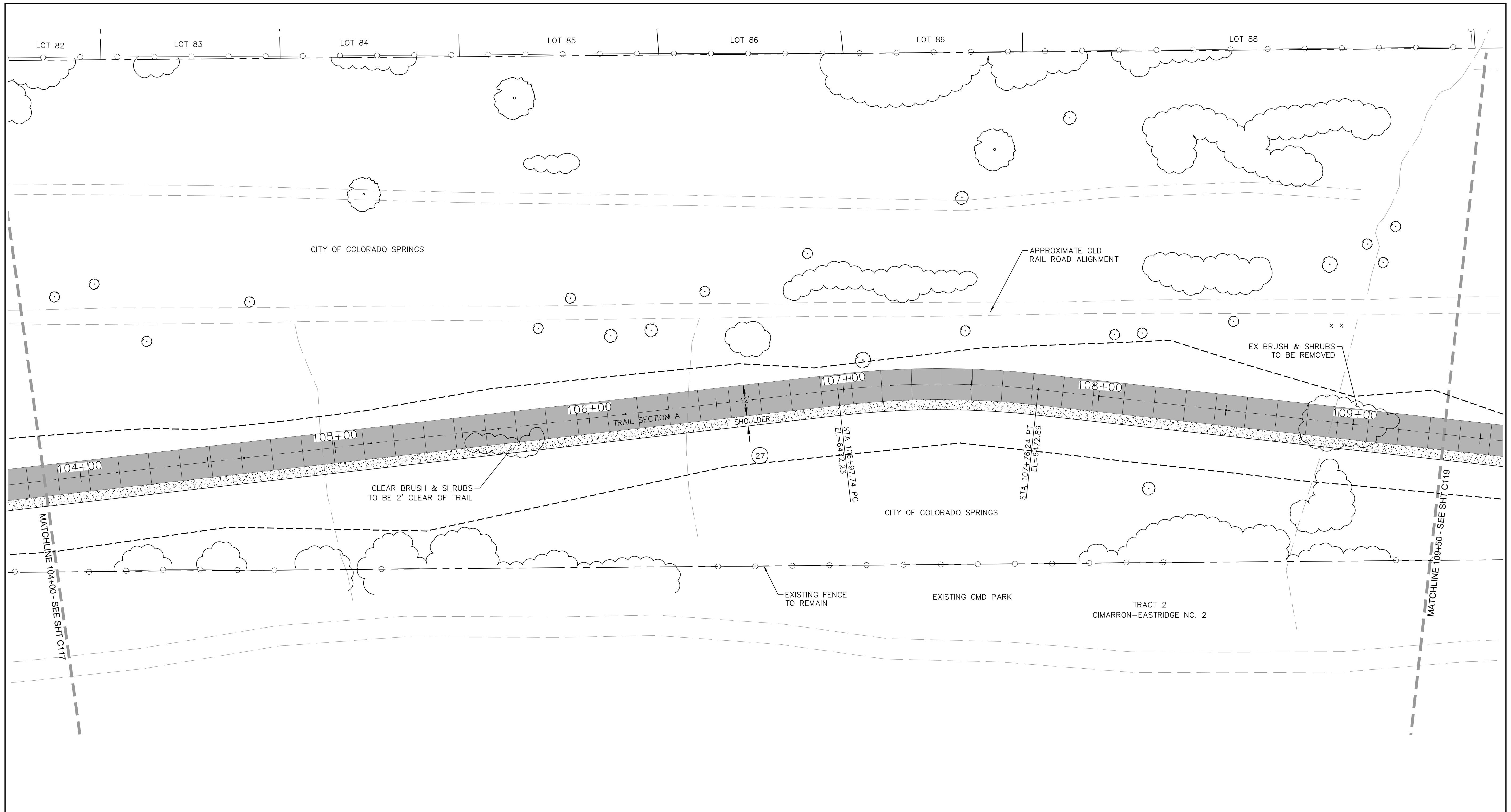
COORDINATES				
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154	1376804.80	3220031.26	PRC	6465.10
155	1376995.36	3220099.68	PT	6465.68

CURVE DATA	
(25)	R=200.00' L=122.18' Δ=35°0'7"
(26)	R=350.00' L=205.40' Δ=33°37'30"

NOTE:
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PRIOR TO EXCAVATION.



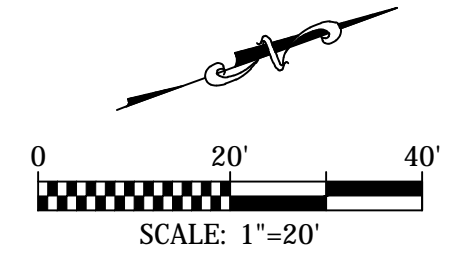
	IN PROGRESS NOT FOR CONSTRUCTION	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 98+50 TO STA 104+00	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C117
			For and on Behalf of Kiowa Engineering Corporation Date		Designer: TAC Detailer: TEG Date: 9/30/2024	





COORDINATES		DESCRIPTION	ELEVATION
PT#	N		
156	1377499.57	322012557	PC 6472.05
157	1377576.86	3220138.32	PT 6473.05

CURVE DATA
 (27) R=350.00'
 L=78.50'
 $\Delta=12^{\circ}51'33''$

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	IN PROGRESS NOT FOR CONSTRUCTION	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions 0000 0000 0000	100% SET No Revisions: Revised: Void:	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 104+00 TO STA 109+50 Designer: TAC Detailer: TEG Date: 9/30/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No. 20391 Sheet Number C118
			For and on Behalf of Kiowa Engineering Corporation Date			

TRAIL SIGNAGE			
SIGNAGE	#	PANEL SIZE	
1	TRAIL ENDS AHEAD	1	12x18
2	TRAIL USERS CROSS AT CONSTITUTION AVE & PIROS DRIVE	1	12x18

NORTHCREST FILING 4
LOT 3

CITY OF COLORADO SPRINGS

APPROXIMATE OLD
RAIL ROAD ALIGNMENT

CITY OF COLORADO SPRINGS

EXISTING FENCE
TO REMAIN

EXISTING DOG PARK

EXISTING FOOTPATH
TO REMAIN

EXISTING CMD PARK

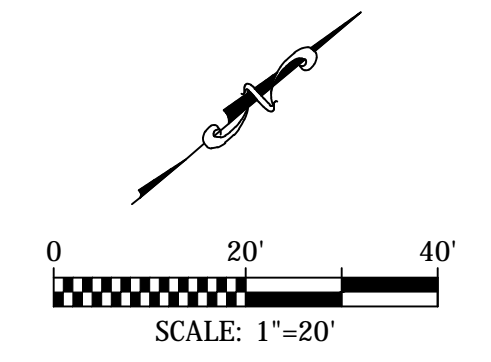
CIMARRON-EASTRIDGE NO. 2
TRACT 2

EXISTING FOOTPATH
TO REMAIN

PT#	N	E	DESCRIPTION	ELEVATION
158	1377827.63	3220209.23	PC	6475.44
159	1377940.27	3220208.12	PT	6476.20
160	1378030.70	3220180.60	PC	6478.27
161	1378052.60	3220178.98	PT	6478.53
162	1378360.72	3220224.85	ANGLE POINT	6482.93
163	1378382.73	3220224.60	BACK OF HC RAMP	6482.7

CURVE DATA	
28	R=200.00' L=114.20' Δ=32°42'58"
29	R=50.00' L=22.16' Δ=25°23'43"

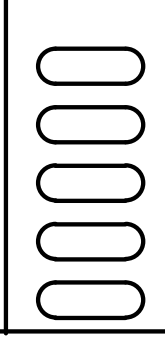
NOTE:
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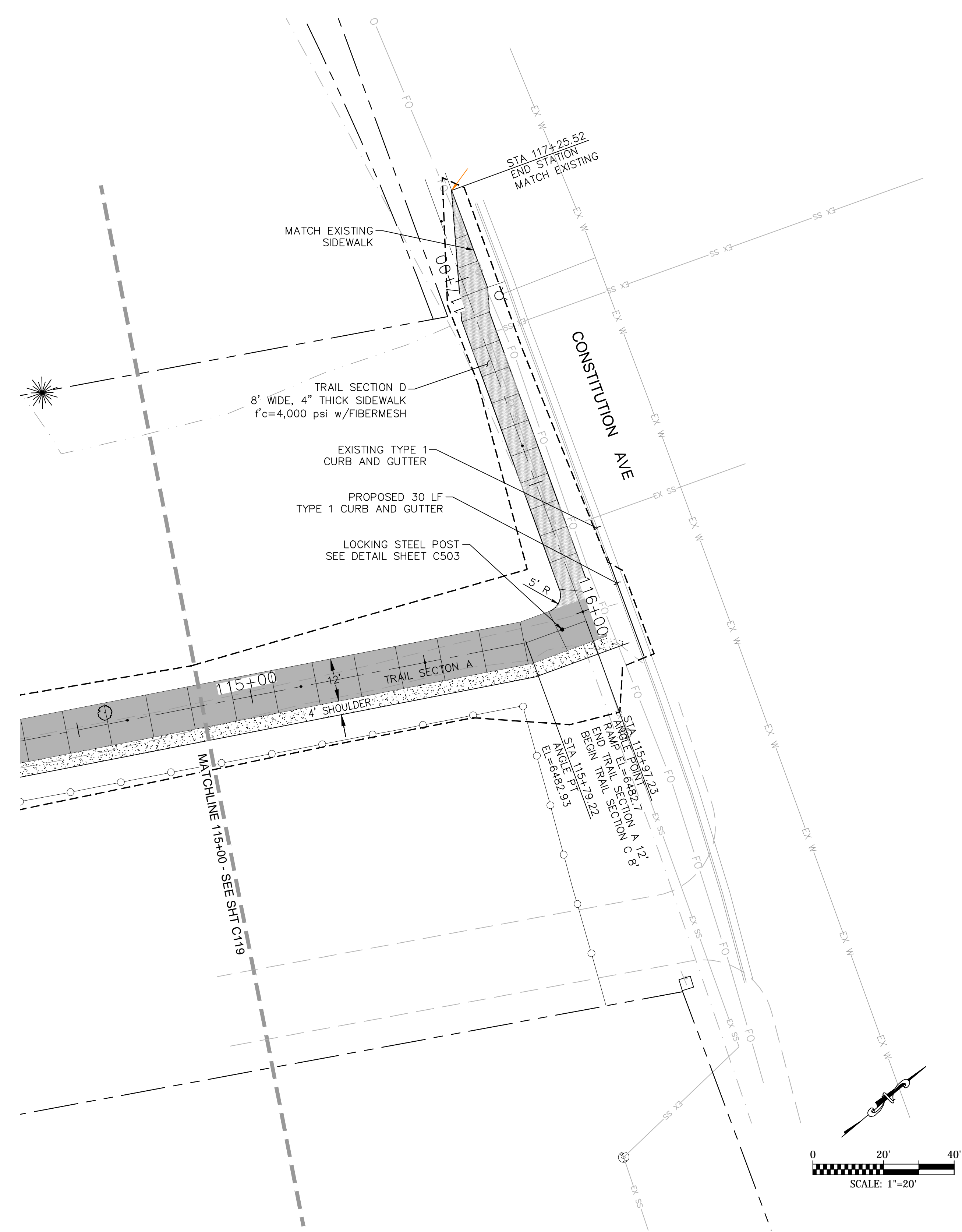
100% SET

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue	
FINAL TRAIL PLAN STA 109+50 TO STA 115+00	
Designer:	TAC
Detailer:	TEG
Date:	9/30/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C119

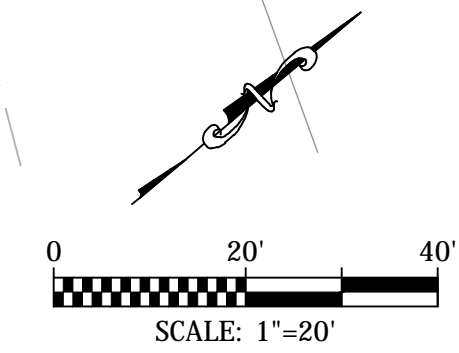
For and on Behalf of
Kiowa Engineering Corporation Date

TRAIL SIGNAGE			
SIGNAGE		#	PANEL SIZE
1	TRAIL ENDS AHEAD	1	12x18
2	TRAIL USERS CROSS AT CONSTITUTION AVE & PIROS DRIVE	1	12x18



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PT#	COORDINATES			DESCRIPTION	ELEVATION
	N	E			
158	1377827.63	3220209.23		PC	6475.44
159	1377940.27	3220208.12		PT	6476.20
160	1378030.70	3220180.60		PC	6478.27
161	1378052.60	3220178.98		PT	6478.53
162	1378360.72	3220224.85		ANGLE POINT	6482.93
163	1378382.73	3220224.60		BACK OF HC RAMP6482.7	

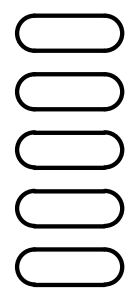


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1604 South 21st Street
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(719) 630-7342

For and on Behalf of
Kiowa Engineering Corporation Date



Sheet Revisions

100% SET

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue

Kiowa Proj. No. 16028

FINAL TRAIL PLAN STA 115+00 TO STA 117+50

TAP M240-162

Designer: TAC

SubAcct No. 20391

Detailer: TEG

Date: 9/30/2024

Sheet Number C120

PEDESTRIAN BRIDGE GENERAL INFORMATION

SPECIFICATIONS FOR BRIDGE GIRDER AND DECK UNIT (ITEM 628)

GENERAL

IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL AND ERECT A FULLY ENGINEERED, PREFABRICATED BRIDGE GIRDER AND DECK UNIT. THIS WORK SHALL CONSIST OF ALL LABOR, MATERIALS, AND EQUIPMENT FOR INSTALLATION OF THE SUPERSTRUCTURE AS SHOWN ON THE PLANS. FABRICATION AND DELIVERY OF THE BRIDGE GIRDER AND DECK UNIT SHALL BE FURNISHED BY THE CITY OF COLORADO SPRINGS. FABRICATION AND CONSTRUCTION OF THE BRIDGE AND ITS COMPONENTS SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS ON THE PLANS.

GEOMETRY

SPAN LENGTHS, DECK WIDTH AND ELEVATIONS SHALL BE IN ACCORDANCE WITH BRIDGE PLANS.

REQUIREMENTS FOR PEDESTRIAN AND BICYCLE RAILING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

DESIGN DATA

THE SUPERSTRUCTURE SHALL BE DESIGNED FOR A MINIMUM PEDESTRIAN LOAD OF 90 psf
THE SUPERSTRUCTURE SHALL ALSO BE DESIGNED FOR A VEHICLE LOAD OF 20,000 POUNDS (H10 TRUCK).

OTHER LOADS FOR SUPERSTRUCTURE DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES.

MATERIALS

THE BRIDGE SHALL BE FABRICATED FROM HIGH STRENGTH, SELF-WEATHERING, LOW ALLOY, ATMOSPHERIC CORROSION RESISTANT ASTM A847 COLD-FORMED WELDED SQUARE AND RECTANGULAR TUBING AND ASTM A588, ASTM A606, OR ASTM A 242 PLATE AND STRUCTURAL STEEL SHAPES ($f_y=50,000$ psi). ALL BOLTS SHALL BE ASTM A325 HIGH STRENGTH BOLTS. DECK SHALL BE 6" THICK CDOT CLASS D REINFORCED CONCRETE OVER 20 GAGE GALVANIZED STEEL FORM DECKING. REINFORCING STEEL SHALL BE GRADE 60 STEEL REBAR.

EXPANSION JOINT MATERIAL SHALL MEET AASHTO M-213.

SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT SHOP FABRICATION DRAWINGS AND DESIGN CALCULATIONS TO THE CITY OF COLORADO SPRINGS FOR APPROVAL. ALL DRAWINGS AND CALCULATIONS THAT ARE SUBMITTED SHALL BE APPROVED, SIGNED, AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF COLORADO.

DESIGN DATA

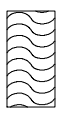
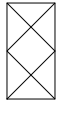
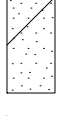


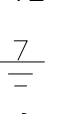

- UNIFORM PEDESTRIAN LOAD = 85 psf
- VEHICLE LOAD = 10,000 lbs (H5 TRUCK)
- REINFORCED CONCRETE CLASS B2: $f_c=4,000$ psi
- ABUTMENT STRUCTURAL STEEL: AASHTO M-183 (ASTM A-36)

BRIDGE DESCRIPTION

- PRE-FABRICATED SINGLE SPAN PEDESTRIAN BRIDGE
- WITH SELF-WEATHERING STEEL AND WITH CONCRETE DECKING CDOT CLASS D
- LENGTH = 210 FEET (STA 18+87)
- WIDTH = 12 FEET
- RAILING HEIGHT = 54 INCHES (MINIMUM)

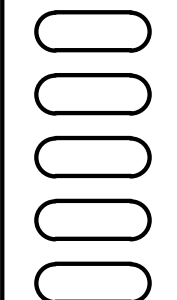
SOILS LEGEND

LEGEND

-  TOPSOIL.
-  FILL: POORLY TO WELL-GRADED SAND WITH SILT (SP-SM, SW-SM) WITH OCCASIONAL CLAYEY TO SILTY SAND LAYERS, SLIGHTLY MOIST TO MOIST, TAN TO BROWN. OCCASIONAL ASPHALT DEBRIS IN BORING 4.
-  POORLY TO WELL-GRADED SAND WITH SILT (SP-SM, SW-SM) WITH OCCASIONAL POORLY GRADED SAND (SP) AND SILTY TO CLAYEY LAYERS, MEDIUM DENSE TO VERY DENSE, MOIST TO WET, TAN TO GRAY.
-  CLAYSTONE BEDROCK, VERY HARD, MOIST, DARK GRAY.
-  DRIVE SAMPLE, 2-INCH I.D. CALIFORNIA LINER SAMPLE.
- 25/12 DRIVE SAMPLE BLOW COUNT. INDICATES THAT 25 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE THE SAMPLER 12 INCHES.
-  DEPTH TO WATER LEVEL AND NUMBER OF DAYS AFTER DRILLING MEASUREMENT WAS MADE.
-  DEPTH AT WHICH BORING CAVED.

NOTES

1. THE EXPLORATORY BORINGS WERE DRILLED ON MARCH 17, 2011 WITH A 4-INCH DIAMETER CONTINUOUS FLIGHT POWER AUGER.
2. THE LOCATIONS OF THE EXPLORATORY BORINGS WERE MEASURED APPROXIMATELY BY TAPING FROM FEATURES SHOWN ON THE SITE PLAN PROVIDED.
3. THE ELEVATIONS OF THE EXPLORATORY BORINGS WERE OBTAINED BY INTERPOLATION BETWEEN CONTOURS ON THE SITE PLAN PROVIDED.
4. THE EXPLORATORY BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
5. THE LINES BETWEEN MATERIALS SHOWN ON THE EXPLORATORY BORING LOGS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES AND THE TRANSITIONS MAY BE GRADUAL.
6. GROUND WATER LEVELS SHOWN ON THE LOGS WERE MEASURED AT THE TIME AND UNDER CONDITIONS INDICATED. FLUCTUATIONS IN THE WATER LEVEL MAY OCCUR WITH TIME.
7. LABORATORY TEST RESULTS:
WC = WATER CONTENT (%) (ASTM D 2216);
DD = DRY DENSITY (pcf) (ASTM D 2216);
+4 = PERCENTAGE RETAINED ON NO. 4 SIEVE (ASTM D 422);
-200 = PERCENTAGE PASSING NO. 200 SIEVE (ASTM D 1140);
LL = LIQUID LIMIT (ASTM D 4318);
PI = PLASTICITY INDEX (ASTM D 4318);
NP = NON-PLASTIC (ASTM D 4318);
WSS = WATER SOLUBLE SULFATES (%) (AASHTO T 290).



Sheet Revisions

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No Revisions:

Revised:

Void:

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
Pedestrian Bridge General Information

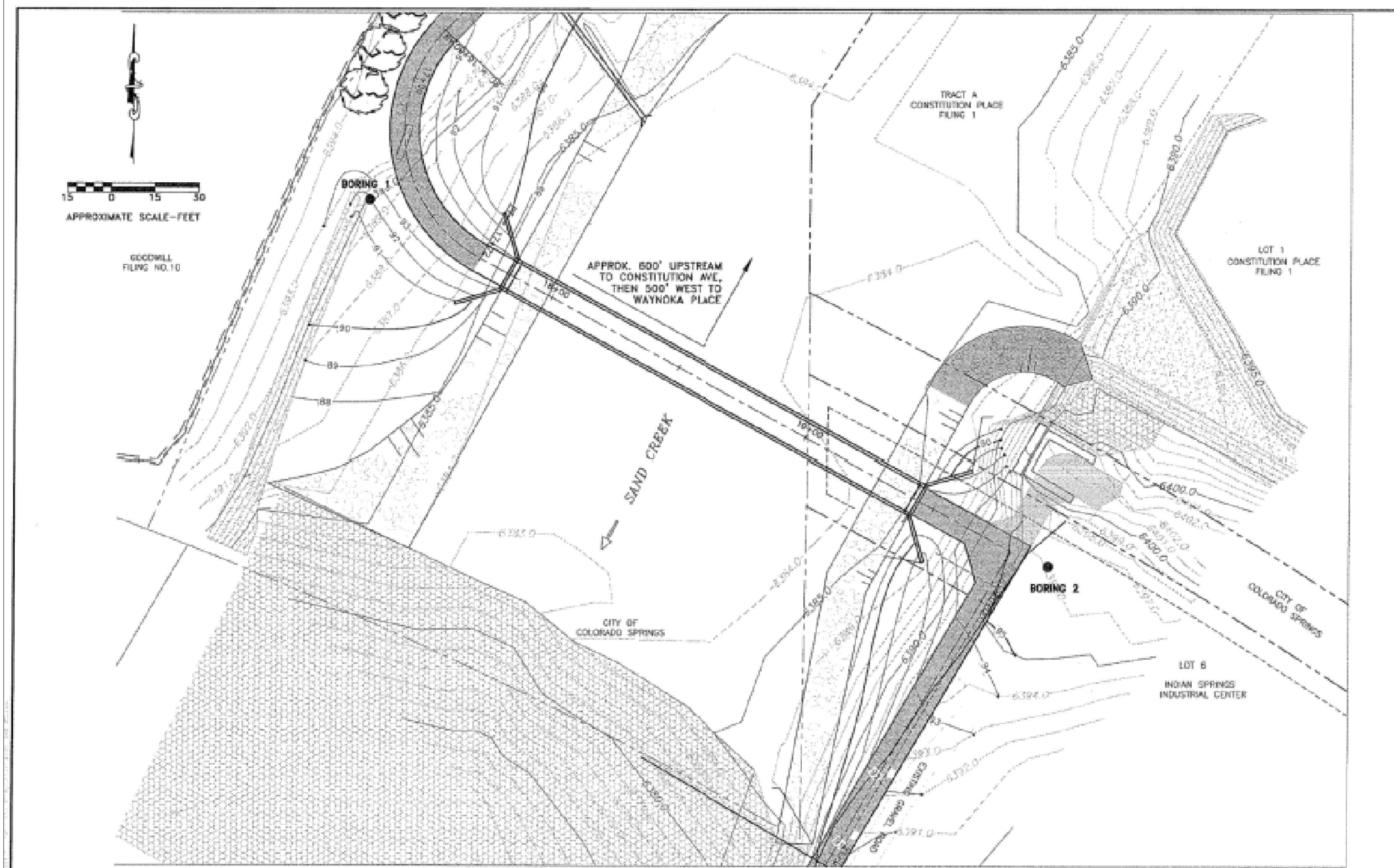
Designer: TAC
Detailer: TEG
Date: 09/24/2024

Kiowa Proj. No. 16028

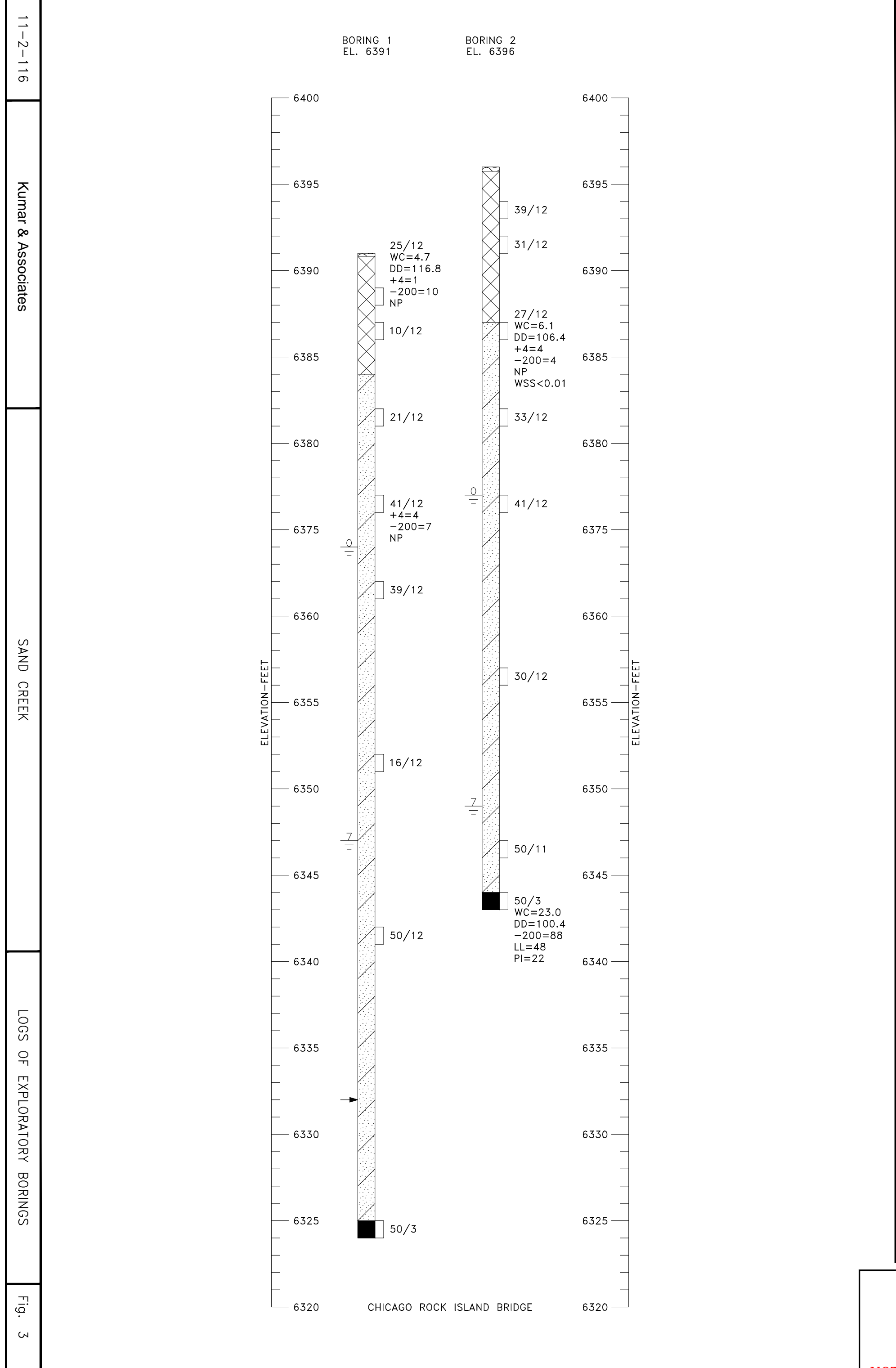
TAP M240-162

SubAcct No. 20391

Sheet Number C200



11-2-116 Kumar & Associates CHICAGO ROCK ISLAND BRIDGE LOCATION OF EXPLORATORY BORINGS Fig. 1



11-2-116 Kumar & Associates SAND CREEK LOGS OF EXPLORATORY BORINGS Fig. 3

SOILS BORINGS
FOR BORING LEGEND SEE SHEET C200

IN PROGRESS
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For and on Behalf of
Kiowa Engineering Corporation Date



Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

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○		Revised:
○		Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue Pedestrian Bridge Boring Log	
Designer:	TAC
Detailer:	TEG
Date:	09/24/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C201

RECURRENCE INTERVAL IN YEARS

SOURCE: FINAL AS-BUILT
HYDROLOGY SAND CREEK
DETENTION BASIN NO. 1
PREPARED BY KIOWA ENGINEERING

CHANNEL DESCRIPTION

BOTTOM MATERIAL - COHESIVE NON-COHESIVE
 BOTTOM MATERIAL SIZE - CLAY SILT SAND
 GRAVEL COBBLES OTHER
 STREAM FORM - STRAIGHT MEANDERING BRAIDED
 MANNINGS 'n' FOR DESIGN - CHANNEL .03 OVERBANK .04
 DEBRIS - BRUSH TREES/LOGS ICE OTHER

COMPARISON OF HYDRAULICS (100-YEAR)

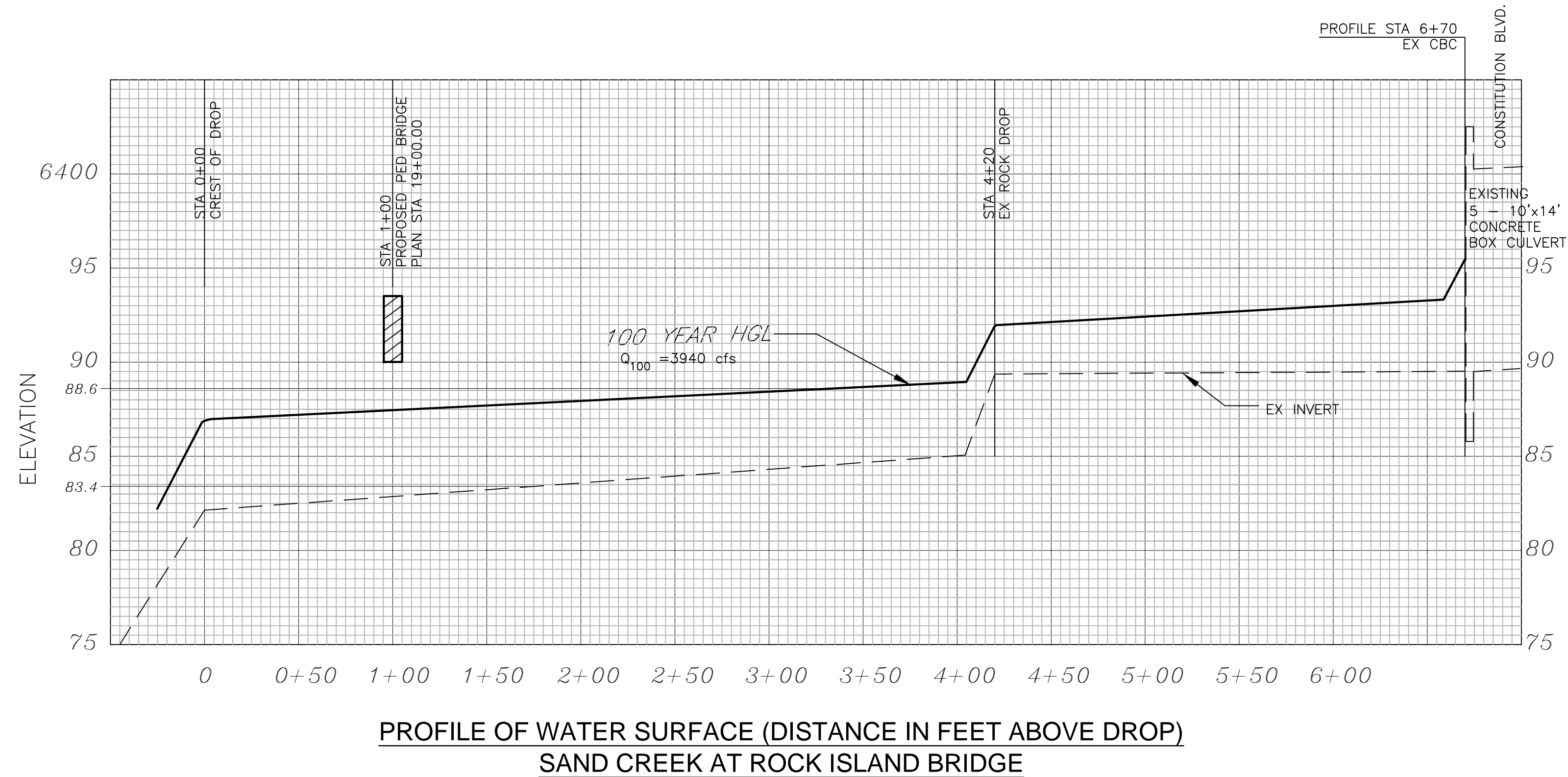
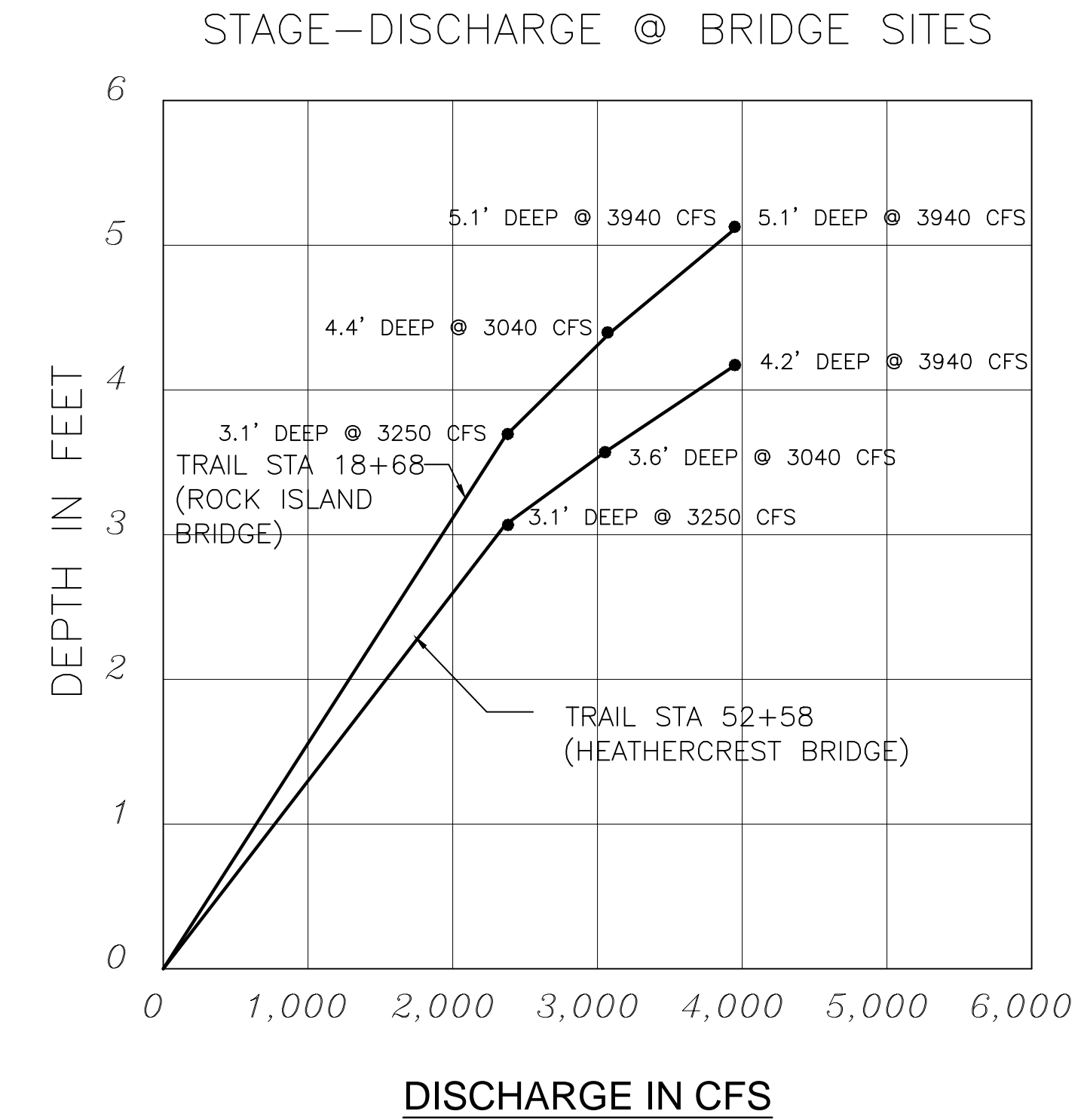
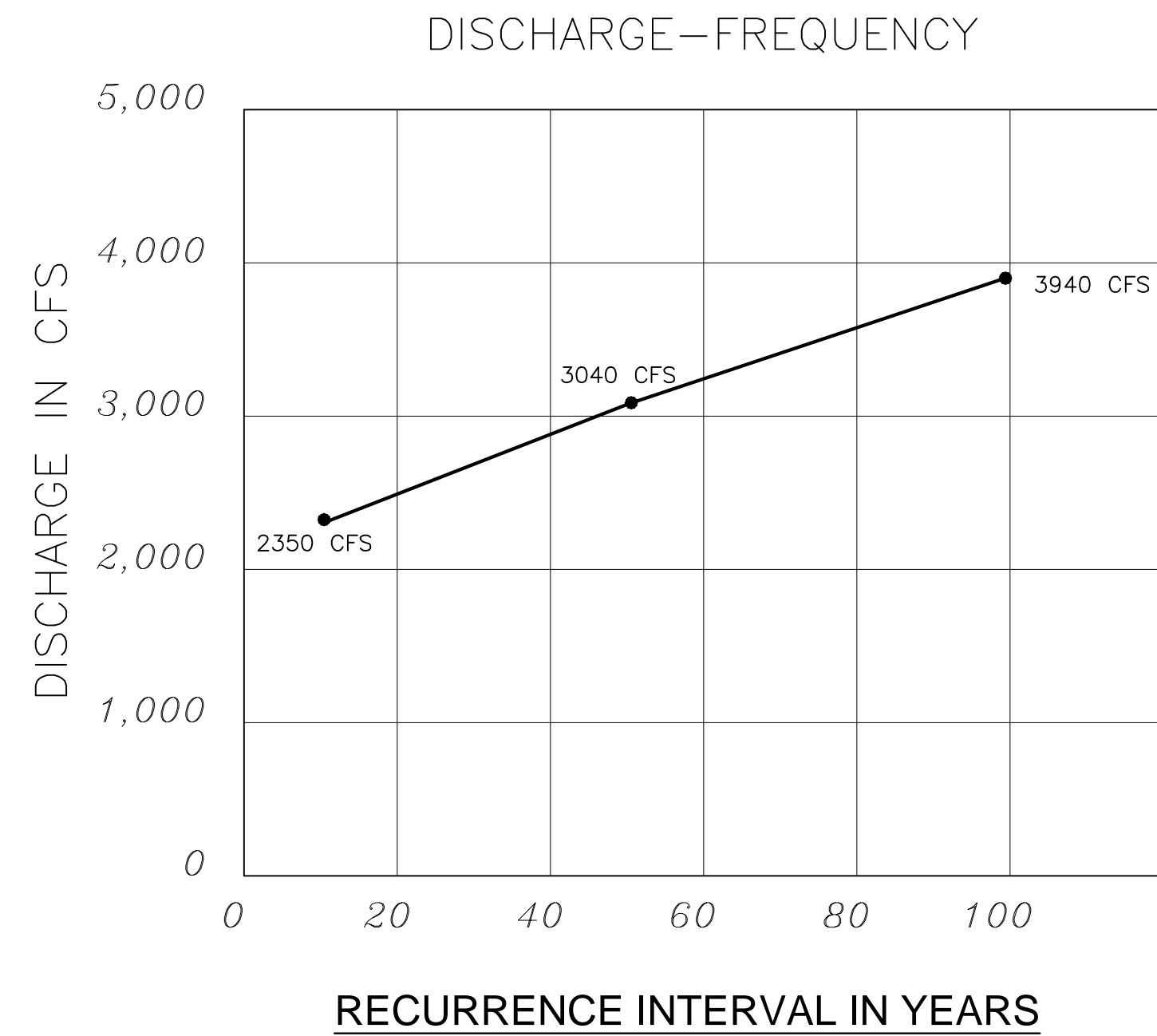
VELOCITY FREEBOARD MAX. BACKWATER

CHICAGO ROCK ISLAND BRIDGE

① EXISTING 6.2 fps 3.2 ft 0.0 ft
 ② PROPOSED 6.5 fps 2.5 ft(1) 0.0 ft

COMMENTS

(1) DISTANCE TO LOW STEEL OF BRIDGE
 (2) CURRENT RBD 100 WSE IS 6392.3
 BASED ON ALTERNATE DATUM



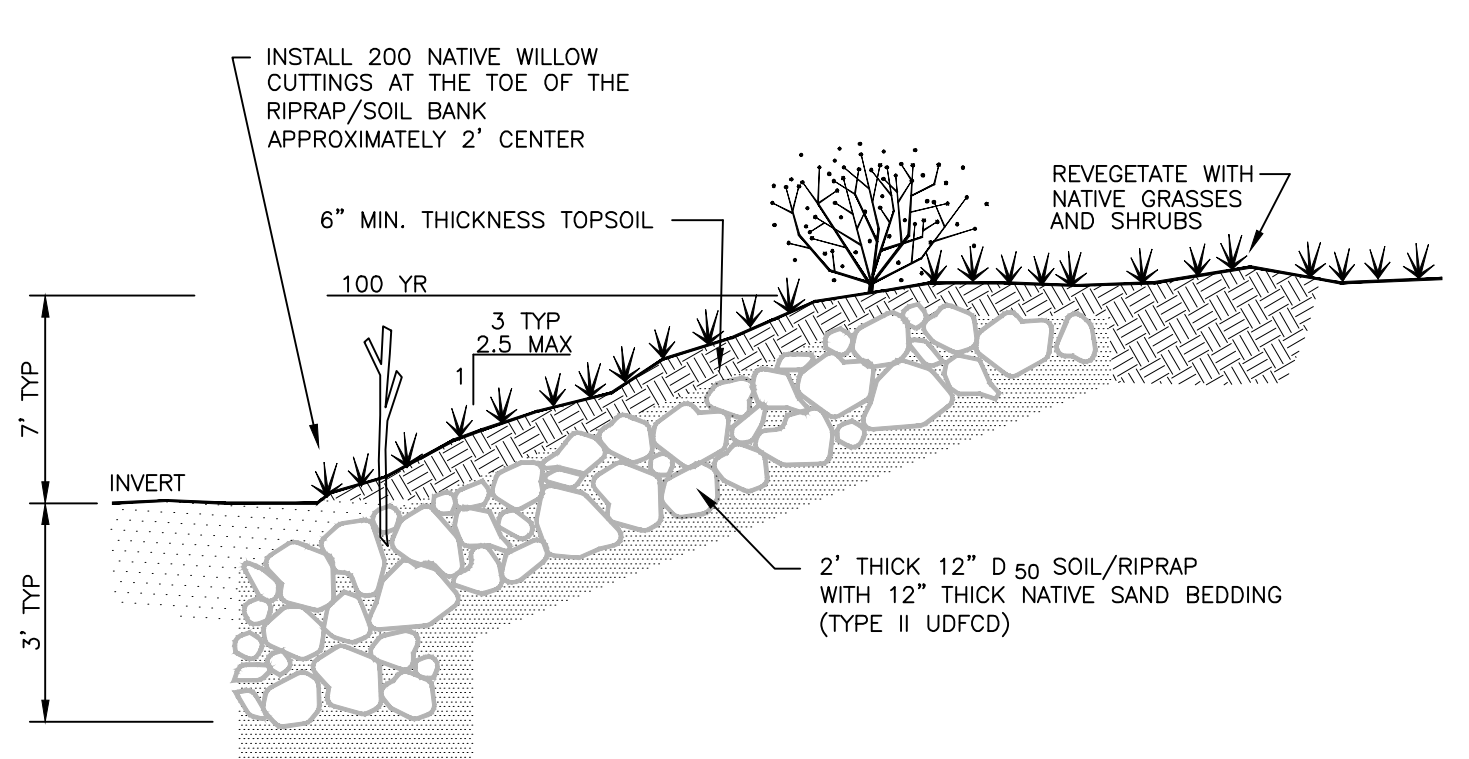
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Kiowa Engineering Corporation Date



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1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

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		No Revisions:	Designer: TAC		TAP M240-162
		Revised:	Detailer: TEG		SubAcct No. 20391
		Void:	Date: 09/24/2024		Sheet Number C202

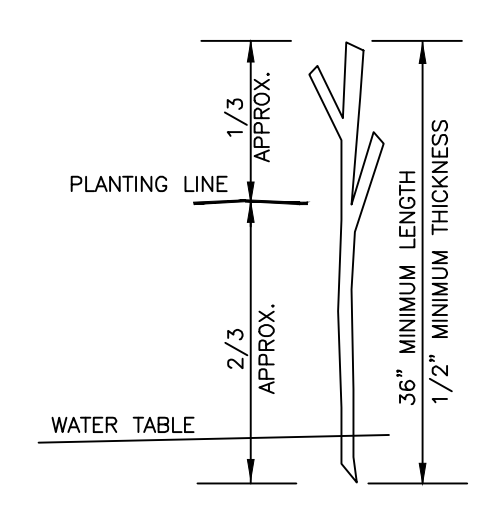


A RIPRAP & SOIL BANK LINING DETAIL
C203 NOT TO SCALE

PLANTING SCHEDULE

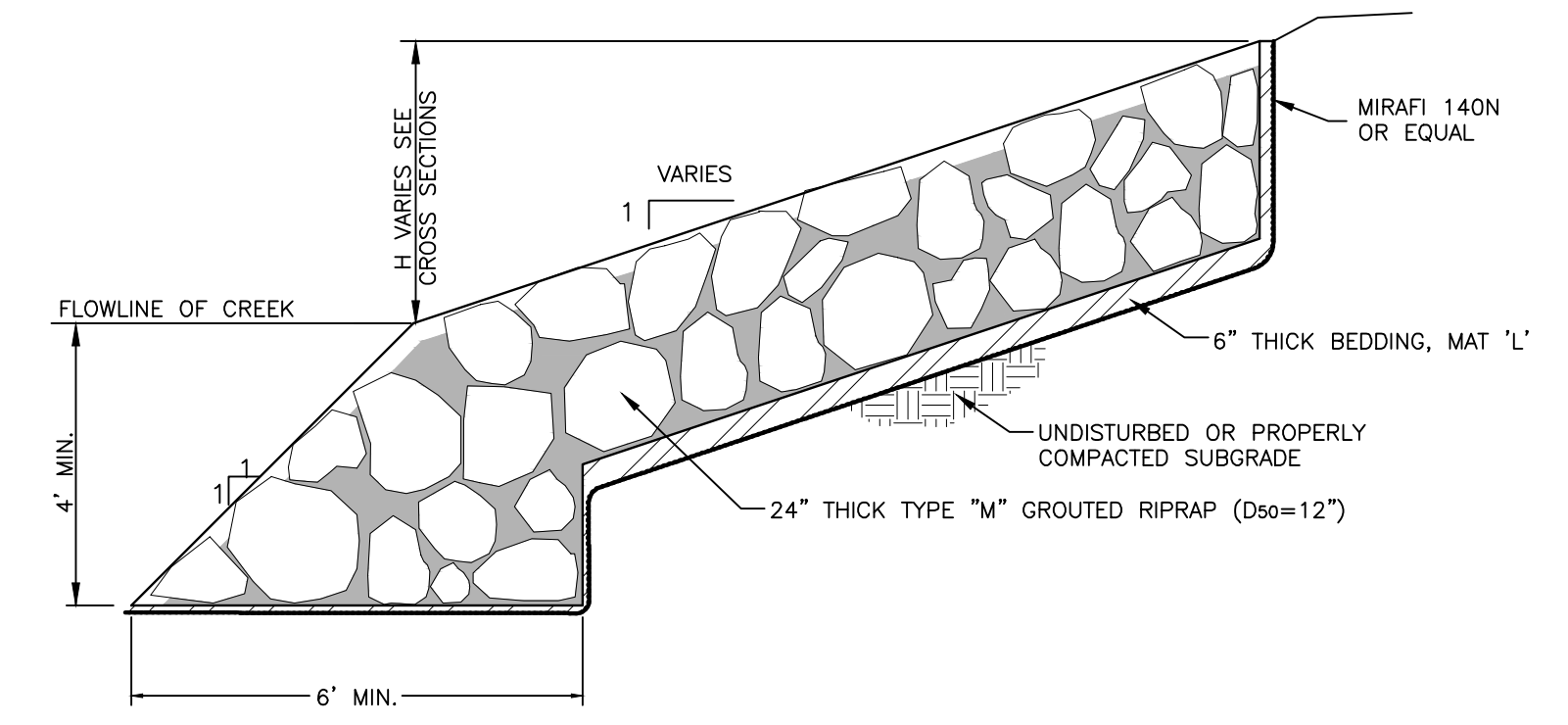
<i>Salix exigua</i> *	sandbar willow	200	2' O.C.
-----------------------	----------------	-----	---------

*3/8" LIVE WILLOW STAKES, HARVESTED LOCALLY, AND TO BE INSTALLED PER DETAIL.



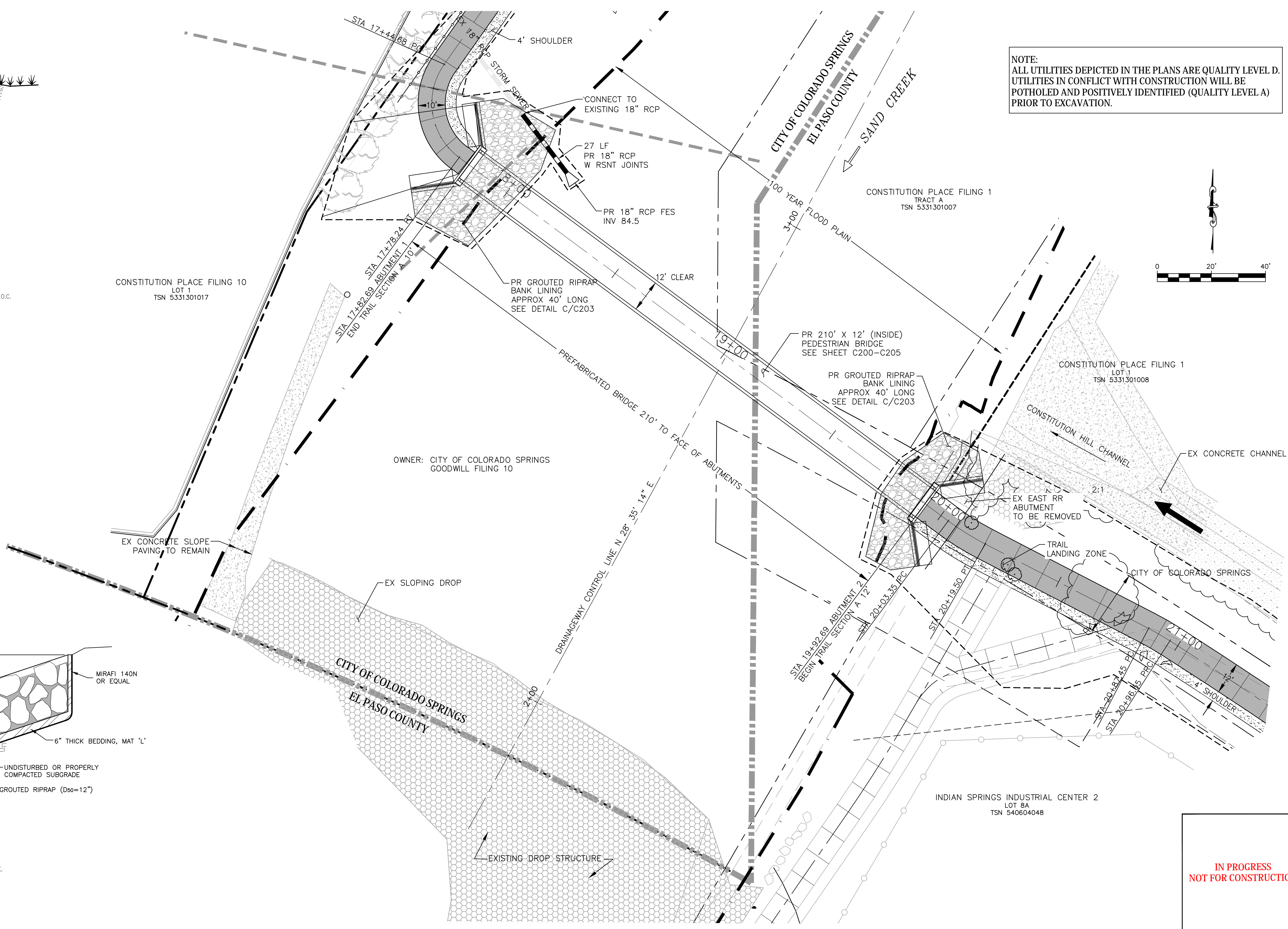
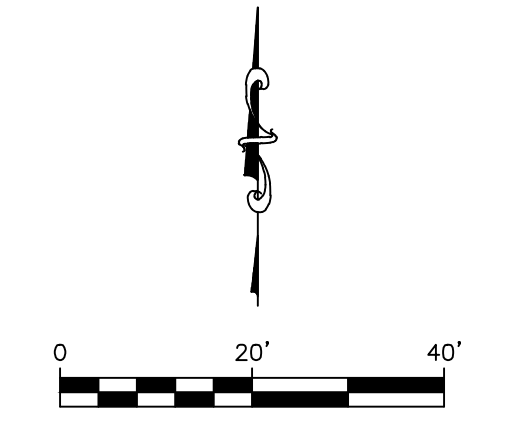
B WILLOW CUTTING DETAIL
C203 NATIVE SANDBAR WILLOW STAKE

PROTECT LIVE WILLOW STAKES FROM DAMAGE DURING INSTALLATION. EITHER USE PRY BAR OR PROBE TO MAKE OPENING BETWEEN ROCKS OR USE TUBING TO PROVIDE OPENINGS. REMOVE TUBING AND TAMP NATIVE SOIL TO ELIMINATE VOIDS AROUND STEM. PLANT GROWTH END UP.



C GROUTED RIPRAP BANK LINING DETAIL
C203 NOT TO SCALE

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Kiowa Engineering Corporation Date



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Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
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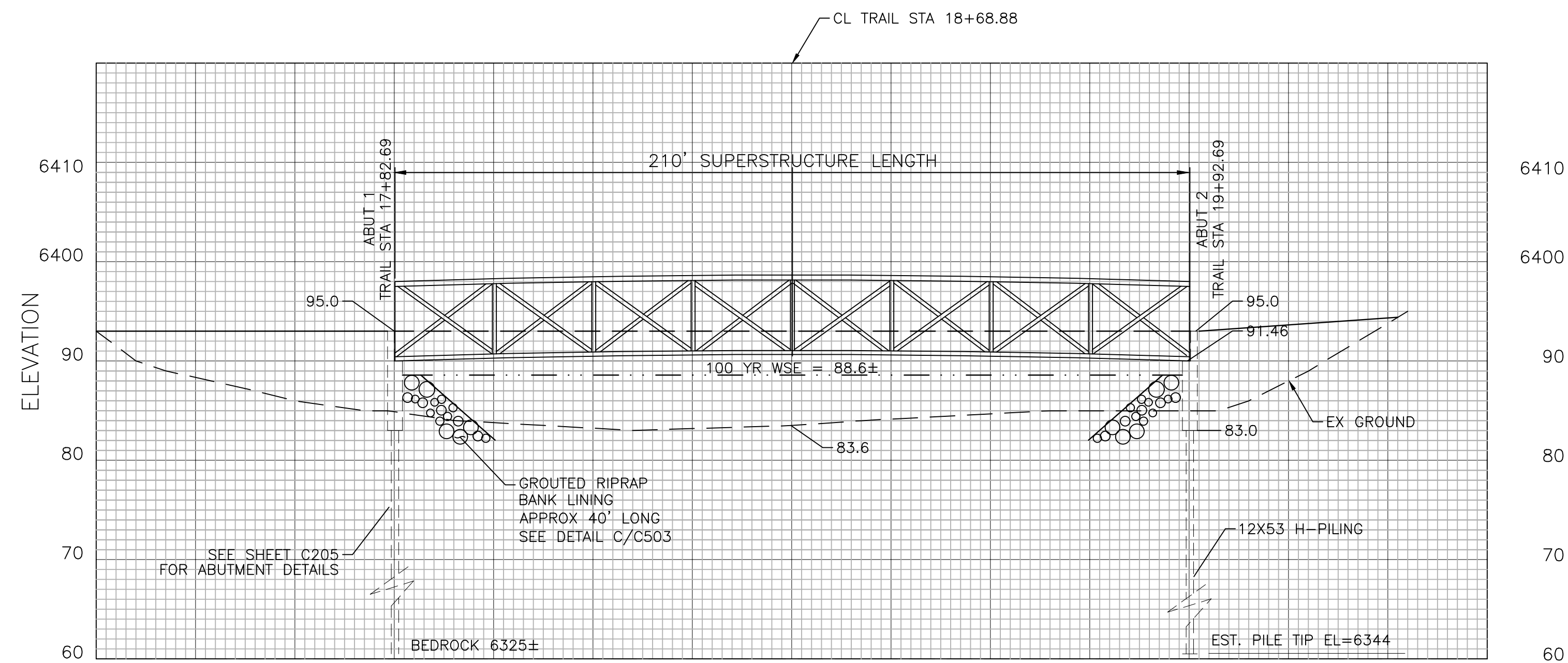
Sheet Revisions

100% SET

No Revisions:
Revised:
Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue Pedestrian Bridge Layout & Grading Plan	
Designer:	TAC
Detailer:	TEG
Date:	09/24/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C203



CHICAGO, ROCK ISLAND & PACIFIC PEDESTRIAN BRIDGE
LONGITUDINAL SECTION LOOKING NORTHEAST
 SCALE: 1" = 20' (H) & 1" = 10' (V)

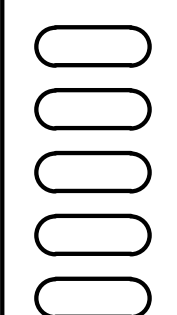
PAY ITEM 628 SHALL INCLUDE THE INSTALLATION OF THE BRIDGE GIRDER, DECK UNIT, BEARING PLATES AND BEARING PADS. FABRICATION AND DELIVERY OF THE BRIDGE, DECK UNIT, BEARING PLATE AND BEARING PADS SHALL BE PROVIDED BY THE CITY OF COLORADO SPRINGS.

**IN PROGRESS
 NOT FOR CONSTRUCTION**

For and on Behalf of
 Kiowa Engineering Corporation Date



Kiowa
 Engineering Corporation
 1604 South 21st Street
 Colorado Springs, Colorado 80904
 (719) 630-7342



Sheet Revisions

100% SET

No Revisions:

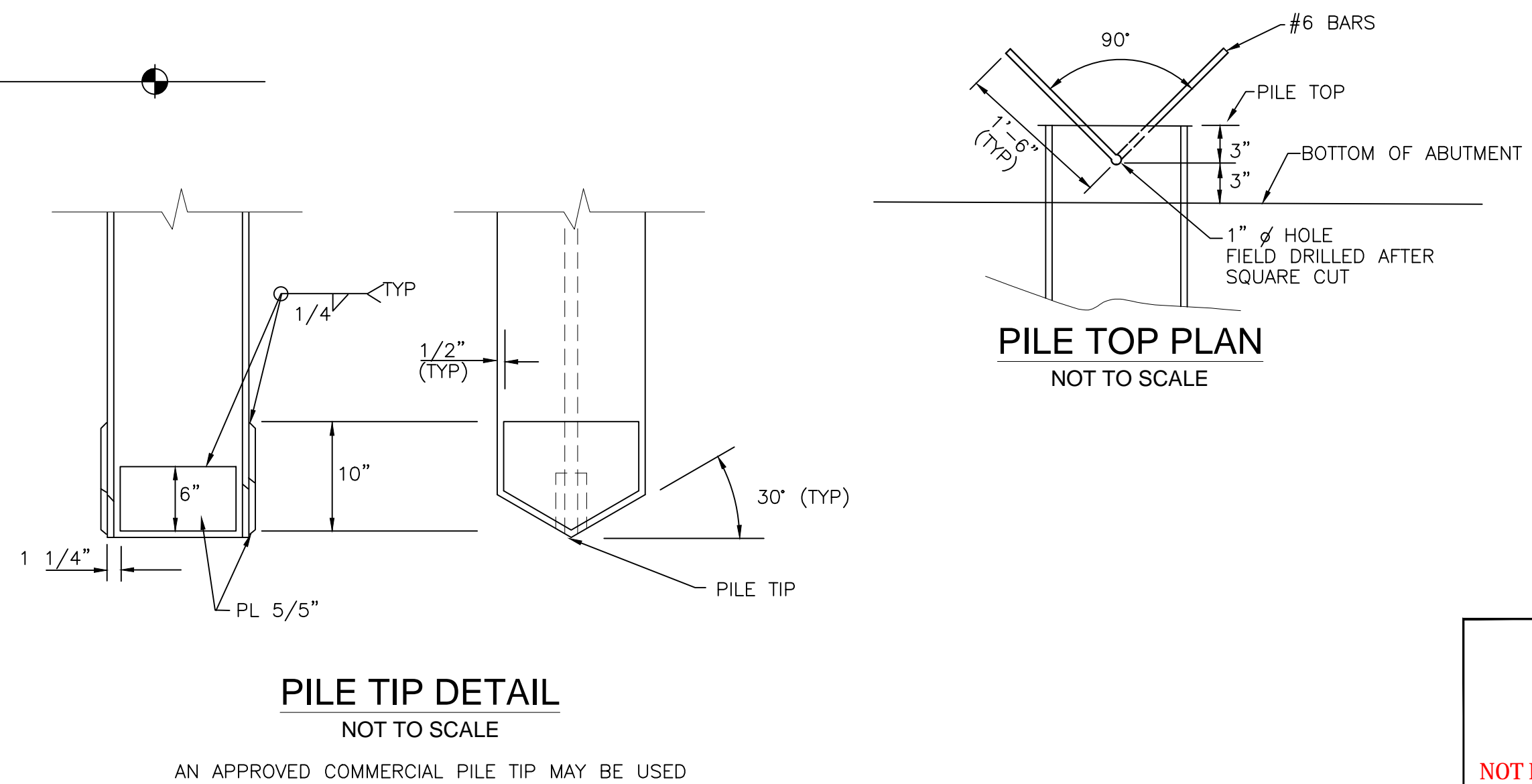
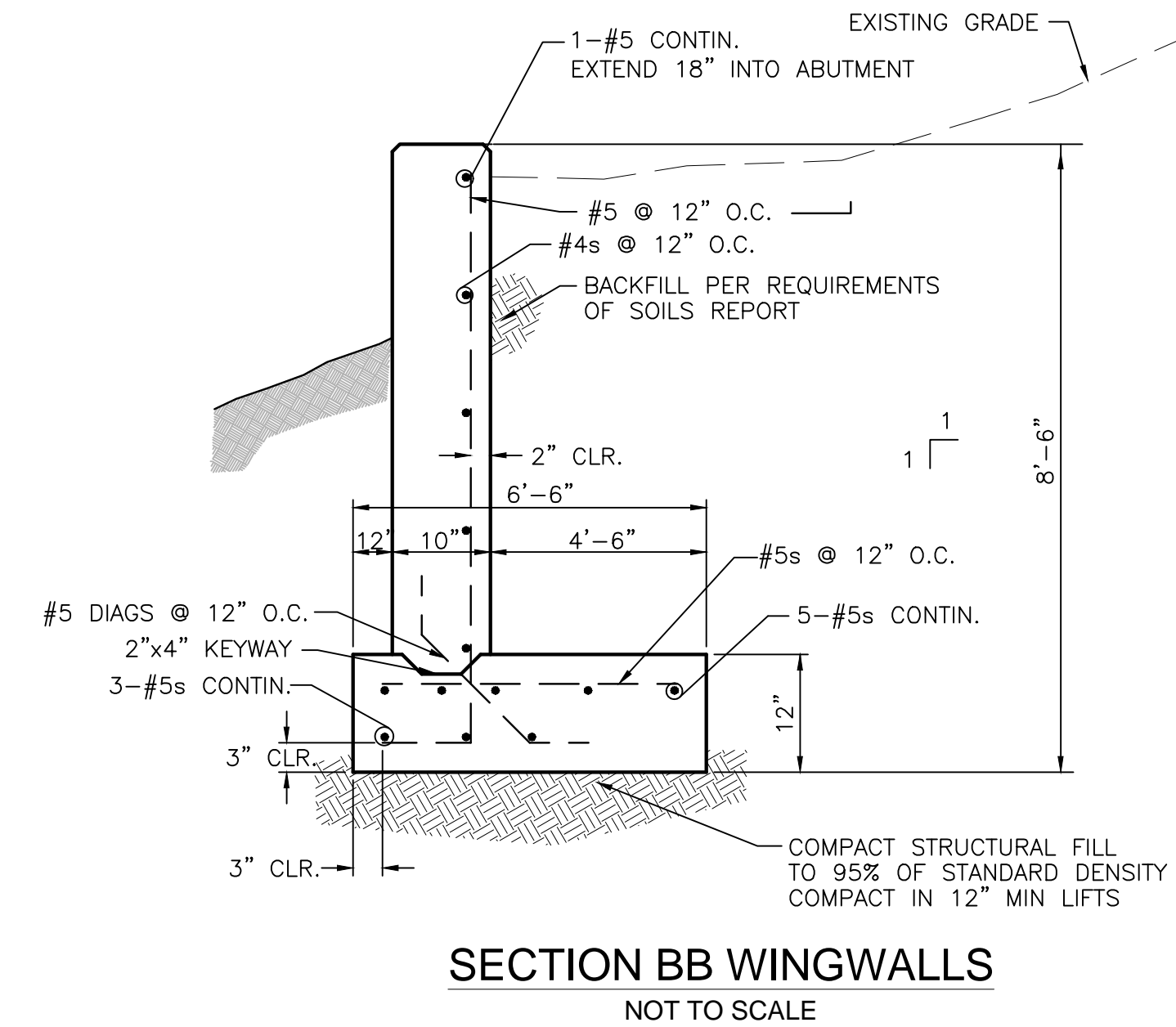
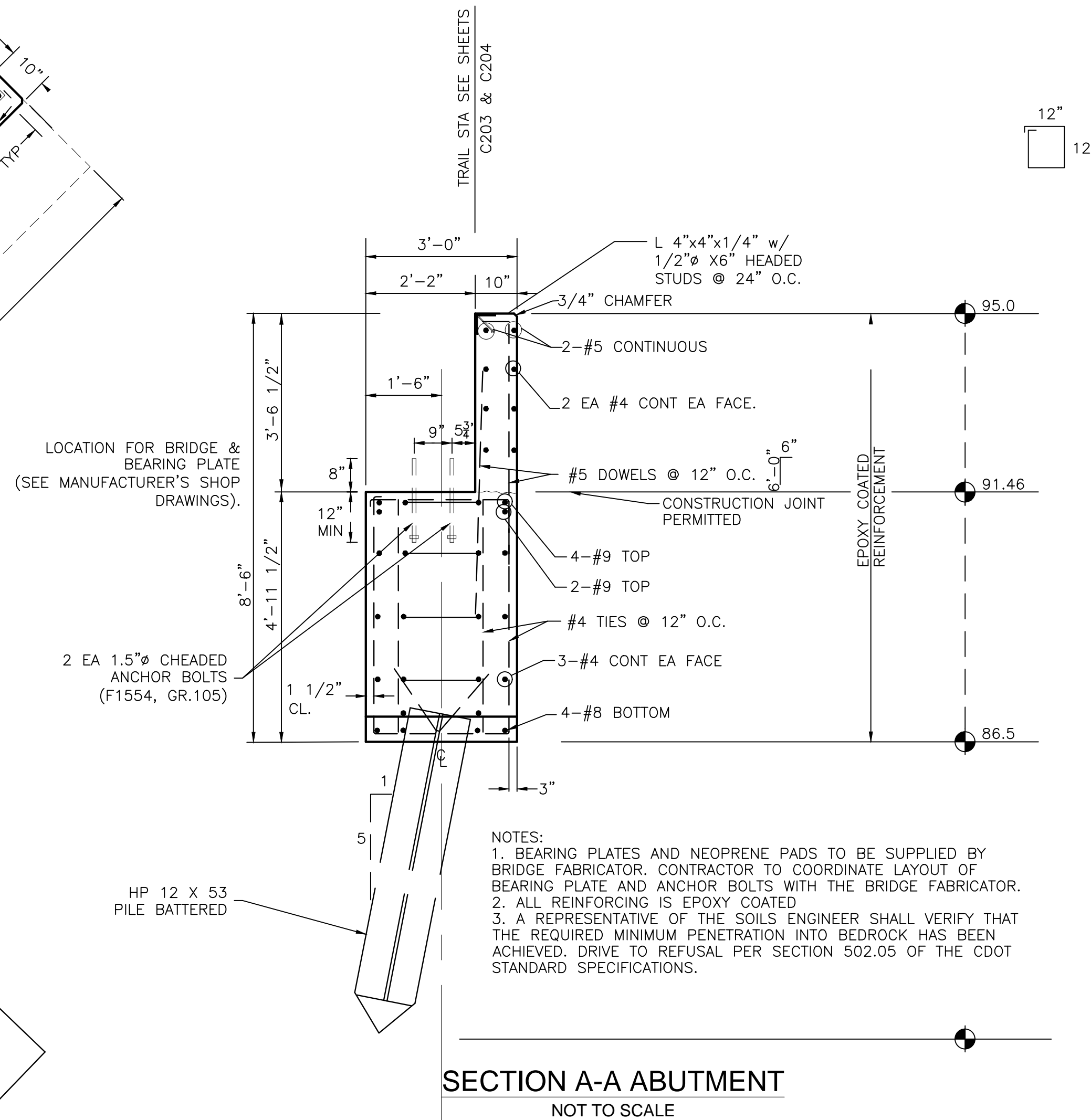
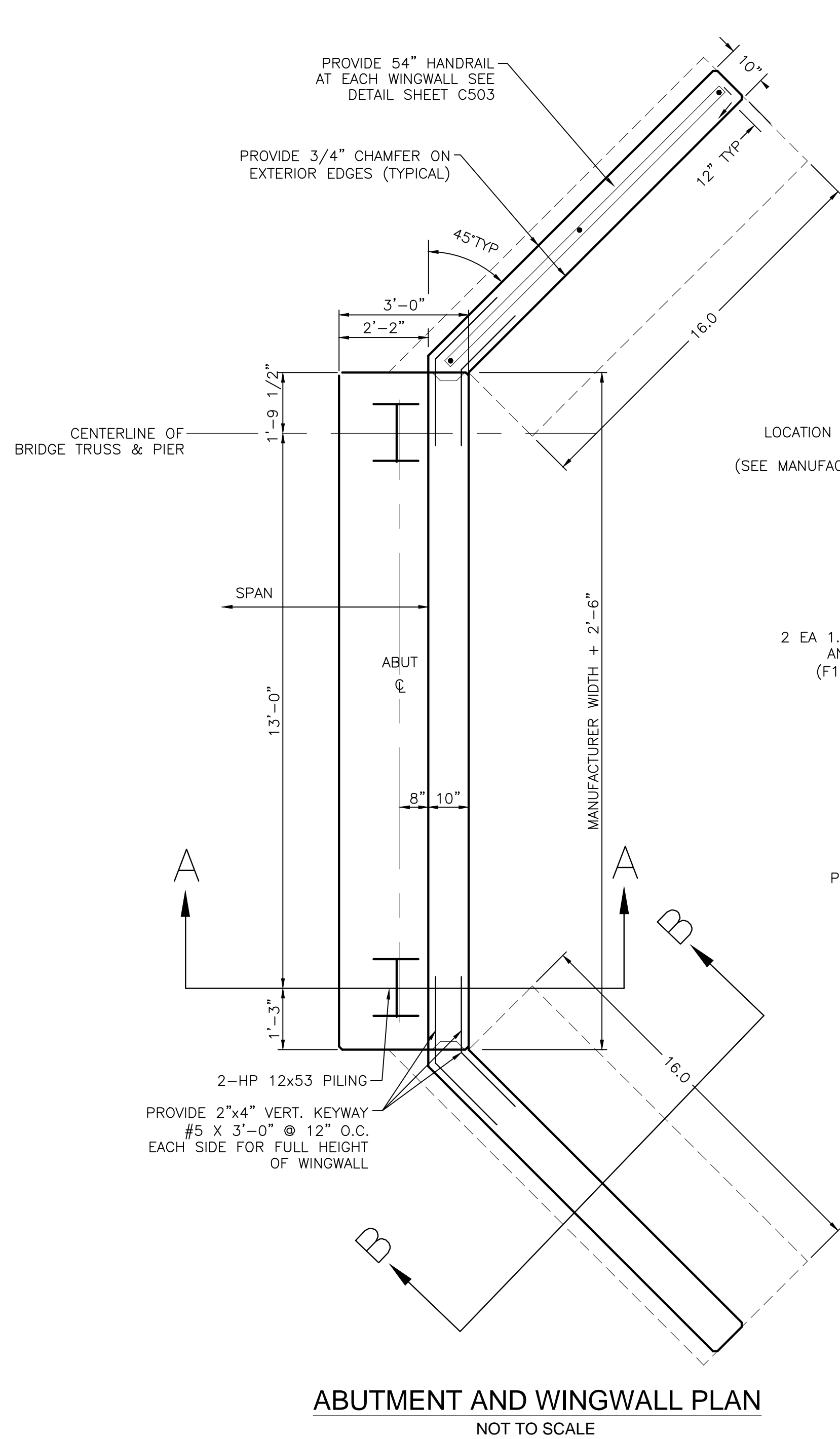
Revised:

Void:

ROCK ISLAND TRAIL
 Sand Creek to Constitution Avenue
 Pedestrian Bridge Section

Designer: TAC
 Detailer: TEG
 Date: 09/24/2024

Kiowa Proj. No. 16028
 TAP M240-162
 SubAcct No. 20391
 Sheet Number C204



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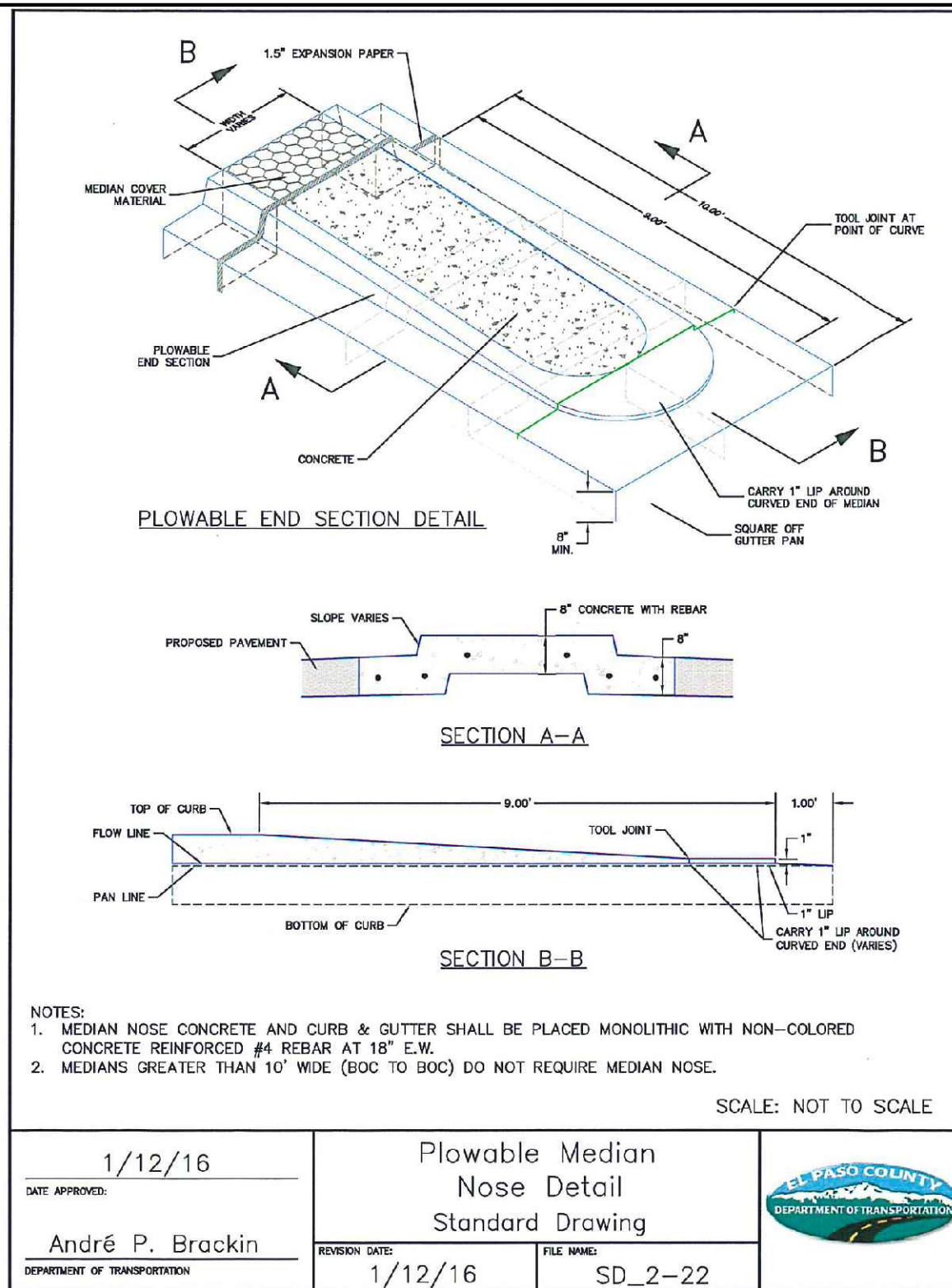
For and on Behalf of
Kiowa Engineering Corporation Date



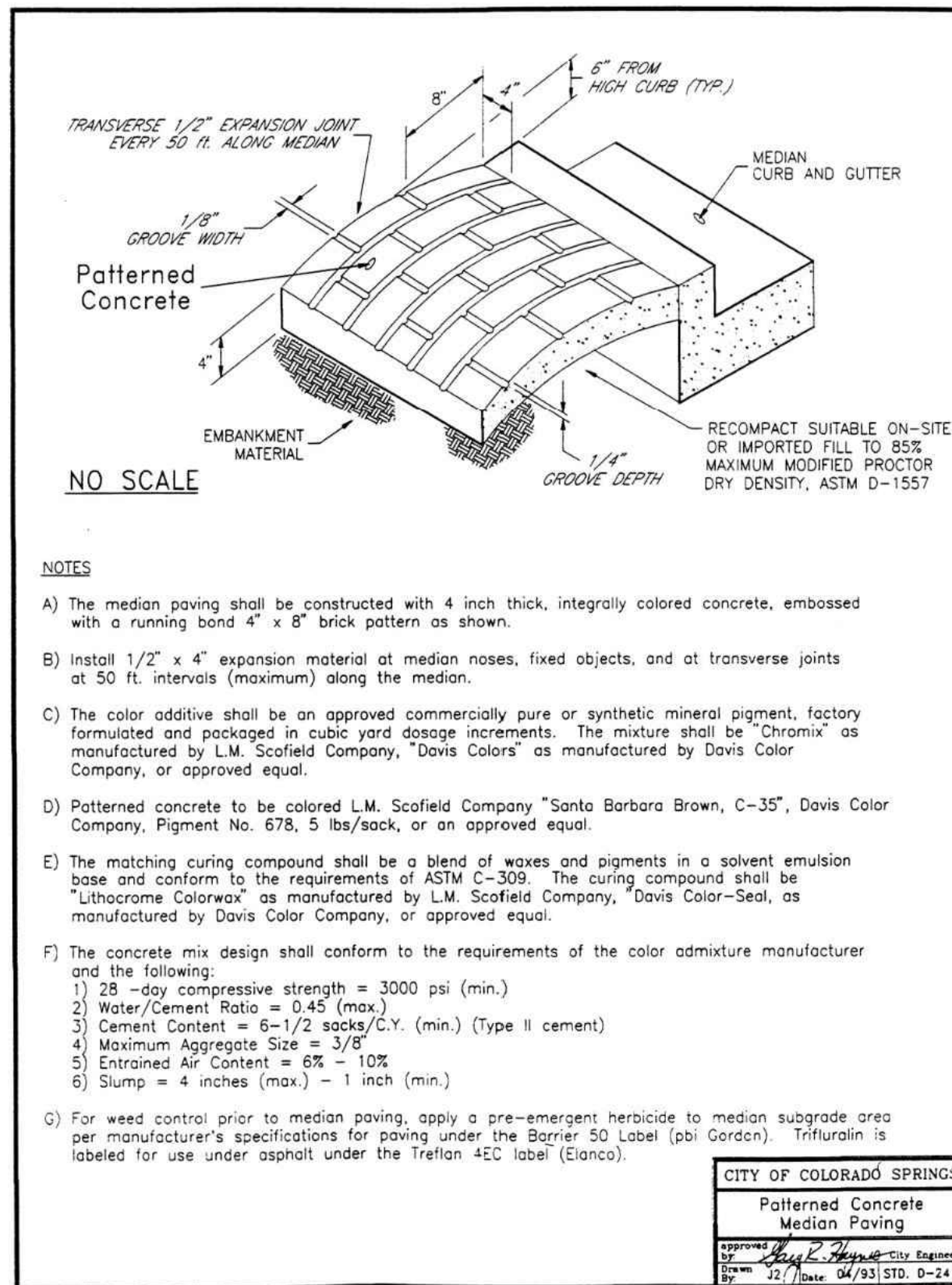
Kiowa
Engineering Corporation

1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

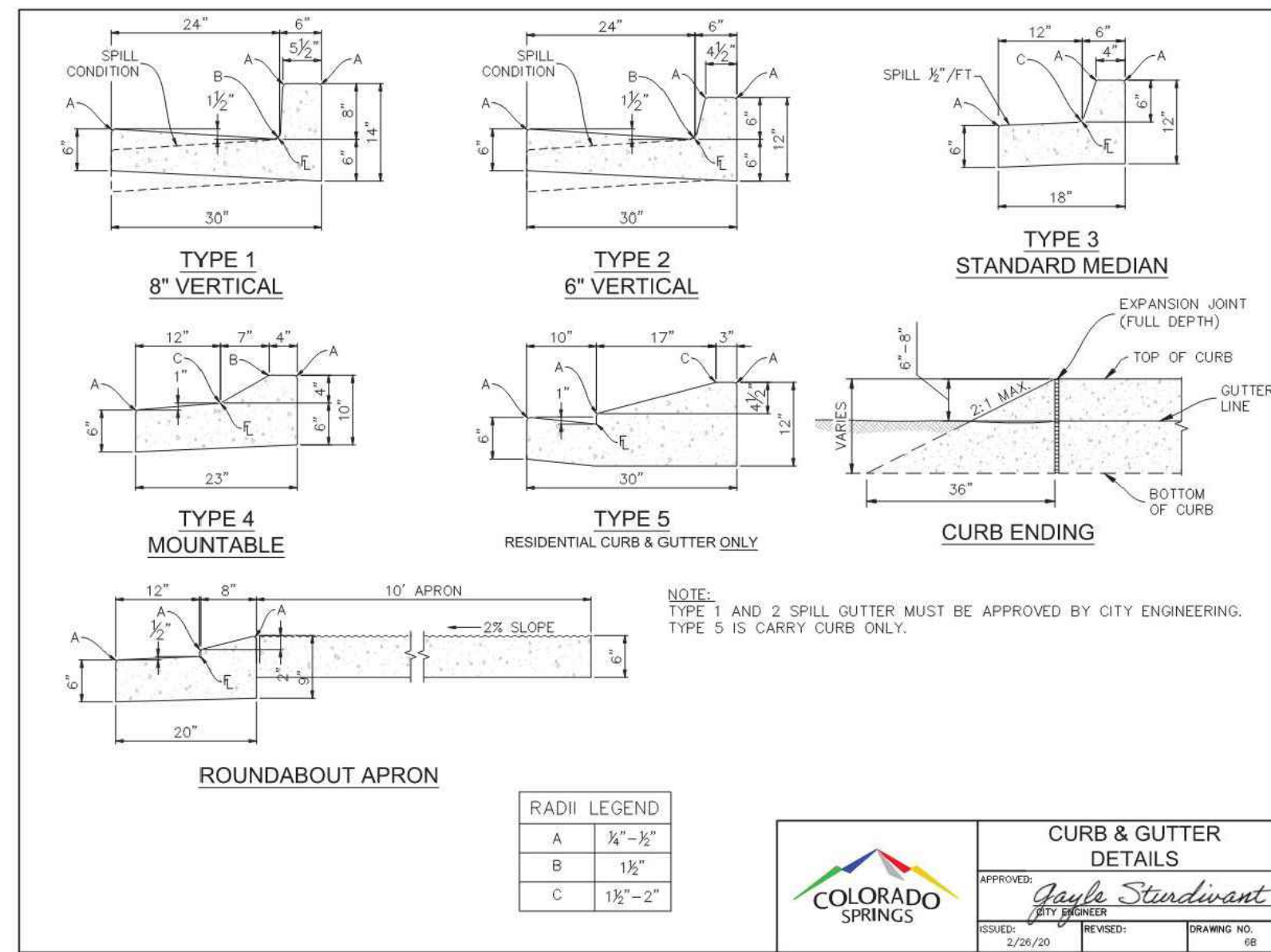
Sheet Revisions		100% SET	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue Pedestrian Bridge Abutment Details		Kiowa Proj. No. 16028
○		No Revisions:	Designer:	TAC	TAP M240-162
○		Revised:	Detailer:	TEG	SubAcct No. 20391
○		Void:	Date:	09/24/2024	Sheet Number C205



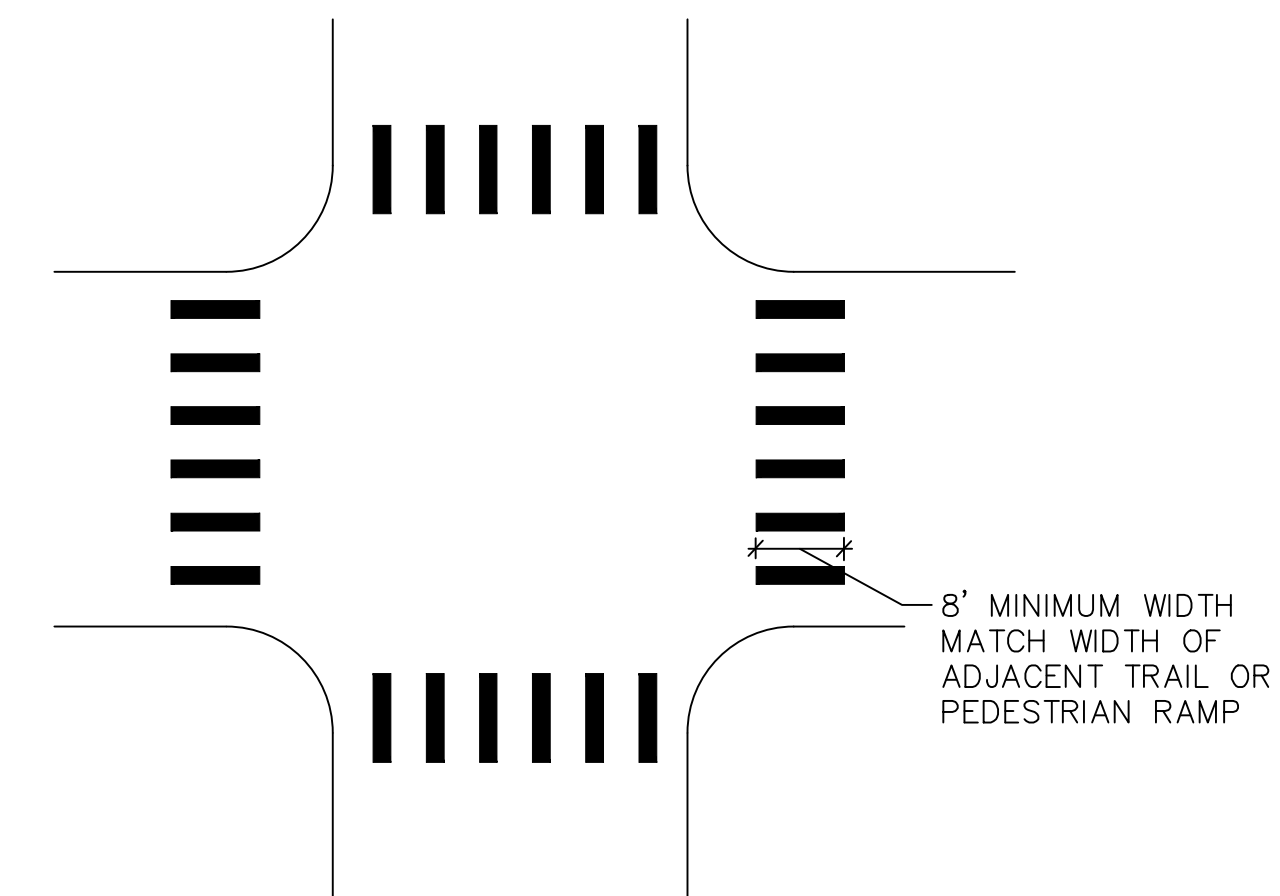
MEDIAN DETAIL



MEDIAN DETAIL

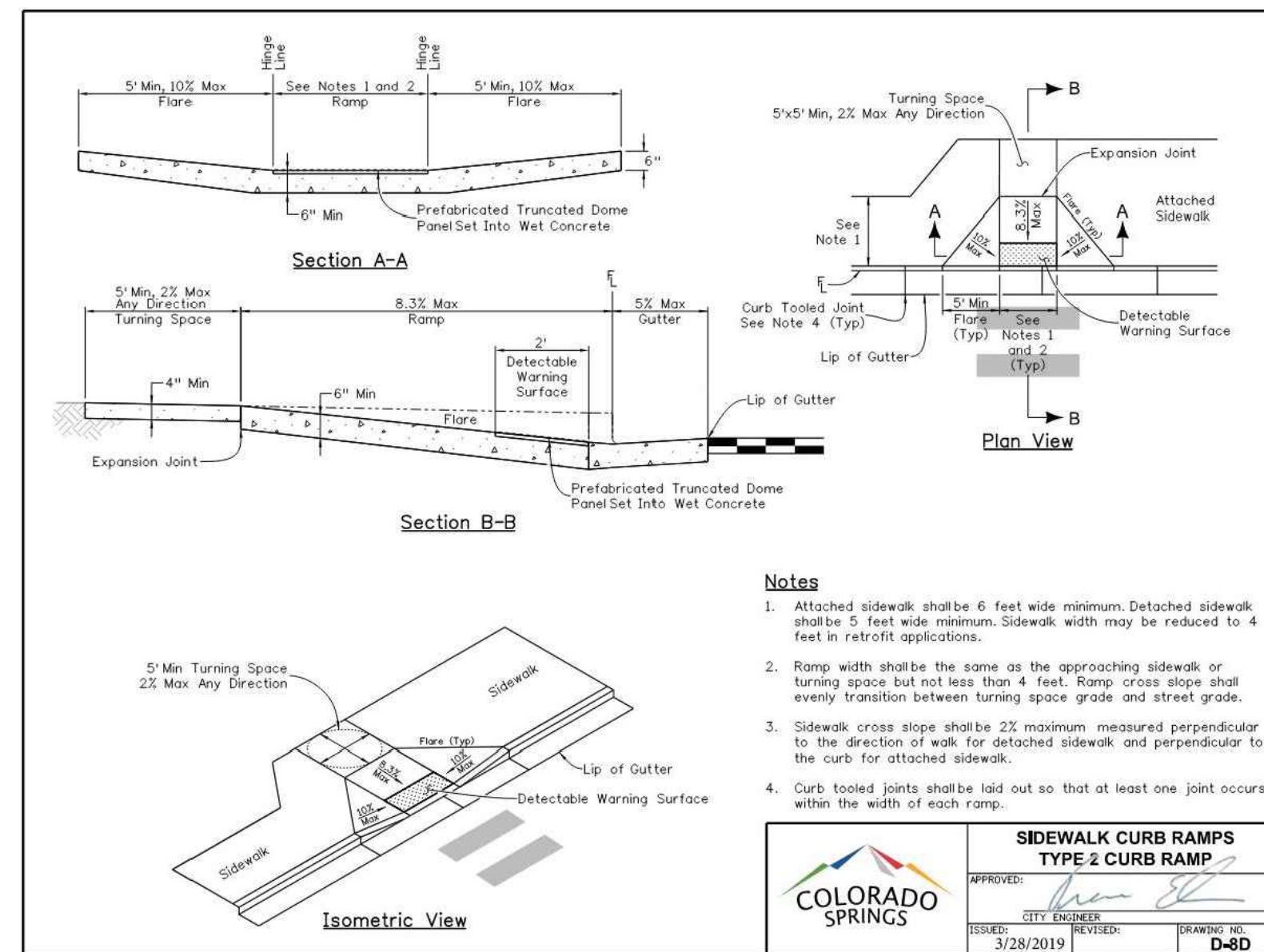


STANDARD CURB AND GUTTER



CROSSWALK MARKING DETAIL

NOTES:
 CENTER CROSSWALK MARKINGS ON PEDESTRIAN RAMPS. CROSSWALK MARKINGS SHALL BE 24" WIDE AND SPACED 12" TO 24" APART. MARKINGS SHALL BE MADE WITH EPOXY PAINT. REFER TO CDOT STANDARD S-627-1 FOR LAYOUT OF MARKINGS.



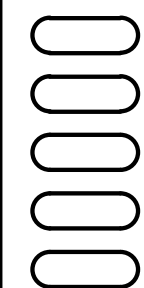
EPC STANDARD RAMP DETAIL



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 Kiowa Engineering Corporation Date

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 Engineering Corporation
 1604 South 21st Street
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 (719) 630-7342



Sheet Revisions

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No Revisions:

Revised:

Void:

ROCK ISLAND TRAIL
 Sand Creek to Constitution Avenue
 STANDARD DETAILS

Designer: TAC

Detailer: TEG

Date: 9/30/2024

Kiowa Proj. No. 16028

TAP M240-162

SubAcct No. 20391

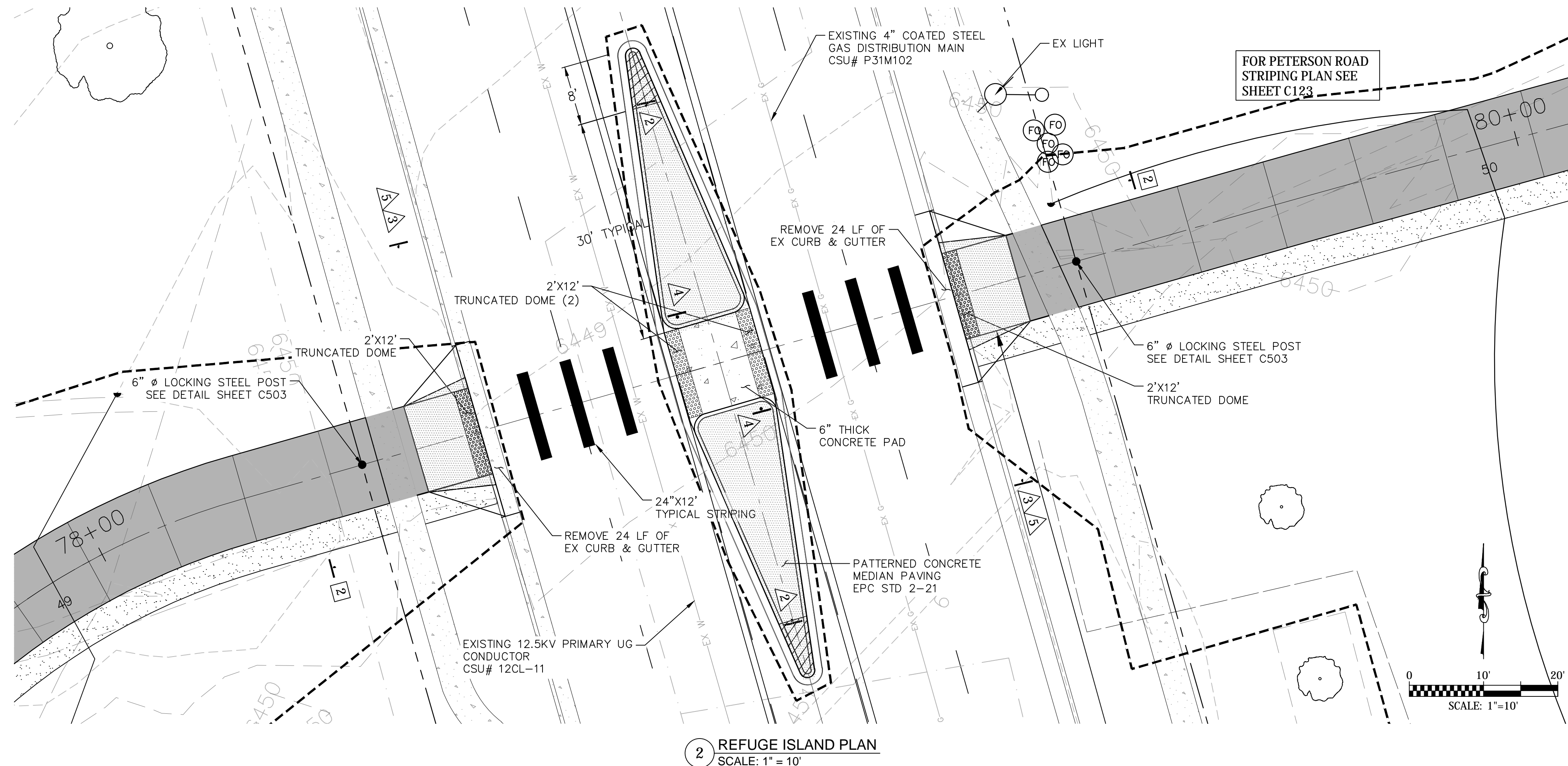
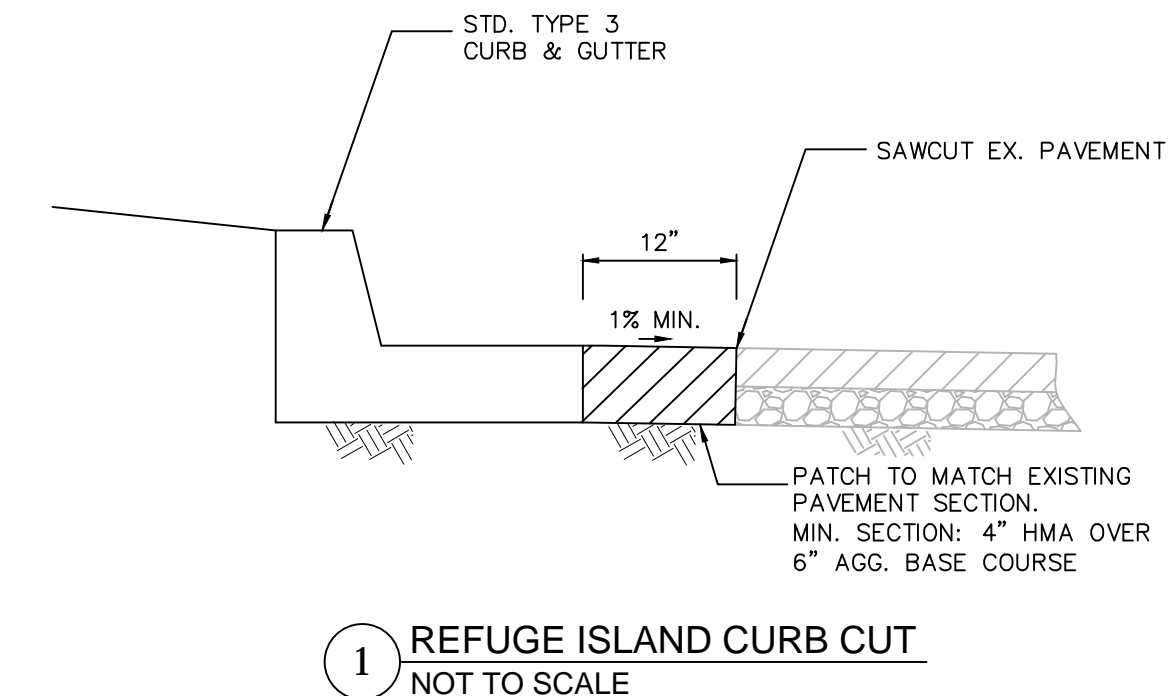
Sheet Number C501

SOIL RIPRAP

THE SOIL MATERIAL SHALL BE NATIVE OR TOPSOIL AND MIXED WITH SIXTY FIVE PERCENT (65%) RIPRAP AND THIRTY FIVE PERCENT (35%) SOIL BY VOLUME.
 SOIL RIPRAP SHALL CONSIST OF A UNIFORM MIXTURE OF SOIL AND RIPRAP WITHOUT VOIDS.
 CONTRACTOR SHALL COOPERATE WITH ENGINEER IN OBTAINING AND PROVIDING SAMPLES OF ALL SPECIFIED MATERIALS.
 CONTRACTOR SHALL SUBMIT CERTIFIED LABORATORY TEST CERTIFICATES FOR ALL ITEMS REQUIRED FOR SOIL RIPRAP.
 RIPRAP USED SHALL BE THE TYPE DESIGNATED ON THE DRAWINGS AND SHALL CONFORM TO TABLE SHOWN TO THE RIGHT.
 THE RIPRAP DESIGNATION AND TOTAL THICKNESS OF RIPRAP SHALL BE AS SHOWN ON THE DRAWINGS. THE MAXIMUM STONE SIZE SHALL NOT LARGER THAN THE THICKNESS OF THE RIPRAP.
 NEITHER WIDTH NOR THICKNESS OF A SINGLE STONE OF RIPRAP SHALL BE LESS THAN ONE-THIRD (1/3) OF ITS LENGTH.
 THE SPECIFIC GRAVITY OF THE RIPRAP SHALL BE TWO AND ONE-HALF (2.5) OR GREATER.
 MINIMUM DENSITY FOR ACCEPTABLE RIPRAP SHALL BE ONE HUNDRED AND SIXTY FIVE (165) POUNDS PER CUBIC FOOT.
 RIPRAP SPECIFIC GRAVITY SHALL BE ACCORDING TO THE BULK-SATURATED, SURFACE-DRY BASIS, IN ACCORDANCE WITH AASHTO T85.
 THE RIPRAP SHALL HAVE A PERCENTAGE LOSS OF NOT MORE THAN FORTY PERCENT (40%) AFTER FIVE HUNDRED (500) REVOLUTIONS WHEN TESTED IN ACCORDANCE WITH AASHTO T96.
 THE RIPRAP SHALL HAVE A PERCENTAGE LOSS OF NOT MORE THAN TEN (10%) AFTER FIVE (5) CYCLES WHEN TESTED IN ACCORDANCE WITH AASHTO T104 FOR LEDGE ROCK USING SODIUM SULFATE.
 THE RIPRAP SHALL HAVE A PERCENTAGE LOSS OF NOT MORE THAN TEN PERCENT (10%) AFTER TWELVE (12) CYCLES OF FREEZING AND THAWING WHEN TESTED IN ACCORDANCE WITH AASHTO T103 FOR LEDGE ROCK, PROCEDURE A. ROCK SHALL BE FREE FROM CALCITE INTRUSIONS.
 RUBBLE FOR USE AS SOIL/RIPRAP SHALL BE GRADED TO MEET THE EQUIVALENT ROCK RIPRAP GRADATION. RUBBLE PROPOSED FOR USE IN PLACE OF ROCK RIPRAP SHALL BE STOCKPILED FOR OBSERVATION BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK
GRADATION:
 A. EACH LOAD OF RIPRAP SHALL BE REASONABLY WELL GRADED FROM THE SMALLEST TO THE LARGEST SIZE SPECIFIED.
 B. STONES SMALLER THAN THE TWO TO TEN PERCENT (2%-10%) SIZE WILL NOT BE PERMITTED IN AN AMOUNT EXCEEDING TEN PERCENT (10%) BY WEIGHT OF EACH LOAD.
 C. CONTROL OF GRADATION SHALL BE BY VISUAL INSPECTION. HOWEVER IN THE EVENT THE ENGINEER DETERMINES THE RIPRAP TO BE UNACCEPTABLE, THE ENGINEER SHALL PICK TWO (2) RANDOM TRUCKLOADS TO BE DUMPED AND CHECKED FOR GRADATION.
 1) MECHANICAL EQUIPMENT AND LABOR NEEDED TO ASSIST IN CHECKING GRADATION SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.
 BROKEN ASPHALT PAVEMENT SHALL NOT BE ACCEPTABLE FOR USE IN THE WORK.
 ROUNDED RIPRAP (RIVER ROCK) IS NOT ACCEPTABLE, UNLESS SPECIFICALLY DESIGNATED ON THE DRAWINGS.

CLASSIFICATION AND GRADATION OF RIPRAP			
RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	d50* (INCHES)
TYPE VL	70-100	12	6**
	50-70	9	
	35-50	6	
	2-10	2	
TYPE L	70-100	15	9**
	50-70	12	
	35-50	9	
	2-10	3	
TYPE M	70-100	21	12**
	50-70	18	
	35-50	12	
	2-10	4	
TYPE H	100	30	18
	50-70	24	
	35-50	18	
	2-10	6	
TYPE VH	100	42	24
	50-70	33	
	35-50	24	
	2-10	9	

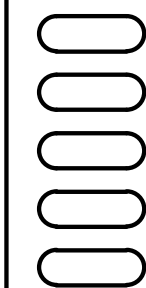
* d50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT.
 ** MIX VL, L AND M RIPRAP WITH 35% TOPSOIL (BY VOLUME) AND BURY WITH 4-6 INCHES OF TOPSOIL, ALL VIBRATION COMPACTED & REVEGETATE.
 (TABLE MD-7: CLASSIFICATION AND GRADATION OF ORDINARY RIPRAP. UDFCD, DRAINAGE CRITERIA MANUAL, VOL. 1)



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For and on Behalf of
Kiowa Engineering Corporation Date

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Sheet Revisions

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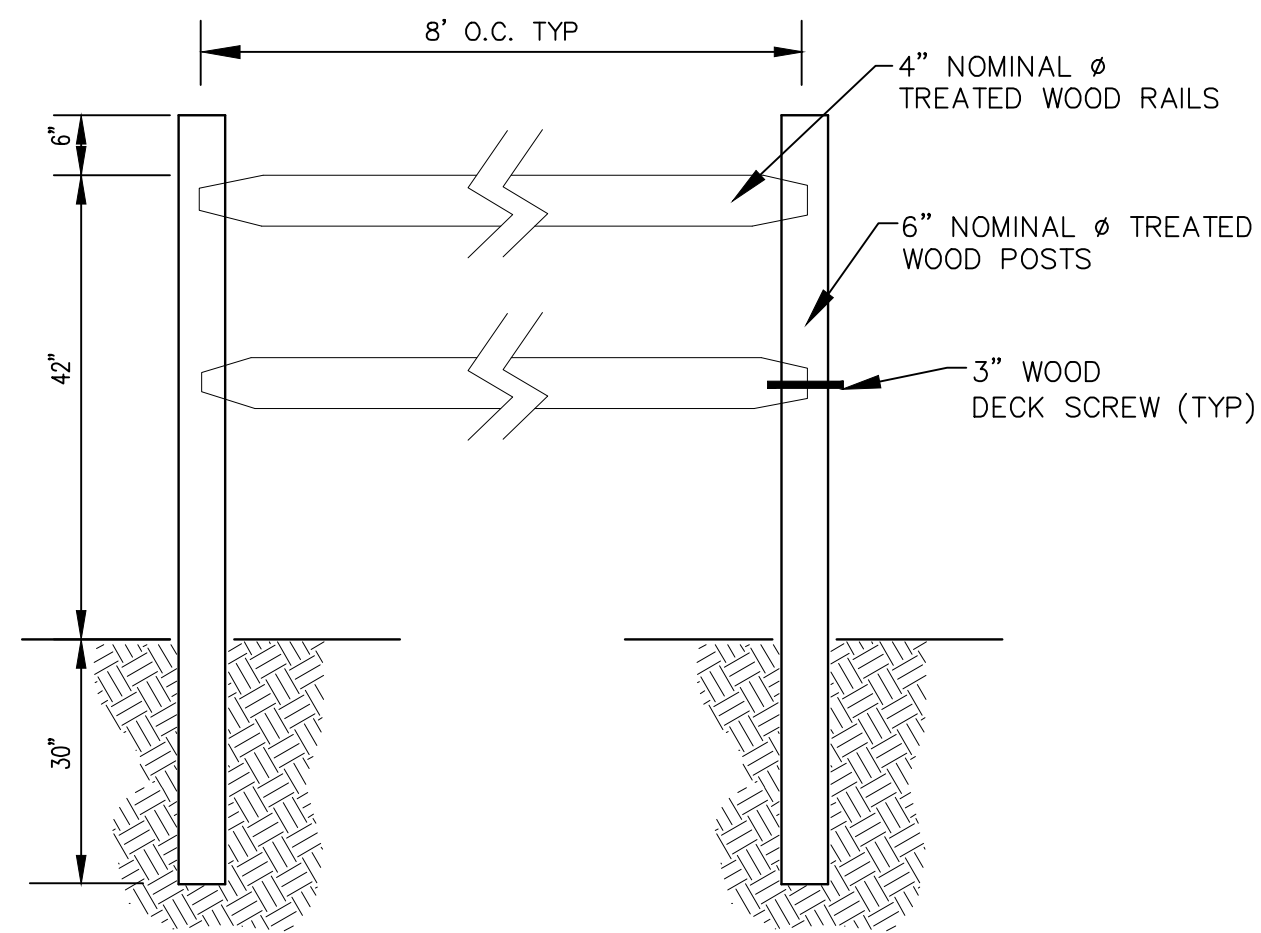
Revised:

Void:

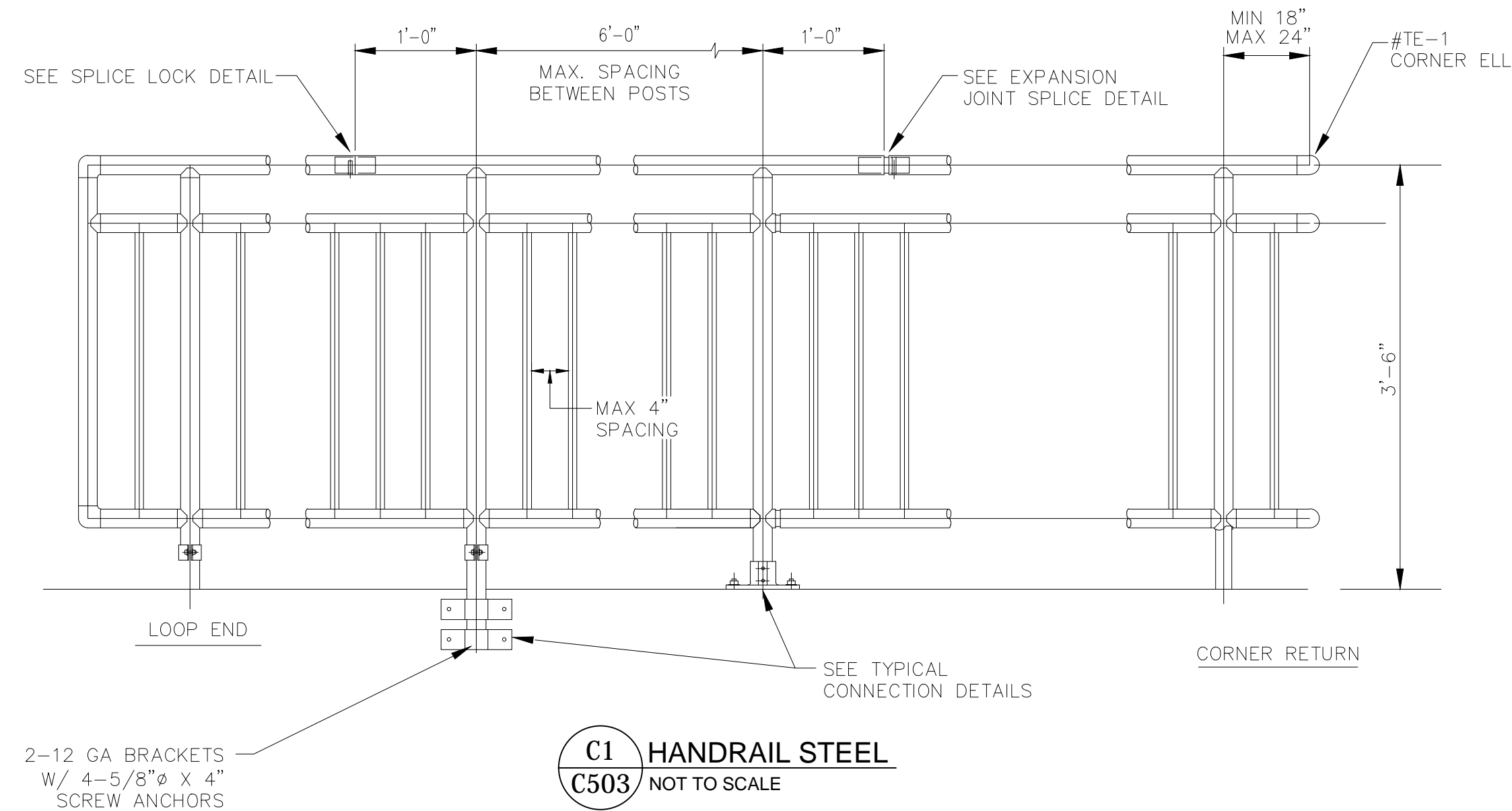
ROCK ISLAND TRAIL
 Sand Creek to Constitution Avenue
 TYPICAL MISCELLANEOUS DETAILS

Designer: TAC
 Detailer: TEG
 Date: 9/30/2024

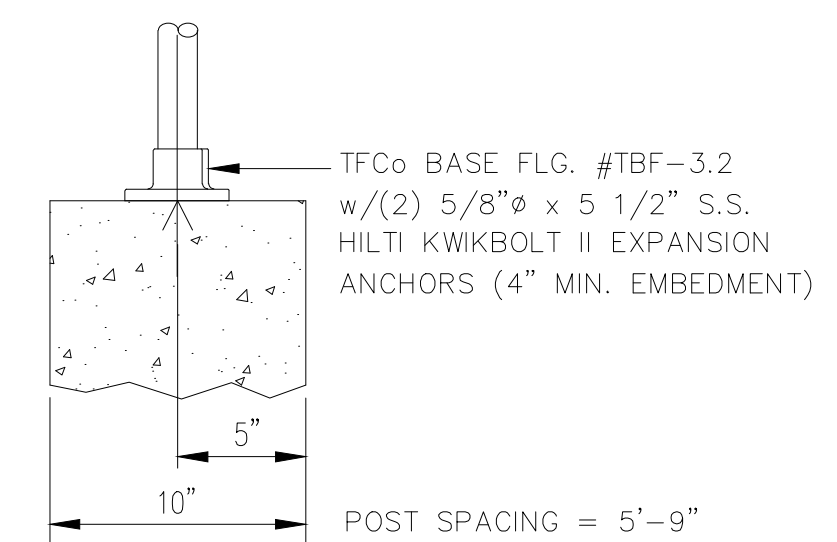
Kiowa Proj. No. 16028
 TAP M240-162
 SubAcct No. 20391
 Sheet Number C502



A FENCE WOOD SMOOTH DOWEL
C503 NOT TO SCALE



C1 HANDRAIL STEEL
C503 NOT TO SCALE

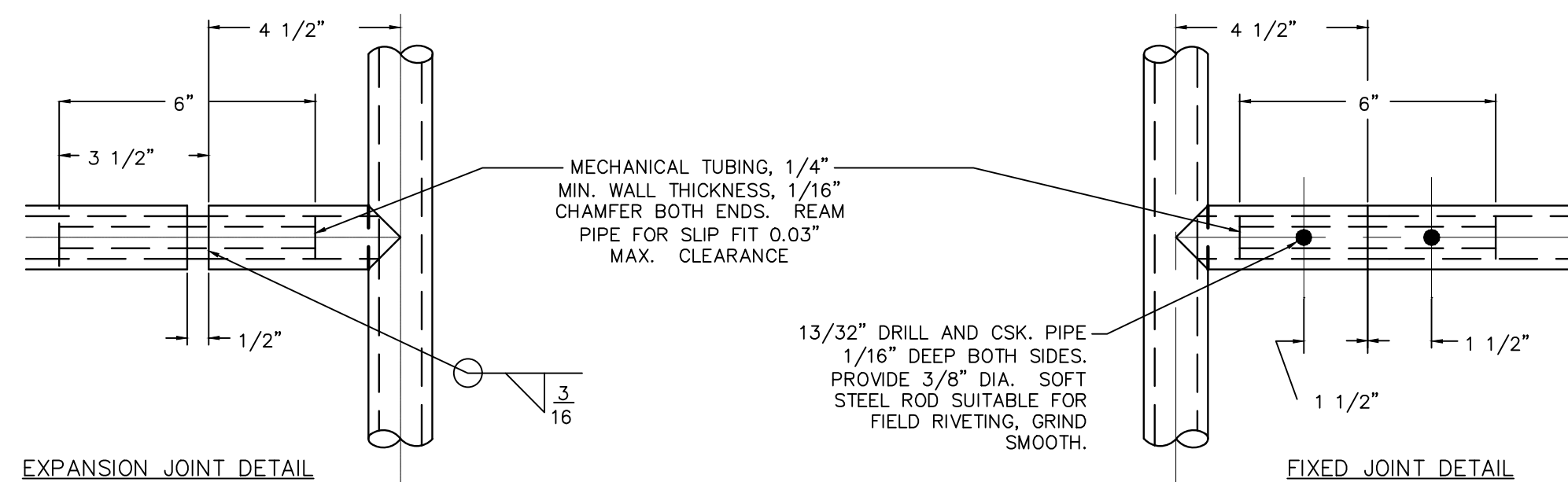


TYPICAL TOP MOUNT CONNECTION TO CONCRETE WALL

C2 STEEL HANDRAIL CONNECTION DETAIL
C503 NOT TO SCALE

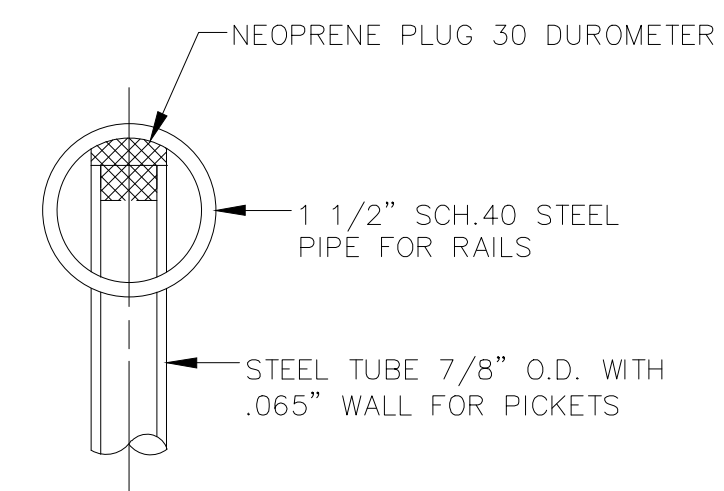
NOTES:
1. HANDRAIL SHALL BE TOP MOUNTED OR SIDE MOUNTED.
2. 2 HANDRAILS SHALL BE PAINTED OXFORD BROWN OR EQUIVALENT APPROVED BY PM, POWDER COATED.

2-12 GA BRACKETS
W/ 4-5/8" Ø X 4"
SCREW ANCHORS

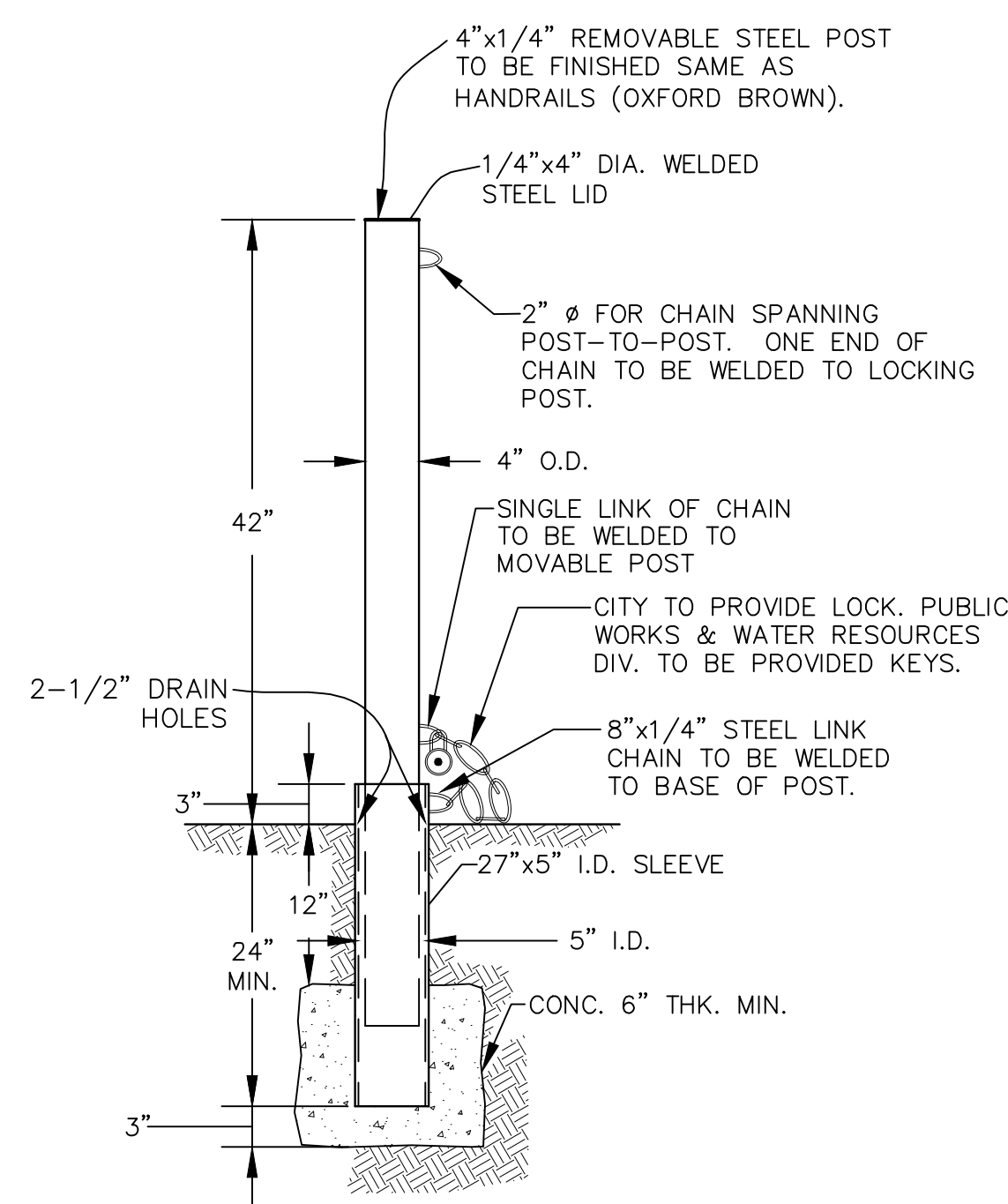


C3 STEEL HANDRAIL JOINT DETAIL
C503 NOT TO SCALE

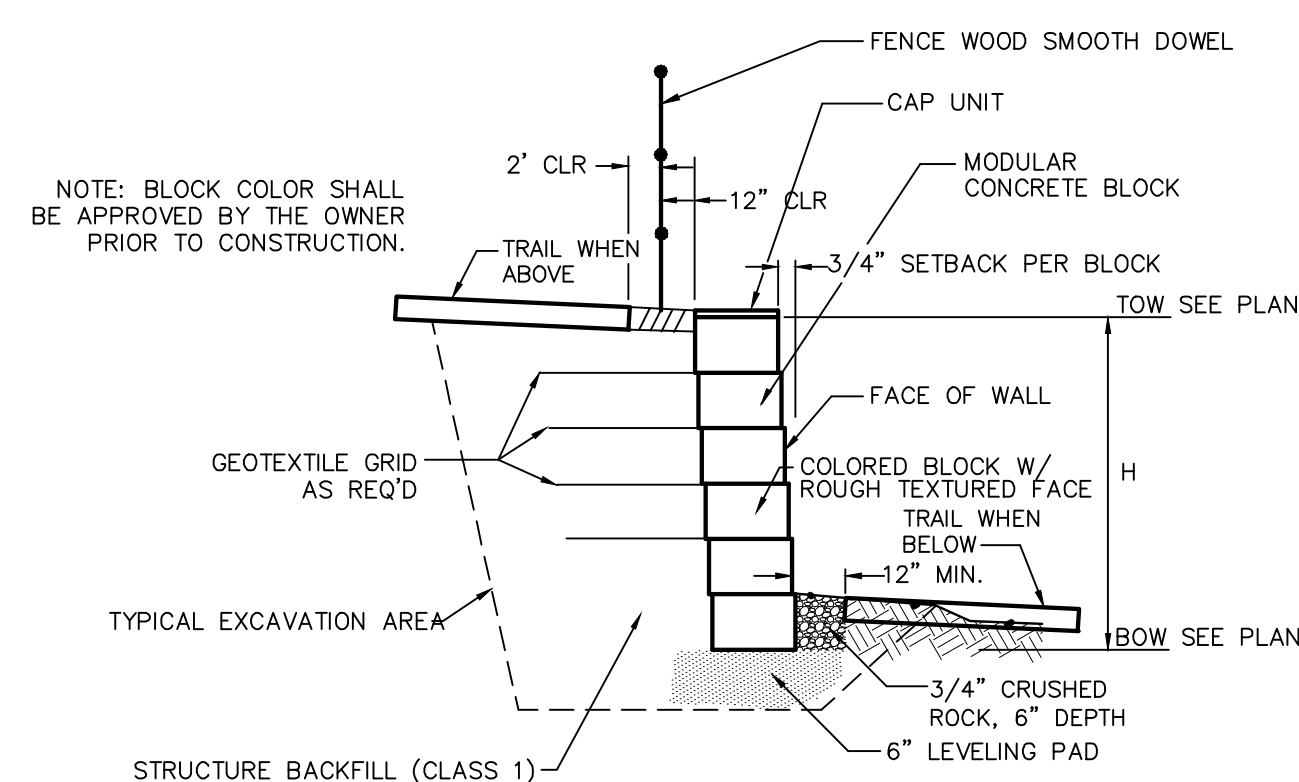
NOTES:
1. EXPANSION JOINTS SHALL BE A MAXIMUM OF 20' APART.



C4 STEEL HANDRAIL CONNECTION
C503 NOT TO SCALE



B LOCKING STEEL POST DETAIL
C503 NOT TO SCALE



D CONCRETE BLOCK FACING MSE WALL CROSS SECTION
C503 NOT TO SCALE

WALL NOTES:
1. SHOP DRAWINGS DEPICTING THE DESIGN OF BLOCK WALL SHALL BE SUBMITTED TO ENGINEER PRIOR TO CONSTRUCTION PER THE PROJECT SPECIFICATIONS. DESIGN SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A PROPERLY REGISTERED PROFESSIONAL ENGINEER WITH THE STATE OF COLORADO. FINAL CONSTRUCTION DRAWINGS SHALL BEAR HIS/HER SEAL AND SIGNATURE.
2. CONTRACTOR TO OBTAIN EPC-DPW ROAD CUT WORK PERMIT FOR WORK IN RIGHT-OF-WAY.
3. CONTRACTOR TO SUPPLY TO EPC-DPW CONSTRUCTION TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WITH ANY WORK WITHIN THE PETERSON ROAD RIGHT-OF-WAY.

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For and on Behalf of
Kiowa Engineering Corporation Date



**IN PROGRESS
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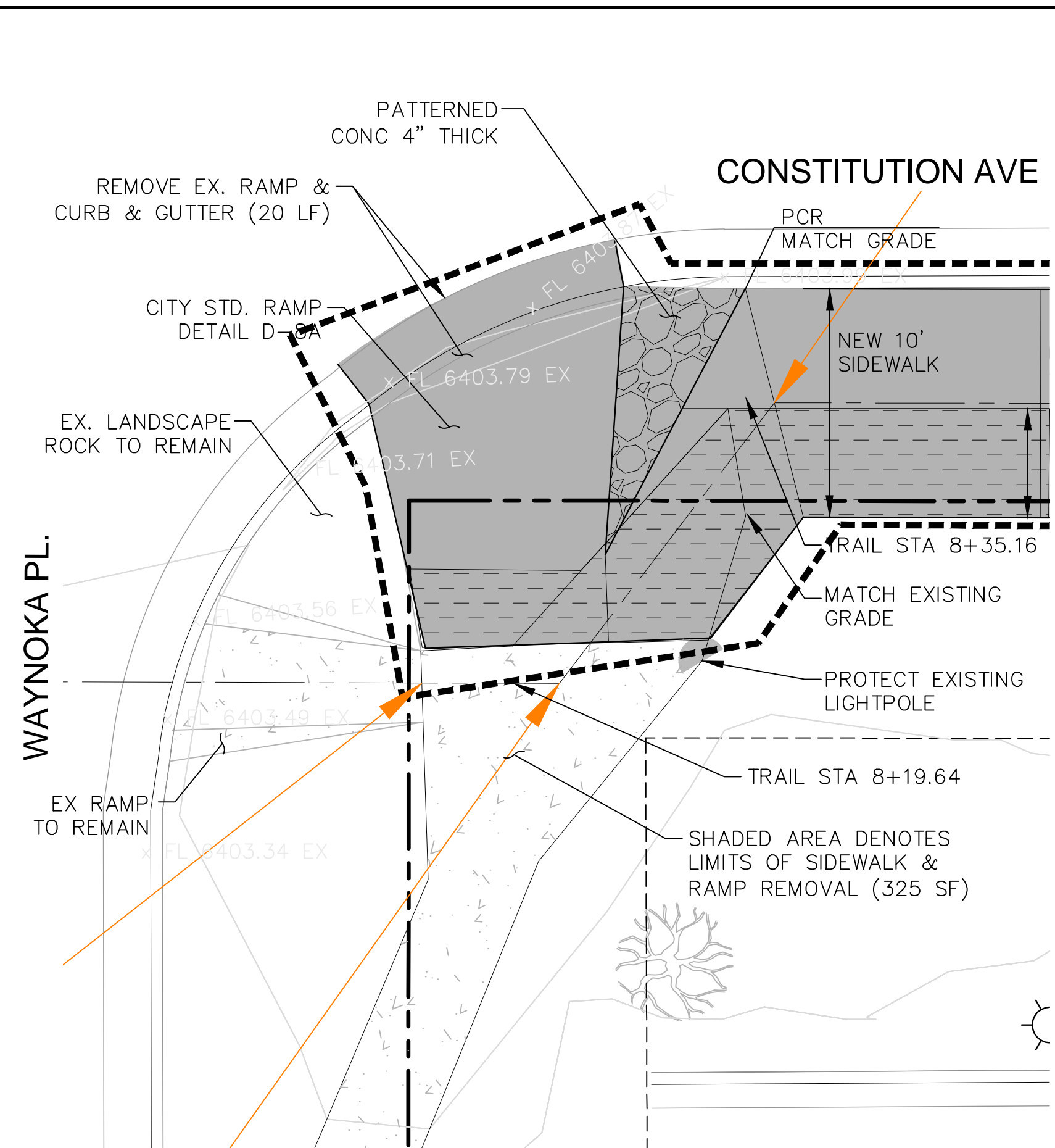
For and on Behalf of
Kiowa Engineering Corporation Date

Celebrating 30 years
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

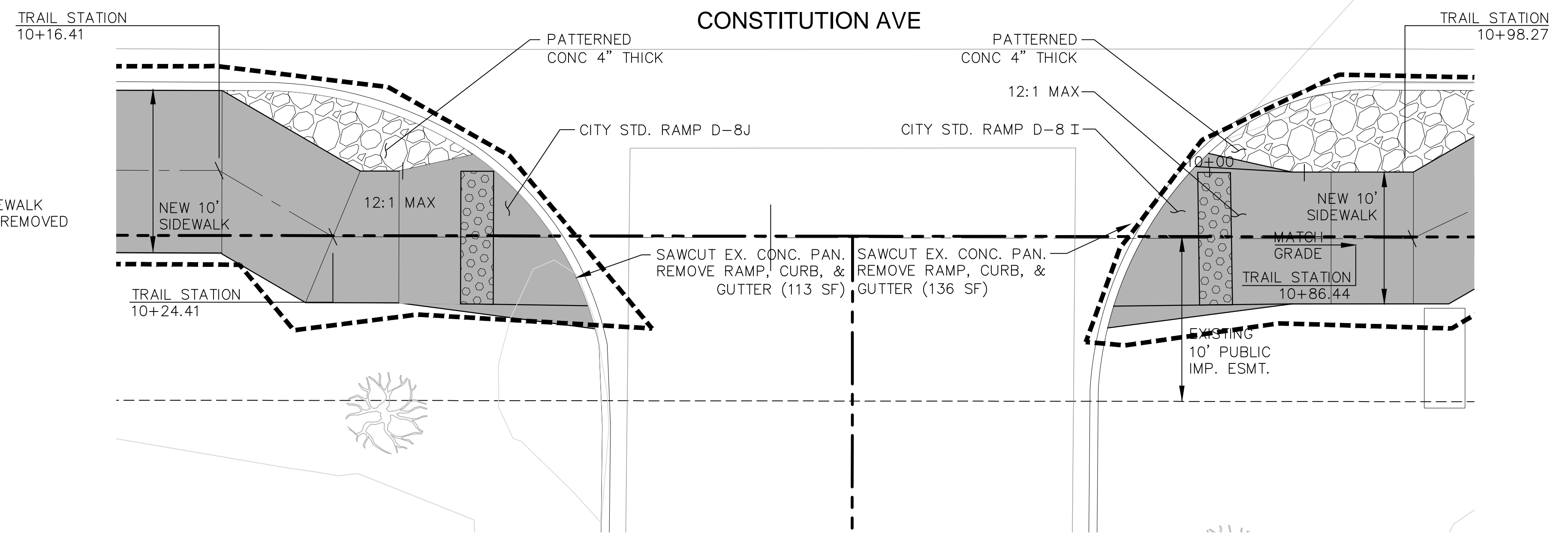
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		Revised:
		Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue TYPICAL HANDRAIL & FENCE DETAILS	
Designer:	TAC
Detailer:	TEG
Date:	9/30/2024

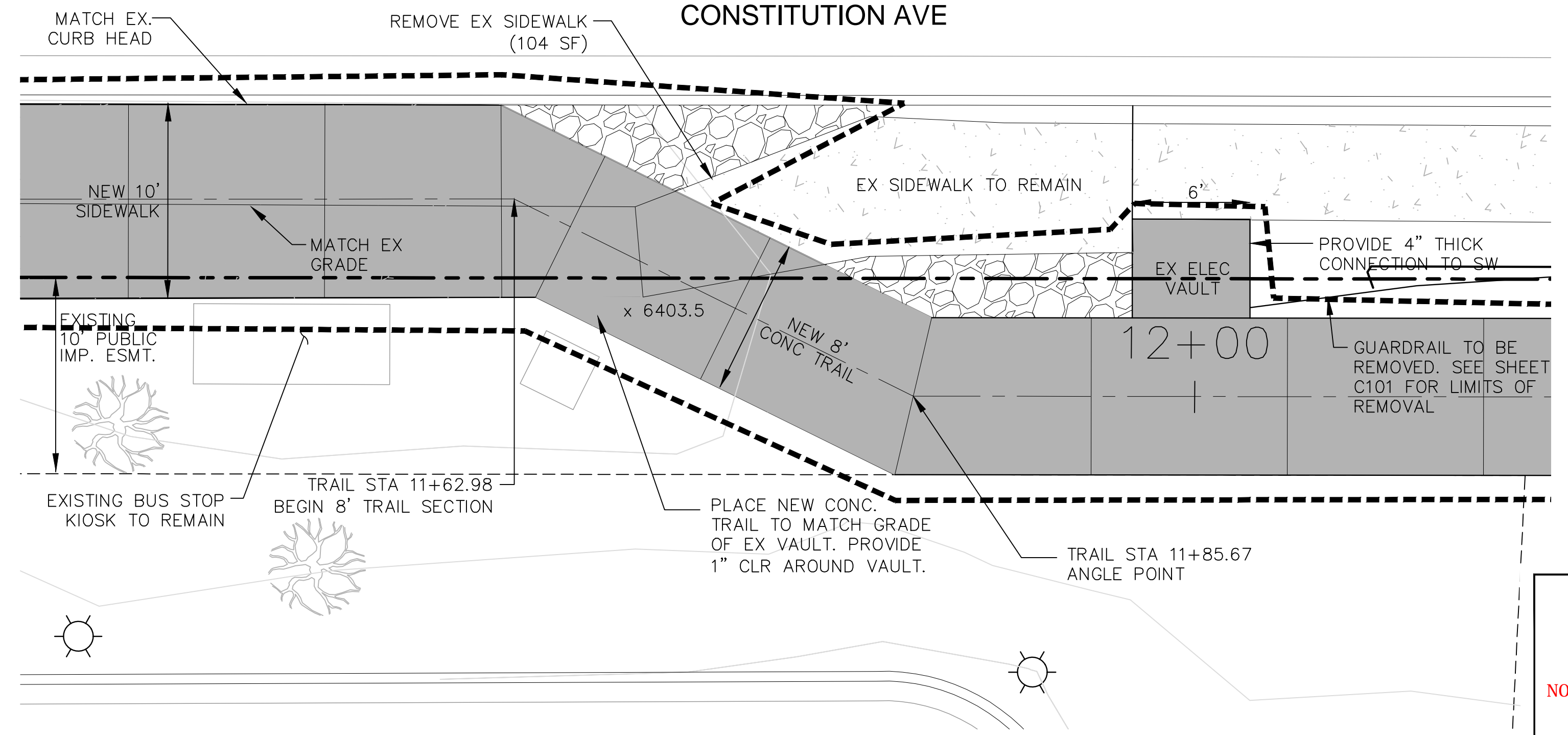
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C503



DETAIL 1: STA 8+25
SCALE: 1" = 5'



DETAIL 2: STA 10+75
SCALE: 1" = 5'



DETAIL 3: STA 11+75
SCALE: 1" = 5'

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For and on Behalf of
Kiowa Engineering Corporation Date



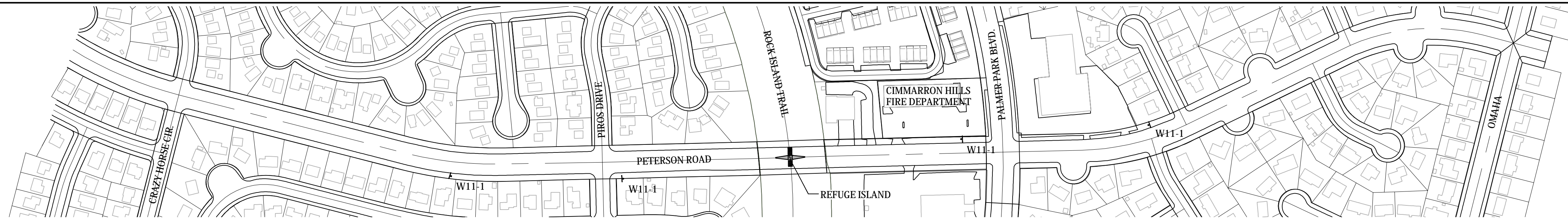
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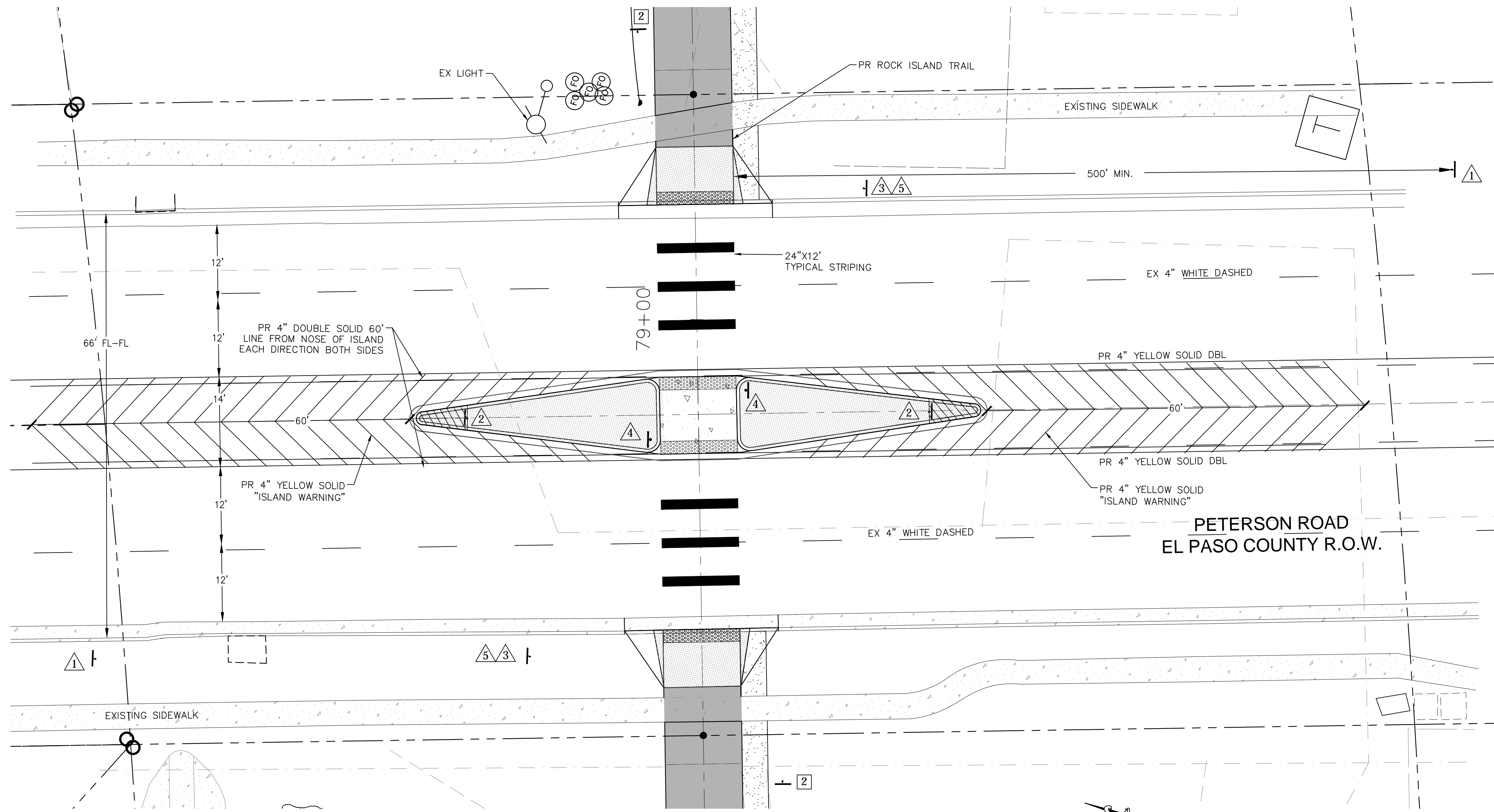
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	Revised:
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ROCK ISLAND TRAIL Sand Creek to Constitution Avenue SITE SPECIFIC DETAILS	
Designer:	TAC
Detailer:	TEG
Date:	9/30/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C504



PETERSON ROAD SIGNAGE PLAN

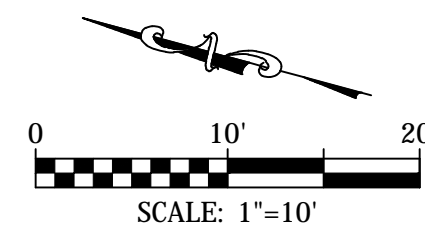


TRAIL SIGNAGE		
SIGNAGE	#	PANEL SIZE
1	2	12x18
2	2	12x18

TRAFFIC SIGNAGE		
SIGNAGE	#	PANEL SIZE
1	2	30x30 W11-1
2	2	24x30 R4-7
3	2	24x24 W11A-2
4	2	12x36 R1-6
5	2	12x18 W16-7P

PETERSON ROAD IS A MINOR ARTERIAL ROADWAY.

REFUGE ISLAND STRIPING PLAN



FOR ADDITIONAL REFUGE ISLAND SIGNAGE, SEE SHEET C111



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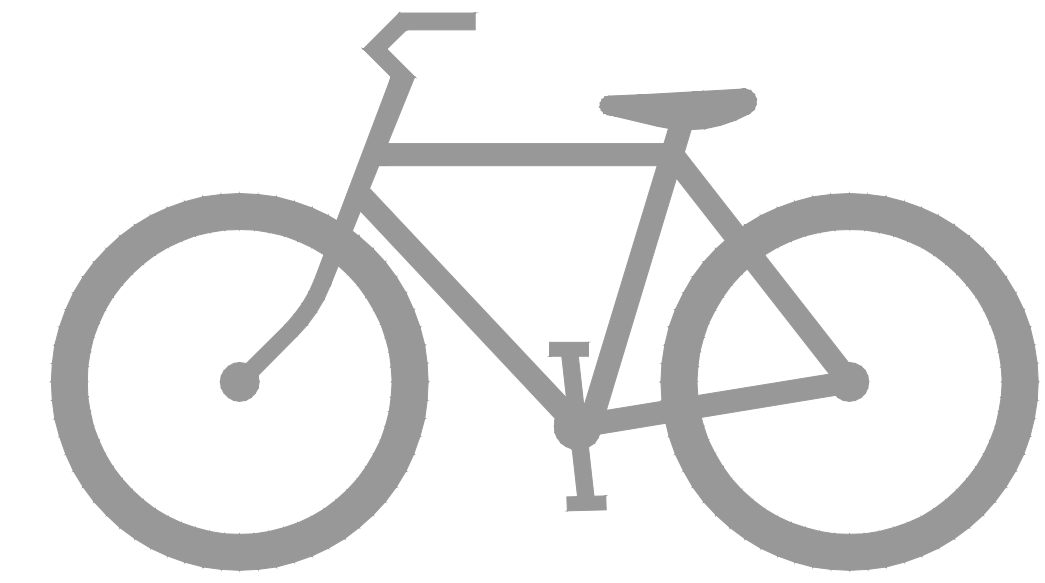
Sheet Revisions	100% SET
No Revisions:	
Revised:	
Void:	

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
SIGNAGE & STRIPING PLAN - PETERSON ROAD

Designer: TAC
Detailer: TEG
Date: 9/30/2024

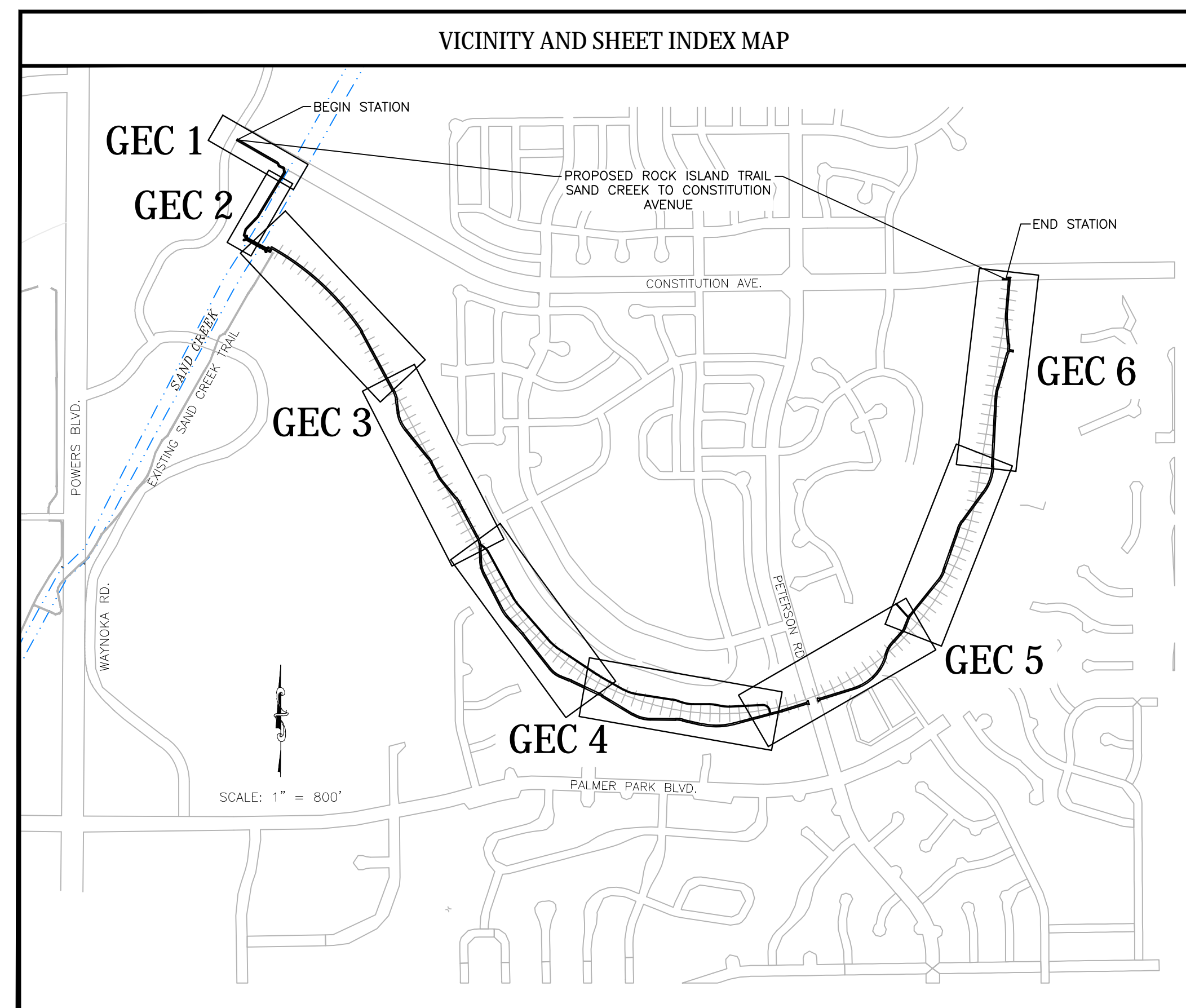
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C511

STATE OF COLORADO
 DEPARTMENT OF TRANSPORTATION
 CITY OF COLORADO SPRINGS
 Parks, Recreation and Cultural Services Department
 CAPITAL IMPROVEMENT PROJECT
 TRAIL IMPROVEMENT PROGRAM
 COMBINED FEDERAL AID PROJECT No. TAP M240-162, SubAccT. No.20391
GRADING AND EROSION CONTROL
 PLAN of the ROCK ISLAND MULTI-USE TRAIL
 SAND CREEK TO CONSTITUTION AVENUE
 COLORADO SPRINGS & EL PASO COUNTY, COLORADO



SHEET INDEX	
G1	COVER SHEET
G2	STANDARD NOTES & DETAILS
GEC 1	STA 08+00 TO STA 17+50
GEC 2	STA 17+50 TO STA 21+50
GEC 3	STA 21+50 TO STA 47+50
GEC 4	STA 47+50 TO STA 75+00
GEC 5	STA 75+00 TO STA 102+00
GEC 6	STA 102+00 TO STA 117+50
GEC 7	EROSION CONTROL DETAILS
GEC 8	EROSION CONTROL DETAILS

TRAIL DATA DESIGN	
BEGIN STATION ROCK ISLAND TRAIL	8+00
END STATION ROCK ISLAND TRAIL	106+15
MAXIMUM GRADE	8.33%
MINIMUM HORIZONTAL CURVE	25'
MINIMUM WIDTH	8'
TYPICAL WIDTH	10' (+ 2' Shoulder)
MAXIMUM WIDTH	12' (+ 2' Shoulder)
CROSS-SLOPE	2% (towards drainage)
LENGTH SAND CREEK TRAIL	10,900 LF
SITE AREA	36.8 ACRES
AREA OF DISTURBANCE	18.2 ACRES
CONSTRUCTION AREA	18.2 ACRES



APPROVAL SIGNATURES			
TITLE	NAME	SIGNATURE	DATE
DIRECTOR, PARKS, REC. & CULT. SVS PARKS	BRITT HALEY	_____	_____
OPERATION & DEVELOPMENT MANAGER		_____	_____
CITY FORESTER		_____	_____
REG. SUPERVISOR, PARKS, TRAILS & OPEN SPACE	SCOTT ABBOTT	_____	_____
CONSTRUCTION PROJECT MANAGER	EMILY DUNCAN	_____	_____
COLORADO DEPARTMENT OF TRANSPORTATION		_____	_____
EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS	JENNIFER IRVINE, PE	_____	_____

21 JULY 2024

BENCHMARK: FIMS MONUMENT SR10 IS A 2-INCH DIAMETER ALUMINUM CAP STAMPED "CSU FIMS CONTROL SR10" ON TOP OF THE NORTH CURB OF CONSTITUTION AVENUE AT THE NORTHWEST CORNER OF THE BRIDGE OVER SAND CREEK.

U.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE

NATURAL GAS	YELLOW
ELECTRIC	RED
WATER	BLUE
WASTEWATER	GREEN

Know what's below.
Call before you dig.

STATEMENTS	
Engineer's Statement:	
This Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans. I accept responsibility for any liability caused by any negligent acts or omissions on my part in preparing this Plan.	
Engineer of Record signature	Date
_____	_____
Owner's Statement:	
I, the owner/developer have read and will comply with the requirements of this Grading and Erosion Control Plan.	
Signature	Date
_____	_____
El Paso County:	
County Plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.	
Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual as amended.	
In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the Plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion.	
County Engineer/ECM Administrator	Date
_____	_____

	<p style="text-align: center; color: red;">IN PROGRESS NOT FOR CONSTRUCTION</p>	<p>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>		Sheet Revisions	90% BID SET	ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN COVER SHEET	Kiowa Proj. No. 16028
				No Revisions:			Designer: RNW
				Revised:		Detailer: RNW	SubAcct No. 20391
				Void:		Date: 08/06/2024	Sheet Number G1

**EL PASO COUNTY STANDARD
NOTES FOR GRADING & EROSION CONTROL PLANS**

- 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.
- 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 El Paso County standards, including the Land Development 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.
- A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP / CSWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP / CSWMP 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.
- Once the ESQCP 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 El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.
- 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.
- 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.
- 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.
- 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.
- 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 ECM Administrator prior to implementation.
- 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.
- 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 loosened prior to installation of the control measure(s).
- 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.
- Concrete wash water shall be contained and disposed of in accordance with the SWMP / CSWMP. 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.
- During dewatering operations, uncontaminated groundwater 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.
- Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.
- 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.
- 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 El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
- Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.
- 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.
- 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 the original manufacturer's labels.

**EL PASO COUNTY STANDARD
NOTES FOR GRADING & EROSION CONTROL PLANS (cont)**

- No chemical(s) having the potential to be released in stormwater are to be stored or used on-site 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.
- 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 on-site and to prevent any spilled materials from entering state waters, any surface or subsurface storm drainage system or other facilities.
- No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.
- 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.
- All construction traffic must enter/exit the site only at approved construction access points.
- Prior to construction the permittee shall verify the location of existing utilities.
- 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.
- The soils report for this site has been prepared by Kumar & Assoc., 3/29/11 and shall be considered a part of these plans.
- 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 / CSWMP), 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

PROJECT SPECIFIC NOTES

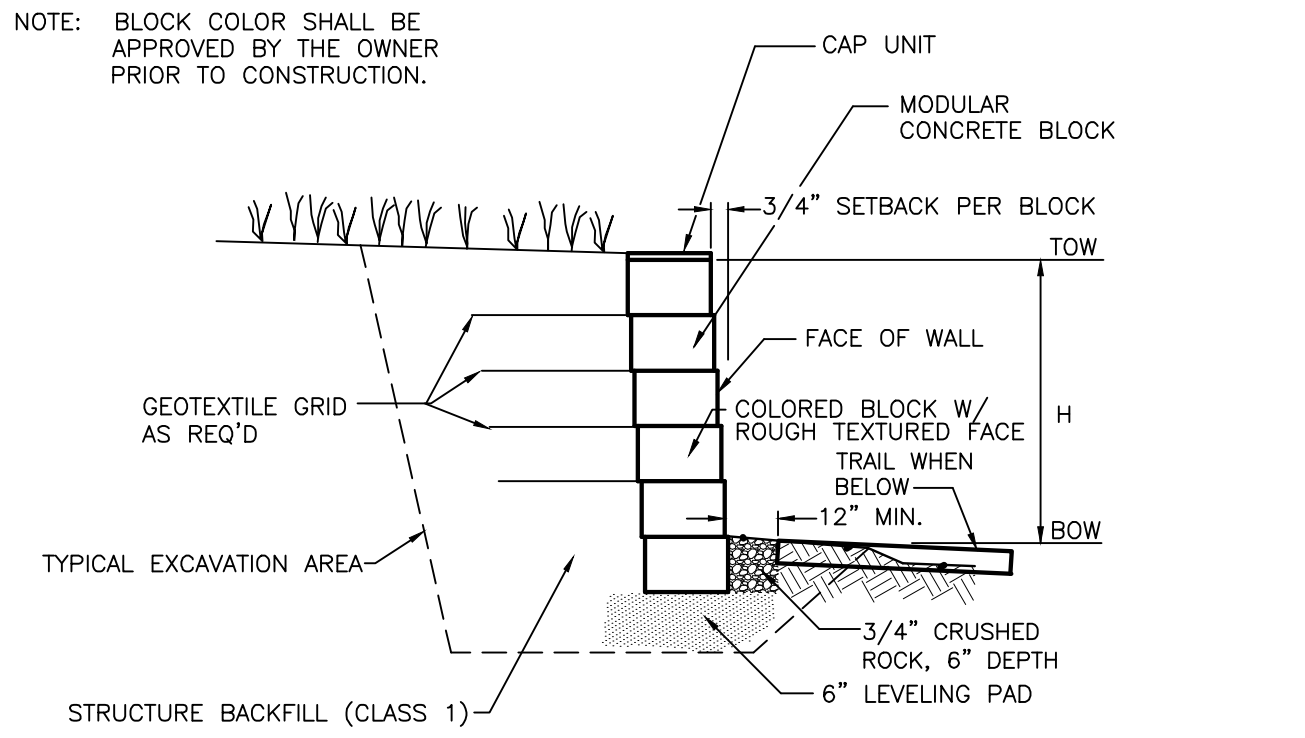
- Where El Paso County and Colorado Springs notes contradict, El Paso County notes shall supersede.
- The SWMP and CSWMP are the same document, one document.
- Anticipated start: 10/01/2024
- Anticipated Construction End: 10/31/2025
- Anticipated Stabilization: 8/01/2025
- Receiving water: Sand Creek
- Site is Native Grass and will remain Native Grass.
- There are no on site asphalt or concrete batch plants anticipated.

SITE SPECIFIC NOTES

- Notes

**COLORADO SPRINGS STANDARD
GRADING & EROSION CONTROL PLAN NOTES**

- No clearing, grading, excavation, or other land disturbing activities shall be allowed (except for work directly related to the installation of Initial Control Measures) until a City GEC Permit has been issued.
- All land disturbing activities must be performed in accordance with and the approved GEC Plan and CSWMP.
- Initial Control Measures shall be installed and inspected prior to any land disturbance activities taking place. An initial site inspection will not be scheduled until a City GEC Permit has been "conditionally approved." Call City Stormwater Inspections, 385-5980, at least 48 hours prior to construction to schedule an initial inspection and obtain full permit approval.
- Individuals shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS) and the "Clean Water Act" (33 USC 1344), including regulations promulgated and certifications or permits issued, in addition to the requirements included in the City's MS4 Permit, Stormwater Construction Manual. In the event of conflicts between these requirements and water quality control laws, rules, or regulations of other Federal or State agencies, the more restrictive laws, rules, or regulations shall apply.
- Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters.
- All Construction Control Measures shall be maintained until permanent stabilization measures are implemented. Temporary Construction Control Measures must be removed prior to permit closure.
- Concrete wash water shall not be discharged to or allowed to runoff to State Waters or any surface or subsurface storm drainage system or facilities.
- Building, construction, excavation, or other 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. Construction Control Measures may be required by the GEC Inspector if deemed necessary based on specific conditions and circumstances (e.g., estimated time of exposure, season of the year, etc.).
- All wastes composed of building materials must be removed from the construction site for disposal in accordance with local and state regulatory requirements. No building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
- The permittee shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system as a result of construction activities.
- 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. Materials shall not be stored in a location where they may be carried by stormwater runoff into the storm sewer system at any time.
- Spill prevention and containment measures shall be used at all storage, equipment fueling, and equipment servicing areas so as to contain all spills and prevent any spilled material from entering the MS4, including any surface or subsurface storm drainage system or facility. Bulk storage structures for petroleum products and other chemicals shall have secondary containment or equivalent adequate protection. All spills shall be cleaned up immediately after discovery, or contained until appropriate cleanup methods can be employed. Manufacturer's recommended methods for spill cleanup shall be followed, along with proper disposal methods.
- Sediment (mud and dirt) transported onto a public road, regardless of the size of the site, shall be cleaned as soon as possible after discovery.
- No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the State. In granting the use of such chemicals, special conditions and monitoring may be required.
- Control Measures for all slopes, channels, ditches, or any disturbed land area shall be completed within fourteen (14) calendar days after final grading or final land disturbance has been completed. Disturbed areas which are not at final grade but will remain dormant for longer than fourteen (14) days shall be roughened, mulched, tackified, or stabilized with tarps within fourteen (14) days after interim grading. An area that is going to remain in an interim state for more than sixty (60) days shall also be seeded, unless an alternative stabilization measure is accepted at the inspector's discretion. All temporary Construction Control Measures shall be maintained until final stabilization is achieved.
- The GEC Plan will be subject to re-review and re-acceptance by the Stormwater Enterprise should any of the following occur: grading does not commence within twelve (12) months of the City's acceptance of the plan, the construction site is idle for twelve (12) consecutive months, a change in property ownership occurs, the planned development changes, or any other major modifications are proposed as defined in the Stormwater Construction Manual.
- It is not permissible for any person to modify the grade of the earth on any utility easement or utility right-of-way without written approval from the utility owner. City acceptance of the GEC Plan and CSWMP does not satisfy this requirement. The plan shall not increase or divert water towards utility facilities. Any changes to existing utility facilities to accommodate the plan must be approved by the affected utility owner prior to implementing the plan. The cost to relocate or protect existing utilities or to provide interim access shall be at the applicant's expense.
- Applicant represents and warrants that they have the legal authority to grade and/or construct improvements on adjacent property. The City has not reviewed the developer's authority to modify adjacent property. An approved GEC Permit does not provide approval for the Applicant to perform work on adjacent property.



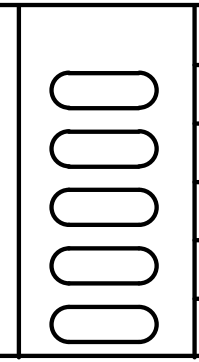
**2 CONCRETE BLOCK FACING MSE WALL CROSS SECTION
NOT TO SCALE**

- WALL NOTES:
- SHOP DRAWINGS DEPICTING THE DESIGN OF BLOCK WALL SHALL BE SUBMITTED TO ENGINEER PRIOR TO CONSTRUCTION PER THE PROJECT SPECIFICATIONS. DESIGN SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A PROPERLY REGISTERED PROFESSIONAL ENGINEER WITH THE STATE OF COLORADO. FINAL CONSTRUCTION DRAWINGS SHALL BEAR HIS/HER SEAL AND SIGNATURE.
 - BUILDING PERMITS FOR THE INSTALLATION OF THE MSE WALL MAY BE REQUIRED THROUGH THE PIKES PEAK REGIONAL BUILDING DEPARTMENT.
 - CONTRACTOR TO OBTAIN EPC-DPW ROAD CUT WORK PERMIT FOR WORK IN RIGHT-OF-WAY.
 - CONTRACTOR TO SUPPLY TO EPC-DPW CONSTRUCTION TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WITH ANY WORK WITHIN THE PETERSON ROAD RIGHT-OF-WAY.



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NOT FOR CONSTRUCTION**

For and on Behalf of
Kiowa Engineering Corporation Date

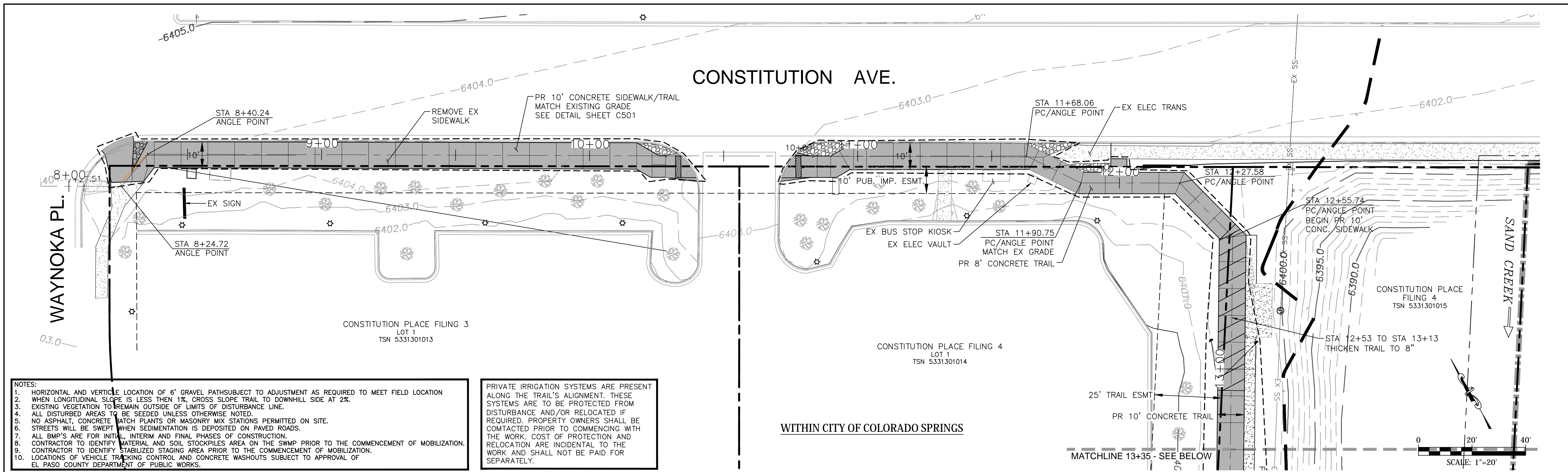


Sheet Revisions	90% BID SET
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	Revised:
	Void:

ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN STANDARD NOTES & DETAILS	
Designer:	RNW
Detailer:	RNW
Date:	08/06/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number G2

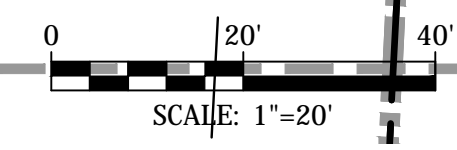
CONSTITUTION AVE.



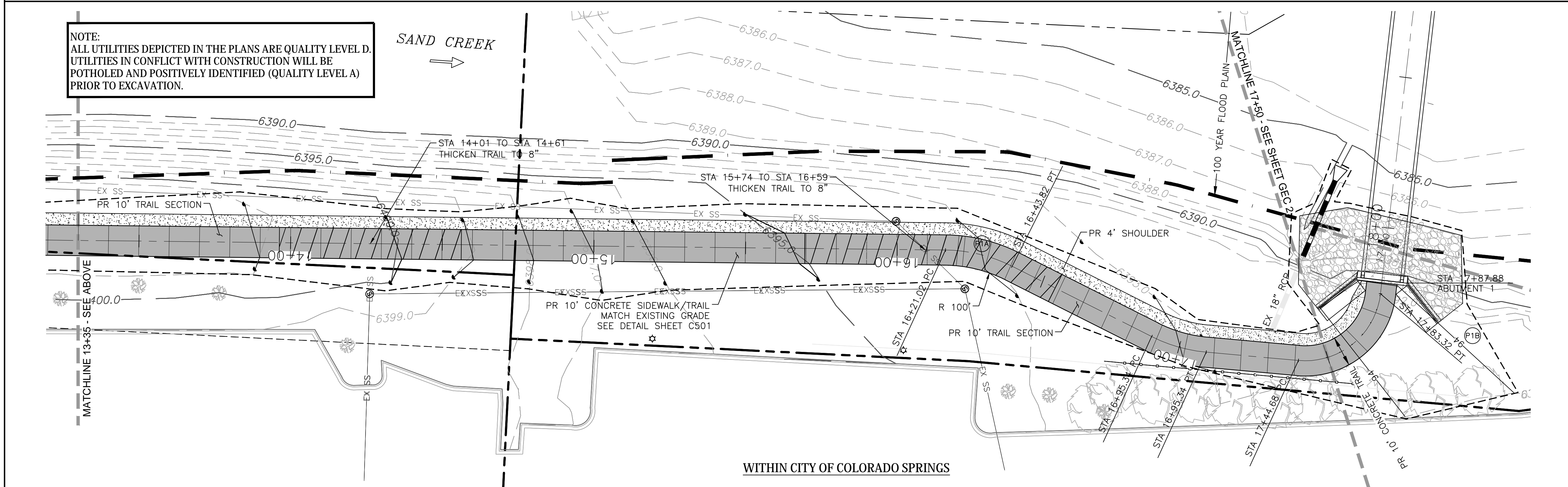
- NOTES:
- HORIZONTAL AND VERTICAL LOCATION OF 6" GRAVEL PATHS SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
 - WHEN LONGITUDINAL SLOPE IS LESS THAN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
 - EXISTING VEGETATION TO REMAIN OUTSIDE OF LIMITS OF DISTURBANCE LINE.
 - ALL DISTURBED AREAS TO BE SEEDED UNLESS OTHERWISE NOTED.
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 - ALL BMP'S ARE FOR INITIAL, INTERIM AND FINAL PHASES OF CONSTRUCTION.
 - CONTRACTOR TO IDENTIFY MATERIAL AND SOIL STOCKPILES AREA ON THE SWMP PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
 - CONTRACTOR TO IDENTIFY STABILIZED STAGING AREA PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
 - LOCATIONS OF VEHICLE TRACKING CONTROL AND CONCRETE WASHOUTS SUBJECT TO APPROVAL OF EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.

PRIVATE IRRIGATION SYSTEMS ARE PRESENT ALONG THE TRAIL'S ALIGNMENT. THESE SYSTEMS ARE TO BE PROTECTED FROM DISTURBANCE AND/OR RELOCATED IF REQUIRED. PROPERTY OWNERS SHALL BE CONTACTED PRIOR TO COMMENCING WITH THE WORK. COST OF PROTECTION AND RELOCATION ARE INCIDENTAL TO THE WORK AND SHALL NOT BE PAID FOR SEPARATELY.

WITHIN CITY OF COLORADO SPRINGS

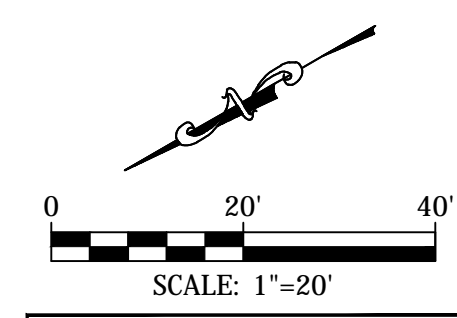


NOTE:
ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D. UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A) PRIOR TO EXCAVATION.



CAUTION!!!
EXISTING UTILITIES TO BE PROTECTED FROM DISTURBANCE WHEN INSTALLING ALL DRAINAGE INFRASTRUCTURE.

CURVE DATA	
(P1A) D=12'49"16" R=100.00' L=22.38'	(P1B) D=10'4"52"04" R=50.00' L=91.51'



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For and on Behalf of
Kiowa Engineering Corporation Date

WITHIN CITY OF COLORADO SPRINGS

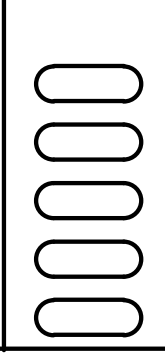


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For and on Behalf of
Kiowa Engineering Corporation Date

Kiowa
Engineering Corporation

1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342



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ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN STA 8+00 TO 17+50	
Designer:	RNW
Detailer:	RNW
Date:	08/06/2024

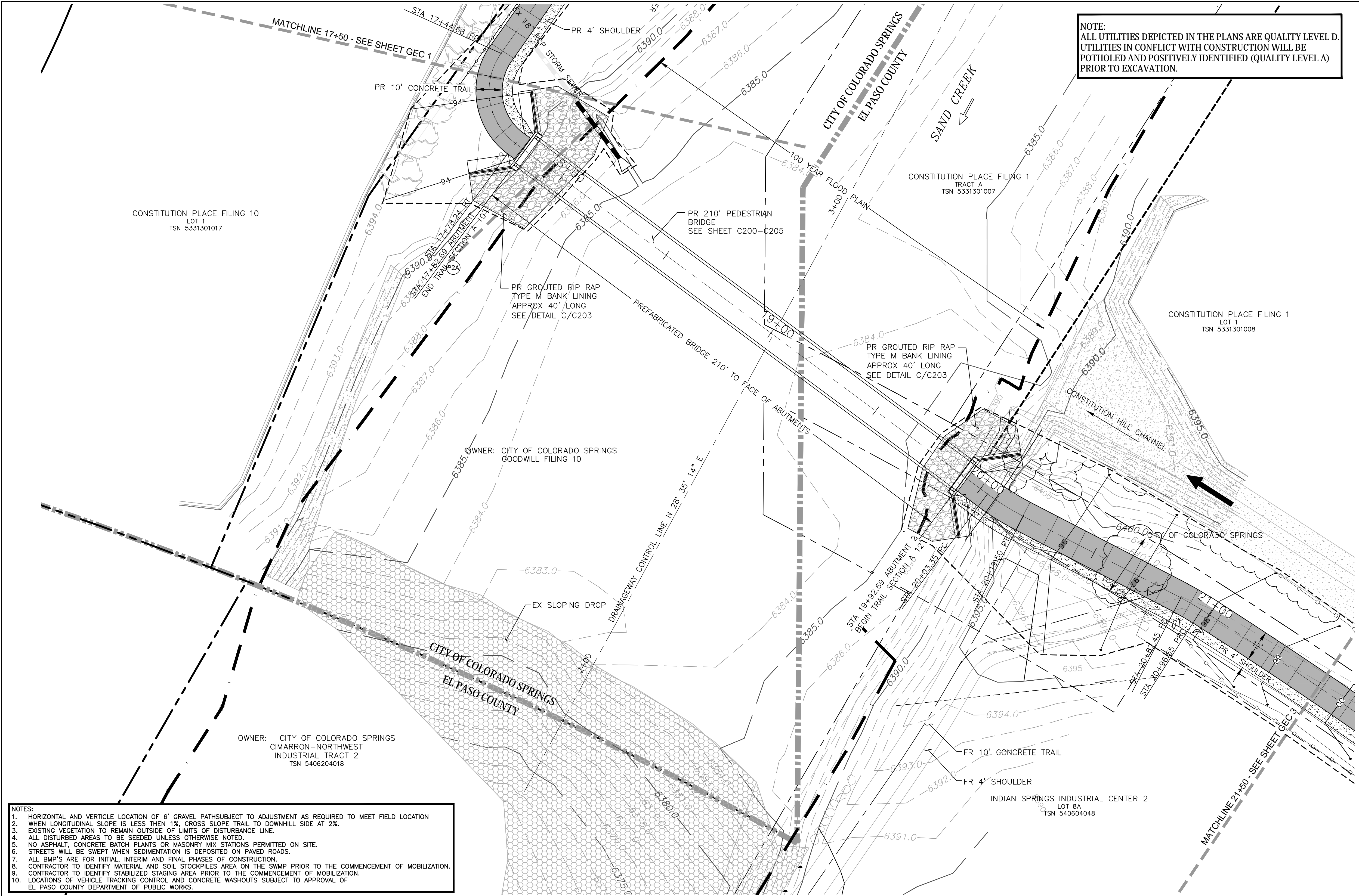
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No.20391
Sheet Number GEC 1

NOTE:
ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.
UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE
POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)
PRIOR TO EXCAVATION.

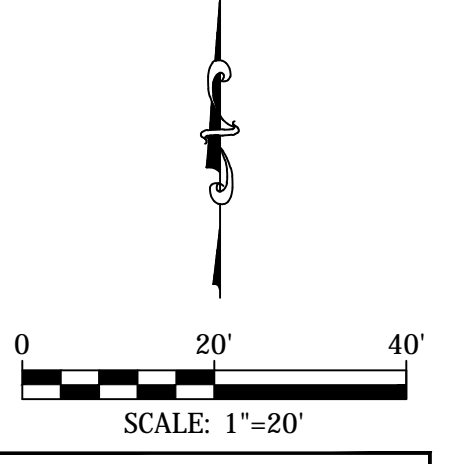
CAUTION!!!
EXISTING UTILITIES TO BE
PROTECTED FROM DISTURBANCE
WHEN INSTALLING ALL DRAINAGE
INFRASTRUCTURE.

CURVE DATA
D=104°52'04"
R=50.00'
L=91.51'

FOR LAYOUT OF ROCK ISLAND
BRIDGE & DRAINAGEWAY
IMPROVEMENTS, SEE SHEET C205



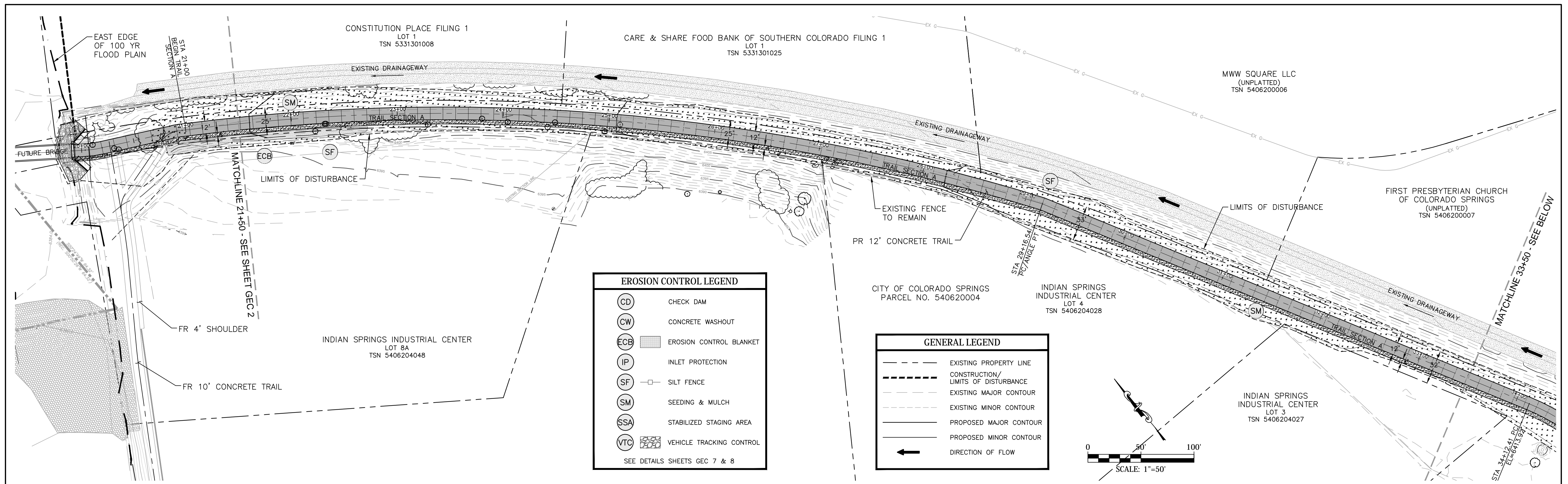
- NOTES:
- HORIZONTAL AND VERTICLE LOCATION OF 6" GRAVEL PATHS SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
 - WHEN LONGITUDINAL SLOPE IS LESS THEN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
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 - LOCATIONS OF VEHICLE TRACKING CONTROL AND CONCRETE WASHOUTS SUBJECT TO APPROVAL OF EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.



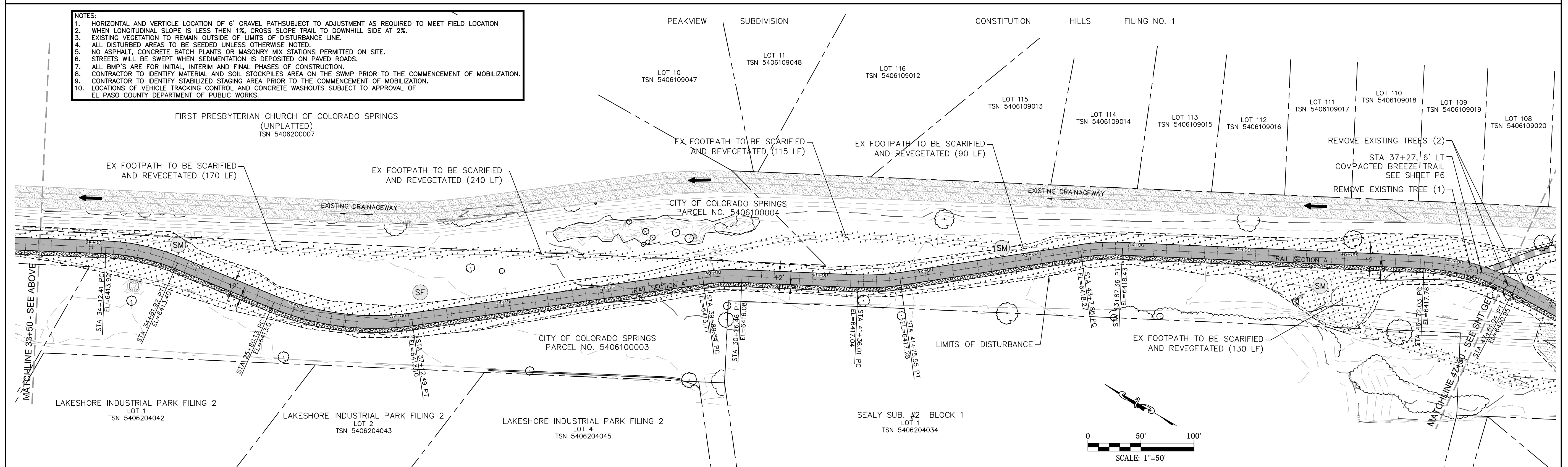
**IN PROGRESS
NOT FOR CONSTRUCTION**

For and on Behalf of
Kiowa Engineering Corporation Date

	<p>IN PROGRESS NOT FOR CONSTRUCTION</p> <p>For and on Behalf of Kiowa Engineering Corporation Date</p>	<p>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>	Sheet Revisions		90% BID SET	<p>ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN STA 17+50 TO 21+50</p>	Kiowa Proj. No. 16028	
					No Revisions:		Designer: RNW	TAP M240-162
					Revised:		Detailer: RNW	SubAcct No.20391
					Void:		Date: 08/06/2024	Sheet Number GEC 2



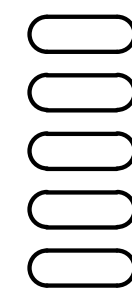
- NOTES:**
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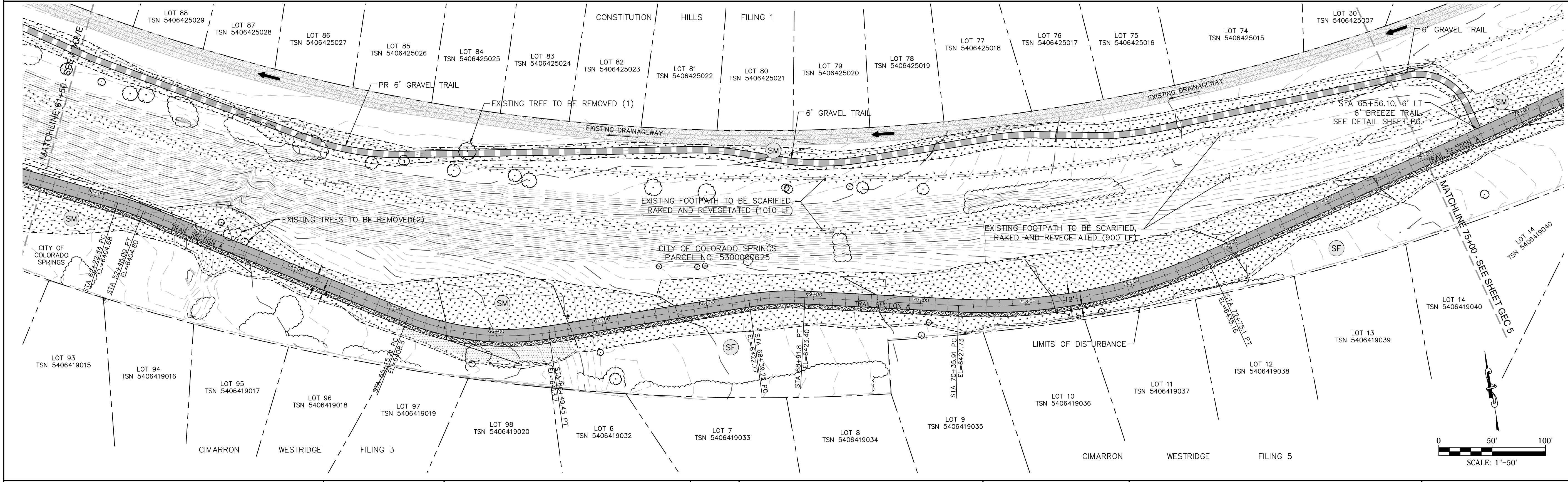
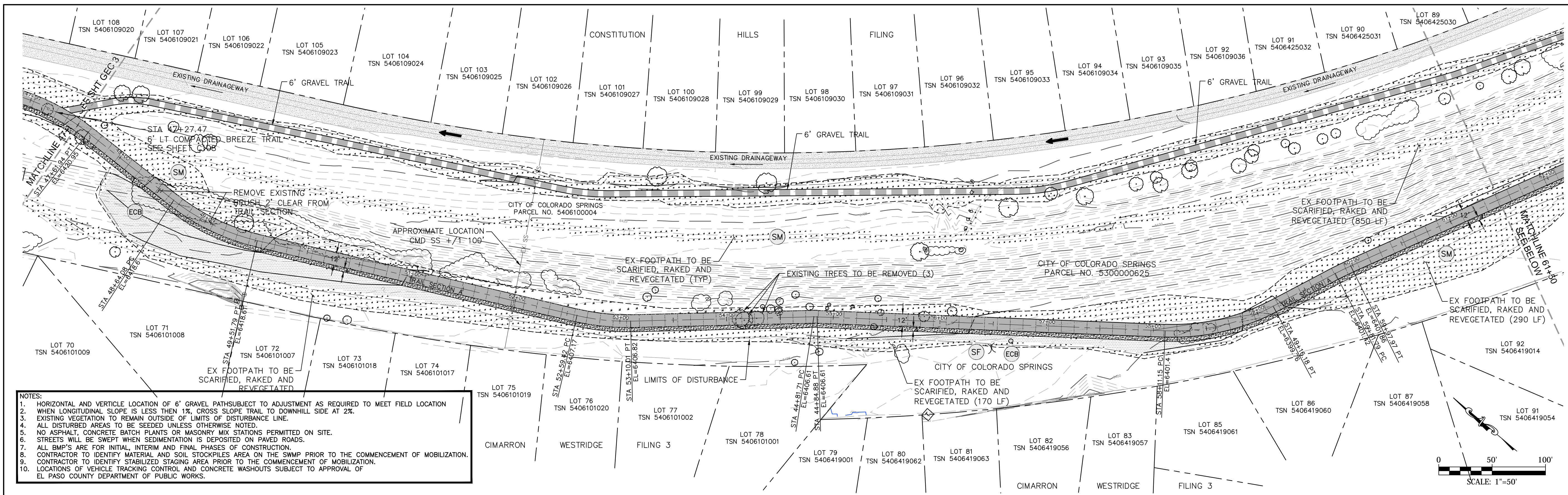
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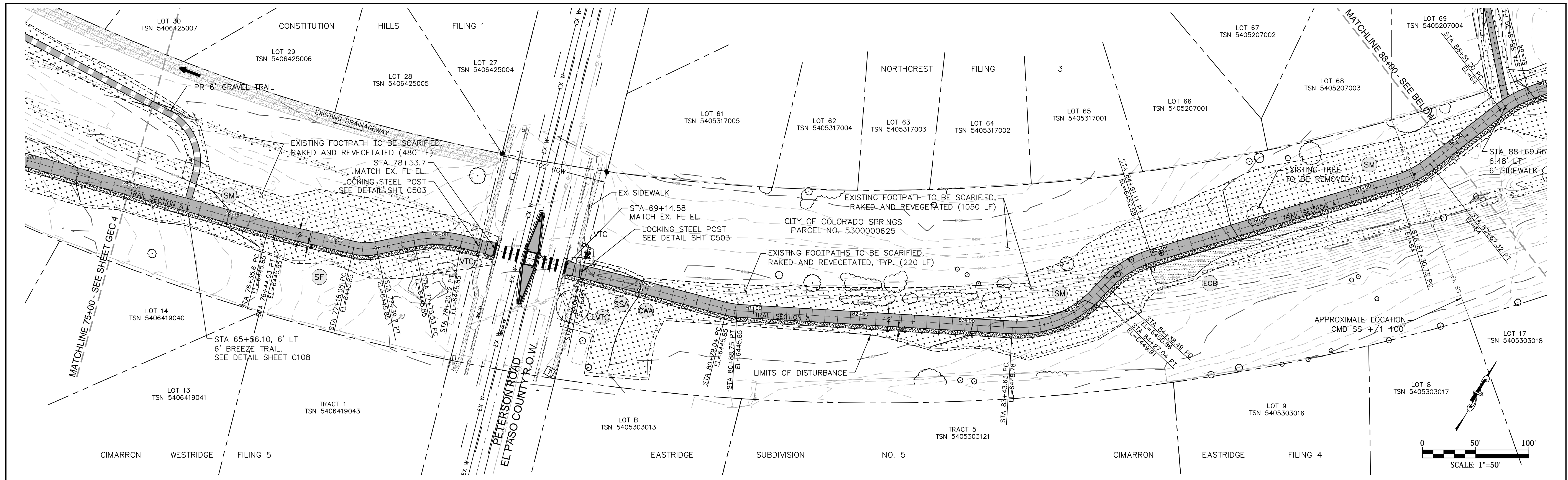
**ROCK ISLAND TRAIL
GRADING AND EROSION CONTROL PLAN
STA 21+50 TO 47+50**

Designer:	RNW
Detailer:	RNW
Date:	08/06/2024

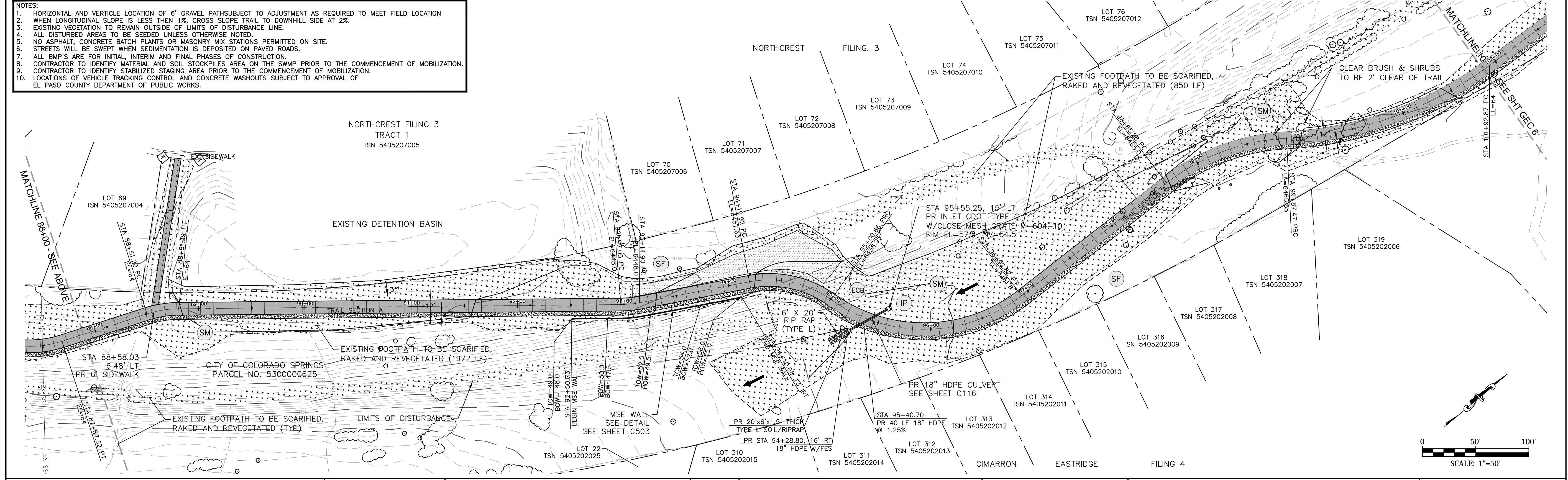
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No.20391
Sheet Number GEC 3



<p>IN PROGRESS NOT FOR CONSTRUCTION</p> <p>For and on Behalf of Kiowa Engineering Corporation Date</p>	<p>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>	Sheet Revisions		90% BID SET	ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN STA 47+50 TO 75+00	Kiowa Proj. No. 16028	
				No Revisions:		Designer: RNW	TAP M240-162
				Revised:		Detailer: RNW	SubAcct No.20391
				Void:		Date: 08/06/2024	Sheet Number GEC 4

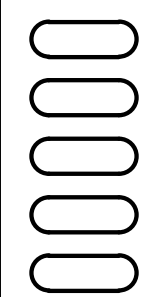


- NOTES:**
- HORIZONTAL AND VERTICLE LOCATION OF 6" GRAVEL PATH SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
 - WHEN LONGITUDINAL SLOPE IS LESS THEN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
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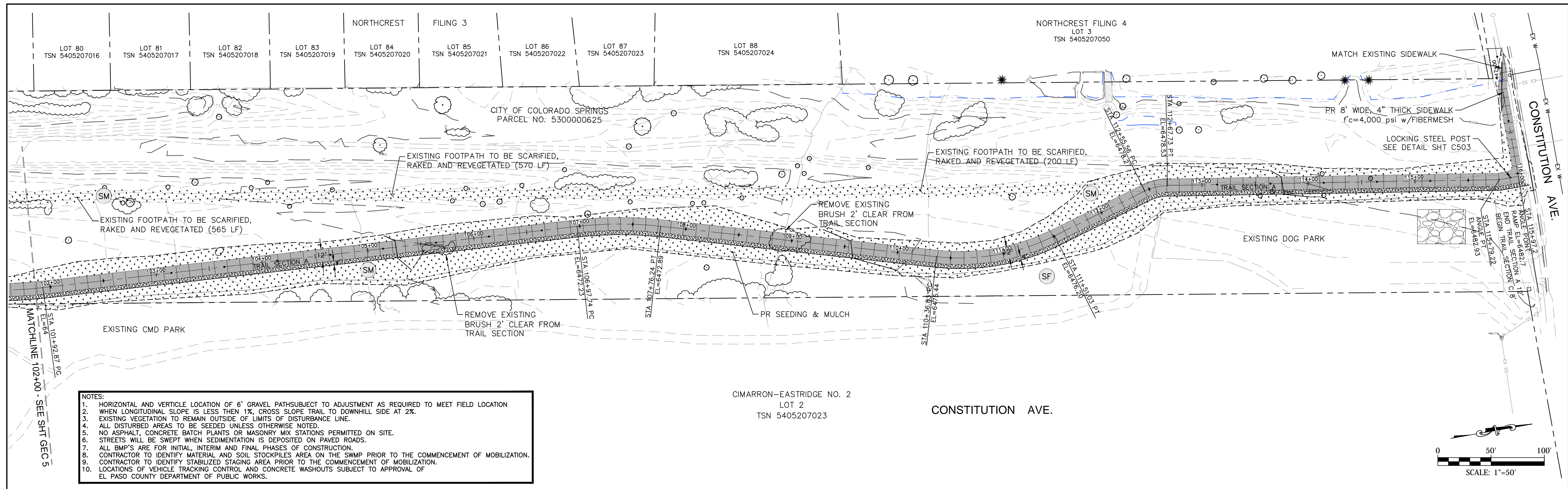
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342



Sheet Revisions	90% BID SET
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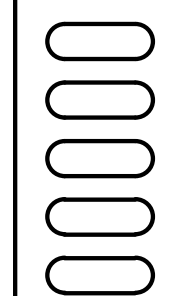
ROCK ISLAND TRAIL	
GRADING AND EROSION CONTROL PLAN	
STA 75+00 TO 102+00	
Designer:	RNW
Detailer:	RNW
Date:	08/06/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No.20391
Sheet Number GEC 5



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Engineering Corporation
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Colorado Springs, Colorado 80904
(719) 630-7342



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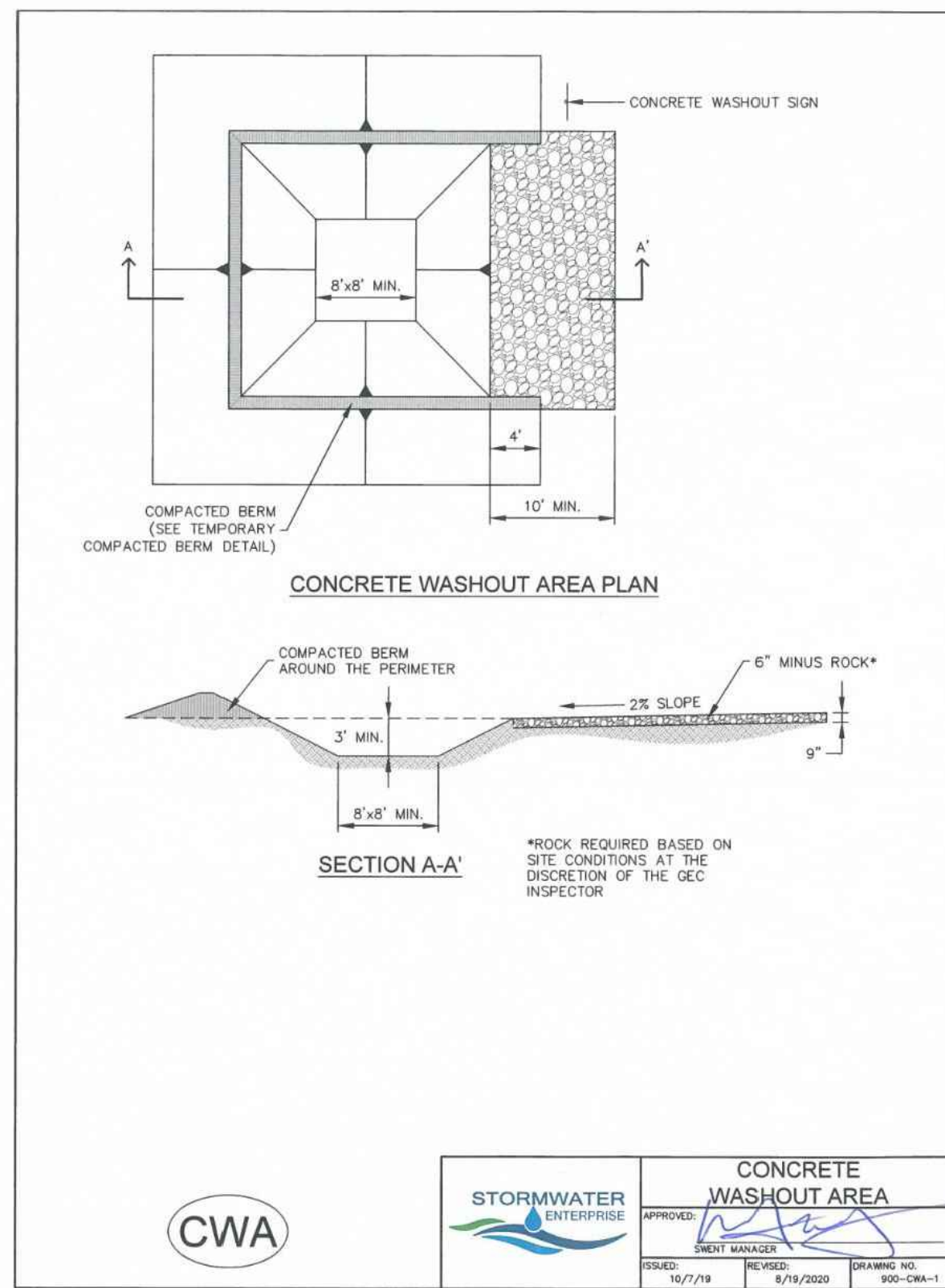
ROCK ISLAND TRAIL
GRADING AND EROSION CONTROL PLAN
STA 102+00 TO 117+50

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No.20391
Sheet Number GEC 6

For and on Behalf of
Kiowa Engineering Corporation Date

No Revisions:
Revised:
Void:

Designer: RNW
Detailer: RNW
Date: 08/06/2024



INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 - LOCATION OF CONCRETE WASHOUT AREA
 - LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
2. AN IMPERMEABLE LINER (16 MIL. MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
3. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
4. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
5. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
6. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
7. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
8. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
9. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 1/2 THE HEIGHT OF THE CONCRETE WASH AREA.
3. 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.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.



CONCRETE WASHOUT AREA

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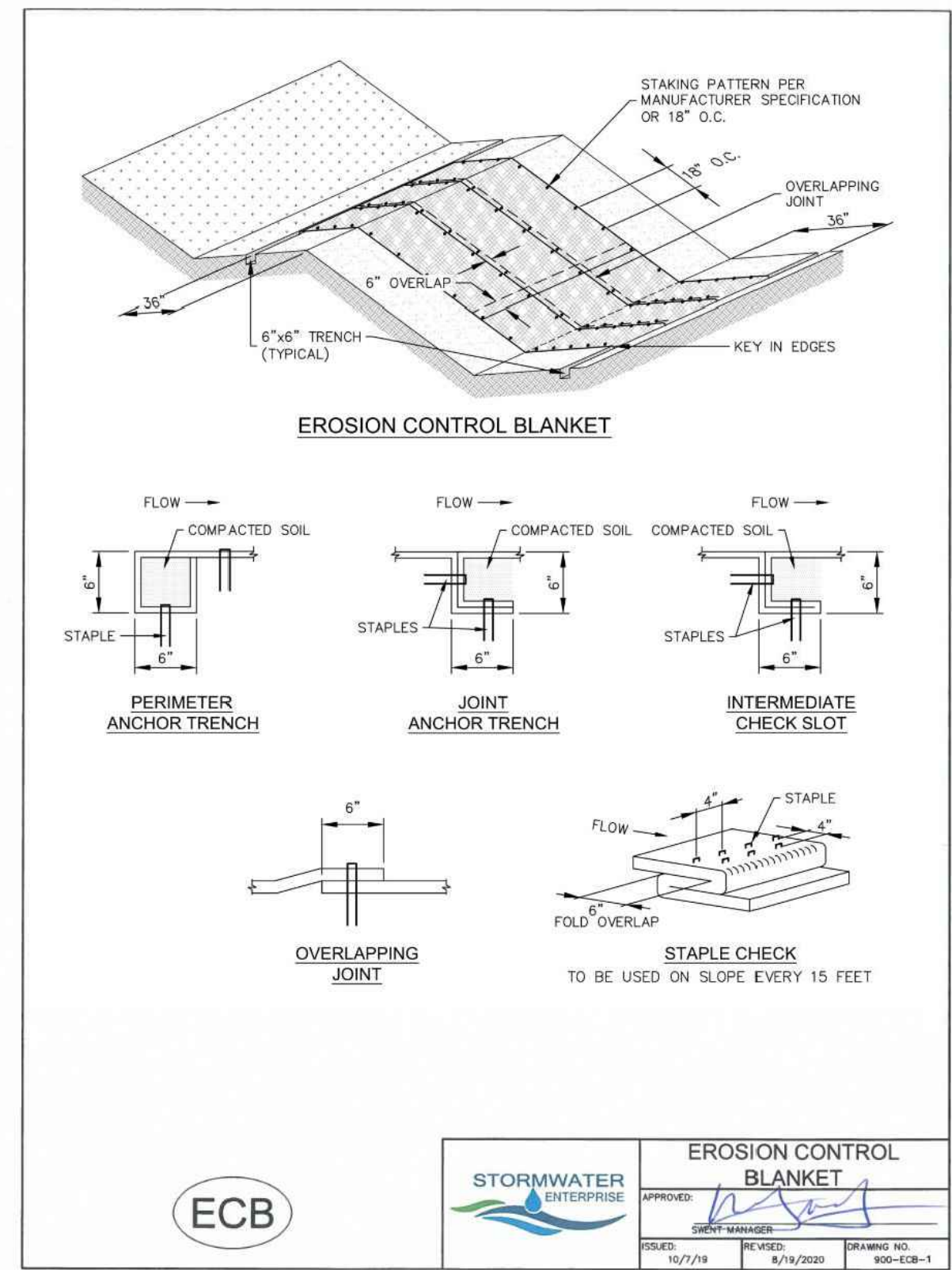
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CONCRETE WASHOUT AREA

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EROSION CONTROL BLANKET

APPROVED: [Signature]

ISSUED: 10/7/19 REVISIONS: 8/19/2020 DRAWING NO: 900-ECB-1

INSTALLATION NOTES

1. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY BE USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
2. IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
5. INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
6. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
9. STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
10. COMPACT ALL TRENCHES.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

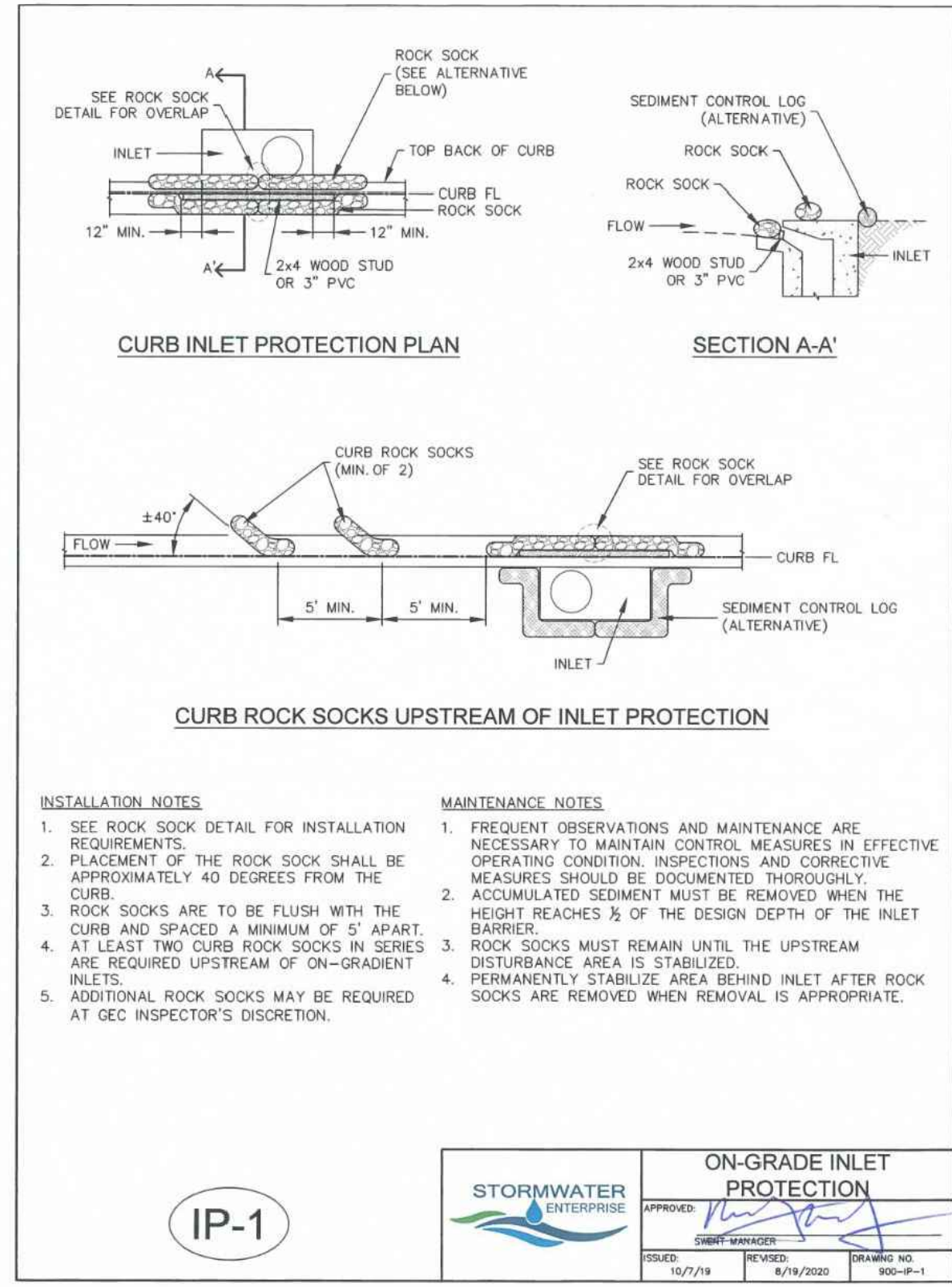
TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS				
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	-	100%	-	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	-	DOUBLE/NATURAL
COCONUT	100%	-	-	DOUBLE/NATURAL
EXCELSIOR	-	-	100%	DOUBLE/NATURAL



EROSION CONTROL BLANKET

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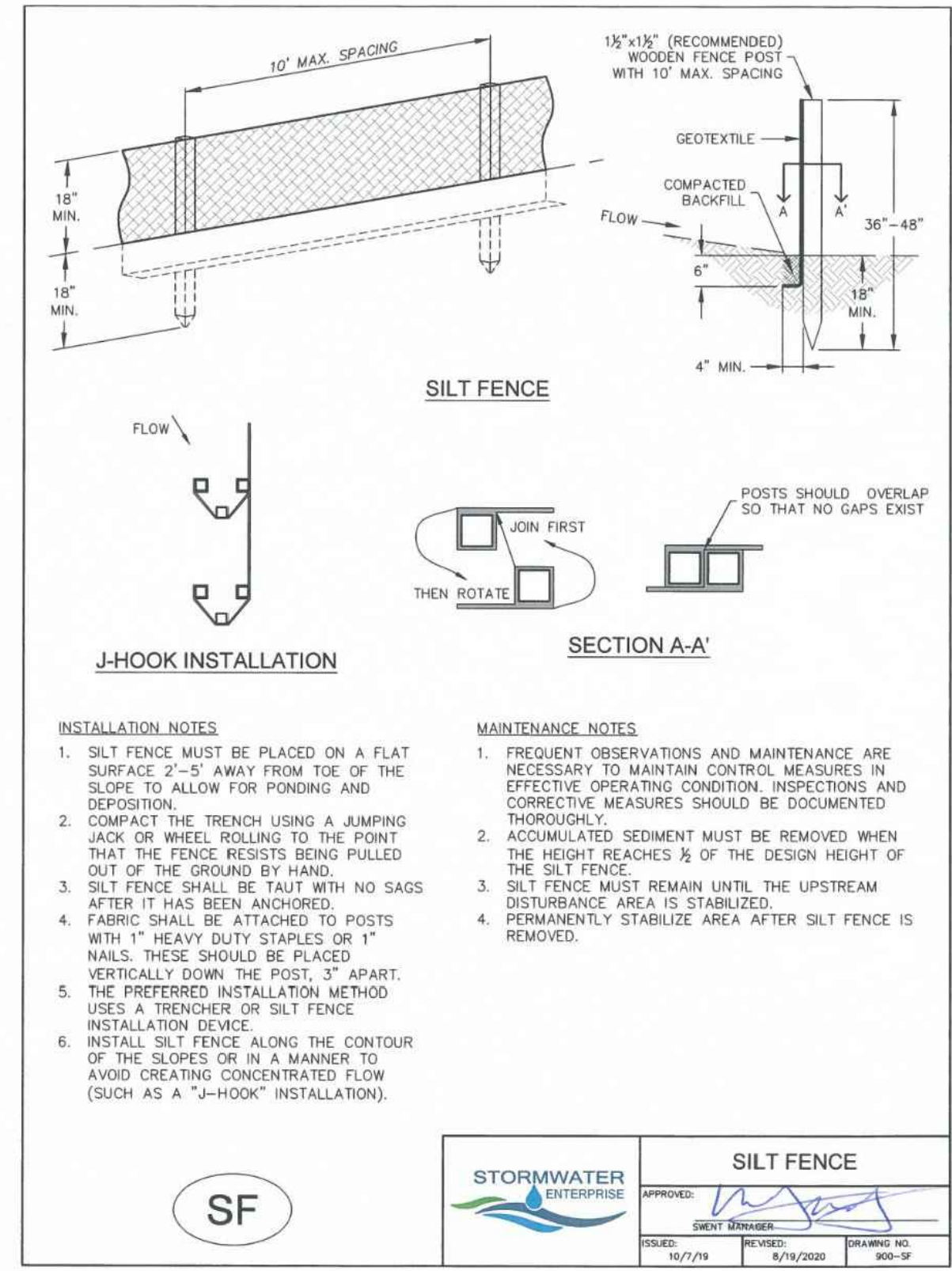
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ON-GRADE INLET PROTECTION

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SILT FENCE

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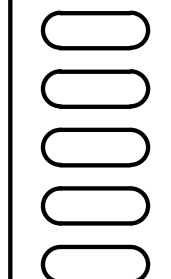
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Sheet Revisions

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No Revisions:
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**ROCK ISLAND TRAIL
GRADING AND EROSION CONTROL PLAN
EROSION CONTROL DETAILS**

Designer: RNW
Detailer: RNW
Date: 08/06/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No.20391
Sheet Number GEC 7

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

1. IN AREAS TO BE SEED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
2. AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
3. THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
4. TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL-SEED WHENEVER POSSIBLE.
3. SEED DEPTH MUST BE 3/8 TO 3/4 INCHES WHEN DRILL-SEEDING IS USED.
4. BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
5. SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLIANT DRILL OR HYDRO-SEEDING.
6. BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

MULCHING

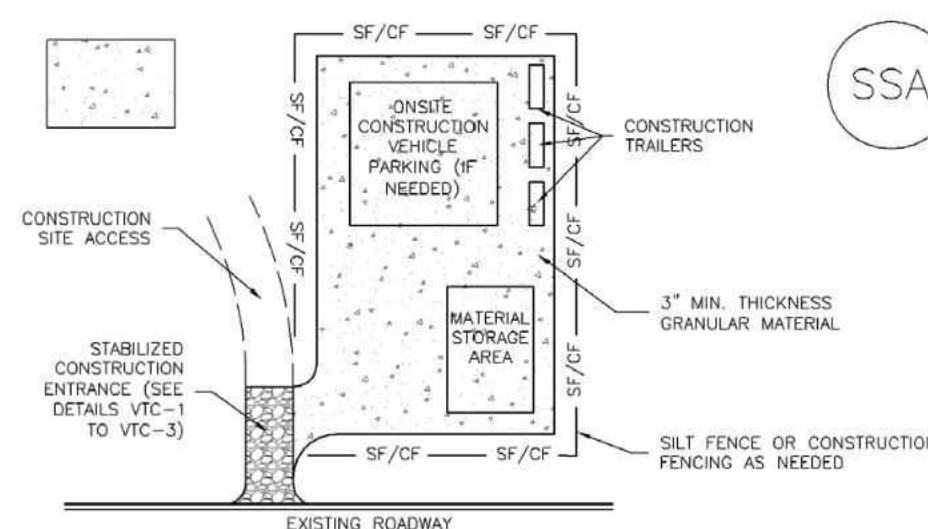
1. MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
2. MULCHING REQUIREMENTS INCLUDE:
 - HAY OR STRAW MULCH
 - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
 - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
 - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
 - HYDRAULIC MULCHING
 - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
 - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
 - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
 - EROSION CONTROL BLANKET
 - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.



	SEEDING & MULCHING	
	ISSUED: 10/7/19	REVISIONS: 8/19/2020

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\"/>

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 REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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Urban Storm Drainage Criteria Manual Volume 3

SM-6

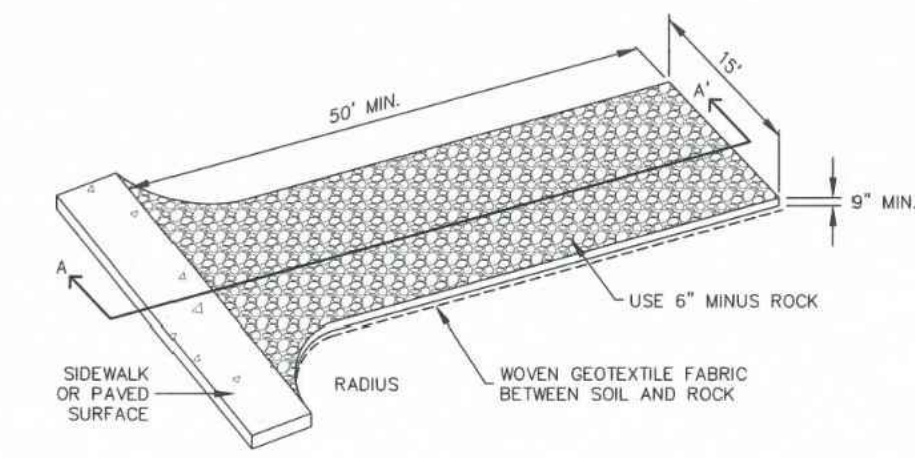
Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

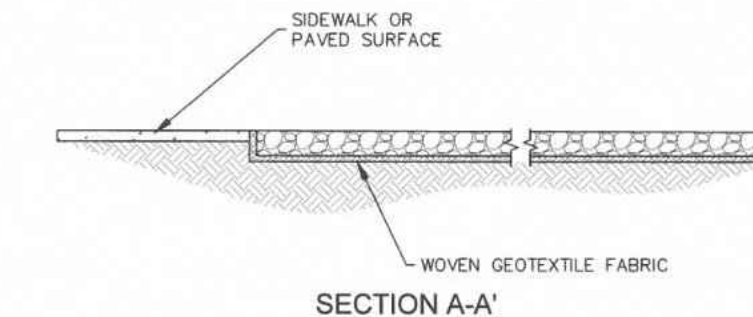
5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEED, 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 November 2010
Urban Storm Drainage Criteria Manual Volume 3



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6\"/>

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.



	VEHICLE TRACKING CONTROL	
	ISSUED: 10/7/19	REVISIONS: 8/19/2020

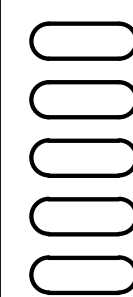


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