PoDI / NHS

FHWA PROJECT OF DIVISION INTEREST (PoDI)?

APPROACH TO THE PROJECT

BEGIN PROJECT

END PROJECT

TOTAL (FT)

MAJOR STRUCTURE (FT) PROJECT GROSS LENGTH (FT)

MAXIMUM RADIUS OF CURVE

MINIMUM S.S.D. HORIZONTAL

CLEAR ZONE DISTANCE (TANGENT)

CONSTRUCTION CLEAR ZONE (MIN 18')

CLEAR ZONE DISTANCE (1810' MIN. RADIUS)

MINIMUM S.S.D. VERTICAL

MAXIMUM DESIGN SPEED

2037 DESIGN TRAFFIC

DHV TRUCK %

DESIGN DATA

MAXIMUM GRADE

■ NO □ YES

TABULATION OF LENGTH & DESIGN DATA

FEET

5280

6540

11820

2.24

11820

1810 FT.

1.6%

>730 FT

>730 FT.

70 MPH

DHV = 11

ADT = 4000

41%

34 FT.

45 FT.

22 FT.

Rest Area

Kit Carson Wild Horse

US 287

5280

6540

11820

2.24

0

11820

US 287

1810 FT.

1.6%

>730 FT.

>730 FT.

70 MPH

DHV = 11

4100

42%

32 FT.

45 FT.

22 FT.

NATIONAL HIGHWAY SYSTEM? □ NO ■ YES

STATION

S. of Kit Carson - MP 122.23

Wild Horse - MP 434.89

Rest Area - MP 406.20

S. of Kit Carson - STA. 30+20 on MP 123.23

Wild Horse - STA. 453+00 ON MP 435.89

Rest Area - STA. 651+00 on MP 407.20

Wild Horse - STA. 518+40 ON MP 437.13

Rest Area - STA. 714+25 on MP 408.39

S. of Kit Carson - STA. 95+60 on MP 124.46

SUMMARY OF PROJECT LENGTH (Miles)

DEPARTMENT OF TRANSPORTATION **STATE OF COLORADO**

Related Projects:

P. E. UNDER PROJECT: Project Number Project Code:

R.O.W. Projects:

INDEX OF SHEETS

SHEET NO.

1

2

3-4

Index of Plans

General Notes

Standard Plan List

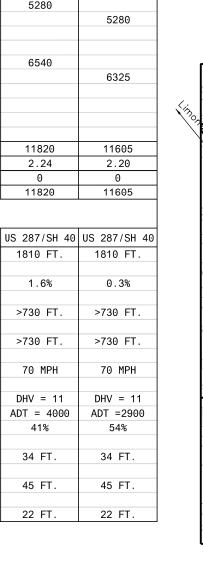
Earthwork Tabulation

Summary of Approximate Quantities

Typical Sections

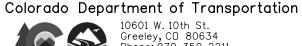
R.O.W. Project Description

HIGHWAY CONSTRUCTION BID PLANS OF PROPOSED FEDERAL-AID PROJECT NO. NHPP R400-370 STATE HIGHWAY NO. 40/287 US 287/SH 40 US 287/SH 40 CHEYENNE COUNTY, LINCOLN COUNTY CONSTRUCTION PROJECT CODE NO. 22975



	9 Earthwork Tabulation 10 Removals, Resets, Culverts, and Surfacing Tabulation 11 Survey Tabulation 12-20 Control Diagram 21-23 Roadway Widening Plans (Kit Carson) 24-26 Roadway Widening Plans (Wild Horse) 27 Wild Horse Culvert Details 28-30 Roadway Widening Plans (Rest Area) 31-63 Stormwater Management Plans 64 Permanent Signing Tabulation 65 Permanent Striping and Delineator Tabulation LOCATION #3 —BEGIN PROJECT MP 407.20 END PROJECT MP 408.39
SH 94	LOCATION #2 ——BEGIN PROJECT MP 435.89 END PROJECT MP 437.13 ENNE WELLS
PROJECT LOCATION MAP	LOCATION #1 —BEGIN PROJECT MP 123.23 END PROJECT MP 124.46
0' 5 MI 10 MI 20 MI	

Print Date: 8/18/2020				Sheet Revisions	
File Name: 22975_DES_TitleSht	t.dgn		Date:	Comments	Init.
Horiz. Scale: 1:1	Vert. Scale: As Noted	0			
Unit Information	Unit Leader Initials				



Region 4		KMK
CDOT	Greeley, CD 80634 Phone: 970-350-2211 FAX: 970-350-2198	

As Constructed	Contract Information	Project No./Code			
, 10 0011011 00100	Contractor:	-			
No Revisions:	Resident Engineer:	NHPP R400-370			
Revised:	Project Engineer:	22975			
	PROJECT STARTED: / / ACCEPTED: / /				
Void:	Comments:	Sheet Number 1			

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■ M-203-2	DITCH TYPES
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□ M-203-12	SUPERELEVATION STREETS (2 SHEETS)
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□ M-216-1	SOIL RETENTION COVERING (2 SHEETS)
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□ M-606-13	GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS)	98-101
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TITLE

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FOR CLASS III SIGNS (2 SHEETS)

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(NEW, ISSUED ON JANUARY 23, 2020)

(REVISED ON APRIL 17, 2020)

AND VERTICAL PANELS

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(2 SHEETS)

(8 SHEETS)

(24 SHEETS)

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COLORADO DEPARTMENT OF TRANSPORTATION M&S STANDARDS PLANS LIST July 31, 2019

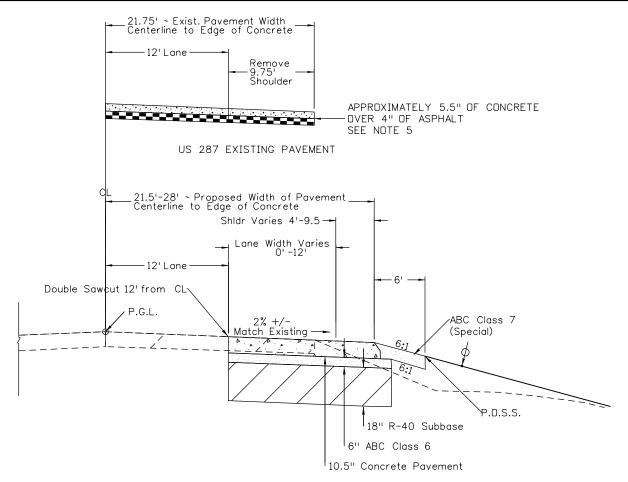
Revised on July 13, 2020

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

INDICATED BY A MARKED BOX . AND WILL BE ATTACHED TO THE PLANS. ALL THE OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE

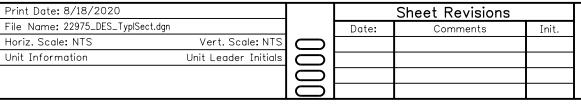
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File Name: 22975_DES_StdPlanList.dgn			Date:	Comments	Init.	· · · · · · · · · · · · · · · · · · ·			STANDARD			
Horiz. Scale: 1:1 Vert. S	Scale: As Noted			Craalay CD 80674	10601 W. 10th St. Greeley, CD 80634							
Unit Information Unit	Unit Leader Initials Phone: 970	Phone: 970-350-2211 FAX: 970-350-2198		Revised:	Designer: MJS	Structure	22975					
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US 287 MP 123.2 - 124.4 STATION 30+20 TO 95+60

GENERAL NOTES

- 1. THE SAFETY EDGE WILL BE CONSTRUCTED AS PART OF THE ROADWAY PAVEMENT. A SHOULDER WEDGE DEVICE WILL BE ADDED TO THE SCREED OF THE PAVING MACHINE.
- 2. THE CONTRACTOR MAY USE A SHOULDER WEDGE MAKER OR A SIMILAR DEVICE THAT PRODUCES THE SAME COMPACTION RESULTS.
- 3. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS.
- 4. SITE PREPARATION AND ADDITIONAL EARTHWORK REQUIRED TO CONSTRUCT THE SAFETY EDGE WILL NOT PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
- 5. THE EXISTING CONCRETE AND ASPHALT SHOULDER WILL BE REMOVED TO ACCOMMODATE CONCRETE WIDENING AND SHALL BE PAID FOR AS REMOVAL OF CONCRETE PAVEMENT (SPECIAL), 202-00212. THE DEPTH OF EXISTING CONCRETE AND ASPHALT SHOULDER THAT IS PROVIDED ON THE PLANS IS FOR INFORMATION ONLY. THE DEPTH OF EXISTING PAVEMENT SHOULD BE EXPECTED TO VARY ACROSS LOCATIONS.
- 6. CONCRETE PAVEMENT DESIGNATED FOR REMOVAL SHALL BE DOUBLE SAWCUT FULL DEPTH TO TO A NEAT VERTICAL LINE. SAW CUTTING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.
- 7. NEW CONCRETE SHALL BE TIED INTO EXISTING CONCRETE PAVEMENT PER M&S STANDARD M412-1. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK. NEW CONCRETE SHALL UTILIZE 1.5" DOWEL BARS.
- 8. NEW CONCRETE SHALL NOT CONTAIN RECLYCLED CONCRETE



Colorado Department of Transportation 10601



Region 4

Greele Phone

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. W.10th St. ey,CD 80634	No Revisions:
e: 970-350-2211 970-350-2198	Revised:
KMK	Void:

SUBBRASE SUBGRADE Z SLOPE 50:1 OR STEEPER.
20' - Exist. Pavement Width Centerline to Edge of Concrete - SAFETY EDGE WITH A 30°-35° SLOPE AND SHOULDER MATERIAL (SEE SAFETY EDGE DETAILS).
Remove 8' Shoulder
APPROXIMATELY 10" OF CONCRETE OVER 7" OF ASPHALT SEE NOTE 5
SH 40 EXISTING PAVEMENT
CL 20'-28' ~ Proposed Width of Pavement Centerline to Edge of Concrete
Shldr Varies 4'-8'
Double Sawcut 12' from CL
P.G.L. 2% +/- Match Existing 6:1 ABC Class 7 (Special)
P.O.S.S.
10.5" Concrete Pavement
SH 40 MP 434.9 - 436.1 STATION 453+00 TO 518+40
Outside Edge of Shoulder 32°±5° ABC CLASS 7 (Special)
Varies Varies
ABC CLASS 6—Point of Slope Selection—
SAFETY EDGE DETAIL FOR CONCRETE PAVEMENT <u>GREATER THAN 5 INCHES</u>

TYPICAL SECTIONS

MJS

Designer:

Sheet Subset:

Detailer:

MJS Structure

Numbers

Subset Sheets:

LEGEND

P.G.L.

P.O.S.S.

~ Profile Grade Line

~ Point of Slope Selection

~ Minimum 4" Topsoil or Specified Alternative

Project No./Code

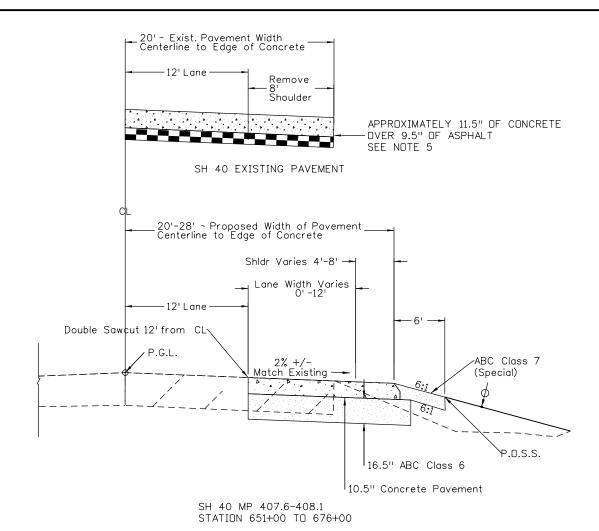
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22975

Sheet Number

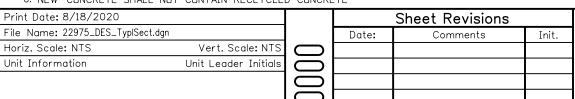
_ CONCRETE PAVEMENT

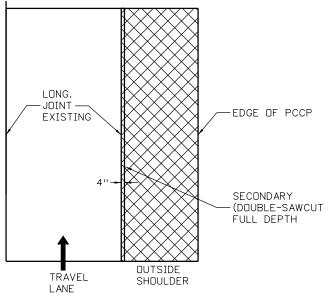
BASE COURSE



GENERAL NOTES

- 1. THE SAFETY EDGE WILL BE CONSTRUCTED AS PART OF THE ROADWAY PAVEMENT. A SHOULDER WEDGE DEVICE WILL BE ADDED TO THE SCREED OF THE PAVING MACHINE.
- 2. THE CONTRACTOR MAY USE A SHOULDER WEDGE MAKER OR A SIMILAR DEVICE THAT PRODUCES THE SAME COMPACTION RESULTS.
- 3. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS.
- 4. SITE PREPARATION AND ADDITIONAL EARTHWORK REQUIRED TO CONSTRUCT THE SAFETY EDGE WILL NOT PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
- 5. THE EXISTING CONCRETE AND ASPHALT SHOULDER WILL BE REMOVED TO ACCOMMODATE CONCRETE WIDENING AND SHALL BE PAID FOR AS REMOVAL OF CONCRETE PAVEMENT (SPECIAL), 202-00212. THE DEPTH OF EXISTING CONCRETE AND ASPHALT SHOULDER THAT IS PROVIDED ON THE PLANS IS FOR INFORMATION ONLY. THE DEPTH OF EXISTING PAVEMENT SHOULD BE EXPECTED TO VARY ACROSS LOCATIONS.
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- 7. NEW CONCRETE SHALL BE TIED INTO EXISTING CONCRETE PAVEMENT PER M&S STANDARD M412-1. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK. NEW CONCRETE SHALL UTILIZE 1.5" DOWEL BARS.
- 8. NEW CONCRETE SHALL NOT CONTAIN RECLYCLED CONCRETE





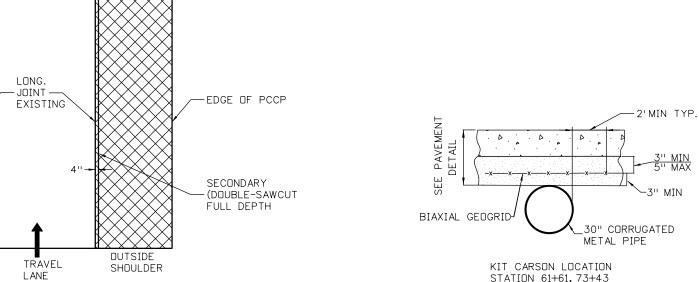


CL

DOUBLE SAWCUT NOTES

- 1. DAMAGE TO EXISTING CONCRETE TO REMAIN IN PLACE, RESULTING FROM THE CONTRACTOR'S DRILLING AND CUTTING OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 2. ALL CONCRETE REMOVALS SHALL BE DOUBLE SAW CUT TO PROTECT THE ADJACENT SLABS FROM DAMAGE.
- 3. DOUBLE SAW CUTS SHALL BE THE FULL DEPTH OF CONCRETE SLAB AND SHALL BE COMPLETED PRIOR TO CONCRETE REMOVAL.
- 4. REMOVAL OF CONCRETE (SPECIAL) THICKNESSES VARY. SEE TYPICAL SECTION DETAILS AND GENERAL NOTE 5 FOR MORE INFORMATION.

LEGEND - CONCRETE PAVEMENT P.G.L. ~ Profile Grade Line P.O.S.S. ~ Point of Slope Selection BASE COURSE ~ Minimum 4" Topsoil or Specified Alternative __ SUBGRADE Z SLOPE 50:1 OR STEEPER. SUBBASE (2%)SHOULDER TO - SAFETY EDGE WITH A 30°-35° SLOPE AND BE REMOVED SHOULDER MATERIAL (SEE SAFETY EDGE DETAILS).



Project No./Code As Constructed Colorado Department of Transportation TYPICAL SECTIONS 10601 W. 10th St. NHPP R400-370 No Revisions: Greeley, CD 80634 Phone: 970-350-2211 MJS Structure Designer: Revised: 22975 FAX: 970-350-2198 Numbers MJS Detailer: KMK Region 4 Void: Sheet Number Sheet Subset:

Subset Sheets:

GENERAL NOTES

- 2. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.
- 3. THE FOLLOWING SHALL BE FURNISHED WITH EACH CONCRETE PAVER:
 - A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH.
 - 2. SHORT SKI OR SHOE.
 - 6500 FEET OF CONTROL LINE AND STAKES.
- 4. ALL TRAVEL LANES ARE SUBJECT TO SMOOTHNESS INCENTIVE/DISINCENTIVE PAYMENTS. PAVEMENT SMOOTHNESS INCENTIVE/DISINCENTIVE SHALL BE BASED ON INCHES/MILE.
- 5. THOSE TRAVEL LANES SUBJECT TO MRI CATEGORY IV ARE NOT SUBJECT TO SMOOTHNESS INCENTIVE/DISINCENTIVE PAYMENTS, BUT WILL REQUIRE CORRECTIVE WORK IN ACCORDANCE WITH THE CONTRACT. SMOOTHNESS CATEGORIES FOR THIS PROJECT ARE AS FOLLOWS:

MRI CATEGORY II

- 6. PUBLIC APPROACHES AND ENTRANCES TO BUILDING OR RESIDENCES SHALL BE PAVED IN ACCORDANCE WITH STANDARD PLAN M-203-1.
- 7. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR EQUIPMENT IN, OR DISTURB ANY AREAS NOT APPROVED BY THE ENGINEER. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS AT THE CONTRACTORS EXPENSE.
- 8. THE SEVERITY OF SULFATE EXPOSURE FOR THIS PROJECT IS CLASS 2
- 9. DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:

FULL DEPTH OF ALL EMBANKMENTS:
BASES OF CUTS AND FILLS 0.5 FEET.

- 10. EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.
- 11. THE MINIMUM THICKNESS OF TOPSOIL SHALL BE 4 INCHES. IT IS ESTIMATED THAT 1887 CU. YDS. WILL BE REQUIRED BASED ON THE AVERAGE THICKNESS OF 4 INCHES.
- 12. IT IS ESTIMATED THAT 399 GALLONS OF MODIFIED EPOXY PAVEMENT MARKING PAINT WILL BE REQUIRED ON THIS PROJECT AS FOLLOWS:

- 13. IT IS ESTIMATED THAT 50 HOURS OF BLADING WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.
- 14. IT IS ESTIMATED THAT 85 DAYS OF TRAFFIC CONTROL MANAGEMENT WILL BE REQUIRED ON THIS PROJECT.
- 15. IT IS ESTIMATED THAT 28 DAYS OF TRAFFIC CONTROL INSPECTION WILL BE REQUIRED ON THIS PROJECT.
- 16. IT IS ESTIMATED THAT 2750 HOURS OF FLAGGING WILL BE REQUIRED ON THIS PROJECT.
- 17. IT IS ESTIMATED THAT 3 SANITARY FACILITY WILL BE REQUIRED ON THIS PROJECT.
- 18. IT IS ESTIMATED THAT 1 PUBLIC INFORMATION SERVICES WILL BE REQUIRED ON THIS PROJECT.
- 19. CONCRETE QUALITY INCENTIVE WILL BE BASED ON FLEXURAL STRENGTH CRITERIA.
- 20. RECYCLED CONCRETE SHALL NOT BE ALLOWED IN THE CONCRETE PAVEMENT MIX DESIGN.
- 21. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL AFFECTED PROPERTY OWNERS AT ALL TIMES DURING CONSTRUCTION.
- 22. THE CONTRACTOR SHALL SUPPLY THE ENGINEER A CONSTRUCTION PHASING PLAN TWO WEEKS PRIOR TO ANY CONSTRUCTION THAT SHALL DETAIL ANY PROPOSED LANE CLOSURES. THE ENGINEER SHALL APPROVE THE WORK PRIOR TO ANY CONSTRUCTION.
- 23. THE CONTRACTOR SHALL CALL THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 TWO WEEKS BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Print Date: 8/18/2020			Sheet Revisions		Colorado Department of Transport	ation	As Constructed			Project No./Code
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Unit Information Unit Leader Initials					Phone: 970-350-2211 FAX: 970-350-2198		Revised:	Designer: MJS	Structure	22975
						121.412		Detailer: MJS	Numbers	_
	0				Region 4 KMK		Void:	Sheet Subset:	Subset Sheets:	Sheet Number 5

INDEX	CONTRACT	CONTRACT ITEM	UNIT	ROADWAY—Kit Carson			Roadway-	Wild Horse			Ro	oadway-	Rest Area			PROJECT TOTALS
PAGE SHEE	ITEM NO.	CONTRACT ITEM	OWN	PLAN AS CONST.			PLAN	AS CONST.			F	PLAN	AS CONST.			PLAN AS CONST.
		Clearing and Grubbing	ACRE	2.5			4.3					1.6				8.4
	202-00015	Removal of Headwall	EACH				1									1
		Removal of End Section	EACH	2								2				4
		Removal of Delineator	EACH	9			11					33				53
		Removal of Concrete Pavement (Special)	SY	7,085			5,813					,378				15,276
		Removal of Pavement Marking	SF	15,664			16,741				11	1,378				43,783
	202-00810	Removal of Ground Sign	EACH	1								3				4
	202-04002	Clean Culvert	EACH	2			3					2				7
	203-00010	Unclassified Excavation (Complete In Place)	CY	9,637			3,495				1	,541				14,673
	203-00066	Embankment Material (Complete In Place) (R40)	CY	5,890												5,890
	203-01100	Proof Rolling	HOUR	5			5					3				13
	203-01500	Blading	HOUR	20			20					10				50
	206-00100	Structure Backfill (Class 1)	CY	16			26					16				58
	207-00205		CY	406			1,058					423				1,887
		Stockpile Topsoil	CY	406			1,058					423				1.887
			LF				· ·									.,
		Erosion Log Type 1 (20 Inch)		1,270			165					280				1,715
		Concrete Washout Structure	EACH	1								1				3
	208-00070	Vehicle Tracking Pad	EACH	2			2					2				6
	208-00103	Removal and Disposal of Sediment (Labor)	HOUR	20			20					10				50
	208-00106	Sweeping (Sediment Removal)	HOUR	10			10					5				25
	208-00107	Removal of Trash	HOUR	6			6					6				18
	208-00207	Erosion Control Management	DAY	7			7					4				18
	210-00015	Reset End Section	EACH				1									1
	212-00006	Seeding (Native)	ACRE	1.8			2.9					1.1				5.8
		Soil Conditioning	ACRE	1.8			2.9					1.1				5.8
		Mulching (Weed Free Hay)	ACRE	1.8			2.9					1.1				5.8
		Mulch Tackifier														
			LB	351			579					228				1,158
		Aggregate Base Course (Class 6)	CY	2,000			3,472					,126				7,598
		Aggregate Base Course (Class 6) (Special)	CY	1,079			971					370				2,420
	412-01050	Concrete Pavement (10-1/2 Inch)	SY	11,279			11,165				4	,356				26,800
	412-02000	Concrete Safety Edge	LF	6,540			6,540				2	,500				15,580
	420-00520	Geogrid Pavement Reinforcement	SY	25												25
		Concrete Class B	CY				1.9									1.9
	8/18/2020 22975_DES_SAG	O dan		t Revisions	Toit	Color	ido Department of		rtation	As Cons	tructed		SUMMARY OF		MATE	Project No./C
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Inform	ation	Unit Leader Initials 🛑					Phone: 970-35 FAX: 970-350	50-2211 -2198		Revised:		Desig	ner: MJS	Structure		22975
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INDEX				ROADWAY—Kit Carson				Roadway-	Wild Horse			Roadway	-Rest Area						JECT
BOOK PAGE SH	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	PLAN AS CONST.				PLAN	AS CONST.			PLAN	AS CONST.						AS CONST.
BOOK TAGE OF		Reinforcing Steel	LB					65							1			65	
		30 Inch Reinforced Concrete Pipe	LF					4										4	
	603-10240	24 Inch Corrugated Steel Pipe	LF									18						18	
		30 Inch Corrugated Steel Pipe	LF	12														12	
		48 Inch Corrugated Steel Pipe	LF					24										24	
		24 Inch Steel End Section	EACH									2						2	
		30 Inch Steel End Section	EACH	2														2	
$\parallel \parallel \parallel \parallel$	603-33030	30 Inch Pipe Safety End Treatment	EACH	2														2	
		Delineator (Type I)	EACH					11				20						40	
		Delineator (Type II)	EACH	10				10				10						30	
		Delineator (Type III)	EACH	2				2				2						6	
		Sign Panel (Class I)	SF	5														5	
$\parallel \parallel \parallel \parallel$		Sign Panel (Class II)	SF	35				35				47						117	
		Steel Sign Support (2-Inch Round)(Post and Socket)																1	
		Steel Sign Support (2-1/2 In Round Sch 80) (Post Slipbase)						.3				4						10	
		Field Office (Class 1)	EACH									+						10	
		Field Laboratory (Class 1)	EACH															1	
$\parallel \perp \perp$		Sanitary Facility	EACH					1				1						3	
		Construction Surveying	L S					,										1	
		Mobilization	LS															1	
		Public Information Management (Tier IV)	DAY	40				40				33						113	
		Modified Epoxy Pavement Marking	GAL	135				, -				125						399	
								139											
		Pavement Marking Paint (High Build)	GAL	154				156				85						395	
	627-01011	Preformed Plastic Pavement Marking (Contrast)(Inlaid)	SF	675														675	
	627-30405	Preformed Thermoplastic Pavement Marking (Word-Symbol)	SF	116				116				208						440	
	630-00000	Flagging	HOUR	1,000				1,000				750						2,750	
	630-00007	Traffic Control Inspection	DAY	10	+ +			10				8						28	
	630-00012	Traffic Control Management	DAY	30				30				25						85	
	630-80341	Construction Traffic Sign (Panel Size A)	EACH	6				6				6						6	
	630-80342	Construction Traffic Sign (Panel Size B)	EACH	20				20				20						20	
	630-80350	Vertical Panel	EACH	20				20				20						20	
Print Date:			Shee	t Revisions	Colora	ıdo Der	artme	nt of T	ranspo	rtation	As Constru	cted	SHANA	/B\ Ui	, VDDD	OXIMATE	<u> </u>	Projec	ct No./Co
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		10601 W. 10th Greeley, CD Phone: 970-35 FAX: 970-35	80634 550-2211

Region 4

10601 W.10th St.
Greeley, CD 80634
Phone: 970-350-2211
FAX: 970-350-2198

KMK

As Constructed	SUMMARY OF	APPROXIMATE	Project No./Code
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Revised:		Structure	22975
Void:	Detailer: MJS Sheet Subset:	Numbers Subset Sheets:	Sheet Number 7

Horiz. Scale: 1:200

Unit Information

Vert. Scale: As Noted

Unit Leader Initials

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BOOK PAGE SHEE	☐ ITEM NO.	CONTRACT HEM	UNII	PLAN	AS CONST.				PLAN	AS CONST.				PLAN	AS CONST.					PLAN AS CONST
	630-80355	Portable Message Sign Panel	EACH	2					2					2						2
	630-80360	Drum Channelizing Device	EACH	150					150					150						150
		Traffic Cone	EACH	100					100					100						100
		FORCE ACCOUNT																		
		========																		
		F/A Minor Contract Revisions	FA																	1
	700-70013	F/A Concrete Pavement Incentive	FA																	1
	700-70016	F/A Fuel Cost Adjustment	FA																	1
	700-70018	F/A Roadway Smoothness Incentive	FA																	1
	700-70025	F/A Quality Incentive Payment	FA																	1
	700-70380	F/A Erosion Control	FA																	1
		,																		
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t Date: 8/18			Sheet F	Revisio	ns	Colorad	o Dena	rtment	of Tra	nsporta	ation	As	Constructed	c		Y NF	ADDBU/	(IMATE	TP	roject No./
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10601 W. 10th St. Greeley, CD 80634 Phone: 970-350-2211 FAX: 970-350-2198

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Region 4

As Constructed	SUMMAR	Y OF	APPRO	XIMATE	Project No./Co	oae
No Revisions:		QUANT	TITIES		NHPP R400-370	
Revised:	Designer:	MJS	Structure		22975	
	Detailer:	MJS	Numbers			
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Vert. Scale: As Noted

Unit Leader Initials

Horiz. Scale: 1:1

Unit Information

		Kit Carson	Wild Horse	Rest Area
UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE) (NET)			CUBIC YARDS	
FOR ROADWAY		9,826	3,495	1,541
TOTAL		9,826	3,495	1,541
EMBANKMENT MATERIAL (COMPLETE IN PLACE) (NET)			CUBIC YARDS	
FOR ROADWAY SUBBASE (R-40 Min.) AND SLOPE FILL (R-25 Min.)		6,368	1,905	1,265
TOTAL		6,368	1,905	1,265
FOR INFORMATION ONLY EARTHWORK QUANTITIES	BAL ANCE			
EMBANKMENT MATERIAL (COMPLETE IN PLACE) (NET)	DALANOL		CUBIC YARDS	
FOR ROADWAY (Top 1.5' of Embankment):	Min. R-	6,003	Θ	Θ
SLOPE EMBANKMENT	40 Min R-25	365	1,905	1,265
TOTAL		6,368	1,905	1,265
COMPACTION (AASHTO T 99)			CUBIC YARDS	
TOTAL EMBANKMENT (NET)		6,368	1,905	1,265
BASES OF CUTS AND FILLS		3,307	4,196	1,825
TOTAL		9,675	6,101	3,090
EARTHWORK QUANTITIES BALANCE				
UNCLASSIFIED EXCAVATION			CUBIC YARDS	
TOTAL		9,826	3,495	1,541
EMBANKMENT (NET)				
ROADWAY SUBBASE (R40)		6,003	0	0
SLOPE EMBANKMENT (R25)		365	1,905	1,265
TOTAL		6,368	1,905	1,265
EMBANKMENT (NET) TIMES COMPACTION FACTOR	1.22			
ROADWAY SUBBASE (R40)		7,324	Θ	0
SLOPE EMBANKMENT (R25)		445	2,324	1,543
TOTAL		7,769	2,324	1,543
EXCESS EXCAVATION				
EXCESS EXCAVATION TO BE PROPERTY OF THE CONTRACTOR		9,381	1,171	-2
TOTAL		9,381	1,171	-2

Comments

Init.

Region 4

Date:

Colorado Department of Transportation

10601 W.10th St. Greeley, CD 80634 Phone: 970-350-2211 FAX: 970-350-2198

KMK

NOTES:

1). SOIL SAMPLES INDICATE THAT THE EXCAVATED MATERIAL MAY NOT MEET THE MINIMUM R-40 REQUIREMENT FOR EMBANKMENT MATERIAL. UNCLASSIFIED EXCAVATION THAT DOES NOT MEET R VALUE REQUIREMENTS FOR SUBBASE OR SLOPE EMBANKMENT SHALL BECOME PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

As Constructed	Earthwork	Tabulation	Project No./Code
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Revised:		Structure	22975
	Detailer: MJS	Numbers	
Void:	Sheet Subset:	Subset Sheets:	Sheet Number 9

			TABULATIO	N OF REMOVA	LS, RESETS, A	ND ADJUSTMENTS			
		201 - 000001	202-00015	202-00037	202-00090	202-00212	202-00250	202-00810	210-00015
LOCATION		CLEARING AND GRUBBING		REMOVAL OF END SECTION	REMOVAL OF DELINEATOR	REMOVAL OF CONCRETE PAVEMENT (SPECIAL)	REMOVAL OF PAVEMENT MARKING	REMOVAL OF GROUND SIGN	RESET END SECTION
		ACRE	EACH	EACH	EACH	SY	SF	EACH	EACH
30+20 T	0 95+60	2.5	0	2	9	7,085	15,664	1	0
453+00 T	0 518+40	4.3	1	0	11	5,813	16,741	0	1
651+00 T	0 714+25	1.6	0	2	33	2,378	11,378	3	0
TOTA	ALS	8.4	1	4	53	15,276	43,783	4	1
NOTE	ES:								

	TABULATION OF CULVERTS																															
	Remov	al of End	Rese	et End	:	24"		30"		48"	3	30"	:	24"		30"	Pipe	Safety	Pave	ement	Structur	e Backfill										
	Se	ction	Se	ction		Co	orrugate	ugated Steel Pipe		rrugated Steel Pi		eel Pipe		inforce Concrete Pipe Cor		Corrugated Steel Pipe End Ser		Corrugated Steel Pipe		Corrugated Steel P		Steel Pipe End Secion End Treatments		End Treatments Reinforcing		Reinforcing		ments Reinforcing		ss 1)		
Location	E.	ACH	E/	ACH		LF		LF		LF	l	LF	E.	ACH	E	ACH	E/	/CH	9	SY		CY	Notes									
	PLAN	AS CONST.		CONST	1	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	CONST	PLAN	AS CONST.	PLAN	AS CONST.										
61+61	1						6								1		1		12.3		8.0		End Section to include safety end									
73+43	1						6								1		1		12.3		8.0		treatment per M-603-12									
475+92			1								4										8.5		Reset concrete end section									
476+37									12												8.5		Remove and replace double flexible									
476+44									12												8.5		pipe saddle headwall per M-601-11									
658+15	1				8								1								7.5											
668+15	1				10								1								8.5											
Totals	4		1		18		12		24		4		2		2		2		25		57											

	Base Course	Aggregate I	Base Course	Aggregate I	of Concrete	Removal of	Safety Edge	Concrete S	Pavement	Concrete					
	ass 7)	(Cla	iss 6)	(Cla	it (Special)	Pavemen			INCH)	(10.5	Width	Length			
	CY	(CY	C	SY	9	.F	L	SY	9			n	Station	S
	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	FEET	FEET			
Begin Site 1, Shoulder taper		29		48		190		175		251	Varies	175	31+95	to	30+20
		911		1724		5,985		5525		9,824	16	5,525	87+20	to	31+95
End Site 1, Shoulder taper		139		228		910		840		1,204	Varies	840	95+60	to	87+20
Begin Site 2, Shoulder taper		31		85		178		200		267	Varies	200	455+00	to	453+00
		815		3030		4,889		5500		9,778	16.00	5,500	510+00	to	455+00
End Site 2, shoulder taper		125		357		747		840		1,120	Varies	840	518+40	to	510+00
Begin Site 3, Shoulder Taper		30		135		178		200		267	Varies	200	653+00	to	651+00
End Site 3, Match existing wid		340		1991		2,200		2300		4,089	16	2,300	676+00	to	653+00

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Colorado Department of Transportation

10601 W. 10th St.
Greeley, C0 80634
Phone: 970-350-2211 FAX: 970-350-2198

Region 4 KMK

	As Constructed	REMOVALS, RES	ETS, CULVERTS,	Project No./Co	de
	No Revisions:	AND SURFACIN	G TABULATIONS	NHPP R400-370	
3	Revised:		Structure Numbers	22975	
	Void:	Detailer: MJS Sheet Subset:	Subset Sheets:	Sheet Number	10

TO ESTABLISH GEOMETRIC CONTROL FOR THE PROJECT, THE DEPARTMENT HAS PROVIDED TO							pecial Special erval Offset 		— □ Pavement Mar —— □ Stri —— □ Stri	iping (Temp)		
Format * 3D Design Modeling Electronic Files Horizontal ControlPLANS Vertical ControlPLANS Roadway AlignmentPLANS Original Terrain Data Other:			W OKWA	<u></u>		Heating & Scarifying Treatment Prime Coat, Tack Coat & Rejuvenating Agent (Section 407) Seal Coat or Chip Seal (Section 409) Other:		_		nbols	elevations (Temp)	rices (Section 630)
 Specify the information format, ie., plan sheet, co The information marked is either contained on the 						Roadway Elements — Curb and Gutter (Section 609) — Drop inlets -	erval Offset			s (Temp Staking by P	•	
■ Safety Improvement □ Bridge □ Asphalt Overlay □ Bridge □ Concrete Overlay □ New E ■ Minor Widening □ Other	Roadway e Replace e Widenin Bridge	Construction ement	1	-			enter Right erval Interval 		□ Monumentation	n (Section 629) ntrol nt of Way d corners, Aliquot cor	ners	UNDER SECTION 629:
SURVEY WORK TO BE PERFORMED BY OTHERS:						■ Minor Structures			🖂 Rep	place the specified existate monuments.	sting monuments: **	
WORK PERFORMED BY THE CONTRACTOR'S SUI	ted within	n 6 months p	prior to the s	tart of the pro	ject)	 Structure Excavation limits (Section 206) Culverts (Section 603) Culverts w/ Headwalls and Wingwalls (Section 601) Concrete Box Culverts w/ Headwalls and Wingwalls 			NOTE: All 629 of evic	items shall include ade dence for monuments ion of Survey Monume	equate research, calcul to be set.	ations, and evaluations
An instrument calibration Certification (complet Establish and Maintain Project Centerline or En Verification and Maintenance of Horizontal and Verify or Determine existing grades and alignm Verify or Determine existing topography	ngineer A I Vertical	Approved Off	prior to the s set Line(s)	tart of the pro	ject)	Pipes (Section 603) Sanitary Sewer Storm Sewer Water Irigation		1. Unless in	_ NOTES: indicated otherwise on	•	Sheet, all survey work a	and staking intervals shall
Clearing and Grubbing Limits (Section 201) Removal Limits (Section 202) Reset Items (Section 210) Excavation and Embankment (Section 203)	Slope		Grid Grade	Special		☐ ☐ Miscellaneous ☐ ☐ Manholes (Section 604) ☐ ☐ Inlets (Section 604)		on the the Cor	plans. Any additionalinf ntractor's surveyor.	formation required to st	take the item or eleme	items have been specified ent shall be generated by
Excavation and Embankment (Section 203) Excavation Unclassified Stripping	noitio	Υ	(/N) (Y/N) 	Interval - -			Deidaga	items ir blank lir	ndicated on this sheet. ne to the left of the s	all provide an estimate o A copy of this sheet, w pecified items, shall be s the Presurvey Confere	vith the estimated man- submitted with the Surv	vey Schedule to the
	EXCO	-		- - -		 Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, and all other structures assigned a structure number □ Structure Excavation limits (Section 206) □ Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls 	J	4. Stakes (and Monuments which a	are damaged or destroy t no additional cost to t	yed by the progress of he Department.	f construction shall be
— □ Other: — □ Potholing — ■ Embankment □ □ Site Grading	kment	- Y -				 — Piling locations and cut off elevations (Section 502) — Caisson locations and elevations (Section 503) — Footing locations, alignment, and elevations — Abutment/Pier locations, alignment, and elevations 		to the l CDOT S data rej	Engineer prior to comp Survey Manual. A printed Port and a computer d	oletion of twenty percend d copy of the As Stake disk with that information	t (20%) of the planned of the constant of the	Files) Earthwork Quantity report earthwork in any phase as per the nag Electronic Files) Earthwork format shall be submitted to the maximum 500 feet intervals.
☐ Erosion Control (Perm) ☐ Other: ☐ As Staked Earthwork Quantities	Emban	-		-		 Wingwall skew angles/offsets Structural concrete form locations Substructure As-constructed survey required for Bridges (Subsection 601 .12) and Overhead si 	sians (S-614-50)	6. Prior to Contrac	o beginning work on an ctor shall certify in writ	y subsequent operation, ing to the Engineer tha	, such as placing base o t the final grade is withi	course or paving, the in specified tolerance.
(See General Notes)						□ Bridge expansion joint(s) alignment and grade (longitudinal and tr □ Deck grades at Girder 10th or "n" th point locations and elevated.	transverse)		ntractor's surveyor sha eld grades.	all perform all field surve	eying and calculations n	ecessary to tie plan grades
						☐ Slope and Ditch Paving (Section 507) ☐ Other: ☐ Fencing (Section 607) ☐ Temporary ☐ Permanent ☐ Sound Barrier ☐ Other: ☐ Delineators (Section 612)		9. Fieldbod shall col informa copy fo linear s measur informa	oks shall contain daily r ontain: date, crew memb ation is collected electr ormat that is intuitive, o surveys, such as slope red information. Non-line ation, such as point nun	pers' names, point no., de conically, information rec clear and related to the stakes and blue tops, s ear surveys such as str nbers, to the sketch.	nd or measurements ob escription, staking inform orded shall be provided e supplemental informati shall have the station an ructures staking shall ha	served. The information recorded mation, and sketches. If the survey to the Project Engineer in a hard on recorded in the field books. All and offset information related to the ave sketches relating electronic
☐ Silt Fence ☐ Erosion Bales ☐ Erosion Logs ☐ Riprap (Temp) ☐ Other: ☐ Roadway Bases ☐ Untreated Subgrade ☐ Treated Subgrade	Bases	Grid Gi (Y/N) (\'-	rade Speci Y/N) Interv Y -	al Special offset - -	_	 ☐ Temporary ☐ Permanent ☐ Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 61 ☐ Signal pole locations and elevations ☐ Light pole locations and elevations ☐ Sign locations ☐ Field verify sign post locations, elevations, and lengths before f 		Ho	lorizontal Control (Prim vertical Control (i.e. Be vroperty Pin Ties lorizontal Alignment grading lope Staking linor Structures		elabooks to the Engine	er.
Aggregate Base Course (Section 304 Reconditioning PMBB - Plant Mix Bituminous Base Other:	Roadway	- - - -	Y	- - - -		□ Other:		☐ Mo ☐ Or ☐ Or 11. The Con	lajor Structures Ine fieldbook for each Other Fieldbook(s): <u>1 F</u>	• .	EACH SITE	ne project) to the Engineer:
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Sheet Number

Region 4

CDOT

Region 4

10601 West 10th Street Greeley, CO 80634 Phone: 970-350-2173 FAX: 970-350-2223

. 970-330-2173 970-350-2223 MDG

	Sheet Revisions			Sheet Revisions			Sheet Revisions	
Date	Description	Initials	Date	Description	Initials	Date	Description	Initials

	Project Control Diagram									
	Title Sheet									
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Project Code: Last Mod. Date Subset Sheet No.										
22975	01-10-2020	3.01 of 3.03	3.01							

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

SHEET NO.

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Title Sheet
 Coordinate Tables

(1) Plan Sheet

(3) Total Sheets

$\sqrt{1}$ $\sqrt{1}$ QUARTER, SIXTEENTH, SECTION CORNER (1) 1 RIGHT OF WAY SET EASMENT TEMPORARY MUNUMENT EASMENT POINT MARKER QUARTER, SIXTEENTH, BLM MARKER PROPERTY PIN NOAA MARKER AND SECTION CORNERS W.C. WITNESS CORNER BENCH MARK USGS MARKER FEDERAL MONUMENT LOCAL OR PLSS SECONDARY CONTROL RIGHT OF WAY N 10.13 E 3.81 EL 0.00 N 10.38 E 3.81 EL 0.00 E 3.81 EL 0.00

DENSIFICATION

CONTROL MONUMENT

Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication dated July 2012. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.



PROJECT CONTROL

Typical Control Monument Cap Not to Scale

HIGH ACCURACY REFERENCE

NETWORK CONTROL MONUMENT

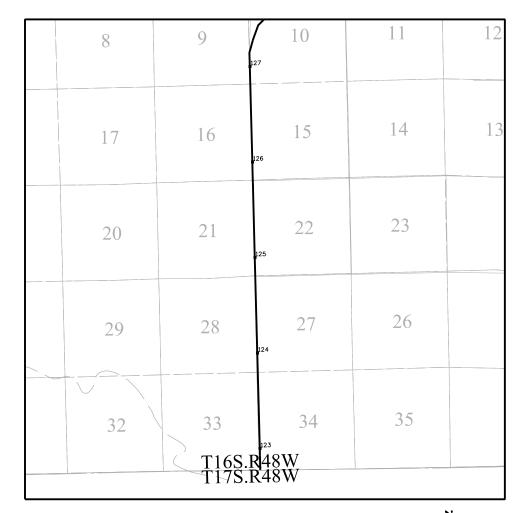
CM-MP - Control Point Monuments set by CDDT. They are CDDT Type 2 monuments, a $3\frac{1}{4}$ " dia. aluminum control monument cap (as shown) on a $3\frac{1}{x}\frac{3}{4}$ " dia. aluminum security rod on a $3\frac{1}{x}\frac{3}{4}$ " dia. smooth aluminum rod.

General Notes:

- 1. This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- 2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDDT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
- 3. Refer to the M-629-1 Survey Monuments of the Standard Plans dated July, 2019 found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.

State Highway 287 MP 123.55 to 125.81 Sections 21, 22, 27, 28, 33, 34 Township 16 South, Range 48 West of the 6th Principal Meridian County of Cheyenne

PROJECT CONTROL DIAGRAM







Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of N 3° 12'27" E from the Control Monument "F 37" (NGS Monument), Section 28, Township 16 South, Range 48 West, Sixth P.M. and the Control Monument "CM 242A" (CDDT Type 2 Monument, MP 124.20), Section 27, Township 16 South, Range 48 West, Sixth P.M. as obtained from a Global Positioning System (GPS) survey based on the National Spatial Reference System (NSRS).

Basis of Elevations: Project elevations are GPS derived, using GEDID 12, based on a NAVD 88 elevation of 1286.396m on NGS Benchmark "F 37" (Stamped "F 37 1933" Bench Mark Disk set in top of concrete monument).

COORDINATE DATUM: Project coordinates are modified Colorado State Plane North Zone NAD 83(2011) coordinates. The project seed point (CM 124.54) coordinates are: Northing = 398034.204m, Easting = 1150640.841m, and Elevation = 1270.469m. The ground scale factor used to modify the coordinates is 1.00023106004233. Project Coordinates are truncated by 300,000m in the Northing and 1,000,000m in the Easting.

To get from Project to State Plane coordinates: convert project coordinates to metric, add the truncation, subtract the seed point northing and easting, divide by the ground scale factor, then add the seed point northing and easting.

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Mark L. Angell, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 38340



Region 4

10601 West 10th Street Greeley, CD 80634 Phone: 970-350-2173 FAX: 970-350-2223

MDG

	Sheet Revisions			Sheet Revisions			Sheet Revisions	
te	Description	Initials	Date	Description	Initials	Date	Description	Initia

Project Control Diagram									
Coordinate Tables									
Project Number: NHPP R400-370									
Project Lo	cation: US 2	87/US 40 Passing	Lanes Li	imon					
	To Eads								
Project Code:	Last Mod. Date	Subset	Sheet No.						
22975	01-09-20	3.01 of 3.03	3.02						

	CHARN GEODETIC COORDINATE TABLE											
	(adjusted field data) (meters)											
NAME	NAME COORDINATES NAD 83(2011)		ELLIPS.	MAPPING SCALE		NAD 83(2011)	ZONE 0501	DESCRIPTION				
IVANLE	LATITUDE	LONGITUDE	HEIGHT	ANGLE	JUALL	NORTHING	EASTING	DESCRIPTION				
C 37	38°44'37.44508" N	102°47'42.19475" W	1279.871	1°42'22"	0.999955239	409362.158	1149519.181	NGS Disk in concrete post				
F 37	38°37'59.90689" N	102°47'10.15352" W	1263.814	1°42'42"	0.999969017	397132.686	1150658.709	NGS Disk in concrete post				
G 37	38°35'37.83353" N	102°47'10.36929" W	1274.554	1°42'42"	0.999974833	392753.692	1150784.338	NGS Disk in concrete post				

			GEO	DETIC (COORDII	NATE TAE	BLE	
				(adjuste	d field data)	(meters)		
NAME	COORDINATES	S NAD 83(2011)	ELLIPS.	MAPPING	SCALE	NAD 83(2011)	ZONE 0501	DESCRIPTION
NAME	LATITUDE	LONGITUDE	HEIGHT	ANGLE	SCALE	NORTHING	EASTING	DESCRIPTION
CM 123.55	38°37'36.95050" N	102°47'09.84418" W	1261.299	1°42'42"	0.999969925	396425.371	1150687.331	CDOT Type 2 Monument (MP 123.55)
CM 125.00	38°38'55.76859" N	102°47'09.00391" W	1273.503	1°42'42"	0.999966859	398855.229	1150635.047	CDOT Type 2 Monument (MP 125.00)
CM 242A	38°38'11.37373" N	102°47'08.89524" W	1262.702	1°42'43"	0.999968568	397487.015	1150678.566	CDOT Type 2 Monument (MP 124.20)
CM 258A	38°39'29.71975" N	102°47'08.57148" W	1277.055	1°42'43"	0.999965583	399901.950	1150614.225	CDOT Type 2 Monument (MP 125.60)
CM 2320	38°37'18.49705" N	102°47'08.85253" W	1255.881	1°42'43"	0.999970664	395857.335	1150728.304	CDOT Type 2 Monument (MP 123.20)
CM 2454	38°38'29.14824" N	102°47'09.77861" W	1270.469	1°42'42"	0.999967879	398034.204	1150640.841	CDOT Type 2 Monument (MP 124.54)
CM 2561	38°39'18.81900" N	102°47'08.69331" W	1275.733	1°42'43"	0.999965990	399565.890	1150621.322	CDOT Type 2 Monument (MP 125.45)
C 37	38°44'37.44508" N	102°47'42.19475" W	1279.871	1°42'22"	0.999955239	409362.158	1149519.181	NGS Disk in concrete post
F 37	38°37'59.90689" N	102°47'10.15352" W	1263.814	1°42'42"	0.999969017	397132.686	1150658.709	NGS Disk in concrete post
G 37	38°35'37.83353" N	102°47'10.36929" W	1274.554	1°42'42"	0.999974833	392753.692	1150784.338	NGS Disk in concrete post

F	PROJECT COORDINATE SUMMARY TABLE (feet)											
NAME	PROJECT CO	ORDINATES	ELEV.	DESCRIPTION								
NAME	NORTHING	EASTING	(NAVD 88)	DESCRIPTION								
CM 123.55	316354.353	494380.054	4212.198	CDOT Type 2 Monument (MP 123.55)								
CM 125.00	324328.154	494208.479	4252.239	CDOT Type 2 Monument (MP 125.00)								
CM 242A	319838.232	494351.291	4216.801	CDOT Type 2 Monument (MP 124.20)								
CM 258A	327763.065	494140.151	4263.897	CDOT Type 2 Monument (MP 125.60)								
CM 2320	314490.289	494514.510	4194.424	CDOT Type 2 Monument (MP 123.20)								
CM 2454	321633.886	494227.492	4242.285	CDOT Type 2 Monument (MP 124.54)								
CM 2561	326660.253	494163.439	4259.556	CDOT Type 2 Monument (MP 125.45)								
C 37	358807.601	490546.664	4273.112	NGS Disk in concrete post								
F 37	318675.472	494286.129	4220.451	NGS Disk in concrete post								
G 37	304305.403	494698.391	4255.680	NGS Disk in concrete post								

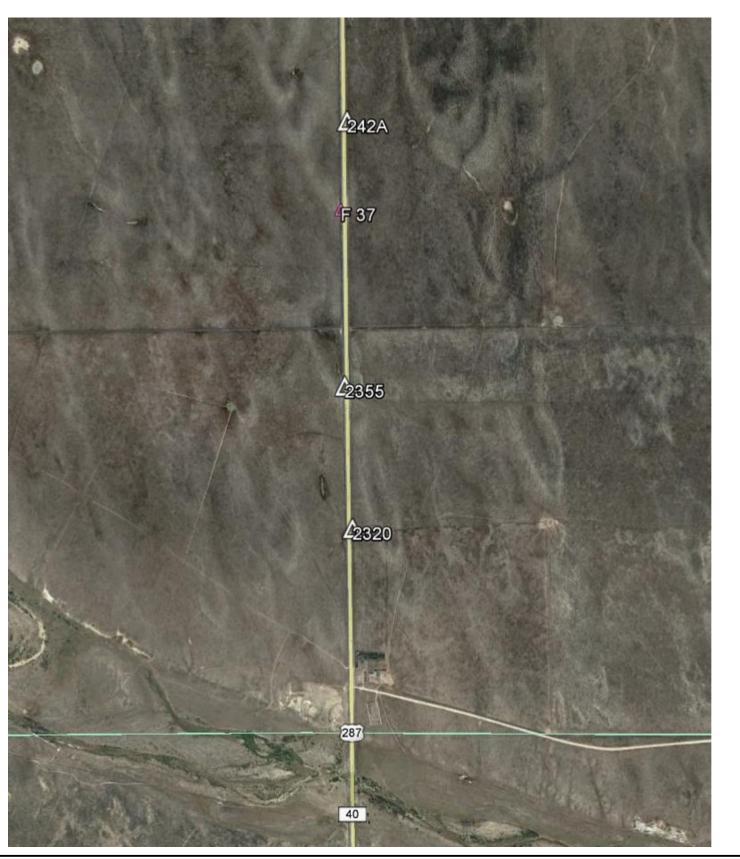


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Project Control Diagram							
Plan Sheet							
Project Number: NHPP 1	R400-370						
Project Location: US 2	87/US 40 Passing	Lanes Limon					
To Eads							
roject Code: Last Mod. Date	Subset	Sheet No.					





CDOT

Region 4

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Date	Description	Initials	Date	Description	Initials	Date	Description	Initio

Project Control Diagram

Title Sheet

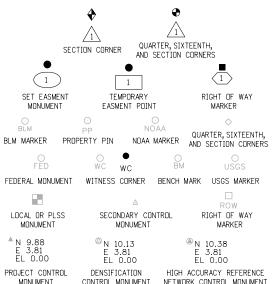
Project Number: NHPP R400-370

Project Location: US 287/US 40 Passing Lanes Limon

To Eads

Project Code: Last Mod. Date Subset Sheet No.

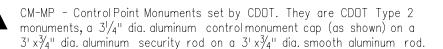
MDG



Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication dated July 2012. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.



Typical Control Monument Cap Not to Scale



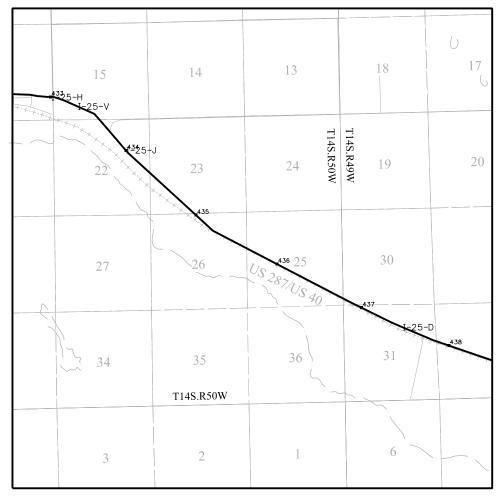
General Notes:

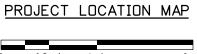
- 1. This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- 2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
- 3. Refer to the M-629-1 Survey Monuments of the Standard Plans dated July, 2012 found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

PROJECT CONTROL DIAGRAM

US 287/US 40 MP 435.72 to 437.44
Sections 30, 31
Township 14 South, Range 49 West
Sections 25, 26
Township 14 South, Range 50 West
of the 6th Principal Meridian
County of Cheyenne





MP 437.20), Section 31, Township 14 South, Range 49 West, Sixth P.M. as obtained from a Global Positioning System (GPS) survey based on the National Spatial Reference System (NSRS).

Basis of Elevations: Project elevations are GPS derived, using GEDID 12, based on a NAVD 88 elevation of 1369.154m on NGS Benchmark "E 256" (Stamped "E 256 1938" NGS bench mark disk set in top of concrete monument).

COORDINATE DATUM: Project coordinates are modified Colorado State Plane North Zone NAD 83(2011) coordinates. The project seed point (CM 3666) coordinates are: Northing = 414704.869m, Easting = 1136309.419m, and Elevation = 1325.095m. The ground scale factor used to modify the coordinates is 1.00025742876323. Project Coordinates are truncated by 400,000m in the Northing and 1,000,000m in the Easting.

To get from Project to State Plane coordinates: convert project coordinates

To get from Project to State Plane coordinates: convert project coordinates to metric, add the truncation, subtract the seed point northing and easting, divide by the ground scale factor, then add the seed point northing and easting.

Basis of Bearings: Bearings used in the calculations of coordinates are based

on a grid bearing of S 62°03'02" W from the Control Monument "CM 3666"

(CDOT Type 2 Monument, MP 436.66), Section 25, Township 14 South, Range 50

West, Sixth P.M. and the Control Monument "CM 3720" (CDDT Type 2 Monument,

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.



I, Lee K. Groves , a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 34169

 SHEET NO.
 INDEX OF SHEETS

 3.01
 1 Title Sheet

 3.02
 1 Coordinate Tables

 3.03
 1 Plan Sheet

 3 Total Sheets



Region 4

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ate	Description	Initials	Date	Description	Initials	Date	Description	Initials	

Project Control Diagram

Coordinate Tables

Project Number: NHPP R400-370

Project Location: US 287/US 40 Passing Lanes Limon
To Eads

Project Code: Last Mod. Date Subset Sheet No. 22975 04-01-20 3.01 of 3.03 3.02



	CHARN GEODETIC COORDINATE TABLE								
(adjusted field data) (meters)									
NAME	COORDINATES	S NAD 83(2011)	ELLIPS.	MAPPING	SCALE	NAD 83(2011)	ZONE 0501	DESCRIPTION	
NAME	LATITUDE	LONGITUDE	HEIGHT	ANGLE	SCALL	NORTHING	EASTING	DESCRIPTION	
ANGLE	38°47'20.19866" N	102°55'50.01940" W	1324.129	1°37'14"	0.999950660	414036.728	1137602.056	Bench Mark Disk in concrete monument	
E256	38°49'47.27723" N	103°02'15.06880" W	1346.897	1°33'11"	0.999947053	418312.919	1128190.298	Bench Mark Disk in concrete monument	



PROJECT COORDINATE SUMMARY TABLE (feet)										
NAME	PROJECT CO	OORDINATES	ELEV.	DESCRIPTION						
I IVANIE	NORTHING	EASTING	(NAVD 88)	DECORN FION						
CM 3572	50567.019	442687.015	4431.651	CDOT Type 2 Monument (MP 435.72)						
CM 3620	49500.172	444752.697	4427.308	CDOT Type 2 Monument (MP 436.20)						
CM 3666	48244.223	447208.486	4420.885	CDOT Type 2 Monument (MP 436.66)						
CM 3720	46996.920	449559.330	4414.219	CDOT Type 2 Monument (MP 437.20)						
CM 3744	46403.893	450745.884	4419.331	CDOT Type 2 Monument (MP 437.44)						



	GEODETIC COORDINATE TABLE									
(adjusted field data) (meters)										
NAME	COORDINATES NAD 83(2011)		ELLIPS.	MAPPING SCALE		NAD 83(2011) ZONE 0501		DESCRIPTION		
NAME	LATITUDE	LONGITUDE	HEIGHT	ANGLE	SCALL	NORTHING	EASTING	DESCRIPTION		
CM 3572	38°48'07.23864" N	102°57'39.03738" W	1328.397	1°36'05"	0.999949452	415412.676	1134931.627	CDOT Type 2 Monument (MP 435.72)		
CM 3620	38°47'56.12853" N	102°57'13.33752" W	1327.064	1°36'21"	0.999949732	415087.584	1135561.086	CDOT Type 2 Monument (MP 436.20)		
CM 3666	38°47'43.04043" N	102°56'42.78272" W	1325.095	1°36'41"	0.999950067	414704.869	1136309.419	CDOT Type 2 Monument (MP 436.66)		
CM 3720	38°47'30.06476" N	102°56'13.55261" W	1323.053	1°36'59"	0.999950402	414324.788	1137025.773	CDOT Type 2 Monument (MP 437.20)		
CM 3744	38°47'23.87557" N	102°55'58.78723" W	1324.606	1°37'08"	0.999950564	414144.079	1137387.343	CDOT Type 2 Monument (MP 437.44)		



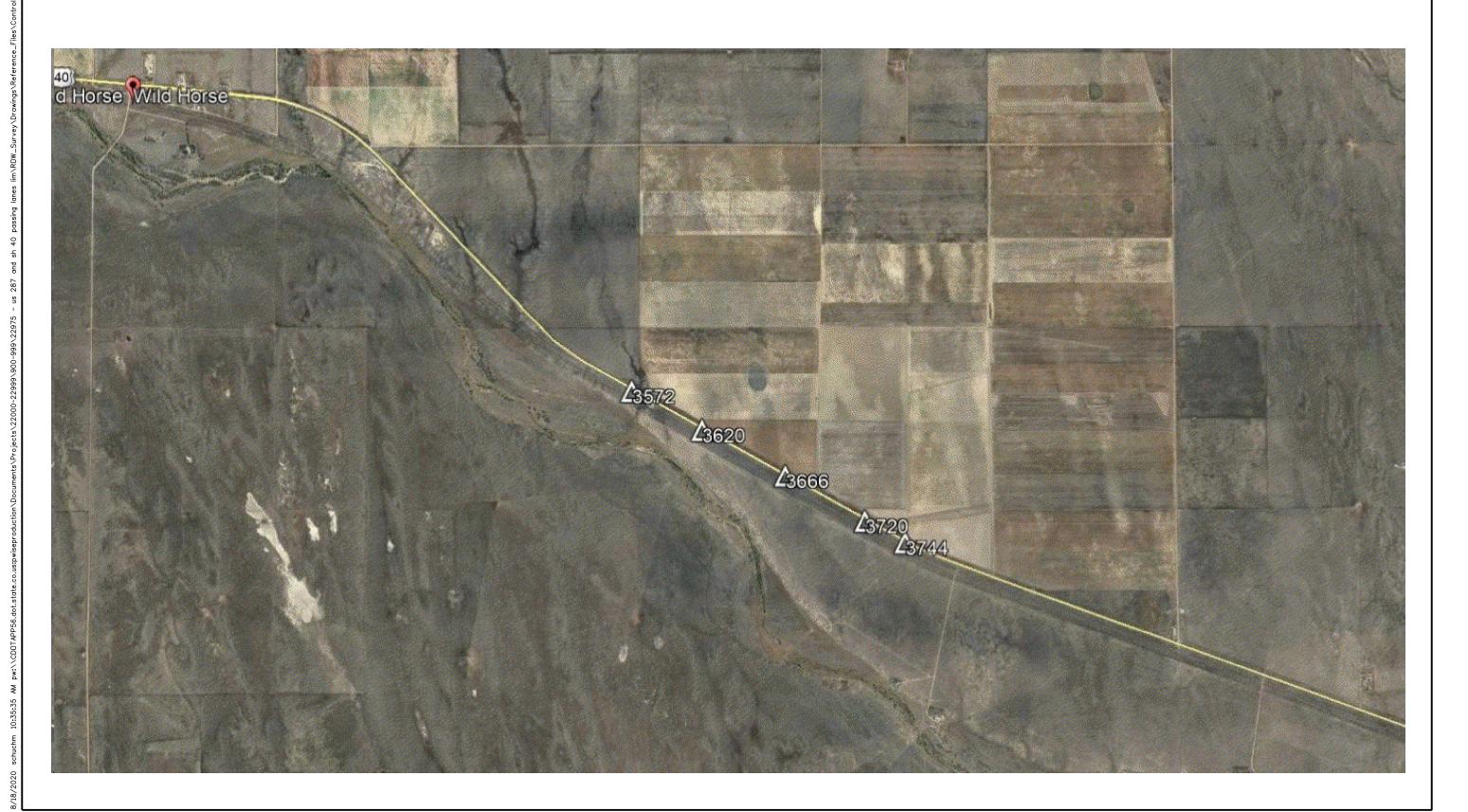
Region 4

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Project Control Diagram							
Plan Sheet							
Project Number: NHPP R400-370							
Project Lo	cation: US 2	87/US40 Passing L	anes Lin	non			
	To E	ads					
Project Code:	Last Mod. Date	Subset	Sheet No.				
22975	04/02/20	3.01 of 3.03	3.03				



CDOT

Region 4

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Project Control Diagram							
Title Sheet							
oject Number: NHPP	R400-370						
oject Location: US 2	87/US 40 Passing	Lanes Limon					
To Eads							
ect Code: Last Mod. Date	Subset	Sheet No.					

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

SHEET NO. INDEX OF SHEETS

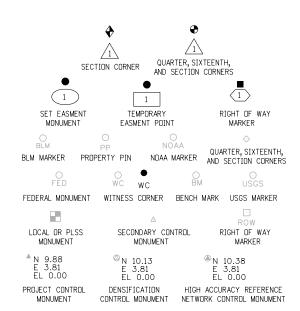
3.01 1 3.02 1 3.03 1

1 Title Sheet1 Coordinate Tables1 Plan Sheet

3 Total Sheets

PROJECT CONTROL DIAGRAM

US 287/US 40 MP 407.28 to 408.50 Sections 29, 32, 33 Township 11 South, Range 53 West of the 6th Principal Meridian County of Lincoln



Note: For a complete listing of symbololgy used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication dated July 2012. Existing features are shown as screened weight (gray scale). Proposed or new features are shown as full weight without screening.

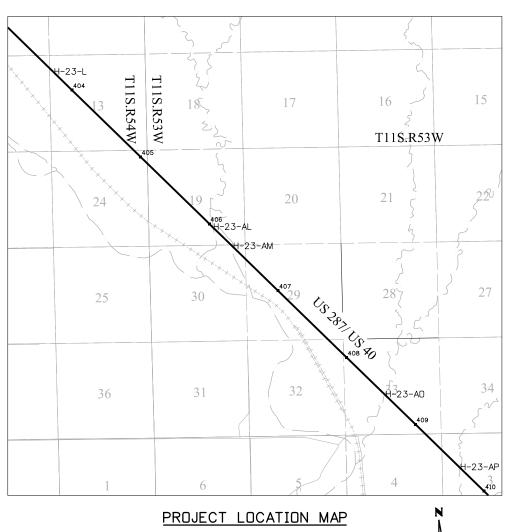


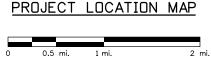
Typical Control Monument Cap Not to Scale

CM-MP - Control Point Monuments set by CDDT. They are CDDT Type 2 monuments, a $3^{1}/_{4}$ " dia. aluminum control monument cap (as shown) on a $3^{1} \times \frac{3}{4}$ " dia. aluminum security rod on a $3^{1} \times \frac{3}{4}$ " dia. smooth aluminum rod.

General Notes:

- 1. This Project Control Diagram is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- 2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDOT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
- 3. Refer to the M-629-1 Survey Monuments of the Standard Plans dated July, 2012 found in The Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.





Basis of Bearings: Bearings used in the calculations of coordinates are based on a grid bearing of S 46° 48' 16" E from the Control Monument "CM 0764" (CDOT Type 2 Monument, MP 407.64), Section 29, Township 11 South, Range 53 West, Sixth P.M. and the Control Monument "CM 0800" (CDOT Type 2 Monument, MP 408.00), Section 33, Township 11 South, Range 53 West, Sixth P.M. as obtained from a Global Positioning System (GPS) survey based on the National Spatial Reference System (NSRS).

Basis of Elevations: Project elevations are GPS derived, using GEOID 12, based on a NAVD 88 elevation of 1487.112m on NGS Benchmark "L 25" (Stamped "L 25 1929" NGS bench mark disk set in top of concrete monument).

COORDINATE DATUM: Project coordinates are modified Colorado State Plane North Zone NAD 83(2011) coordinates. The project seed point (CM 0800) coordinates are: Northing = 441958.018m, Easting = 1100701.539m, and Elevation = 1469.050m. The ground scale factor used to modify the coordinates is 1.00029371867108. Project Coordinates are truncated by 400,000m in the Northing and 1,000,000m in the Easting.

To get from Project to State Plane coordinates: convert project coordinates to metric, add the truncation, subtract the seed point northing and easting, divide by the ground scale factor, then add the seed point northing and easting.

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

SURVEYOR STATEMENT (PROJECT CONTROL DIAGRAM)

I, Lee K. Groves , a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and, based upon my knowledge, information and belief is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 34169



Region 4

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Project Control Diagram

Coordinate Tables

Project Number: NHPP R400-370

Project Location: US 287/US 40 Passing Lanes Limon
To Eads

Project Code: Last Mod. Date Subset Sheet No. 22975 04-01-20 3.01 of 3.03 3.02



	CHARN GEODETIC COORDINATE TABLE							
	(adjusted field data) (meters)							
NAME	COORDINATE	COORDINATES NAD 83(2011)		MAPPING	SCALE	NAD 83(2011) ZONE 0501		DESCRIPTION
MANIE	LATITUDE	LONGITUDE	HEIGHT	ANGLE	SOALL	NORTHING	EASTING	DESCRIPTION
B 257	39°07'39.83731" N	103°27'05.56935" W	1508.171	1°17'31"	0.999936018	450485.159	1091506.107	Bench Mark Disk in Concrete
CREST	39°00'26.82324" N	103°17'43.12755" W	1489.125	1°23'26"	0.999937237	437452.847	1105335.157	Triangulation Station Disk in Concrete
L 25	39°02'37.36610" N	103°21'02.70032" W	1466.033	1°21'20"	0.999936408	441362.068	1100439.819	Bench Mark Disk in Concrete



	PROJECT COORDINATE SUMMARY TABLE (feet)							
NAME	PROJECT CO	OORDINATES	ELEV.	DESCRIPTION				
NAME	NORTHING	EASTING	(NAVD 88)	DESCRIPTION				
CM 0728	140331.171	327686.423	4899.106	CDOT Type 2 Monument (MP 407.28)				
CM 0764	138973.207	328983.409	4892.432	CDOT Type 2 Monument (MP 407.64)				
CM 0800	137657.265	330384.967	4888.850	CDOT Type 2 Monument (MP 408.00)				
CM 0850	135858.440	332229.481	4879.505	CDOT Type 2 Monument (MP 408.50)				



		GEODETIC COORDINATE TABLE							
	(adjusted field data) (meters)								
۱ د	NAME	COORDINATES	S NAD 83(2011)	ELLIPS.	MAPPING	SCALE	NAD 83(2011)	ZONE 0501	DESCRIPTION
	IVAIVIE	LATITUDE	LONGITUDE	HEIGHT	ANGLE	SOALL	NORTHING	EASTING	DESCRIPTION
	CM 0728	39°03'23.53194" N	103°21'24.62124" W	1472.215	1°21'06"	0.999936210	442772.787	1099879.263	CDOT Type 2 Monument (MP 407.28)
	CM 0764	39°03'09.81408" N	103°21'08.59463" W	1470.162	1°21'16"	0.999936263	442359.001	1100274.469	CDOT Type 2 Monument (MP 407.64)
	CM 0800	39°02'56.48625" N	103°20'51.23231" W	1469.050	1°21'27"	0.999936320	441958.018	1100701.539	CDOT Type 2 Monument (MP 408.00)
	CM 0850	39°02'38.28337" N	103°20'28.40564" W	1466.174	1°21'41"	0.999936403	441409.896	1101263.583	CDOT Type 2 Monument (MP 408.50)

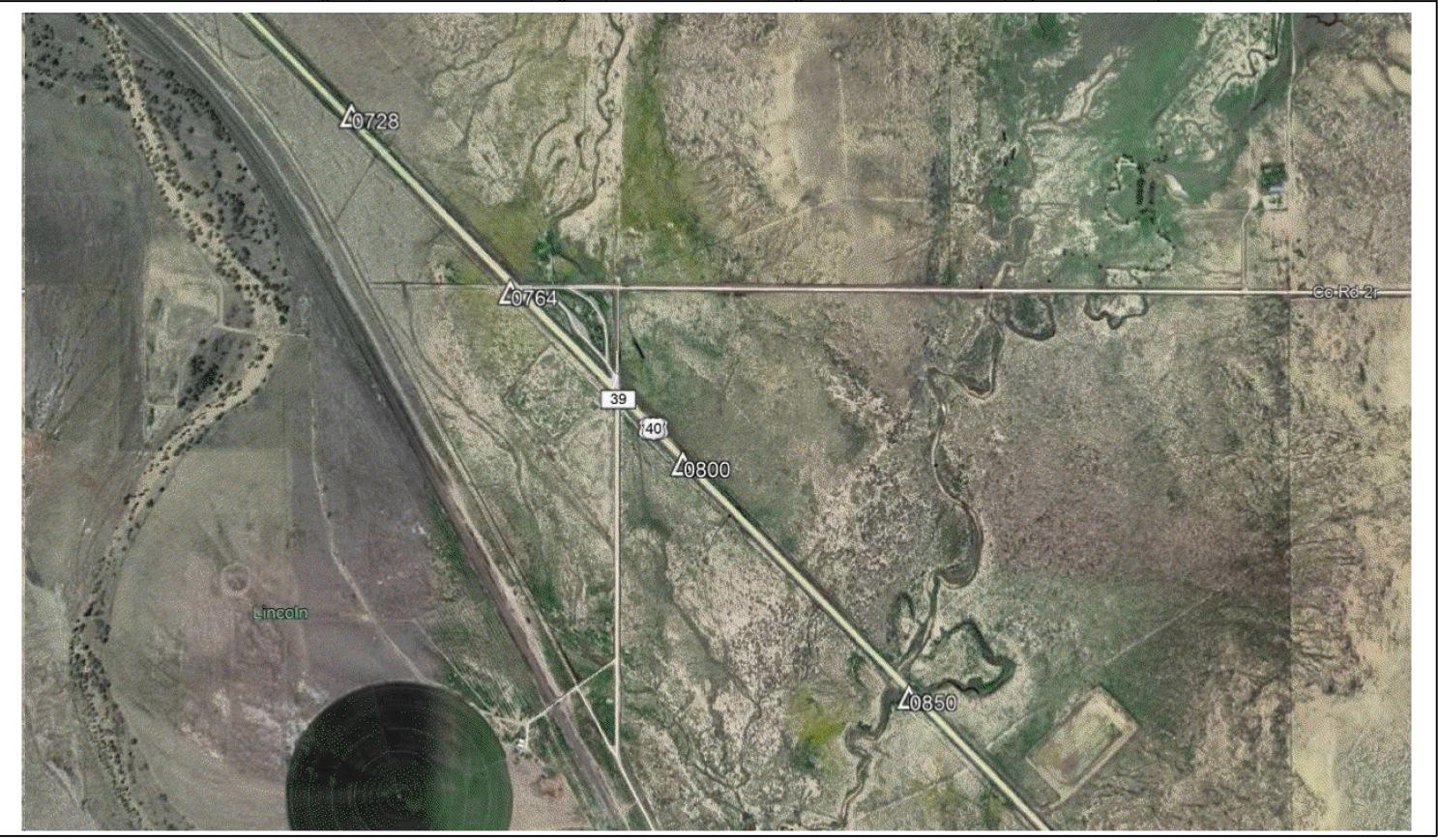


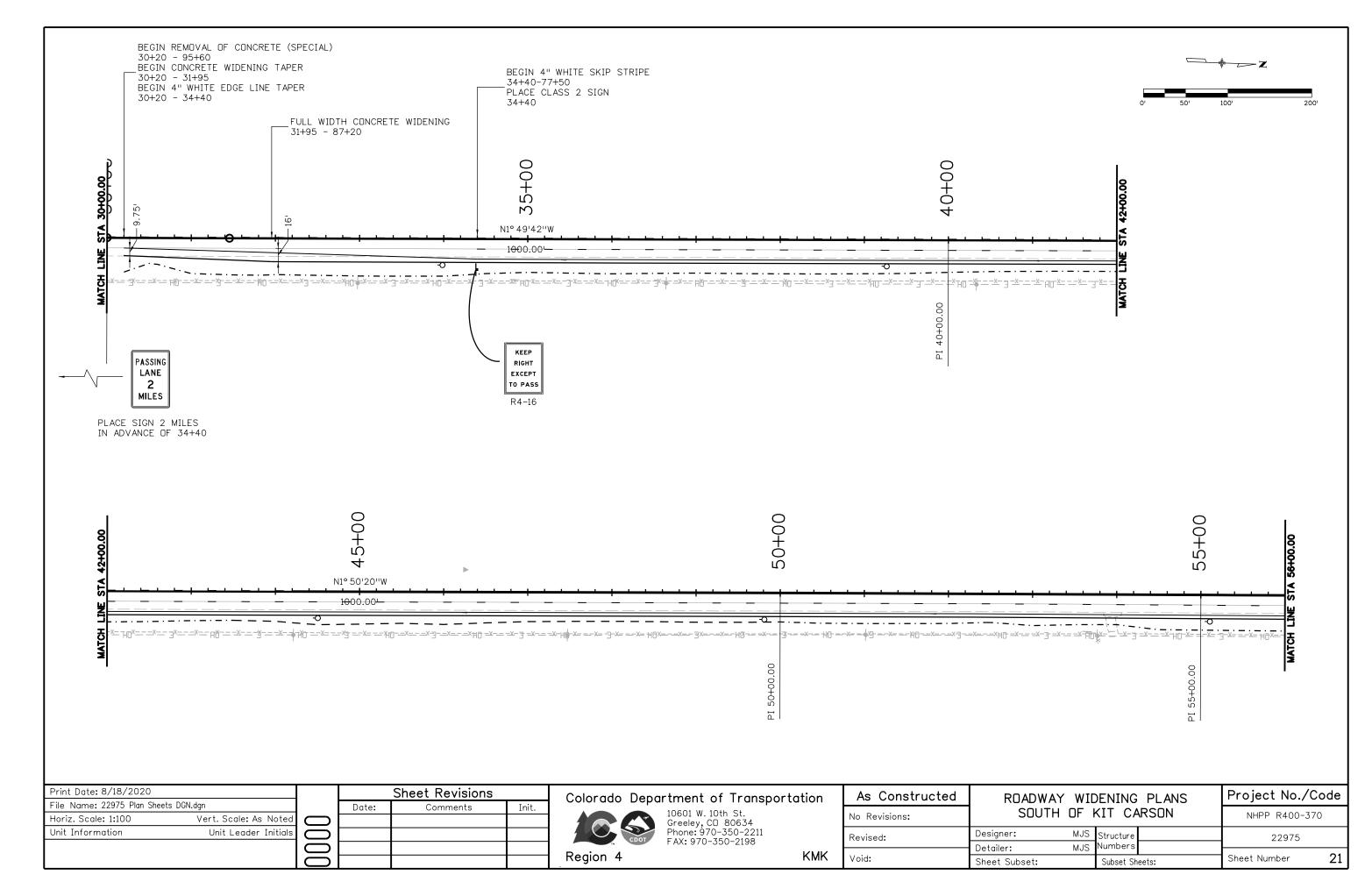
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	Project Control Diagram					
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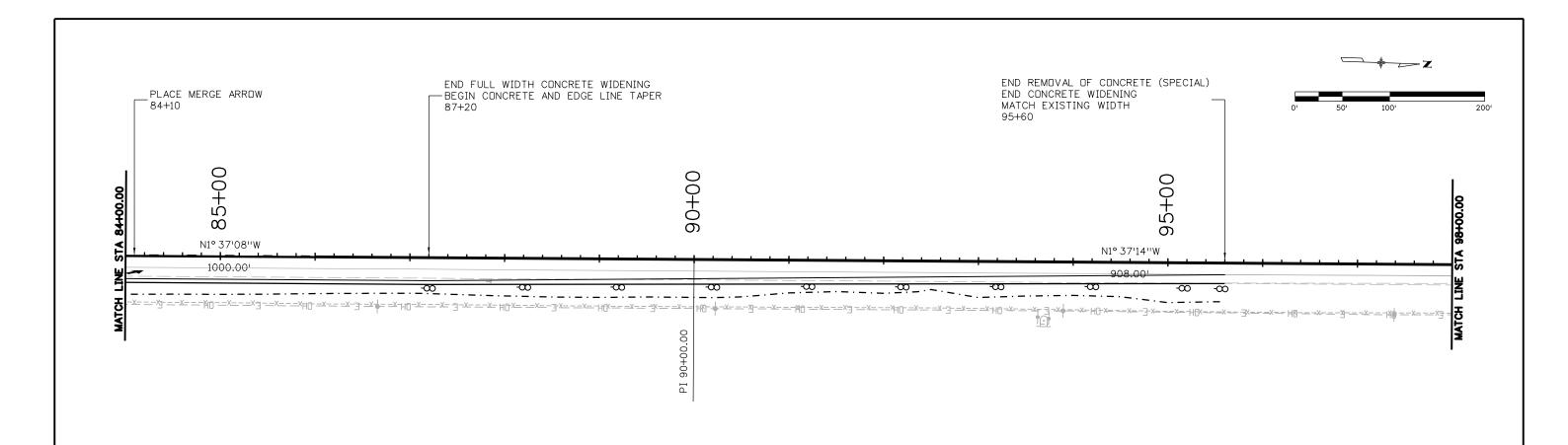
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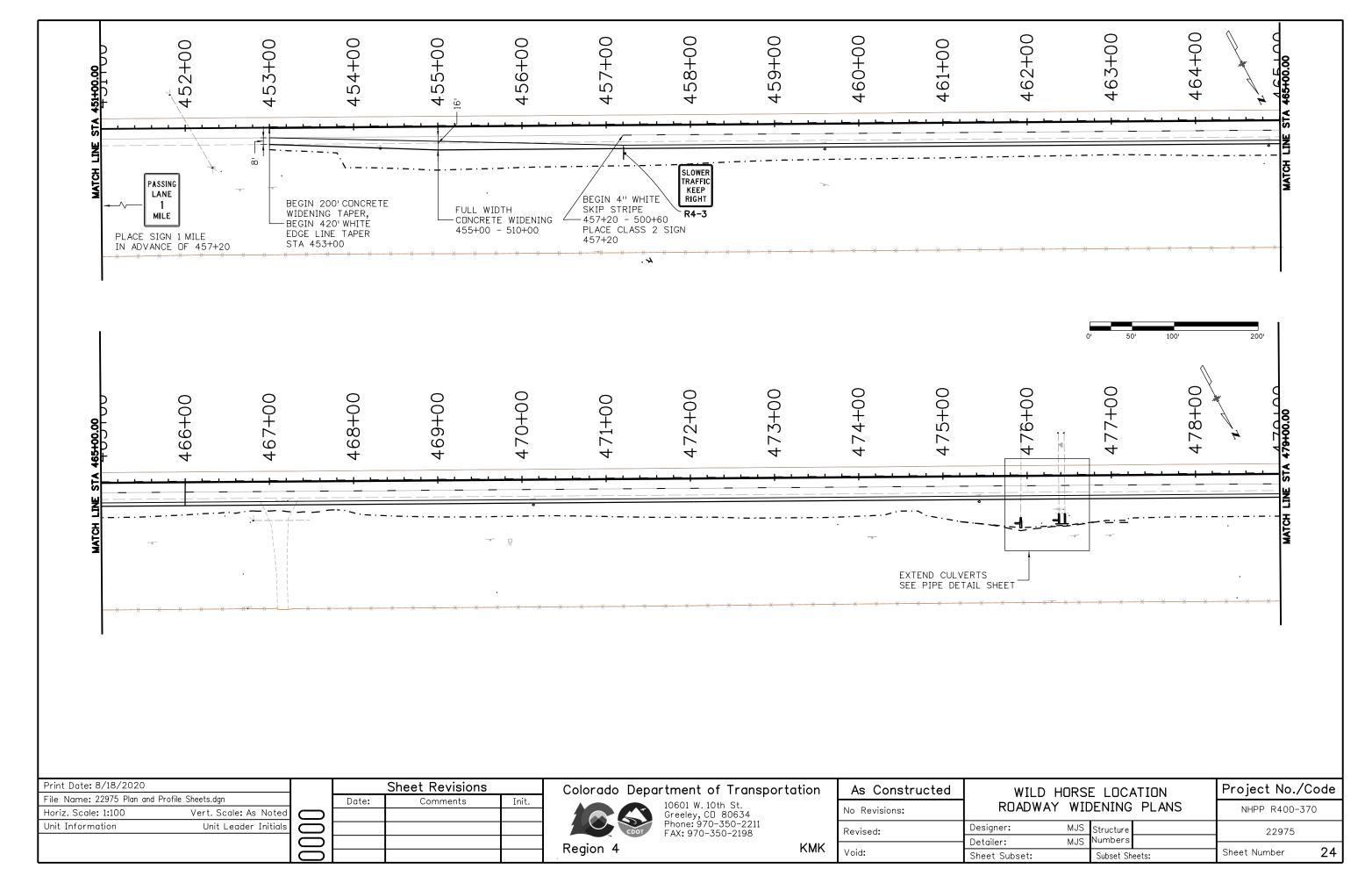
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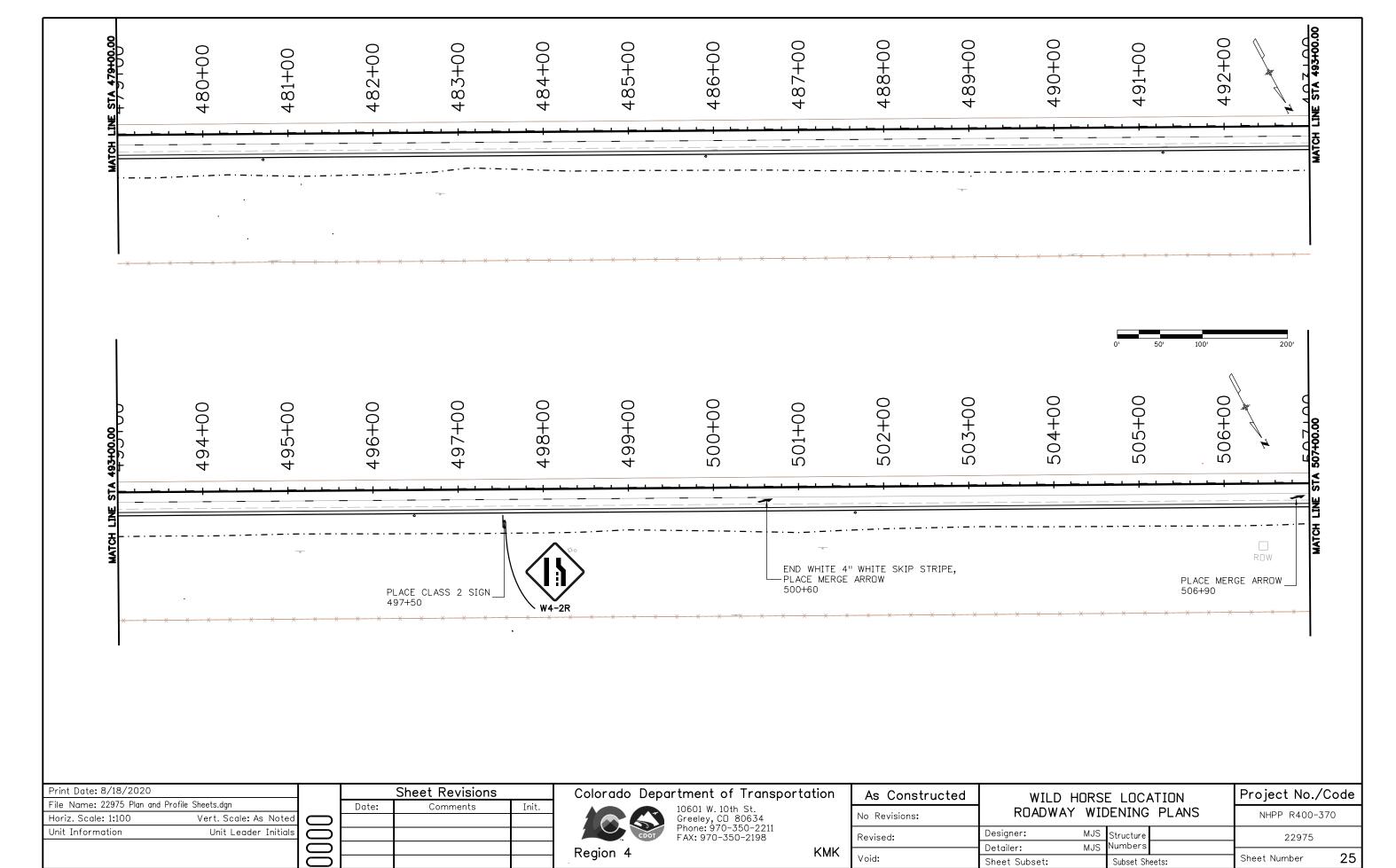
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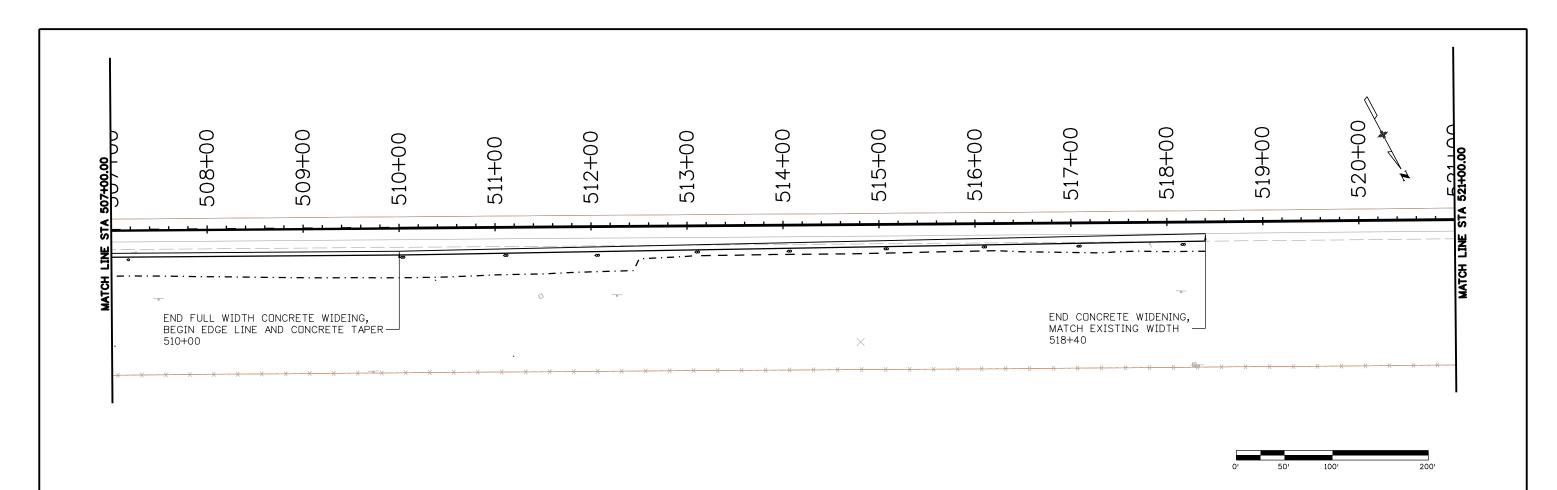
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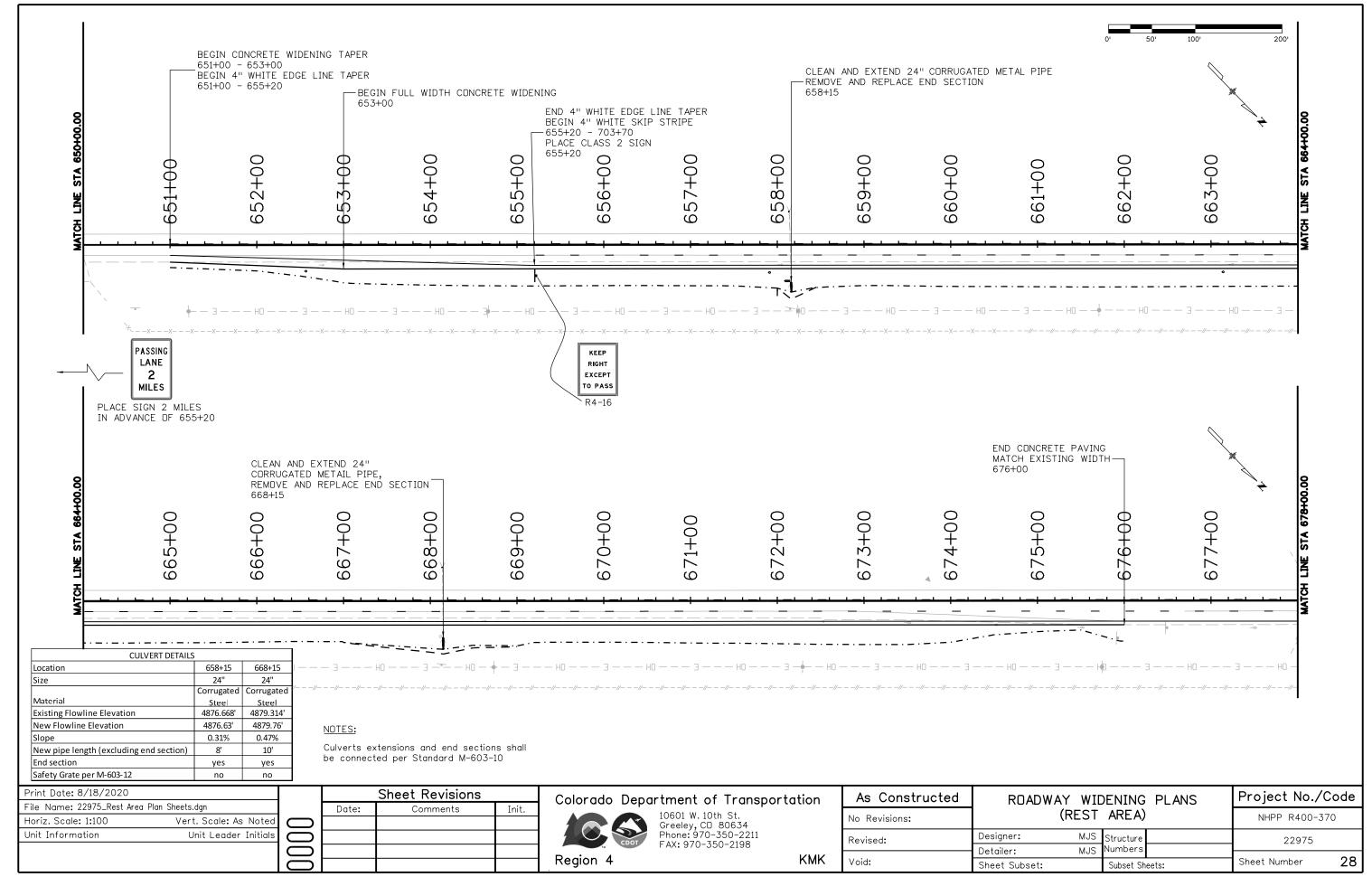
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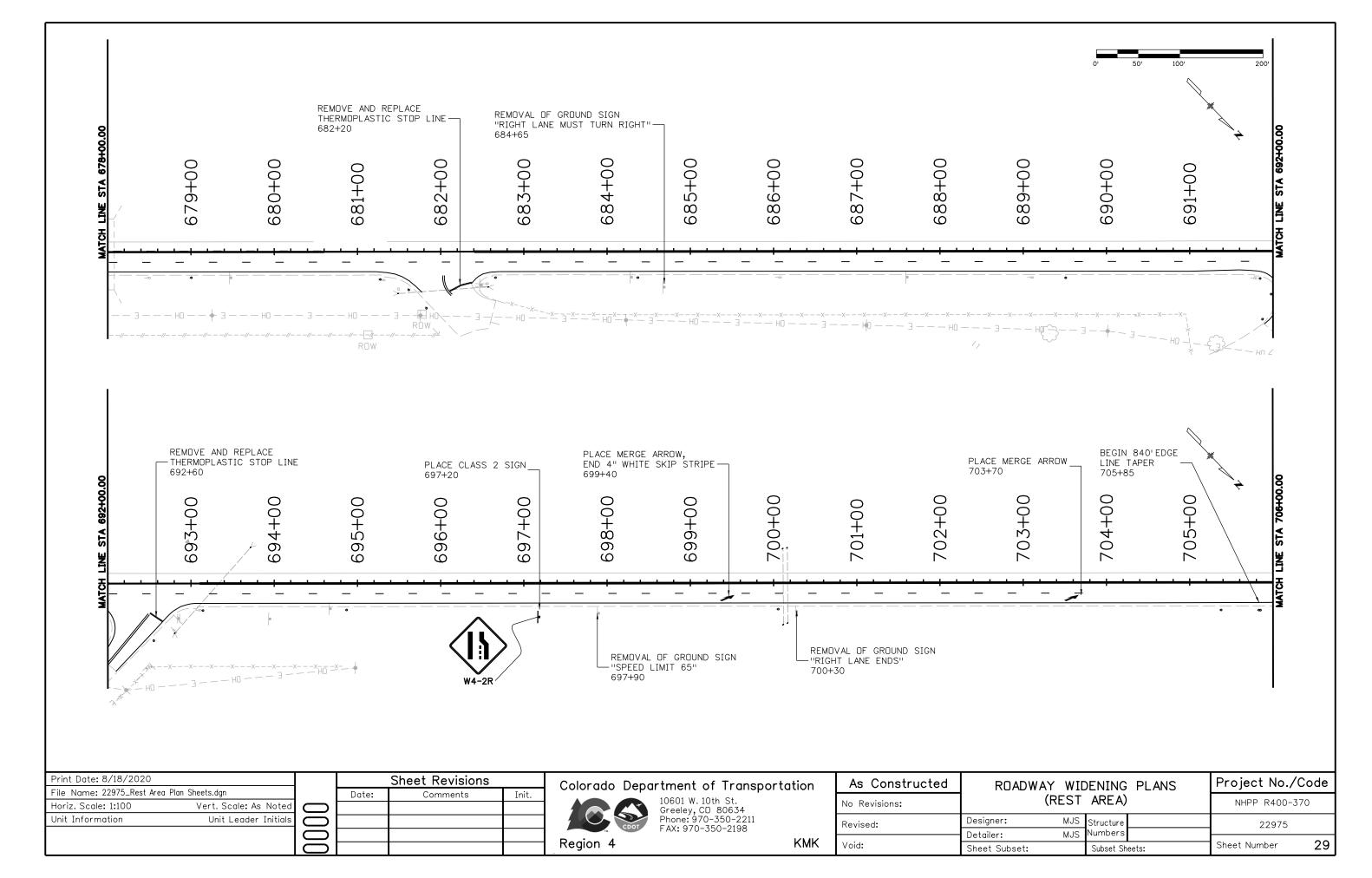
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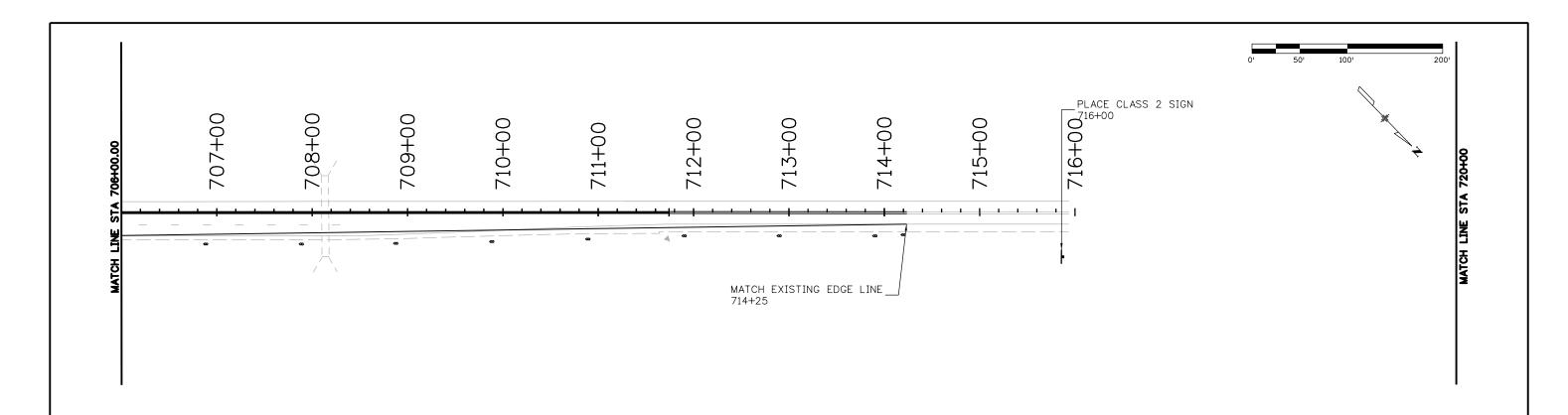
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1. SITE DESCRIPTION

The Contractor shall comply with all CDOT contractual requirements and all requirements associated with the CDPS-SCP on this project. The SWMP Administrator for Construction shall update to reflect current project site conditions.

- A. <u>PROJECT SITE LOCATION</u>: US 287 south of the Town of Kit Carson in Cheyenne County. Milepost 123 through 124.5. SH 40 south of the Town of Wild Horse in Cheyenne County. Milepost 434.87 through 436.11. SH 40 south of the Town of Hugo in Lincoln County. Milepost 407.57 through 408.77. Location or address of construction office:
- B. <u>PROJECT SITE DESCRIPTION</u>: The project includes construction of concrete passing lanes, earthwork, signing, striping, and seeding. The project site is a rural two lane highway with grass shoulders. Work items for the project include clearing and grubbing, saw cutting, removal of concrete paving, unclassified excavation, embankment, concrete paving, signing, striping, and seeding.
- C. <u>PROPOSED SEQUENCING FOR MAJOR CONSTRUCTION ACTIVITIES:</u> The sequence of work will begin with temporary erosion control and continue with clearing and grubbing, removal of pavement markings, temporary striping, saw cutting and removal of concrete shoulder, excavation, embankment, concrete paving, shouldering, signing and striping and will conclude with seeding.

147:14

D. Acres of Disturbance (in acres):

	Kit	Wild	Rest
	Carson	Horse	Area
Total area of construction site (LOC (Permitted Area)):	6.6	8.1	5.9
Total area of proposed disturbance (LDA):	4.4	6.2	2.4
Total area of seeding:	1.8	2.9	1.1
Total area of impervious surface:	4.1	3.0	1.4
Total area of NEW impervious surface:	0.8	1.1	0.4

E. EXISTING SOIL DATA: Existing soil is group A, loamy sand.

F. EXISTING VEGETATION, INCLUDING PERCENT COVER:

A survey including general description of existing vegetation shall be conducted by the SWMP Administrator for Construction prior to any ground disturbance on the project. The manager shall photodocument existing vegetation where all work will be occurring. The manager shall also perform the vegetation survey transect(s) including photo documentation as outlined in Chapter 4.11.2 of CDOT's Erosion Control and Stormwater Quality Guide.

<u>Pre-Construction</u> Date ot survey:	%Density:
Description of existing vegetation:	
Map or table showing transect locations in SWM	P tab 17:
Post-Construction Date of survey:	%Density:
Description of existing vegetation:	Date of CDPS-SCP Closure:
Map or table showing transect locations in SWM	P tab 17:

G. <u>POTENTIAL POLLUTANTS SOURCES</u>: See First Construction Activities under Potential Pollutant Sources. The SWMP Administrator for Construction shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. RECEIVING WATER:

- 1. Outfall locations: The initial outfall is the roadside ditch. From the ditch, the Kit Carson location runoff will outfall into Rush Creek approximately 0.5 miles south of the project limits. The Wild Horse location runoff will outfall into Big Sandy Creek approximately 1 mile south of the project limits. The Rest area location runoff will outfall into Coon Creek approximately 100 feet south of the project limits.
- 2. Names of immediate receiving water(s) on site: Roadside ditch
- 3. Ultimate receiving water(s): Rush Creek, Big Sandy Creek, Coon Creek,

- 4. Horizontal distance to nearest ultimate receiving water from project: Rush Creek is approximately 3000' from the project. Big Sandy Creek is approximately 1 mile from the project. Coon Creek is approximately 100' from the project.
- 5. Description of all stream crossings located within the Construction Site Boundary: No stream crossings are present within project limits.

Location	Stream Name	Description Of Any Disturbed Upland Areas

I. NON-STORMWATER DISCHARGES:

Discharge Description	Location (Site Map #)	Method Statement (Location)
Dewatering*		
Uncontaminated Spring		
Concrete Wash Water (in-ground washout		
structure)		
Landscape Irrigation Return Flows		
Emergency Fire Fighting		
Concrete Saw Water		

ALLOWABLE: Refer to CDPHE Low Risk Discharge Guidance Document of Uncontaminated Groundwater to Land.

https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf

*If ground water does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.

2. SITE MAP COMPONENTS:

Pre-construction

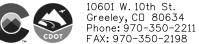
- A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES See SWMP Site Maps
- B. ALL AREAS OF GROUND SURFACE DISTURBANCE See SWMP Site Maps
- C. AREAS OF CUT AND FILL See SWMP Site Maps

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- D. <u>LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP</u> See SWMP Site Maps
- E. <u>LOCATION OF NON-STRUCTURAL CONTROL MEASURES AS APPLICABLE IN THE SWMP</u> See SWMP Site Maps
- F. <u>STREAMS</u>, <u>SPRINGS</u>, <u>WETLANDS AND OTHER STATE WATERS</u>, <u>INCLUDING AREAS THAT REQUIRE PRE-EXISTING VEGETATION BE MAINTAINED WITHIN 50 FEET OF A RECEIVING WATER</u> See SWMP Site Maps
- G. PROTECTION OF TREES, SHRUBS AND CULTURAL RESOURCES See SWMP Site Maps

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Colorado Department of Transportation
10601 W. 10th St.



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	As Constructed	STORMWATER MANAGEMENT PLAN			Project No./Code		
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- H. Flow arrows that depict stormwater flow directions on-site and runoff direction
- I. <u>AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) WASTE ACCUMULATION and BATCH PLANTS INCLUDING MASONARY MIXING STATIONS</u> See SWMP Site Maps
- J. LOCATIONS OF AL STREAM CROSSING LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY See SWMP Site Maps

3. QUALIFIED STORMWATER MANAGERS:

A. SWMP ADMINISTRATOR FOR DESIGN:

Name/Title	Contact Information
Jake Schuch/PE I	970-350-2205, jake.schuch@state.co.us

A. <u>SWMP Administrator for Construction:</u> (As defined in Subsection 208) The Contractor shall designate a SWMP Administrator for Construction upon co-permittee of the permit. The SWMP Administrator for Construction shall become the operator for the SWMP and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03, the SWMP shall remain the property of CDOT. The SWMP Administrator for Construction shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator for Construction shall address all aspects of the project's SWMP. (Update the information below for each new SWMP Administrator for Construction) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

C. <u>EROSION CONTROL INSPECTOR</u>: (As defined in Subsection 208) The Contractor may designate an Erosion Control Inspector. The Erosion Control Inspector shall complete duties in accordance with subsection 208.03 (c) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

4. STORMWATER MANAGEMENT CONTROLS FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES

Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP. All control measures related to potential pollutants shall be shown on the SWMP Site Map by the Contractor's SWMP Administrator for Construction.

B. OFFSITE DRAINAGE (RUN ON WATER)

1. Describe and record control measures on the SWMP Site Map that have been implemented to address off site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING PAD/VEHICLE TRACKING CONTROL

1. Control measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL

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Region 4

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As Constructed	STORMW	ATER	MANA	GEMENT	Project No./Cod				
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Revised:	Designer:	MJS	Structure		22975				
	Detailer:	MJS	Numbers						
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1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. Perimeter control shall be in accordance with subsection 208.04

2. Perimeter control may consist of berms, silt fence, erosion logs, existing landforms, or other control measures as

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP Administrator for Construction

The SWMP is a living document "living document" that is continuously reviewed and modified throughout the construction phasing. During construction, the following items shall be added, updated, or amended as needed by the SWMP Administrator for Construction in accordance with subsection 208.03.

During construction, indicate how items that have not been addressed during design are being handled in construction. If items are covered in the template or other sections of the SWMP, indicate below what section the discussion takes place.

- A. STOCKPILE MANAGEMENT: Shall be done in accordance with subsection 107.25 and 208.07
- B. <u>CONCRETE WASHOUT</u>: Concrete wash out water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.
- C. SAW CUTTING: Shall be done in accordance with subsection 107.25, 208.04, 208.05
- D. STREET SWEEPING: Shall be done in accordance with subsection 208.04

6. INSPECTIONS

A. Inspections shall be in accordance with subsection 208.03(c).

7. CONTROL MEASURE MAINTENANCE

A. Maintenance shall be in accordance with subsection 208.04(f).

8. RECORD KEEPING

A. Records shall be kept in accordance with subsection 208.03(d).

9. INTERIM, PERMANENT STABILIZATON and LONG TERM STORMWATER MANAGEMENT

The Contractor shall comply with all interim stabilization and permanent stabilization requirements in accordance with subsection 208.04(e).

A. SEEDING PLAN

Seeding will be required for an estimated 5.8 acres of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER
		ACRE
Oats	Avena Sativa	5.0
Indian Ricegrass	Achnatherum hymenoides Nezpar	1.9
Sand Bluestem	Andropogon hallii Goldstrike	1.8
Sideoats Grama	Bouteloua Curtipendula VNS	2.2
Blue Grama	Bouteloua gracilis Alma	0.4
Alkali Sacaton	Sporobolus airoides Saltalk	0.3
Little Bluestem	Schizachyium scoparium Aldous	1.2
Western Wheatgrass	Pascopyrum smithii Barton	4.0
Saltgrass	Distichlis spicata VNS	1.0
Green Needlegrass	Nassella viridula Lodorm	1.0
Tanseyleaf Tansyaster	Machaeranthera tanacetifolia VNS	0.4
Sulphur-Flower Buckwheat	Eriogonum umbellatum VNS	0.8
TOTAL		20.0

B. <u>SEEDING APPLICATION</u>: Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast or hydroseed at double the rate and rake 0.25 inch to 0.5 inch into the soil per

subsection 212. Soil compaction shall be minimized for areas where permanent stabilization will be achieved through vegetative cover.

- C. <u>MULCHING APPLICATION</u>: Apply a minimum of 2 tons of certified weed free hay or 2 1/2 tons of certified weed free straw per acre and in accordance with Section 213, and mechanically crimp it into the soil in combination with an organic mulch tackifier.
 - 1. Prior to winter shutdown or the summer seeding window closure: Uncompleted slopes shall be mulched with 2 tons of mulching (weed free) per acre, mechanically crimped into the topsoil in combination with an organic mulch tackifier in accordance with subsections 208 and 213.

D. SPECIAL REQUIREMENTS:

1. Due to high failure rates, hydroseeding will not be allowed for permanent stabilization.

Biological nutrient organic based fertilizer (lbs./acre)*	Humate (lbs./acre)	Compost (yd3/acre) All areas <2:1 [1/2 inch depth]
300	200	65

*Biological nutrient organic based fertilizer shall not exceed 8-8-8 (N-P-K).

Compost shall be in accordance to 212.02.

Humate shall be in accordance to 212.02.

- F. <u>SOIL RETENTION COVERING</u>: On slopes and ditches requiring a blanket or turf reinforcement mat (trm), the blanket/trm shall be placed in lieu of mulch and mulch tackifier and placed after seeding (native). See SWMP Site Map for blanket/trm locations.
- G. <u>Permanent Stabilization Application Under Structures</u>: Under structures shade patterns should be considered and the use of Median Cover Material (Stone) or other stabilized options with an approved Project Special Provision should be used. See SWMP Site Map for locations.

H. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:

Prior to partial acceptance.

- 1. All seeded areas shall be reviewed during the 7 day inspections by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
- The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas until Partial Acceptance of the stormwater construction work.

10. PRIOR TO PROJECT FINAL ACCEPTANCE

- A. Partial Acceptance shall be in accordance with subsection 107.25 (d), 208.10 and 214.04. At the Partial Acceptance of the project, it shall be determined by the SWMP Administrator for Construction and the Engineer which temporary control measures shall remain until 70% revegetation is established or which shall be removed.
- B. At the end of the project, all ditch checks shall either consist of temporary erosion logs (or equivalent) or permanent riprap.

All storm drains shall be cleaned prior to the Final Acceptance of the project. Work shall be included in 202 Clean Culvert.

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11. NARRATIVES:

Control Measure Matrixes During Construction:

- 1. Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering the what, when, where and why the control measure is being used shall be add to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
- 2. The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
- 3. A "P" in the Initial Activities Column indicates that the control measure shall be installed before construction activity starts. Locations and quantities will be discussed during the Environmental Pre-construction Conference with the Regional Water Pollution Control Manager.

STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:

				CONTROL MEASURE IMPLEMENTATION PHASE			
APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON- STANDARD	IN USE ON SITE	INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION	
PROTECTION OF EXISTING WETLANDS Fence (plastic) and erosion logs	Fence (plastic) shall be placed in combination with erosion logs to prevent encroachment of construction traffic and sediment into state waters prior to start of construction disturbances. Fence (plastic) shall be placed adjacent to the wetlands; erosion logs shall be placed between the plastic fence and disturbance area. Logs shall be placed to direct flows away from or filter water running into wetlands from disturbance areas.						
PROTECTION OF EXISTING TREES/LANDSCAPING Fence (plastic)	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of mature trees and/or existing landscaping prior to start of construction disturbances.						
CHECK DAM/DITCH CHECK Erosion log, silt berm, silt dike, rock check dam	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208			х		
Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208					
Storm Drain Inlet Protection In Native Seed Areas (M-604 Standard Inlets Type C and D)	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208					
CULVERT INLET/OUTLET PROTECTION Erosion logs, aggregate bags	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to start of construction disturbances.	M-208		P	х	х	
TYPE C, TYPE D AND TYPE 13 PROTECTION Erosion logs, aggregate bags, erosion bales	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to start of construction disturbances.	M-208					
STOCKPILE PROTECTION Temporary berm, erosion logs, aggregate bags*	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stockpile, increase control as stockpile increases size.	M-208			х		
TOE OF FILL PROTECTION Erosion logs, temporary berm, silt fence, topsoil windrow*	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208			х		
PERIMETER CONTROL Erosion logs, silt fence, temporary berm, topsoil windrow*	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		P	х		
SEDIMENT CONTROL/SLOPE CONTROL Silt fence, erosion logs	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to start of construction disturbances.	M-208			Х		
TEMPORARY SEDIMENT TRAP	Used to capture sediment laden runoff from disturbed areas < 5 acres during construction. Place prior to start of construction disturbances. Outlets that withdraw water from or near the surface may be installed when discharging from basins and impoundments.	M-208					
EMBANKMENT PROTECTION OR TEMPORARY SLOPE DRAIN	Placed as a conduit or chute to drain runoff down slope and to prevent erosion of slope.	M-208					

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OUTLET PROTECTION	Material placed as energy dissipator to prevent erosion at outlet structure.	M-601-12			
Riprap, or approved other		141-001-12			
CONCRETE WASHOUT	Construction control, used for waste management of concrete and concrete equipment cleaning.	M-208	v	х	
In-ground or fabricated	Place prior to start of concrete activities.	171-200	^	^	
VEHICLE TRACKING PAD	Source control, placed to prevent tracking of sediment from disturbed area to offsite surface. Place prior to start of construction disturbances.	M-208	Р	x	
Engineered SEDIMENT BASIN	Constructed early in project, prior to storm sewer/ditches and in accordance with 208.05(p) to capture storm flow. Outlet structure and/or outfall shall be modified for temporary sediment control using an approved non-standard detail. Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible				
DEWATERING (Contractor is responsible for obtaining a permit from Colorado Department of Health and Environment.)	Shall be done in such a manner to prevent potential pollutants from entering state waters.				
TEMPORARY STREAM CROSSING	Constructed over stream or drainage to prevent discharge of pollutants from construction equipment into water.				
CLEAN WATER DIVERSION	Placed to divert clean surface or ground water around disturbance area to prevent it from mixing with construction runoff.				
OTHER					

NON-STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to:

Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging.

Control Measure locations are indicated on the SWMP Site Map.

* **Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a "finishing" component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: https://www.colorado.gov/pacific/sites/default/files/Vegetative%208uffer%20Memo.pdf

				CONTROL MEASU	JRE IMPLEMENT	ATION PHASE
APPLICATION, CONTROL MEASURE	NARRATIVE	M- STANDARD or "For NON- STANDARD	IN USE ON SITE	INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
* VEGETATIVE BUFFER STRIP Fence (plastic)	Finishing component for filtering sediment-laden runoff from disturbance area. Area within CDOT ROW or temporary easement to be identified on SWMP prior to construction starting.			x		
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208				
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Windrow or stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth four inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of four inches or as specified.	M-208		x	x	x
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.				Х	
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.				x	
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.				x	

Print Date: 8/18/2020			Sheet Revisions		Colorado Department of Transport	tation	As Constructed	STORMWATER	R MANAGEMENT	Project No./Code
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Horiz. Scale: 1:1 Vert. Scale: As Noted					10601 W. 10th St. Greeley, CD 80634		No Revisions:	Г	_AIN	NHPP R400-370
Unit Information Unit Leader Initials					Phone: 970-350-2211		Revised:	Designer: MJS	Structure	22975
					FAX: 970-350-2198	121.412		Detailer: MJS	Numbers	
					Region 4	KMK	Void:	Sheet Subset: MJS	Subset Sheets:	Sheet Number 35

Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer				х
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Final Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer				х
SEEDING PERMANENT (NATIVE)	Final Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.				х
SOIL RETENTION BLANKET (SRB)	Final Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216			х
TURF REINFORCEMENT MAT (TRM)	Final Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216			х
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.		х	х	х
OTHER					

12. TABULATION OF STORMWATER QUANTITIES

- A. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.
- B. It is estimated that 50 hours of blading (140-250 horsepower), dozing (130-250 horsepower) and/or combination loader (80-125 horsepower) may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as: 203 Blading
- C. Establishment of seeded areas from Substantial Landscape Completion shall be included in the price of the work. This shall include mowing, weed control, reseeding/mulch/tackifier.

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	202-04002	Clean Culvert	Each			7	7
	203-01500	Blading	Hour		50		50
	207-00205	Topsoil	CY			1887	1887
	207-00210	Stockpile Topsoil	CY		1887		1887
	208-00013	Erosion Log Type 1 (20 Inch)	LF	1610	105		1715
	208-00045	Concrete Washout Structure	Each		3		3
	208-00070	Vehicle Tracking Pad	Each	6			6

	208-00103	Removal and Disposal of Sediment (Labor)	Hour		50		50
	208-00106	Sweeping (Sediment Removal)	Hour		25		25
	208-00107	Removal of Trash	Hour		18		18
	208-00207	Erosion Control Management (ECM)	Day		18		18
	212-00006	Seeding (Native)	Acre			5.8	5.8
	212-00032	Soil Conditioning	Acre			5.8	5.8
	213-00002	Mulching (Weed Free Hay)	Acre			5.8	5.8
	213-00061	Mulch Tackifier	LB			1158	1158
Χ	700-70380	F/A Erosion Control	FA	·	1		1

*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsection 208.03 and 208.04. Quantities for all control measures shown above are estimated, and have been increased for unforeseen conditions and normal control measure life expectancy. Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.

**Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the control measure in the field. The use of the material shall be directed and approved by the Engineer.

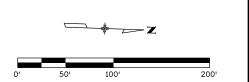
*** F/A refers to CDOT's Force Account Pay Items.

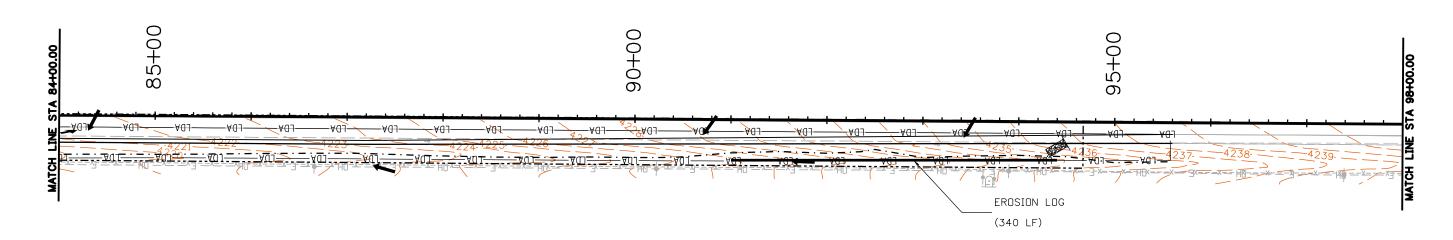
13. BIOLOGIC IMPACTS and DEWATERING

- A. ENVIRONMENTAL IMPACTS:
 - 1. Wetland Impacts: NO
 - 2. Stream Impacts: NO
 - 3. Threatened and Endangered Species: No species are anticipated to be impacted by the project.
- B. <u>DEWATERING</u> (Not Covered Under the <u>CDPHE Low Risk Discharge Guidance Document of</u> Uncontaminated Groundwater to Land):
 - 1. Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.

14. NOTES

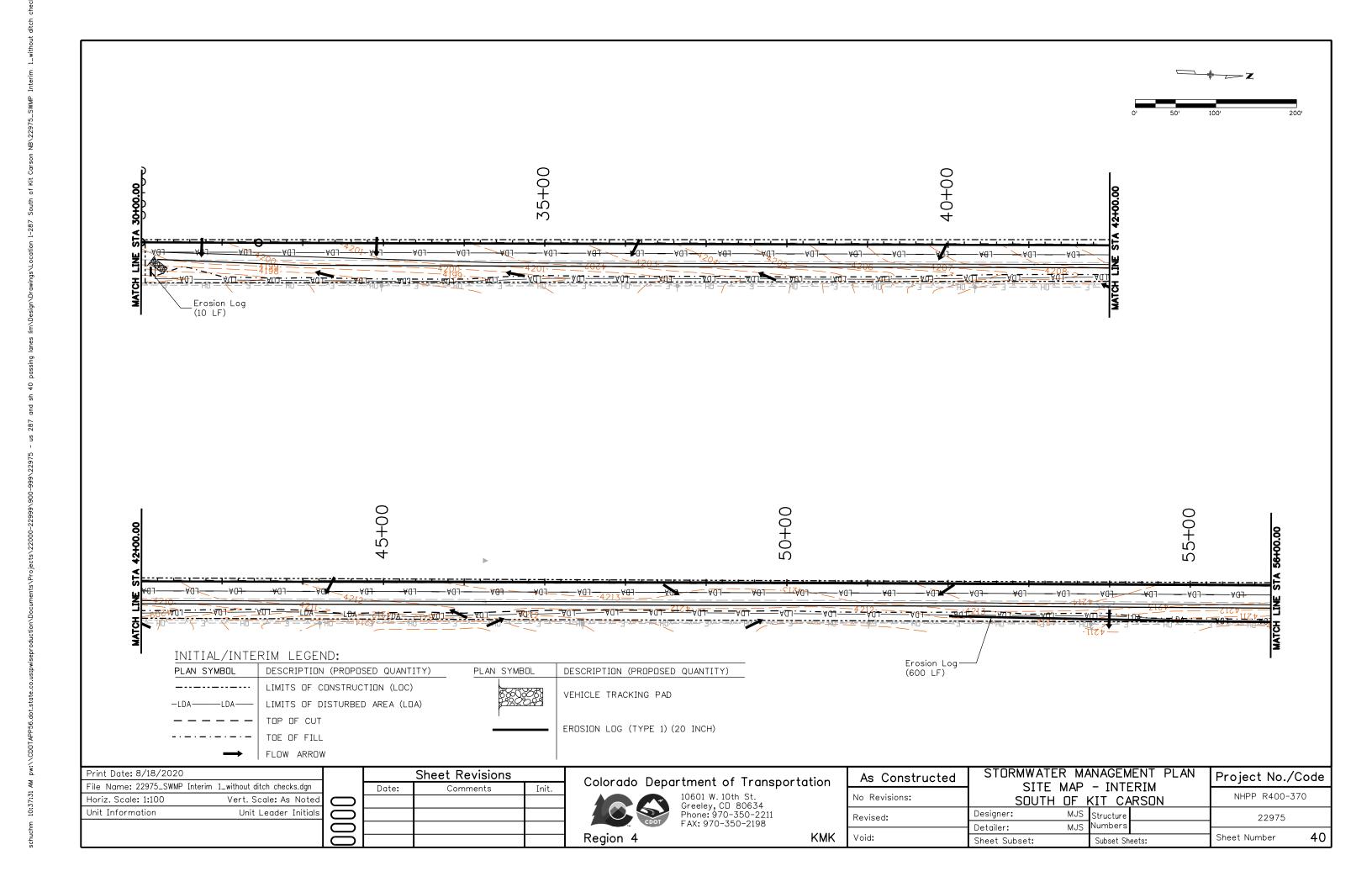
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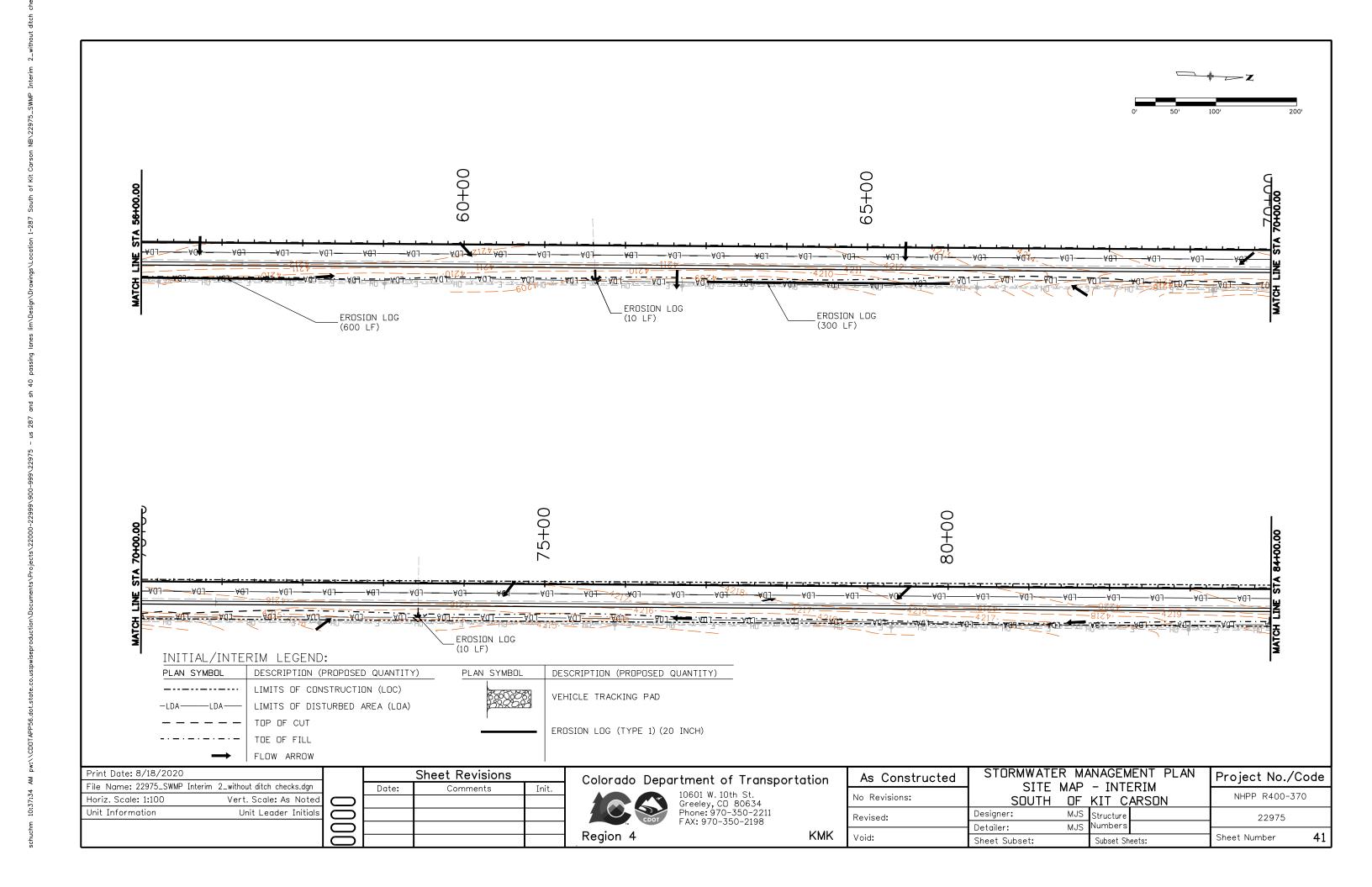




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PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)	PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)
	LIMITS OF CONSTRUCTION (LOC)		VEHICLE TRACKING PAD
-LDALDA	LIMITS OF DISTURBED AREA (LOA)	86088 2200	VEHICLE INACKING LAD
	TOP OF CUT		ERDSION LOG (TYPE 1) (20 INCH)
	TOE OF FILL		LINUSIUM LUG (TIFE I) (20 INCH)
\rightarrow	 FLOW ARROW		

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	LIMITS OF CONSTRUCTION (LOC)		VEHICLE TRACKING PAD
-LDALDA	LIMITS OF DISTURBED AREA (LOA)		VEHICLE HACKING LAD
	TOP OF CUT	<u> </u>	EROSION LOG (TYPE 1) (20 INCH)
	TOE OF FILL		ENDSIDIN EDG (TIFE I) (20 INCH)
\rightarrow	FLOW ARROW		

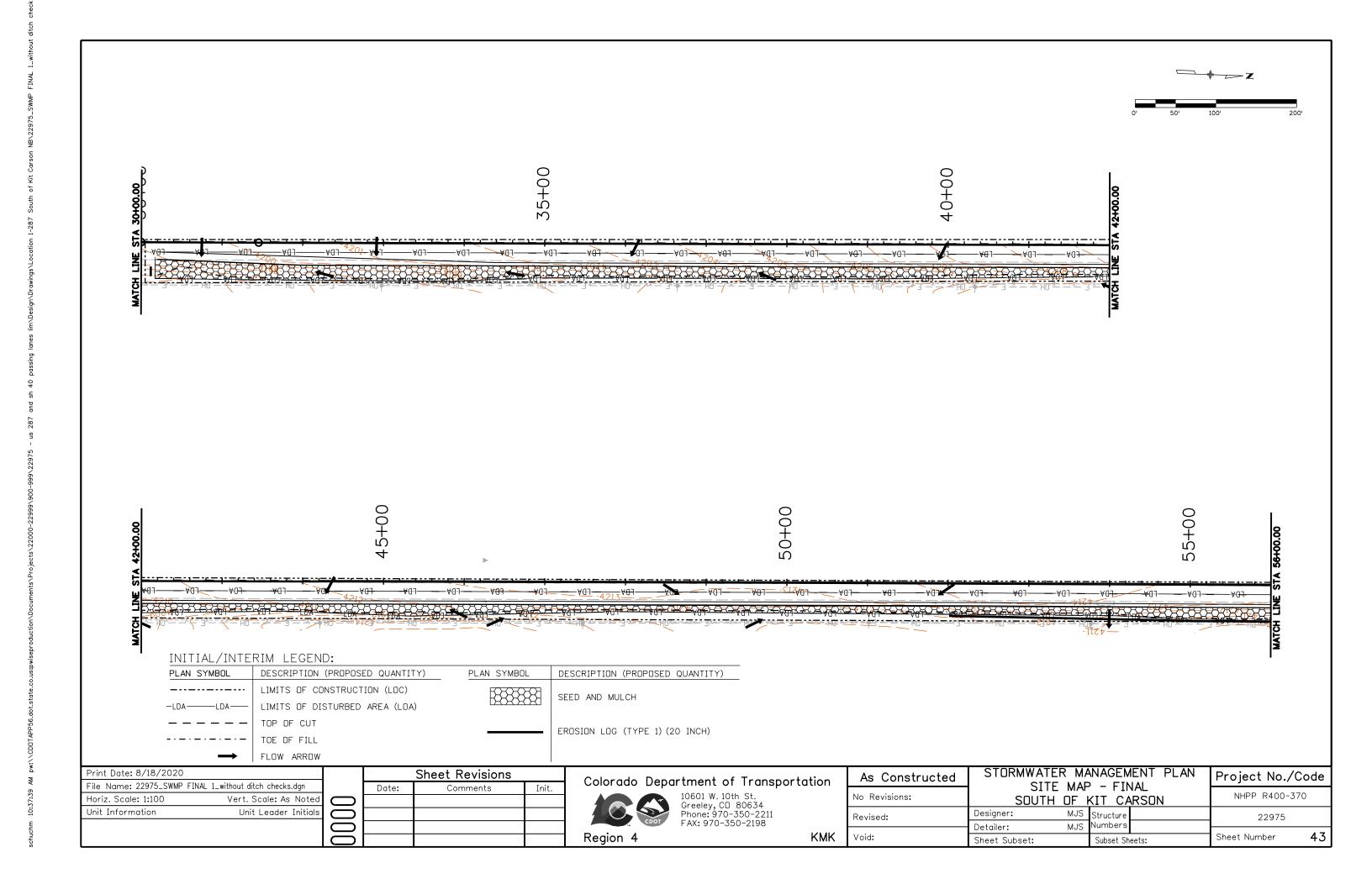
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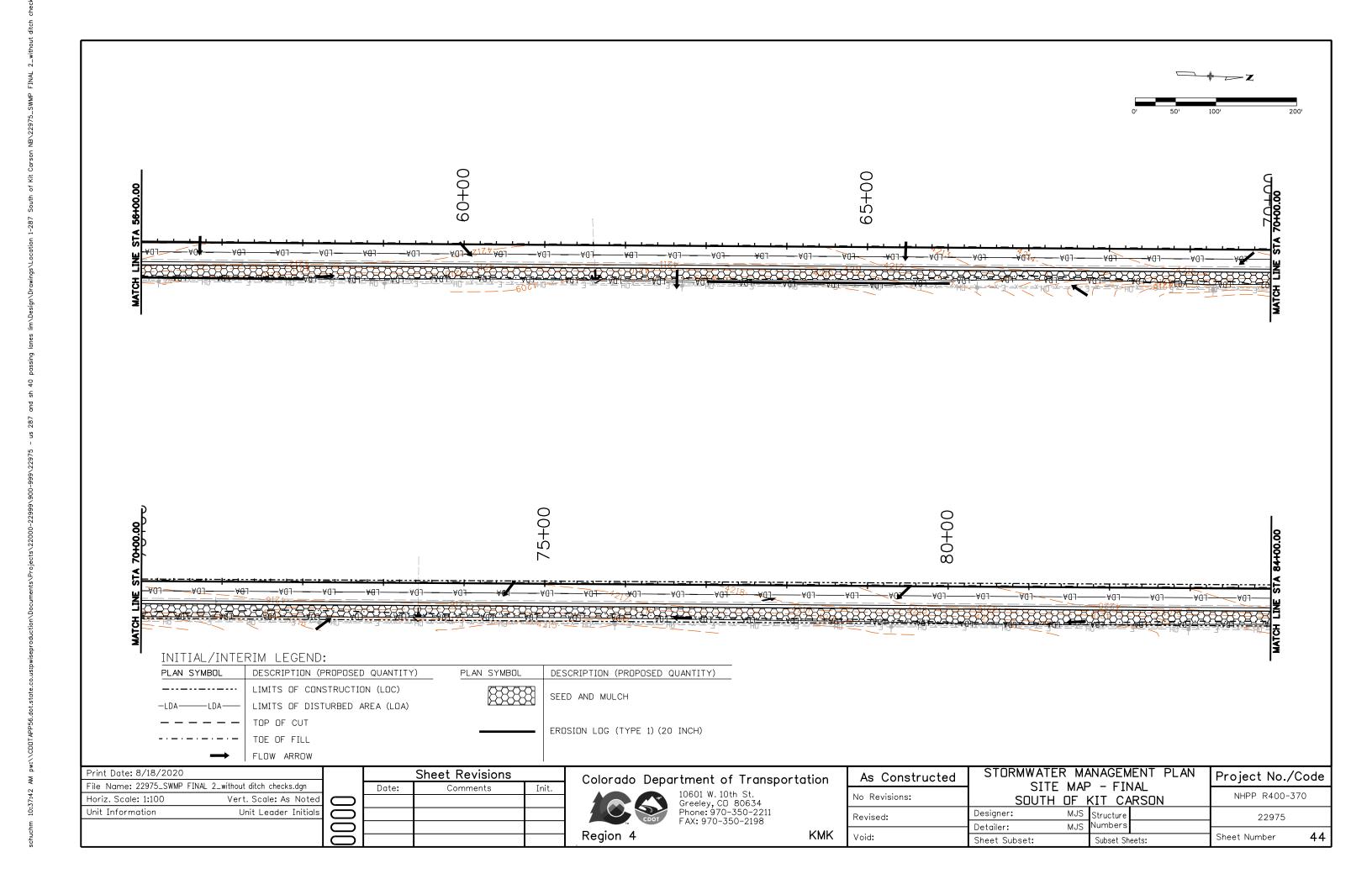
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As Constructed	STORMWATER MAP	Project No./Code	
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File Name: 22975_SWMP FIN	AL 3_without ditch checks.dgn	Date:	Comments	Init.
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Unit Information	Unit Leader Initials			
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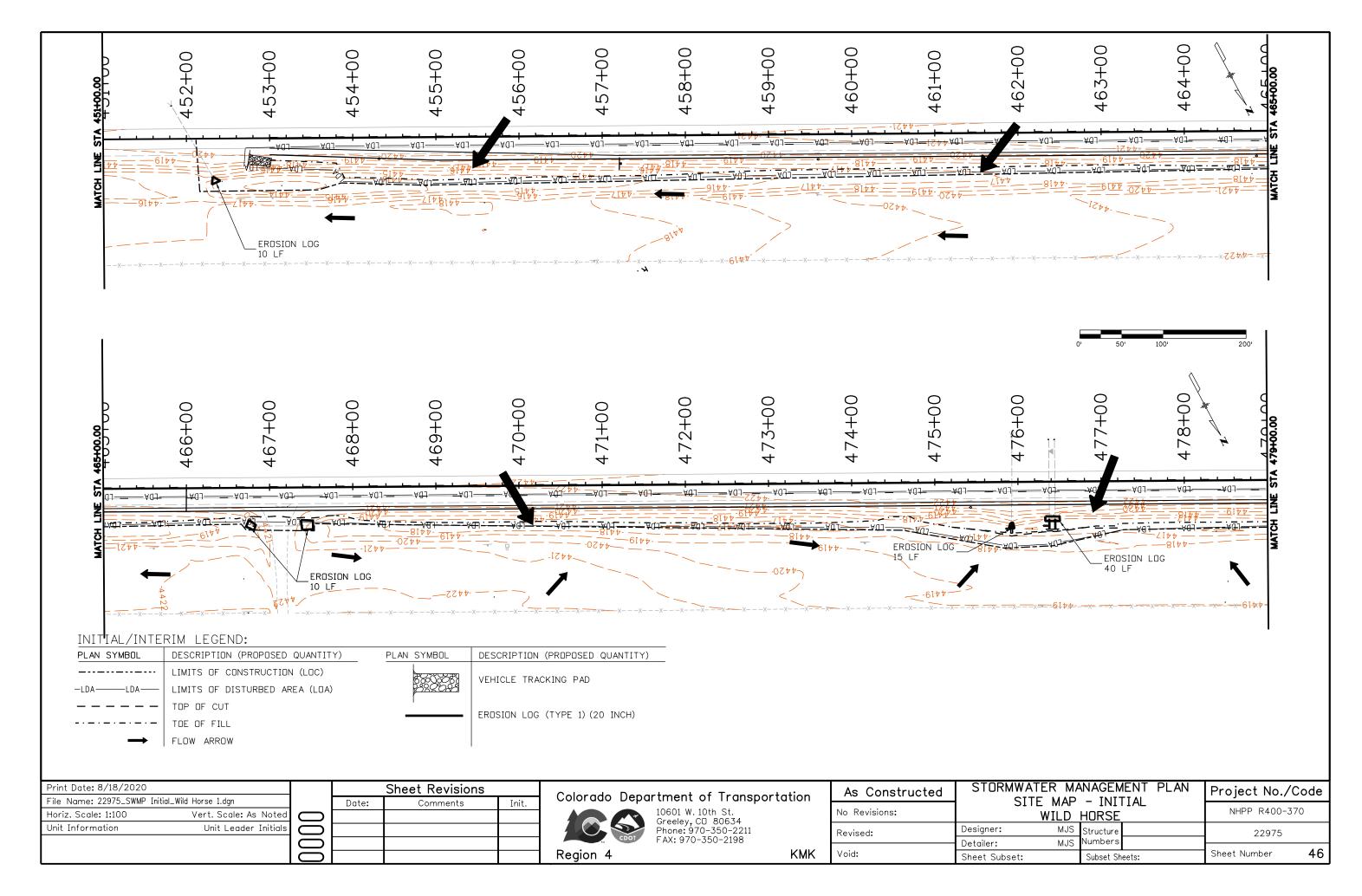
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		10601 W. Greeley,		

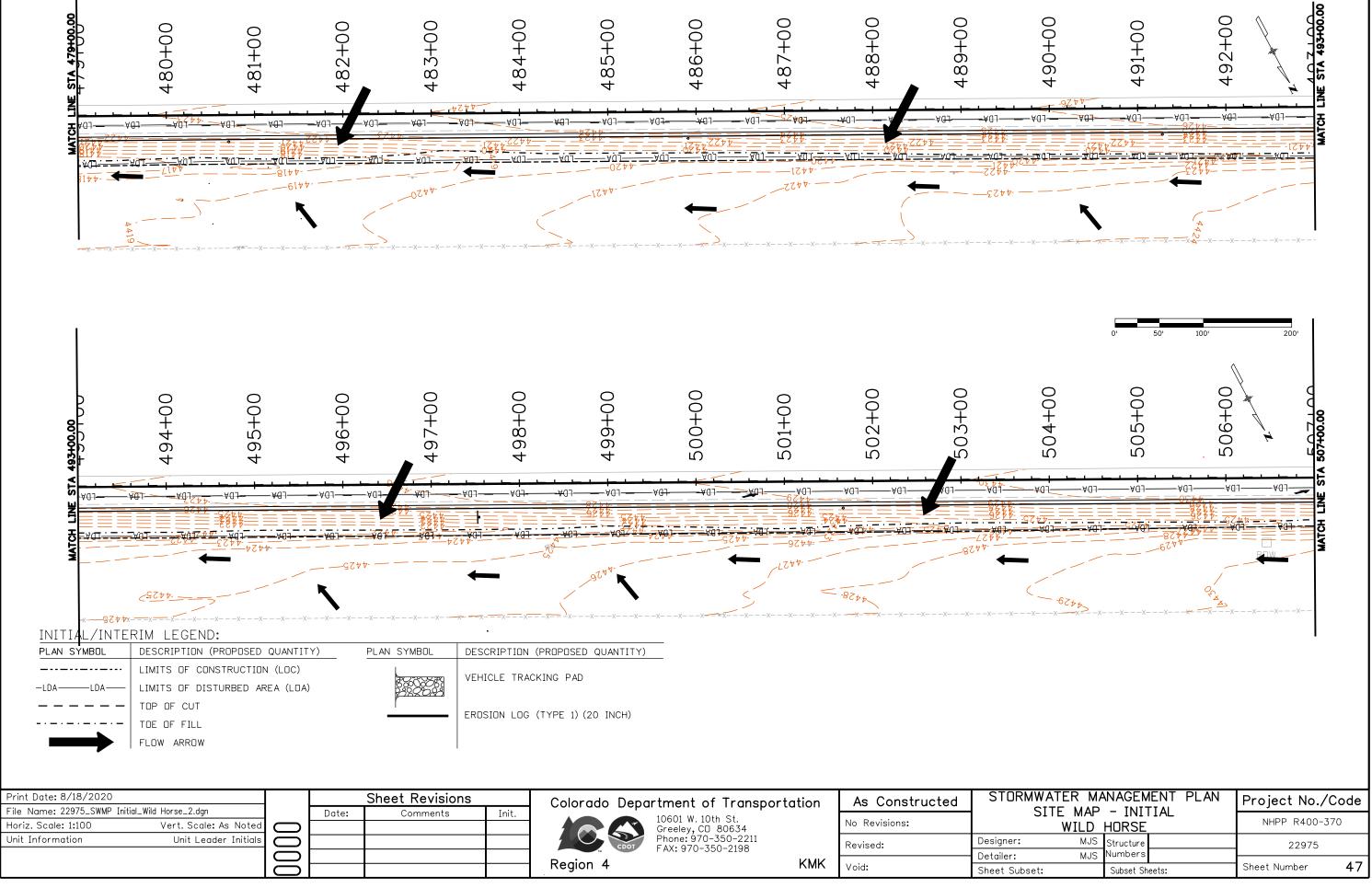
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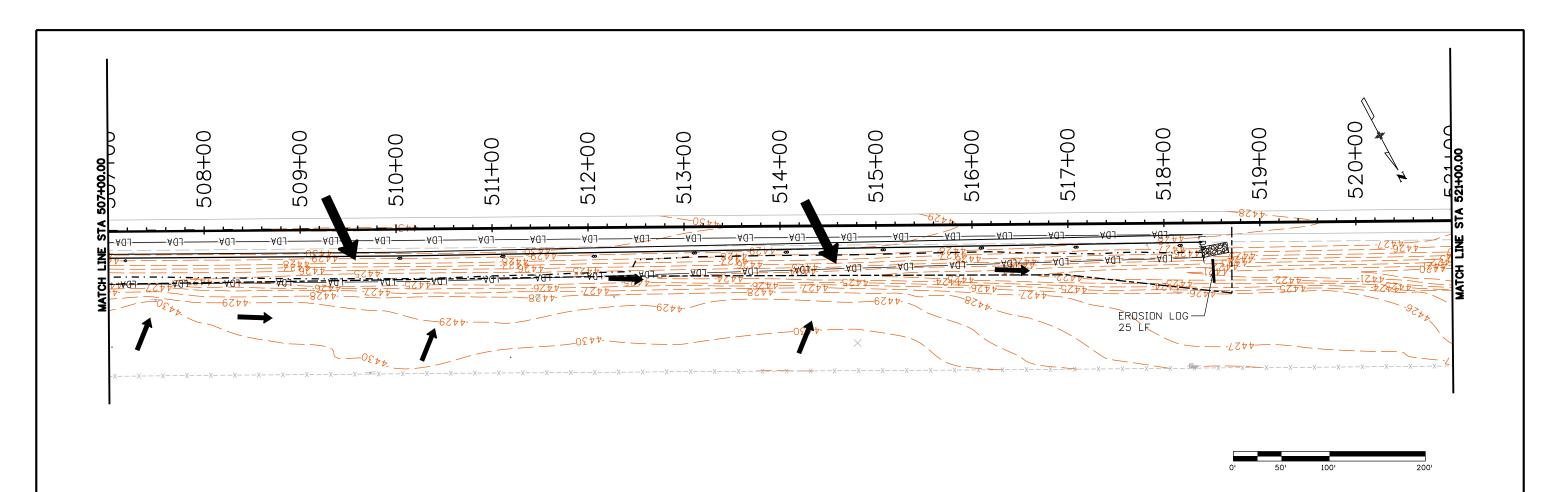
CDOT	Phone: 970-350-2211 FAX: 970-350-2198
Region 4	

As Constructed	STORMWATER MA	Project No./Code	
No Revisions:		KIT CARSON	NHPP R400-370
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MATCH LINE







INITIAL/INTERIM LEGEND: PLAN SYMBOL DESCRIPTION (PROF

PLAN SYMBOL DESCRIPTION (PROPOSED QUANTITY)

VEHICLE TRACKING PAD

EROSION LOG (TYPE 1) (20 INCH)

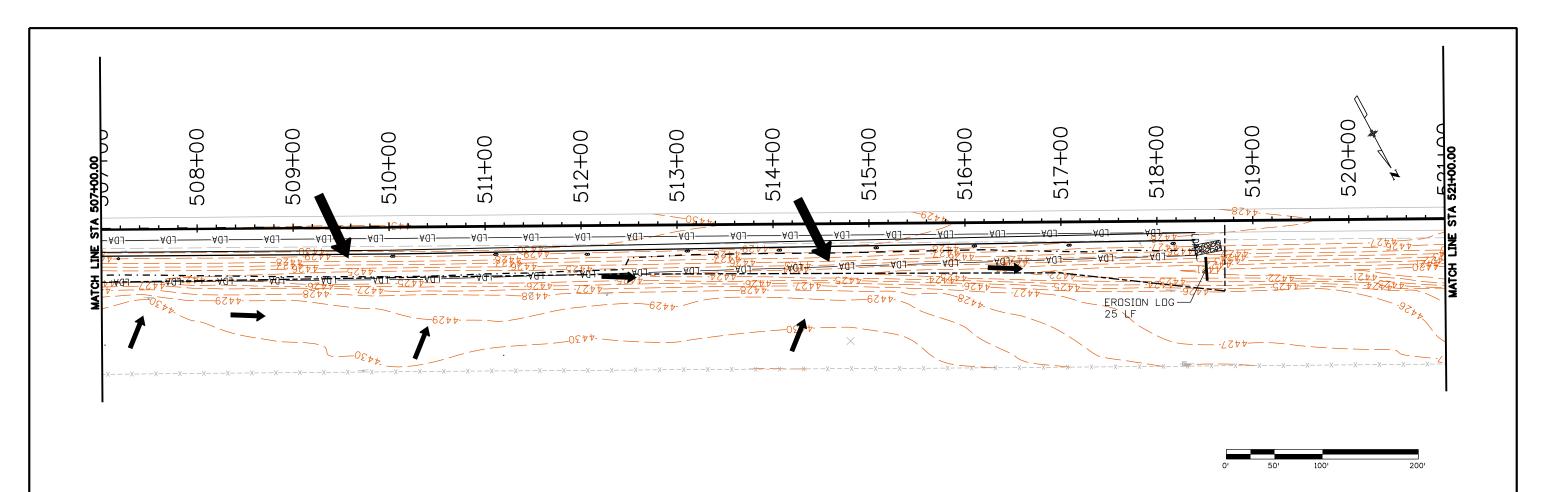
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File Name: 22975_SWMP I	nitial_Wild Horse_3.dgn		Date:	Comments	Init.
Horiz. Scale: 1:100	Vert. Scale: As Noted				
Unit Information	Unit Leader Initials				
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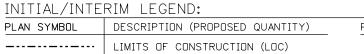
Colorado Department of Transportation
10601 W. 10th St.



10601 W. 10th St. Greeley, CD 80634 Phone: 970–350–2211 FAX: 970–350–2198

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	Detailer: MJS	Numbers	
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A — LDA — LIMITS OF DISTURBED AREA (LOA)

TOP OF CUT

TOE OF FILL

FLOW ARROW

PLAN SYMBOL DESCRIPTION (PROPOSED QUANTITY)

VEHICLE TRACKING PAD

EROSION LOG (TYPE 1) (20 INCH)

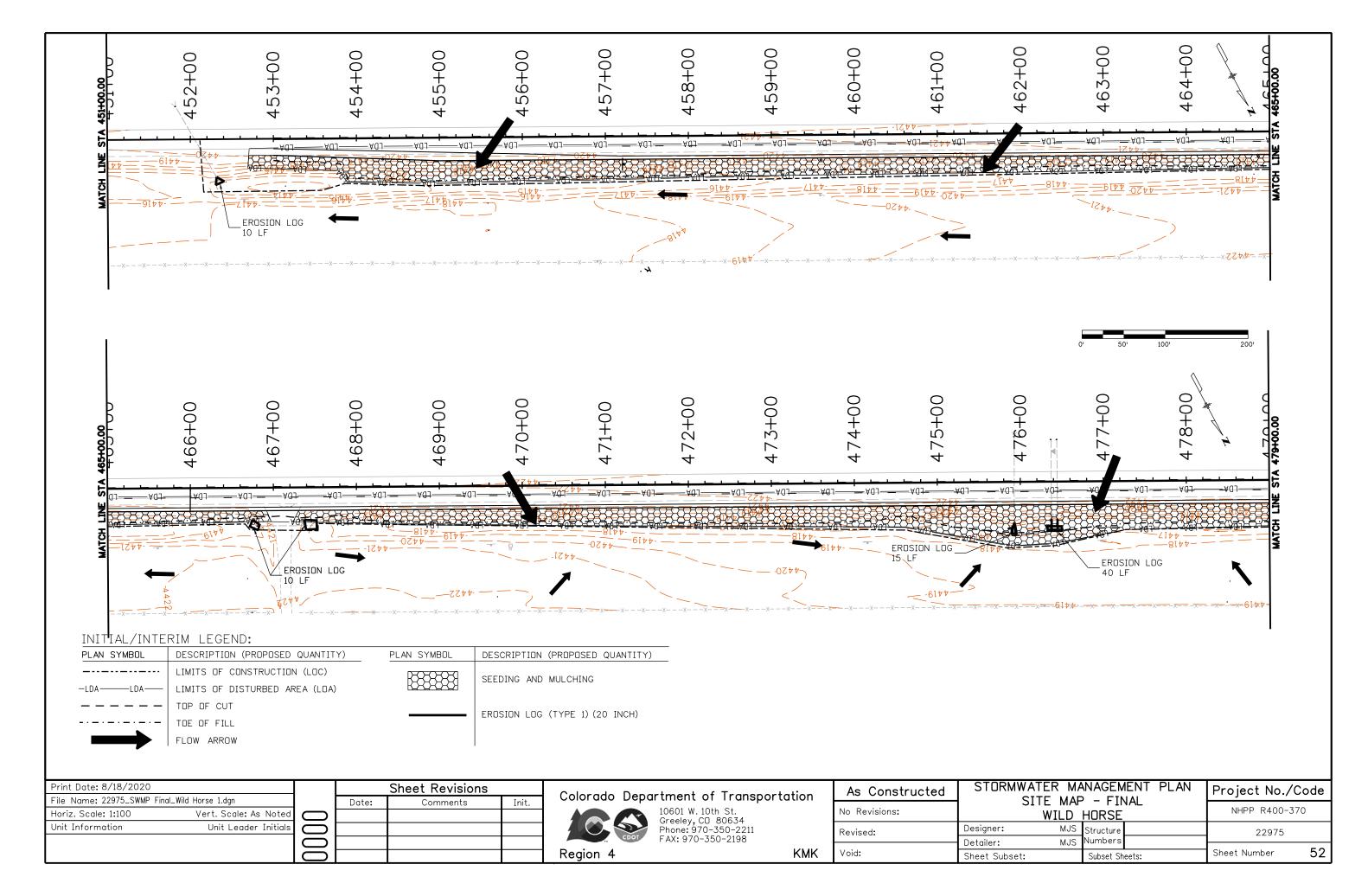
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Unit Information	Unit Leader Initials			

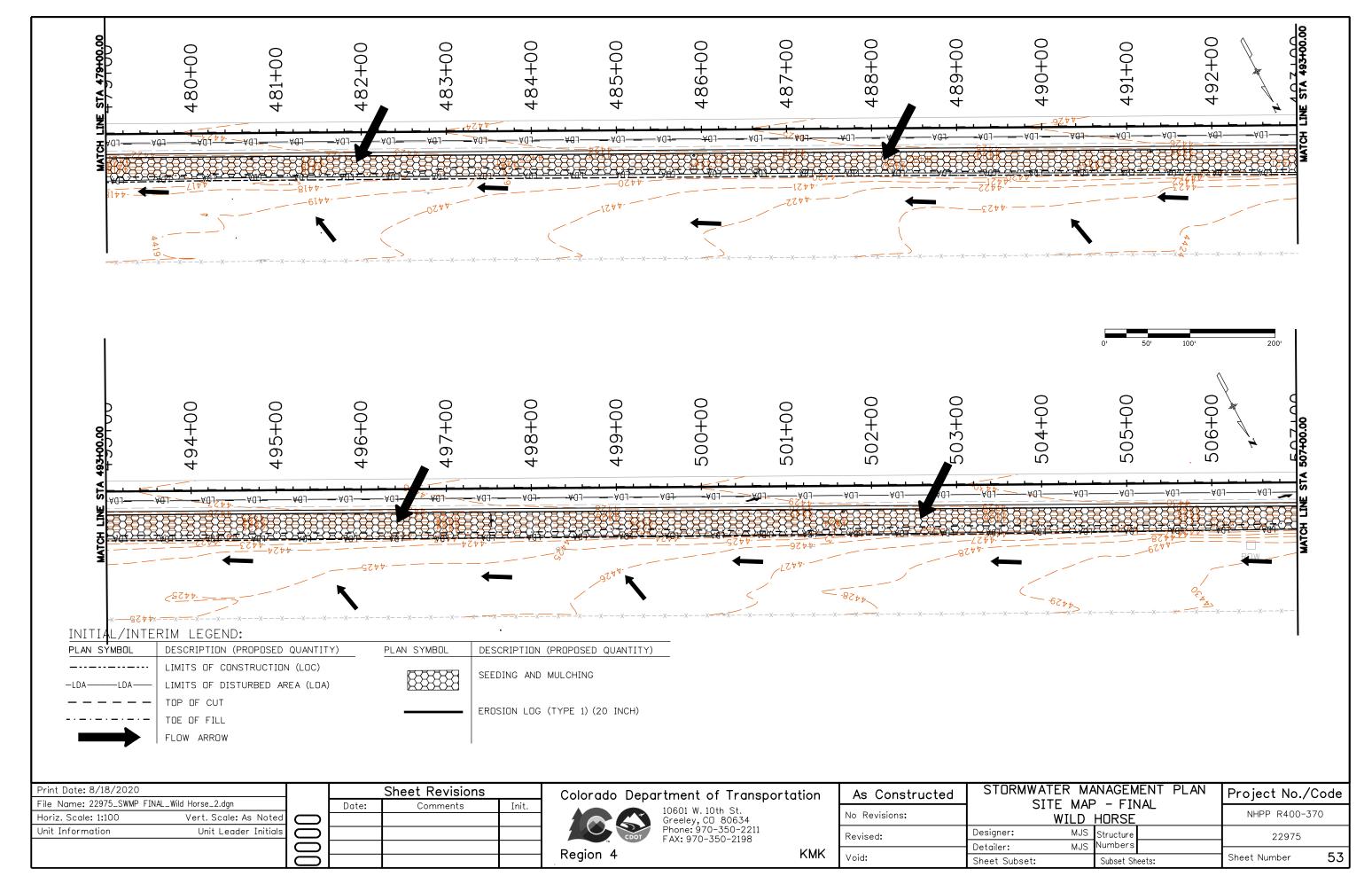
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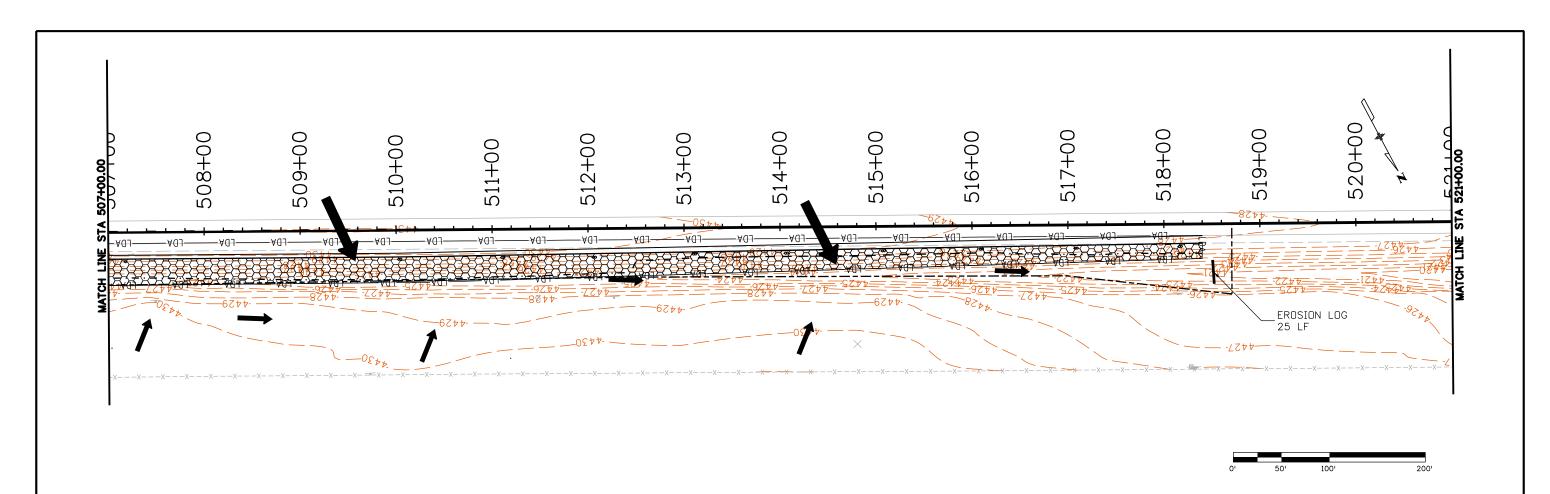


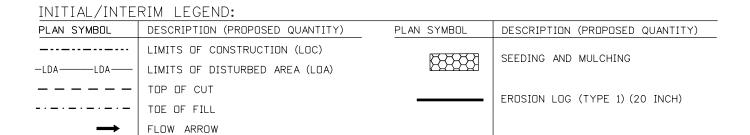
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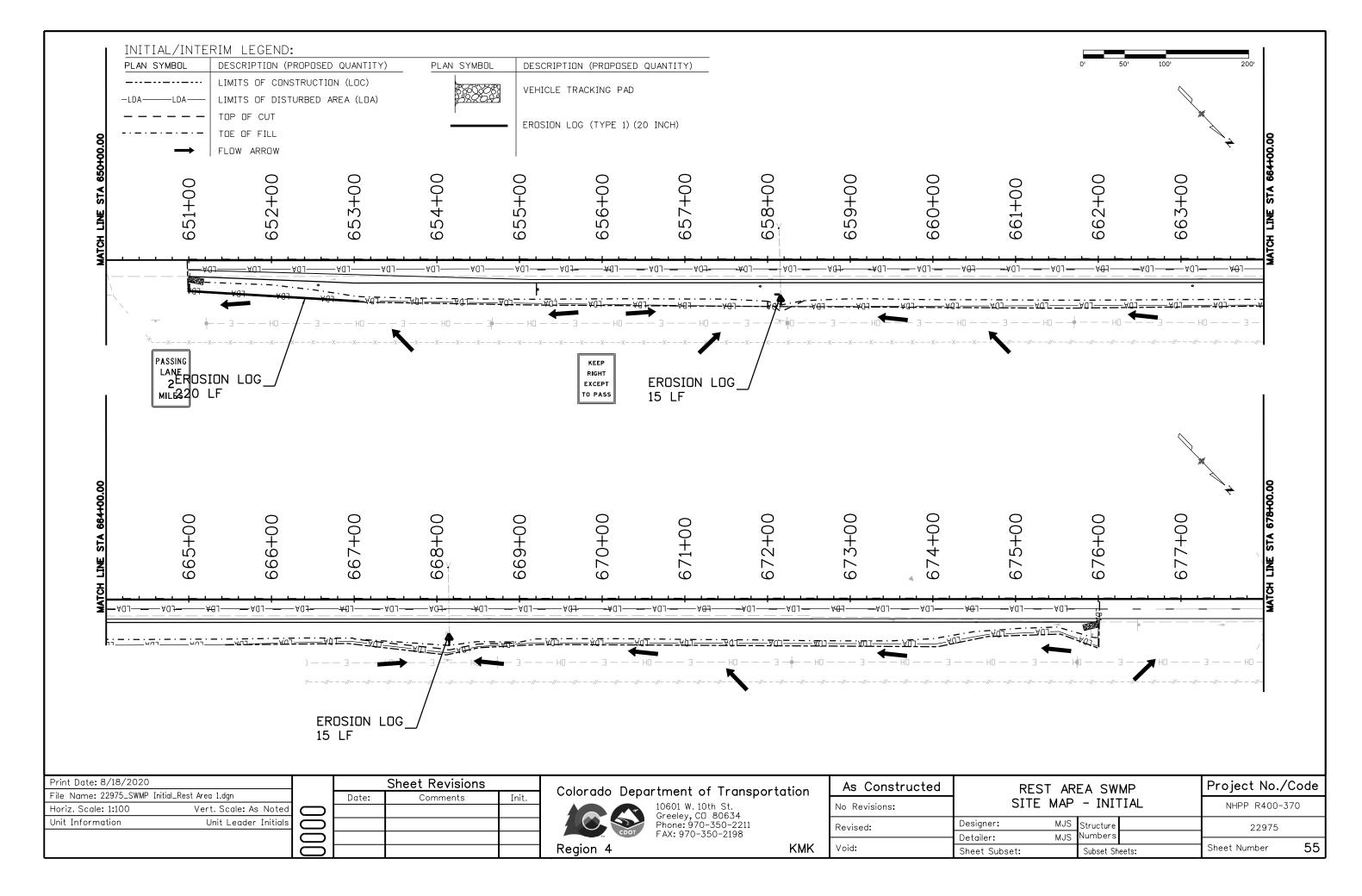
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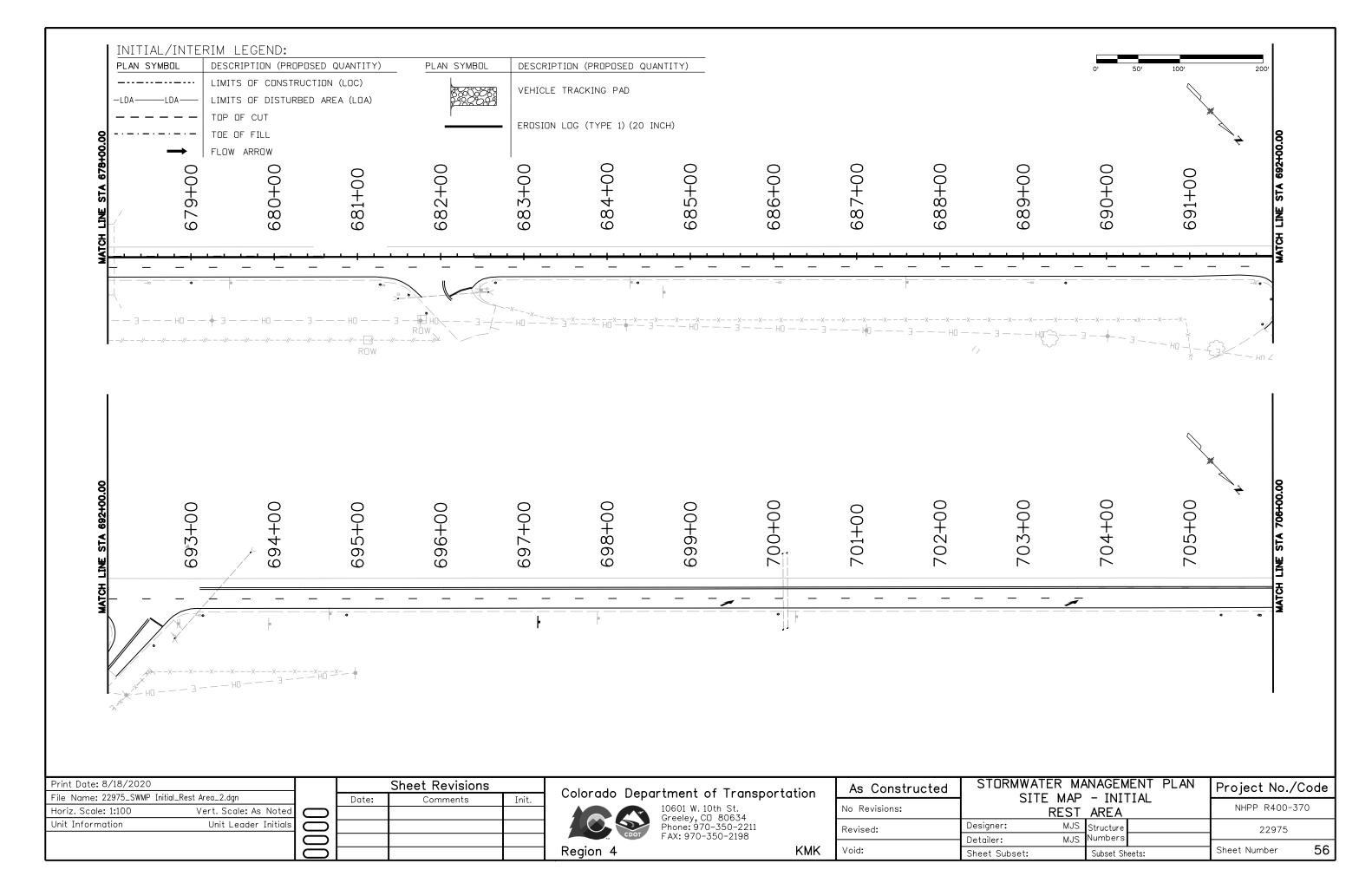
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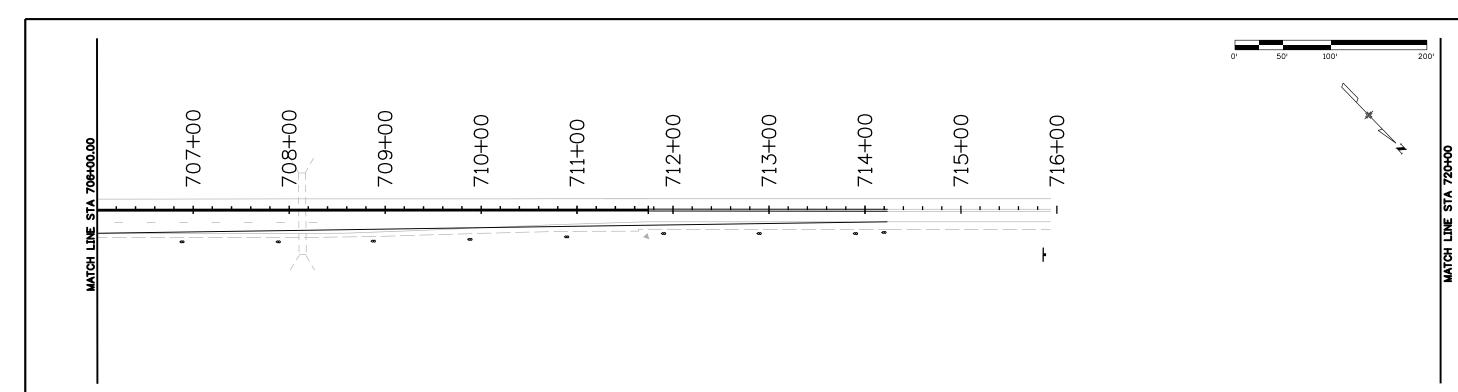
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PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)	PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)
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-LDALDA	LIMITS OF DISTURBED AREA (LOA)	95956	VEHICLE TRACKING LAD
	TOP OF CUT	<u> </u>	 EROSION LOG (TYPE 1)(20 INCH)
	TOE OF FILL		ENDSIGN EDG (TTPE 1) (20 INCH)
\rightarrow	FLOW ARROW		

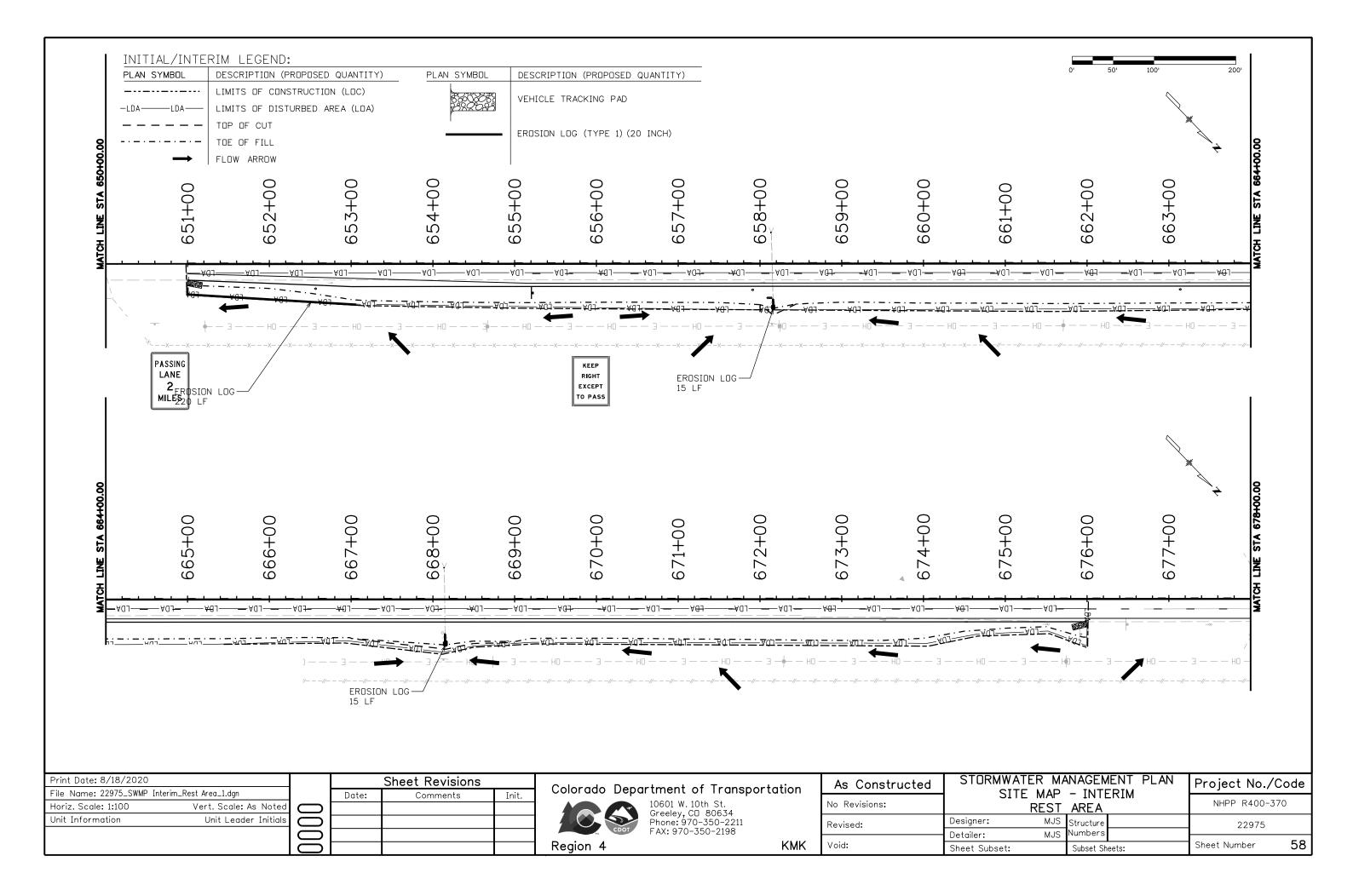
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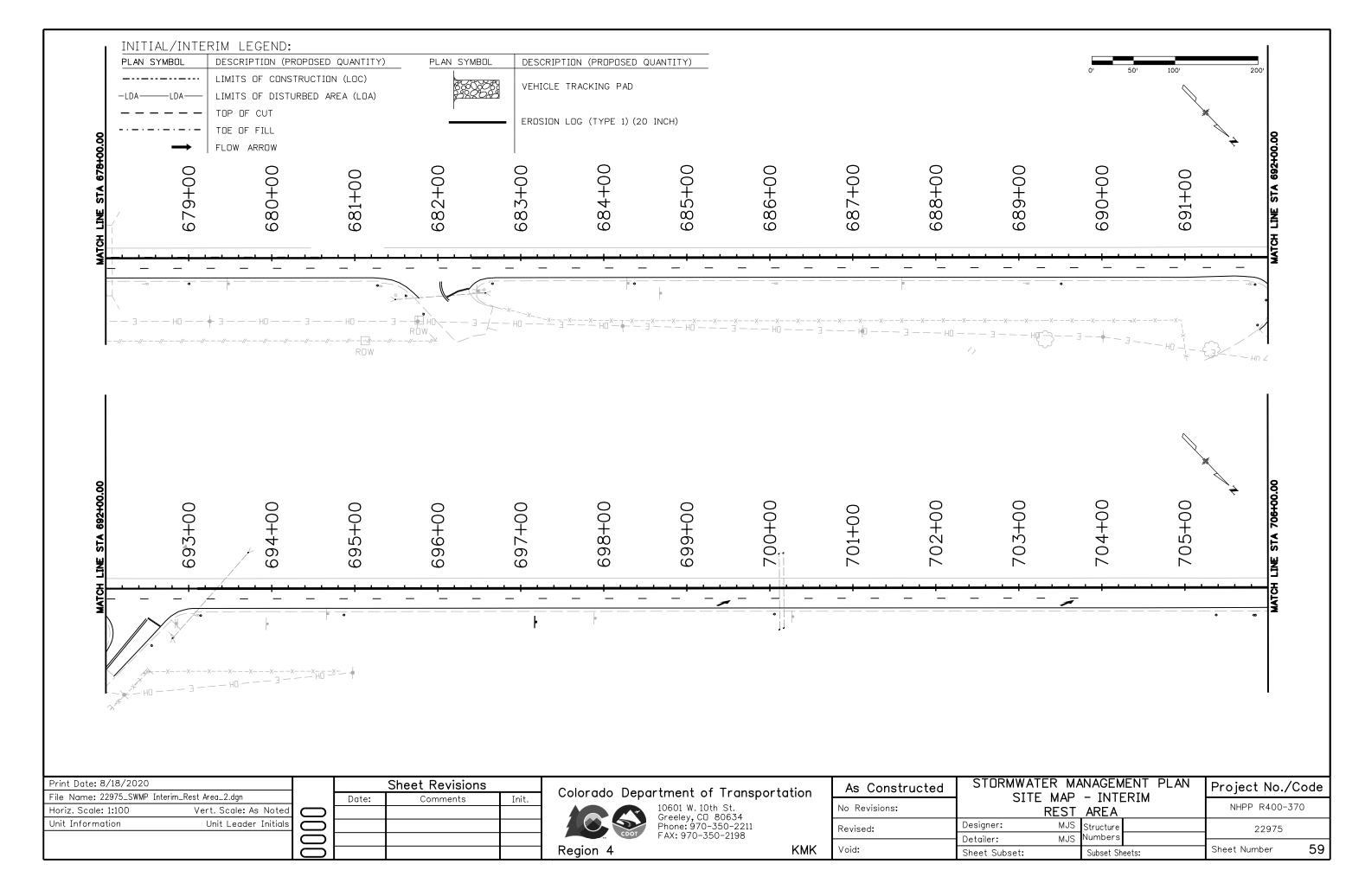
Colorado Department of Transportation

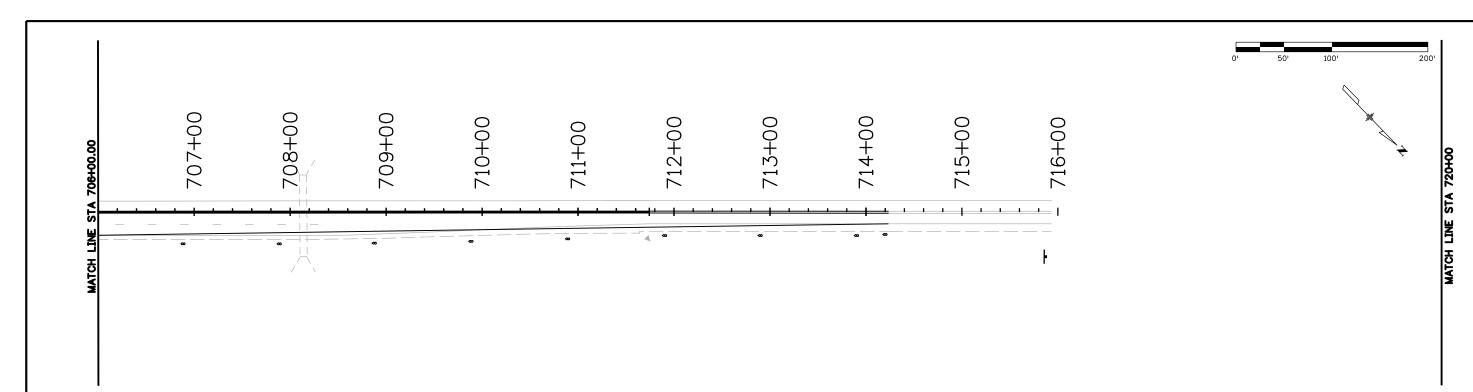
Region 4

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PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)	PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)
	LIMITS OF CONSTRUCTION (LOC)		VEHICLE TRACKING PAD
-LDALDA	LIMITS OF DISTURBED AREA (LOA)		VEHICLE INACKING LAB
	TOP OF CUT	ı	EROSION LOG (TYPE 1) (20 INCH)
	TOE OF FILL		ERUSIUN LUG (TTPE 1) (20 INCH)
\rightarrow	FLOW ARROW		

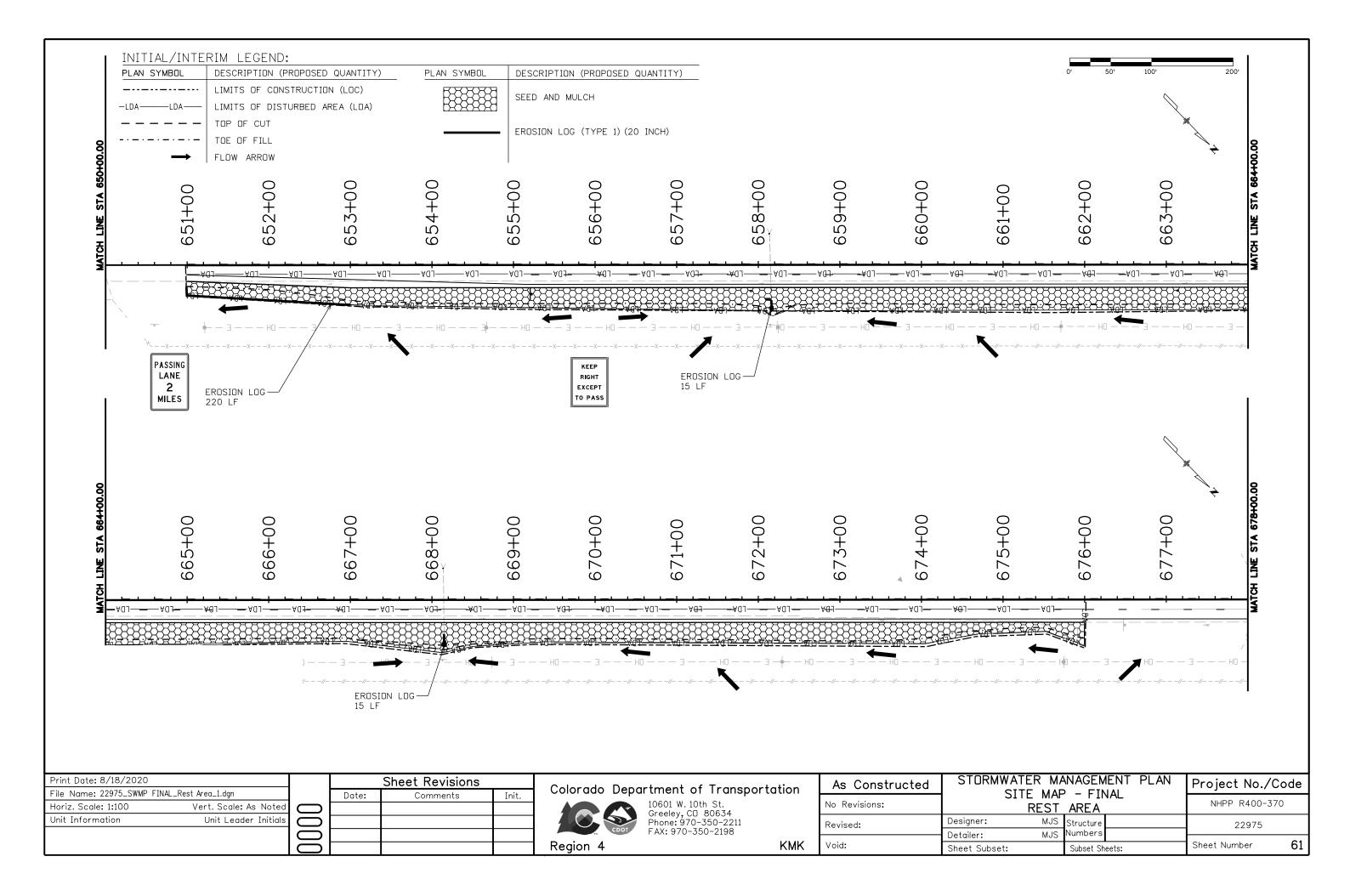
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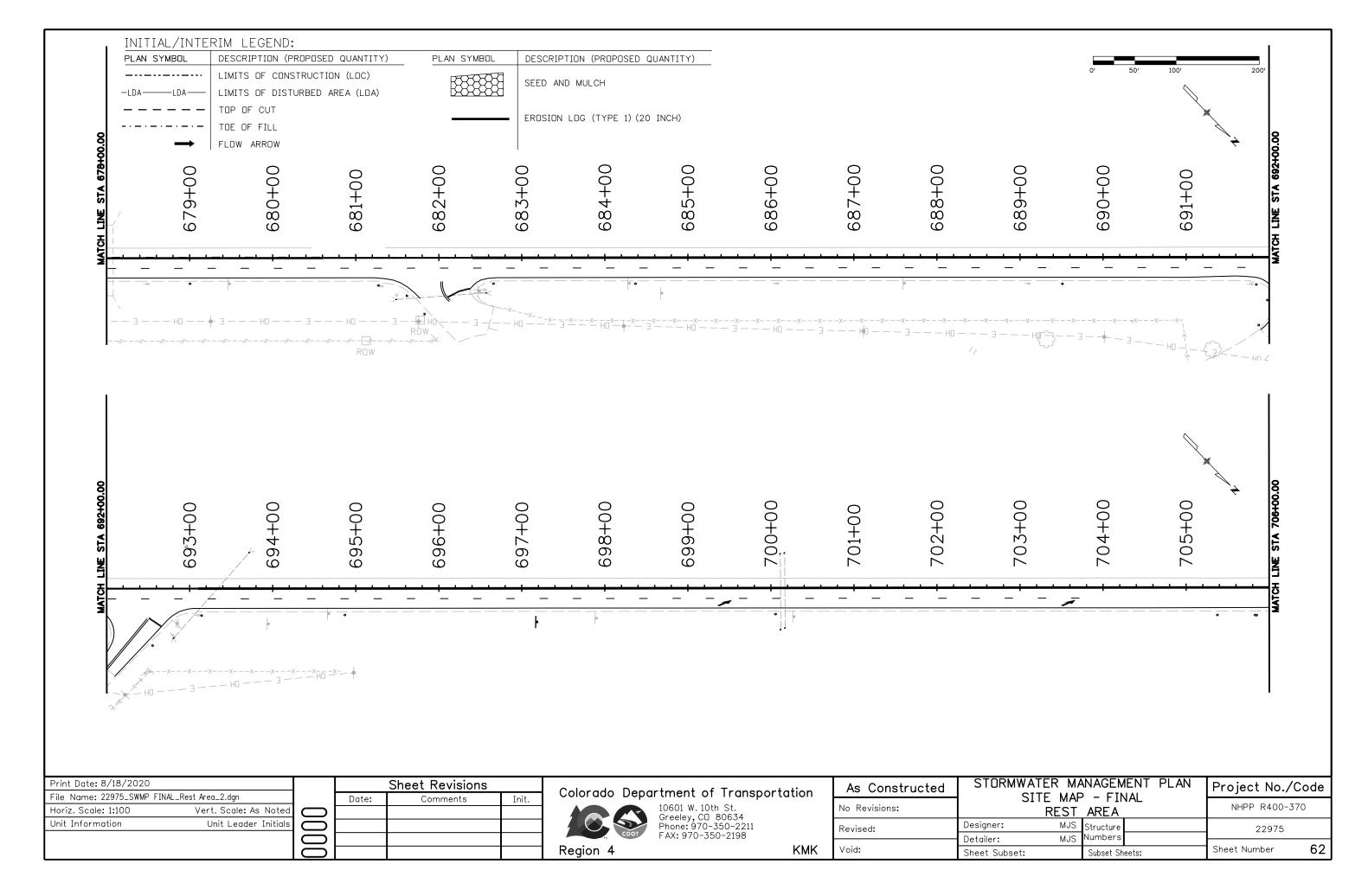
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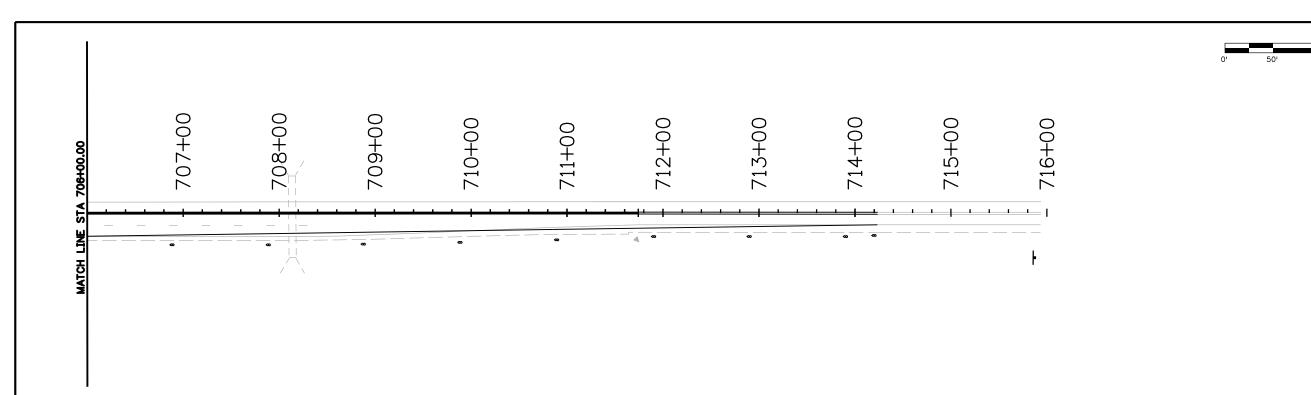
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PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)	PLAN SYMBOL	DESCRIPTION (PROPOSED QUANTITY)
	LIMITS OF CONSTRUCTION (LOC)		SEED AND MULCH
-LDALDA	LIMITS OF DISTURBED AREA (LOA)		SEED AND MOCOTI
	TOP OF CUT		EROSION LOG (TYPE 1) (20 INCH)
	TOE OF FILL		ERUSIUN LUG (TTPE 1) (20 INCH)
\rightarrow	FLOW ARROW		

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	Tabulation of Signs																		
										Sign	Panel	614-01503	614-01583						
Sign No.	Location	Station (approximate)	Direction	Sign Code	_	Sign Panel Size Background Color		Size Background		Sign Panel Size		Size Backgro		Legend	Class I (614- 00011)	Class II (614- 00012)	Steel Sign Support (2- Inch Round)(Post & Socket)	Steel Sign Support (2- 1/2" Round Sch 80 (Post & Slipbase	Remarks
					w"	x	н"			EA	SF	EA	EA						
1	RT	See Remarks	NB	Special	36	Х	54	Green	Passing/ Lane/ 2/ Miles		13.5		1	Place sign 2 miles in advance of STA 34+40					
2	RT	34+40	NB	R4-16	36	х	48	White	Keep/Right/Excep t/To Pass		12		1						
3a	RT	70+95	NB	D10-3	10	Х	36	Green	Mile/ 1/2/4	2.5		1		Northbound Facing					
3b	RT	70+95	NB	D10-3	10	Х	36	Green	Mile/ 1/2/4	2.5				Southbound Facing					
4	RT	74+70	NB	W4-2R	36	х	36	Yellow	Lane Ends (RT) Symbol		9		1						
5	RT	See Remarks	NB	Special	36	Х	54	Green	Passing/ Lane/ 1/ Mile		13.5		1	Place sign 1 mile in advance of STA 457+20					
6	RT	457+20	NB	R4-16	36	Х	48	White	Keep/Right/Excep t/To Pass		12		1						
7	RT	497+50	NB	W4-2R	36	Х	36	Yellow	Lane Ends (RT) Symbol		9		1						
8	RT	See Remarks	NB	Special	36	х	54	Green	Passing/ Lane/ 2/ Miles		13.5		1	Place sign 2 miles in advance of STA 655+20					
9	RT	655+20	NB	R4-16	36	Х	48	White	Keep/Right/Excep t/To Pass		12		1						
10	RT	697+20	NB	W4-2R	36	Х	36	Yellow	Lane Ends (RT) Symbol		9		1						
11	RT	716+00	NB	R2-1	36	Х	48	White	Speed Limit (65)		12		1						
Project	Totals									5	116	1	10						

Print Date: 8/18/2020			Sheet Revisions		Colorado Department of Transportation		As Constructed	PERMANEN	T SIGNING	Project No./Code
File Name: 22975_DES_Permanent Traffic Signs.dgn		Date:	Comments	Init.	10601 W. 10th St.				ATION	
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					Region 4	KMK	Void:	Sheet Subset:	Subset Sheets:	Sheet Number 64

			Tabulation of Pavement I	Markings (Kit Carson	Location)			
	Station/MP			Preformed Plastic Pavement Marking (Contrast)(Inlaid)					Preformed Thermoplastic Pavement
Location			REMARKS	Lane	Edge		Center		Marking (SF)
				White Broken	White Solid	Solid Double Yellow	Solid Broken Left Yellow	Broken Left Yellow	
	Begin	End		6 INCH	6 INCH	4 INCH	4 INCH	4 INCH	1
US 287	22+70	30+20			1500			750	
	30+20	44+20		1100	2800		1400		
	44+20	56+65		1245	2490	1245			
	56+65	87+20		3055	6110		2935		116
	87+20	103+10			3180	1590			
	-	-	TOTAL (LF)	5400	16080	2835	4335	750	
			TOTAL (SF)	675	8040	1890	1806	63	116
			TOTAL (GAL)	NA	92	22	21	1	

			Tabulation of Pavement M	Markings (Wild Horse	Location)			
	Station/MP			Modified		Preformed Thermoplastic Pavement			
Location			REMARKS	Lane	Edge		Center		Marking (SF)
				White Broken	White Solid	Solid Double Yellow	Solid Broken Left Yellow	Broken Yellow	Merge Symbol
	Begin	End		6 INCH	6 INCH	4 INCH	4 INCH	4 INCH	
SH 40	445+50	453+00			1500			750	
	453+00	510+00		5280	11400		5700		116
	510+00	525+90			3180	1590			
			TOTAL (LF)	5280	16080	1590	5700	750	
			TOTAL (SF)	660	8040	1060	2375	63	116
			TOTAL (GAL)	8	92	12	27	1	

			Tabulation of Pave	ment Markings (Res	t Area Lo	cation)				
	Station/MP			Modified	Ероху Ра	ivement M	arking (LF)		Preformed Thermoplastic Pavement Marking (SF)	
Location			REMARKS	Lane	Edge		Center			
Location			REMARKS	White Broken	White Solid	Solid Double Yellow	Solid Broken Left Yellow	Broken Yellow	Merge Symbol	Stopline
	Begin	End		6 INCH	6 INCH	4 INCH	4 INCH	4 INCH	1	
SH 40	643+50	651+00			1500			750		
	651+00	680+60	Station breaks represent yellow	2720	5920		2960			
	682+40	692+00	marking transitions. White markings	1070	2354	960				92
	693+10	714+25	continue through the breaks.	1275	4230	2115			116	
			TOTAL (LF)	5065	14004	3075	2960	750		
			TOTAL (SF)	633	7002	2050	1233	63	116	92
			TOTAL (GAL)	7	80	23	14	1		
NOTES:	FOR DET	AILS OF P	AVEMENT MARKING LINES AND LI	NE PLACEMENT, SI	EE STAN	DARD S-6	627-1			

	Installation of Delineators (Kit Carson)								
Station Begin	Station End	Type I	Type II	Type III	Comments				
30+20	94+40	9							
61+58	61+58			1					
73+40	73+40			1					
86+00	94+40		10						
Т	otal	9	10	2					

	Installation of Delineators (Wild Horse)								
Station	Station	Type I	Type II	Type III	Comments				
Begin	End	Type i	турсп	турстп	Comments				
453+00	518+40	11							
475+88	475+88			1					
476+32	476+32			1					
510+00	518+40		10						
To	otal	11	10	2					

	Installation of Delineators (Rest Area)									
Station Begin	Station End	Type I	Type II	Type III	Comments					
651+00	714+25	20								
658+12	658+12			1						
668+12	668+12			1						
705+85	714+25		10							
Total		20	10	2						

Print Date: 8/18/2020				Sheet Revisions	
File Name: 22975_DES_Per	manent Striping and Delineators		Date:	Comments	Init.
Horiz. Scale: 1:1	Vert. Scale: As Noted				
Unit Information	Unit Leader Initials				
		0			

Colorado Department of Transportation

Region 4

10601 W. 10th St. Greeley, CD 80634 Phone: 970-350-2211 FAX: 970-350-2198

As Constructed	PERMANENT S	Project No./Code	
No Revisions:	DELINEATOR	NHPP R400-370	
Revised:		Structure	22975
Void:	Detailer: MJS Sheet Subset:	Numbers Subset Sheets:	Sheet Number 65