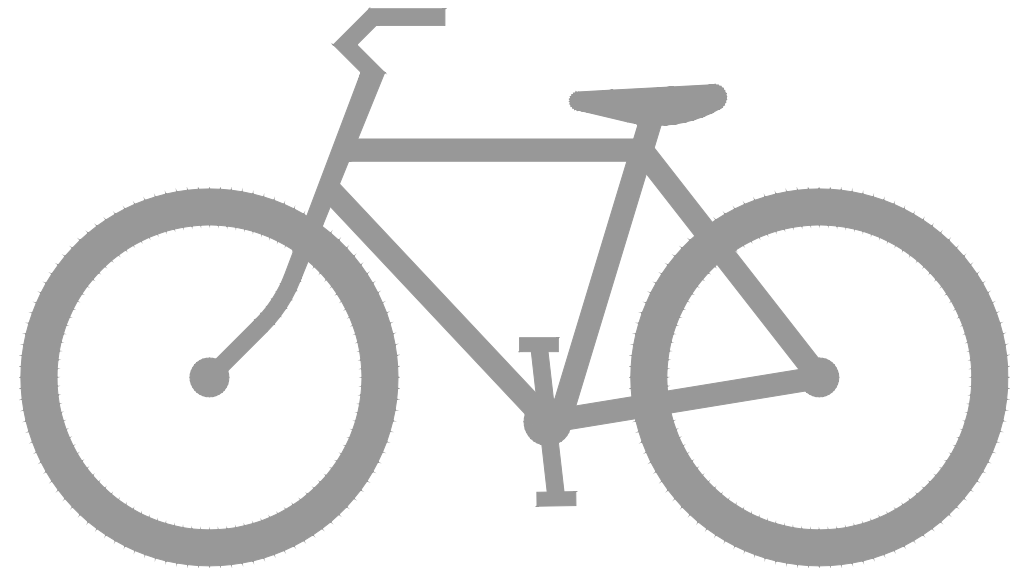


SHEET INDEX	
C000	COVER SHEET
C001	SUMMARY OF QUANTITIES
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C101	ROCK ISLAND STA 08+00 TO STA 17+50
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C103	ROCK ISLAND STA 21+50 TO STA 27+00
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C106	ROCK ISLAND STA 38+00 TO STA 43+50
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C117	ROCK ISLAND STA 98+50 TO STA 104+00
C118	ROCK ISLAND STA 104+00 TO STA 109+50
C119	ROCK ISLAND STA 109+50 TO STA 115+00
C120	ROCK ISLAND STA 115+00 TO STA 117+50
C200	PEDESTRIAN BRIDGE GENERAL INFORMATION
C201	PEDESTRIAN BRIDGE BORING LOG
C202	PEDESTRIAN BRIDGE HYDRAULICS
C203	PEDESTRIAN BRIDGE LAYOUT AND GRADING PLAN
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

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

22 NOVEMBER 2024



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		11/15/24
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	8+18
END STATION ROCK ISLAND TRAIL	117+25
MAXIMUM GRADE	8.33%
MINIMUM HORIZONTAL CURVE	25'
MINIMUM WIDTH 8'	8'
TYPICAL WIDTH	10'
CROSS-SLOPE	2%
LENGTH ROCK ISLAND TRAIL	10,907 LF
AREA OF DISTURBANCE	18.2 ACRES
CONSTRUCTION AREA	22.8 ACRES
ANTICIPATED START	01/01/2025
ANTICIPATED CONSTRUCTION END	10/01/2025
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.	

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

NATURAL GAS

ELECTRIC

WATER

WASTEWATER

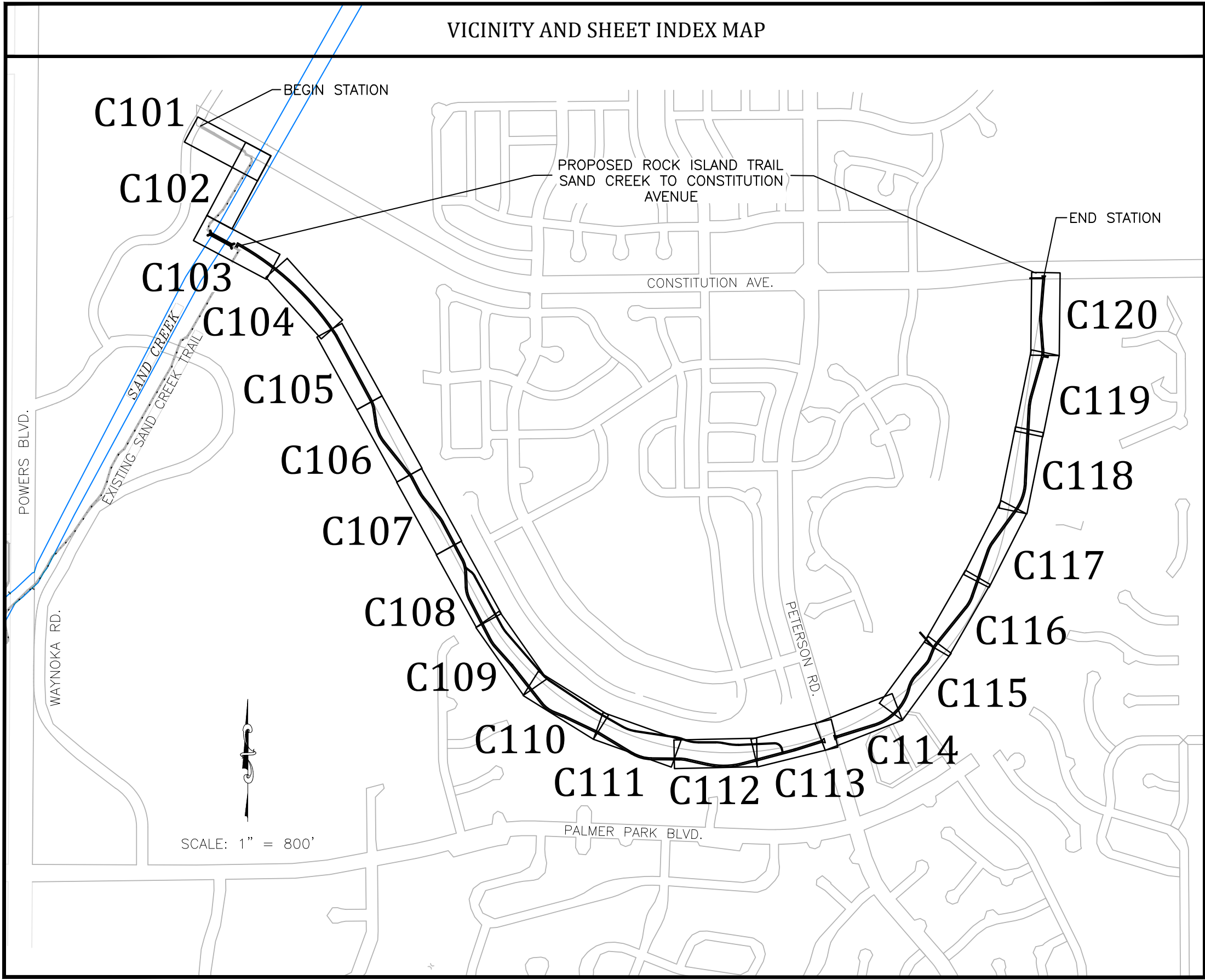
YELLOW

RED



BLUE

GREEN

Know what's below.
Call before you dig.






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	5/15/2024 Date

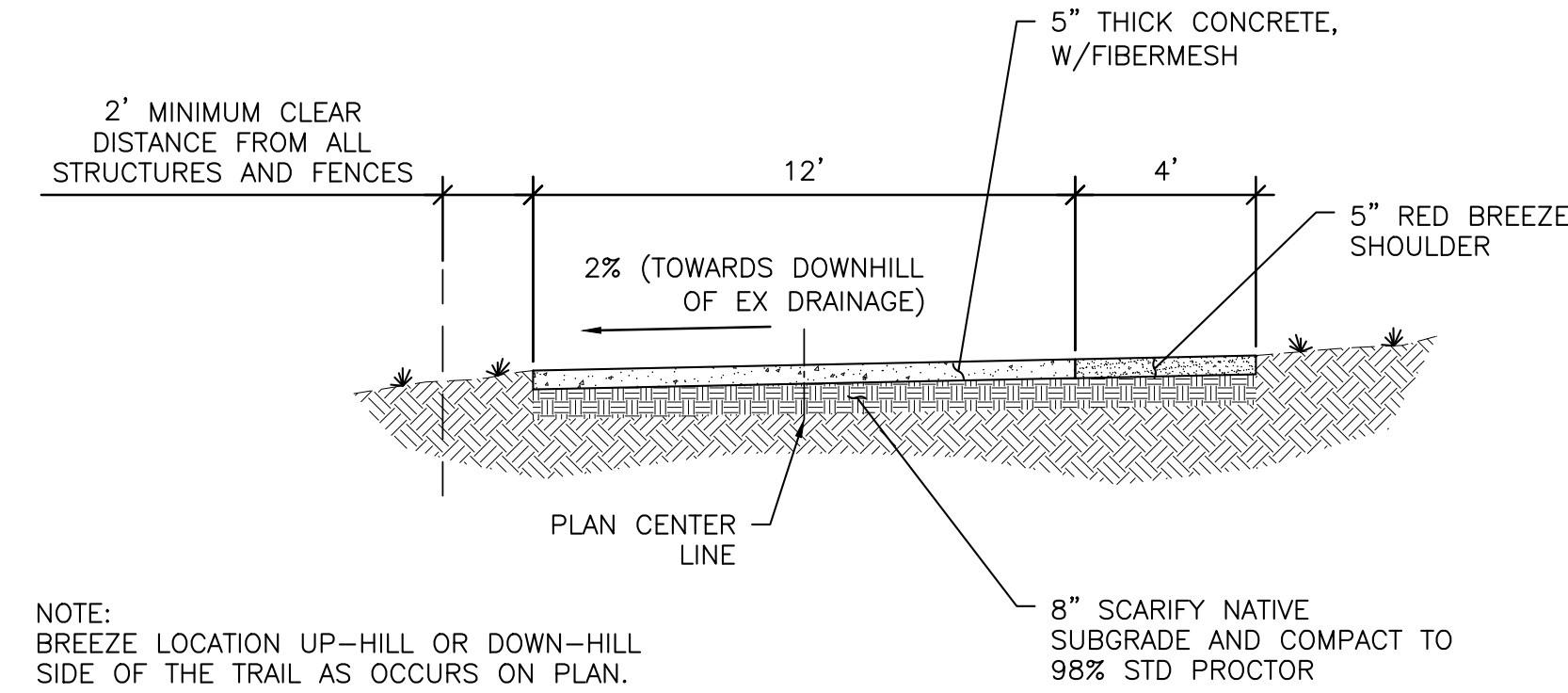
	 <div>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</div>	<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue COVER SHEET			Kiowa Proj. No. 16028
								TAP M240–162
			No Revisions:		Designer: TAC			SubAcct No. 20391
			Revised:		Detailer: JDC/TEG			Sheet Number C000
			Void:		Date: 05/08/2025			
For and on Behalf of Kiowa Engineering Corporation		Date						

SUMMARY OF APPROXIMATE QUANTITIES			
CONTRACT ITEM NO.	CONTRACT ITEM	PROJECT TOTALS	
Item No.	Description	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
<div>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.</div> <div>2. All land disturbing activities must be performed in accordance with and the approved GEC Plan and CSWMP.</div> <div>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.</div> <div>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.</div> <div>5. Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters.</div> <div>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.</div> <div>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.</div> <div>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.).</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>12. 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.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>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.</div>

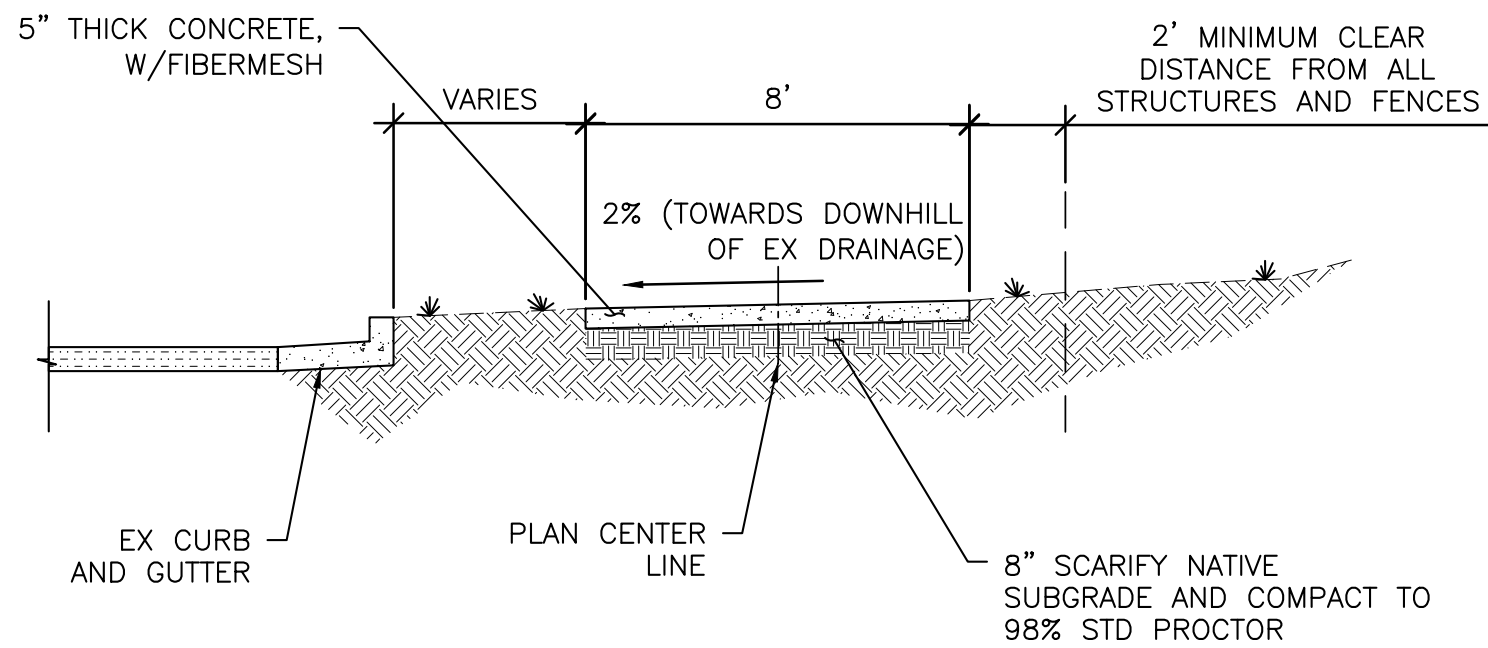
KIOWA GENERAL NOTES
<div>1. All materials and workmanship shall be in conformance with the latest version of Colorado Department of Transportation (CDOT) standard specifications for road and bridge construction and supplemented with the City of Colorado Springs standard specifications.</div> <div>2. 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.</div> <div>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.</div> <div>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.</div> <div>5. Surveying for this project shall be conducted in accordance with CDOT standards.</div> <div>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.</div> <div>7. All existing manholes to be marked with t–posts and caution tape prior to commencing with the construction.</div> <div>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.</div> <div>9. All removed asphalt will become the property of the contractor and will be disposed of outside project limits.</div> <div>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.i. Of 5 but shall not be such heavy clay as to preclude placement with a shoulder machine.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>15. The contractor shall notify the engineer where utilities conflict with the work in conformance with the specifications. Where field verification is noted 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.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>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.</div> <div>20. The contractor shall obtain construction stormwater discharge permit from CDPHE.</div>

		 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue SUMMARY OF QUANTITIES		Kiowa Proj. No. 16028
								TAP M240–162
					No Revisions:	Designer: TAC Detailer: JDC/TEG Date: 05/08/2025	.	SubAcct No. 20391
					Revised:			
					Void:			Sheet Number C001

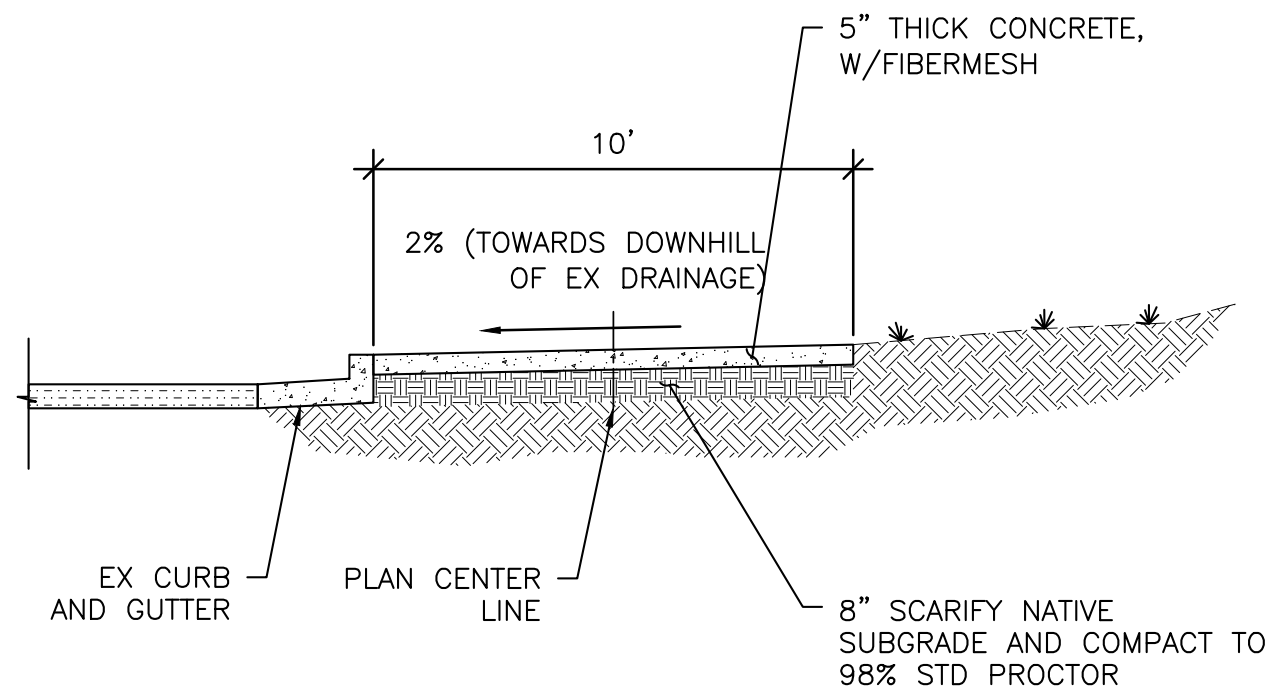


NOTE:
BREEZE LOCATION UP-HILL OR DOWN-HILL
SIDE OF THE TRAIL AS OCCURS ON PLAN.

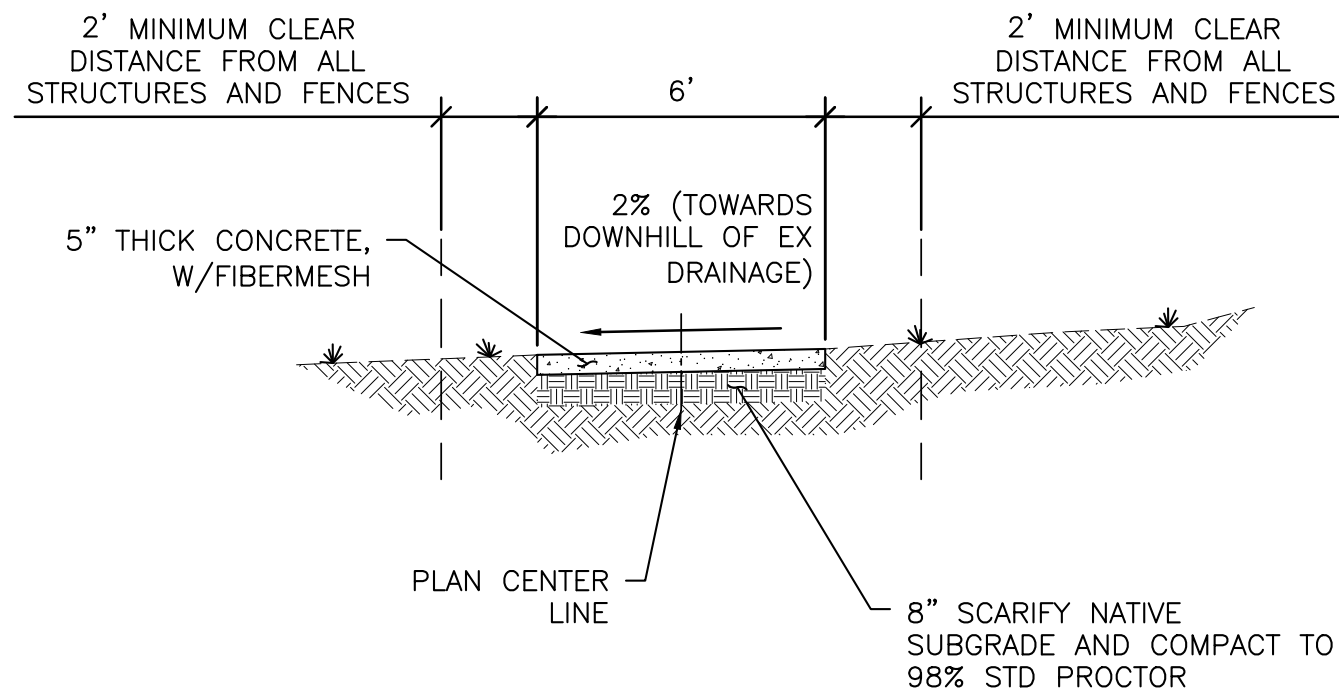
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C002 TRAIL SECTION A - 12' CONCRETE TRAIL
Scale: 1" = 4'



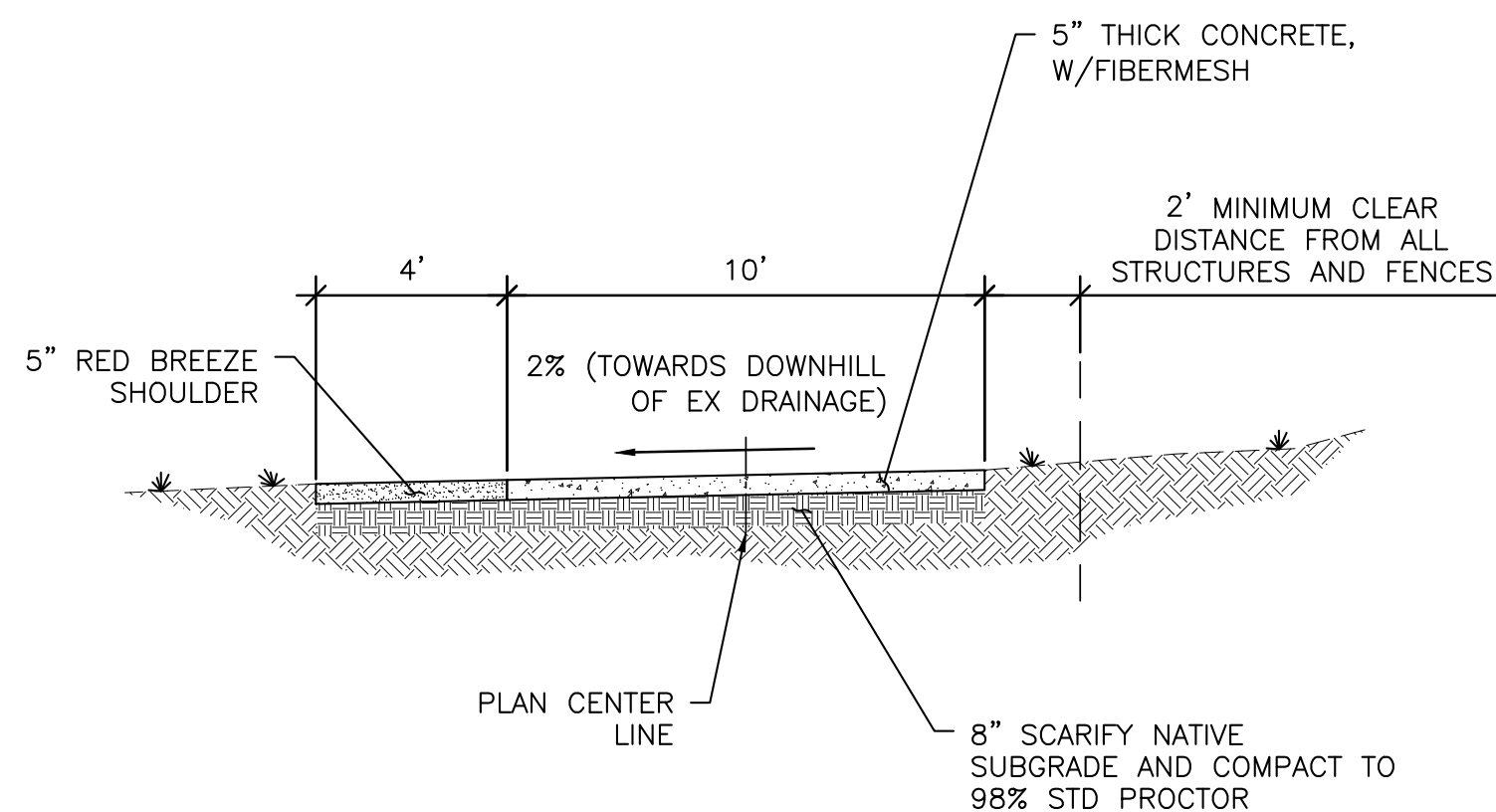
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C002 TRAIL SECTION D - 8' CONCRETE TRAIL DETACHED
Scale: 1" = 4'



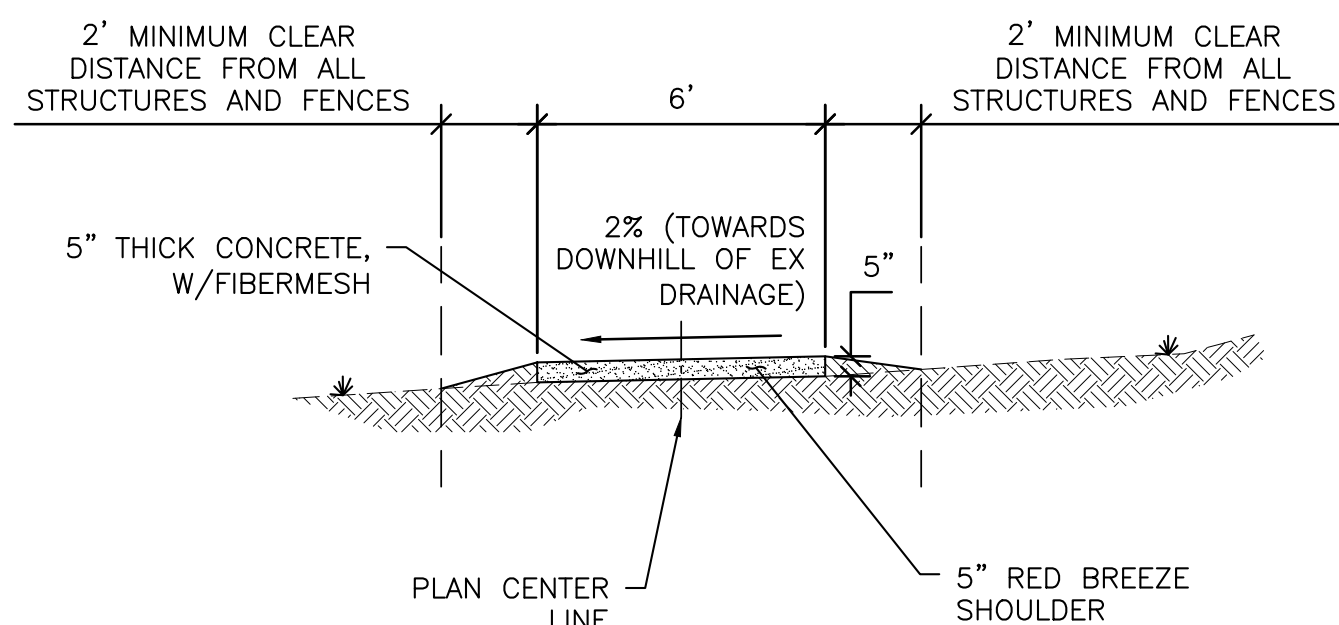
B
C002 TRAIL SECTION B - 10' CONCRETE TRAIL
Scale: 1" = 4'



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



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



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

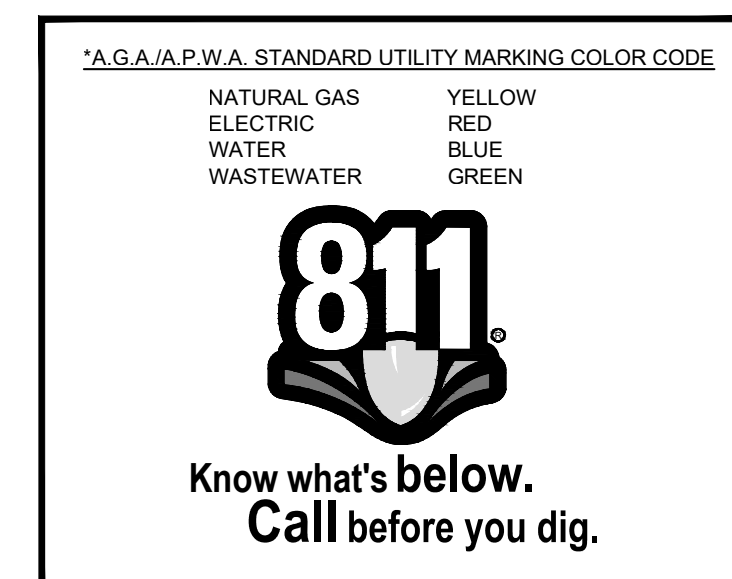
KNOWN UTILITIES WITHIN PROJECT LIMITS

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.

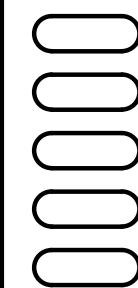


LEGEND

	BOLLARD
	FENCE
	GUARDRAIL
	SIGN
	ELECTRIC POWER POLE
	ELECTRIC LINE
	ELECTRIC VAULT
	GAS MAIN
	GAS VENT
	SANITARY SEWER MAIN
	SANITARY SEWER MANHOLE
	TELEPHONE MAIN
	TELEPHONE MANHOLE
	TELEPHONE RISER
	WATER MAIN
	WATER VALVE



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



Sheet Revisions

IFC

No Revisions:

Revised:

Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue GENERAL NOTES

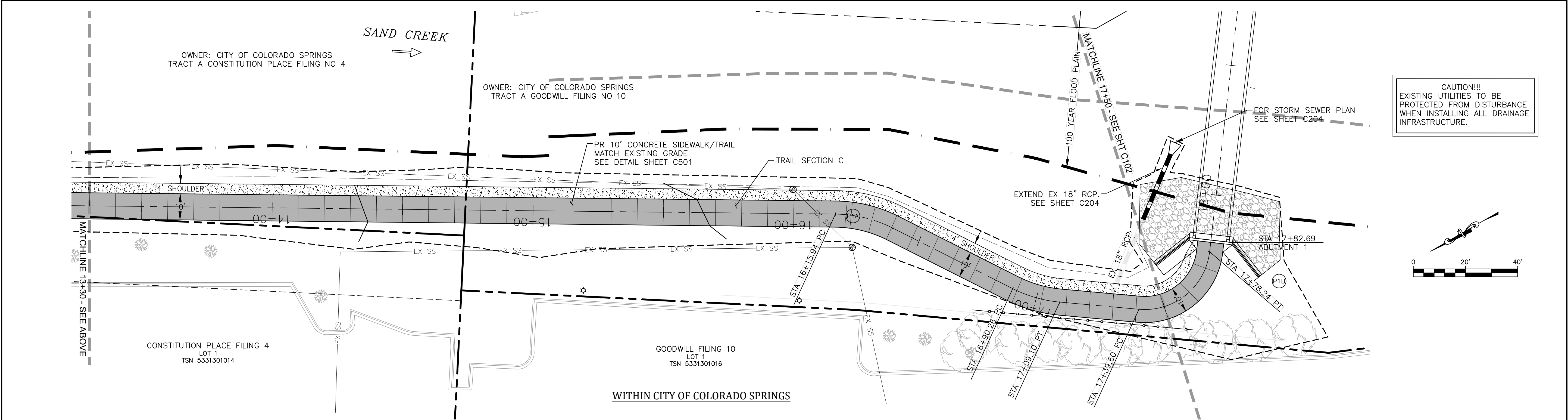
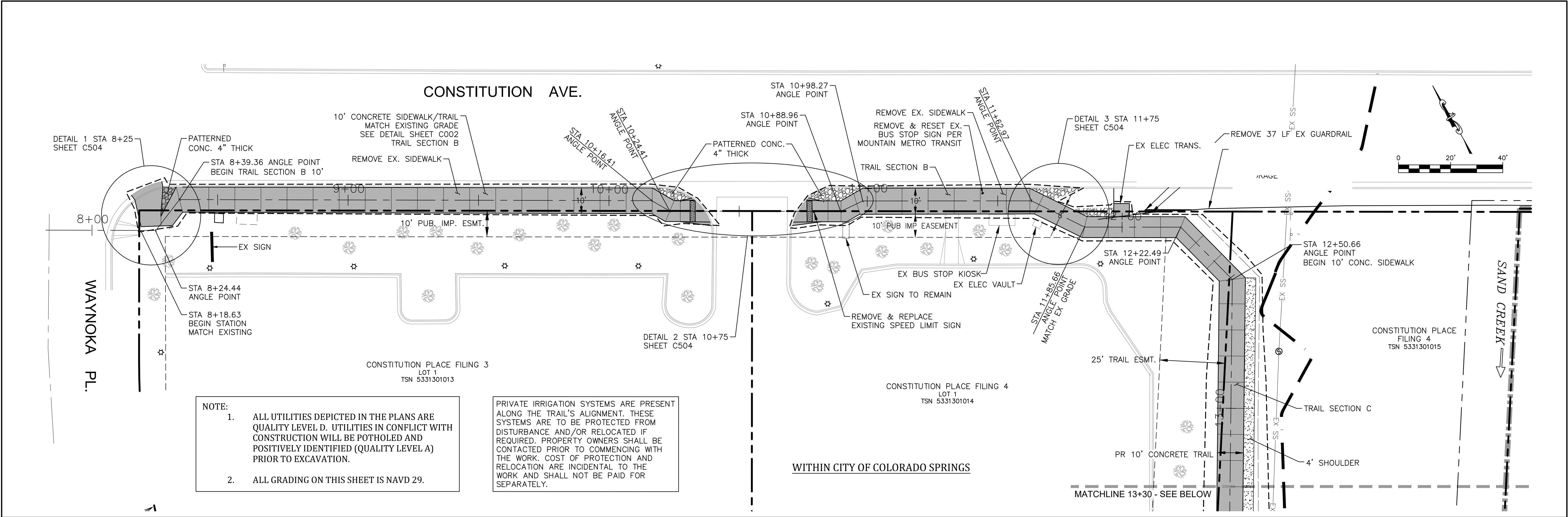
Designer: TAC
Detailer: JDC/TEG
Date: 05/08/2025




Kiowa Proj. No. 16028

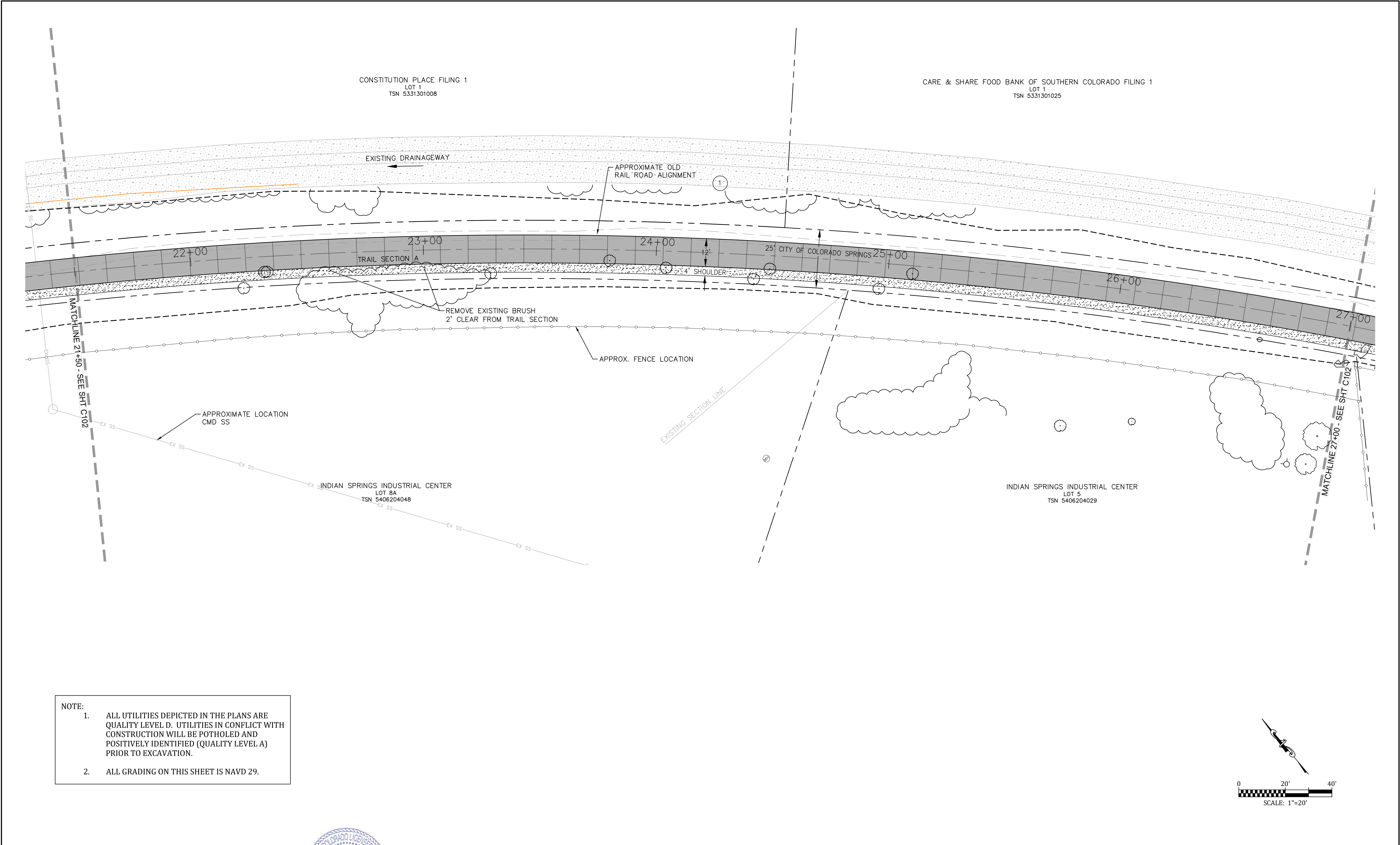
TAP M240-162

SubAcct No. 20391

Sheet Number C002



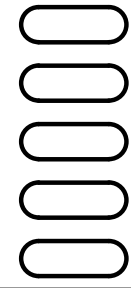
	 For and on Behalf of Kiowa Engineering Corporation Date	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL			Kiowa Proj. No. 16028
						Sand Creek to Constitution Avenue			TAP M240-162
					No Revisions:	FINAL TRAIL PLAN STA 8+00 TO STA 17+50			
					Revised:	Designer: TAC			SubAcct No. 20391
					Void:	Detailer: JDC/TEG			Sheet Number C101
				Date: 05/08/2025					



- NOTE:
1. 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.
 2. ALL GRADING ON THIS SHEET IS NAVD 29.



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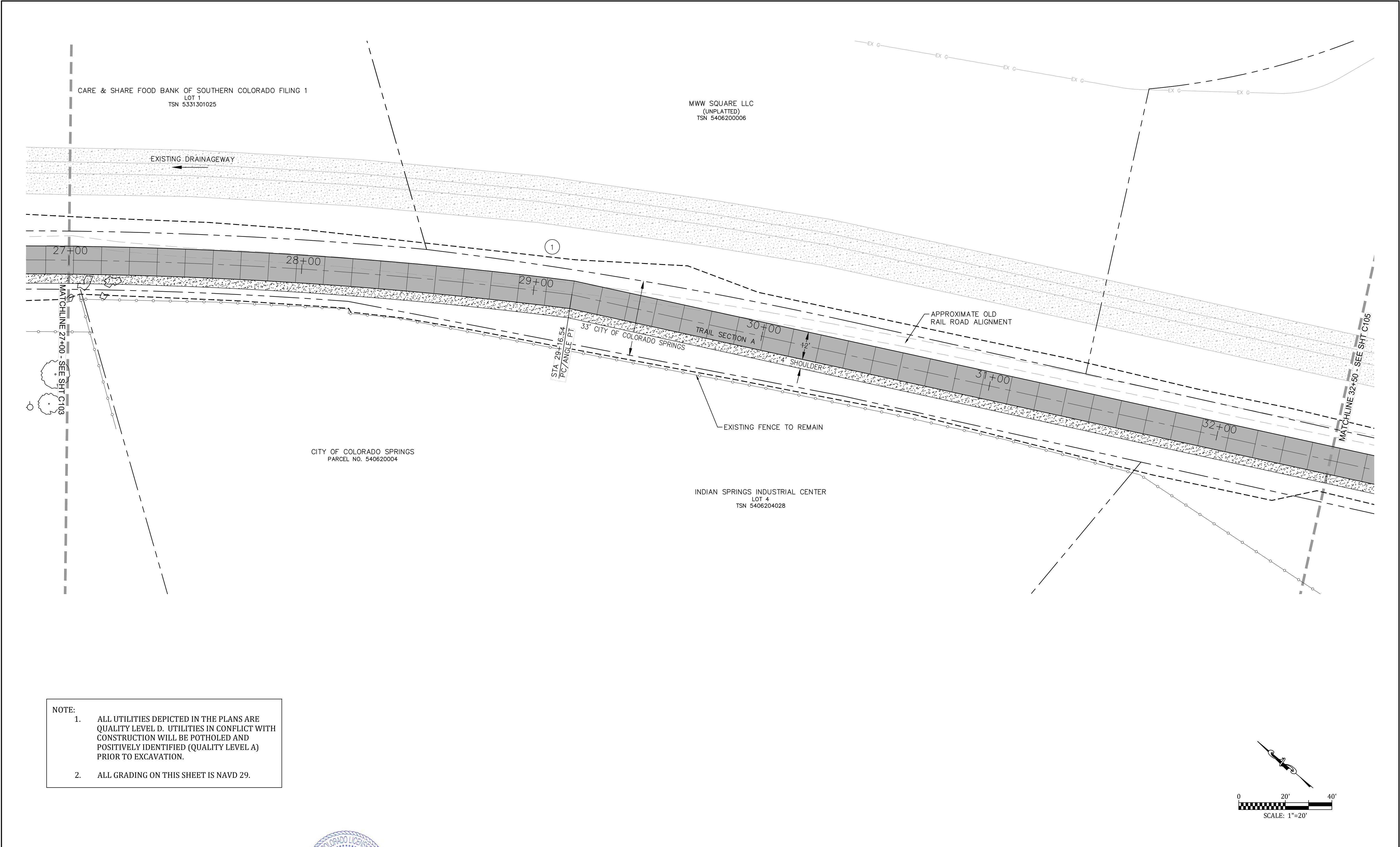


Sheet Revisions

IFC
No Revisions:
Revised:
Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 21+50 TO STA 27+00			
Designer:	TAC		
Detailer:	JDC/TEG		
Date:	05/08/2025		

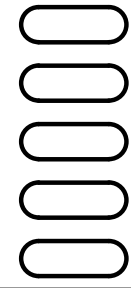
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C103



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

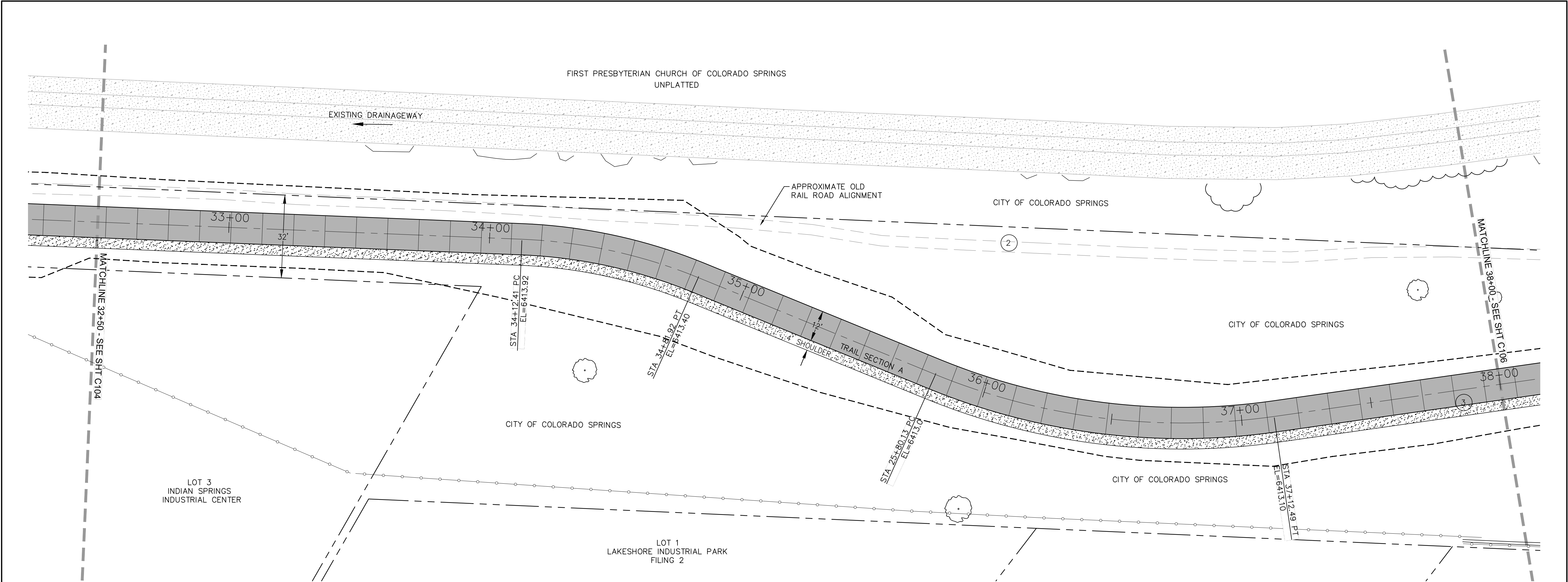


Sheet Revisions

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No Revisions:
Revised:
Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 27+00 TO STA 32+50			
Designer:	TAC		
Detailer:	JDC/TEG		
Date:	05/08/2025		

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C104

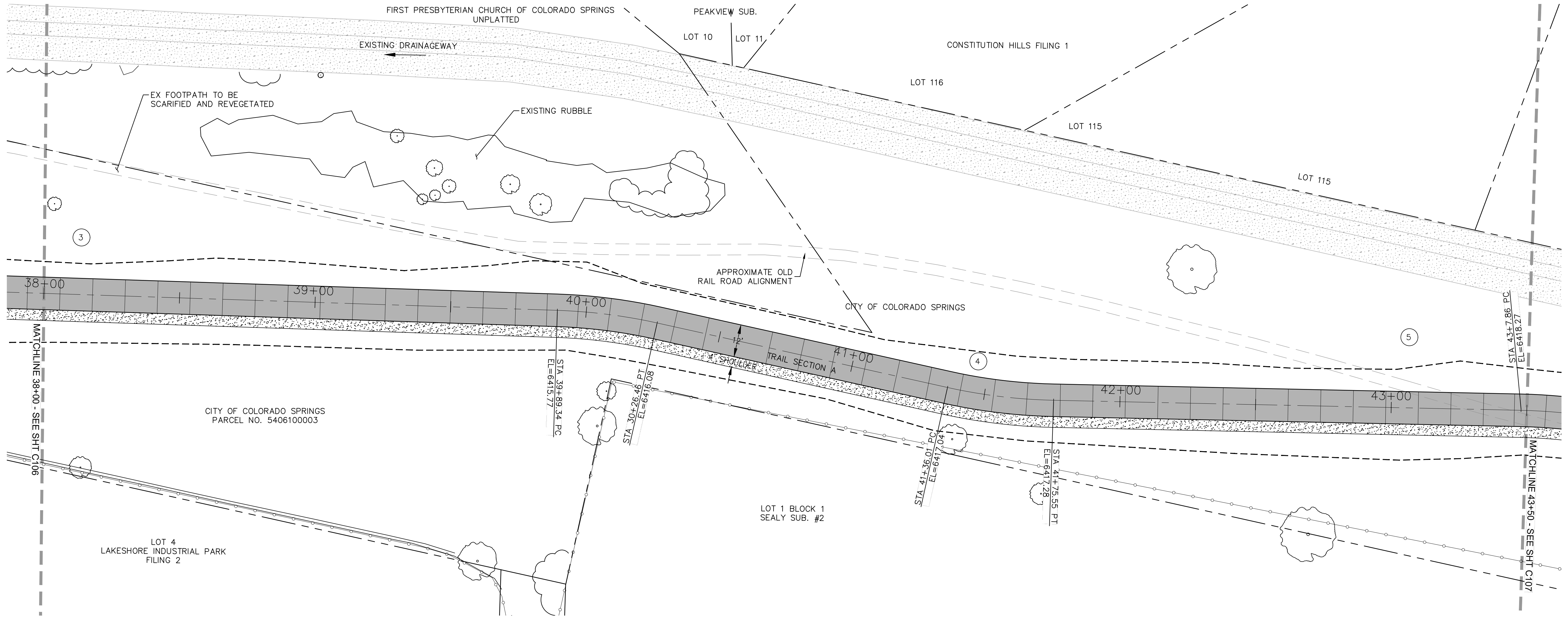


- NOTE:
1. ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D. UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A) PRIOR TO EXCAVATION.
 2. ALL GRADING ON THIS SHEET IS NAVD 29.

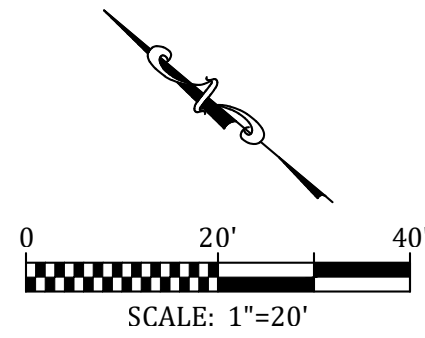


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			Detailer: JDC/TEG			
	Void:	Date: 05/08/2025			Sheet Number C105	

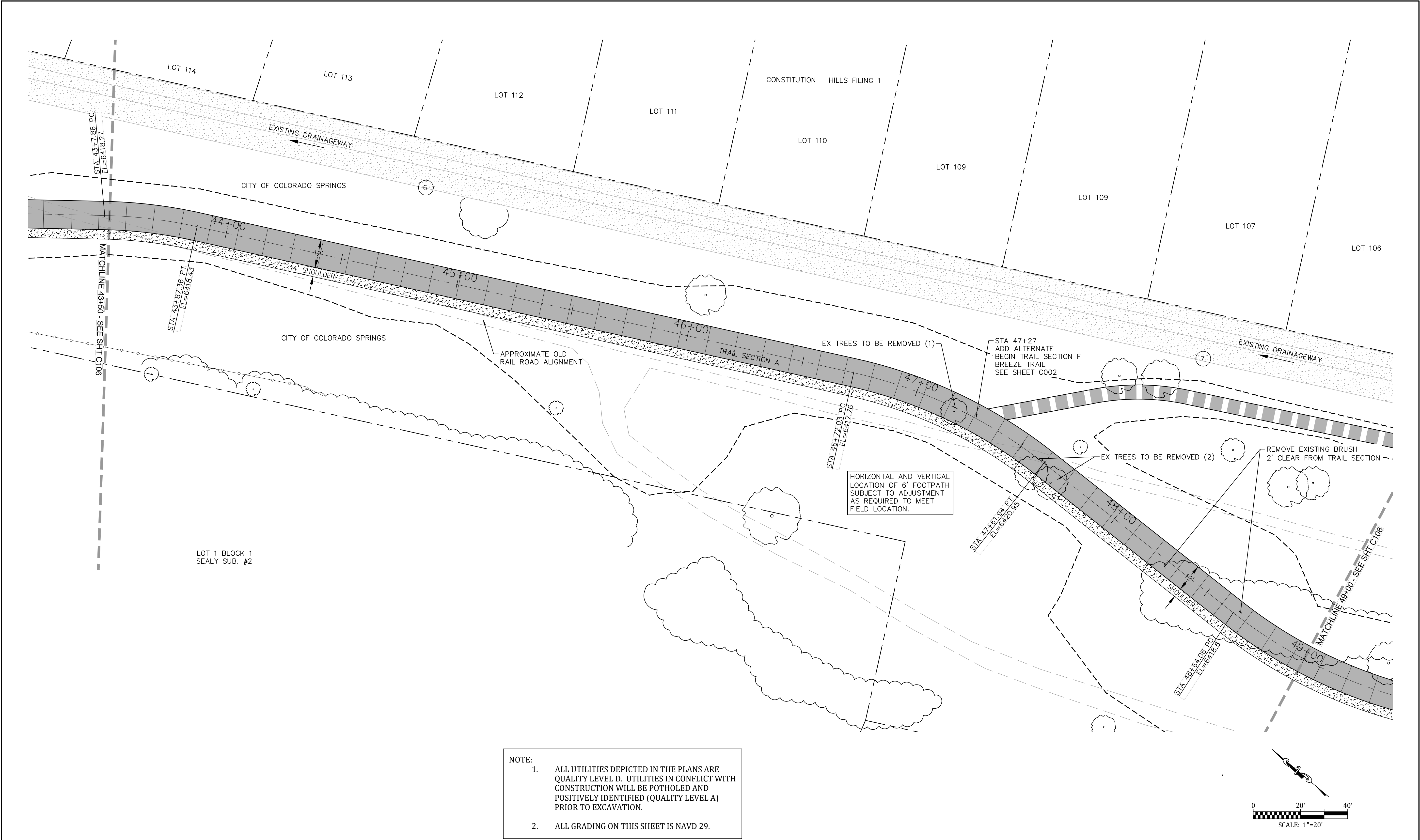


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<div>00000</div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue FINAL TRAIL PLAN STA 38+00 TO STA 43+50		Kiowa Proj. No. 16028
		No Revisions:	Designer: TAC		TAP M240-162
		Revised:	Detailer: JDC/TEG		SubAcct No. 20391
		Void:	Date: 05/08/2025		Sheet Number C106



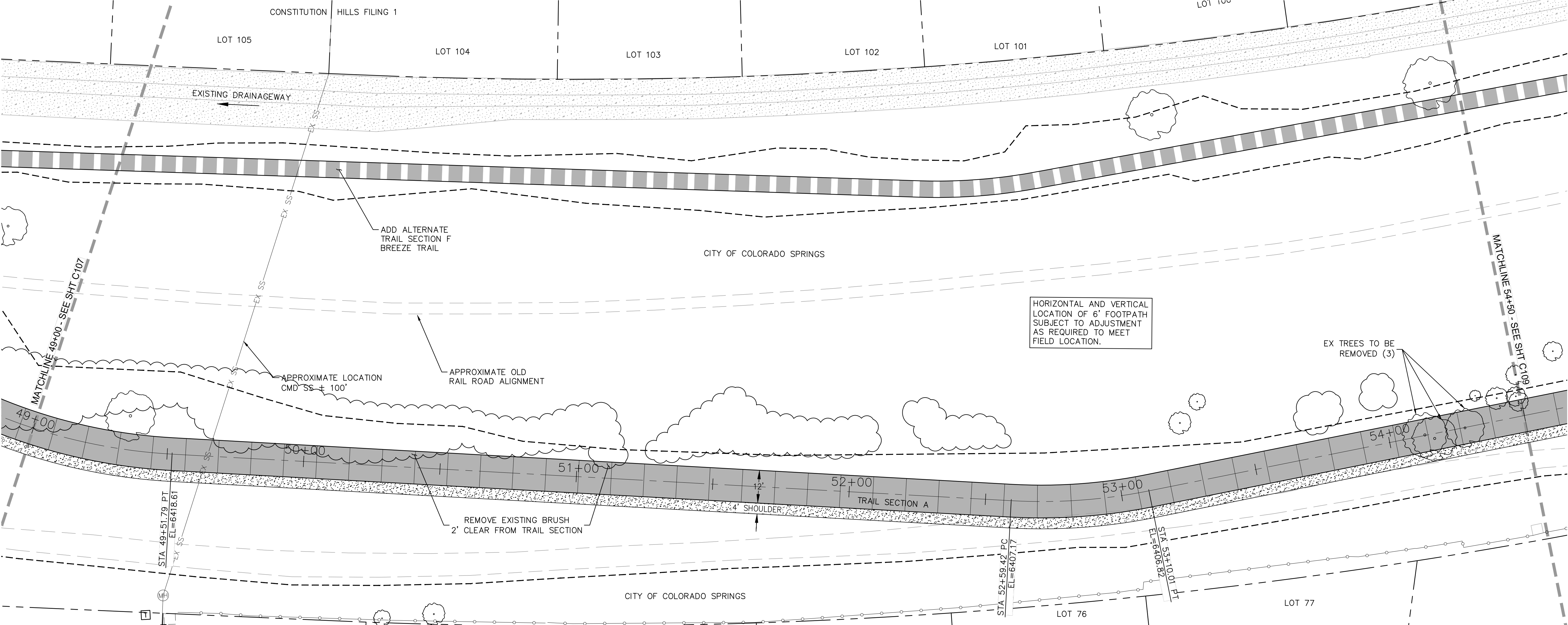
NOTE:

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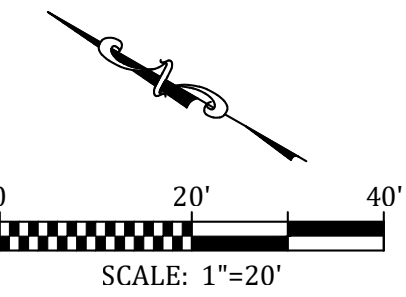
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		Revised:	Designer: TAC			SubAcct No. 20391
		Void:	Detailer: JDC/TEG			
		Date: 05/08/2025				Sheet Number C107



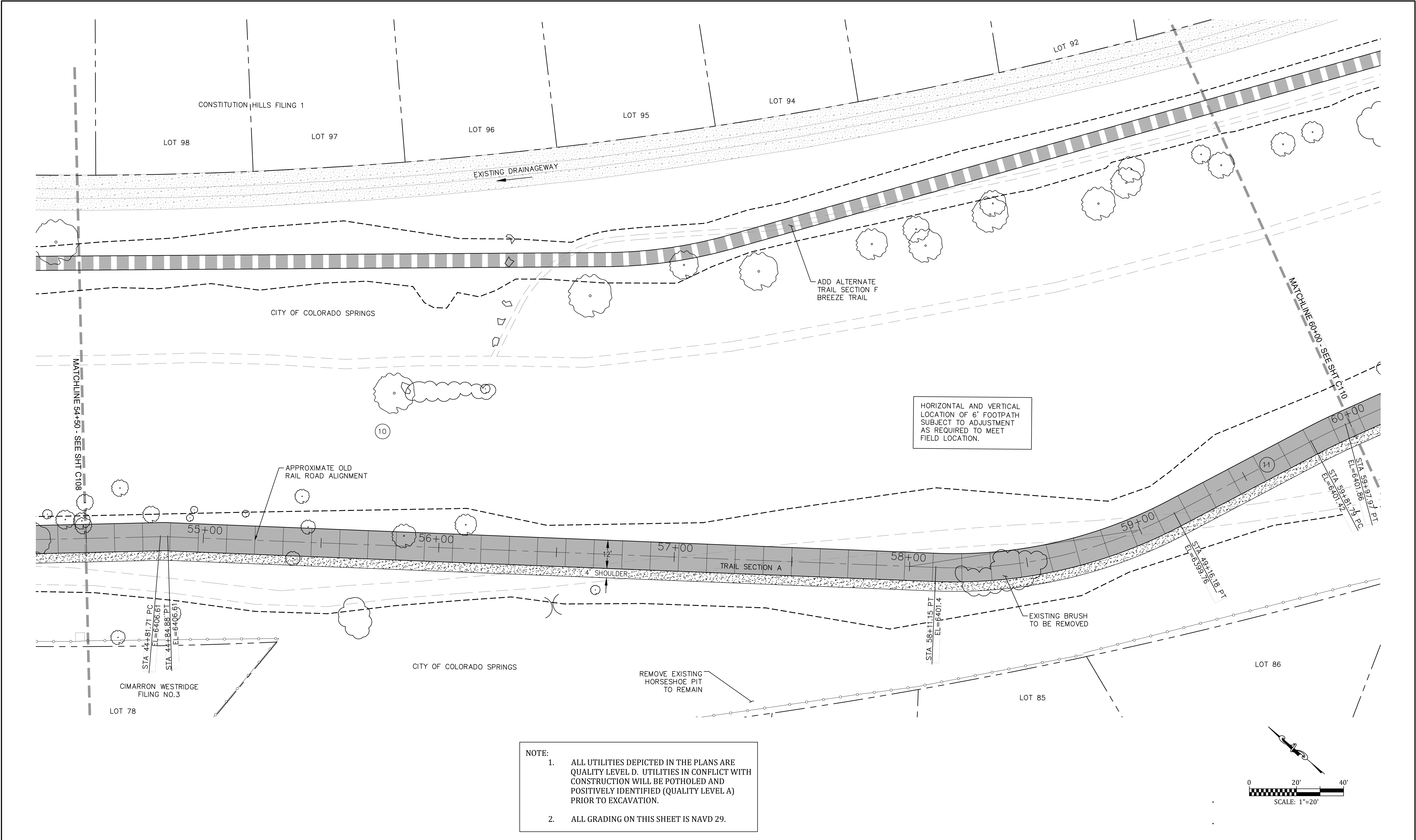
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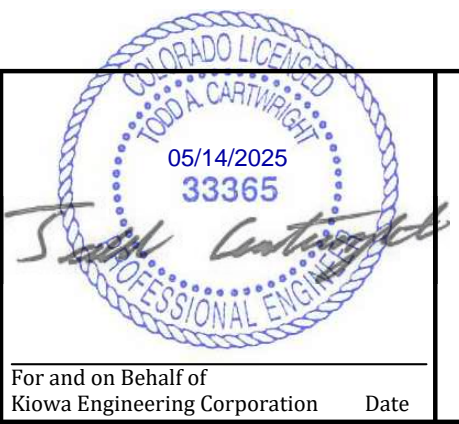
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		No Revisions:	FINAL TRAIL PLAN STA 49+00 TO STA 54+50			TAP M240-162
		Revised:	Designer: TAC			SubAcct No. 20391
			Detailer: JDC/TEG			
		Void:	Date: 05/08/2025			Sheet Number C108



NOTE:

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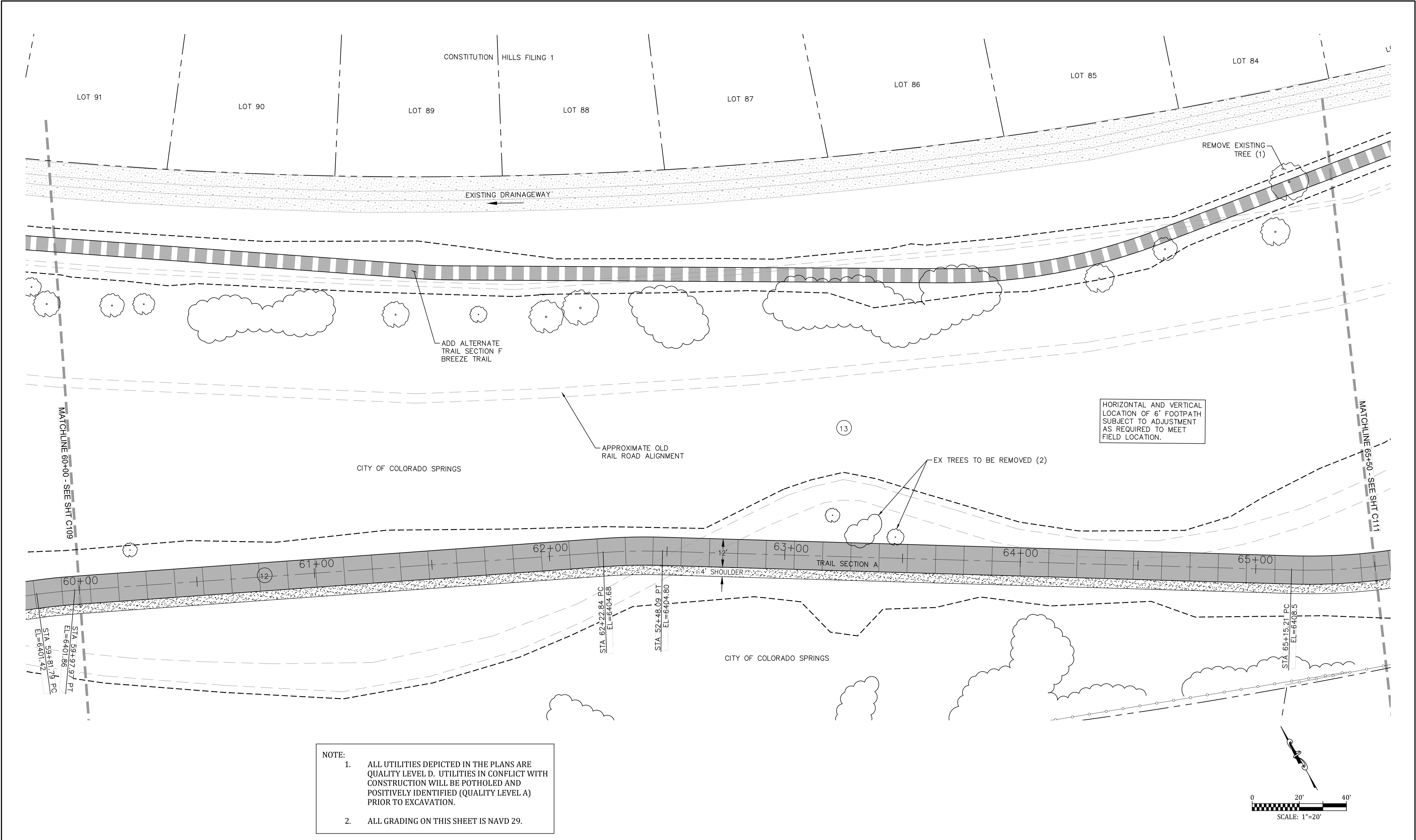


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	Revised:	
	Void:	


ROCK ISLAND TRAIL		
Sand Creek to Constitution Avenue		
FINAL TRAIL PLAN STA 54+50 TO STA 60+00		
Designer:	TAC	
Detailer:	JDC/TEG	
Date:	05/08/2025	


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




NOTE:

1. 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.
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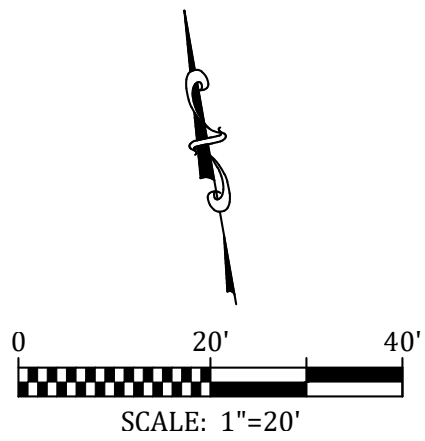
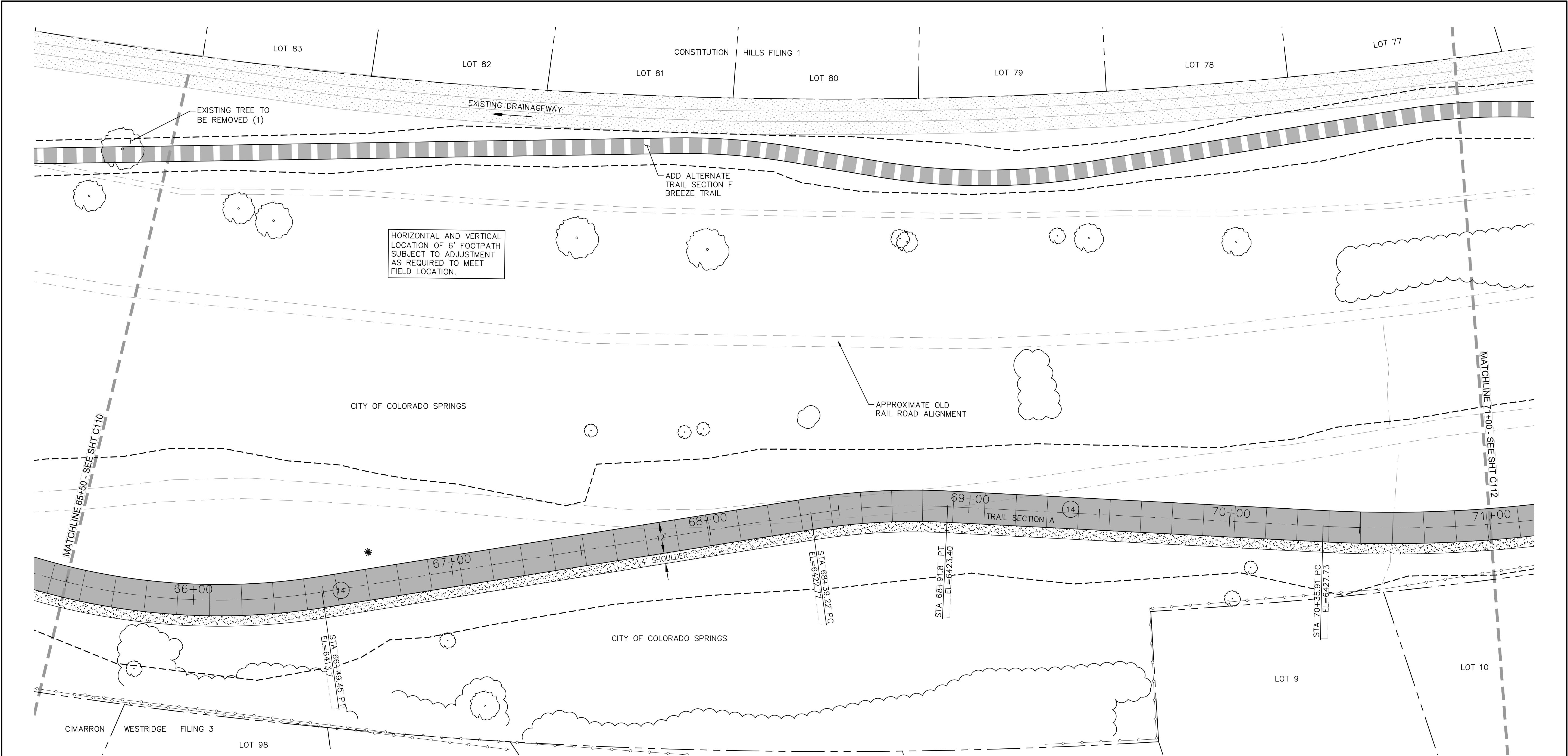
For and on Behalf of
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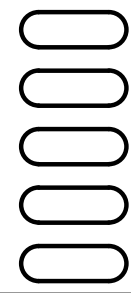
ROCK ISLAND TRAIL Sand Creek to Constitution Avenue			Kiowa Proj. No. 16028
FINAL TRAIL PLAN STA 60+00 TO STA 65+50			TAP M240-162
Designer:	TAC		SubAcct No. 20391
Detailer:	JDC/TEG		
Date:	05/08/2025		Sheet Number C110



- NOTE:
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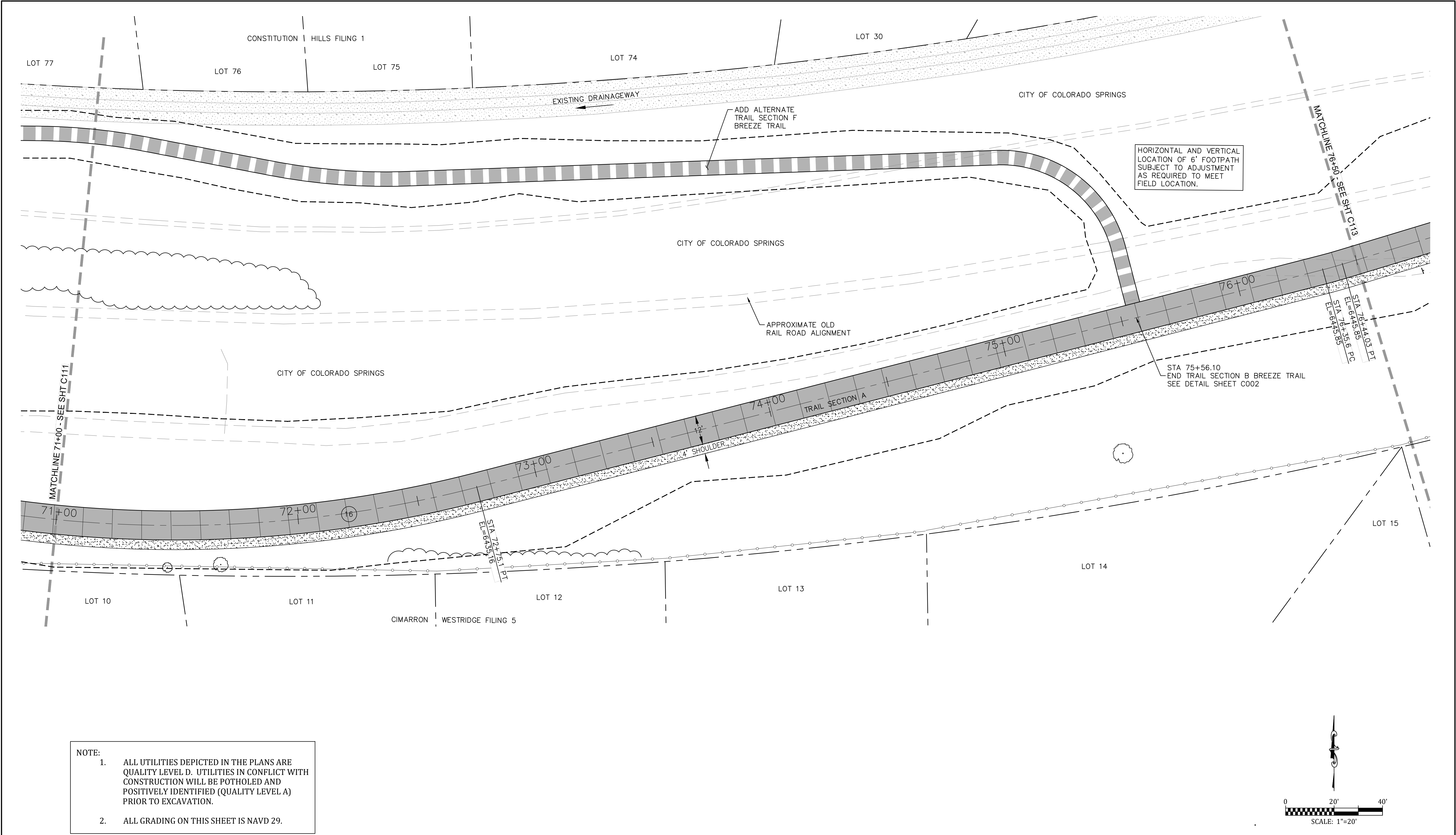


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Revised:
Void:

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Designer:	TAC		
Detailer:	JDC/TEG		
Date:	05/08/2025		

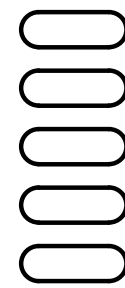
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C111



For and on Behalf of
Kiowa Engineering Corporation Date

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Void:

ROCK ISLAND TRAIL

Sand Creek to Constitution Avenue

FINAL TRAIL PLAN STA 71+00 TO STA 76+50

Designer: TAC

Detailer: JDC/TEG

Date: 05/08/2025

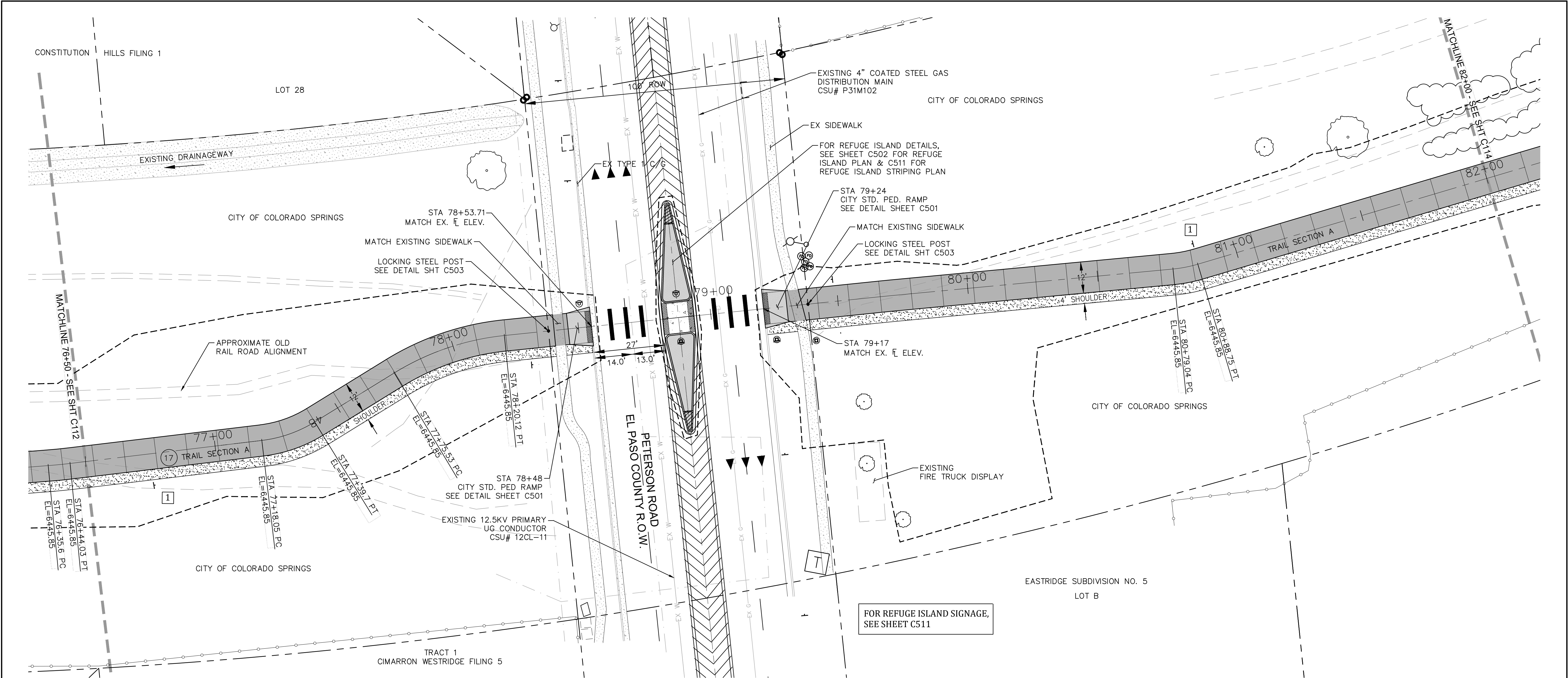
Kiowa Proj. No. 16028

TAP M240-162

SubAcct No. 20391

Sheet Number C112

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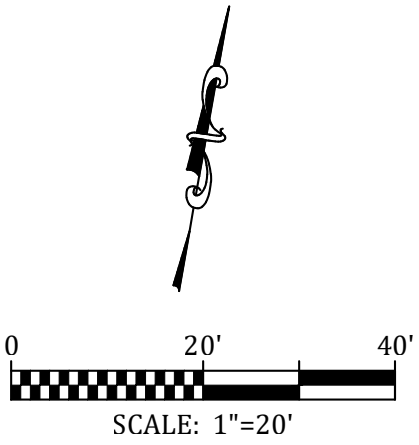





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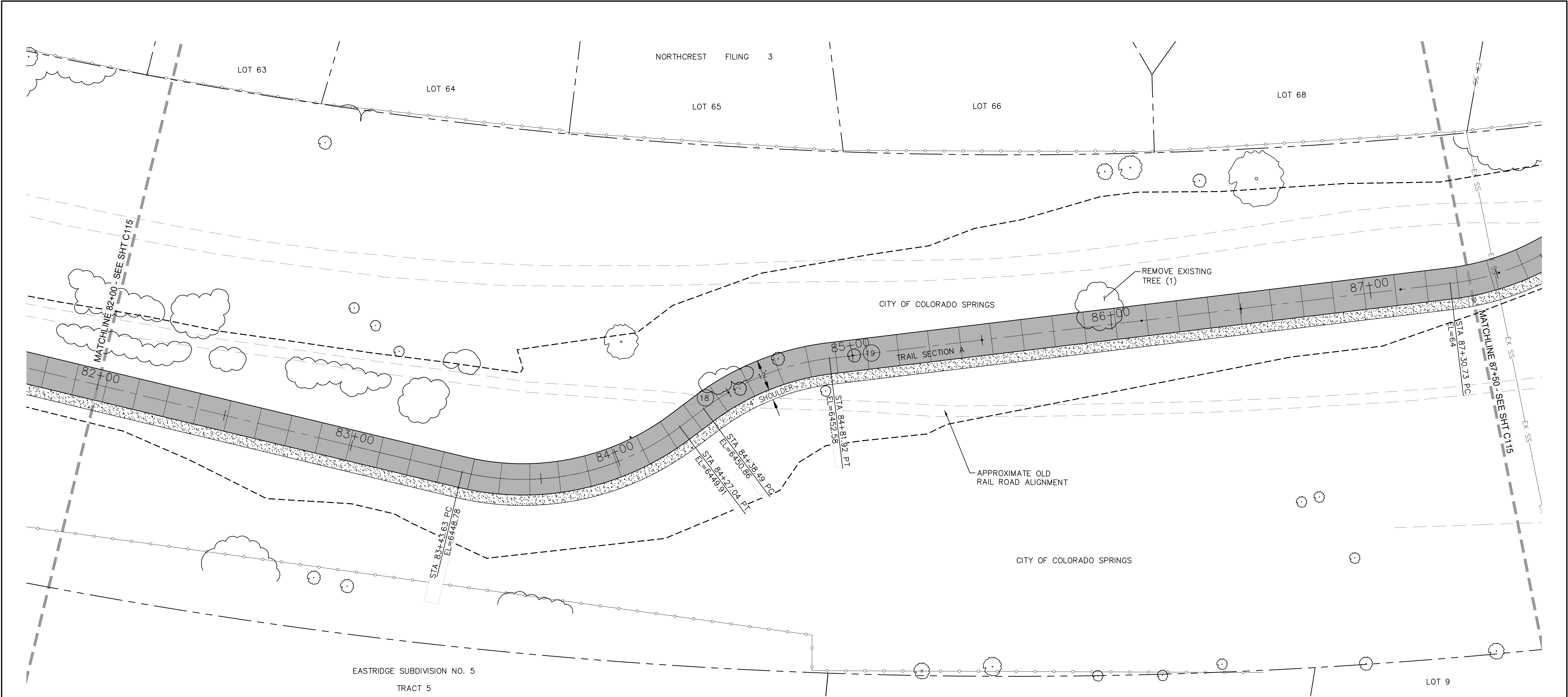
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2. ALL GRADING ON THIS SHEET IS NAVD 29.

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.



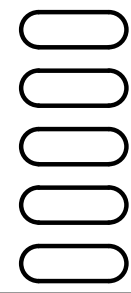
	 For and on Behalf of Kiowa Engineering Corporation Date	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	<div>0000</div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL			Kiowa Proj. No. 16028
						Sand Creek to Constitution Avenue			
						FINAL TRAIL PLAN STA 76+50 TO STA 82+00			
						Designer: TAC			
					No Revisions:	Detailer: JDC/TEG			SubAcct No. 20391
					Revised:	Date: 05/08/2025			Sheet Number C113
					Void:				



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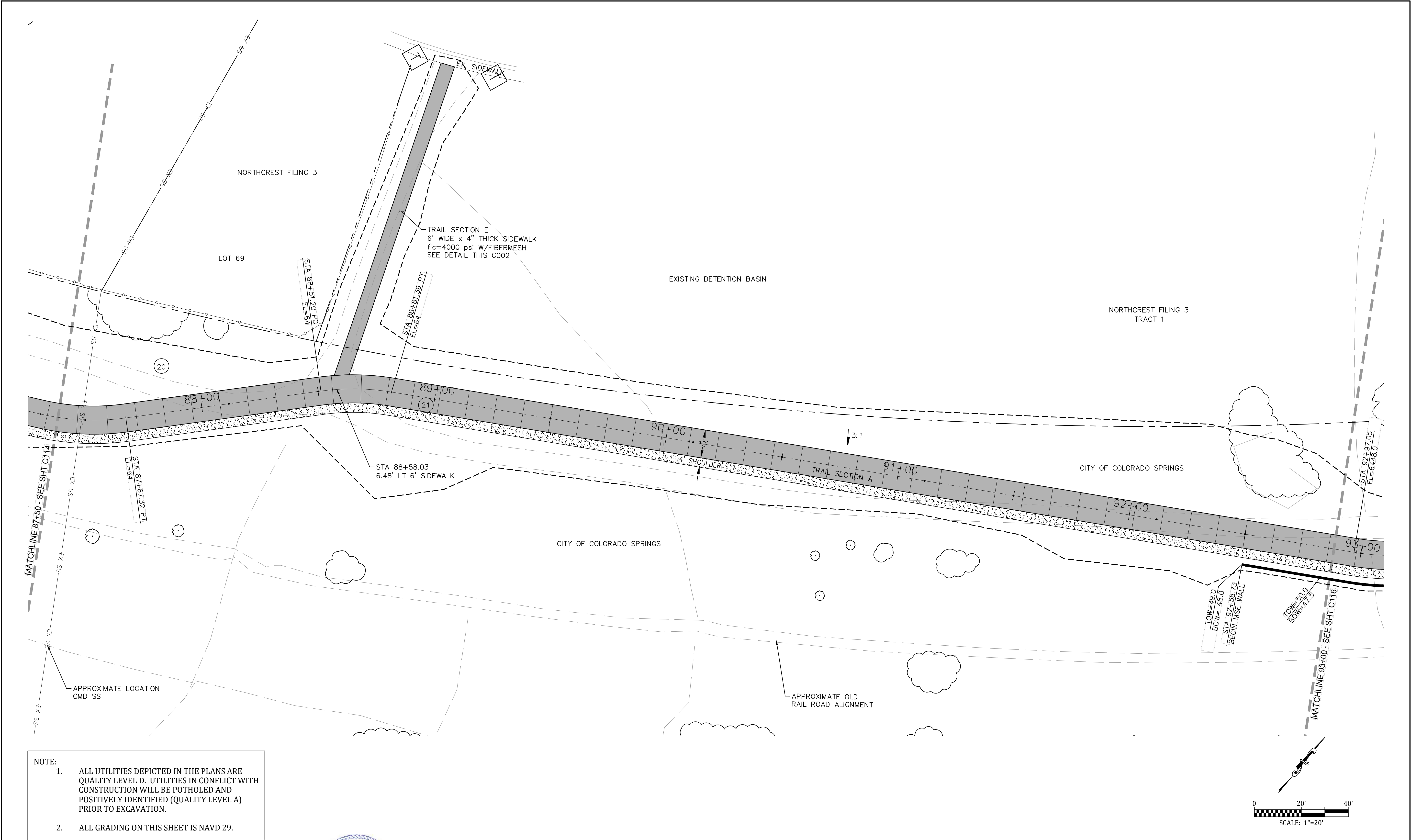


Sheet Revisions

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ROCK ISLAND TRAIL			
Sand Creek to Constitution Avenue			
FINAL TRAIL PLAN STA 82+00 TO STA 87+50			
Designer: TAC			
Detailer: JDC/TEG			
Date: 05/08/2025			

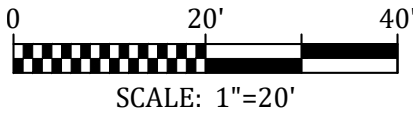
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TAP M240-162
SubAcct No. 20391
Sheet Number C114






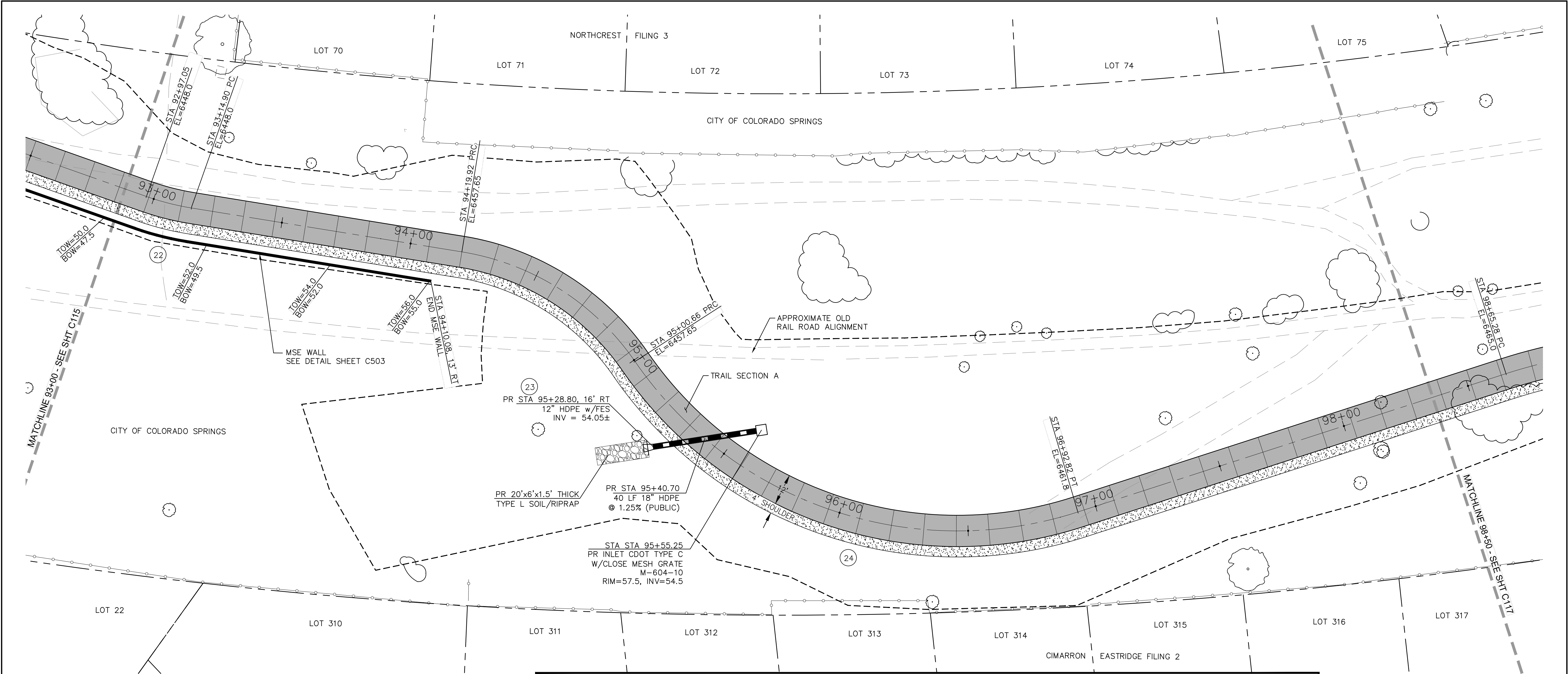
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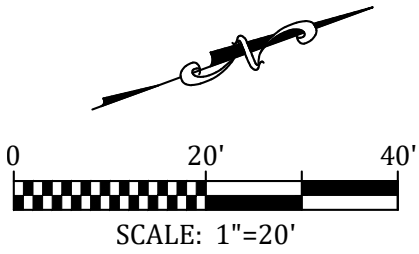
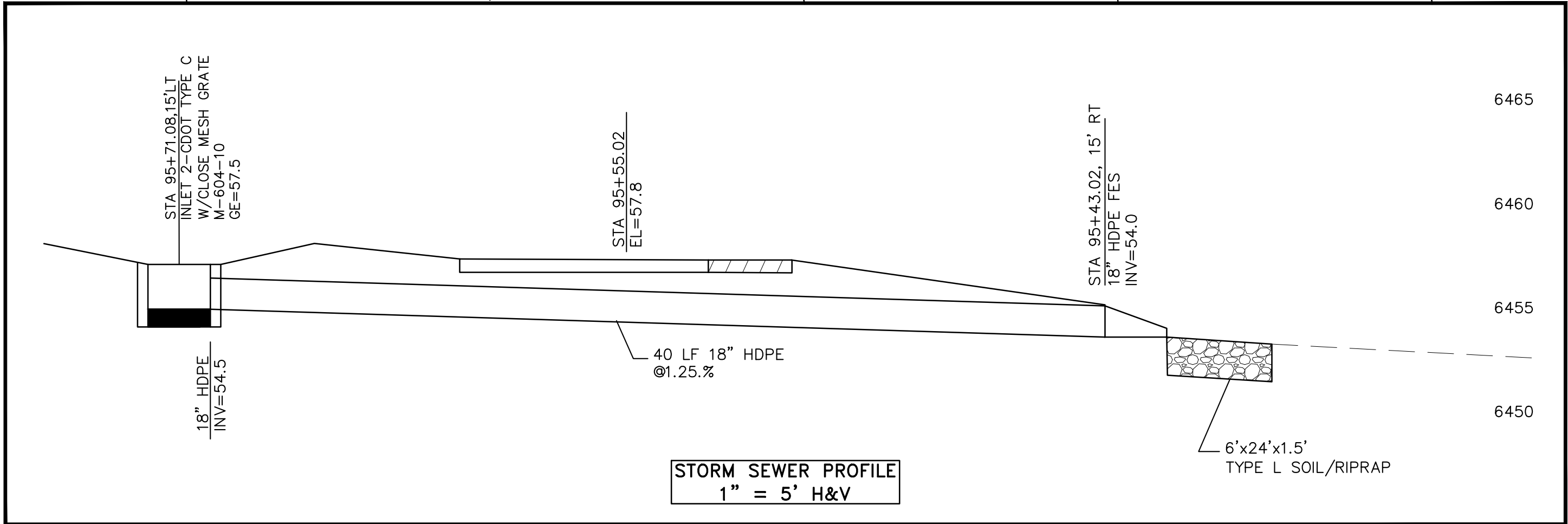





	 For and on Behalf of Kiowa Engineering Corporation Date	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL			Kiowa Proj. No. 16028
						Sand Creek to Constitution Avenue			
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					Void:	Detailer: JDC/TEG			Sheet Number C115
		Date: 05/08/2025							

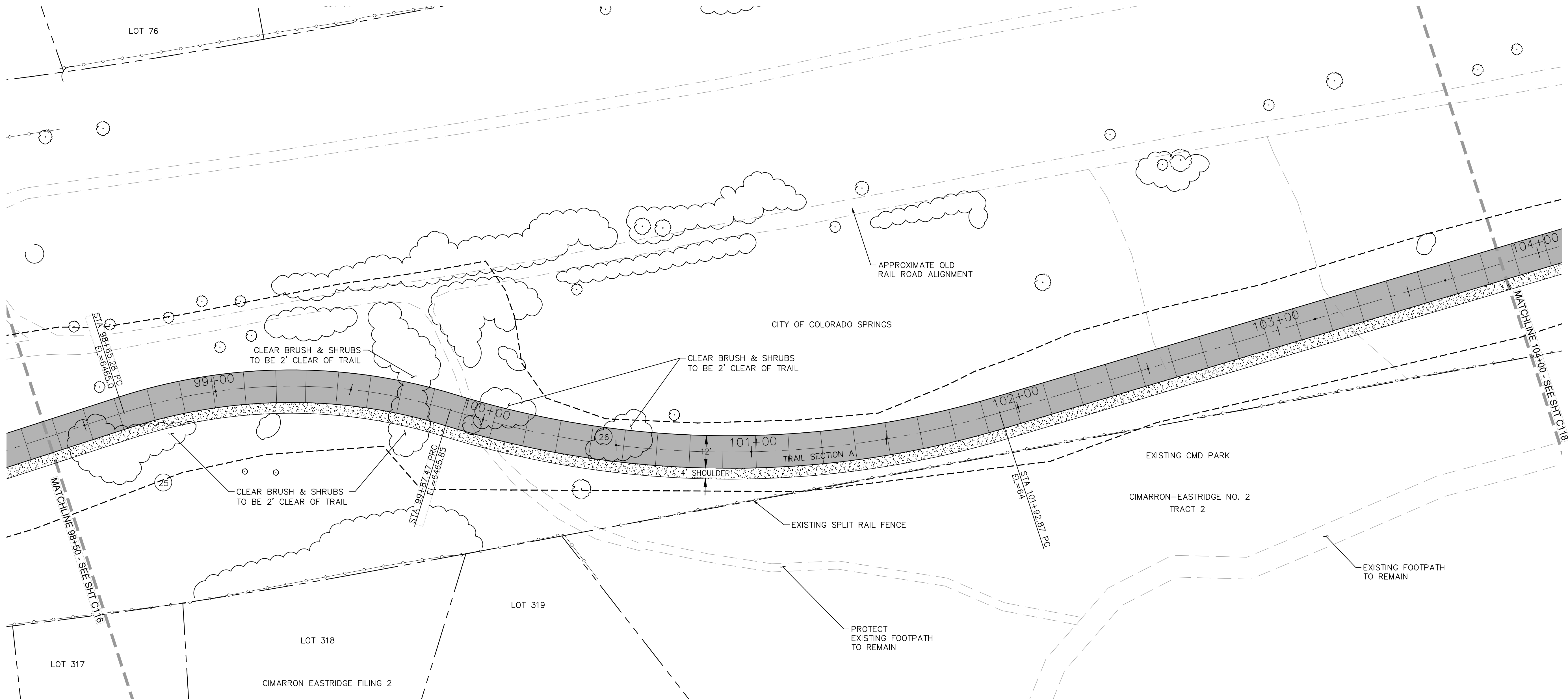


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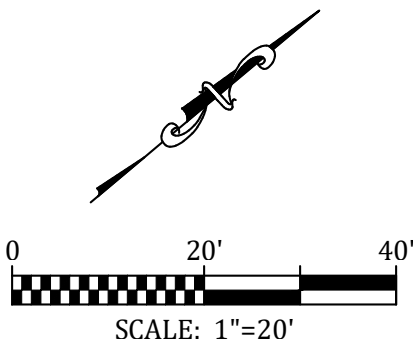
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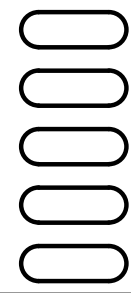
	 For and on Behalf of Kiowa Engineering Corporation Date	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions		IFC		ROCK ISLAND TRAIL Sand Creek to Constitution Avenue			Kiowa Proj. No. 16028	
						No Revisions:		FINAL TRAIL PLAN STA 93+00 TO STA 98+50			TAP M240-162	
						Revised:		Designer: TAC			SubAcct No. 20391	
						Detailer: JDC/TEG						
						Void:		Date: 05/08/2025				Sheet Number C116



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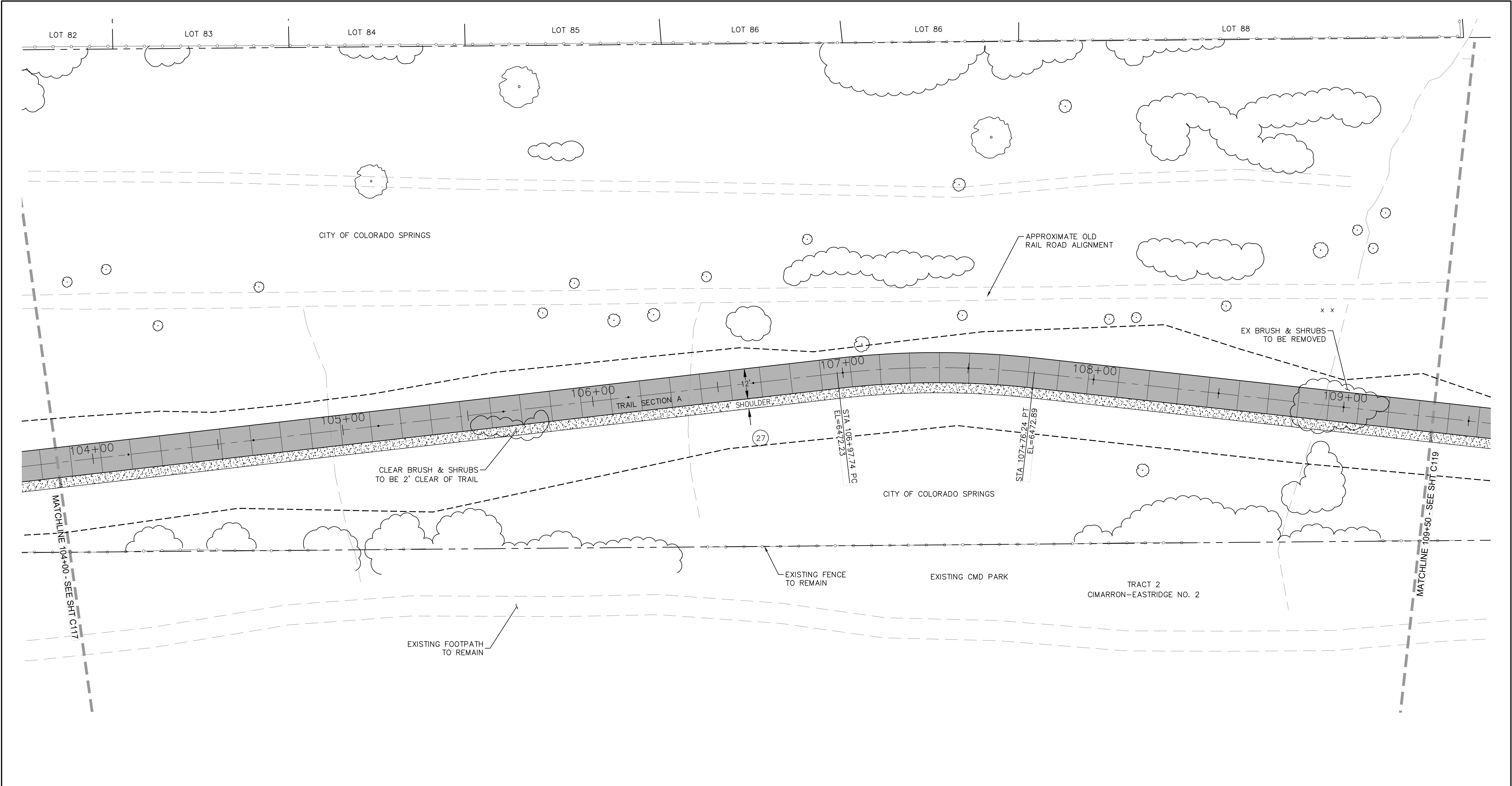


Sheet Revisions

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Sand Creek to Constitution Avenue			
FINAL TRAIL PLAN STA 98+50 TO STA 104+00			
Designer:	TAC		
Detailer:	JDC/TEG		
Date:	05/08/2025		

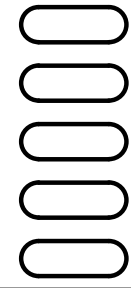
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C117



- NOTE:
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ROCK ISLAND TRAIL			
Sand Creek to Constitution Avenue			
FINAL TRAIL PLAN STA 104+00 TO STA 109+50			
Designer:	TAC		
Detailer:	JDC/TEG		
Date:	05/08/2025		

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C118

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

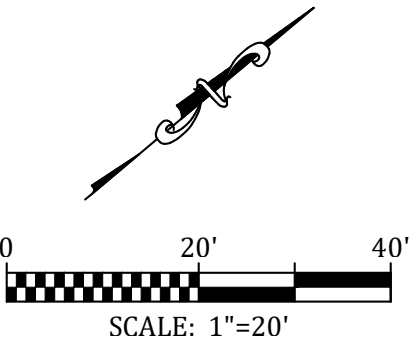
EXISTING DOG PARK

EXISTING FOOTPATH
TO REMAIN

EXISTING CMD PARK

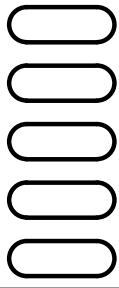
CIMARRON-EASTRIDGE NO. 2
TRACT 2

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For and on Behalf of
Kiowa Engineering Corporation Date

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1604 South 21st Street
Colorado Springs, Colorado 80904
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ROCK ISLAND TRAIL

Sand Creek to Constitution Avenue

FINAL TRAIL PLAN STA 109+50 TO STA 115+00

Designer: TAC

Detailer: JDC/TEG

Date: 05/08/2025

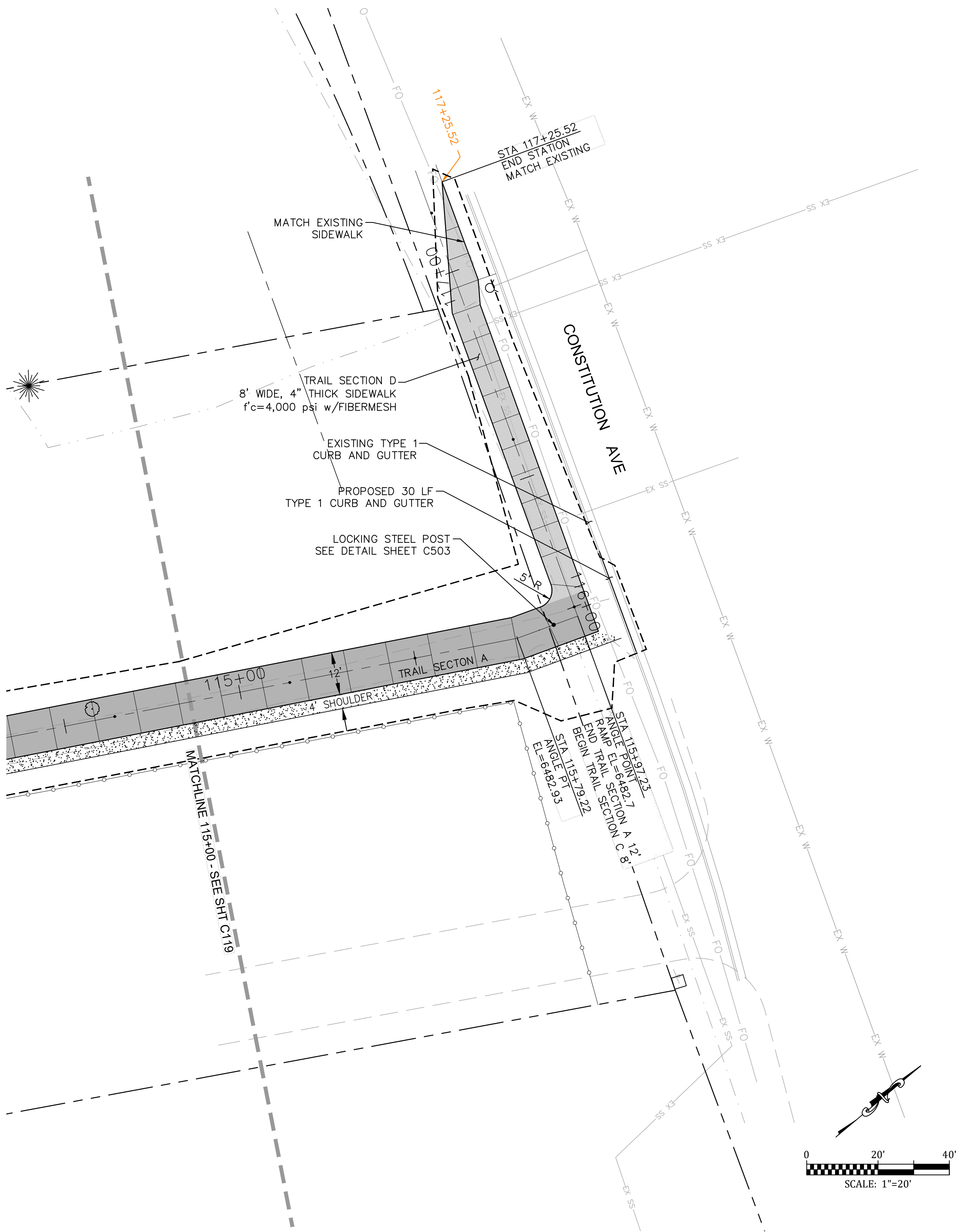
Kiowa Proj. No. 16028

TAP M240-162

SubAcct No. 20391

Sheet Number C119

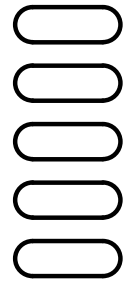
TRAIL SIGNAGE			
SIGNAGE		#	PANEL SIZE
1	TRAIL ENDS AHEAD	1	12x18
2	TRAIL USERS CROSS AT CONSTITUTION AVE & PIROS DRIVE	1	12x18



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				Sand Creek to Constitution Avenue			
		No Revisions:		FINAL TRAIL PLAN STA 115+00 TO STA 117+50		TAP M240-162	
		Revised:		Designer: TAC		SubAcct No. 20391	
		Void:		Detailer: JDC/TEG		Sheet Number C120	
				Date: 05/08/2025			

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 (fy=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

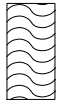
- UNIFORM PEDESTRIAN LOAD = 85 psf
- VEHICLE LOAD = 10,000 lbs (H5 TRUCK)
- REINFORCED CONCRETE CLASS B2: fc=4,000psi
- ABUTMENT STRUCTURAL STEEL: AASHTO M-183 (ASTM A-36)

BRIDGE DESCRIPTION

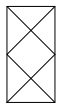
- PRE-FABRICATED SINGLE SPAN PEDESTRIAN BRIDGE
- WITH SELF-WEATHERING STEEL AND WITH CONCRETE DECKING CDOT CLASS D
- LENGTH = 210 FEET (STA 18+87)
- WIDTH = 12 FEET
- RAILING HEIGHT = 54 INCHES (MINIMUM)

SOILS LEGEND

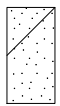
LEGEND



TOPSOIL.



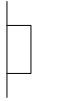
FILL: POORLY TO WELL-GRADED SAND WITH SILT (SP-SM, SW-SM) WITH OCCASIONAL CLAYEY TO SILTY SAND LAYERS, SLIGHTLY MOIST TO MOIST, TAN TO BROWN. OCCASIONAL ASPHALT DEBRIS IN BORING 4.



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.

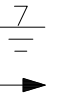


CLAYSTONE BEDROCK, VERY HARD, MOIST, DARK GRAY.



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.



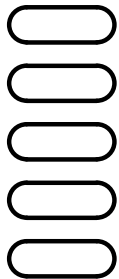
DEPTH AT WHICH BORING CAVED.

NOTES

- THE EXPLORATORY BORINGS WERE DRILLED ON MARCH 17, 2011 WITH A 4-INCH DIAMETER CONTINUOUS FLIGHT POWER AUGER.
- THE LOCATIONS OF THE EXPLORATORY BORINGS WERE MEASURED APPROXIMATELY BY TAPING FROM FEATURES SHOWN ON THE SITE PLAN PROVIDED.
- THE ELEVATIONS OF THE EXPLORATORY BORINGS WERE OBTAINED BY INTERPOLATION BETWEEN CONTOURS ON THE SITE PLAN PROVIDED.
- THE EXPLORATORY BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
- THE LINES BETWEEN MATERIALS SHOWN ON THE EXPLORATORY BORING LOGS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES AND THE TRANSITIONS MAY BE GRADUAL.
- 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.
- 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).



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Sheet Revisions

IFC

No Revisions:

Revised:

Void:

ROCK ISLAND TRAIL

Sand Creek to Constitution Avenue

Pedestrian Bridge General Information

Designer: TAC

Detailer: JDC/TEG

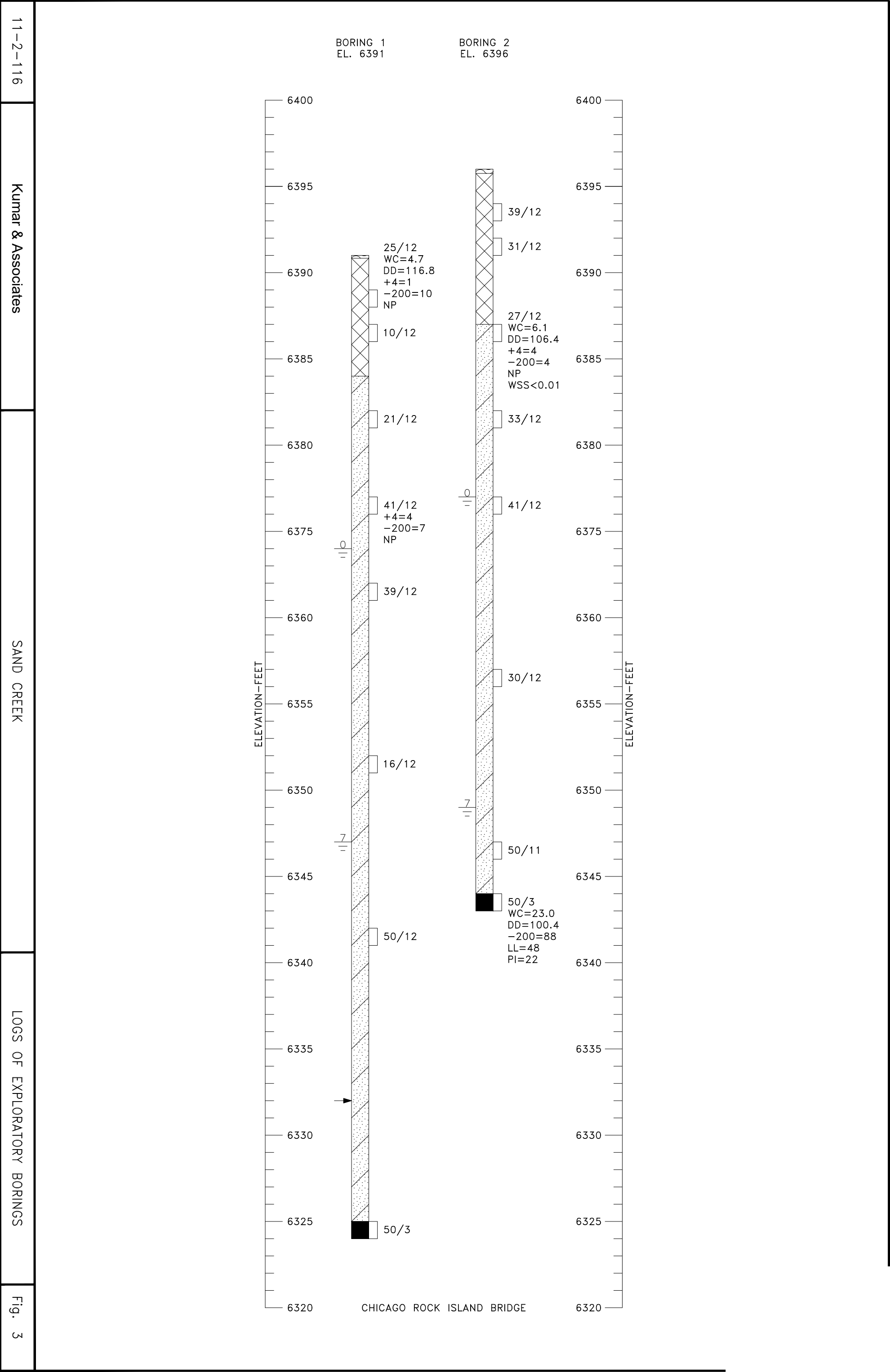
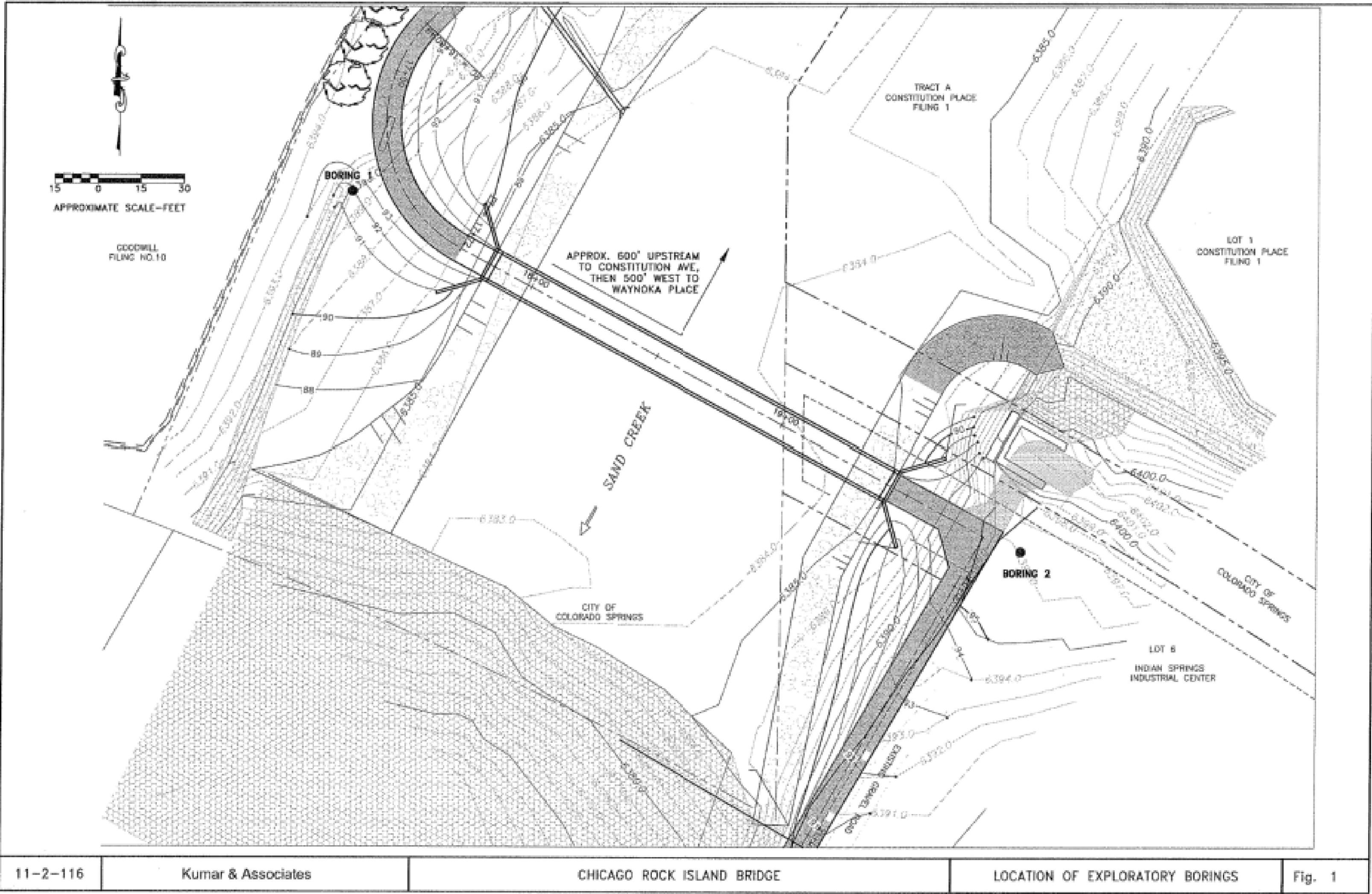
Date: 05/08/2025

Kiowa Proj. No. 16028

TAP M240-162

SubAcct No. 20391

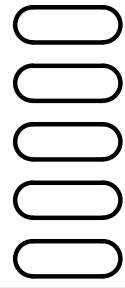
Sheet Number C200



SOILS BORINGS
FOR BORING LEGEND SEE SHEET C200



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Sheet Revisions	IFC
	No Revisions:
	Revised:
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ROCK ISLAND TRAIL Sand Creek to Constitution Avenue Pedestrian Bridge Boring Log		Kiowa Proj. No. 16028
Designer: TAC		TAP M240-162
Detailer: JDC/TEG		SubAcct No. 20391
Date: 05/08/2025		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)

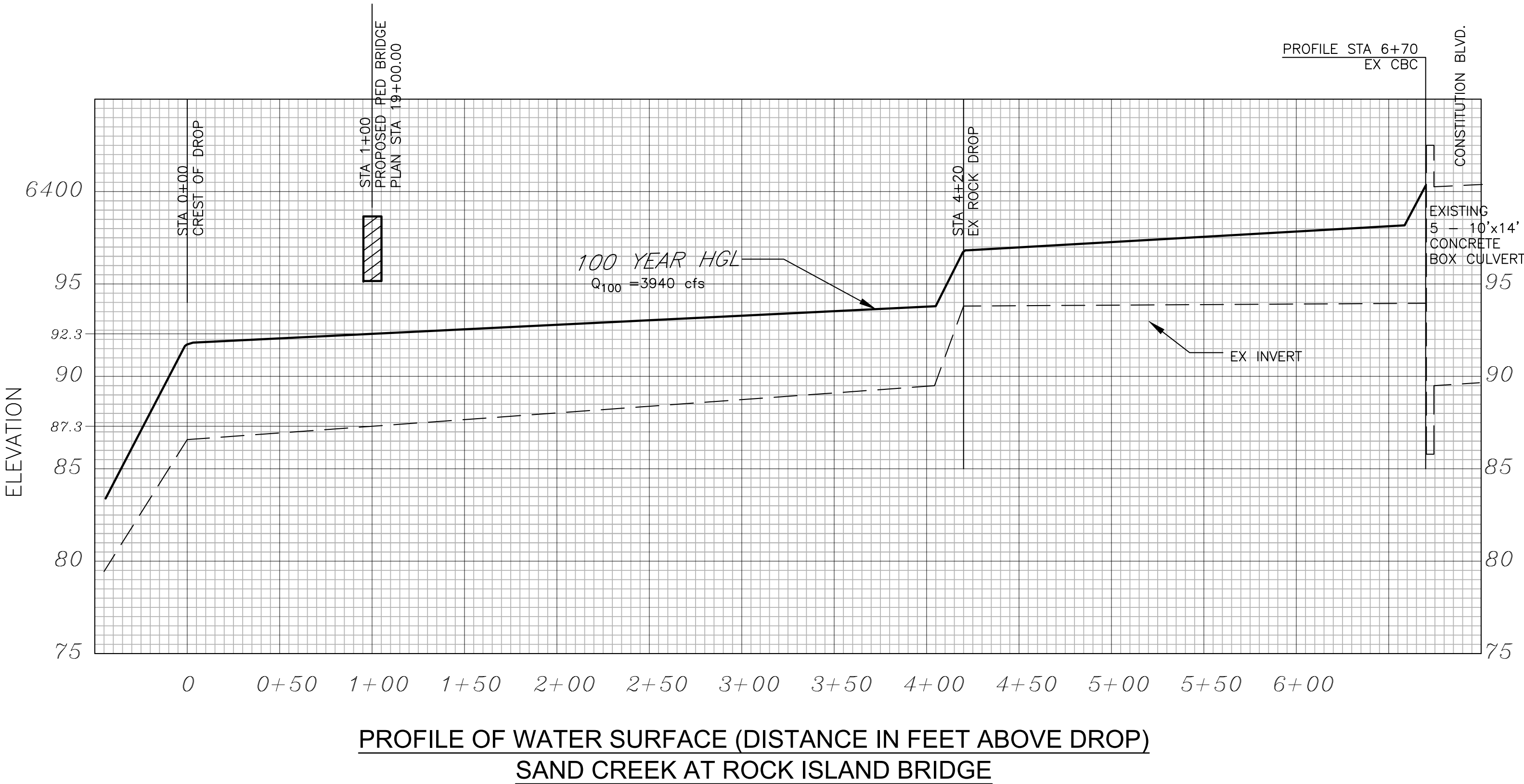
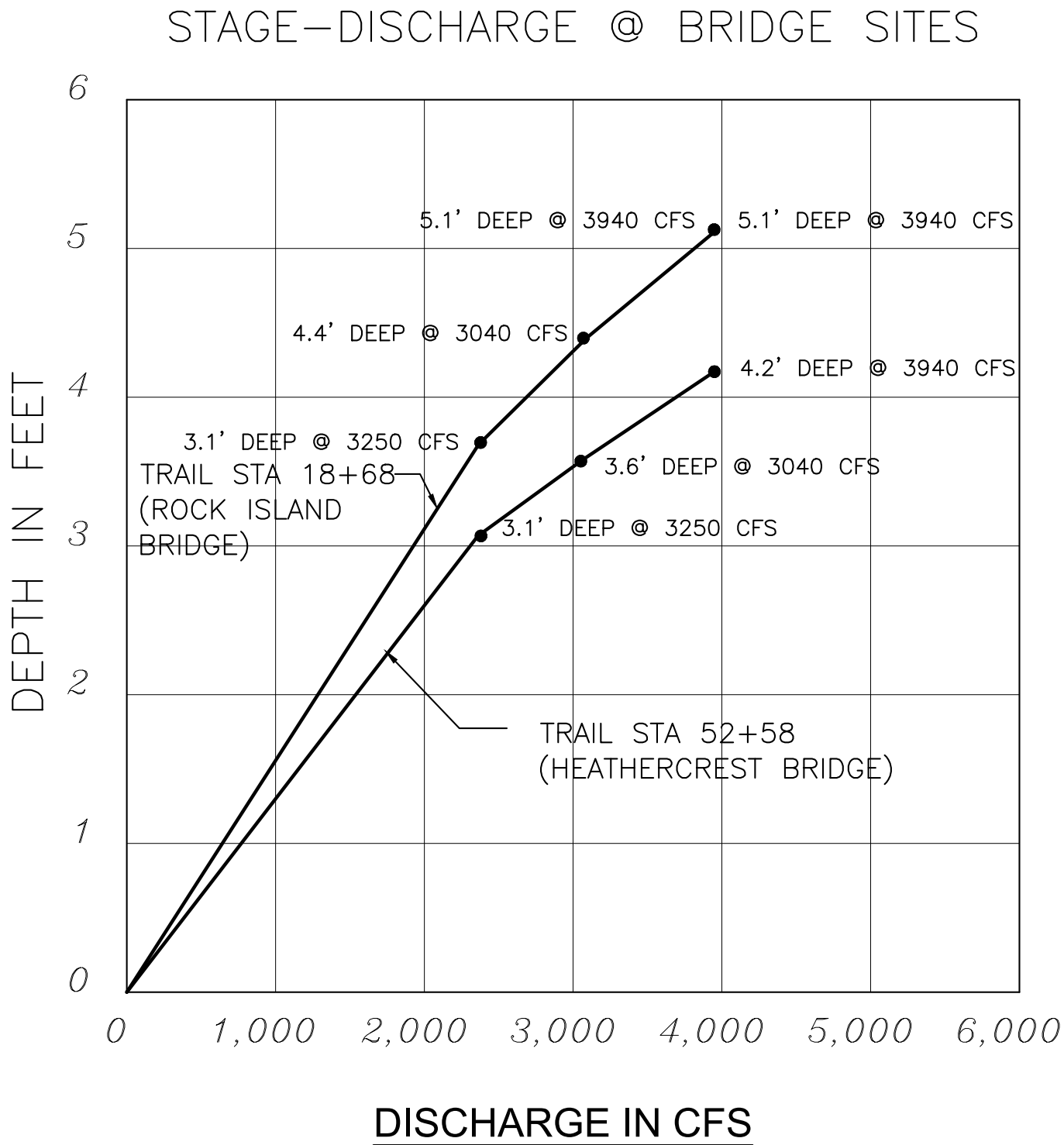
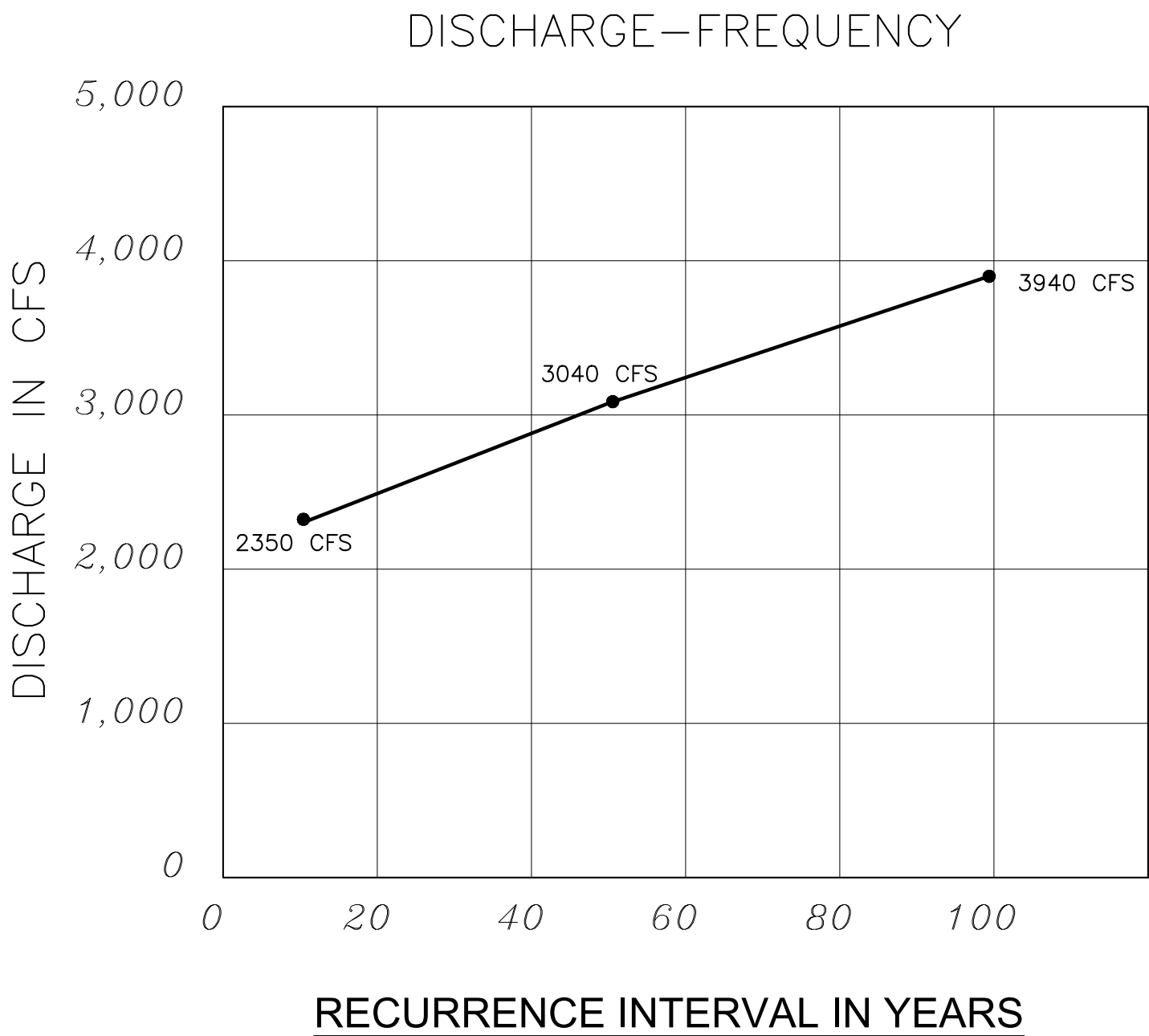
VELOCITY FREEBOARD MAX. BACKWATER

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

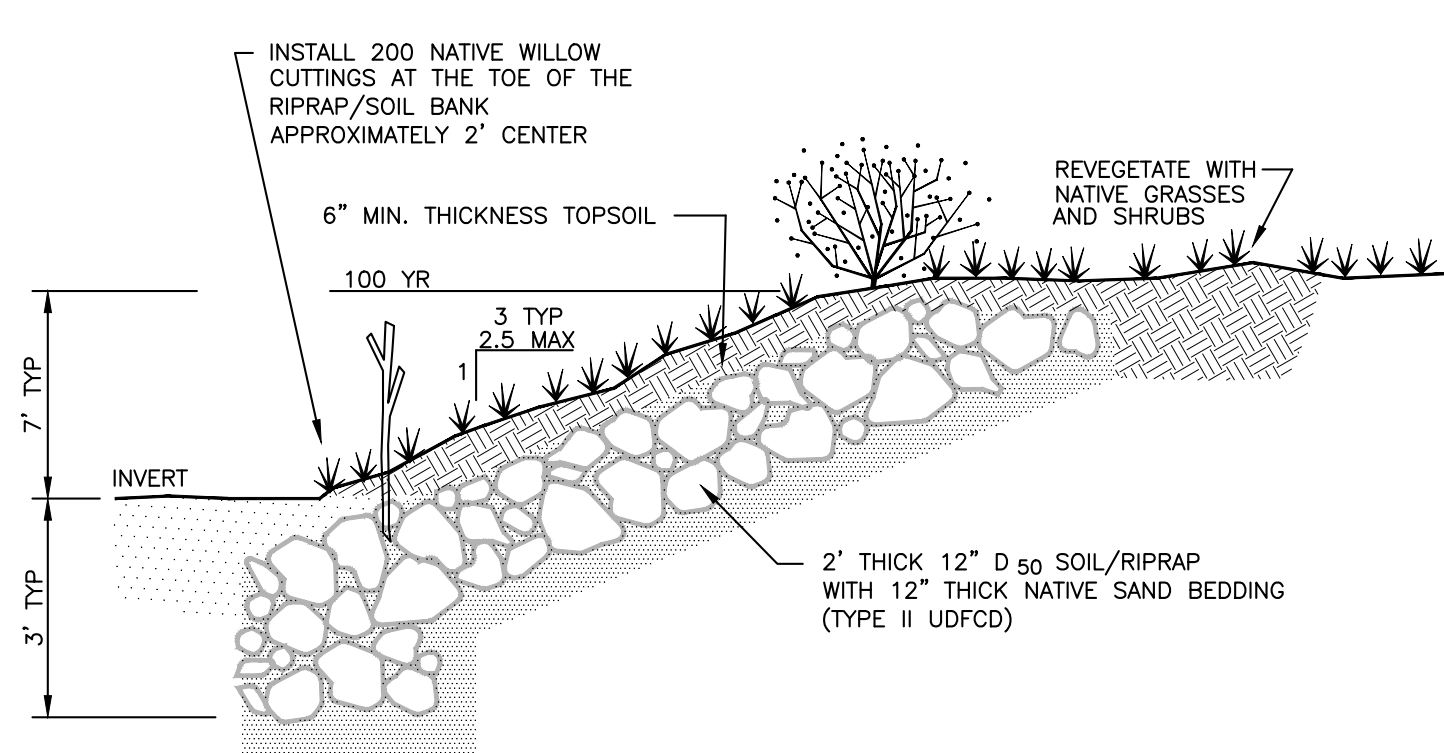
COMMENTS

- (1) DISTANCE TO LOW STEEL OF BRIDGE.
- (2) CURRENT RBD 100 WSE IS 6392.3
BASED ON ALTERNATE DATUM.
- (3) ELEVATIONS SHOWN ON THIS PAGE
ARE NAVD 88.



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0000	Sheet Revisions	IFC	ROCK ISLAND TRAIL Sand Creek to Constitution Avenue Pedestrian Bridge Hydraulics		Kiowa Proj. No. 16028
		No Revisions:			TAP M240-162
		Revised:	Designer: TAC		SubAcct No. 20391
		Void:	Detailer: JDC/TEG		Sheet Number C202
			Date: 05/08/2025		

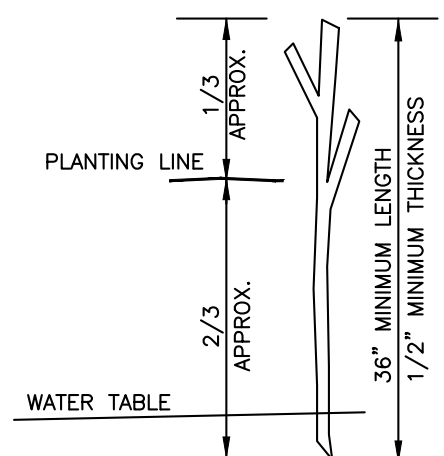


A RIPRAP & SOIL BANK LINING DETAIL
C203 NOT TO SCALE

PLANTING SCHEDULE

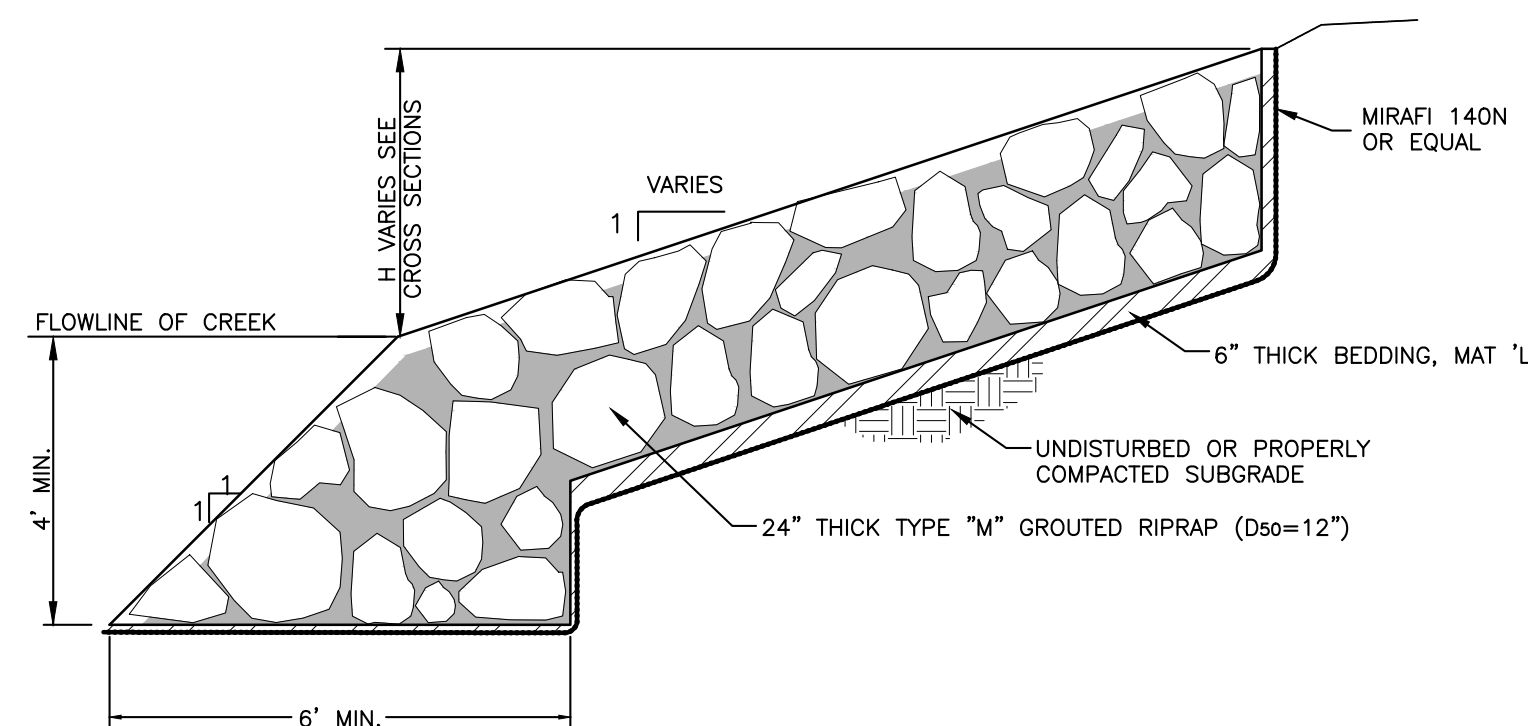
*Salix exigua** sandbar willow 200 2' O.C.

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

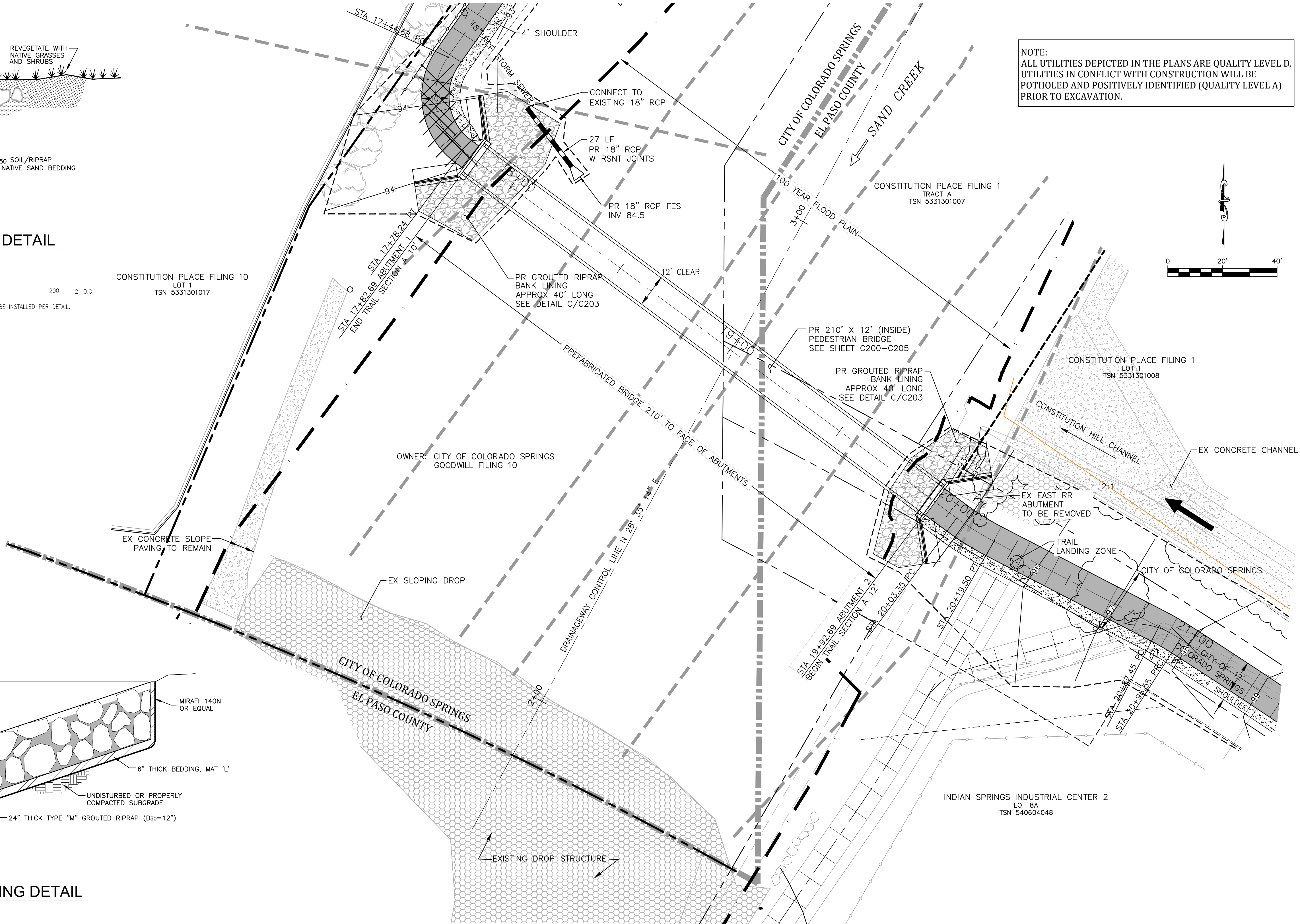


B WILLOW CUTTING DETAIL
C203 NATIVE SANDBAR WILLOW STAKE
SALIX EXIGUA

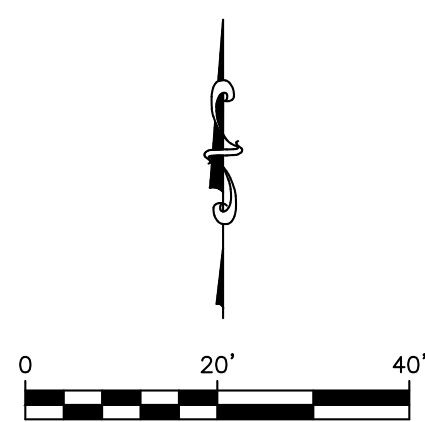
PROTECT LIVE WILLOW STAKES FROM DAMAGE DURING INSTALLATION. EITHER USE PRY BAR OR PROBE TO MAKE OPENING BETWEEN ROCKS OR USE TUBING TO PROVIDE OPENINGS. REMOVE TUBING AND TAMP NATIVE SOIL TO ELIMINATE VOIDS AROUND STEM. PLANT GROWTH END UP.



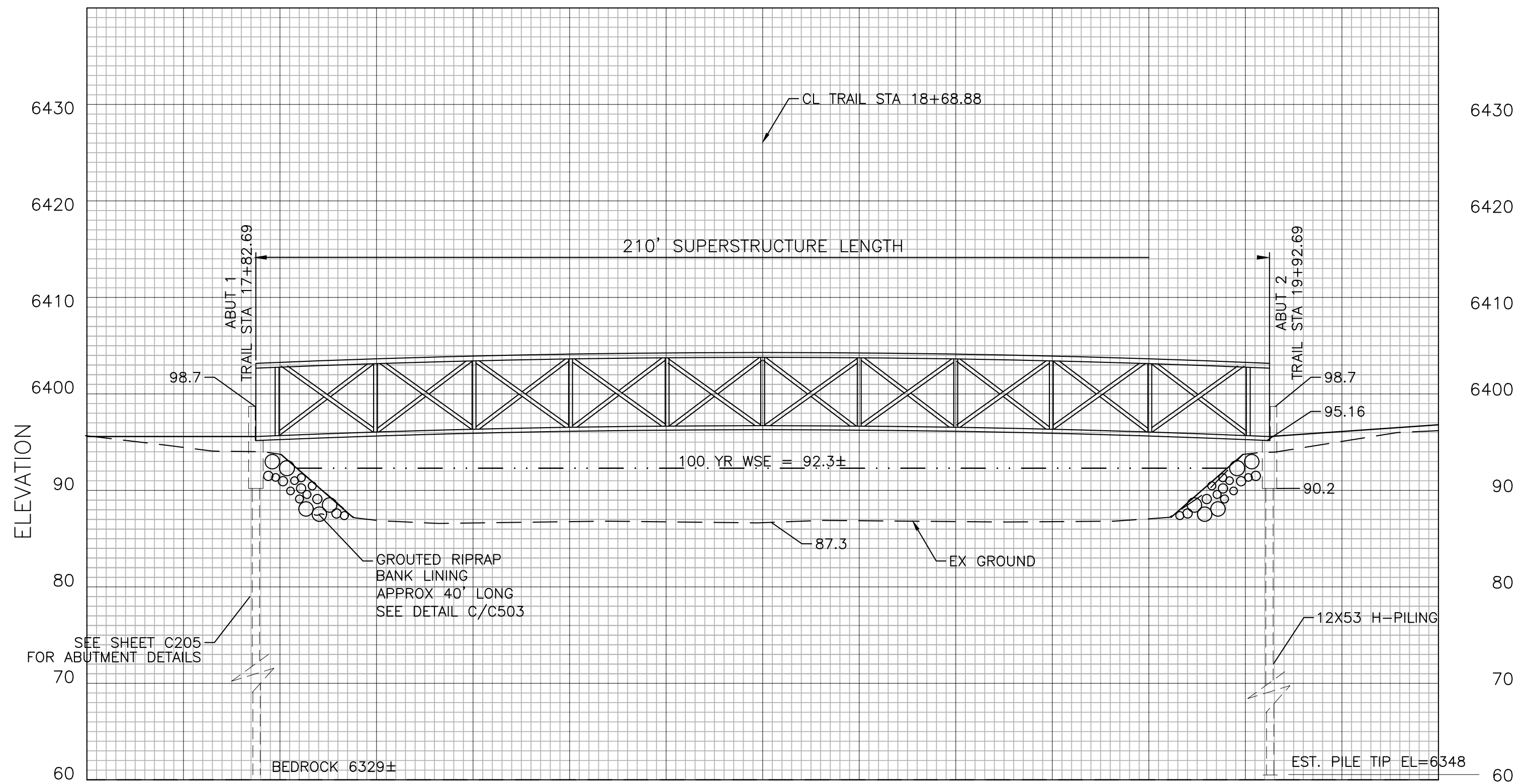
C GROUTED RIPRAP BANK LINING DETAIL
C203 NOT TO SCALE



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.



<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions	IFC	ROCK ISLAND TRAIL			Kiowa Proj. No. 16028
			Sand Creek to Constitution Avenue			
		No Revisions:	Pedestrian Bridge Layout & Grading Plan			TAP M240-162
		Revised:	Designer: TAC			SubAcct No. 20391
			Detailer: JDC/TEG			
		Void:	Date: 05/08/2025			Sheet Number C203

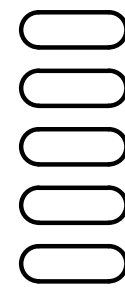


CHICAGO, ROCK ISLAND & PACIFIC PEDESTRIAN BRIDGE
LONGITUDINAL SECTION LOOKING NORTHEAST
SCALE: 1" = 20' (H) & 1" = 10' (V)

- NOTES:
- ELEVATIONS SHOWN ARE IN NAVD 88.
 - PAY ITEM 628 SHALL INCLUDE THE INSTALLATION OF HE BRIDGE GIRDER, DECK UNIT, BEARING PLATES AND BEARING PADS. FABRICATION AND DELIVERY OF THE BRIDGE, DECK UNIT, BEARING LATE AND BEARING PADS SHALL BE PROVIDED BY THE CITY OF COLORADO SPRINGS.



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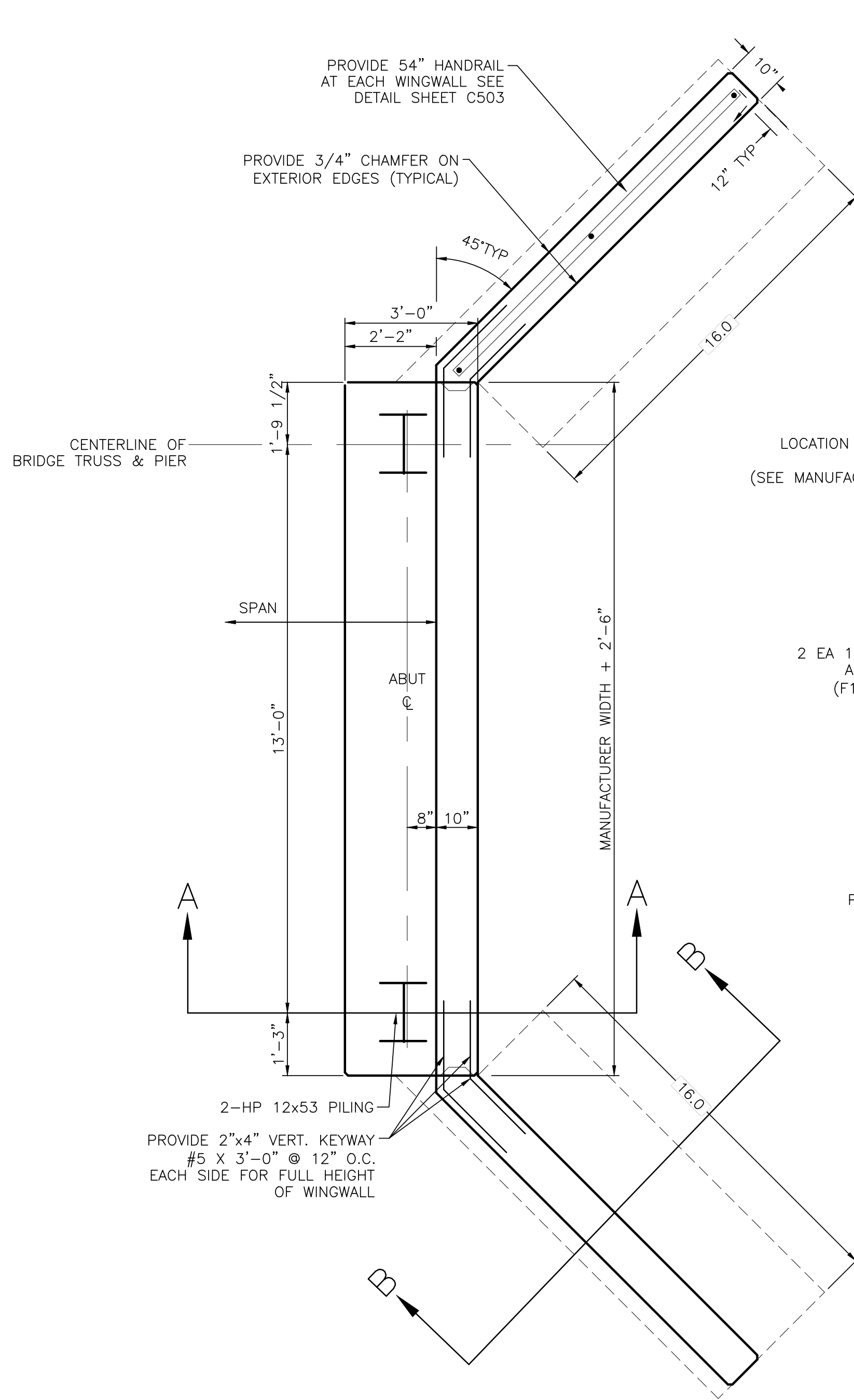


Sheet Revisions

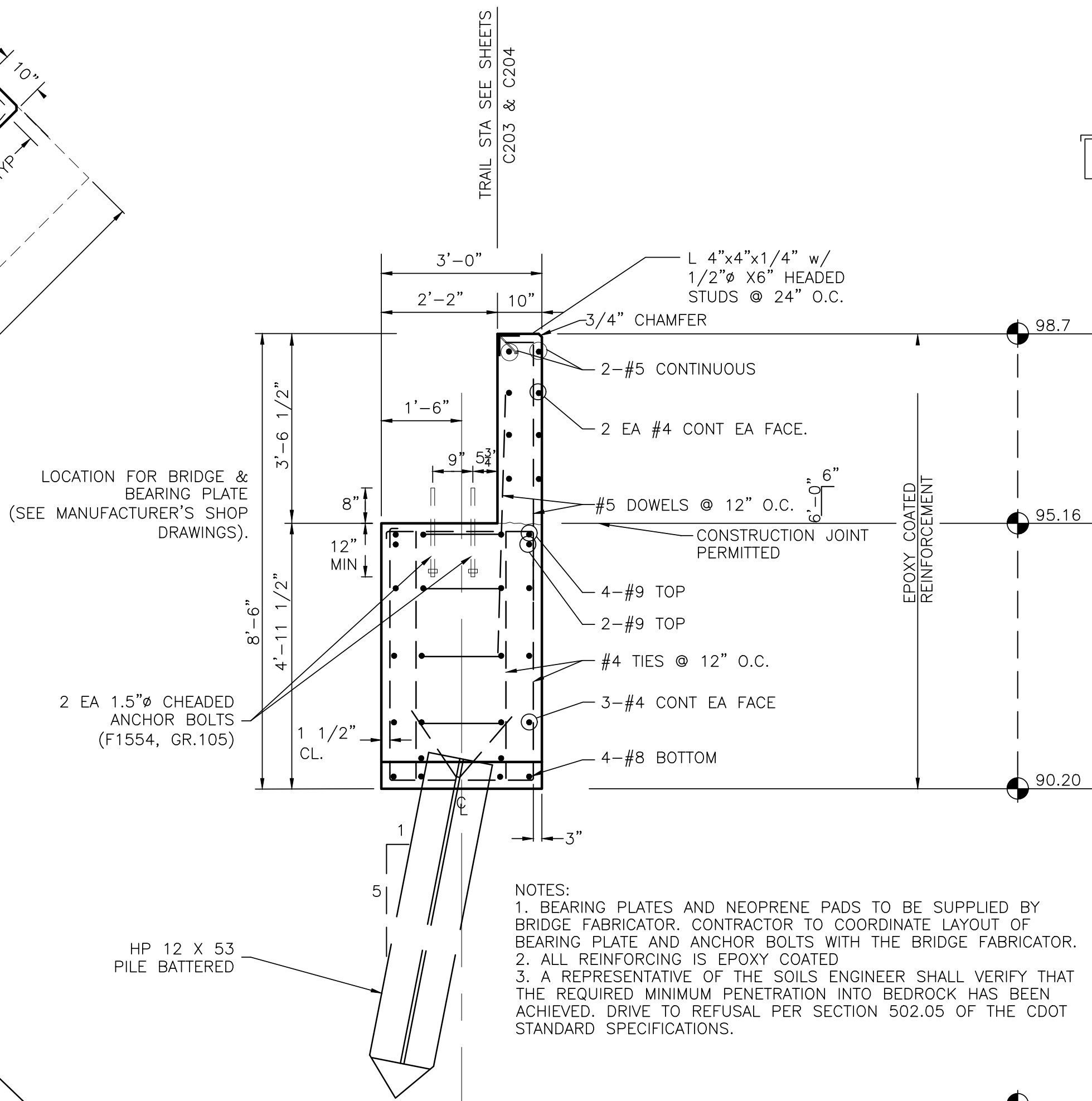
IFC
No Revisions:
Revised:
Void:

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue Pedestrian Bridge Section		
Designer: TAC		
Detailer: JDC/TEG		
Date: 05/08/2025		

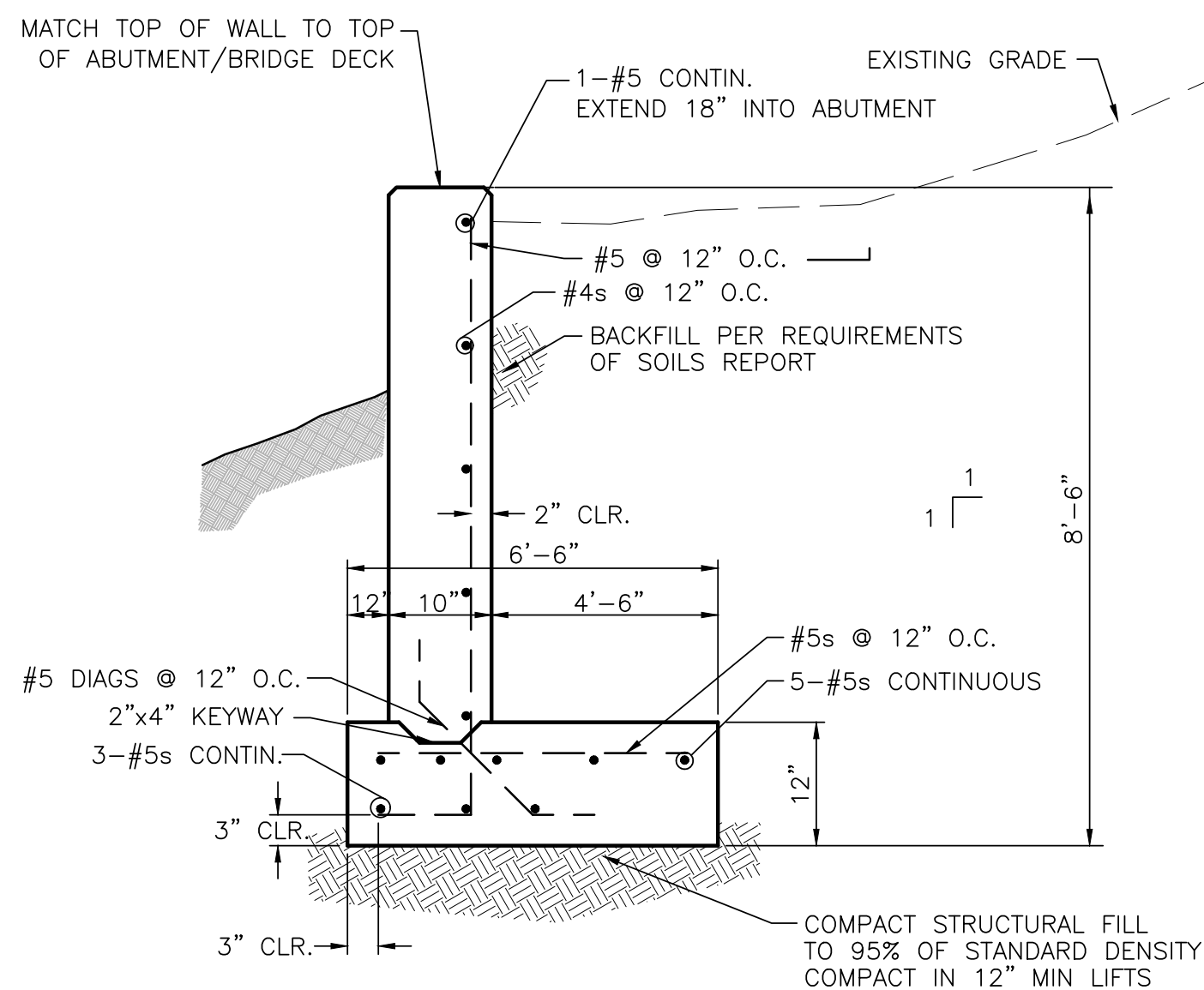
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C204



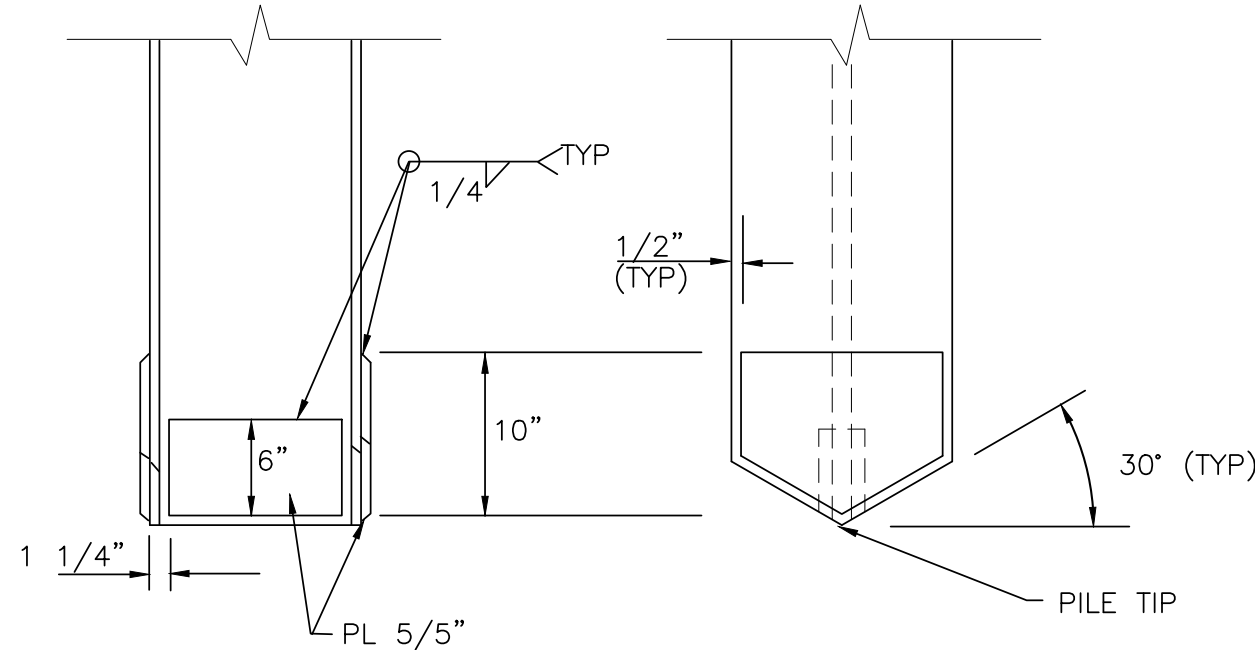
ABUTMENT AND WINGWALL PLAN
NOT TO SCALE



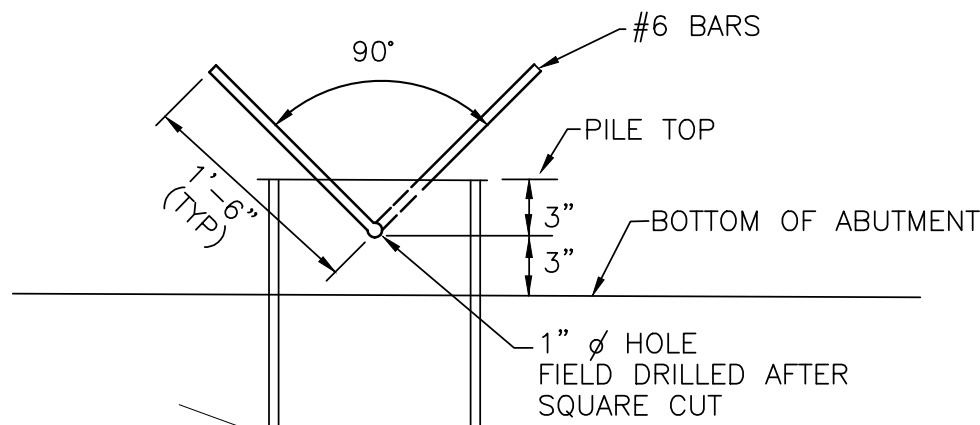
SECTION A-A ABUTMENT
NOT TO SCALE



SECTION BB WINGWALLS
NOT TO SCALE



PILE TIP DETAIL
NOT TO SCALE

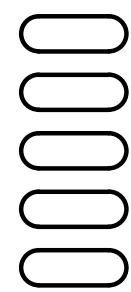


PILE TOP PLAN
NOT TO SCALE

- NOTES:
- ELEVATIONS SHOWN ON THIS PAGE ARE NAVD 88.



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ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
Pedestrian Bridge Abutment Details

Kiowa Proj. No. 16028

TAP M240-162

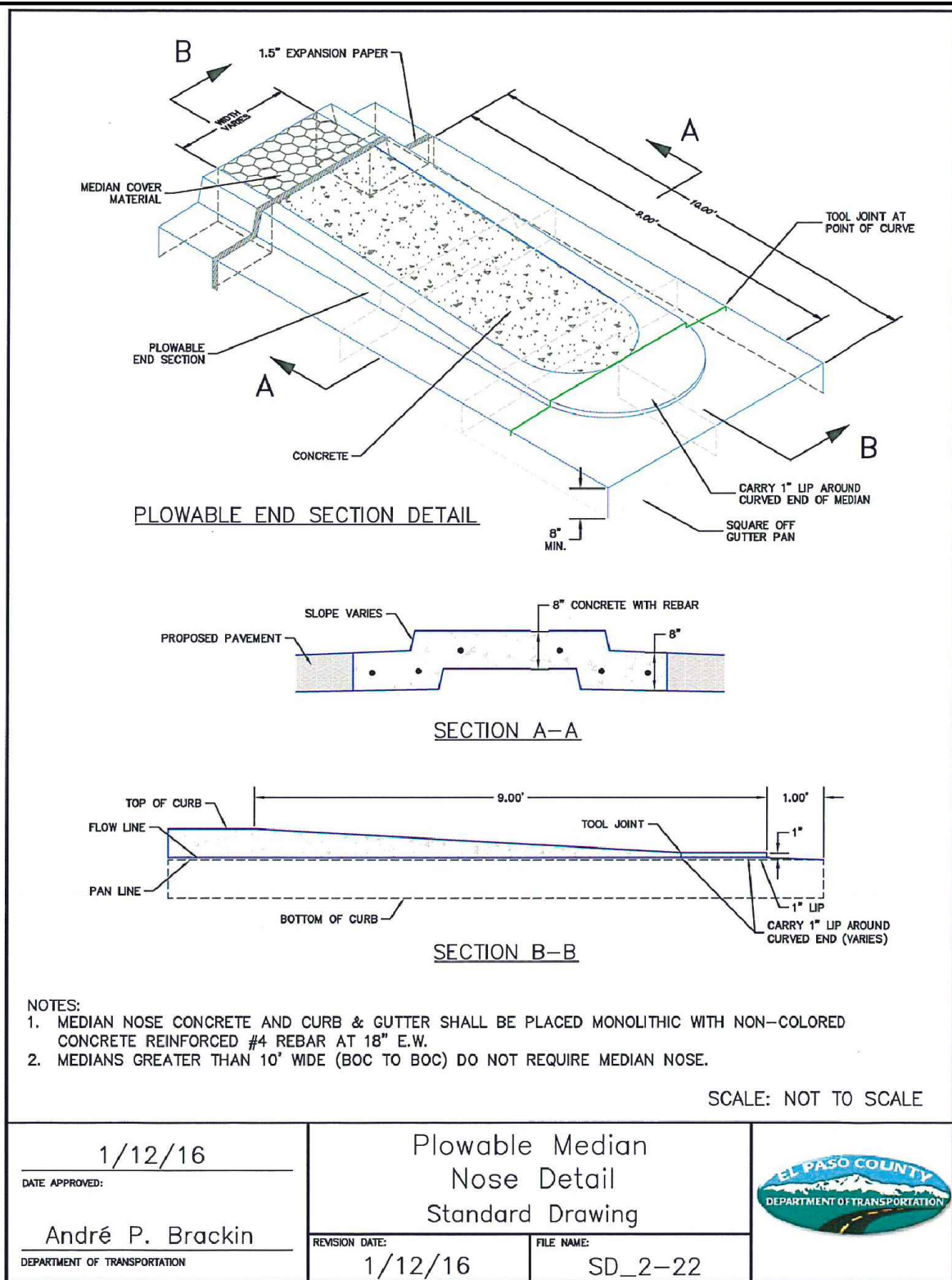
Designer: TAC

Detailer: JDC/TEG

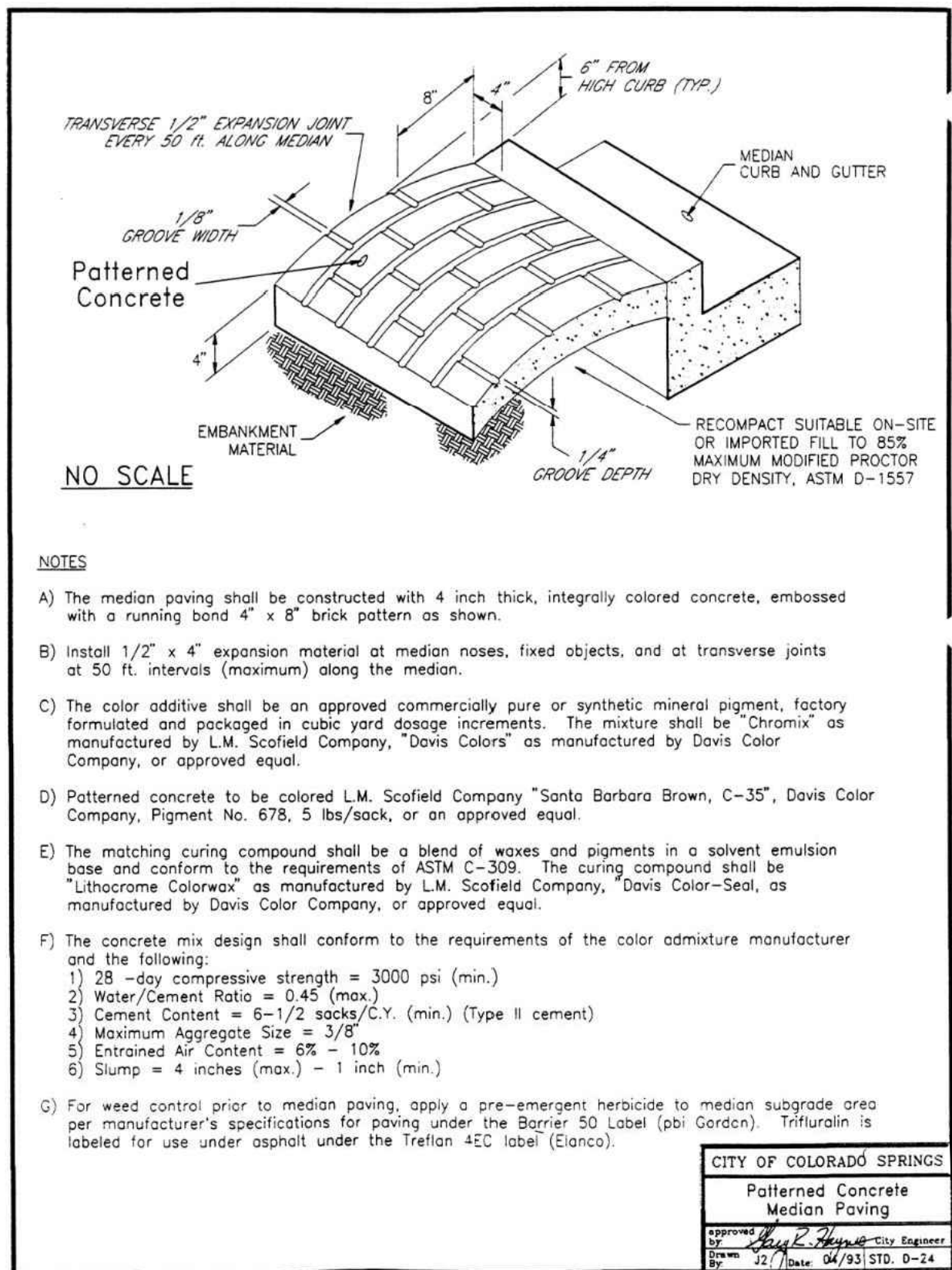
Date: 05/08/2025

SubAcct No. 20391

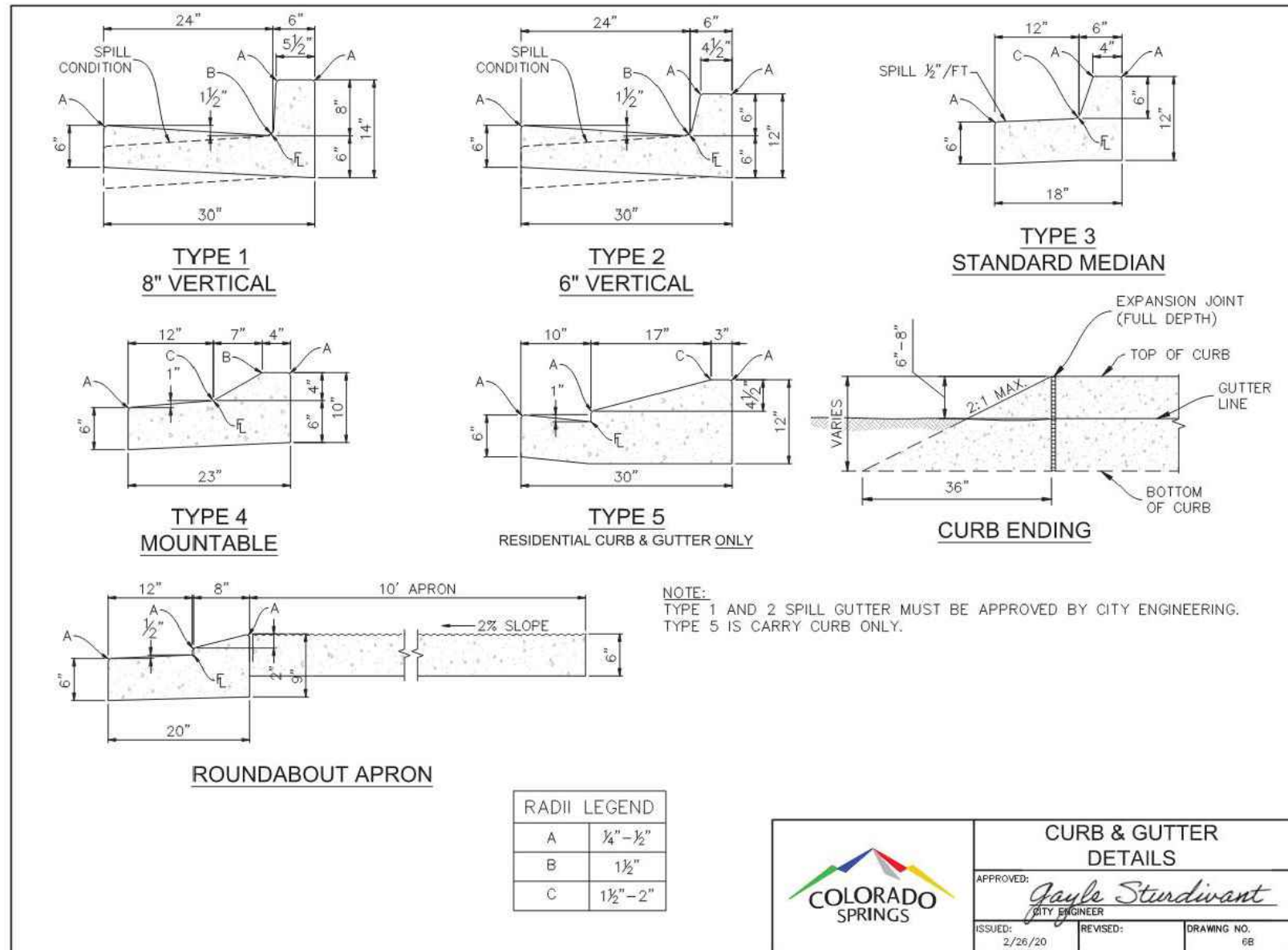
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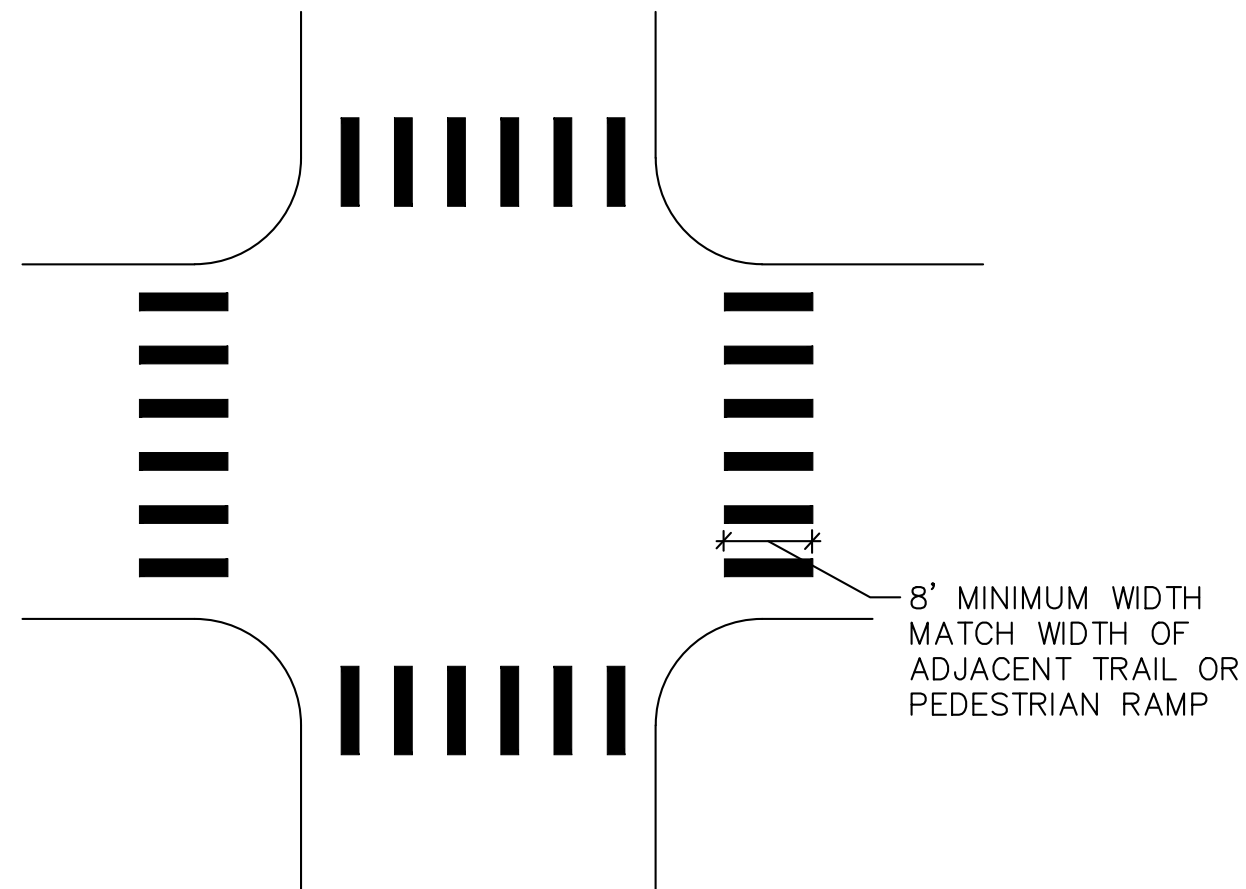
MEDIAN DETAIL



MEDIAN DETAIL



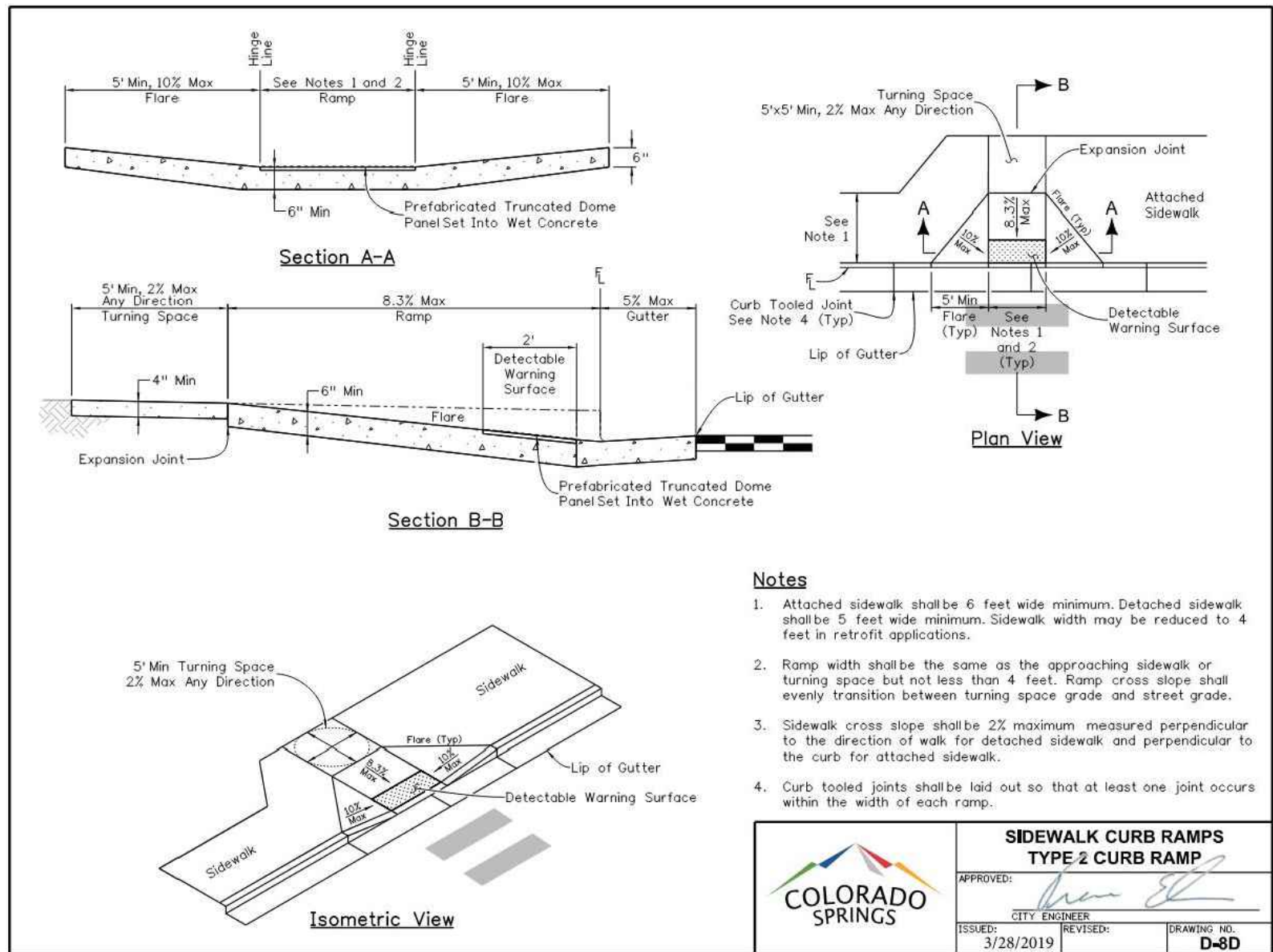
STANDARD CURB AND GUTTER






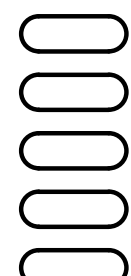
CROSSWALK MARKING DETAIL

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

	 05/14/2025 33365 <i>S. M. Cantrell</i> PROFESSIONAL ENGINEER	 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342		Sheet Revisions	IFC	ROCK ISLAND TRAIL			Kiowa Proj. No. 16028
						Sand Creek to Constitution Avenue			TAP M240-162
					No Revisions:	STANDARD DETAILS			
					Revised:	Designer: TAC		SubAcct No. 20391	
					Void:	Detailer: JDC/TEG		Sheet Number C501	
					Date: 05/08/2025				

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.

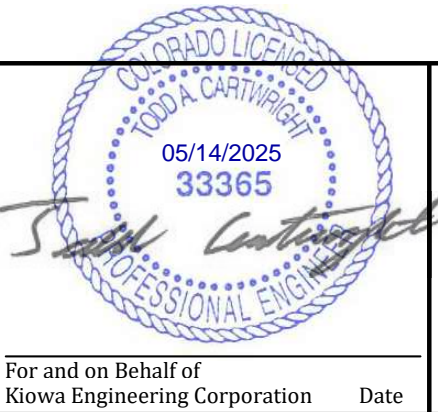
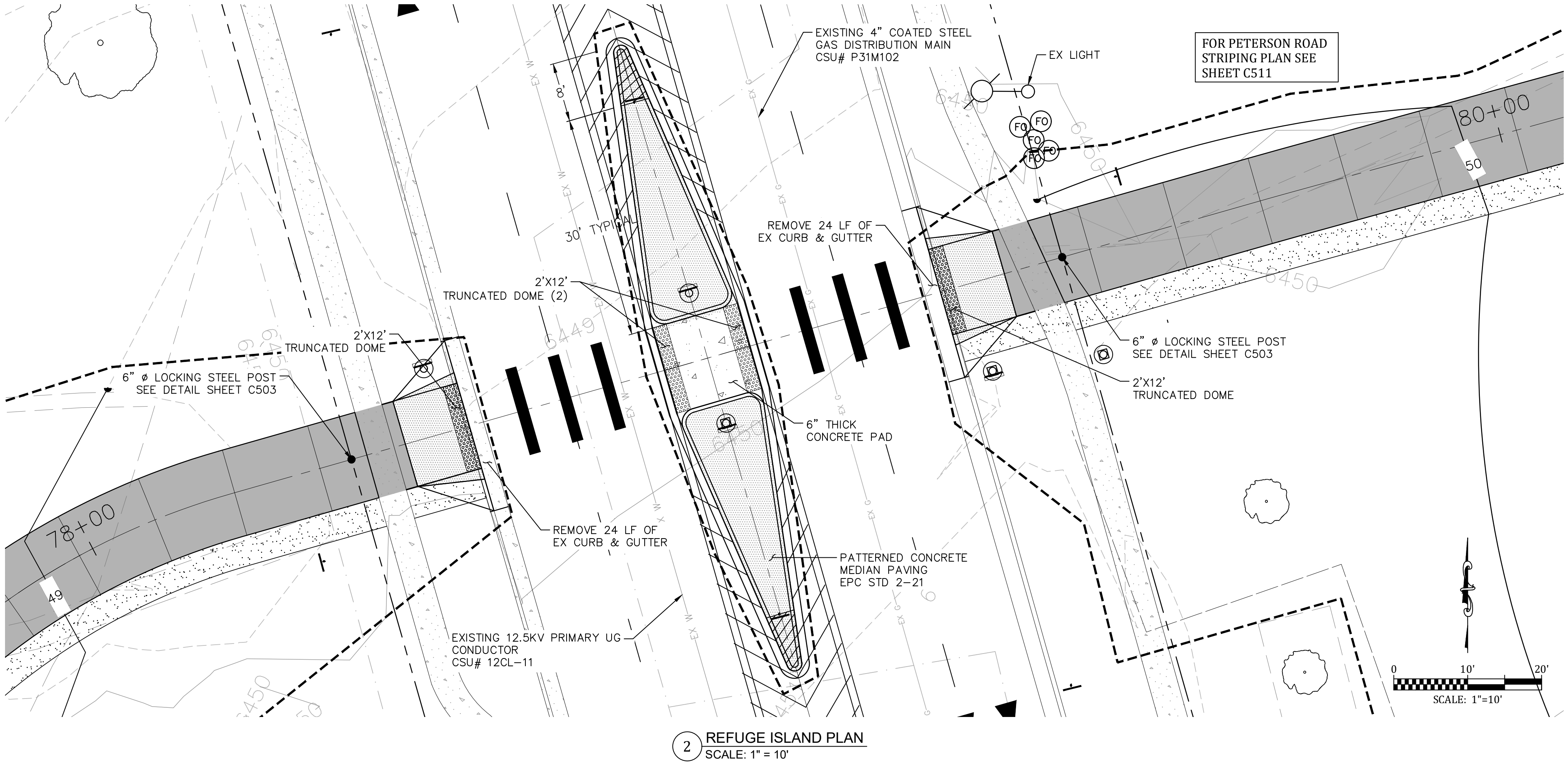
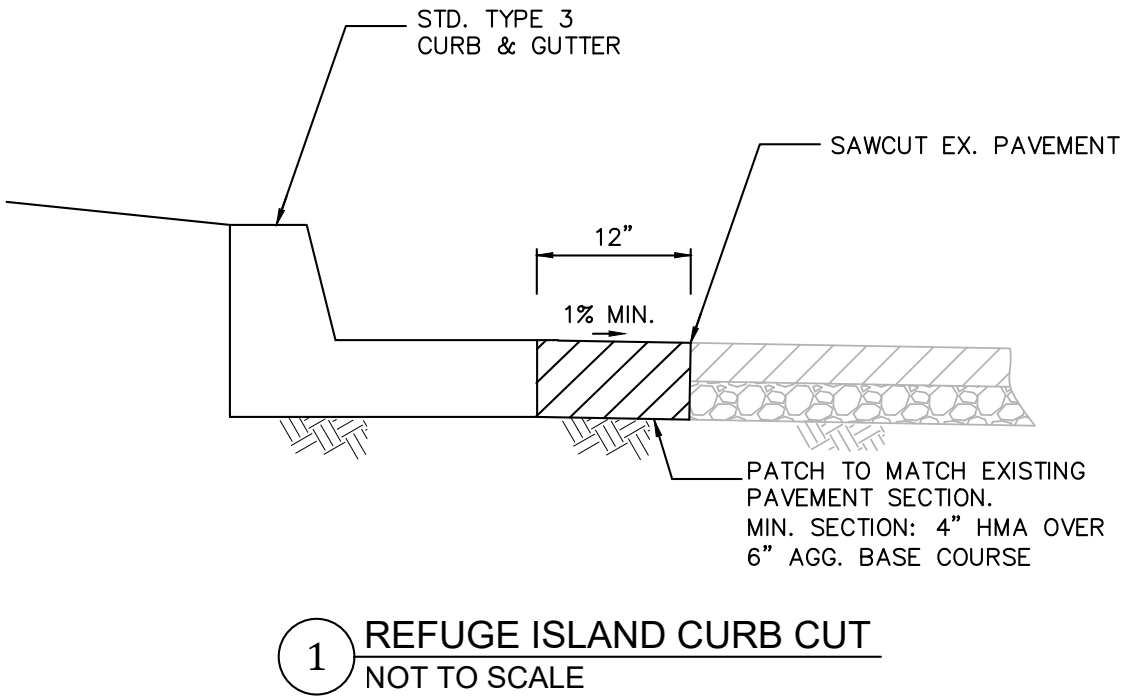
C. CONTROL OF GRADATION SHALL BE BY VISUAL INSPECTION. HOWEVER IN THE EVENT THE ENGINEER DETERMINES THE RIPRAP TO BE UNACCEPTABLE, THE ENGINEER SHALL PICK TWO (2) RANDOM TRUCKLOADS TO BE DUMPED AND CHECKED FOR GRADATION.

1) MECHANICAL EQUIPMENT AND LABOR NEEDED TO ASSIST IN CHECKING GRADATION SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

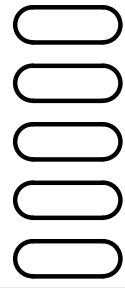
BROKEN ASPHALT PAVEMENT SHALL NOT BE ACCEPTABLE FOR USE IN THE WORK.

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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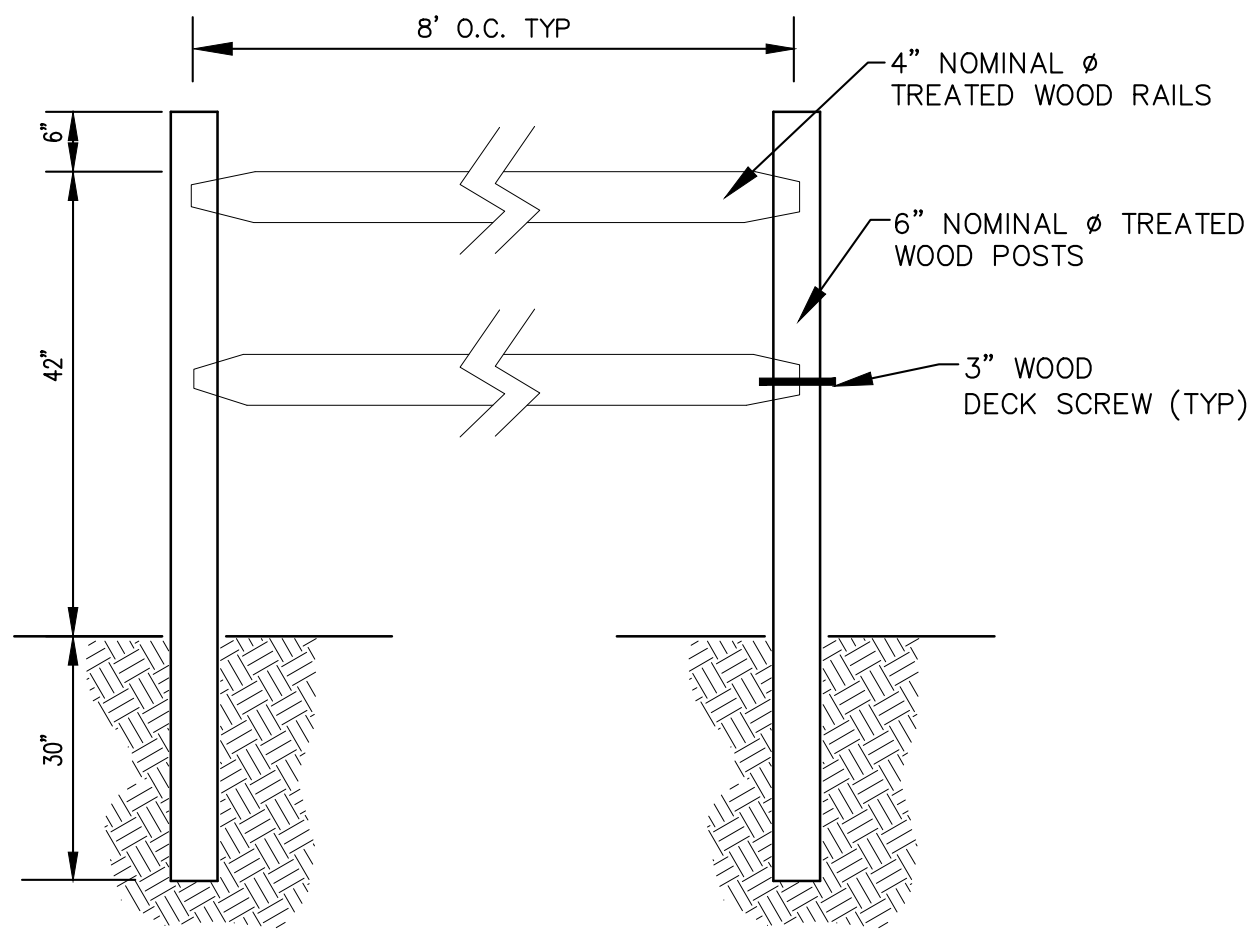


Sheet Revisions	

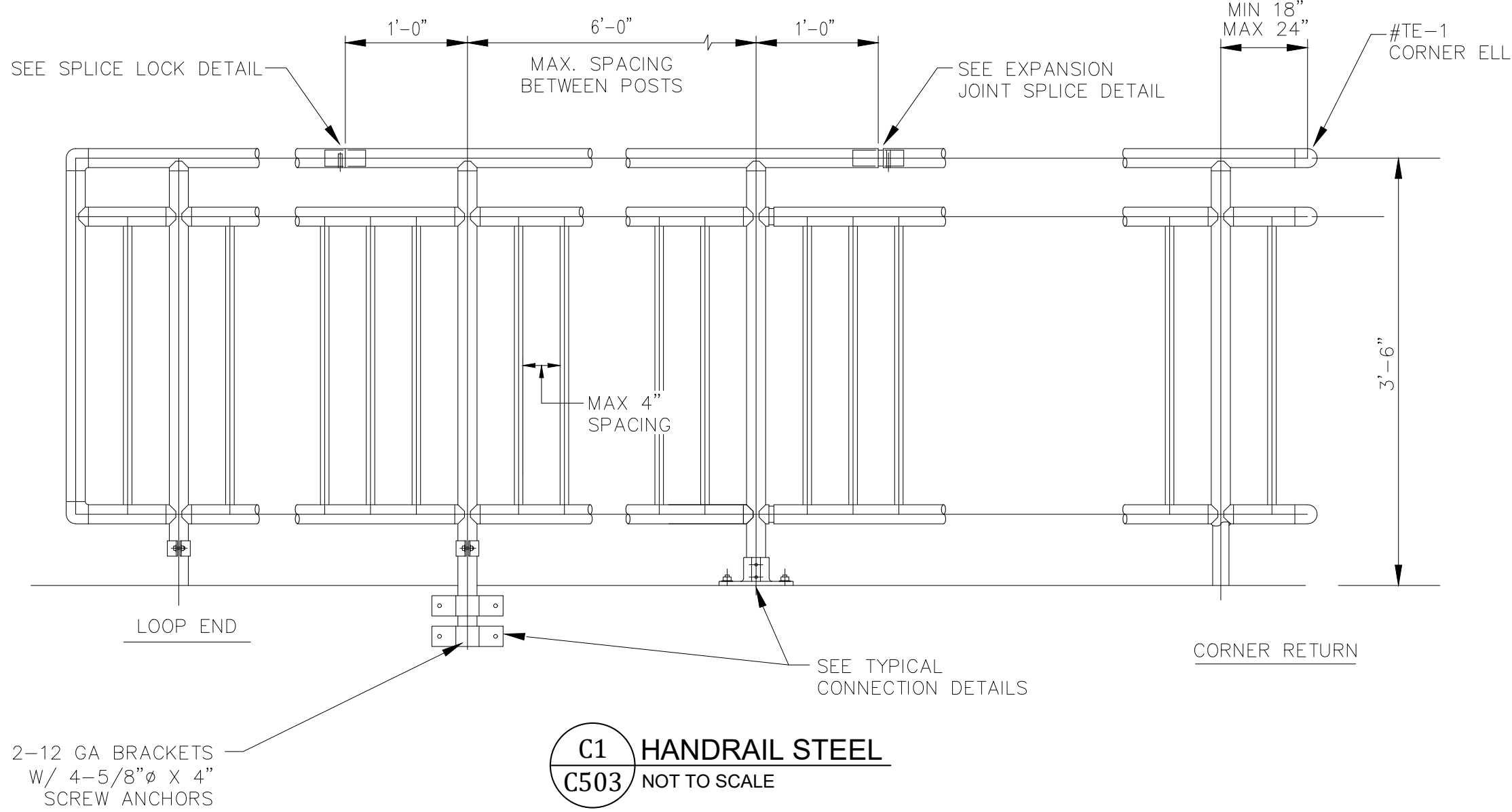
IFC	
No Revisions:	
Revised:	
Void:	

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue TYPICAL MISCELLANEOUS DETAILS			
Designer:	TAC		
Detailer:	JDC/TEG		
Date:	05/08/2025		

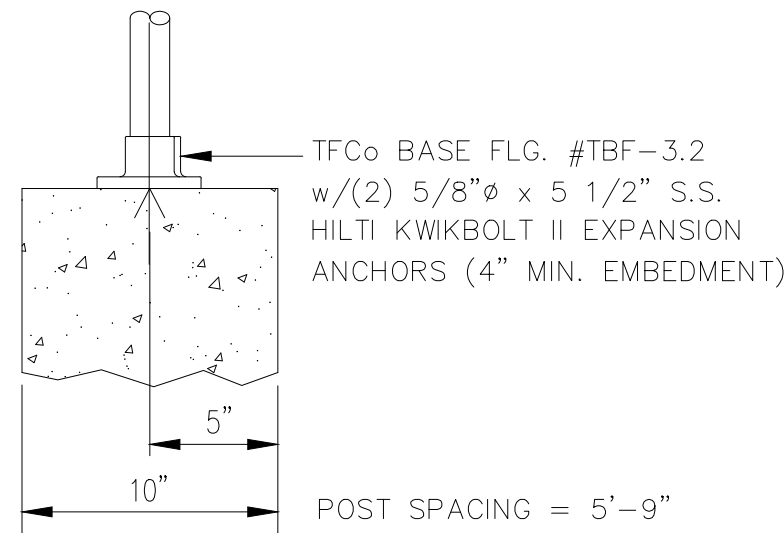
Kiowa Proj. No. 16028
TAP M240-162
SubAcct No. 20391
Sheet Number C502



A FENCE WOOD SMOOTH DOWEL
C503 NOT TO SCALE



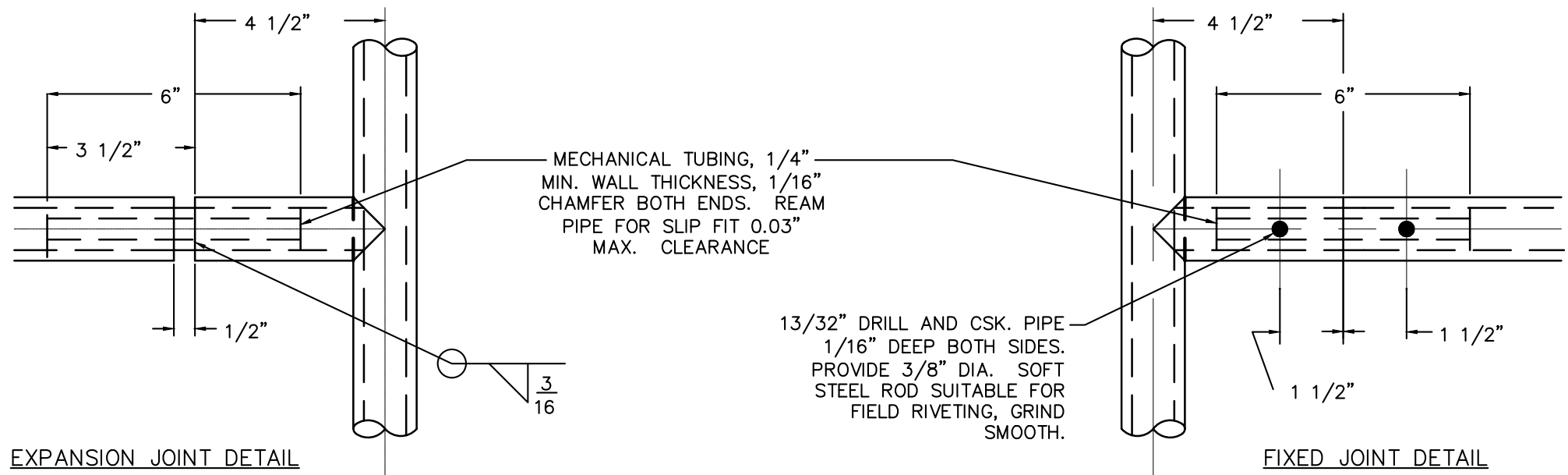
C1 HANDRAIL STEEL
C503 NOT TO SCALE



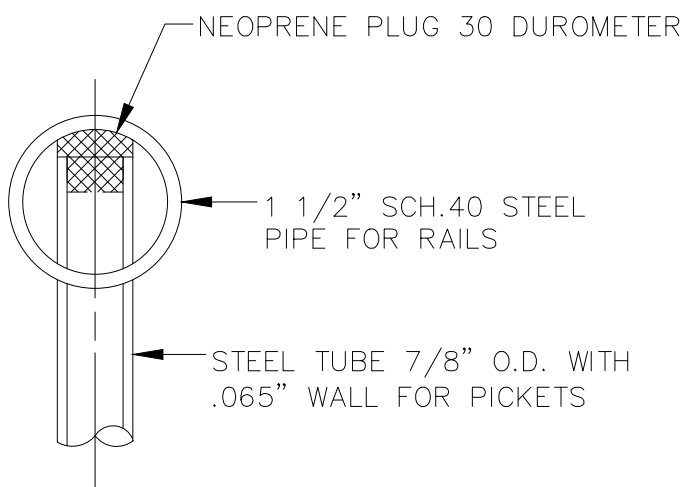
TYPICAL TOP MOUNT CONNECTION TO CONCRETE WALL

C2 STEEL HANDRAIL CONNECTION DETAIL
C503 NOT TO SCALE

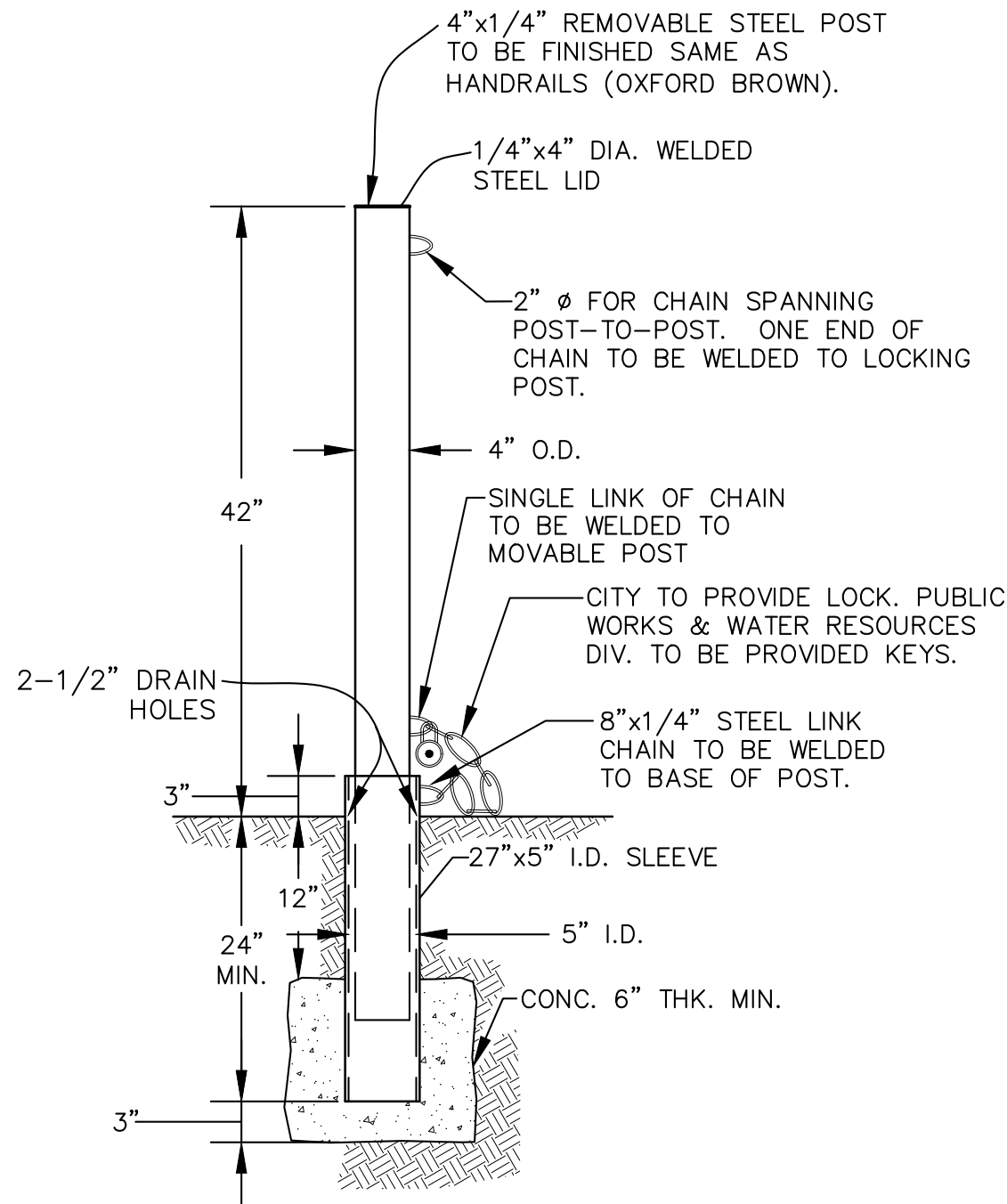
- NOTES:
- HANDRAIL SHALL BE TOP MOUNTED OR SIDE MOUNTED.
 - 2 HANDRAILS SHALL BE PAINTED OXFORD BROWN OR EQUIVALENT APPROVED BY PM, POWDER COATED.



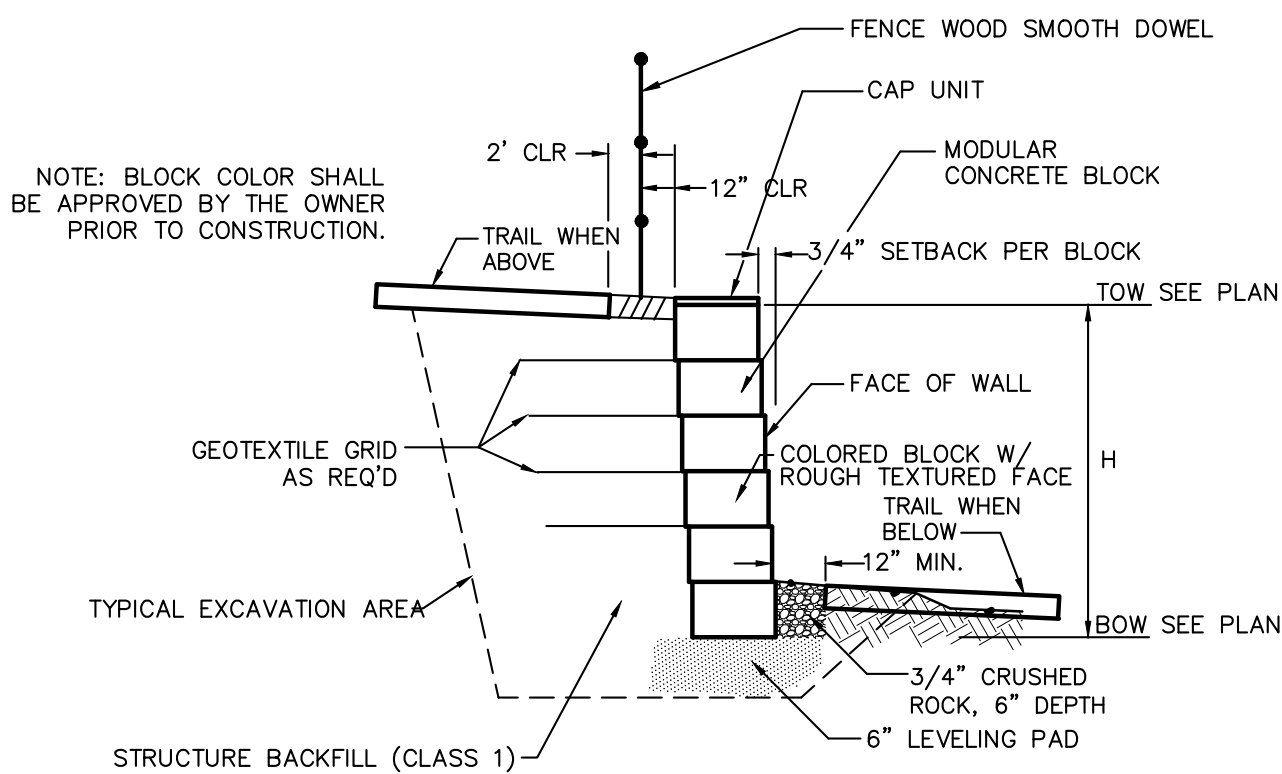
C3 STEEL HANDRAIL JOINT DETAIL
C503 NOT TO SCALE



C4 STEEL HAND RAIL CONNECTION
C503 NOT TO SCALE



B LOCKING STEEL POST DETAIL
C503 NOT TO SCALE

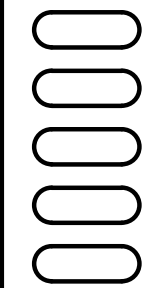


D CONCRETE BLOCK FACING MSE WALL CROSS SECTION
C503 NOT TO SCALE

- WALL NOTES:
- 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.
 - 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.



Kiowa
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1604 South 21st Street
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Sheet Revisions

IFC

ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue
TYPICAL HANDRAIL & FENCE DETAILS

Kiowa Proj. No. 16028

TAP M240-162

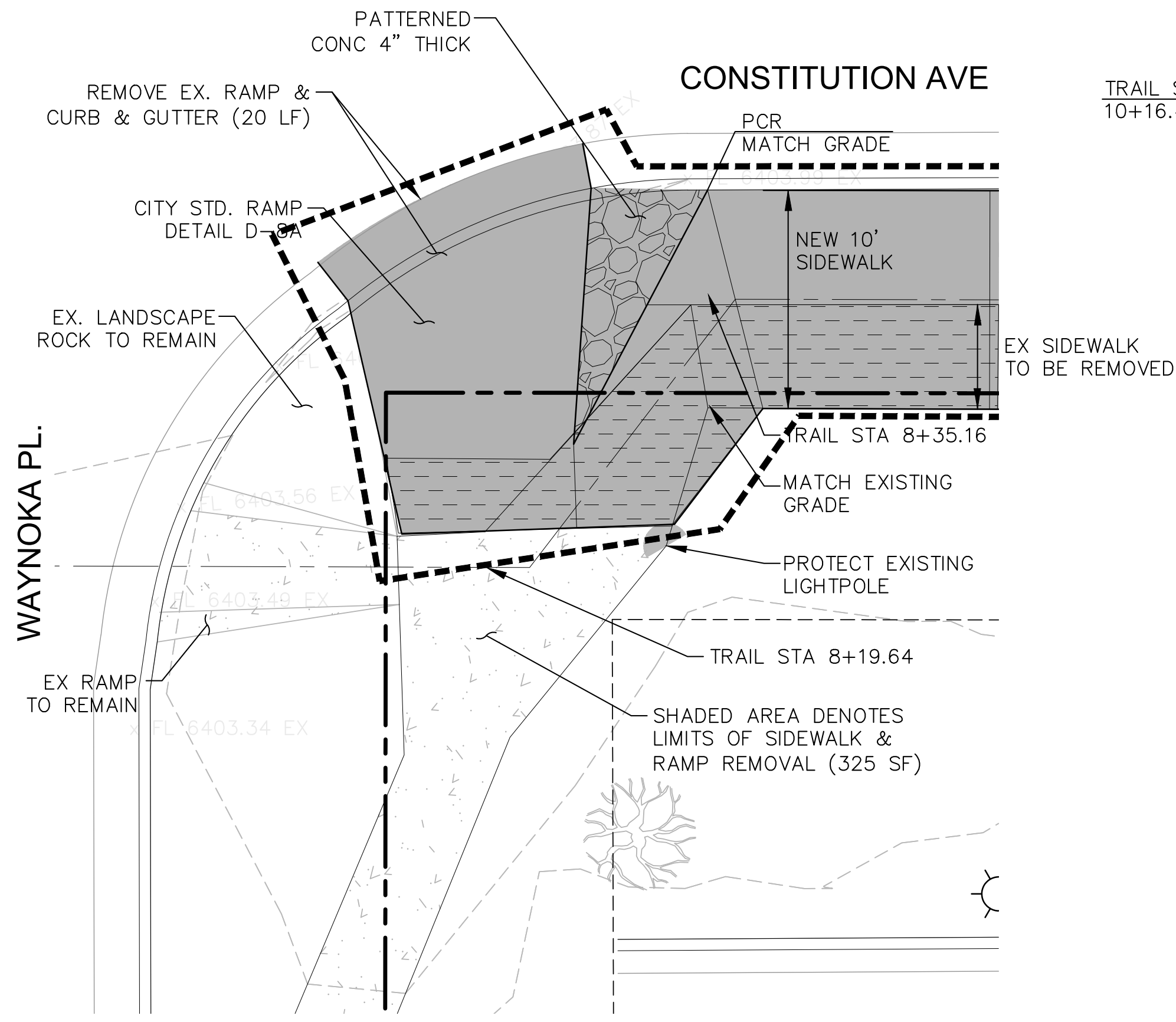
Designer: TAC

Detailer: JDC/TEG

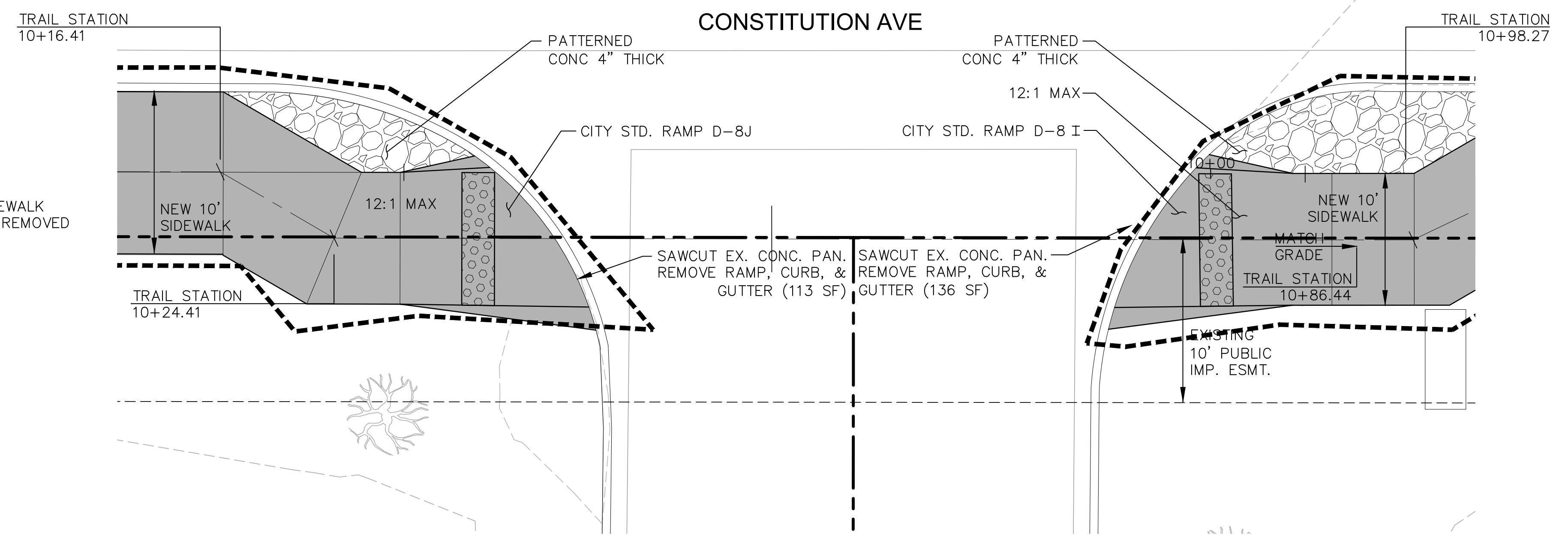
Date: 05/08/2025

SubAcct No. 20391

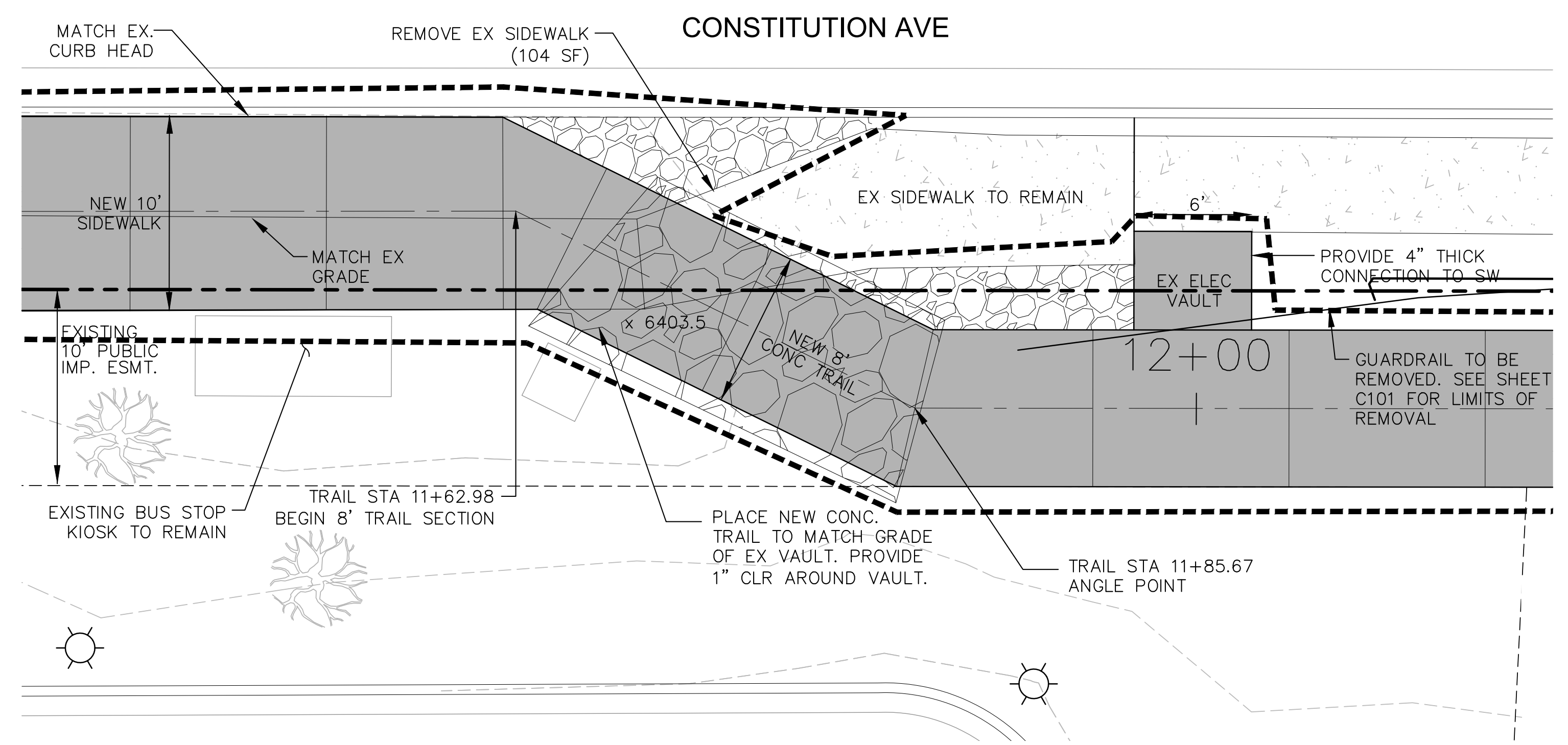
Sheet Number C503



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



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



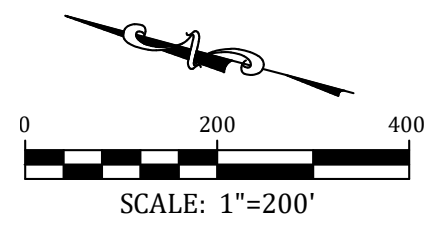
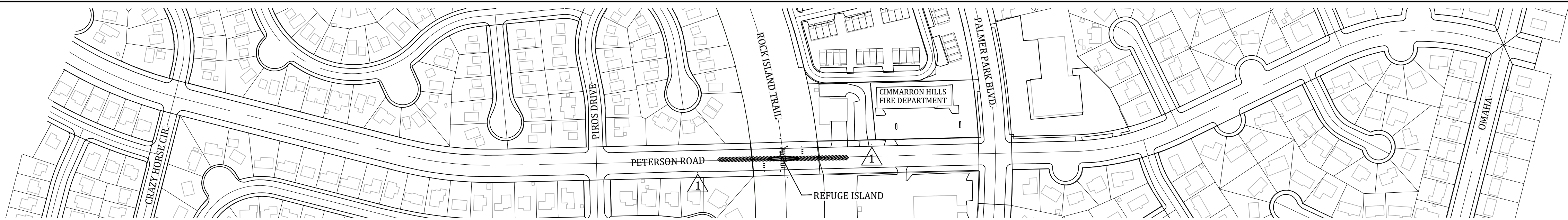
DETAIL 3: STA 11+75
SCALE: 1" = 5'



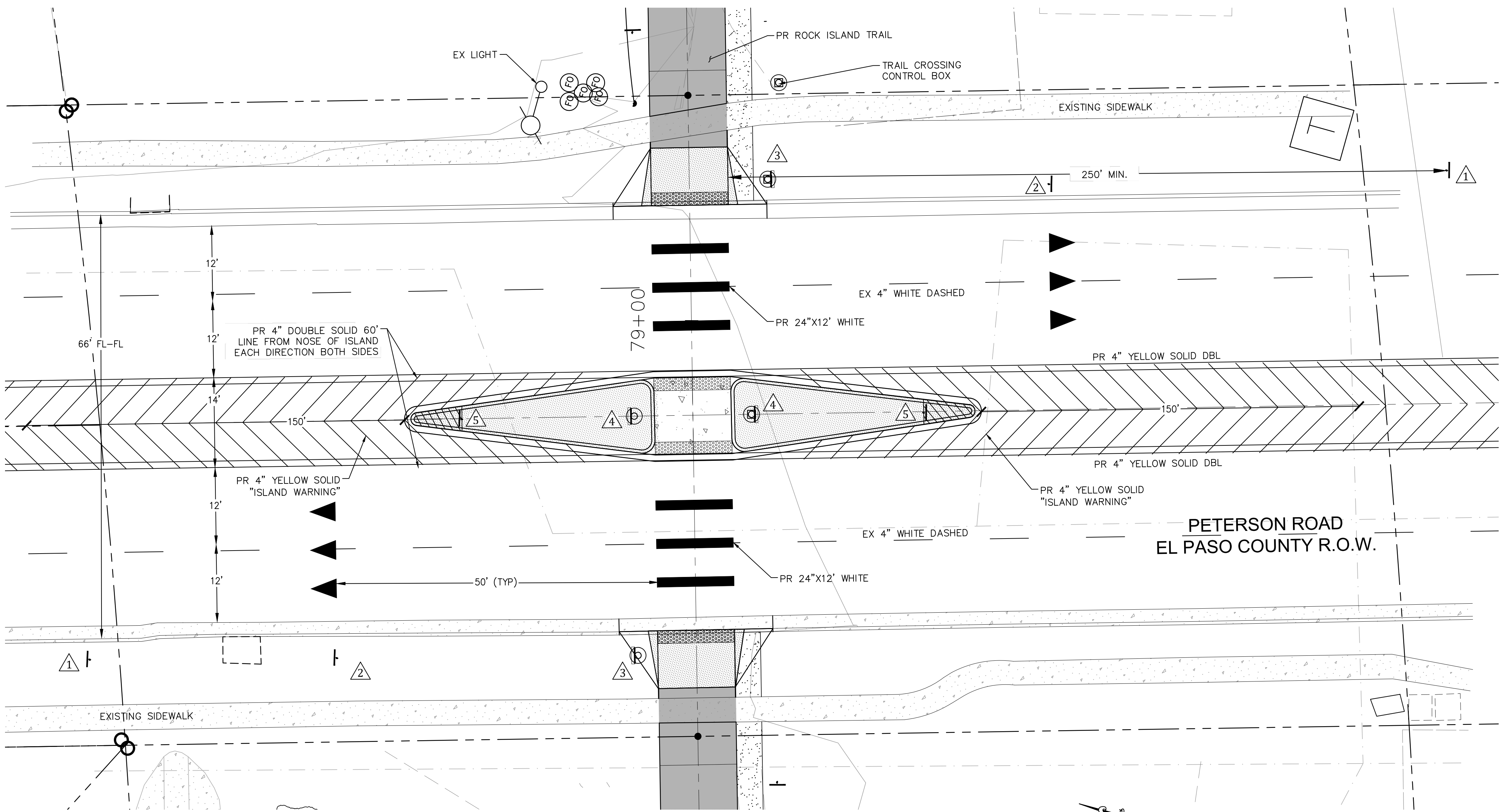
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Sheet Revisions		IFC
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	No Revisions:	
	Revised:	
	Void:	

ROCK ISLAND TRAIL Sand Creek to Constitution Avenue SITE SPECIFIC DETAILS			Kiowa Proj. No. 16028 TAP M240-162
Designer: TAC			
Detailed: JDC/TEG			SubAcct No. 20391
Date: 05/08/2025			Sheet Number C504



PETERSON ROAD SIGNAGE PLAN



TRAIL SIGNAGE		
SIGNAGE		# PANEL
1	STOP AHEAD	2
2	RIDERS DISMOUNT	2

TRAFFIC SIGNAGE		
SIGNAGE		# PANEL
1	TRAIL CROSSING AHEAD	2 W11-2 & X16-9P
2	YIELD HERE	2 R1-5
3	TRAIL CROSSING W L ARROW	2 W11-15, W16-7P, RRFB & PAPB
4	TRAIL CROSSING W R ARROW	2 W11-2, W16-7P, RRFB & PAPB
5	KEEP RIGHT	2 OM-3L

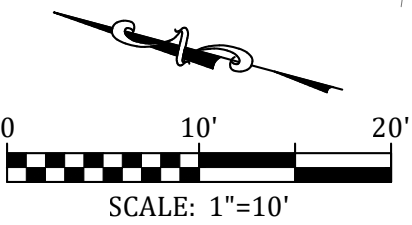
RRFB - RAPID RECTANGULAR FLASHING BEACONS
PAPB - PEDESTRIAN ACTIVATED PUSH BUTTON

City to provide RRFB & PAPB, Contractor to install.

PETERSON ROAD
EL PASO COUNTY R.O.W.

PETERSON ROAD IS A
MINOR ARTERIAL ROADWAY.

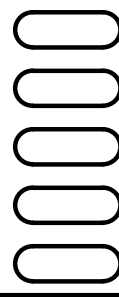
REFUGE ISLAND SIGN & STRIPING PLAN



FOR ADDITIONAL REFUGE ISLAND
SIGNAGE, SEE SHEET C111



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ROCK ISLAND TRAIL
Sand Creek to Constitution Avenue

SIGNAGE & STRIPING PLAN – PETERSON ROAD

Designer: TAC

Detailer: JDC/TEG

Date: 05/08/2025

Kiowa Proj. No. 16028

TAP M240–162

SubAcct No. 20391

Sheet Number C511