

PoDI / NHS

PROJECT OF DIVISION INTEREST (PoDI)? ☒ NO ☐ YES

NATIONAL HIGHWAY SYSTEM? ☒ NO ☐ YES

TABULATION OF LENGTH & DESIGN DATA

STATION		PATH LENGTH (FT)
WOODMOOR DRIVE		
BEGIN PATH	0+00.00	
END PATH	30+99.13	3099.13
WILLOW PARK WAY & LAKE ACCESS ROAD		
BEGIN PATH	30+99.13	
END PATH	52+84.41	2185.28
LAKE WOODMOOR DRIVE		
BEGIN PATH	52+84.41	
END PATH	55+32.09	247.68
CORONADO BEACH DR		
BEGIN PATH	55+32.09	
END PATH	64+33.46	901.37
LOWER LAKE ROAD		
BEGIN PATH	64+33.46	
END PATH	66+69.77	236.31
LAKE WOODMOOR DRIVE		
BEGIN PATH	66+69.77	
END PATH	80+76.62	1406.85
WOODMOOR IMPROVEMENT (ASSOCIATION- OPEN SPACE)		
BEGIN PATH	80+76.62	
END PATH	103+00.00	2223.38
DEER CREEK ROAD		
BEGIN PATH	103+00.00	
END PATH	127+63.00	2463.00

DESIGN DATA

WIDTH	4'
CROSS-SLOPE	5% MAX
MAXIMUM SLOPE	12.5%
PASSING ZONE	5'X5' MAX 1,000' APART
RESTING ZONES	5% MAX SLOPE

EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

Daniel Torres, P.E.

Digitally signed by Daniel Torres, P.E.

DN: cn=Daniel Torres, o=J-R Engineering, ou=Professional Engineer, email=D.Torres@jrengineering.com, c=US

Condition of approval: Signing and striping within El Paso County (EPC) ROW shall conform to current EPC standards.

5/26/2023

DATE

JOSHUA PALMER, P.E.
COUNTY ENGINEER/ECM ADMINISTRATOR

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

Glenn D. Ellis, P.E.

Digitally signed by Glenn D. Ellis, P.E.

DN: cn=Glenn D. Ellis, o=J-R Engineering, ou=Professional Engineer, email=G.Ellis@jrengineering.com, c=US

March 2, 2023

DATE

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

Ricky Vestal

Digitally signed by Ricky Vestal

DN: cn=Ricky Vestal, o=Lewis Palmer School District 38, email=R.Vestal@lp38.org, c=US

3/14/2023

DATE

RICKY VESTAL
LEWIS PALMER SCHOOL DISTRICT 38
146 N. JEFFERSON STREET
MONUMENT, CO 80132

RELATED PROJECT:

P.E. UNDER PROJECT:
PROJECT NUMBER:
PROJECT CODE:

R.O.W. PROJECT:
TBD

SHEET INDEX

1 - COVER SHEET
2 - STANDARDS PLAN LIST
3 - LEGEND
4 - TYPICAL SECTIONS
5-6 - RAMP DETAILS
7-9 - GEC DETAILS
10 - NOTES
11 - SUMMARY OF APPROXIMATE QUANTITIES
12 - SURVEY TABULATIONS
13-15 - HORIZONTAL CONTROL PLANS
16-31 - TRAIL PLAN AND PROFILE
32-44 - CROSS SECTION

CONTACTS:

OWNER

LEWIS PALMER SCHOOL DISTRICT 38
146 N. JEFFERSON STREET
MONUMENT, CO 80132
ATTN: RICKY VESTAL
P~(719) 757-1430

PROJECT PARTNER

WOODMOOR IMPROVEMENT ASSOCIATION
1691 WOODMOOR DR.
MONUMENT, CO 80132
ATTN:
P~(719) 488-2693

PROJECT PARTNER

WOODMOOR WATER AND SANITATION DISTRICT
PO BOX 1407
MONUMENT, CO 80132
ATTN:
P~() -

ENGINEER/SURVEYOR

JR ENGINEERING, LLC
ATTN: GLENN ELLIS
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COLORADO SPRINGS, CO 80919
P~(303) 267-6241

CDOT (REGION 2)

COLORADO DEPARTMENT OF TRANSPORTATION
5615 WILLS BOULEVARD
PUEBLO, CO 81008
CONTACT: JUNIOR RODRIGUEZ
P~(719) 251-6980

ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

Glenn D. Ellis, P.E.

Digitally signed by Glenn D. Ellis, P.E.

DN: cn=Glenn D. Ellis, o=J-R Engineering, ou=Professional Engineer, email=G.Ellis@jrengineering.com, c=US

March 2, 2023

DATE

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC

Print Date: 03/01/2023

File Name:

Horiz. Scale: N/A

Unit name

J-R ENGINEERING

A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2583
Fort Collins 970-491-9888 • www.jrengineering.com

Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation

CDOT

CO

Region 2

5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

LP

Lewis Palmer School District 38

As Constructed

No Revisions:

Revised:

Void:

LEWIS PALMER TRAIL
COVER SHEET

Designer: GG

Detailer: GG

Sheet Subset:

Subset Sheets: OF

Project No./Code

M915-009/22585

2520300

Sheet Number 1 OF 44

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PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	S STANDARD TITLE	PAGE NUMBER
☐ M-100-1	STANDARD SYMBOLS (3 SHEETS)	1-3	☐ M-606-1	MIDWEST GUARDRAIL SYSTEM TYPE 3 W-BEAM 31 INCHES (19 SHEETS) <i>(REVISED ON MARCH 5, 2020)</i>	79-97	☐ S-612-1	DELINEATOR INSTALLATIONS (8 SHEETS)	171-178
☐ M-100-2	ACRONYMS AND ABBREVIATIONS (4 SHEETS)	4-7	☐ M-606-13	GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS)	98-101	☐ S-613-1	ROADWAY LIGHTING (6 SHEETS) <i>(REVISED ON SEPTEMBER 30, 2020)</i>	179-186
☐ M-203-1	APPROACH ROADS	8	☐ M-606-14	PRECAST TYPE 7 CONCRETE BARRIER (4 SHEETS) <i>(REVISED ON AUGUST 21, 2020)</i>	102-104	☒ S-613-2	ALTERNATIVE ROADWAY LIGHTING (4 SHEETS) <i>(NEW, ISSUED ON SEPTEMBER 30, 2020)</i>	
☐ M-203-2	DITCH TYPES	9	☐ M-606-15	GUARDRAIL TYPE 9 SINGLE SLOPE BARRIER (11 SHEETS) <i>(REVISED ON MARCH 5, 2020)</i>	105-115	☐ S-614-1	GROUND SIGN PLACEMENT (2 SHEETS)	187-188
☐ M-203-11	SUPERELEVATION CROWNED AND DIVIDED HIGHWAYS (3 SHEETS)	10-12	☐ M-607-1	WIRE FENCES AND GATES (3 SHEETS)	116-118	☐ S-614-2	CLASS I SIGNS	189
☐ M-203-12	SUPERELEVATION STREETS (2 SHEETS)	13-14	☐ M-607-2	CHAIN LINK FENCE (3 SHEETS)	119-121	☐ S-614-3	CLASS II SIGNS	190
☐ M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS)	15-16	☐ M-607-3	BARRIER FENCE	122	☐ S-614-4	CLASS III SIGNS (3 SHEETS)	191-193
☐ M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES (2 SHEETS)	17-18	☐ M-607-4	DEER FENCE, GATES, AND GAME RAMPS (7 SHEETS) <i>(REVISED ON JULY 13, 2020)</i>	123-127	☐ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS FOR CLASS III SIGNS (2 SHEETS)	194-195
☒ M-208-1	TEMPORARY EROSION CONTROL (11 SHEETS)	19-29	☐ M-607-10	PICKET SNOW FENCE	128	☐ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS (2 SHEETS)	196-197
☐ M-210-1	MAILBOX SUPPORTS (2 SHEETS)	30-31	☐ M-607-15	ROAD CLOSURE GATE (9 SHEETS)	129-137	☐ S-614-8	TUBULAR STEEL SIGN SUPPORT DETAILS (7 SHEETS) <i>(REVISED ON DECEMBER 31, 2020)</i>	198-204
☐ M-214-1	NURSERY STOCK DETAILS	32	☒ M-608-1	CURB RAMPS (10 SHEETS)	138-147	☐ S-614-9	PEDESTRIAN PUSH BUTTON POST ASSEMBLY (2 SHEETS) <i>(SUPERSEDED ON JANUARY 23, 2020 BY S-614-45)</i>	205-206
☐ M-216-1	SOIL RETENTION COVERING (2 SHEETS)	33-34	☐ M-609-1	CURBS, GUTTERS, AND SIDEWALKS (4 SHEETS)	148-151	☐ S-614-10	MARKER ASSEMBLY INSTALLATIONS	207
☐ M-412-1	CONCRETE PAVEMENT JOINTS (9 SHEETS) <i>(REVISED ON JANUARY 31, 2022)</i>	35-39	☐ M-611-1	CATTLE GUARD (2 SHEETS)	152-153	☐ S-614-11	MILEPOST SIGN DETAIL FOR HIGH SNOW AREAS	208
☐ M-412-2	CONCRETE PAVEMENT CRACK REPAIR (4 SHEETS) <i>(NEW, ISSUED ON OCTOBER 7, 2019)</i>		☐ M-611-2	DEER GUARD (2 SHEETS)	154-155	☐ S-614-12	STRUCTURE NUMBER INSTALLATION (2 SHEETS)	209-210
☐ M-510-1	STRUCTURAL PLATE PIPE H-20 LOADING	40	☐ M-614-1	RUMBLE STRIPS (3 SHEETS)	156-158	☐ S-614-14	FLASHING BEACON AND SIGN INSTALLATIONS (4 SHEETS)	211-214
☐ M-601-1	SINGLE CONCRETE BOX CULVERT (CAST-IN-PLACE) (2 SHEETS)	41-42	☐ M-614-2	SAND BARREL ARRAYS (2 SHEETS)	159-160	☐ S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATIONS	215
☐ M-601-2	DOUBLE CONCRETE BOX CULVERT (CAST-IN-PLACE) (2 SHEETS)	43-44	☐ M-615-1	EMBANKMENT PROTECTOR TYPE 3	161	☐ S-614-21	CONCRETE BARRIER SIGN POST INSTALLATIONS (2 SHEETS) <i>(REVISED ON SEPTEMBER 21, 2020)</i>	216-217
☐ M-601-3	TRIPLE CONCRETE BOX CULVERT (CAST-IN-PLACE) (2 SHEETS)	45-46	☐ M-615-2	EMBANKMENT PROTECTOR TYPE 5	162	☐ S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS	218
☐ M-601-10	HEADWALL FOR PIPES	47	☐ M-616-1	INVERTED SIPHON	163	☐ S-614-40	TYPICAL TRAFFIC SIGNAL 30'-75' DOUBLE MAST ARMS 65'-75' SINGLE MAST ARMS (5 SHEETS) <i>(REVISED ON JULY 22, 2022)</i>	219-223
☐ M-601-11	TYPE "S" SADDLE HEADWALLS FOR PIPE	48	☐ M-620-1	FIELD LABORATORY CLASS 1	164	☐ S-614-40A	ALTERNATIVE TRAFFIC SIGNAL 25'-55' SINGLE MAST ARMS (4 SHEETS) <i>(REVISED ON JULY 22, 2022)</i>	224-227
☐ M-601-12	HEADWALLS AND PIPE OUTLET PAVING	49	☐ M-620-2	FIELD LABORATORY CLASS 2 (2 SHEETS)	165-166	☐ S-614-41	TEMPORARY SPAN WIRE SIGNALS (13 SHEETS)	228-240
☐ M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS (2 SHEETS)	50-51	☐ M-620-11	FIELD OFFICE CLASS 1	167	☐ S-614-42	CABINET FOUNDATION DETAIL (4 SHEETS)	241-244
☐ M-603-1	METAL PIPE (4 SHEETS)	52-55	☐ M-620-12	FIELD OFFICE CLASS 2	168	☐ S-614-43	TRAFFIC LOOP AND MISCELLANEOUS SIGNAL DETAILS (8 SHEETS)	245-252
☐ M-603-2	REINFORCED CONCRETE PIPE	56	☐ M-629-1	SURVEY MONUMENTS (2 SHEETS)	169-170	☐ S-614-44	PEDESTAL POLE SIGNALS (2 SHEETS)	253-254
☐ M-603-3	PRECAST CONCRETE BOX CULVERT <i>(REVISED ON SEPTEMBER 10, 2020)</i>	57				☐ S-614-45	PEDESTRIAN PUSH BUTTON POST ASSEMBLY DETAILS (6 SHEETS) <i>(REVISED ON DECEMBER 3, 2020)</i>	
☐ M-603-4	CORRUGATED POLYETHYLENE PIPE (AASHTO M294) AND CORRUGATED POLYPROPYLENE PIPE (AASHTO M330) (2 sheets) <i>(REVISED ON MARCH 7, 2022)</i>	58				☐ S-614-50	STATIC SIGN MONOTUBE STRUCTURES (12 SHEETS)	255-266
☐ M-603-5	POLYVINYL CHLORIDE (PVC) PIPE (AASHTO M304)	59				☐ S-614-60	DYNAMIC SIGN MONOTUBE STRUCTURES (14 SHEETS)	267-280
☐ M-603-6	STEEL REINFORCED POLYETHYLENE RIBBED PIPE (AASHTO MP 20)	60				☐ S-627-1	PAVEMENT MARKINGS (9 SHEETS) <i>(REVISED ON JULY 22, 2022)</i>	281-289
☐ M-603-10	CONCRETE AND METAL END SECTIONS	61				☐ S-630-1	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (24 SHEETS)	290-313
☐ M-603-12	TRAVERSABLE END SECTIONS AND SAFETY GRATES (3 SHEETS)	62-64				☐ S-630-2	BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP.) AND VERTICAL PANELS	314
☐ M-604-10	INLET, TYPE C	65				☐ S-630-3	FLASHING BEACON (PORTABLE) DETAILS	315
☐ M-604-11	INLET, TYPE D	66				☐ S-630-4	STEEL SIGN SUPPORT (TEMPORARY) INSTALLATION DETAILS (2 SHEETS)	316-317
☐ M-604-12	CURB INLET TYPE R (2 SHEETS)	67-68				☐ S-630-5	PORTABLE RUMBLE STRIPS (TEMPORARY) (2 SHEETS)	318-319
☐ M-604-13	CONCRETE INLET TYPE 13	69				☐ S-630-6	EMERGENCY PULL-OFF AREA (TEMPORARY)	320
☐ M-604-20	MANHOLES (3 SHEETS)	70-72				☐ S-630-7	ROLLING ROADBLOCKS FOR TRAFFIC CONTROL (3 SHEETS)	321-323
☐ M-604-25	VANE GRATE INLET (5 SHEETS)	73-77						
☐ M-605-1	SUBSURFACE DRAINS	78						

COLORADO

DEPARTMENT OF TRANSPORTATION

M&S STANDARDS PLANS LIST

July 31, 2019

Revised on September 6, 2022

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

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

Print Date: 03/01/2023		Sheet Revisions			CDOT CO Region 2 5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750 Lewis Palmer School District 38	As Constructed		LEWIS PALMER TRAIL STANDARDS PLAN LIST			Project No./Code	
File Name:		Date:	Comments	Init.		No Revisions:					M915-009/22585	
Horiz. Scale: N/A							Revised:	Designer: GG	Structure Numbers	2520300		
Unit name							Void:	Detailer: GG		Sheet Number 2 OF 44		
J•R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com						Sheet Subset:		Subset Sheets: OF				

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LAYER LINETYPE LEGEND

	EXISTING	PROPOSED
PHASE LINE		
MATCH LINE		
SECTION LINE		
BOUNDARY LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
R.O.W. A LINE		
CENTERLINE		
CITY LIMITS		
WIRE FENCE		
CHAIN LINK FENCE		
WOOD FENCE		
MASONRY FENCE		
GUARDRAIL		
CONC. BARRIER		
CABLE TV		
ELECTRIC		
FIBER OPTIC		
GAS MAIN		
IRRIGATION MAIN		
OIL/PETRO. MAIN		
OVERHEAD UTILITY		
SANITARY SEWER		
STORM DRAIN		
TELEPHONE		
WATER MAIN		
RAW WATER LINE		
SWALE/WATERWAY FLOWLINE		
DIVERSION DITCH		
DIVERSION CHANNEL		
MAJOR DRAINAGE BASIN		
MINOR DRAINAGE BASIN		
TOP OF SLOPE		
TOE OF SLOPE		
EDGE OF WATER		
INDEX CONTOUR		
INTERMEDIATE CONTOUR		
DEPRESSION CONT. (INDEX)		
DEPRESSION CONT. (INTER)		
TOP OF CUTS		
TOE OF FILLS		
CUT AND FILL LINE		
SILT FENCE		
100 YEAR FLOODPLAIN		
500 YEAR FLOODPLAIN		
FLOODWAY		
BASE FLOOD ELEVATION		
EDGE OF WETLANDS		
STONE WALL		
GRAVEL TRAIL		

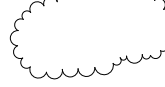
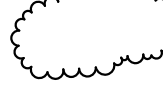
UTILITIES LEGEND

	EXISTING	PROPOSED
STORM SEWER		
MANHOLE	⊙	●
STORM INLET		■
AREA INLET — SQUARE	□	
AREA INLET — ROUND	○	
FLARED END SECTION	▷	◁
RIPRAP		
SANITARY SEWER		
LINE MARKER	<i>Mkr</i> San°	
SERVICE MARKER		
CLEAN-OUT	—○—	—●—
MANHOLE W/ DIRECTIONAL FLOW ARROW	⊙↻	●↻
WATER LINE		
LINE MARKER	<i>Mkr</i> W°	
SERVICE MARKER		
FIRE HYDRANT	⋈	●
FIRE CONNECTION		⋈
MANHOLE	⊙	●
BEND		⋈
BLOW-OFF VALVE	⊙	⋈
WELL	⊙WELL	●WELL
METER	⊙	●
VALVE	⋈	⋈
REDUCER		→
THRUST BLOCK		⋈
CROSS		⋈
PLUG W/ THRUST BLOCK	⋈	⋈
TEE		⋈
REVERSE ANCHOR		⋈
ANODE		⊙
AIR & VACUUM VALVE ASSEMBLY		⋈→
TRANSMISSION BLOW-OFF ASSEMBLY		⋈→
GAS LINE		
MARKER	<i>Mkr</i> G°	
SERVICE MARKER		
METER	⊙	●
VALVE	⋈	⋈
DRY UTILITIES		
CABLE TV MARKER	<i>Mkr</i> TV°	
CABLE TELEVISION PEDESTAL	▢	
ELECTRIC MARKER	<i>Mkr</i> E°	
ELECTRIC SERVICE MARKER		
ELECTRICAL PEDESTAL	▢	
ELECTRICAL METER	⊙	
ELECTRICAL MANHOLE	⊙	
FIBER—OPTIC MARKER	<i>Mkr</i> FO°	
IRRIGATION PEDESTAL	▢	
TELEPHONE MARKER	<i>Mkr</i> T°	
TELEPHONE PEDESTAL	▢	

MONUMENTATION LEGEND

ALUMINUM CAP - FOUND	● AC
BRASS CAP - FOUND	● BC
BENCHMARK - FOUND	⊕
CROSS - FOUND	+
MONUMENT - SET	○
MONUMENT - FOUND (DEFAULT)	●
MONUMENT - FOUND (ALTERNATE 1)	■
MONUMENT - FOUND (ALTERNATE 2)	▣
MONUMENT - FOUND (ALTERNATE 3)	▲
MONUMENT - FOUND (ALTERNATE 4)	△
MONUMENT - FOUND (ALTERNATE 5)	⬠
MONUMENT - FOUND (ALTERNATE 6)	⬡
MONUMENT - FOUND (ALTERNATE 7)	⬢
NAIL & WASHER - FOUND	● NAIL & WASHER
PANEL - FOUND	⋈
PK NAIL - FOUND	● PK NAIL
ROW MONUMENT - FOUND	⊕
ROW MARKER - FOUND	□
SECTION CORNER - FOUND	⊕
SECTION CORNER - SET	⊕
QUARTER-SECTION CORNER - FOUND	⊕
QUARTER-SECTION CORNER - SET	⊕
SECTION CENTER - FOUND	⊙
SECTION CENTER - FOUND	⊙
CONTROL/TRaverse POINT - SET	△

LANDSCAPE LEGEND

	<i>EXISTING</i>	<i>PROPOSED</i>
TREE - CONIFEROUS		
TREE - DECIDUOUS		
SHRUB/BUSH		
SHRUBS AND BUSHES		
IRRIGATION BOX		
IRRIGATION SPRINKLER		
IRRIGATION VALVE		
BOLLARD		
FLAGPOLE		

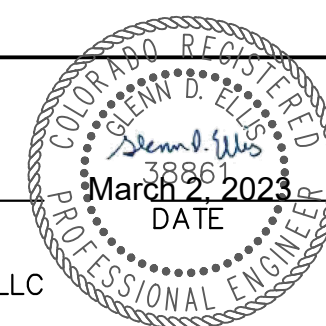
STORM WATER MANAGEMENT

	KEY	SYMBOL
CHECK DAM	(CD)	
CONSTRUCTION ROAD STABILIZATION	(CRS)	
CURB SOCK INLET PROTECTION	(CS)	
CONCRETE WASHOUT AREA	(CWA)	
DIVERSION DITCH AND DIKE, TEMPORARY	(DD)	
DIVERSION CHANNEL, TEMPORARY	(DV)	
DEWATERING	(DW)	
EROSION CONTROL BLANKET	(ECB)	
INLET FILTER	(IF)	
INLET PROTECTION	(IP)	
MULCHING	(MU)	
OUTLET PROTECTION	(OP)	
PAVED FLUME	(PF)	
PERMENT SEEDING	(PS)	
REINFORCED CONCRETE DAM	(RCD)	
ROUGH CUT STREET CONTROL	(RCS)	
SEDIMENT BASIN	(SB)	
SEDIMENT CONTROL LOG	(SCL)	
SILT FENCE	(SF)	
SURFACE ROUGHENING	(SR)	
STABILIZED STAGING AREA	(SSA)	
SEDIMENT TRAP	(ST)	
STRAW BALE BARRIER	(STB)	
TERRACING	(TER)	
TEMPORARY SEEDING	(TS)	
TEMPORARY STREAM CROSSING CULVERT/BRIDGE	(TSC _C)	
TEMPORARY STREAM CROSSING FORD TYPE	(TSC _F)	
TEMPORARY SLOPE DRAIN	(TSD)	
VEHICLE TRACKING CONTROL	(VTC)	
VEHICLE TRACKING CONTROL WITH WASH RACK	(WR)	

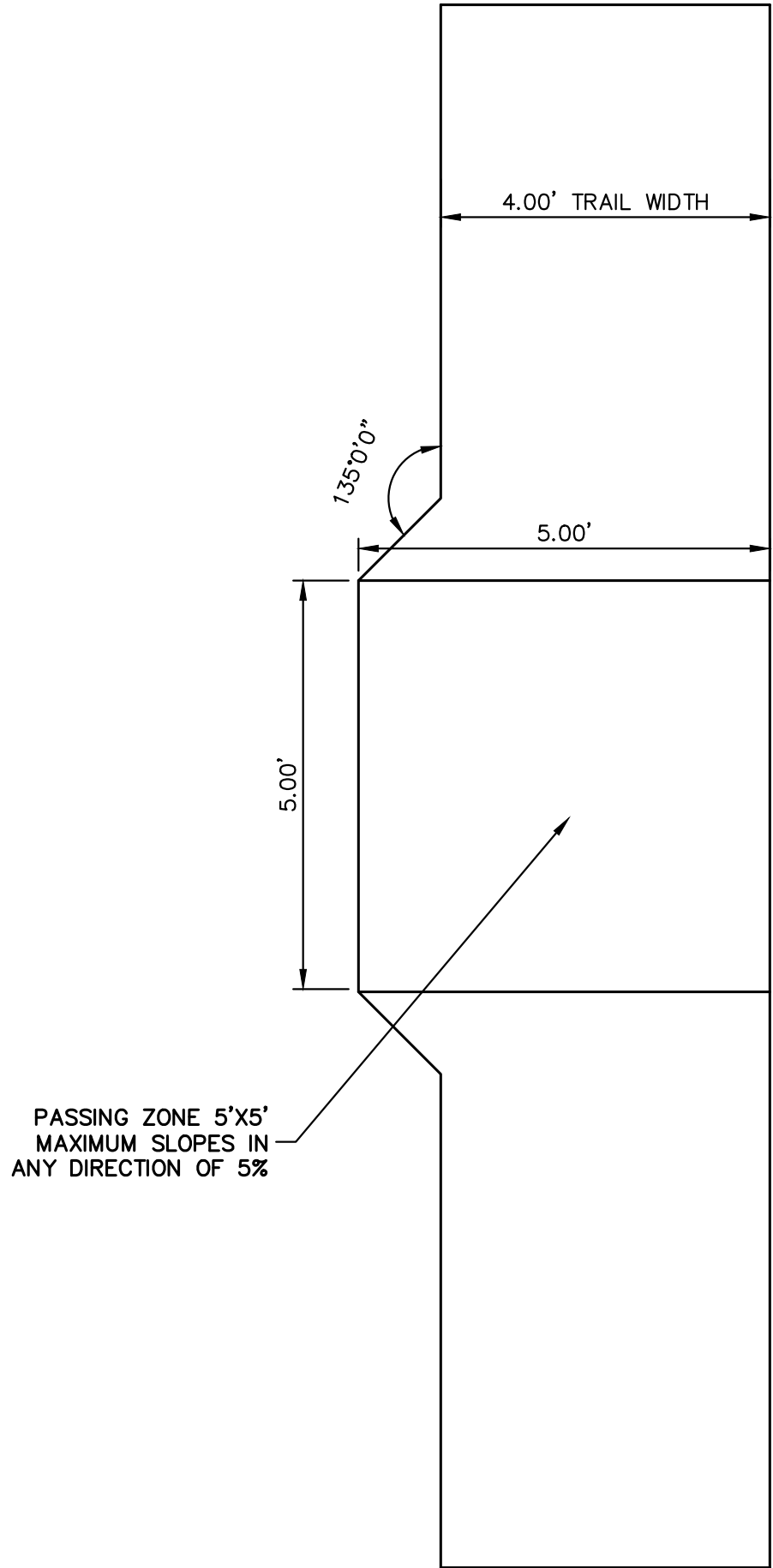
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



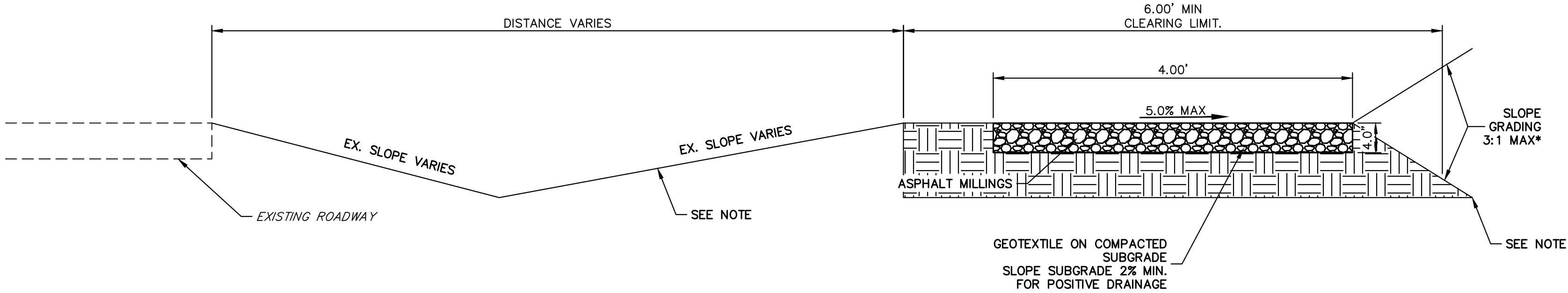
Print Date: 03/01/2023		Sheet Revisions <table><tr><th>Date:</th><th>Comments</th><th>Init.</th></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table> Colorado Department of Transportation CDOT CO 5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750 Region 2 Lewis Palmer School District 38			Date:	Comments	Init.													As Constructed		LEWIS PALMER TRAIL				Project No./Code	
Date:	Comments				Init.																						
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Horiz. Scale: N/A Vert. Scale: N/A		Revised:		Designer: GG		Structure		2520300																			
Unit name Unit leader		Void:		Detailer: GG		Numbers																					
J-R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-593-2593 Fort Collins 970-491-9888 • www.jrengineering.com				Sheet Subset:		Subset Sheets: OF		Sheet Number 3 OF 44																			



PASSING ZONE
SCALE: N.T.S.

NOTE:

PLACE SILT FENCE AT THE BASE OF THE DOWN HILL SIDE OF THE DISTURBED AREA. REFER TO COUNTY DETAILS ON SHEET 7.



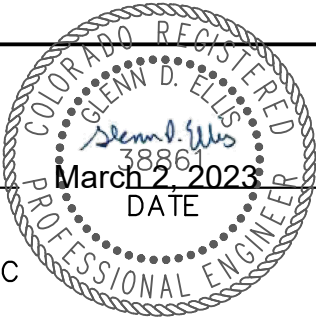
* - UNLESS STATED OTHERWISE IN THE PLANS OR CROSS-SECTIONS

**PROPOSED TRAIL
TYPICAL SECTION**
SCALE: N.T.S.



ENGINEER'S STATEMENT
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Print Date: 03/01/2023

File Name:

Horiz. Scale: N.T.S. Vert. Scale:

Unit name Unit leader

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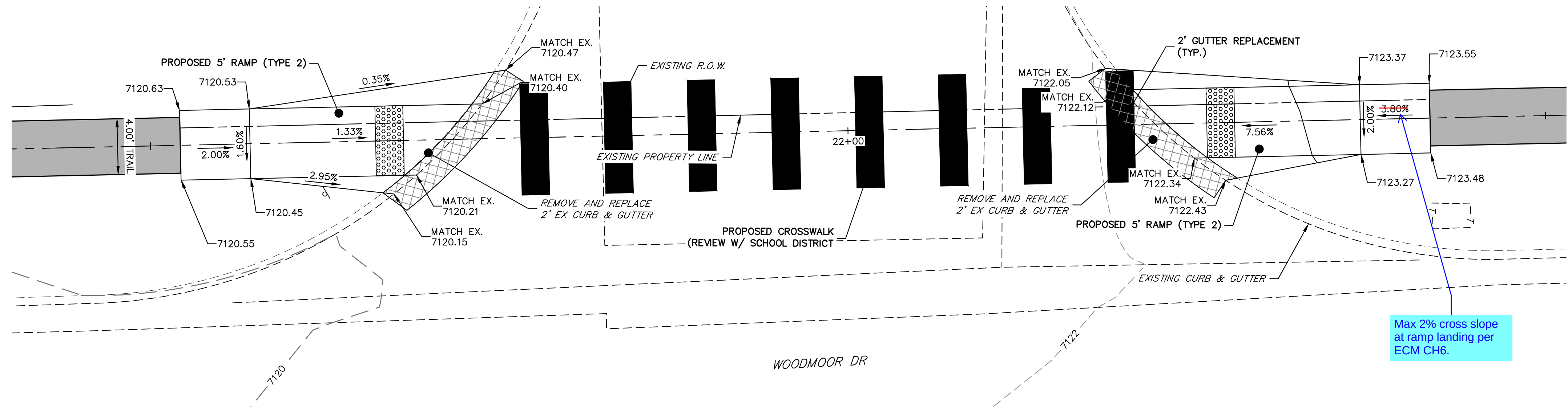
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Colorado Department of Transportation

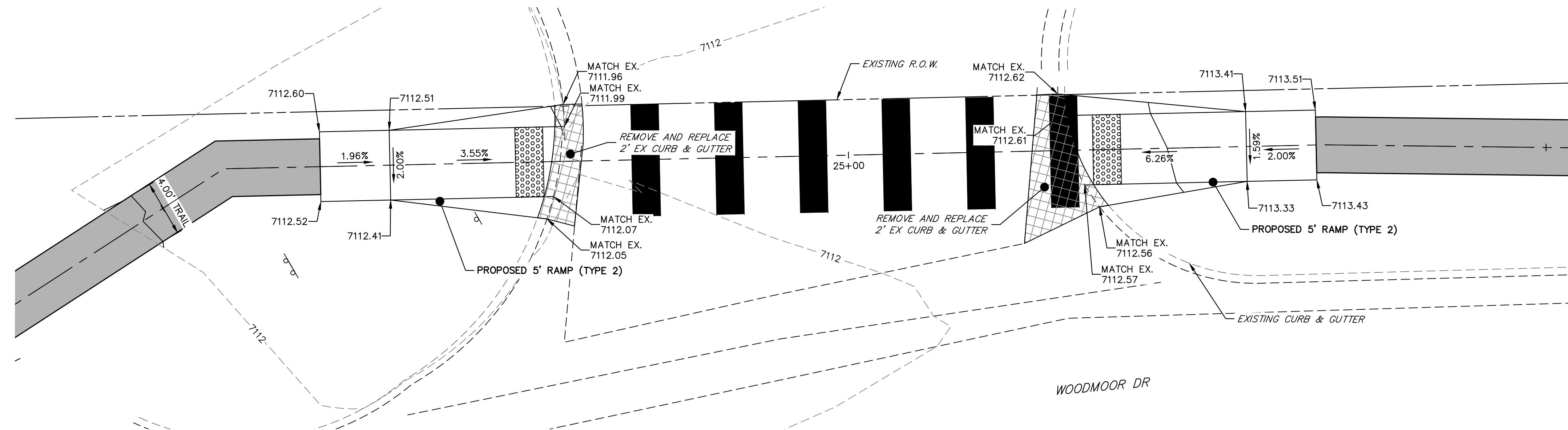
 5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

 Lewis Palmer School District 38

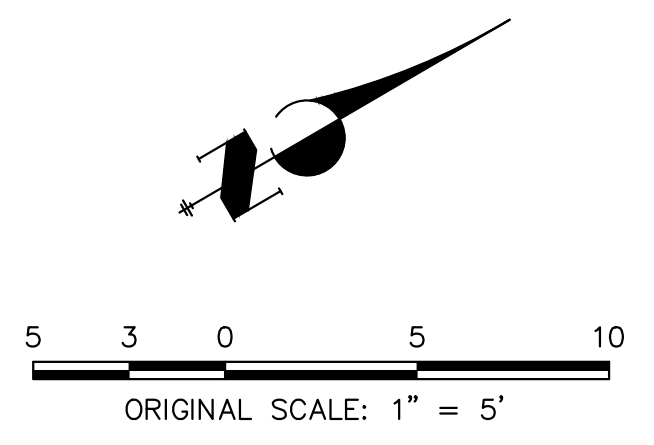
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RAMP DETAIL
STA: 21+48.48 TO 22+59.95

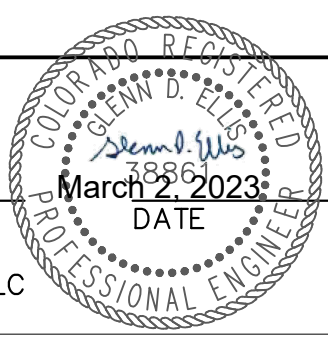


RAMP DETAIL
STA: 24+48.28 TO 25+62.62



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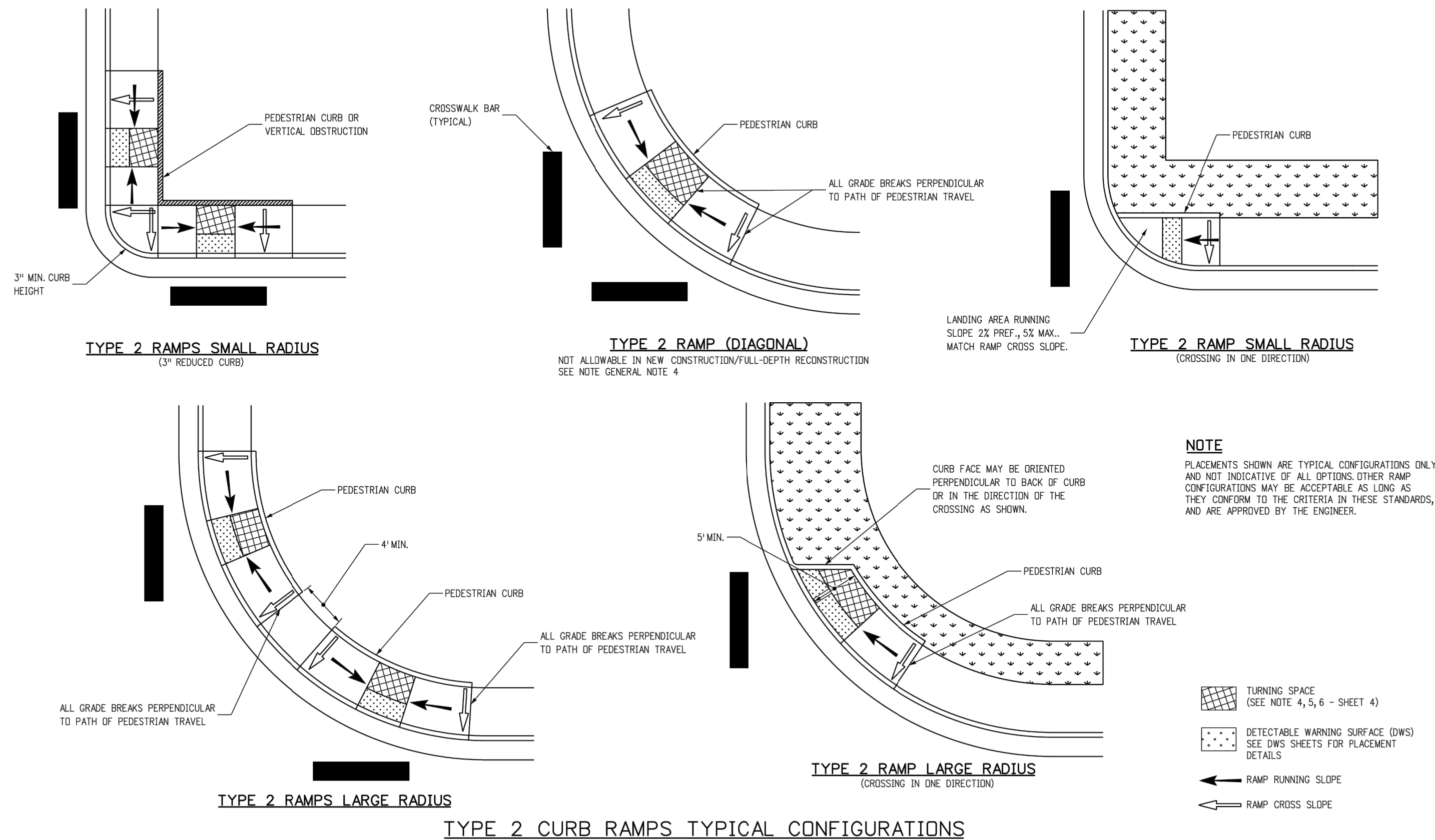
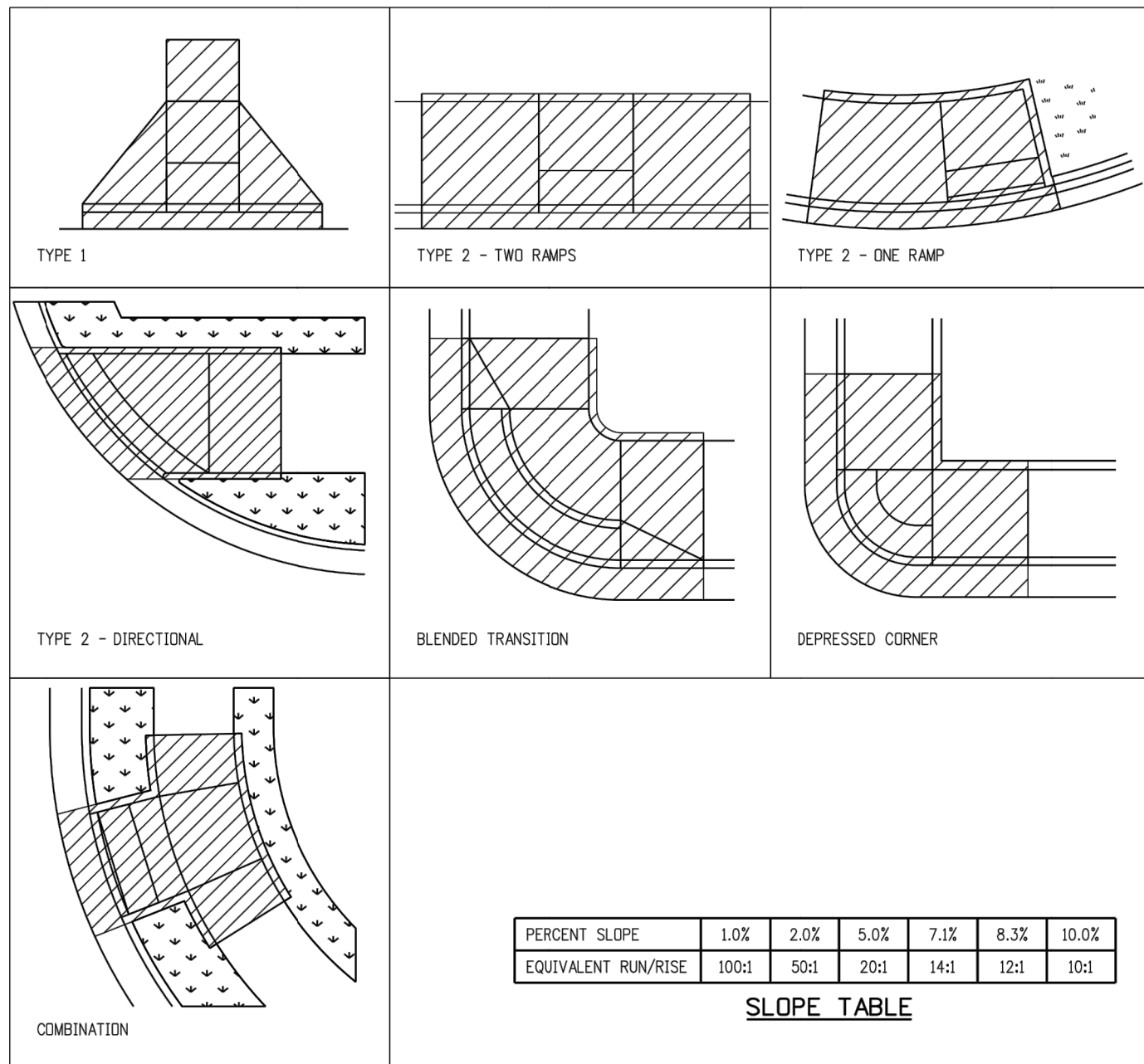
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CURB RAMP GENERAL NOTES:

- 3) IN NEW CONSTRUCTION OR FULL-DEPTH RECONSTRUCTION, PROVIDE A SEPARATE CURB RAMP FOR EACH MARKED OR UNMARKED PEDESTRIAN STREET CROSSING. CURB RAMPS SHALL BE CONTAINED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING OR CROSSWALK THEY SERVE, OR AS SHOWN ON THE CONTRACT PLANS.
- 4) ALTERATIONS ARE DEFINED AS CHANGES TO AN EXISTING HIGHWAY THAT AFFECT PEDESTRIAN ACCESS, CIRCULATION, OR USE. ALTERATIONS INCLUDE, BUT ARE NOT LIMITED TO, RESURFACING, REHABILITATION, RECONSTRUCTION, CURB RAMP RETROFITS, HISTORIC RESTORATION, OR CHANGES OR REARRANGEMENT TO STRUCTURAL PARTS OR ELEMENTS OF A PEDESTRIAN FACILITY.
- 5) A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP OR TURNING SPACE, WITHOUT RAISED OBSTACLES, THAT COULD BE MISTAKENLY TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- 6) IN ALTERATIONS, WHERE AN EXISTING PHYSICAL CONSTRAINT PREVENTS PROVIDING A SEPARATE CURB RAMP FOR EACH PEDESTRIAN STREET CROSSING, A SINGLE DIAGONAL RAMP ON THE ADJACENT SIDE SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS. THE USE OF A SINGLE DIAGONAL RAMP SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. DIAGONAL RAMPS ARE NOT ACCEPTABLE IN NEW CONSTRUCTION OR FULL-DEPTH RECONSTRUCTION.
- 7) DETECTABLE WARNING SURFACES (DWS) ARE INTENDED TO INDICATE THE BOUNDARY BETWEEN A PEDESTRIAN ROUTE AND VEHICULAR ROUTE WHERE THERE IS A FLUSH RATHER THAN CURBED CONNECTION. DWS ARE NOT INTENDED TO PROVIDE WAYFINDING. DWS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:
 1. CURB RAMPS, BLENDED TRANSITIONS, AND DEPRESSED CORNERS AT PEDESTRIAN STREET CROSSINGS;
 2. PEDESTRIAN REFUGE ISLANDS (6 FEET IN WIDTH OR GREATER);
 3. BOARDING PLATFORMS AT TRANSIT STOPS WHERE THE EDGE OF THE PLATFORM IS NOT PROTECTED TO PEDESTRIAN CROSS TRAFFIC; AND
 4. ROADWAY AREAS AT SIDEWALK OR STREET LEVEL TRANSIT STOPS WHERE THE AREA IS NOT PROTECTED TO PEDESTRIAN CROSS TRAFFIC.
- 8) DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT GUTTER, HIGHWAY, OR PEDESTRIAN ACCESS SURFACE SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. FEDERAL YELLOW COLOR IS PREFERRED, HOWEVER, OTHER COLORS MAY BE USED IF APPROVED BY THE ENGINEER.
- 9) IN ALTERATIONS, TO AVOID CHASING GRADE INDEFINITELY ON STEEP ROADWAYS, A CURB RAMPS LENGTH IS NOT REQUIRED TO EXCEED 15 FEET REGARDLESS OF THE RESULTING RAMP RUNNING SLOPE.
- 10) ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE.
- 11) DRAINAGE STRUCTURES, TRAFFIC SIGNAL EQUIPMENT, OR OTHER OBSTRUCTIONS SHALL NOT BE INSTALLED ON THE CURB RAMP, OR TURNING SPACE AREAS.
- 12) IN NEW CONSTRUCTION, PULL BOXES, METER BOXES, MAINTENANCE HOLE COVERS, VAULT LIDS, OR SIMILAR, SHALL NOT BE CONSTRUCTED WITHIN ANY PART OF CURB RAMP OR TURNING SPACE. IN ALTERATIONS, WHERE THESE ITEMS CANNOT BE RELOCATED OUTSIDE OF THE CURB RAMP OR TURNING SPACE, THEY MUST NOT CREATE A VERTICAL DISCONTINUITY GREATER THAN 1/2" INCH. ANY VERTICAL DISCONTINUITY BETWEEN 1/4" INCH AND 1/2" INCH SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1V:2H. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE SURFACE DISCONTINUITY.
- 13) CONSTRUCTION OF ANY REQUIRED PEDESTRIAN CURB SHALL BE INCLUDED IN THE BID PRICE OF THE CONCRETE CURB RAMP AND WILL NOT BE PAID FOR SEPARATELY.
- 14) ALL CURB RAMP JOINTS AND GRADE BREAKS SHALL BE FLUSH (0+1/8"). THE JOINT BETWEEN THE ROADWAY SURFACE AND THE GUTTER PAN SHALL BE FLUSH.
- 15) THE CONTRACTOR SHALL VERIFY REMOVAL LIMITS ARE SUFFICIENT TO PROVIDE POSITIVE DRAINAGE, MAINTAIN EXISTING DRAINAGE PATTERNS, AND AVOID PONDING IN THE FINAL CONFIGURATION.
- 16) FLARED SIDE SLOPES MAY EXCEED 10.0% ONLY WHERE THEY ABUT A NON-WALKABLE SURFACE, OR WHERE THE ADJACENT RAMP SURFACE IS BLOCKED TO PEDESTRIAN TRAFFIC.
- 17) THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER AT THE FOOT OF A RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL NOT EXCEED 5.0%.
- 18) GRADE BREAKS AT THE TOP AND BOTTOM OF RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF THE RAMP RUN OR TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
- 19) A BROAD FINISH, WITH SWEEPS PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAFFIC, SHALL BE APPLIED TO ALL RAMP AND TURNING SPACE SURFACES.
- 20) IN ALTERATIONS, WHERE A RAMP OR TURNING SPACE MUST BE TIED INTO AN EXISTING GRADE THAT CANNOT BE ALTERED, THE RAMP OR TURNING SPACE MAY BE WARPED TO TRANSITION TO THE REQUIRED CROSS SLOPE. THE TRANSITION TO THE REQUIRED CROSS SLOPE SHALL BE SLOPED EVENLY OVER THE LENGTH OF THE RAMP OR TURNING SPACE TO MINIMIZE THE DEGREE OF WARPING. THE RATE OF CHANGE ON A RAMP OR TURNING SPACE SHALL NOT EXCEED 3% PER LINEAR FOOT.
- 21) DESIGN AND CONSTRUCTION CURB RAMPS, TURNING SPACES, AND FLARE SLOPES WITH THE FLATTEST SLOPES POSSIBLE. THE SLOPES INDICATED IN THESE DETAILS SHOW THE MAXIMUM SLOPES ALLOWABLE. PREFERRED VALUES TO BE USED DURING DESIGN, LAYOUT, AND CONSTRUCTION ARE:
 - RAMP RUNNING SLOPE 7.5%
 - RAMP CROSS SLOPE 1.5%
 - TURNING SPACE RUNNING SLOPE 1.5%
 - TURNING SPACE CROSS SLOPE 1.5%
 - FLARE SLOPE 8.0-9.0%

GENERAL NOTES & PAY AREAS

CURB RAMP PAY AREAS



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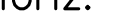
Know what's **below**.
Call before you dig.

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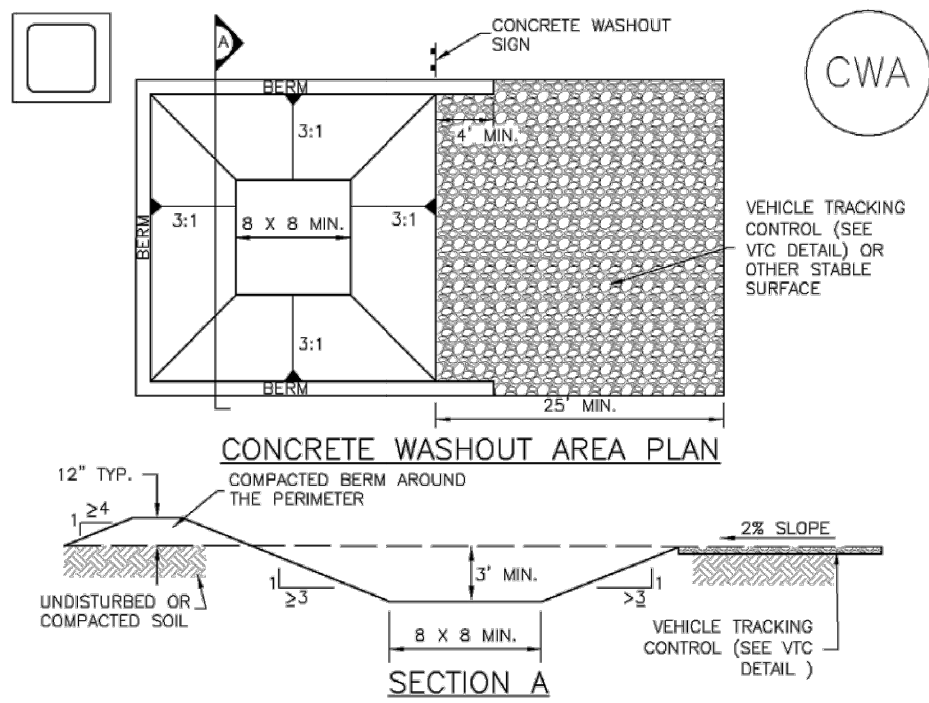


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Concrete Washout Area (CWA)

MM-1



CWA-1. CONCRETE WASHOUT AREA

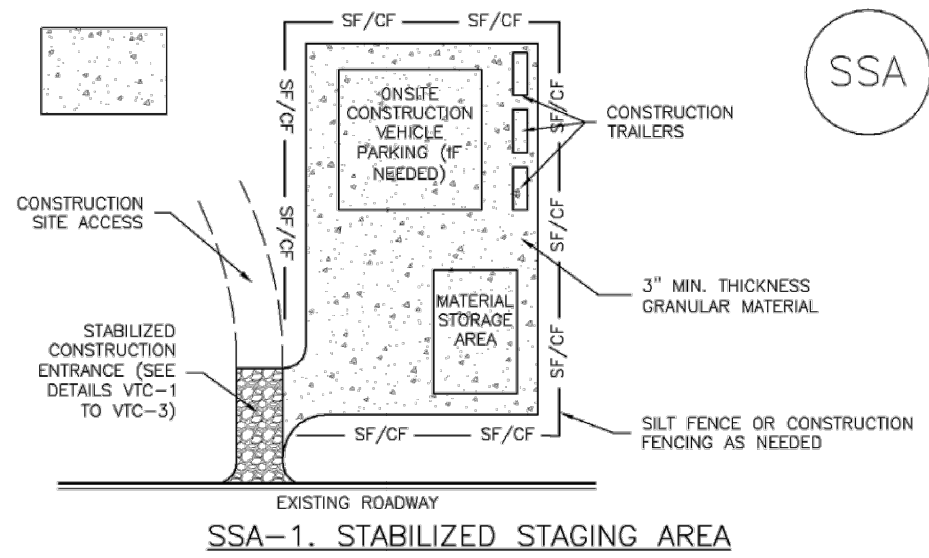
CWA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-CWA INSTALLATION LOCATION.
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (18 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A UNLINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District CWA-3
Urban Storm Drainage Criteria Manual Volume 3

Stabilized Staging Area (SSA)

SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
-LOCATION OF STAGING AREA(S).
-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
- ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District SSA-3
Urban Storm Drainage Criteria Manual Volume 3

MM-1

Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 - CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 - THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 - WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District November 2010
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SM-6

Stabilized Staging Area (SSA)

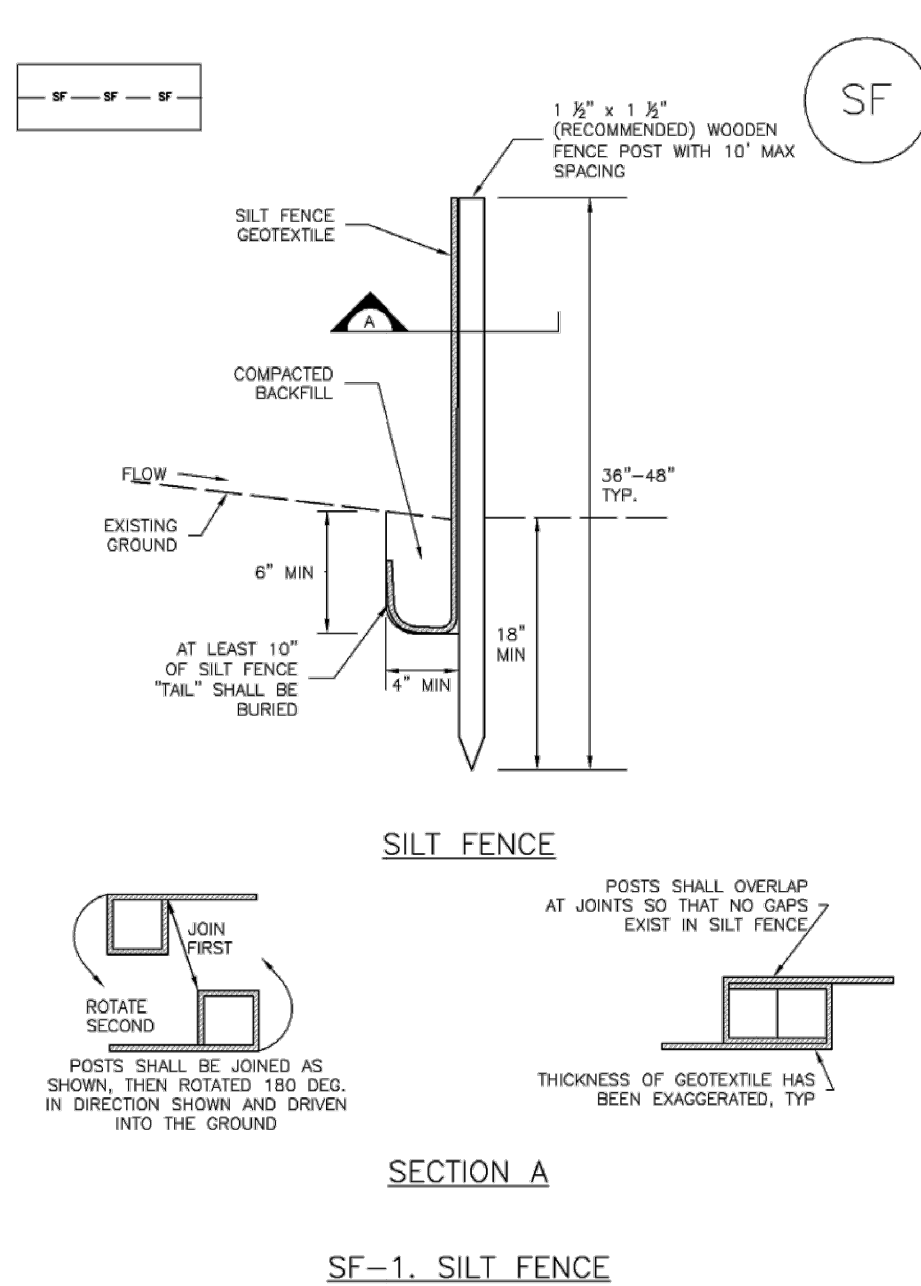
STABILIZED STAGING AREA MAINTENANCE NOTES

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

SSA-4 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

Silt Fence (SF)

SC-1

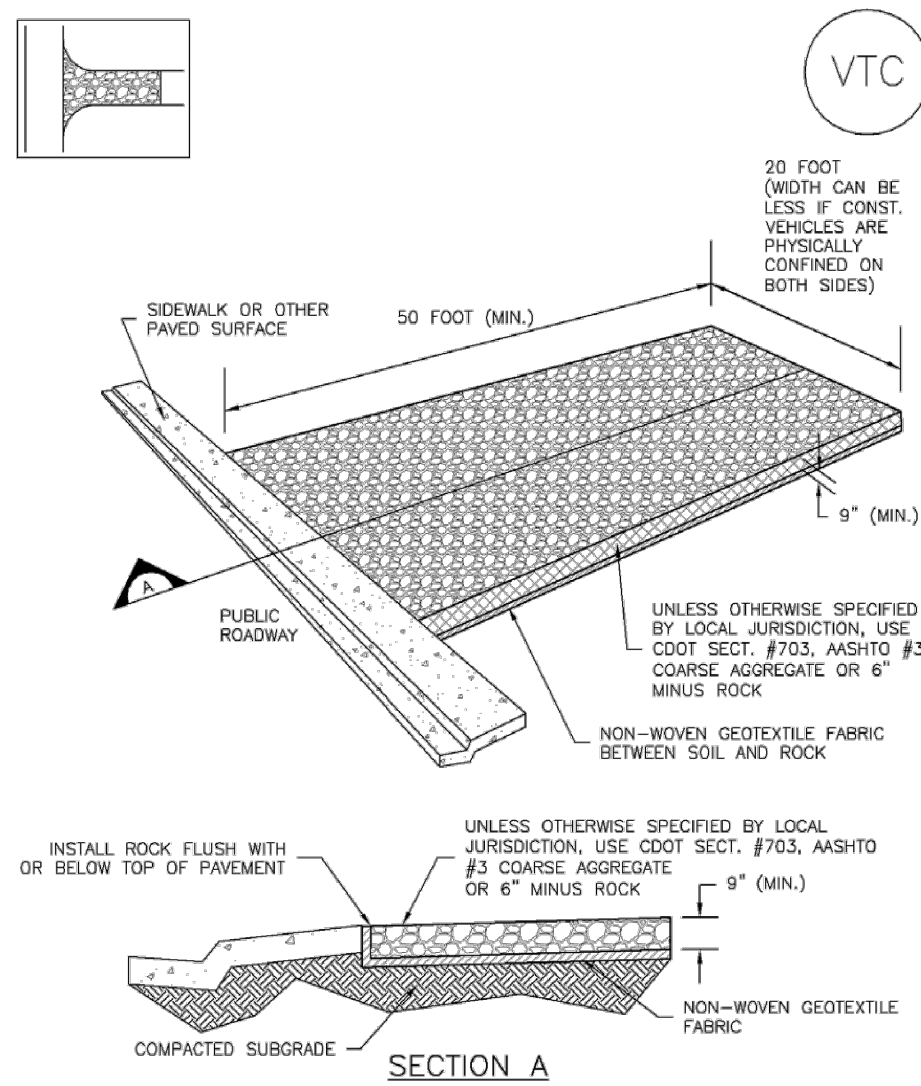


SF-1. SILT FENCE

November 2010 Urban Drainage and Flood Control District SF-3
Urban Storm Drainage Criteria Manual Volume 3

Vehicle Tracking Control (VTC)

SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

November 2010 Urban Drainage and Flood Control District VTC-3
Urban Storm Drainage Criteria Manual Volume 3

SC-1

Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
- A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
- COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
- SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
- AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 - REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 - SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
 - WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SF-4 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

GEC NOTES:

- THE CONTRACTOR SHALL DETERMINE THE LOCATIONS OF CONCRETE WASHOUT AREAS, STABILIZED STAGING AREAS, AND VEHICLE TRACKING CONTROL. THESE AREAS SHALL BE REVIEWED AND APPROVED BY THE SCHOOL DISTRICT PRIOR TO INSTALLATION.
- INITIAL AND INTERIM TEMPORARY CONTROL MEASURES INCLUDE: CONCRETE WASHOUT AREAS, SILT FENCE, SEDIMENT CONTROL LOGS, STABILIZED STAGING AREAS, AND VEHICLE TRACKING CONTROL.
- FINAL TEMPORARY CONTROL MEASURES INCLUDE: SEEDING AND MULCHING.
- LIMITS OF DISTURBANCE/CONSTRUCTION SHALL BE LIMITED TO THE GRADING BOUNDARY SHOWN ON THESE PLANS. WORK OUTSIDE OF THESE AREAS IS NOT PERMITTED.
- SILT FENCE AND SEDIMENT CONTROL LOG PLACEMENT SHALL FOLLOW THE PLANS SHOWN, BUT EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

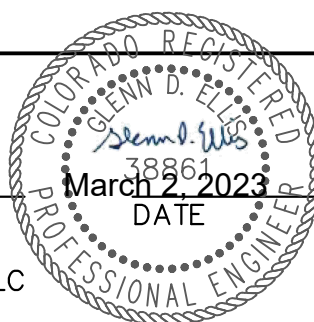
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Know what's below.
Call before you dig.



Print Date: 03/01/2023		Sheet Revisions			Colorado Department of Transportation	As Constructed			LEWIS PALMER TRAIL			Project No./Code	
File Name:		Date:	Comments	Init.		No Revisions:			GEC DETAILS			M915-009/22585	
Horiz. Scale: N/A						Revised:			Designer:	GG	Structure	2520300	
Unit name						Void:			Detailer:	GG	Numbers		
Unit leader									Sheet Subset:		Subset Sheets:	OF	Sheet Number 7 OF 44

SM-4 Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
—LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
—TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND INSPECTIONS ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDOT STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

VTC-6 Urban Drainage and Flood Control District November 2010
Urban Storm Drainage Criteria Manual Volume 3

EC-4 Mulching (MU)

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than seed straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).
- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydromulching. Hydromulching typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)
- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

MU-2 Urban Drainage and Flood Control District June 2012
Urban Storm Drainage Criteria Manual Volume 3

EC-2 Temporary and Permanent Seeding (TS/PS)

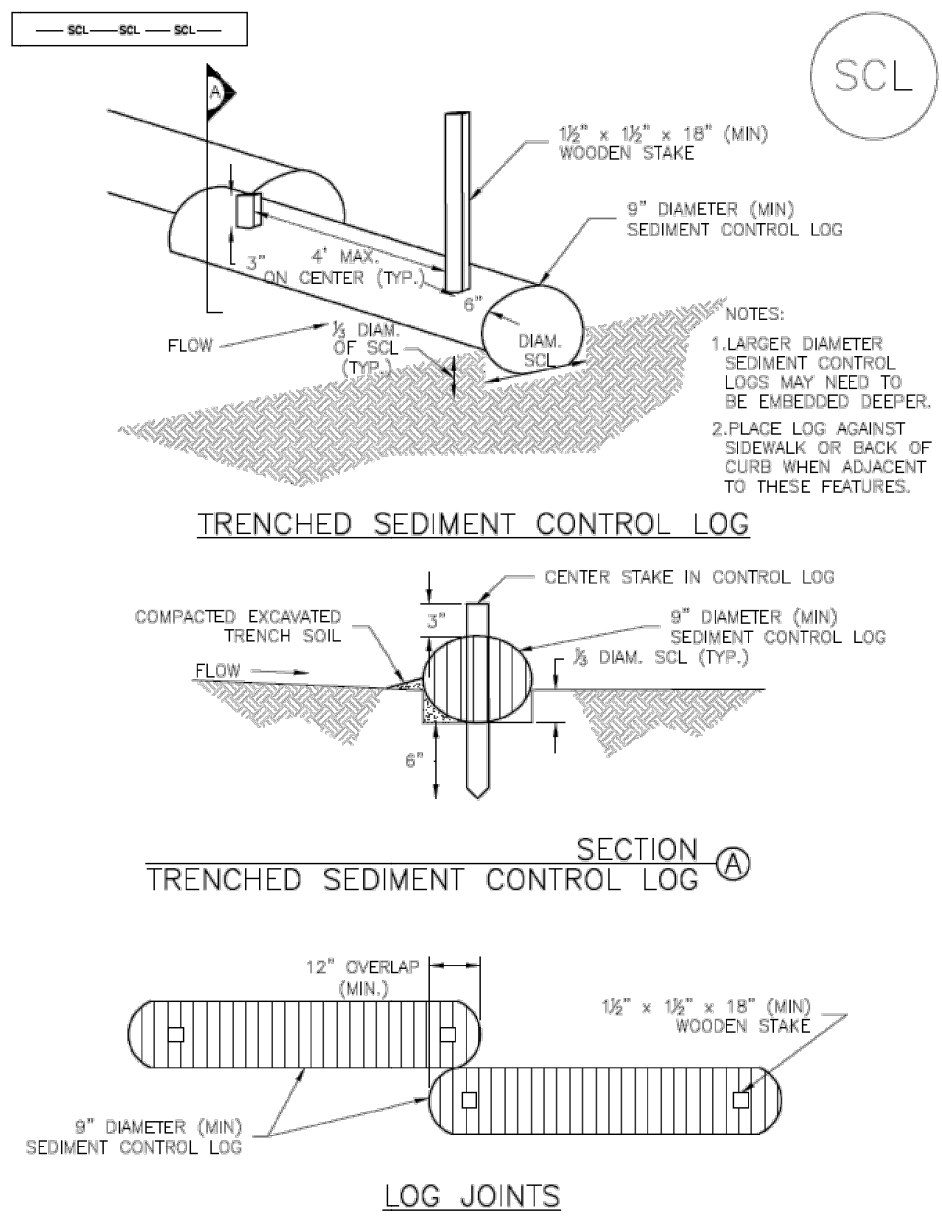
Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species ^a (Common name)	Growth Season ^b	Pounds of Pure Live Seed (PLS)/acre ^c	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Winter wheat	Cool	20-35	1 - 2
7. Winter barley	Cool	20-35	1 - 2
8. Winter rye	Cool	20-35	1 - 2
9. Triticale	Cool	25-40	1 - 2

- ^a Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.
- Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.
- ^b See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.
- ^c Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

TS/PS-4 Urban Drainage and Flood Control District January 2021
Urban Storm Drainage Criteria Manual Volume 3

SC-2 Sediment Control Log (SCL)



SCL-1. TRENCHED SEDIMENT CONTROL LOG

November 2015 Urban Drainage and Flood Control District SCL-3
Urban Storm Drainage Criteria Manual Volume 3

Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses

Seeding Dates	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
	Warm	Cool	Warm	Cool
January 1–March 15			✓	✓
March 16–April 30		1,2,3	✓	✓
May 1–May 15			✓	
May 16–June 30	5			
July 1–July 15	5			
July 16–August 31				
September 1–September 30		6, 7, 8, 9		
October 1–December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the USDCM Volume 2 *Revegetation* Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

If a temporary annual seed was planted, the area should be reseeded with the desired perennial mix when there will be no further work in the area. To minimize competition between annual and perennial species, the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the perennial mix, it should be seeded during the appropriate seeding dates the second year after the temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed heads should be removed and then the area seeded with the perennial mix.

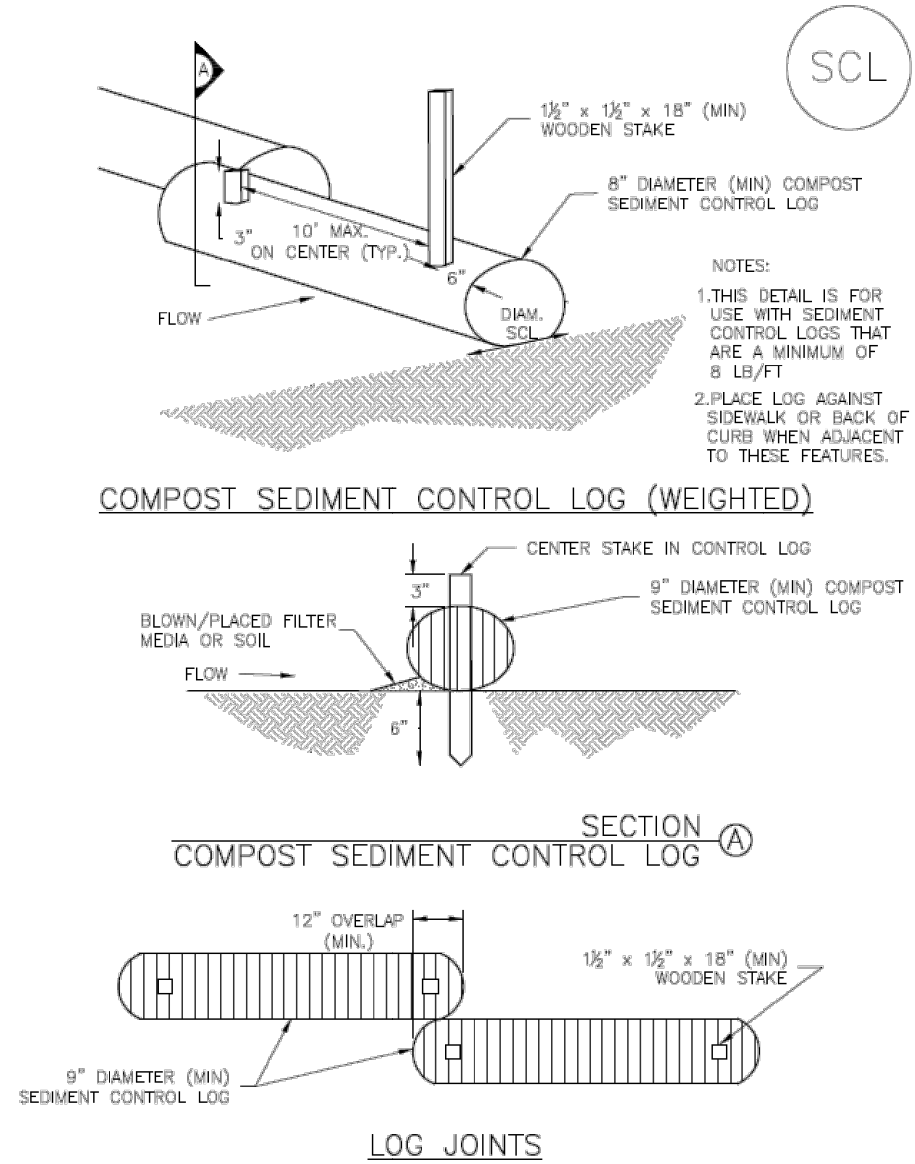
An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

January 2021 Urban Drainage and Flood Control District TS/PS-5
Urban Storm Drainage Criteria Manual Volume 3

SC-2 Sediment Control Log (SCL)



SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SCL-4 Urban Drainage and Flood Control District November 2015
Urban Storm Drainage Criteria Manual Volume 3

Mulching (MU) EC-4

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.



Photograph MU-1. An area that was recently seeded, mulched, and crimped.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeded. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

June 2012 Urban Drainage and Flood Control District MU-1
Urban Storm Drainage Criteria Manual Volume 3

GEC NOTES:

- THE CONTRACTOR SHALL DETERMINE THE LOCATIONS OF CONCRETE WASHOUT AREAS, STABILIZED STAGING AREAS, AND VEHICLE TRACKING CONTROL. THESE AREAS SHALL BE REVIEWED AND APPROVED BY THE SCHOOL DISTRICT PRIOR TO INSTALLATION.
- INITIAL AND INTERIM TEMPORARY CONTROL MEASURES INCLUDE: CONCRETE WASHOUT AREAS, SILT FENCE, SEDIMENT CONTROL LOGS, STABILIZED STAGING AREAS, AND VEHICLE TRACKING CONTROL.
- FINAL TEMPORARY CONTROL MEASURES INCLUDE: SEEDING AND MULCHING.
- LIMITS OF DISTURBANCE/CONSTRUCTION SHALL BE LIMITED TO THE GRADING BOUNDARY SHOWN ON THESE PLANS. WORK OUTSIDE OF THESE AREAS IS NOT PERMITTED.
- SILT FENCE AND SEDIMENT CONTROL LOG PLACEMENT SHALL FOLLOW THE PLANS SHOWN, BUT EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

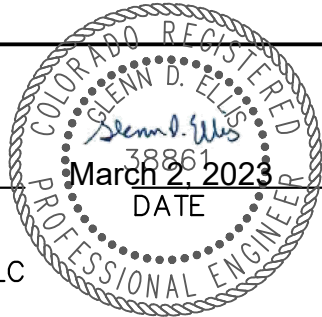


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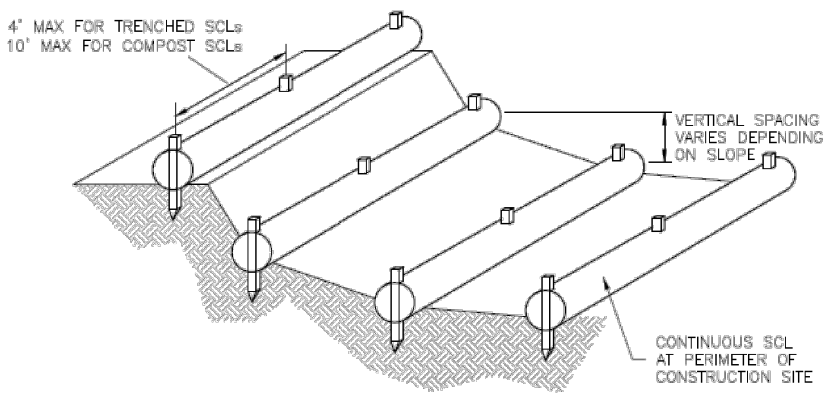
GLENN D. ELLIS, P.E.
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Print Date: 03/01/2023			Sheet Revisions			Colorado Department of Transportation CO CDOT Region 2 5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750 LP Lewis Palmer School District 38	As Constructed		LEWIS PALMER TRAIL				Project No./Code	
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Sediment Control Log (SCL)

SC-2



SCL-3. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SC-2

Sediment Control Log (SCL)

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADE/GRADING/DEMOLITION/CONSTRUCTION ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSDOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.
5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/2 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.
6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

November 2015 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

SCL-5

SCL-6 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

November 2015

GEC NOTES:

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2. INITIAL AND INTERIM TEMPORARY CONTROL MEASURES INCLUDE: CONCRETE WASHOUT AREAS, SILT FENCE, SEDIMENT CONTROL LOGS, STABILIZED STAGING AREAS, AND VEHICLE TRACKING CONTROL.
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CONSTRUCTION:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE COLORADO DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2019, AND AS SUBSEQUENTLY REVISED. THE STANDARD PLANS DATED JULY 2019 AND AS SUBSEQUENTLY REVISED, AND IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.
- THE EXISTING CONDITIONS INDICATED ON THESE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND FOR THE FIT OF ALL NEW CONSTRUCTION.
- THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM WATER AT ALL TIMES, AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER SHALL BE PROMPTLY DEWATERED AND RESTORED AT NO COST TO THE OWNER. THIS SHALL INCLUDE REMOVAL OF ANY DEBRIS CAUSED BY FLOODING.
- LIMITS OF CONSTRUCTION SHALL BE CONFINED TO PUBLIC PROPERTY, RIGHT-OF-WAY, AND EASEMENTS.
- REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS, IRRIGATION, OR LANDSCAPING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL ASSOCIATED COSTS FOR IMPROVEMENTS REPAIR SHALL BE PAID FOR BY THE CONTRACTOR, AT NO EXPENSE TO THE SCHOOL DISTRICT.
- THE CONTRACTOR SHALL NOTIFY THE OWNER 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. A PRECONSTRUCTION MEETING SHALL BE HELD PRIOR TO THE START ON CONSTRUCTION.
- THE CONTRACTOR SHALL HAVE: ONE (1) COPY OF THE PLANS, ONE (1) COPY OF THE CONSTRUCTION SPECIFICATIONS, ONE (1) COPY OF THE STORMWATER MANAGEMENT PLAN FOR THE PROJECT, AND ONE (1) COPY OF THE CDOT SPECIFICATIONS (2019) AT THE JOB SITE AT ALL TIMES.
- THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPES AS SHOWN ON THE PLANS AND CROSS-SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTIONS WHICH WOULD ALTER EXISTING CONDITIONS. THE CONTRACTOR SHALL NOT CONDUCT ANY OPERATIONS OR STAGING OUTSIDE THE CONSTRUCTION LIMITS SHOWN ON THE PLANS OR THAT NOTED ABOVE.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH IMPACTED UTILITIES TO ASSURE THE TIMELY RELOCATION OF THEIR FACILITIES. THIS COORDINATION SHALL INCLUDE ANTICIPATED UTILITIES AND UNFORESEEN UTILITIES.
- HOT WEATHER AND COLD WEATHER CONCRETE OPERATION SHALL BE PERFORMED IN ACCORDANCE WITH CDOT "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" SECTION 601. THIS COST SHALL BE INCLUDED IN THE WORK.
- THE SEVERITY OF CONCRETE EXPOSURE SHALL BE CLASS 1.
- THE CONTRACTOR SHALL NOT PARK VEHICLES OR STORE MATERIALS IN THE CLEAR ZONE.
- REMOVAL OF CONCRETE PAVEMENT ON THIS PROJECT SHALL BE SAWCUT PERPENDICULAR TO THE NEAREST JOINT TO A NEAT LINE AND REMOVED. COST OF SAWING TO BE INCLUDED IN THE WORK.

EARTHWORK:

- WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED.
- PRIOR TO MOISTURE DENSITY CONTROL, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SOFT OR DISTURBED SOILS. DEPTH OF MOISTURE – DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS: BASES OF CUTS AND FILLS – 6 INCHES.
- 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.
- COMPACTION OF SOILS, AGGREGATE BASES, AND STRUCTURAL BACKFILL SHALL BE DETERMINED BY CDOT STANDARD SPECIAL PROVISION REVISION TO 203, 206, 304, & 612 COMPACTION AND SHALL BE INCLUDED IN COST OF THE WORK.
- DEPTH OF TOPSOIL REMOVAL SHALL BE AS DIRECTED BY THE ENGINEER. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS NOT SURFACED. TOPSOIL TO BE USED IS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
- ALL BORROW MATERIAL IMPORTED FOR USE ON THIS PROJECT SHALL HAVE A MINIMUM R VALUE OF 40 FOR EMBANKMENT WHEN TESTED BY THE HVEM STABILOMETER, AND IS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO ITS INCORPORATION INTO THE PROJECT. ALL BORROW MATERIAL IMPORTED TO THE SITE SHALL MEET THE RESILIENT MODULUS CRITERIA IN ITS NATURAL STATE – NO MIXING SHALL BE ALLOWED.

DRAINAGE/STORM SEWER NOTES:

- THE CONTRACTOR IS REQUIRED TO KEEP EXISTING DRAINAGE STRUCTURES FUNCTIONAL AND MAINTAIN DRAINAGE TO THOSE STRUCTURES AT ALL TIMES DURING CONSTRUCTION.

BUY AMERICA:

ALL STEEL AND IRON PRODUCTS MUST MEET BUY AMERICA REQUIREMENT PER CDOT SPECIFICATIONS SECTION 106.11. BUY AMERICA CERTIFICATIONS SHALL BE PROVIDED TO THE PROJECT ENGINEER WHEN PRODUCTS ARE DELIVERED TO THE SITE.

PERMITS:

STORMWATER CONSTRUCTION PERMIT

IT IS ANTICIPATED THAT A CDPS STORMWATER CONSTRUCTION PERMIT (SCP) WILL BE REQUIRED FOR THIS PROJECT.THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF SECTIONS 101, 107, AND 208 OF THE 2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

EL PASO COUNTY RIGHT OF WAY PERMIT

THE CONTRACTOR SHALL OBTAIN A WORK IN RIGHT OF WAY PERMIT FROM EL PASO COUNTY PUBLIC WORKS PRIOR TO CONSTRUCTION.

EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP)

GRADING AND EROSION CONTROL STANDARD NOTES

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A NOTICE TO PROCEED HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- NO SOILS REPORT HAS BEEN PROVIDED FOR THIS SITE.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD – PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

UTILITIES:

- UTILITIES AS SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM SURVEY SHOTS OF SURFACE FEATURES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO PARAGRAPH 105.11 OF THE STANDARD SPECIFICATION CONCERNING UTILITIES. FOR UTILITY LOCATES, THE CONTRACTOR SHALL CALL THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 811 OR 1-800-922-1987 AT LEAST TWO (2) WORKING DAYS (NOT INCLUDING THE INITIAL DAY OF CONTACT) PRIOR TO DIGGING, GRADING OR EXCAVATING.
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN PLOTTED FROM SURVEY SHOTS OF SURFACE FEATURES. IT IS HOWEVER THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY DISCREPANCY. ALL CONFLICTING UTILITIES SHALL BE EXPOSED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND INSPECTION BY THE ENGINEER TO VERIFY CONFORMANCE WITH THE PLANS. RELOCATION OF EXISTING UTILITIES IS NOT A PART OF THIS CONTRACT EXCEPT AS SHOWN ON THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF UTILITY RELOCATION BY UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITIES DURING CONSTRUCTION AND SHALL HOLD THE SCHOOL DISTRICT HARMLESS FOR DAMAGES ARISING FROM CONTRACTOR'S FAILURE TO ADEQUATELY PROTECT EXISTING UTILITIES.
- THE CONTRACTOR SHALL REFERENCE THE PROJECT TECHNICAL SPECIFICATIONS FOR ADDITIONAL ITEMS THE CONTRACTOR SHALL ADHERE TO IN COOPERATION WITH UTILITIES.

SIGNING, STRIPING, TRAFFIC CONTROL NOTES:

- CONSTRUCTION TRAFFIC CONTROL SHALL CONFORM THE THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CDOT STANDARD S-630-1. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A METHOD OF HANDLING TRAFFIC (MHT) TO THE ENGINEER FOR APPROVAL FOR EACH APPLICABLE PHASE OF WORK. ALL COST FOR CONTROLLING TRAFFIC DURING CONSTRUCTION SHALL BE INCLUDED IN ITEM 630 – CONSTRUCTION TRAFFIC CONTROL (L5).
- THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND DELINEATING THE SITE DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE TO, AT HIS OWN EXPENSE, REPLACE ANY SIGNS THAT ARE DAMAGED OR LOST DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL, INCLUDING PEDESTRIAN TRAFFIC CONTROL, BICYCLE TRAFFIC, PARK USERS AND ON STREET PARKING. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE MUTCD AND ANY CDOT STANDARDS. ALL TRAFFIC CONTROL IS TO BE APPROVED BY THE SCHOOL DISTRICT PRIOR TO INSTALLATION. COST SHALL BE INCLUDED IN PAY ITEM 630-TRAFFIC CONTROL. CONTRACTOR TO PROVIDE TRAFFIC CONTROL PLANS TO CDOT FOR APPROVAL 2 DAYS PRIOR TO CONSTRUCTION.
- SIGNS MUST MEET CURRENT MUTCD STANDARDS FOR ROADS, AND BE HIGH INTENSITY PRISMATIC SHEETING.
- POST AND MOUNTS – POST AND MOUNTS SHALL BE NCHRP 350 COMPLIANT.
- POST – 12 GAUGE 1-3/4" 12' TALL PERFORATED SQUARE POSTS.



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ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023			Sheet Revisions			Colorado Department of Transportation		As Constructed		LEWIS PALMER TRAIL				Project No./Code	
File Name:			Date:	Comments	Init.	CDOT		No Revisions:		NOTES				M915-009/22585	
Horiz. Scale: N/A						CO		Revised:		Designer:	GG	Structure		2520300	
Unit name						LP		Void:		Detailer:	GG	Numbers		Sheet Number 10 OF 44	
Unit leader						Region 2				Sheet Subset:		Subset Sheets:	OF		
 J-R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-593-2593 Fort Collins 970-491-9888 • www.jrengineering.com					Lewis Palmer School District 38										

CDOT ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
			PLAN	AS CONST.
201-00000	Clearing and Grubbing	LS	1	
202-00203	Removal of Curb and Gutter	LF	50	
203-00060	Embankment Material (Complete In Place)	CY	110	
208-00000-SPC	Erosion Control	LS	1	
208-00046	Pre-fabricated Concrete Washout Structure	EACH	1	
208-00070	Vehicle Tracking Pad	EACH	6	
210-01000	Reset Fence	LF	70	
212-00006	Seeding (Native)	ACRE	0.6	
213-00000	Mulching	ACRE	0.6	
213-00061	Mulch Tackifier	LB	300	
306-01000	Reconditioning	SY	4,150	
506-00218	Riprap (18 Inch)	CY	5	
603-01180	18 Inch Reinforced Concrete Pipe	LF	8	
603-05018	18 Inch Reinforced Concrete End Section	EACH	2	
608-00010	Concrete Curb Ramp	SY	75	
608-00015	Detectable Warnings	SF	65	
608-01550	Place Asphalt Millings	SY	4,150	
614-00011	Sign Panel (Class I)	SF	50	
614-00214	Steel Sign Post (1.75x1.75 Inch Tubing)	LF	75	
620-00020	Sanitary Facility	EACH	1	
625-00000	Construction Surveying	LS	1	
626-00000	Mobilization	LS	1	
627-00002	Thermoplastic Pavement Marking	SF	1,650	
630-10005	Traffic Control	LS	1	
700-70010	F/A Minor Contract Revisions	FA	1	

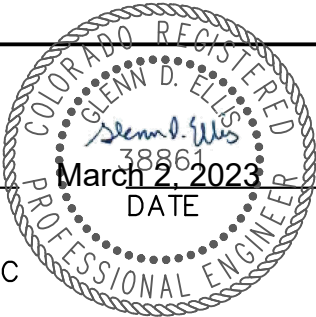


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Print Date: 03/01/2023		Sheet Revisions			CDOT CO Region 2 5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750 LP Lewis Palmer School District 38	As Constructed	LEWIS PALMER TRAIL			Project No./Code
File Name:		Date:	Comments	Init.		No Revisions:	SUMMARY OF APPROXIMATE QUANTITIES			M915-009/22585
Horiz. Scale: N/A						Revised:	Designer: GG	Structure		
Unit name						Void:	Detailer: GG	Numbers		2520300
Unit leader							Sheet Subset:	Subset Sheets:	OF	Sheet Number 11 OF 44



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TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

Format *

☐ 3D Design Modeling Electronic Files

☒ Horizontal Control

☒ Vertical Control

☒ Roadway Alignment

☐ Original Terrain Data

☐ Other:

PLAN SHEET

PLAN SHEET

DWG

* Specify the information format, ie., plan sheet, computer disk, computer printout, or other. The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

☐ Landscaping

☐ Signalization

☐ Safety Improvement

☐ Asphalt Overlay

☐ Concrete Overlay

☐ Minor Widening

☐ Major Reconstruction

☐ New Roadway Construction

☐ Bridge Replacement

☐ Bridge Widening

☐ New Bridge

☒ Other: PEDESTRIAN IMPROVEMENT

SURVEY WORK TO BE PERFORMED BY OTHERS:

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:

☐ A complete passing Base Line report (completed within 6 months prior to the start of the project)

☐ An instrument calibration Certification (completed within 6 months prior to the start of the project)

☒ Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)

☒ Verification and Maintenance of Horizontal and Vertical Control

☐ Verify or Determine existing grades and alignments

☐ Verify or Determine existing topography

☒ Clearing and Grubbing Limits (Section 201)

☒ Removal Limits (Section 202)

☐ Reset Items (Section 210)

☒ Excavation and Embankment (Section 203)

☒ Excavation

☒ Unclassified

☒ Stripping

☐ Muck

☐ Rock

☐ Borrow

☐ Other:

☐ Potholing

☒ Embankment

☒ Site Grading

☐ Erosion Control (Perm)

☐ Other:

☐ As Staked Earthwork Quantities (See General Notes)

☐ Landscaping

☐ Top Soil (Section 207)

☐ Seeding (Section 212)

☐ Mulching (Section 213)

☐ Planting (Section 214)

☐ Herbicide (Section 217)

☐ Other:

☐ Erosion Control (Section 208)

☐ Seeding (Temp)

☐ Silt Fence

☐ Erosion Bales

☐ Erosion Logs

☐ Riprap (Temp)

☐ Other:

☒ Roadway Bases

☐ Untreated Subgrade

☐ Treated Subgrade

☒ Aggregate Base Course (Section 304)

☐ Reconditioning

☐ PMBB - Plant Mix Bituminous Base

☐ Other:

Excavation	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
	Y	N	Y	N
	Y	N	Y	N
	-	-	-	-
	-	-	-	-

Embankment	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

Roadway Bases	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
	-	-	-	-
	-	-	-	-
	N	Y	N	N
	-	-	-	-
	-	-	-	-

☒ Pavements

☐ HMA - Hot Mix Asphalt (Section 403)

☐ Concrete (Section 412)

☐ Heating & Scarifying Treatment

☐ Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)

☐ Seal Coat or Chip Seal (Section 409)

☒ Other: ASPHALT MILLINGS

Pavements	Grid (Y/N)	Special Interval	Special Offset
	-	-	-
	-	-	-
	-	-	-
	N	N	N

☒ Roadway Elements

☒ Curb and Gutter (Section 609)

☐ Drop inlets - alignment and grades (Section 604)

Curb & Gutters	Tangent Interval	Curve Interval	Special Offset
	-	-	-

☐ Retaining Walls

☐ Guard Rail (Section 606)

☐ Sidewalk (Section 608)

☐ Overlay Stationing

☐ Other:

Stationing	Left Interval	Center Interval	Right Interval
	-	-	-

☐ Riprap (Perm) (Section 506)

☐ Slope and Ditch Paving (Section 507)

☐ Minor Structures

☐ Structure Excavation Limits (Section 206)

☐ Culverts (Section 603)

☐ Culverts w/ Headwalls and Wingwalls (Section 601)

☐ Concrete Box Culverts w/ Headwalls and Wingwalls

☐ Pipes (Section 603)

☐ Sanitary Sewer

☐ Storm Sewer

☐ Water

☐ Irrigation

☐ Miscellaneous

☐ Manholes (Section 604)

☐ Inlets (Section 604)

☐ Permanent Water Quality BMP (Section 208)

☐ Other:

☐ Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number

☐ Structure Excavation Limits (Section 206)

☐ Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)

☐ 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

☐ Wingwall skew angles/offsets

☐ Structural concrete form locations

☐ Substructure As-constructed survey required for Bridges (Subsection 601 .12) and Overhead signs (S-614-50)

☐ Bridge expansion joint(s) alignment and grade (longitudinal and transverse)

☐ Deck grades at Girder 10th or 'n' th point locations and elevations

☐ Slope and Ditch Paving (Section 507)

☐ Other:

☐ Fencing (Section 607)

☐ Temporary

☐ Permanent

☐ Sound Barrier

☐ Other:

☐ Delineators (Section 612)

☐ Temporary

☐ Permanent

☒ Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)

☐ Signal pole locations and elevations

☐ Light pole locations and elevations

☒ Sign locations

☐ Field verify sign post locations, elevations, and lengths before fabrication.

☐ Other:

☒ Pavement Marking (Section 627)

☐ Striping (Temp)

☒ Striping (Perm)

☐ Symbols

☐ Other:

☐ Temporary Lighting and Construction Traffic Control Devices (Section 630)

☐ Signal pole locations and elevations (Temp)

☐ Light pole locations and elevations (Temp)

☐ Sign Locations (Temp)

☐ Other:

☐ All Easements (Temp Staking by P.L.S. Only)

☒ Right of Way (Temp Staking by P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:

☐ Monumentation (Section 629)

☐ Control

☐ Right of Way

☐ Land corners, Aliquot corners

☐ Easements

☐ Reference the specified existing monuments:

☐ Replace the specified existing monuments:

☐ Locate monuments. It is estimated hours are required.

NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monuments to be set.

** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

- Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDOT Survey Manual.
- Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
- The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer 5 days prior to the Presurvey Conference - Construction Survey.
- Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
- The Contractor shall furnish an As Staked (or 3D Design Modeling Electronic Files) Earthwork Quantity report to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDOT Survey Manual. A printed copy of the As Staked (or 3D Design Modeling Electronic Files) Earthwork data report and a computer disk with that information on it, in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
- Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
- The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
- The Contractor shall coordinate construction staking on the project with any utility work.
- Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
- The Contractor's surveyor shall submit the following fieldbooks to the Engineer:

☐ Horizontal Control (Primary & Secondary)

☐ Vertical Control (i.e. Benchmarks)

☐ Property Pin Ties

☒ Horizontal Alignment

☐ Grading

☐ Slope Staking

☐ Minor Structures

☐ Major Structures

☐ One fieldbook for each work category shown on this sheet

☐ Other Fieldbook(s):
- The Contractor's surveyor shall submit the following (prior to surveying on the project) to the Engineer:

☐ All required Instrument Calibrations

Print Date: 03/01/2023

File Name:

Horiz. Scale: 1"=XX' Vert. Scale:

Unit name Unit leader

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Sheet Revisions			
	Date:	Comments	Init.
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Colorado Department of Transportation

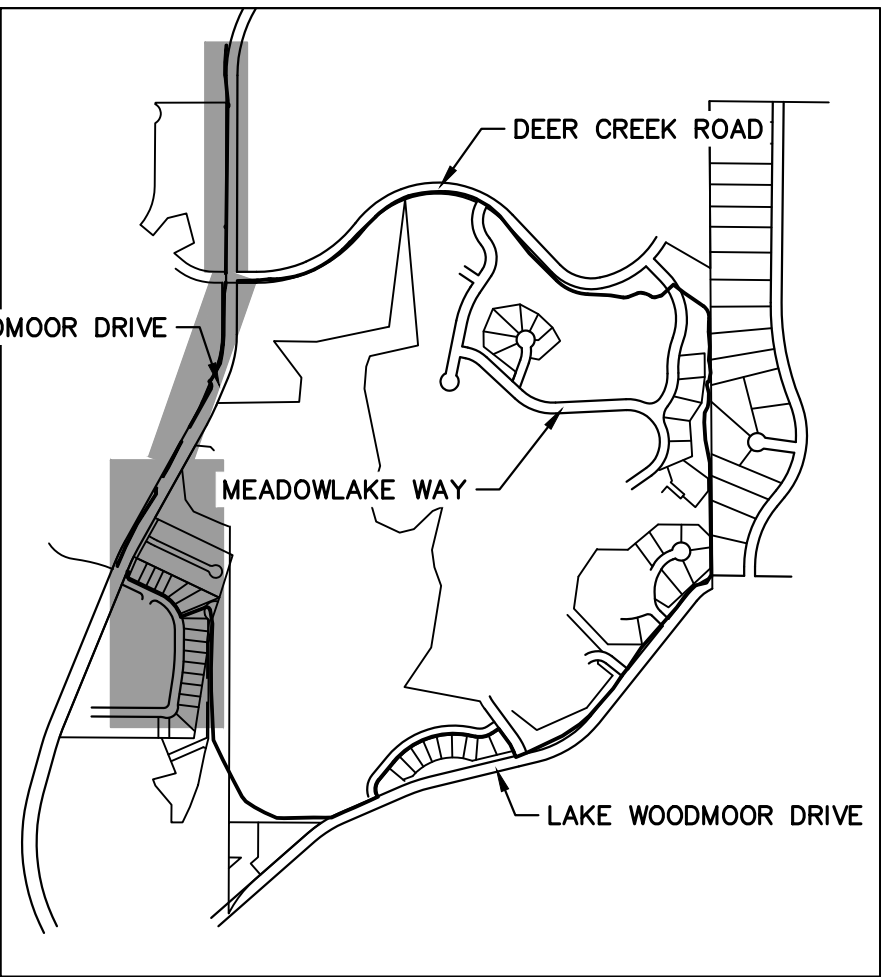
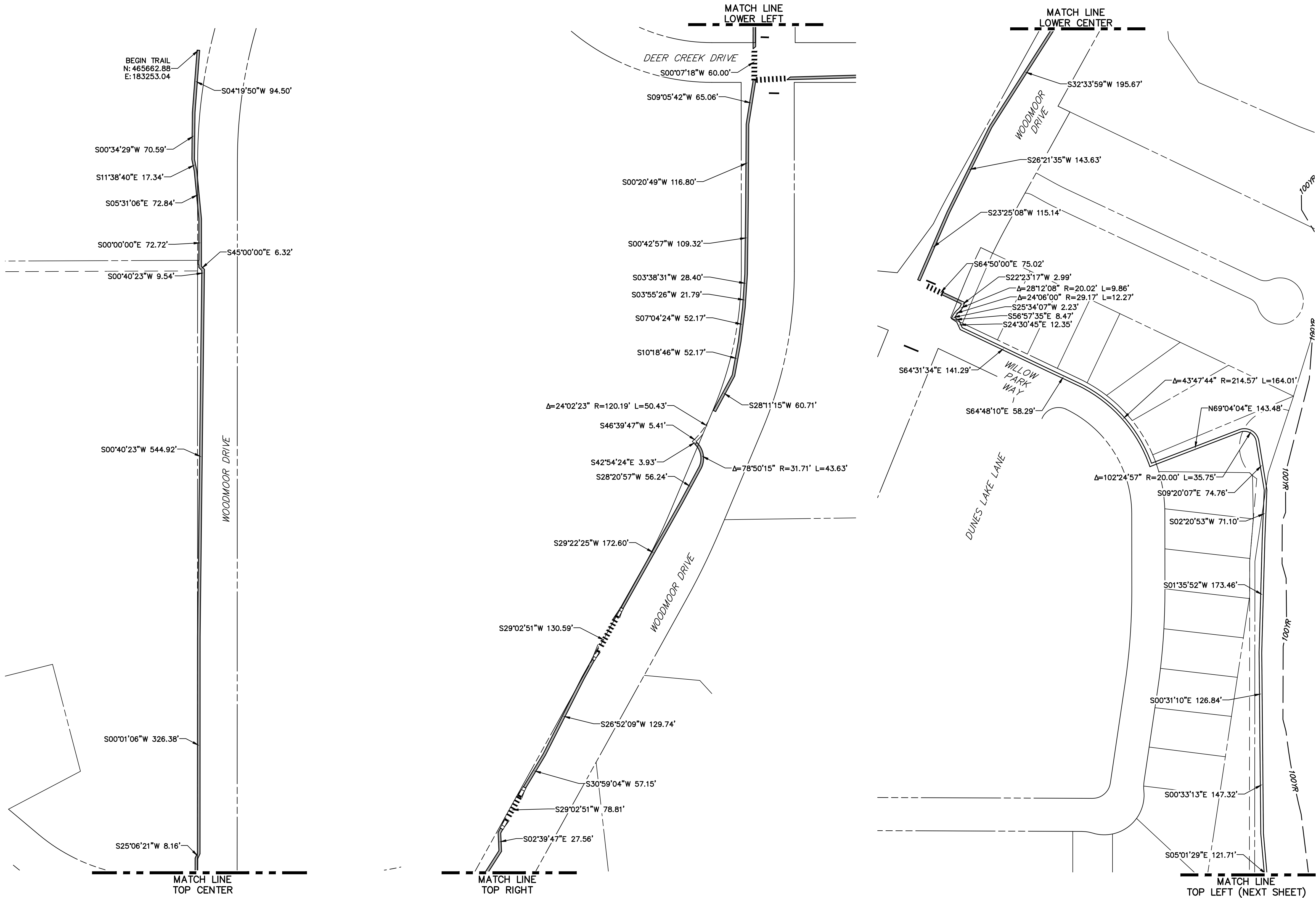
 **CDOT**

5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

 **LP**

Lewis Palmer School District 38

As Constructed		LEWIS PALMER TRAIL SURVEY TABULATIONS				Project No./Code	
No Revisions:						M915-009/22585	
Revised:		Designer:	GG	Structure Numbers		2520300	
Void:		Detailer:	GG				
		Sheet Subset:			Subset Sheets:	OF	Sheet Number 12 OF 44



KEY MAP
SCALE: NOT TO SCALE



Print Date: 03/01/2023

File Name:

Horiz. Scale: 1"=80'

Unit name

**J-R ENGINEERING**
A Westrian Company

Vert. Scale: N/A

Unit leader

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Sheet Revisions			
Date:	Comments	Init.	

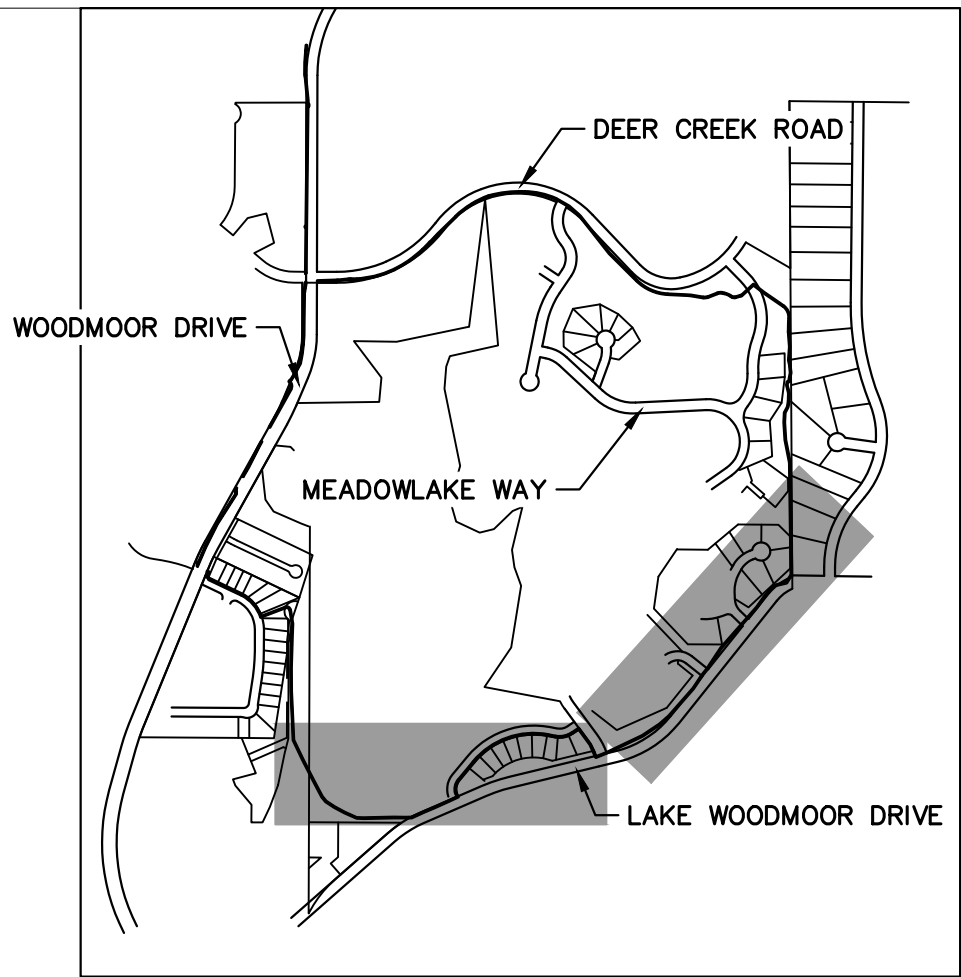
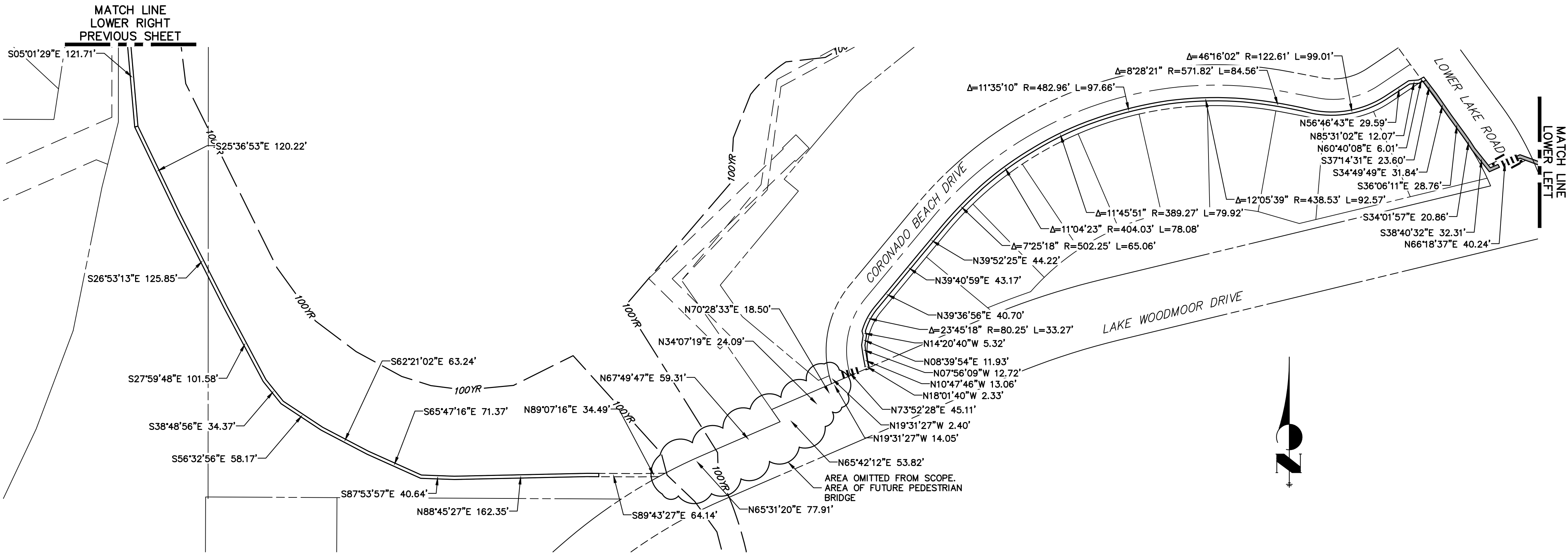
Colorado Department of Transportation

**CDOT**
Region 2

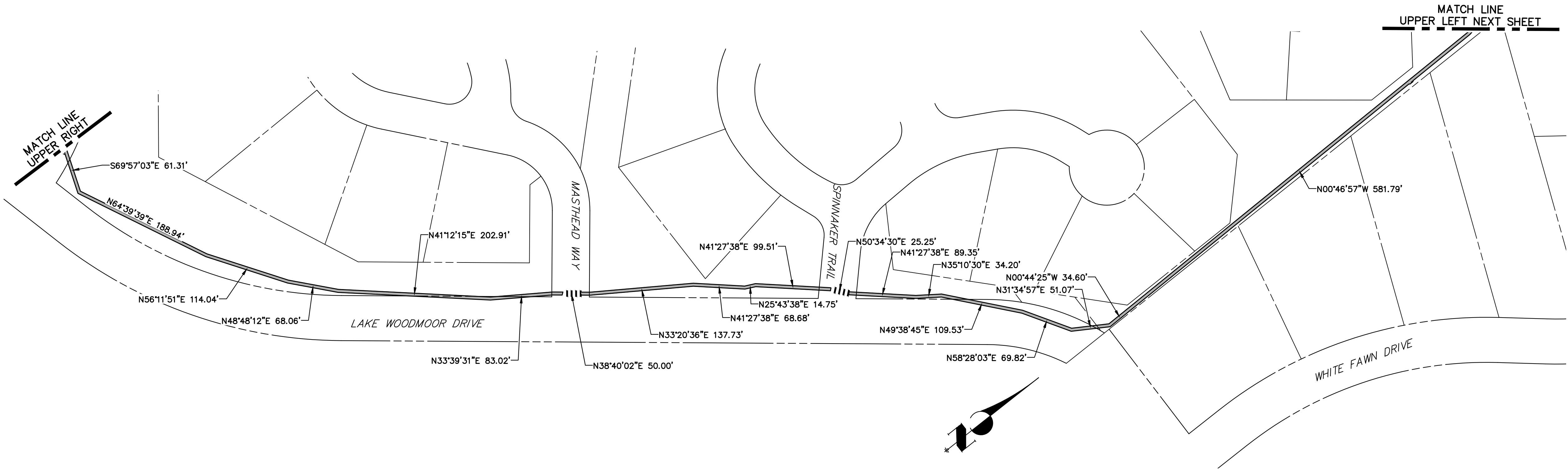
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Pueblo, CO 81008
Phone: 719-546-5750

**LP**
Lewis Palmer School District 38

As Constructed		LEWIS PALMER TRAIL HORIZONTAL CONTROL				Project No./Code	
No Revisions:						M915-009/22585	
Revised:		Designer:	GG	Structure		2520300	
		Detailer:	GG	Numbers			
Void:		Sheet Subset:		Subset Sheets:	OF	Sheet Number 13 OF 44	



KEY MAP
SCALE: NOT TO SCALE



Know what's below.
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Print Date: 03/01/2023

File Name:

Horiz. Scale: 1"=80'

Unit name

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Unit leader

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Sheet Revisions		
Date:	Comments	Init.

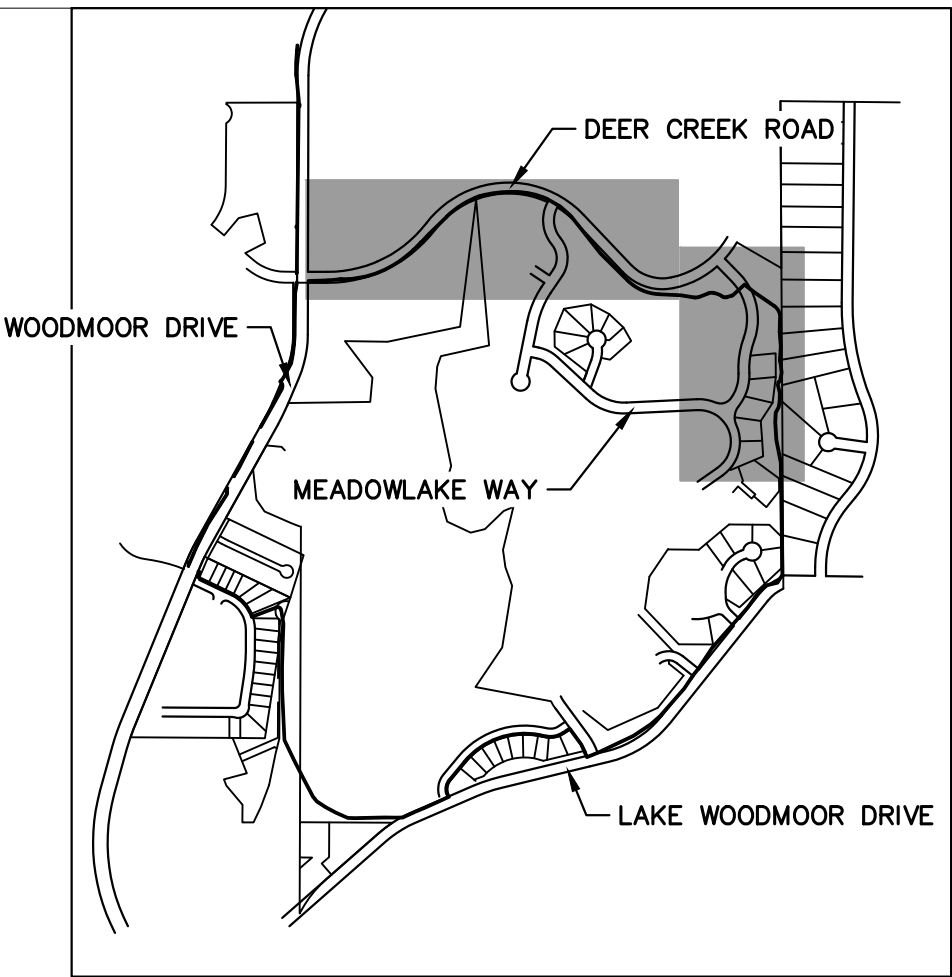
Colorado Department of Transportation



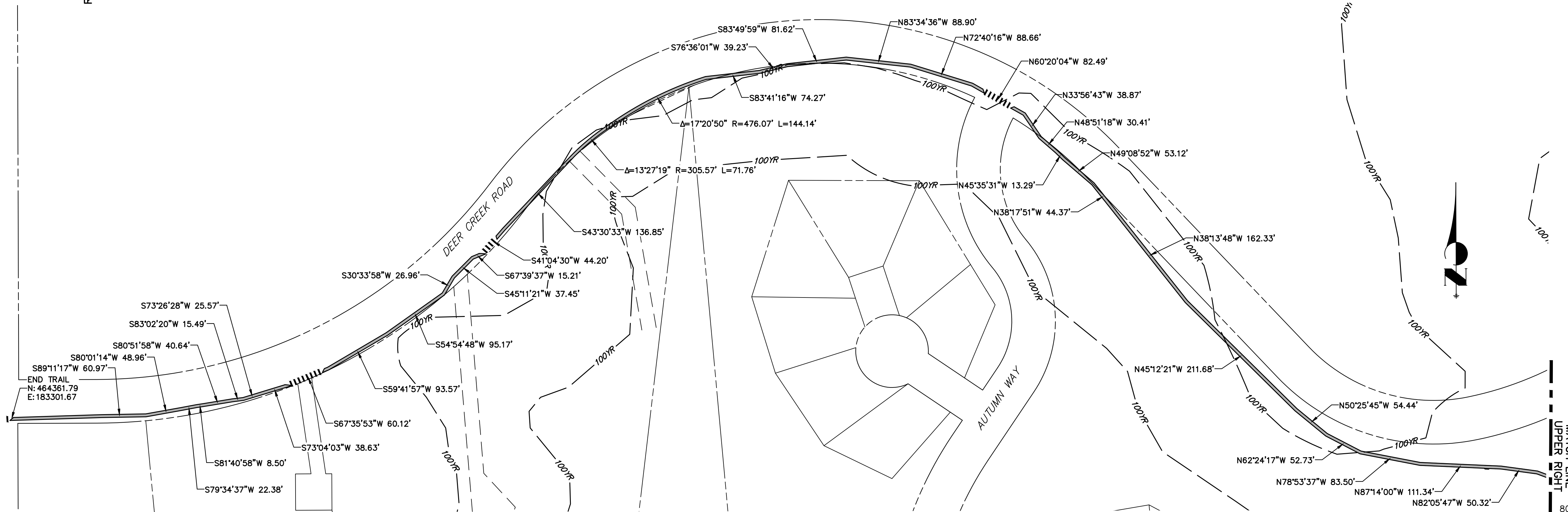
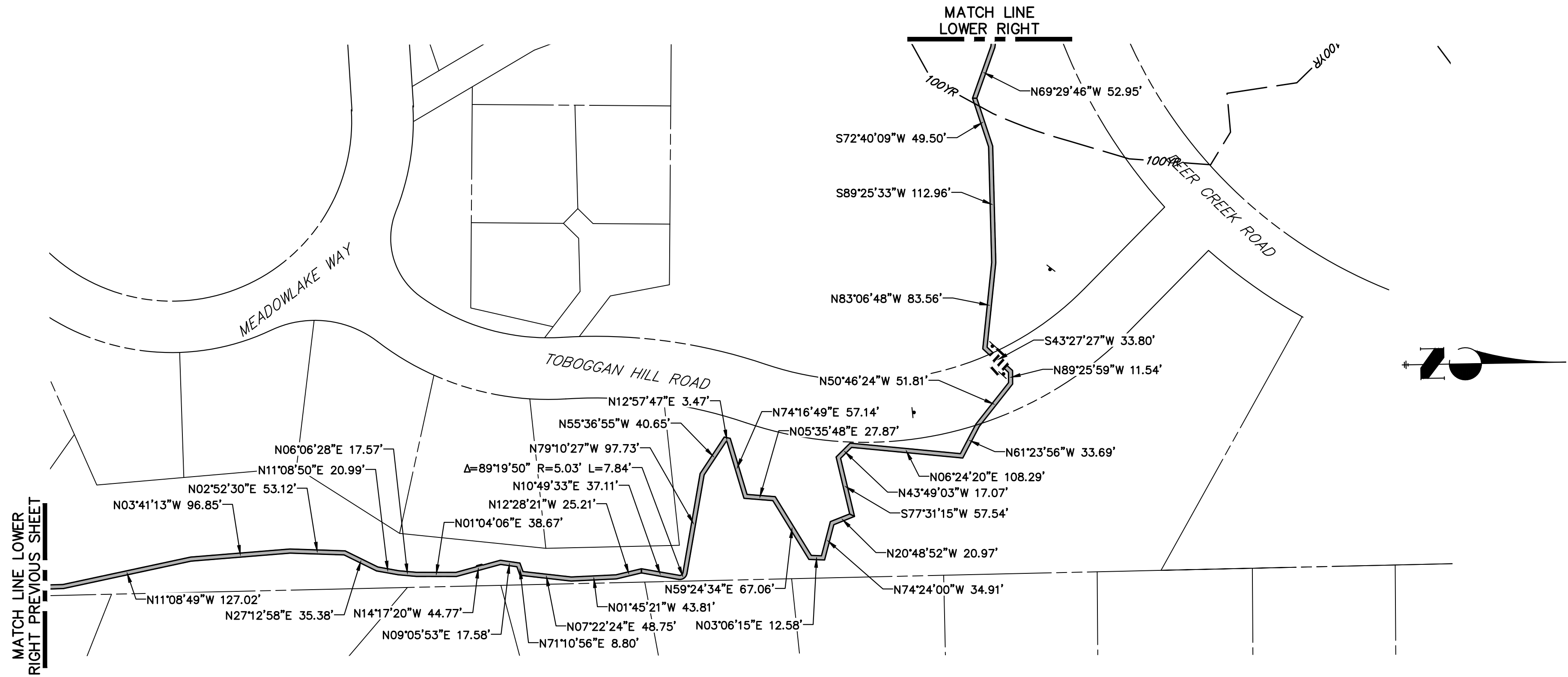
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Lewis Palmer School District 38

As Constructed		LEWIS PALMER TRAIL HORIZONTAL CONTROL			Project No./Code	
No Revisions:					M915-009/22585	
Revised:		Designer:	GG	Structure	2520300	
Void:		Detailer:	GG	Numbers		
		Sheet Subset:		Subset Sheets:	OF	Sheet Number 14 OF 44



KEY MAP
SCALE: NOT TO SCALE



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ORIGINAL SCALE: 1" = 80'

Print Date: 03/01/2023	
File Name:	
Horiz. Scale: 1"=80'	Vert. Scale: N/A
Unit name	Unit leader
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Sheet Revisions		
Date:	Comments	Init.

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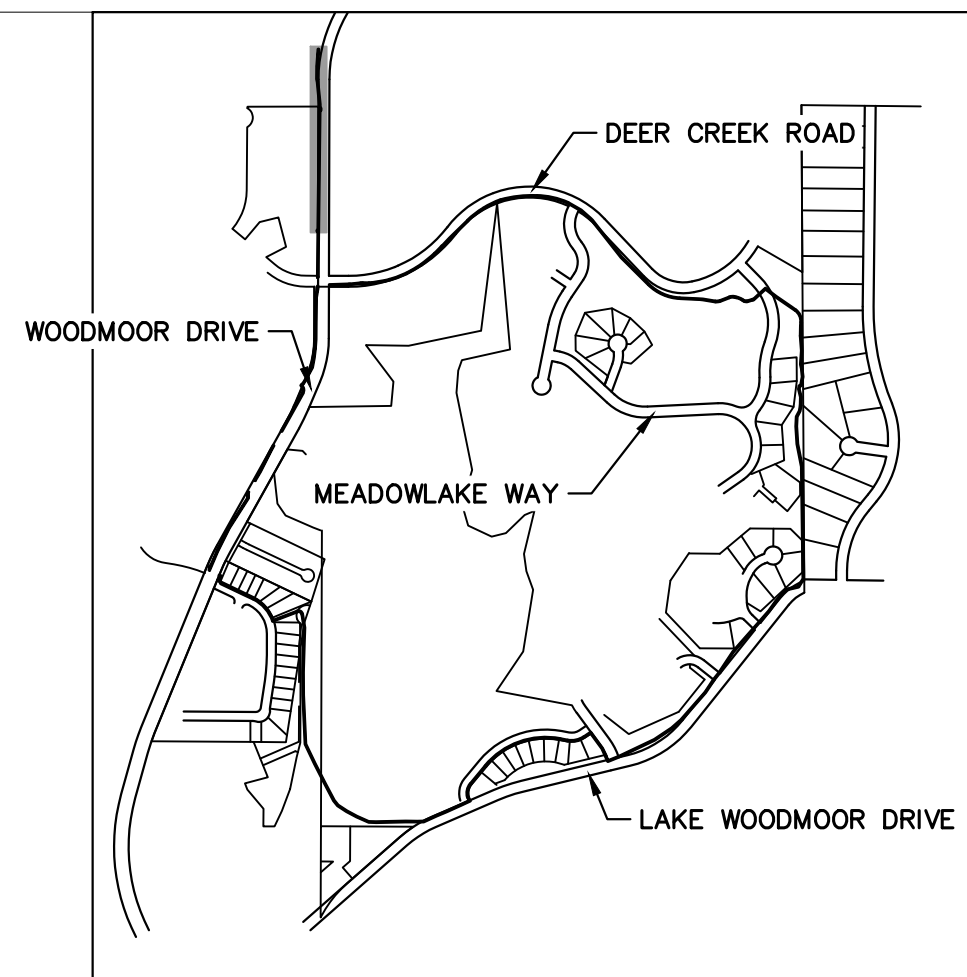
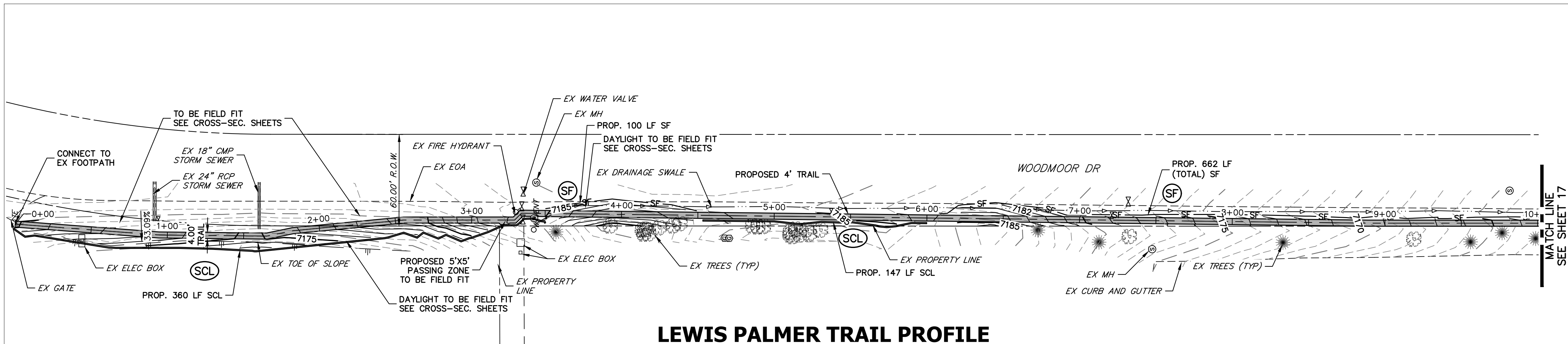
5615 WILL BLVD.
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Phone: 719-546-5750

Region 2



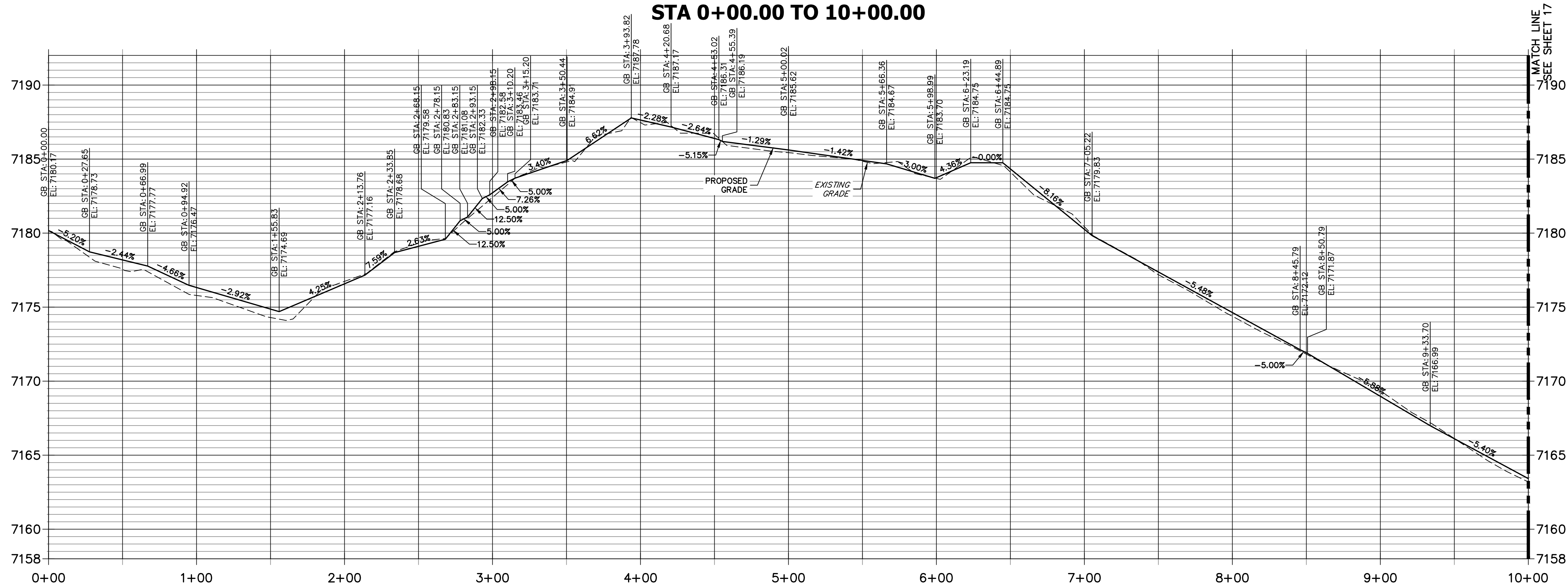
Lewis Palmer School District 38

As Constructed	LEWIS PALMER TRAIL HORIZONTAL CONTROL				Project No./Code	
No Revisions:					M915-009/22585	
Revised:	Designer:	GG	Structure		2520300	
	Detailer:	GG	Numbers			
Void:	Sheet Subset:		Subset Sheets:	OF	Sheet Number 15 OF 44	

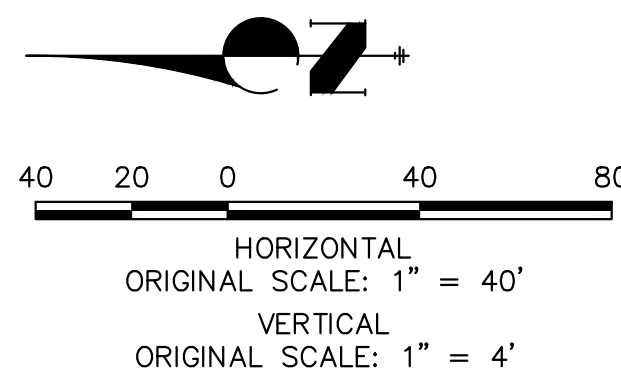


KEY MAP
SCALE: NOT TO SCALE

LEWIS PALMER TRAIL PROFILE
STA 0+00.00 TO 10+00.00

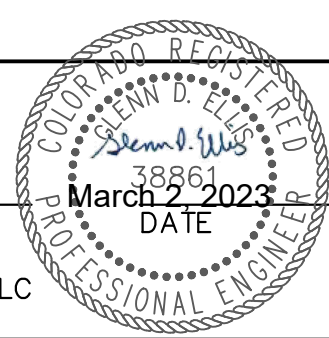


- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023
File Name:
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'
Unit name Unit leader
J-R ENGINEERING
A Westrian Company
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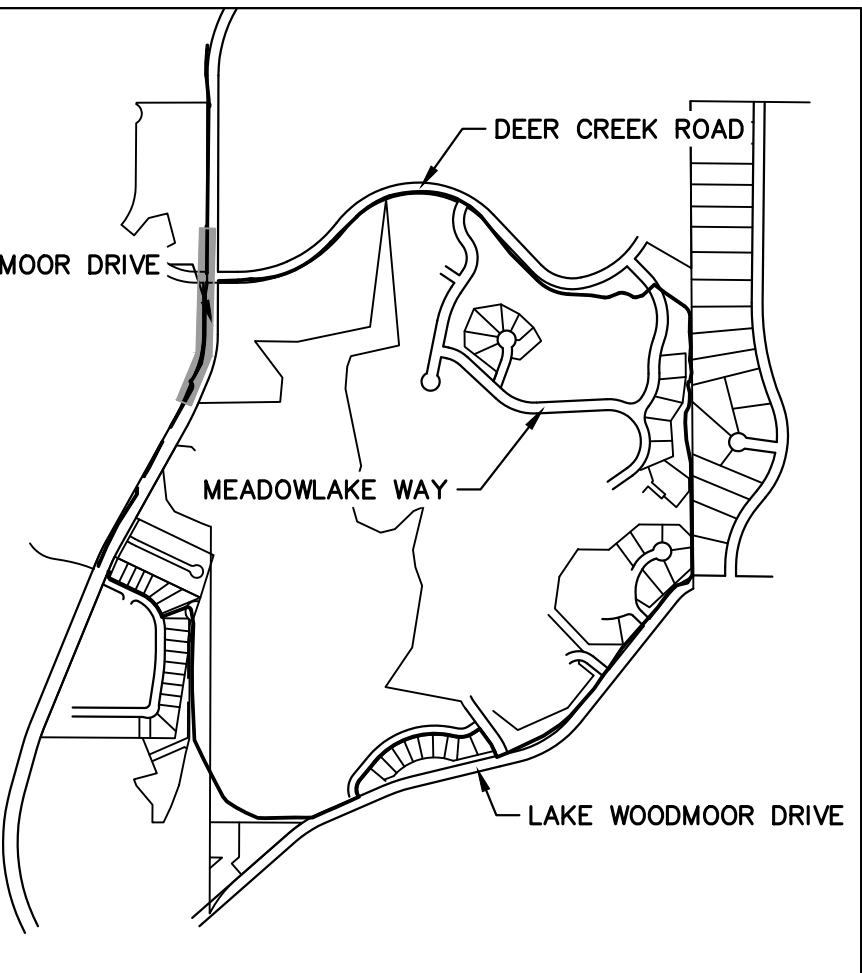
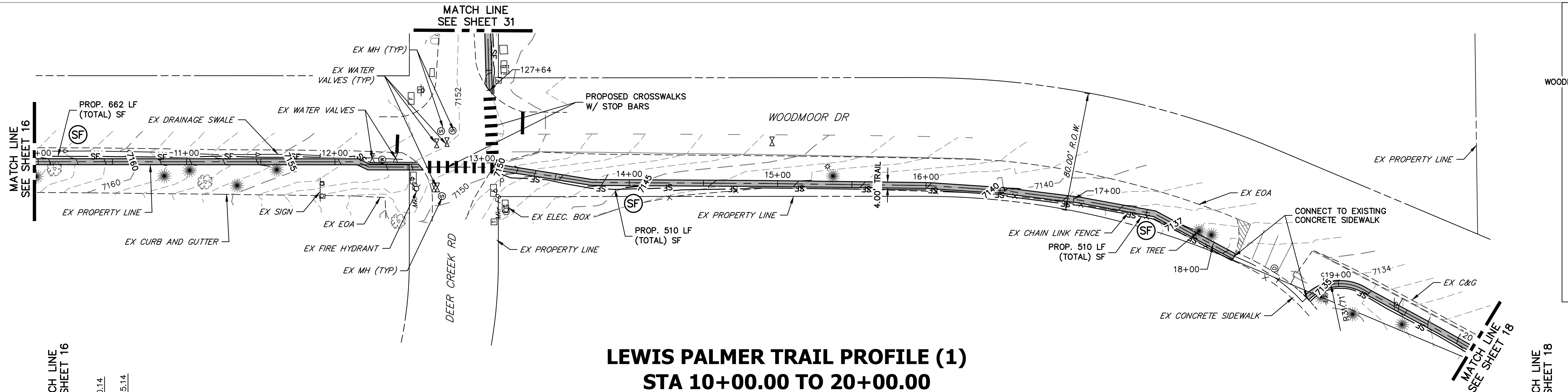
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Date:	Comments	Init.

Colorado Department of Transportation

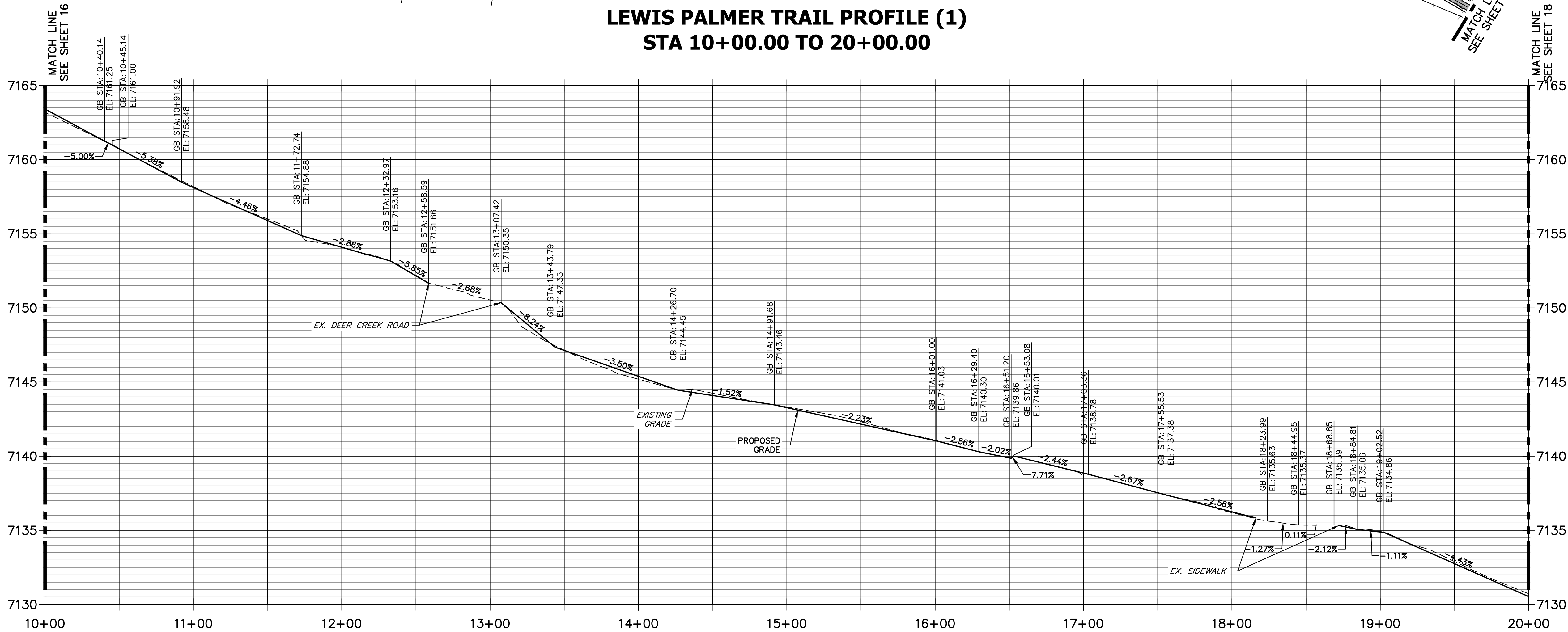
Region 2
5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

Lewis Palmer School District 38

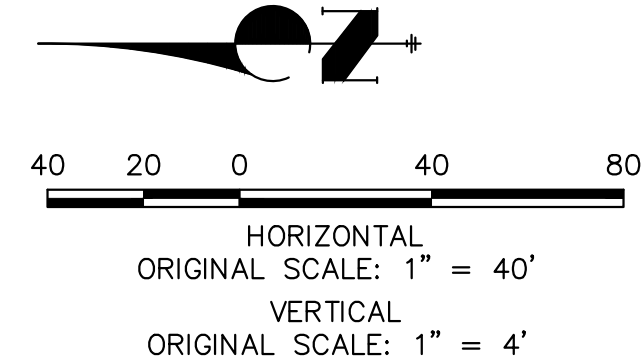
As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE		Project No./Code	
No Revisions:				M915-009/22585	
Revised:		Designer:	GG	Structure	2520300
Void:		Detailer:	GG	Numbers	
		Sheet Subset:		Subset Sheets:	OF
				Sheet Number 16 OF 44	



LEWIS PALMER TRAIL PROFILE (1)
STA 10+00.00 TO 20+00.00

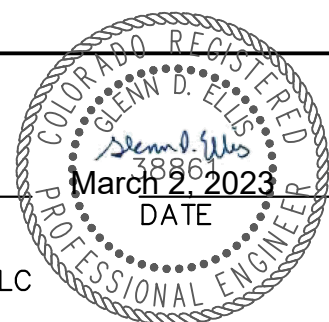


- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC

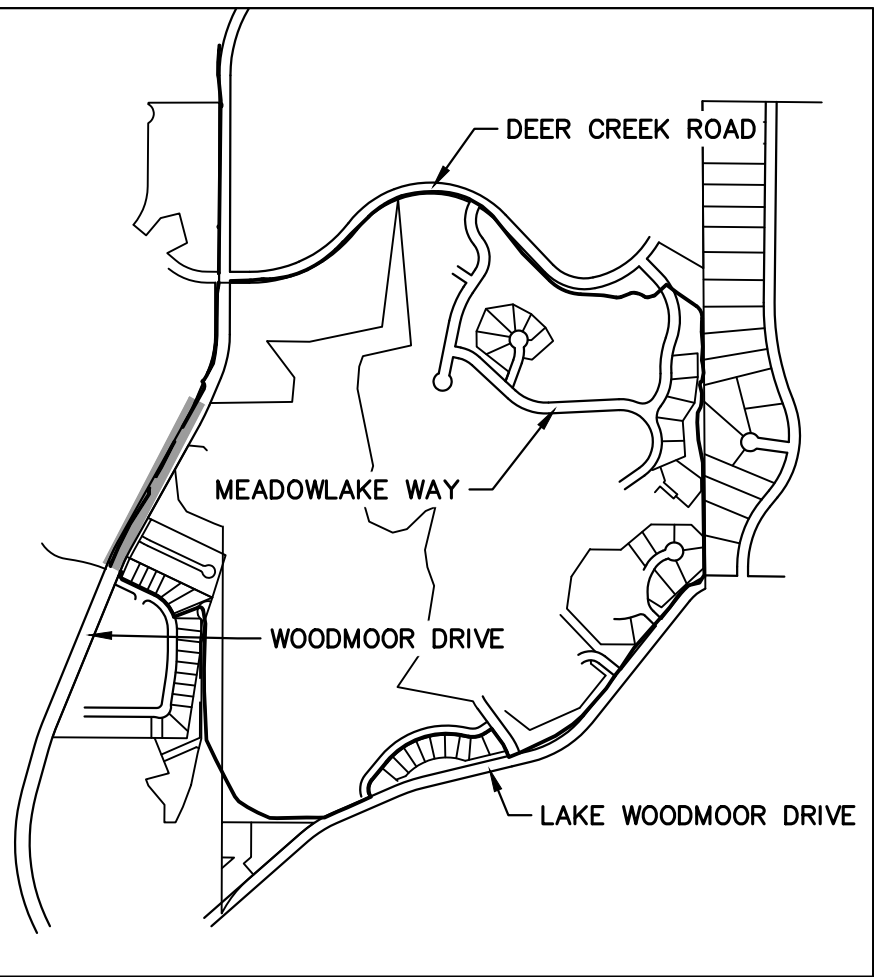
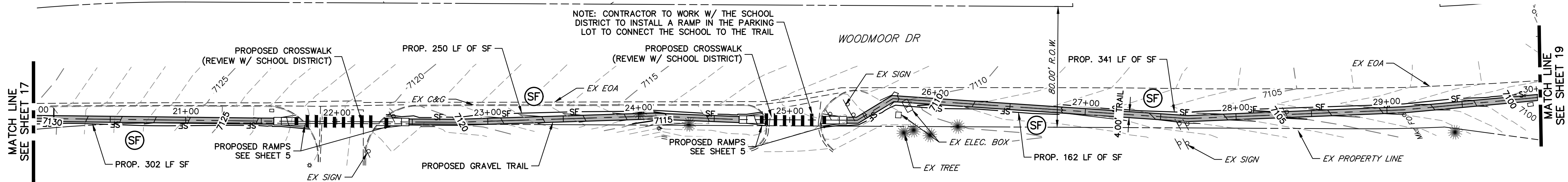


Print Date: 03/01/2023
File Name:
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'
Unit name Unit leader
J-R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-583-2593
Fort Collins 970-491-9888 • www.jrengineering.com

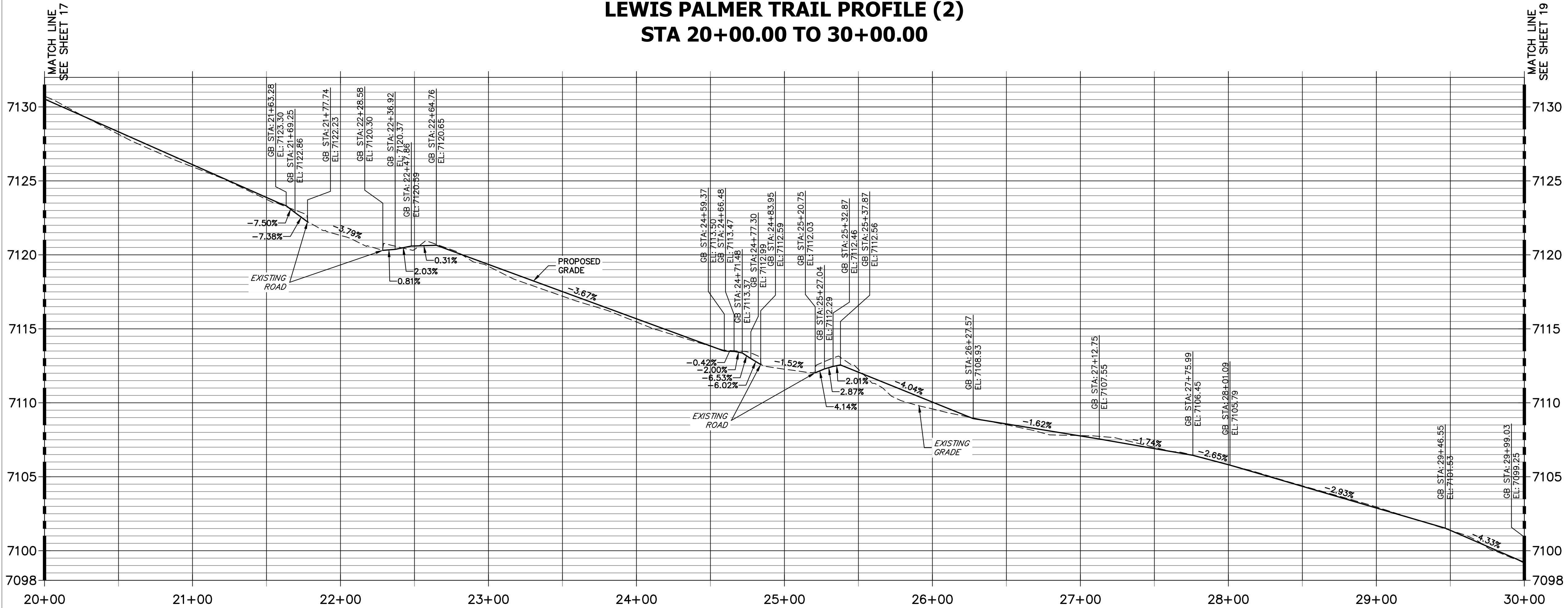
Sheet Revisions		
Date:	Comments	Init.

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Phone: 719-546-5750
Lewis Palmer School District 38

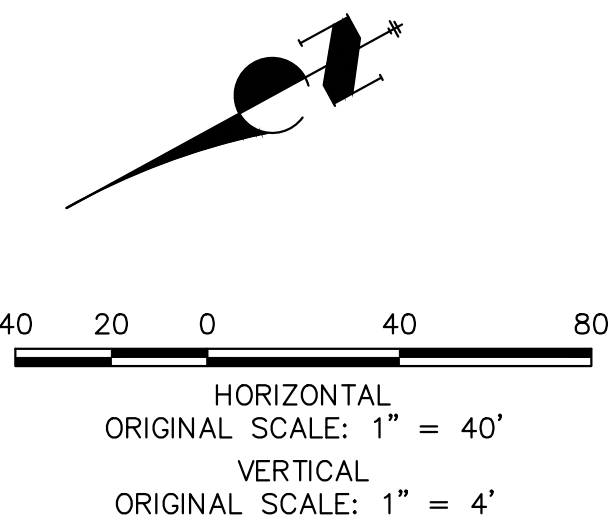
As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE				Project No./Code	
No Revisions:						M915-009/22585	
Revised:		Designer:	GG	Structure		2520300	
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Void:		Sheet Subset:		Subset Sheets:	OF	Sheet Number 17 OF 44	



LEWIS PALMER TRAIL PROFILE (2)
STA 20+00.00 TO 30+00.00



- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



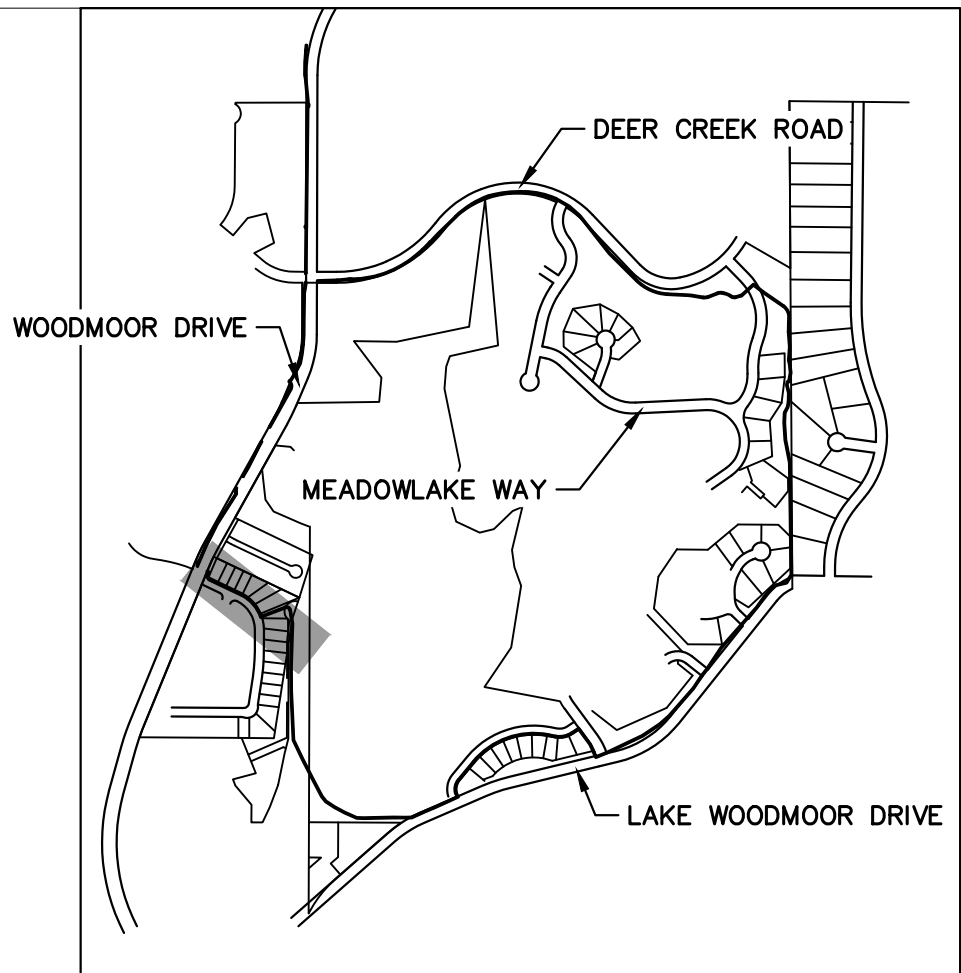
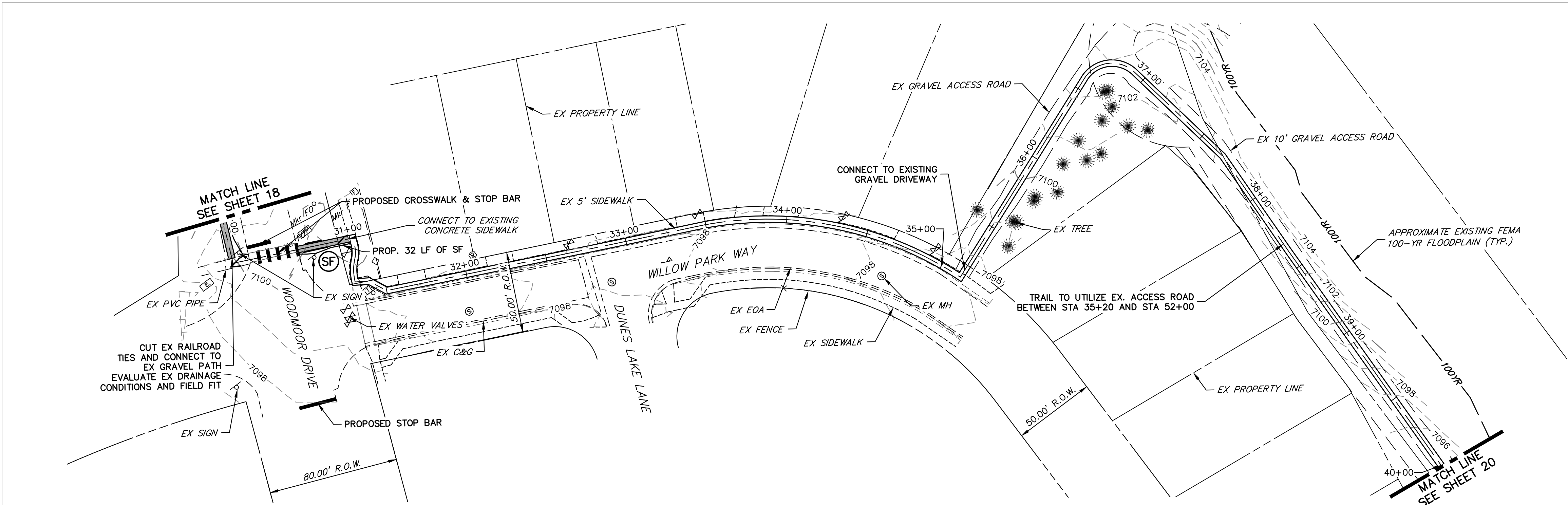
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File Name:
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'
Unit name Unit leader
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Sheet Revisions		
Date:	Comments	Init.

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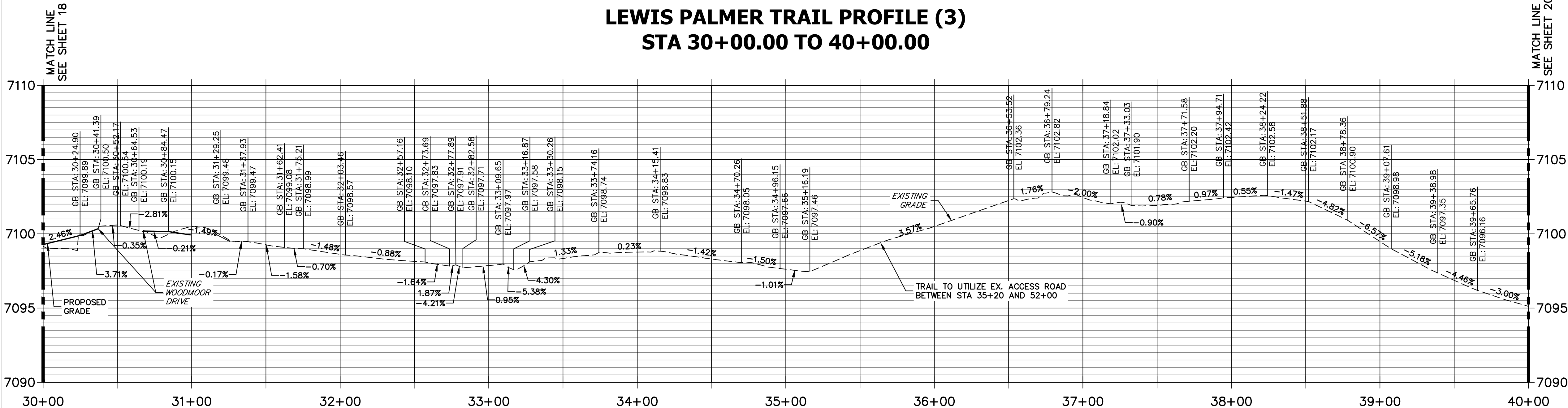
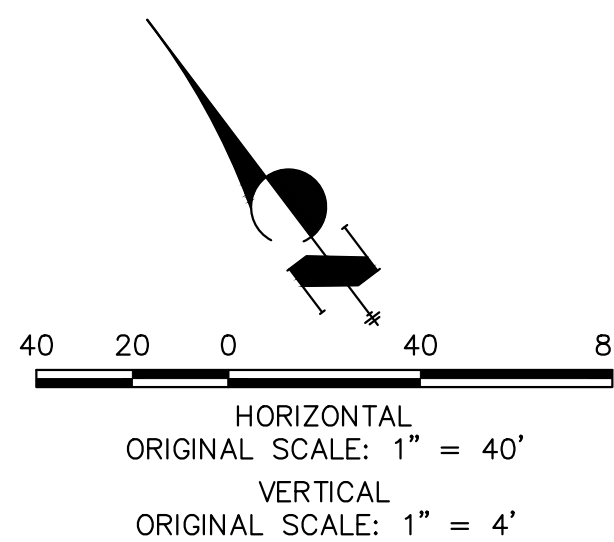
Region 2
5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE		Project No./Code	
No Revisions:				M915-009/22585	
Revised:		Designer: GG	Structure Numbers	2520300	
Void:		Detailer: GG			
		Sheet Subset:	Subset Sheets: OF	Sheet Number 18 OF 44	



KEY MAP
SCALE: NOT TO SCALE

- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED. EXISTING DRAINAGE PATHS AND PATTERNS SHALL BE MAINTAINED. AN 18" RCP AND FLARED END SECTION SHALL BE INSTALLED AT STA. 99+59. TYPE H (18") RIP RAP SHALL BE INSTALLED AT THE DOWNSTREAM END, AND SHALL BE 9' LONG BY 9' WIDE. IF EXISTING TOPOGRAPHY DICTATES THAT ADDITIONAL AREAS REQUIRE CULVERTS, THE CONTRACTOR SHALL WORK WITH THE SCHOOL DISTRICT AND THE ENGINEER IN DETERMINING CULVERT SIZING.
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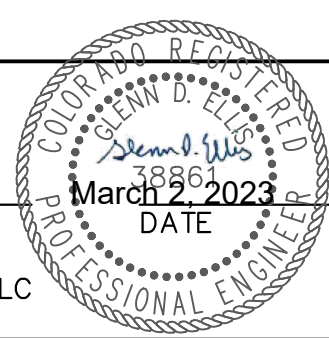


LEWIS PALMER TRAIL PROFILE (3)
STA 30+00.00 TO 40+00.00



ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023
File Name:
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'
Unit name Unit leader
J-R ENGINEERING
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Fort Collins 970-491-9888 • www.jrengineering.com

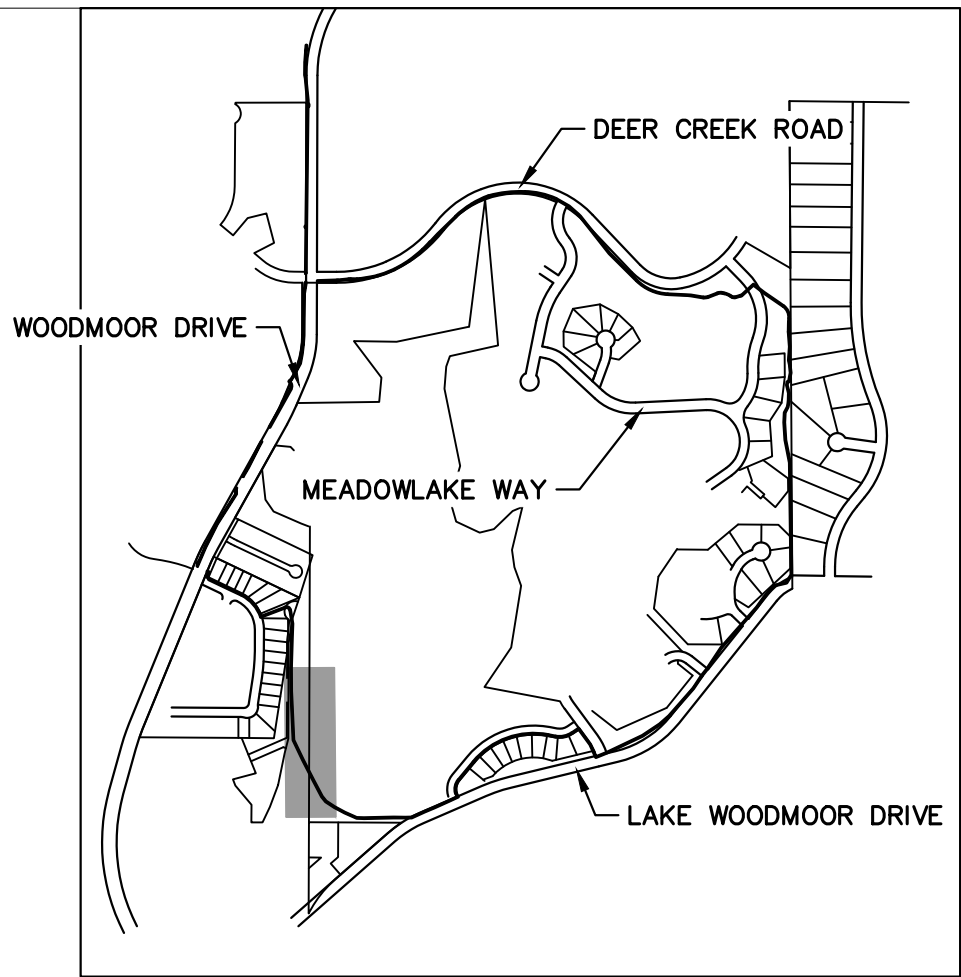
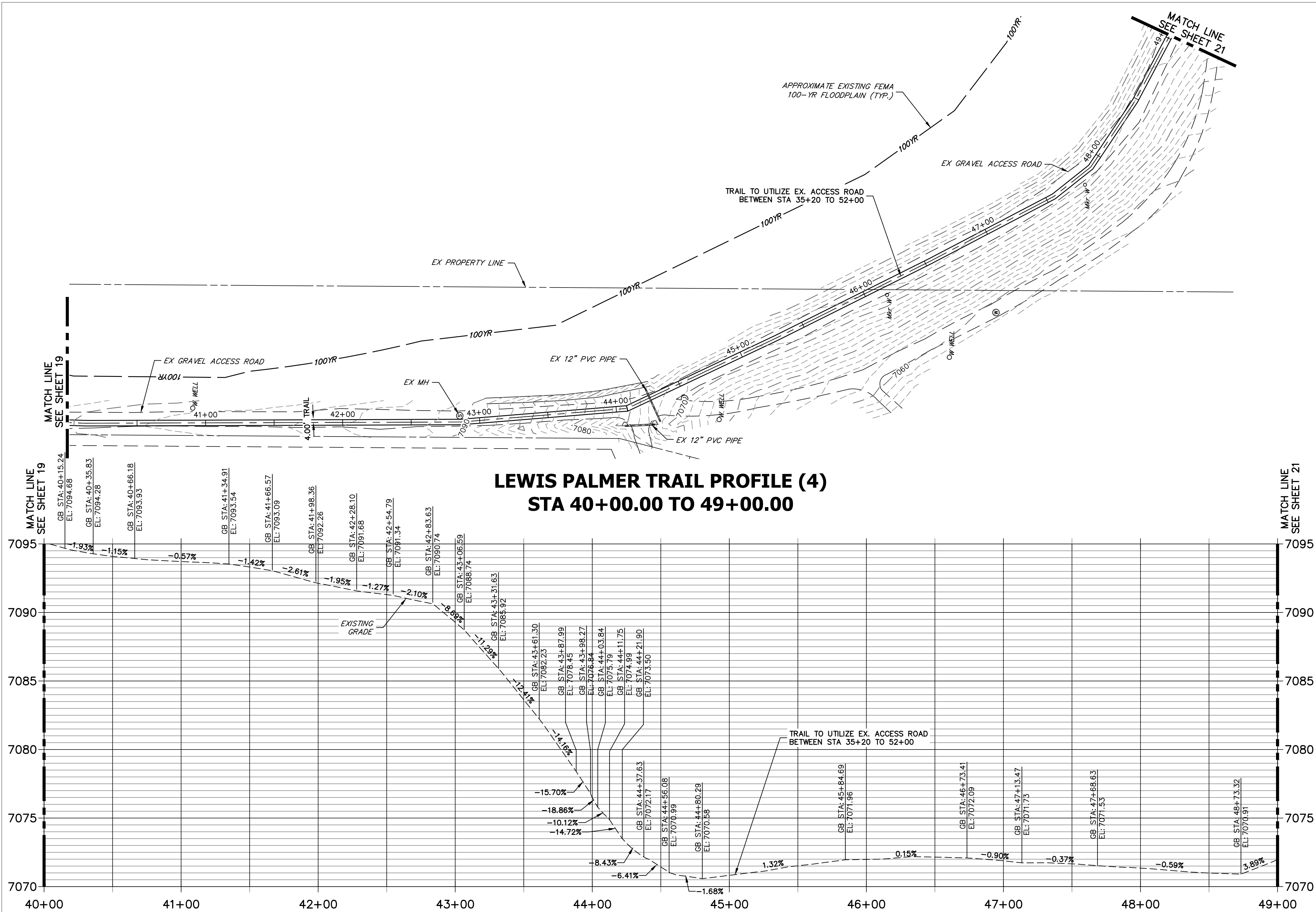
Sheet Revisions		
Date:	Comments	Init.

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Region 2
5615 WILL BLVD.
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Phone: 719-546-5750

Lewis Palmer School District 38

As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE		Project No./Code	
No Revisions:		Designer: GG Structure		M915-009/22585	
Revised:		Detailer: GG Numbers		2520300	
Void:		Sheet Subset: Subset Sheets: OF		Sheet Number 19 OF 44	

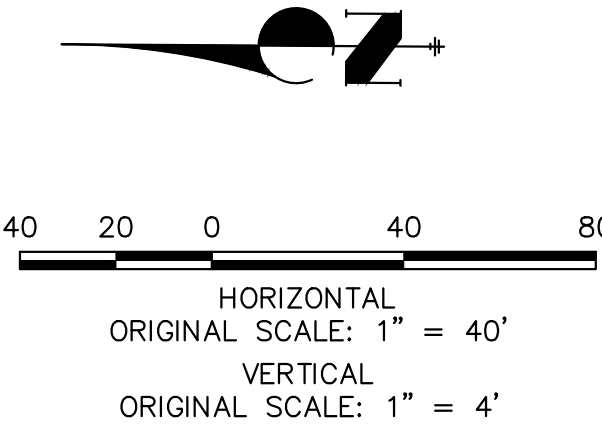


KEY MAP
SCALE: NOT TO SCALE

- NOTES:
- THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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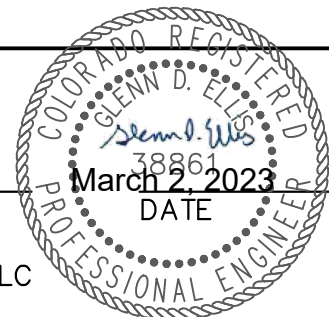


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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023

File Name:

Horiz. Scale: 1"=40' Vert. Scale: 1"=4'

Unit name Unit leader

J-R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

Sheet Revisions			
Date:	Comments	Init.	

Colorado Department of Transportation

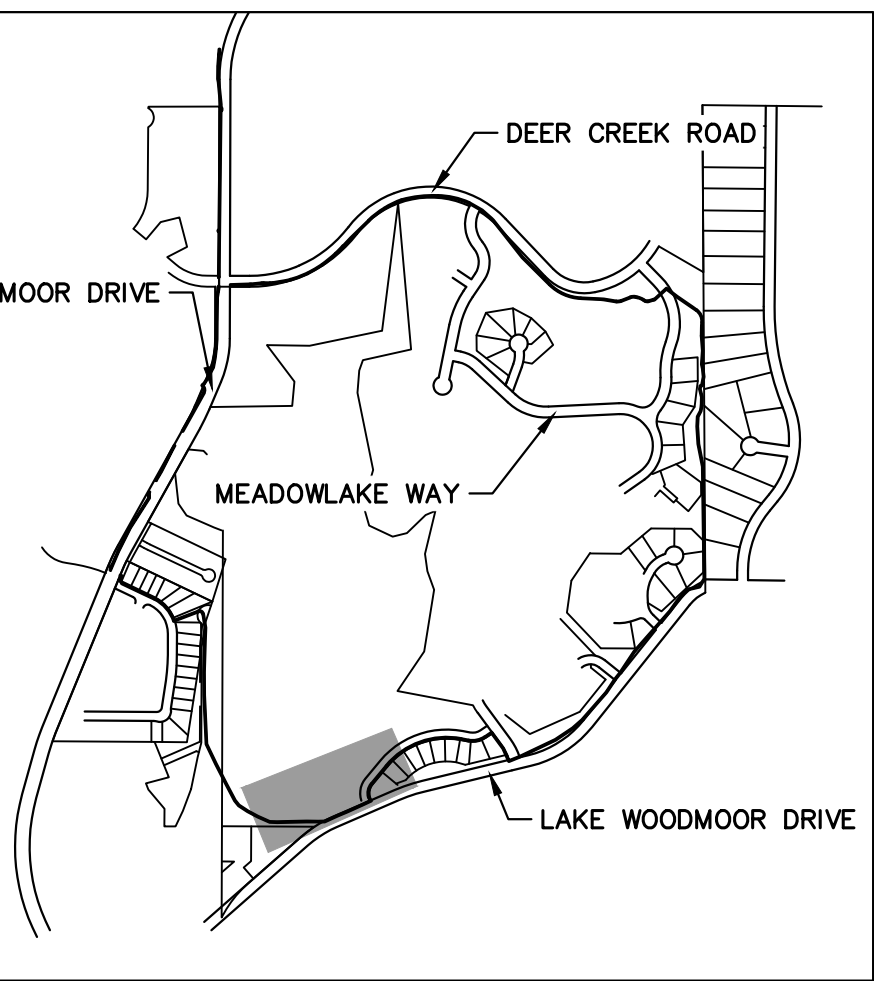
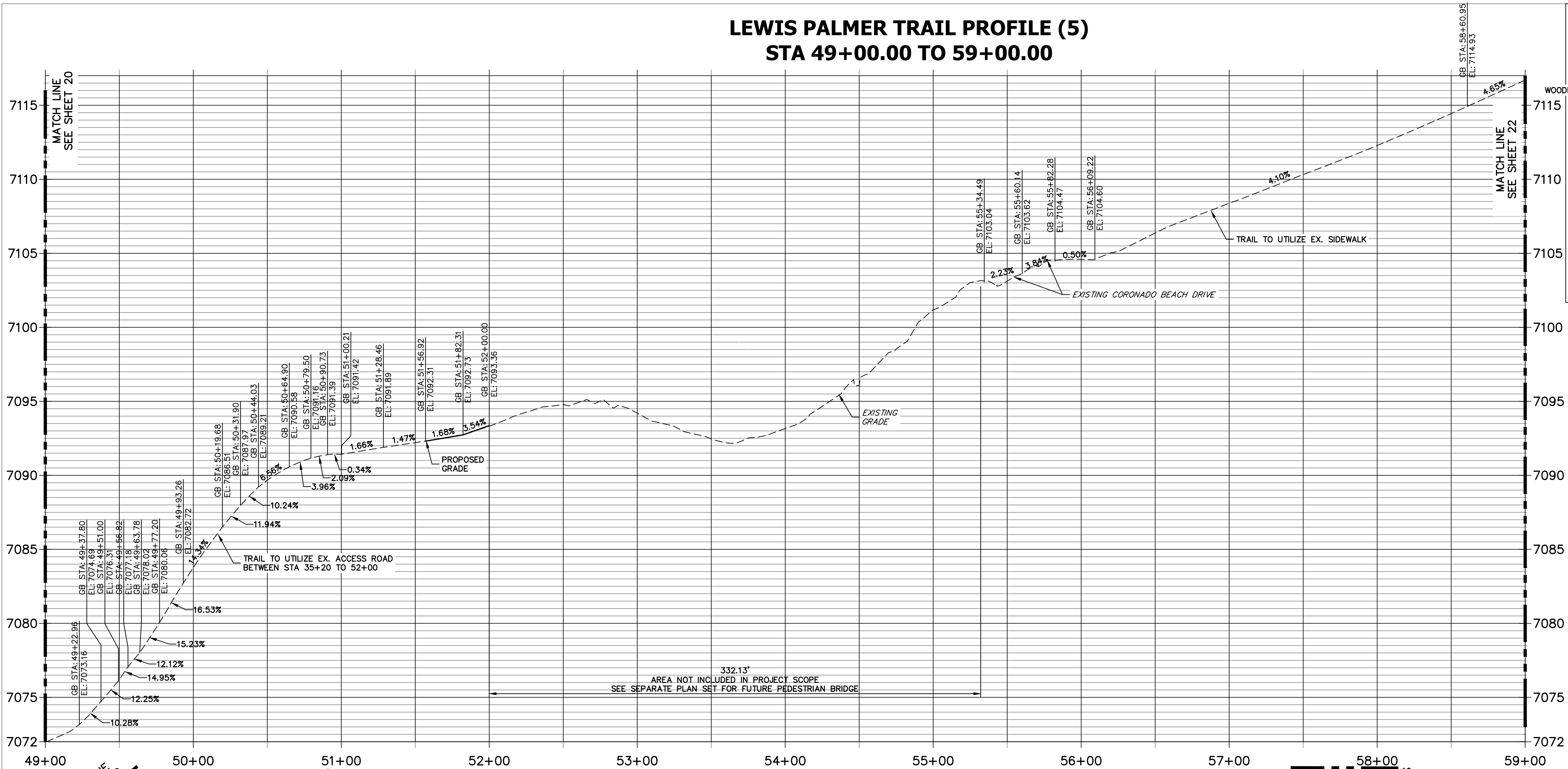
CDOT

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Phone: 719-546-5750

LP
Lewis Palmer School District 38

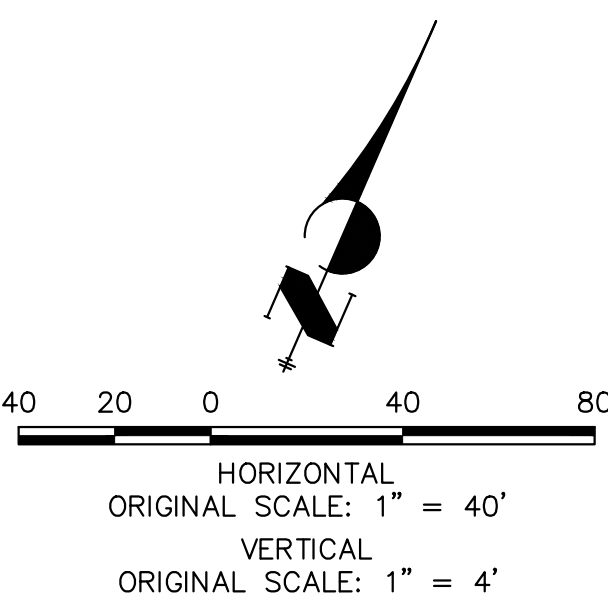
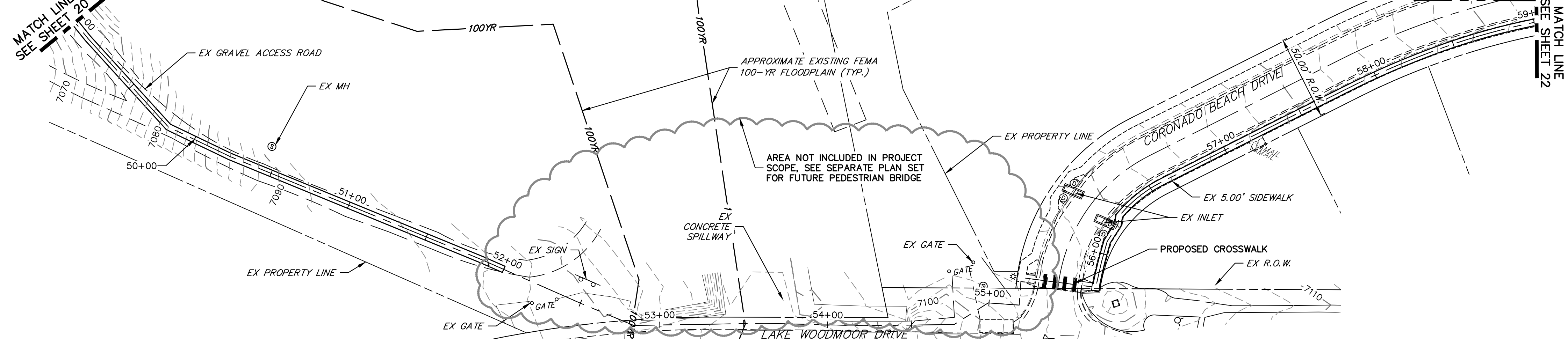
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No Revisions:						M915-009/22585	
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		Detailer:	GG	Numbers			
Void:		Sheet Subset:		Subset Sheets:	OF	Sheet Number 20 OF 44	

LEWIS PALMER TRAIL PROFILE (5)
STA 49+00.00 TO 59+00.00



KEY MAP
SCALE: NOT TO SCALE

- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED. EXISTING DRAINAGE PATHS AND PATTERNS SHALL BE MAINTAINED. AN 18" RCP AND FLARED END SECTION SHALL BE INSTALLED AT STA. 99+59. TYPE H (18") RIP RAP SHALL BE INSTALLED AT THE DOWNSTREAM END, AND SHALL BE 9' LONG BY 9' WIDE. IF EXISTING TOPOGRAPHY DICTATES THAT ADDITIONAL AREAS REQUIRE CULVERTS, THE CONTRACTOR SHALL WORK WITH THE SCHOOL DISTRICT AND THE ENGINEER IN DETERMINING CULVERT SIZING.
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023
File Name:
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'
Unit name Unit leader
J-R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

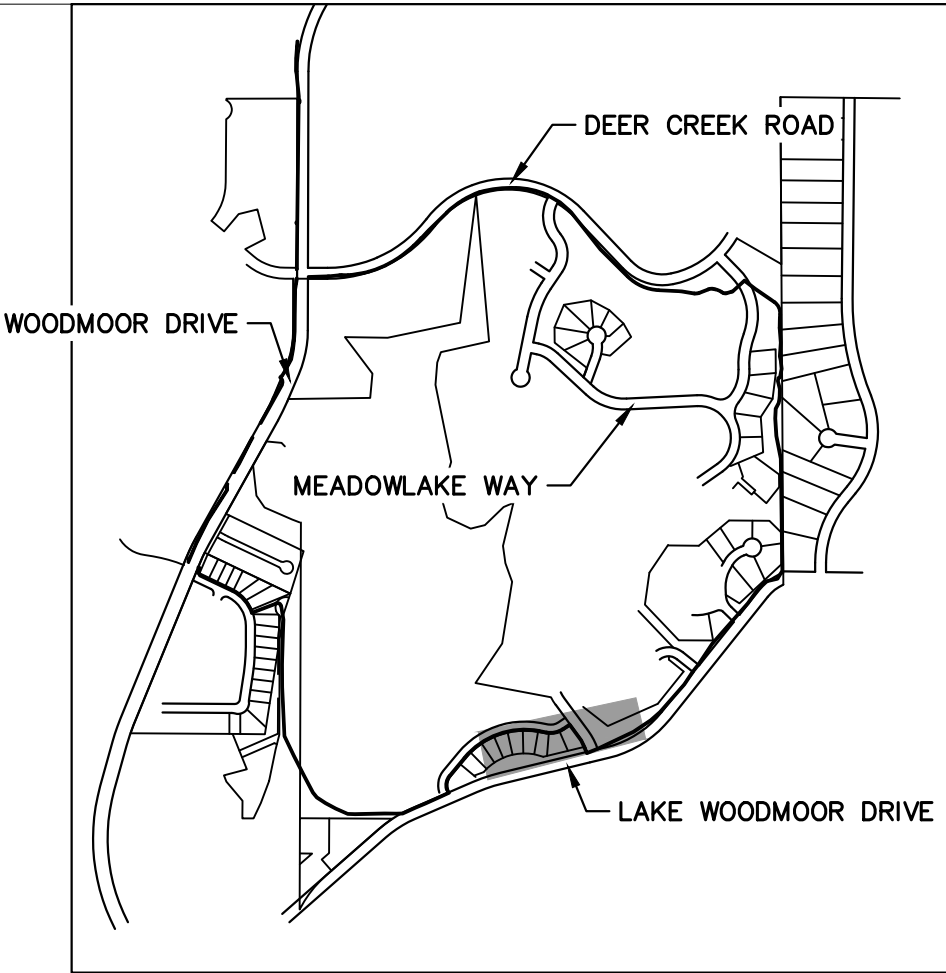
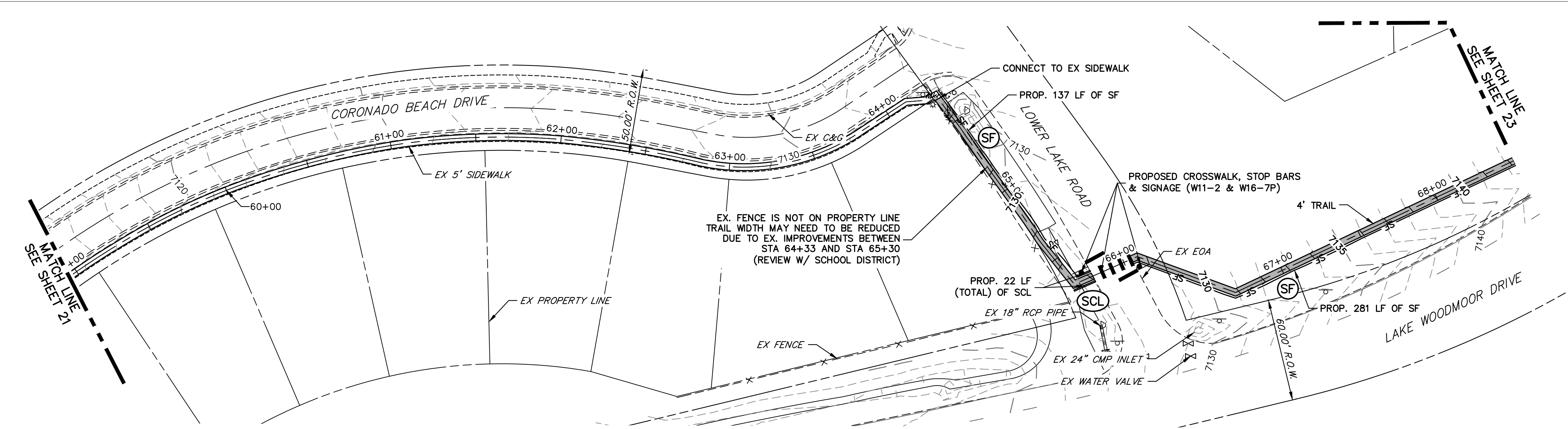
Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

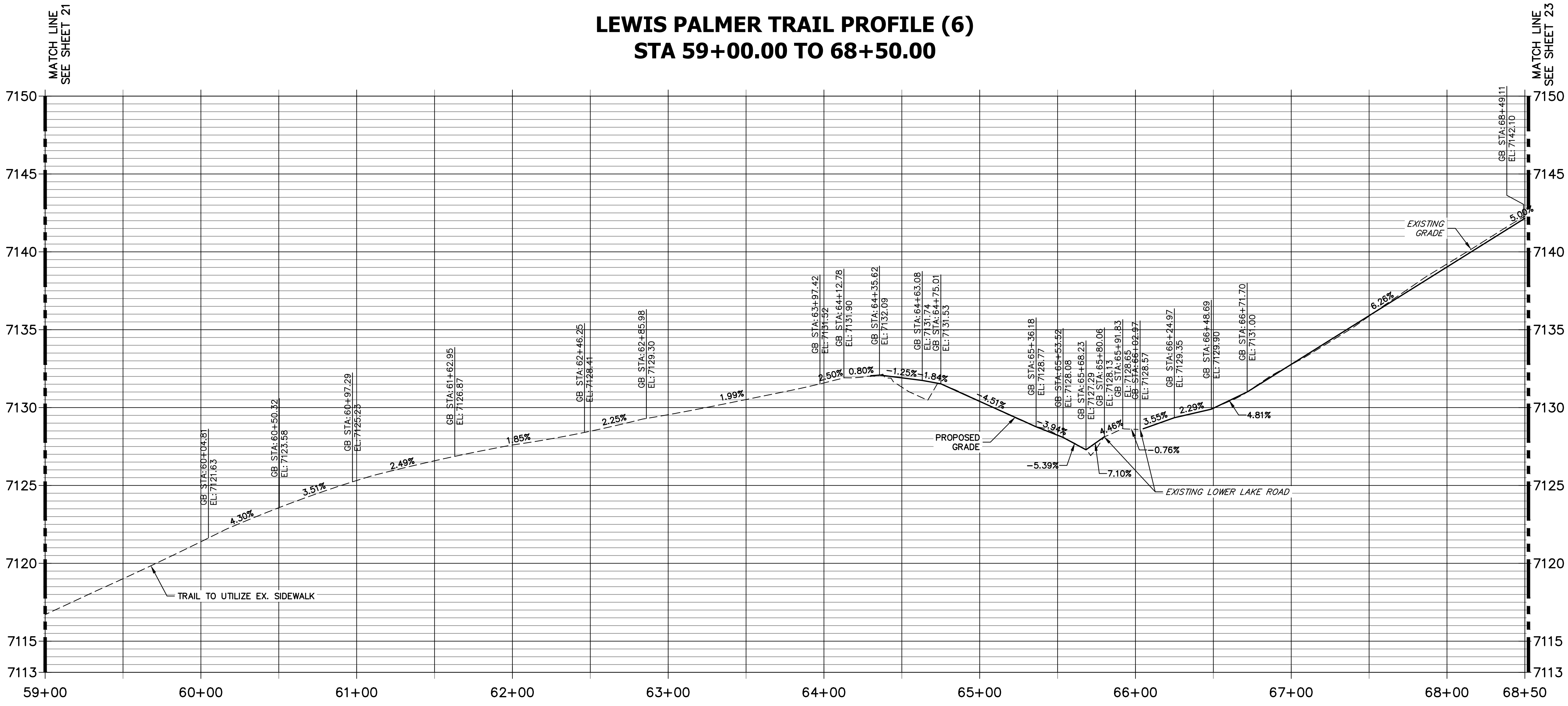
Region 2
5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

Lewis Palmer School District 38

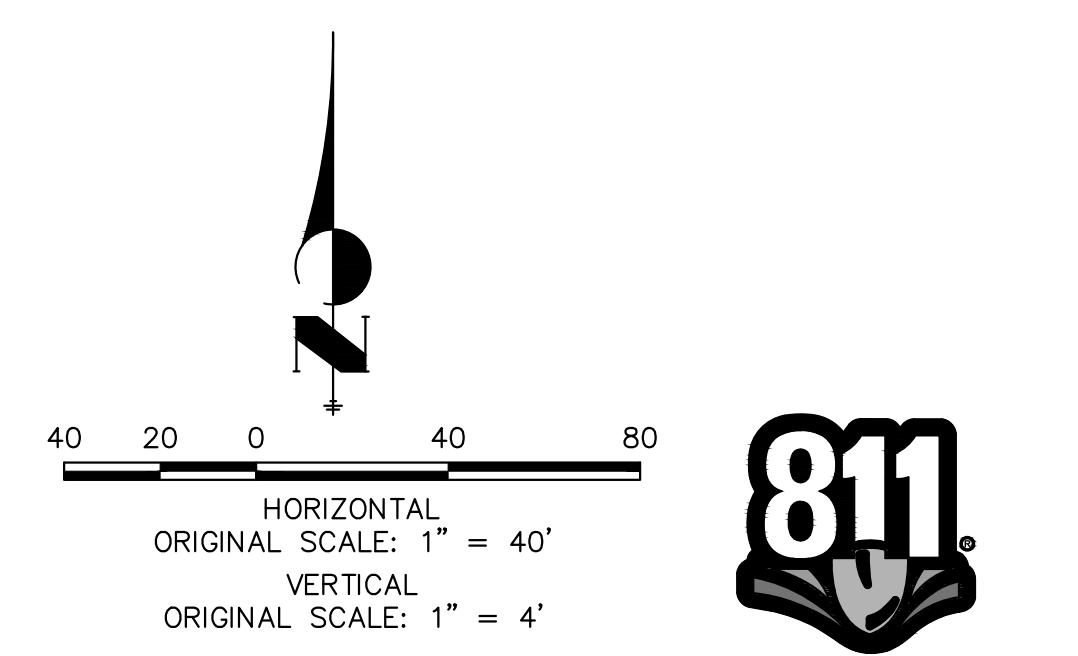
As Constructed	LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE			Project No./Code
No Revisions:				M915-009/22585
Revised:	Designer: GG	Structure Numbers		2520300
Void:	Detailer: GG	Subset Sheets:	OF	Sheet Number 21 OF 44



LEWIS PALMER TRAIL PROFILE (6)
STA 59+00.00 TO 68+50.00



- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION
GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC

Print Date: 03/01/2023	
File Name:	
Horiz. Scale: 1"=40'	Vert. Scale: 1"=4'
Unit name	Unit leader
 J-R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-583-2593 Fort Collins 970-491-9888 • www.jrengineering.com	

Sheet Revisions		
Date:	Comments	Init.

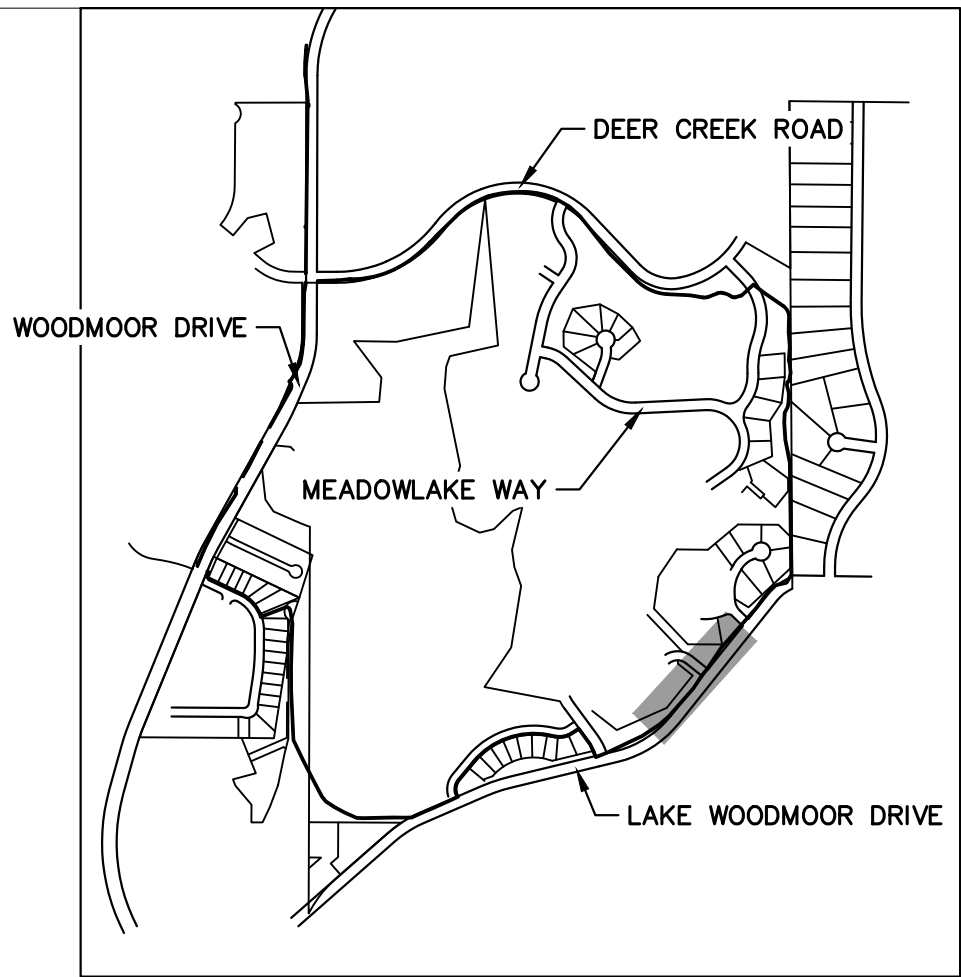
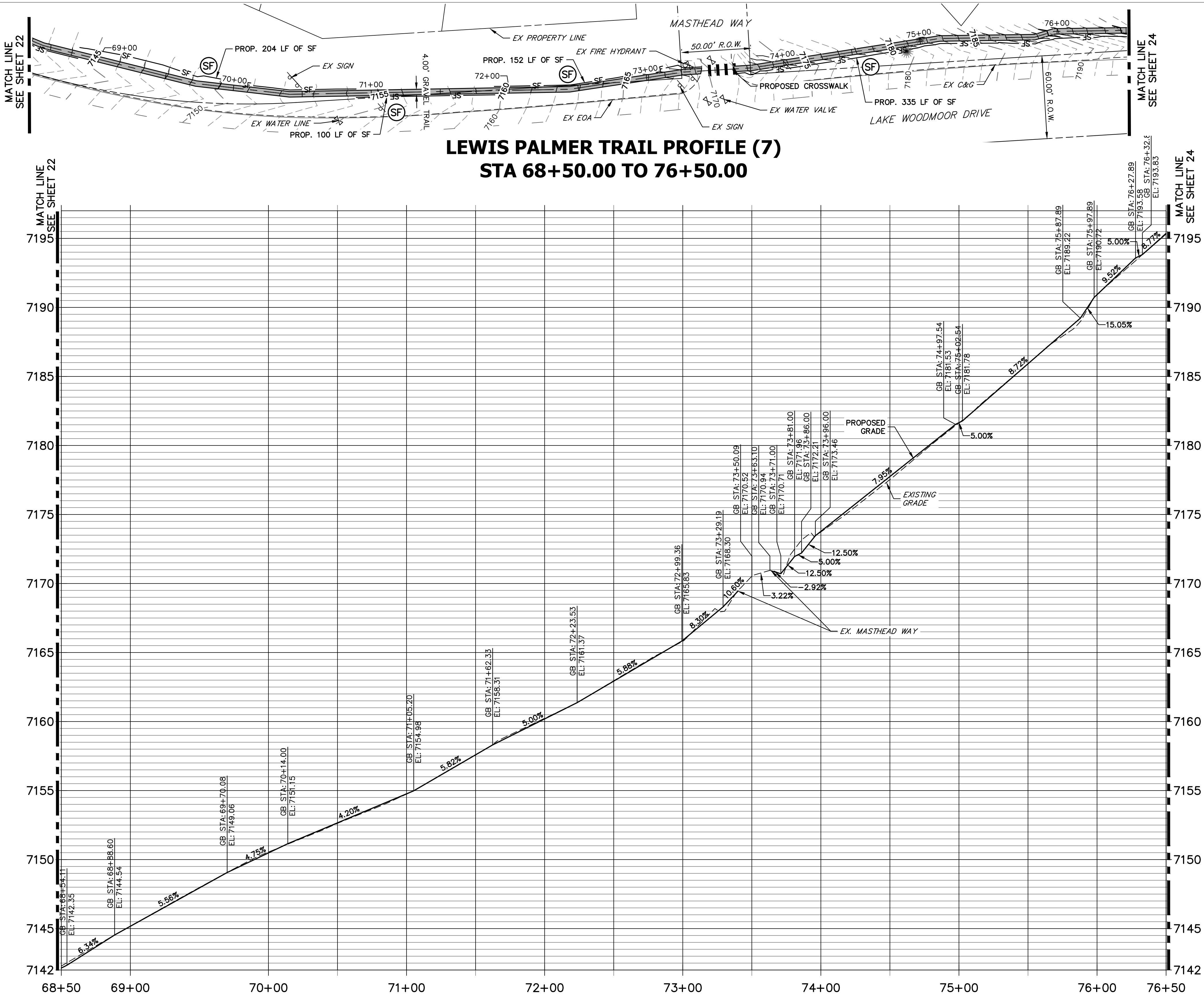
Colorado Department of Transportation

 **Region 2**

5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

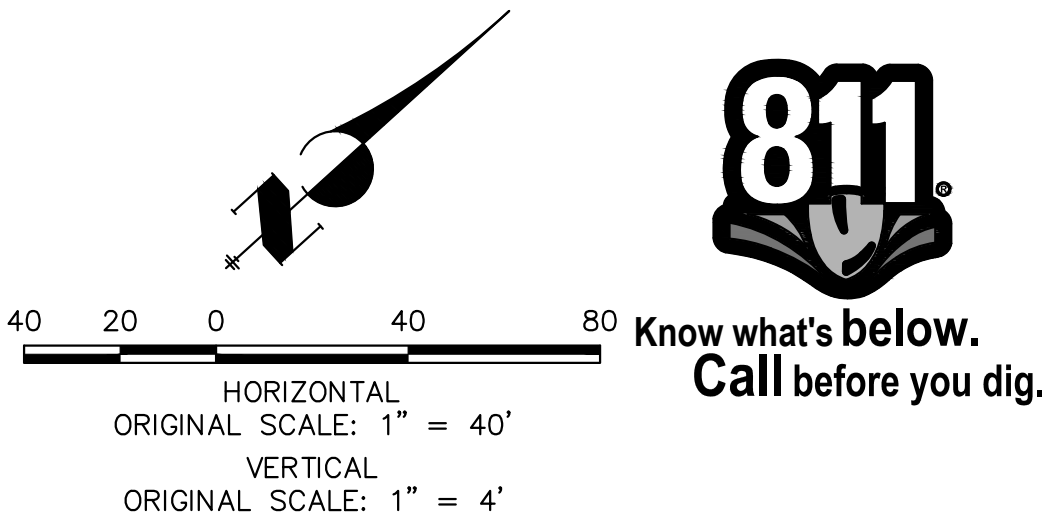
 **Lewis Palmer School District 38**

As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE			Project No./Code	
No Revisions:					M915-009/22585	
Revised:		Designer:	GG	Structure	2520300	
		Detailer:	GG	Numbers		
Void:		Sheet Subset:		Subset Sheets:	OF	Sheet Number 22 OF 44



KEY MAP
SCALE: NOT TO SCALE

- NOTES:
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023

File Name:

Horiz. Scale: 1"=40' Vert. Scale: 1"=4'

Unit name Unit leader

J-R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

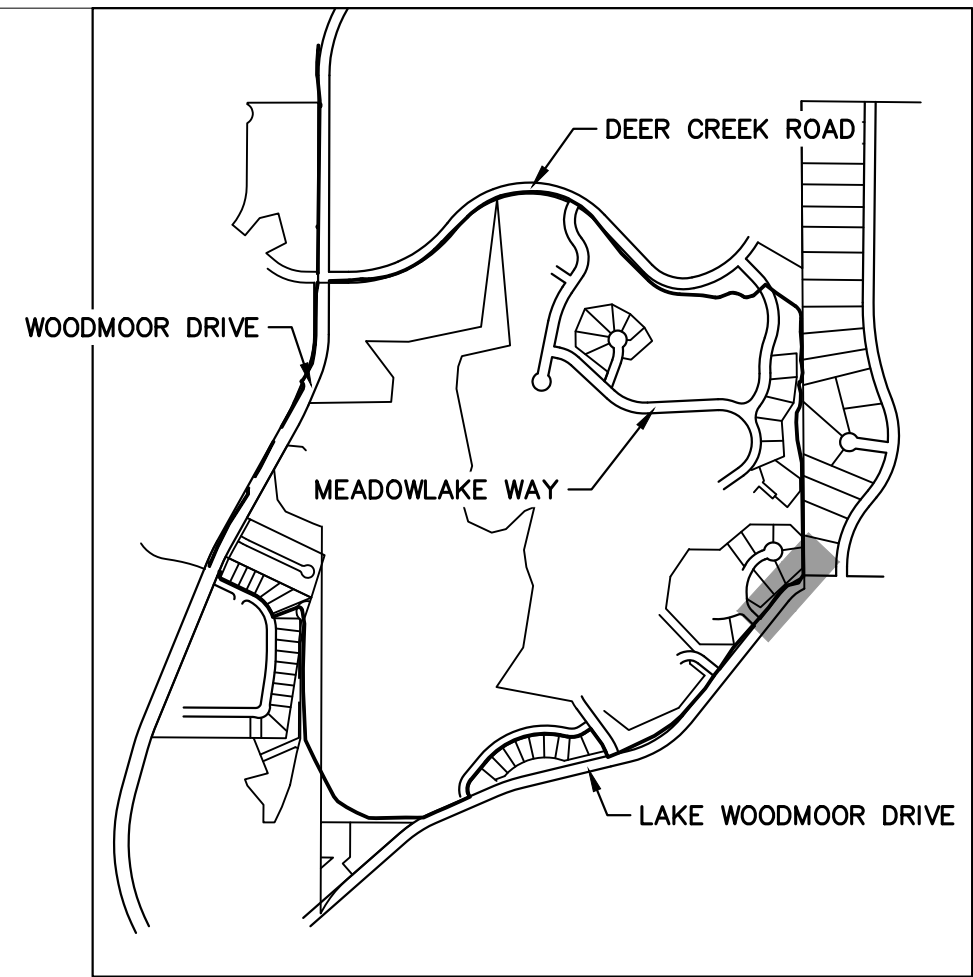
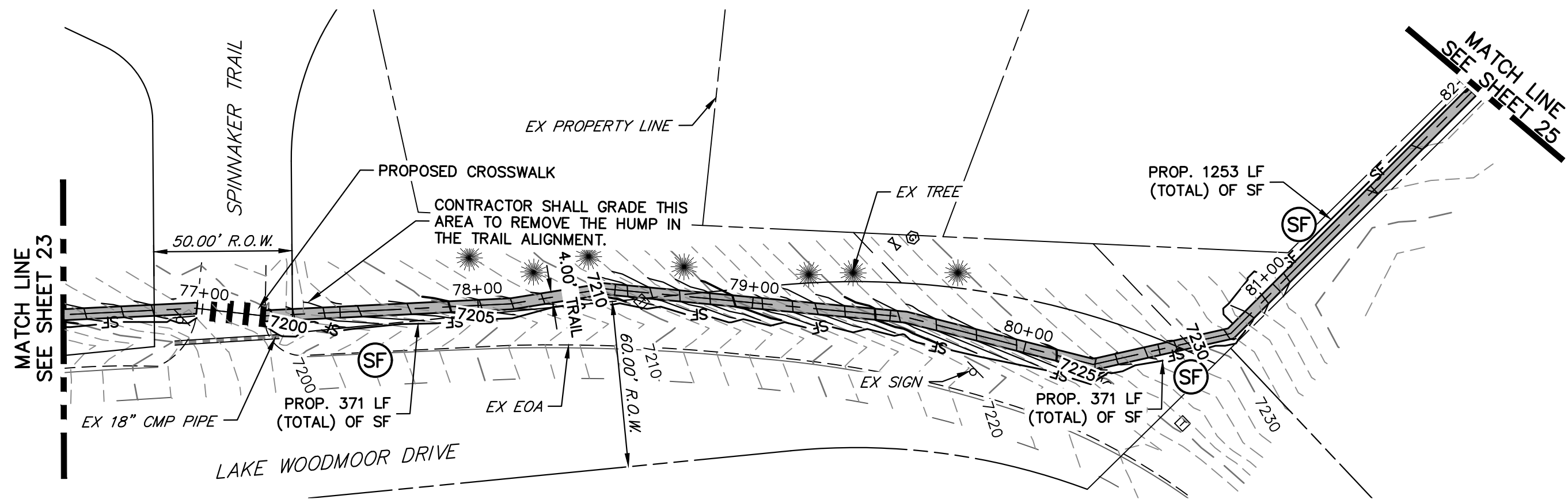
CDOT

5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

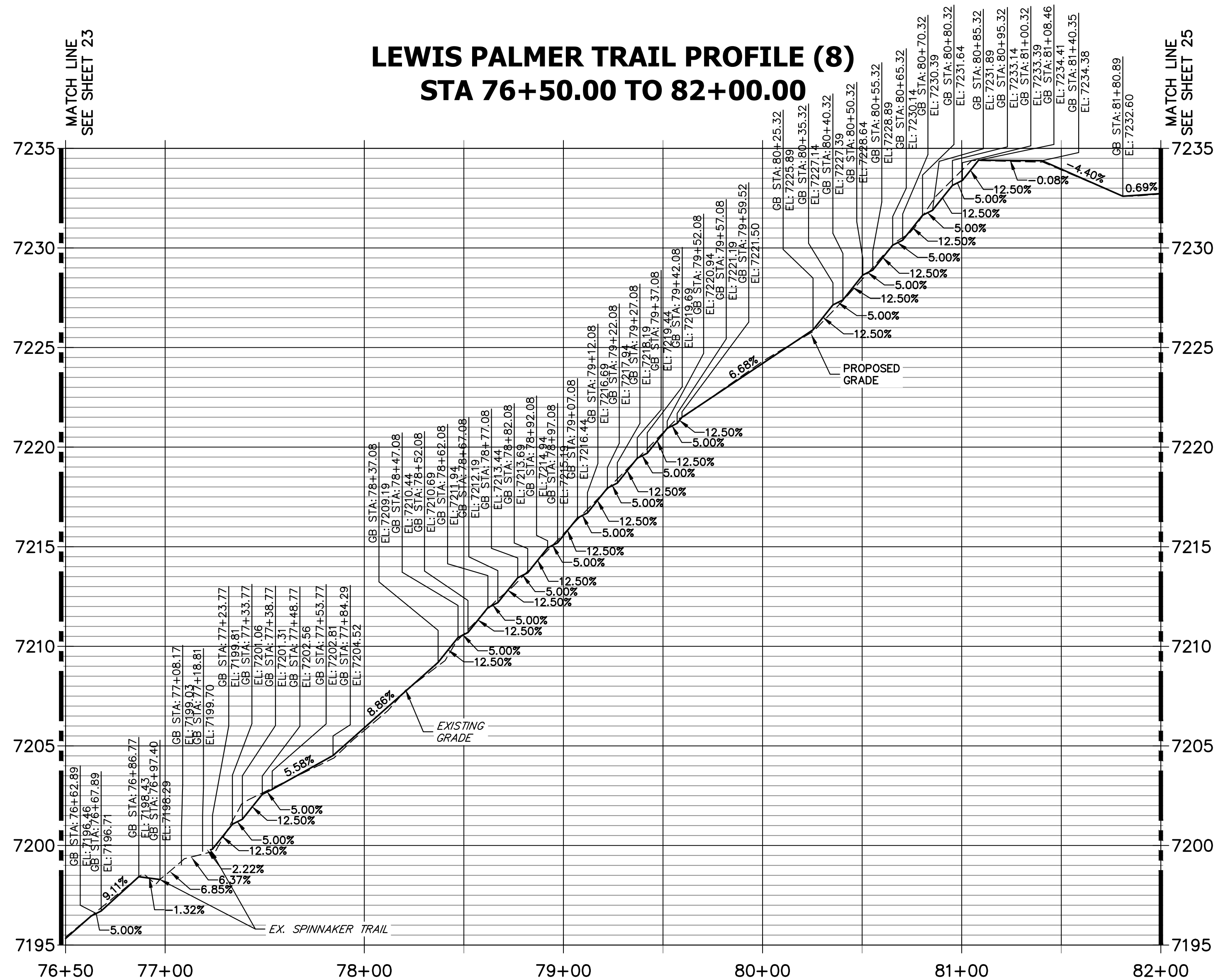
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Lewis Palmer School District 38

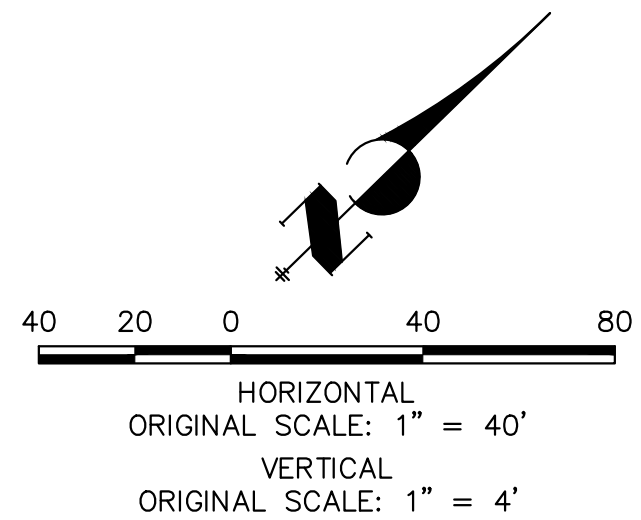
As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE		Project No./Code	
No Revisions:				M915-009/22585	
Revised:		Designer:	GG	Structure	2520300
Void:		Detailer:	GG	Numbers	
		Sheet Subset:		Subset Sheets:	OF
				Sheet Number 23 OF 44	



KEY MAP
SCALE: NOT TO SCALE

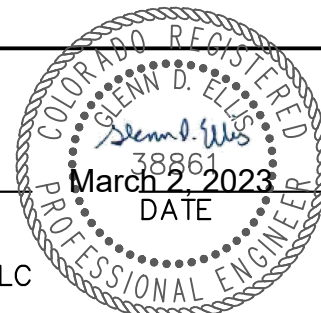


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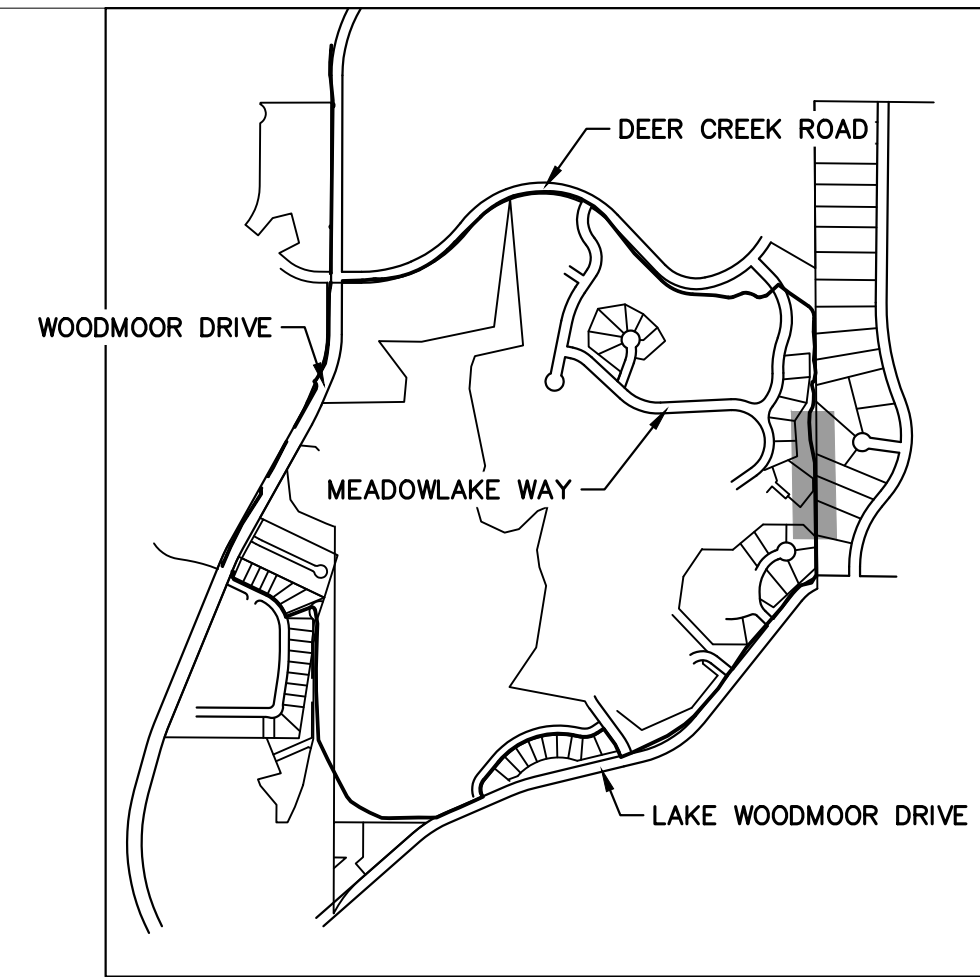
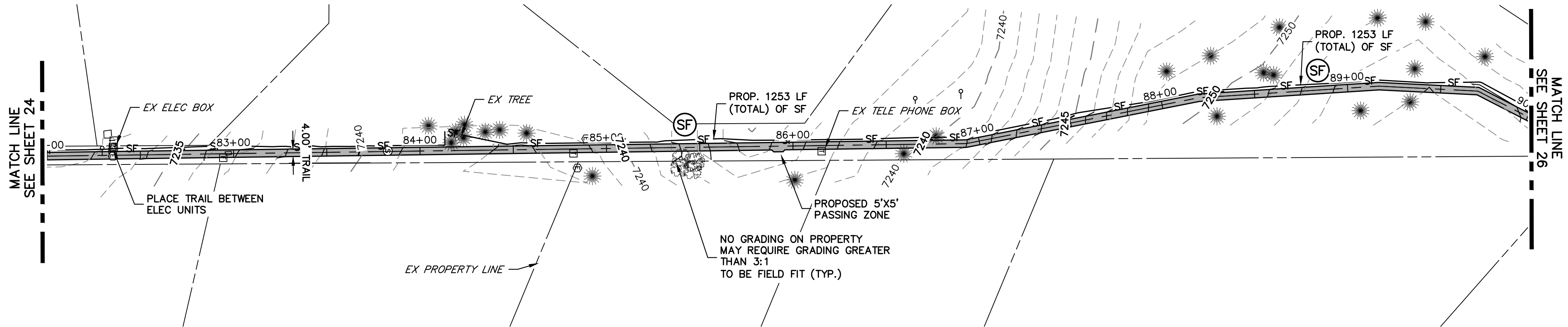


ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

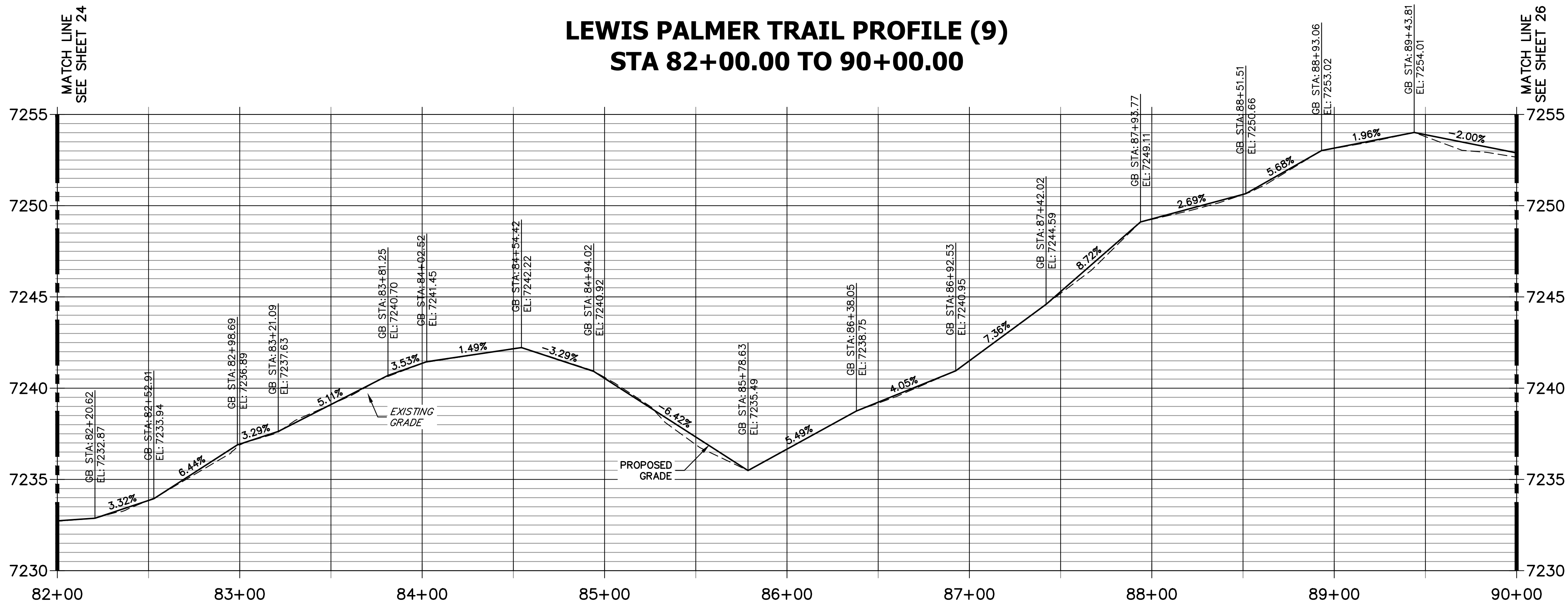
GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023		Sheet Revisions			Colorado Department of Transportation		As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE				Project No./Code				
File Name:																	
Horiz. Scale: 1"=40'		Vert. Scale: 1"=4'			Date:	Comments	Init.	CDOT CO Region 2 5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750 LP Lewis Palmer School District 38		No Revisions:		Designer: GG		Structure Numbers		M915-009/22585	
Unit name		Unit leader			Revised:		2520300										
J-R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-583-2593 Fort Collins 970-491-9888 • www.jrengineering.com										Detailer: GG		Sheet Subset:		Subset Sheets: OF		Sheet Number 24 OF 44	
										Void:							



KEY MAP
SCALE: NOT TO SCALE



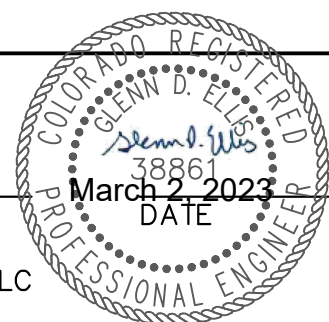
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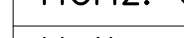


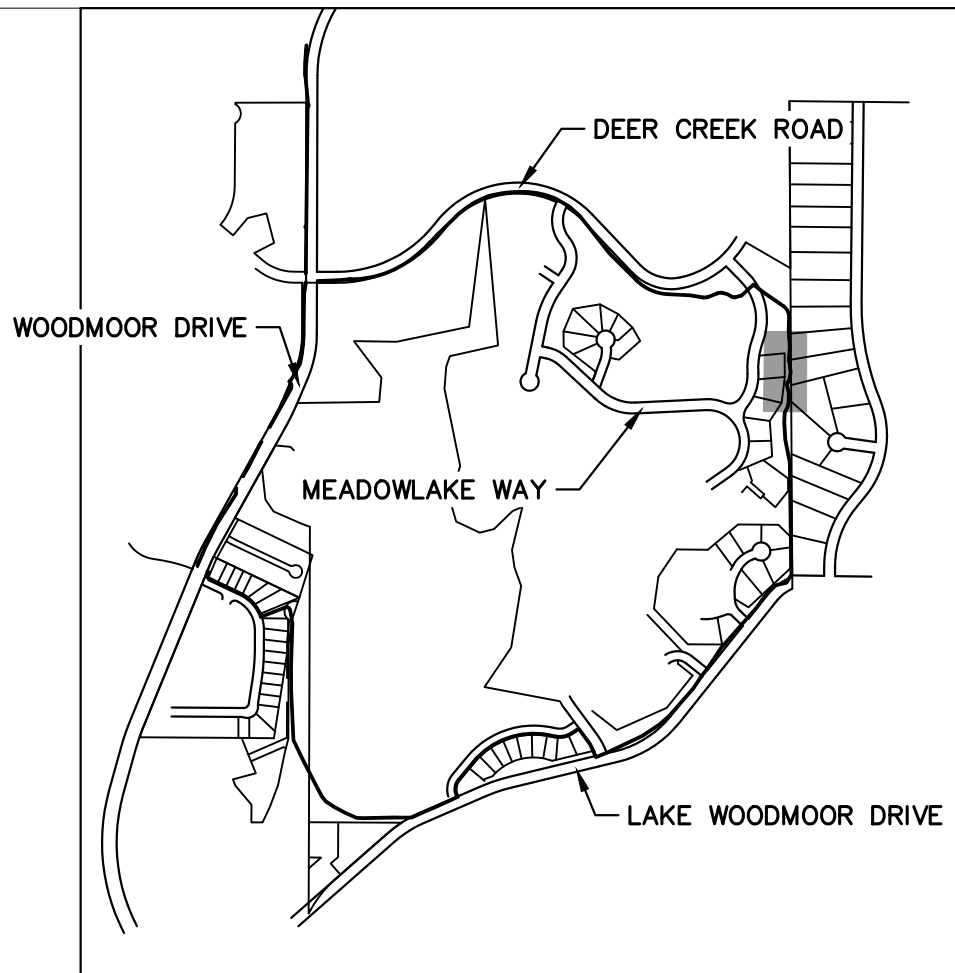
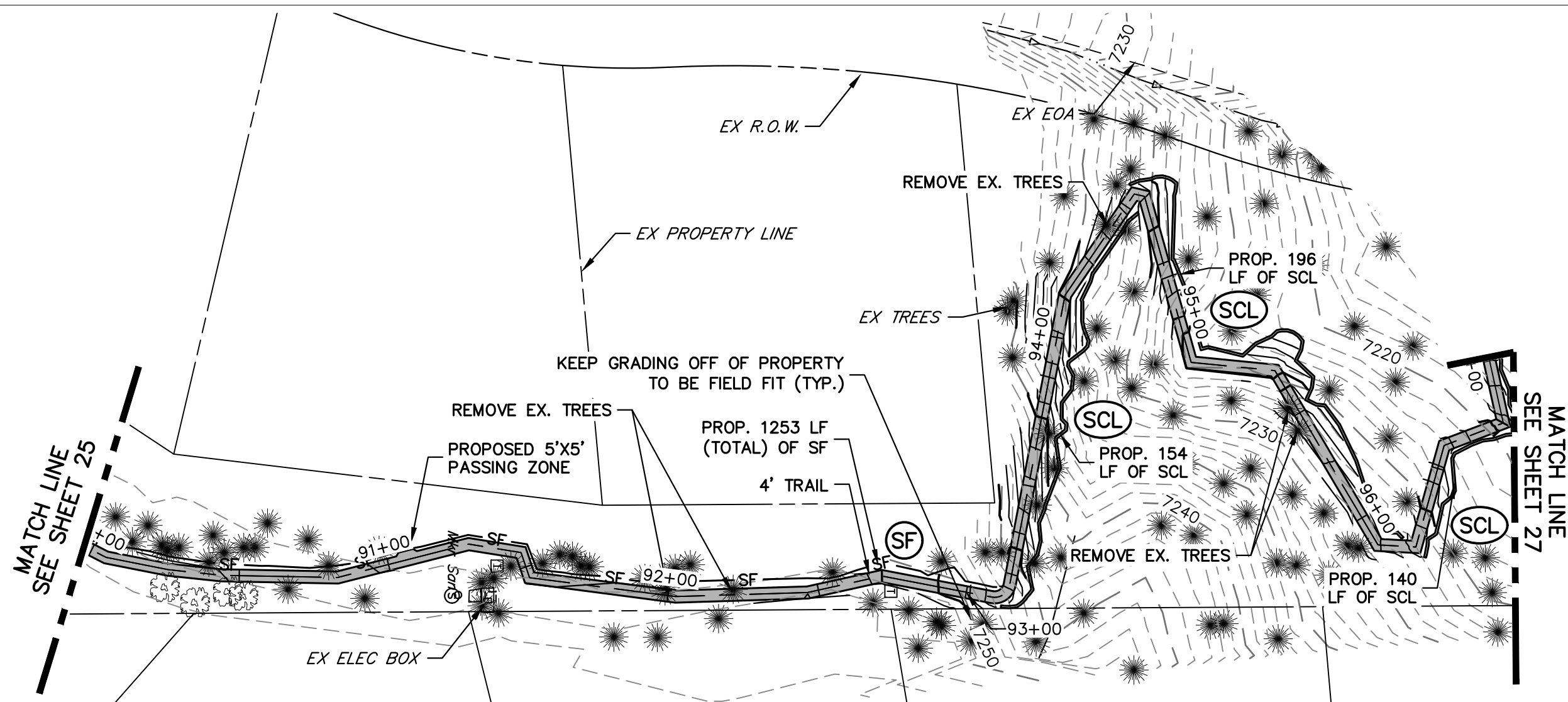
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HORIZONTAL
ORIGINAL SCALE: 1" = 40'
VERTICAL
ORIGINAL SCALE: 1" = 4'

ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC

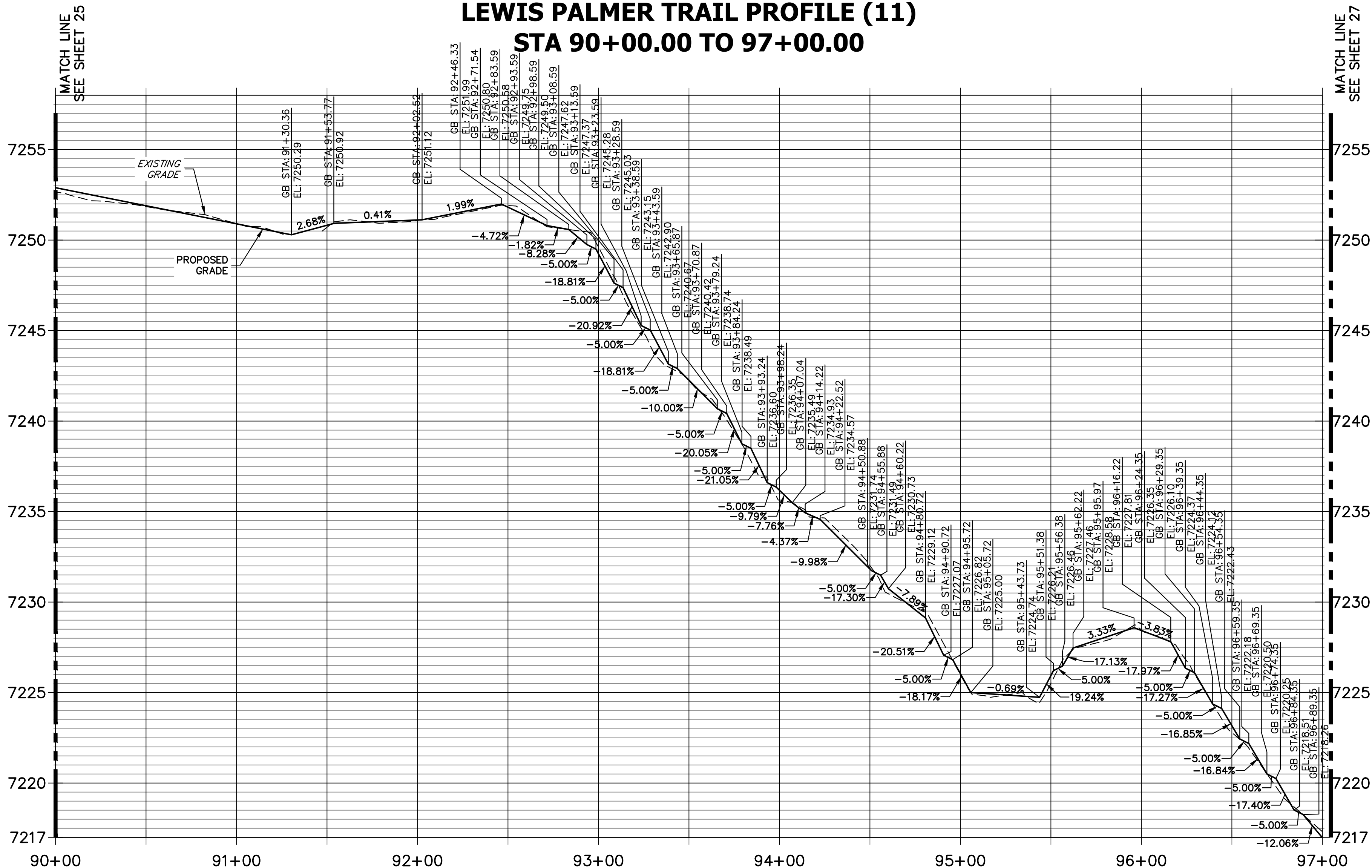


Print Date: 03/01/2023			Sheet Revisions			Colorado Department of Transportation		As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE				Project No./Code	
File Name:			Date:	Comments	Init.	5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750		No Revisions:		M915-009/22585				M915-009/22585	
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'						Region 2		Revised:		Designer: GG	Structure		2520300		
Unit name Unit leader						Lewis Palmer School District 38		Void:		Detailer: GG	Numbers		Sheet Number 25 OF 44		
 J-R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-593-2593 Fort Collins 970-491-9888 • www.jrengineering.com										Sheet Subset:	Subset Sheets:	OF			

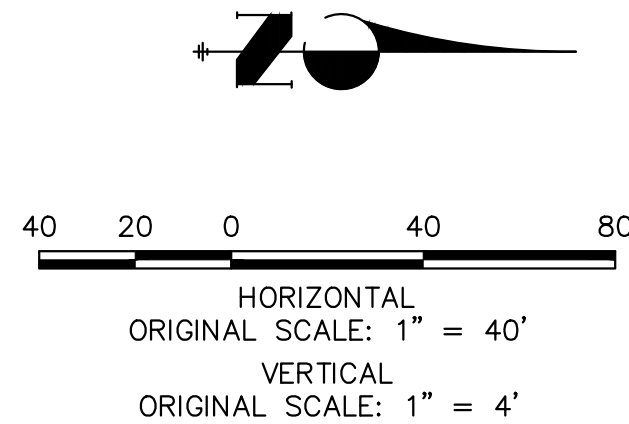


KEY MAP
SCALE: NOT TO SCALE

LEWIS PALMER TRAIL PROFILE (11) STA 90+00.00 TO 97+00.00



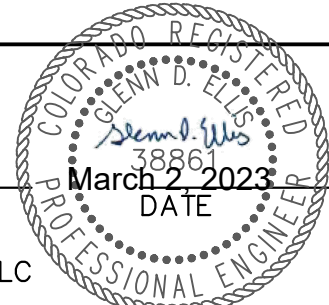
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ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023
File Name:
Horiz. Scale: 1"=40' Vert. Scale: 1"=4'
Unit name Unit leader
J-R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-583-2583
Fort Collins 970-491-9888 • www.jrengineering.com

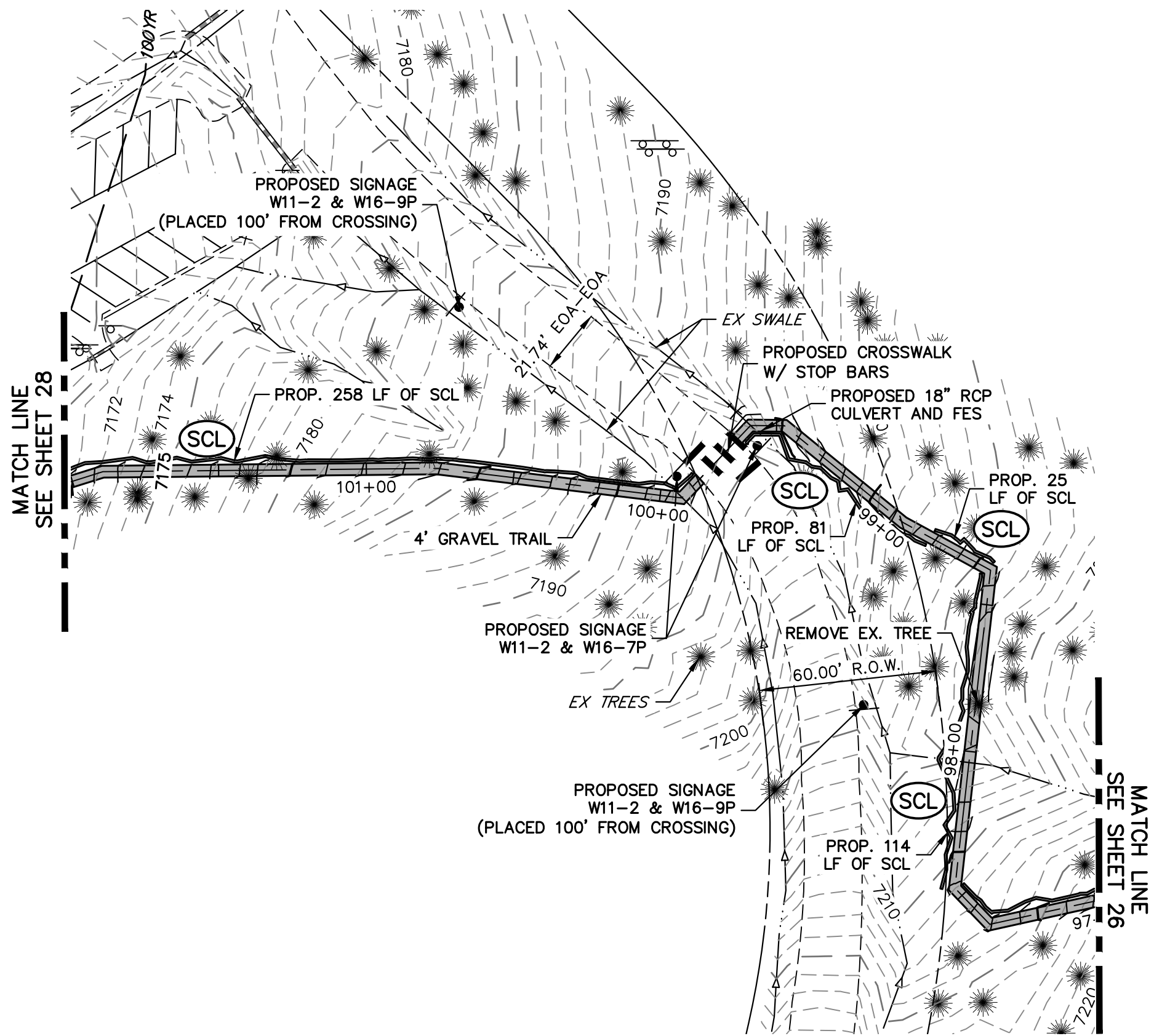
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Date:	Comments	Init.

Colorado Department of Transportation

Region 2
5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

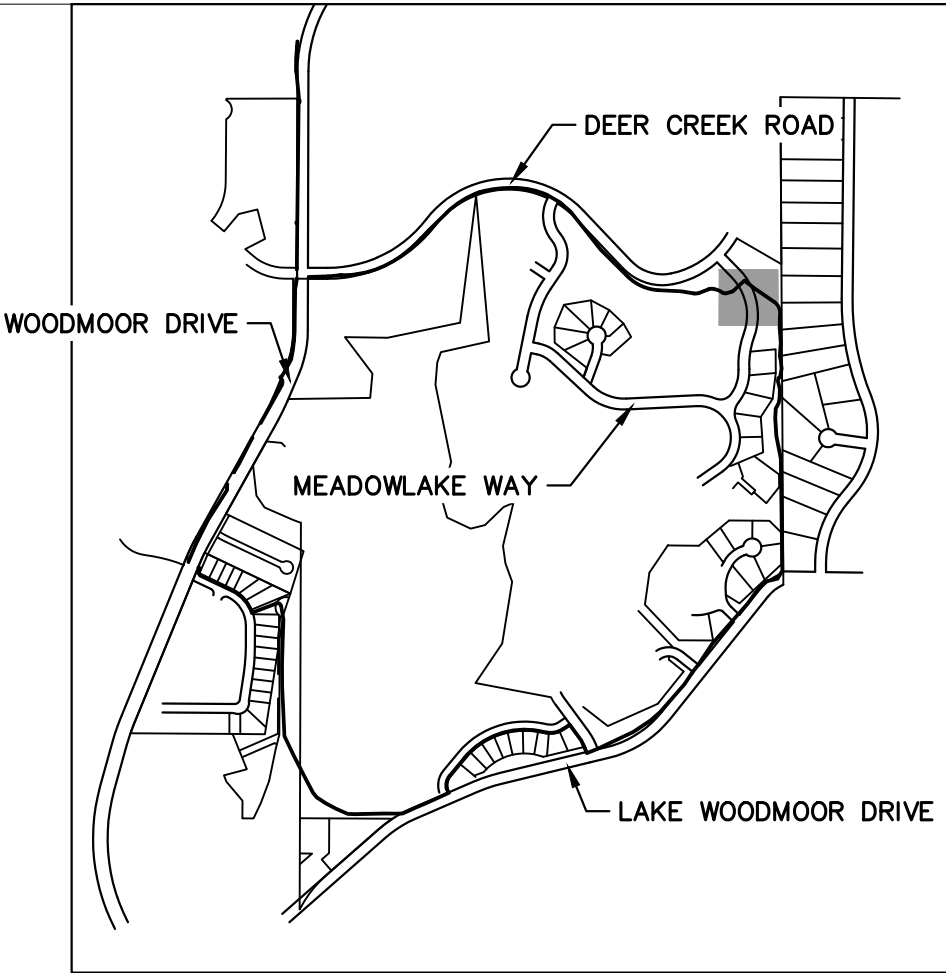
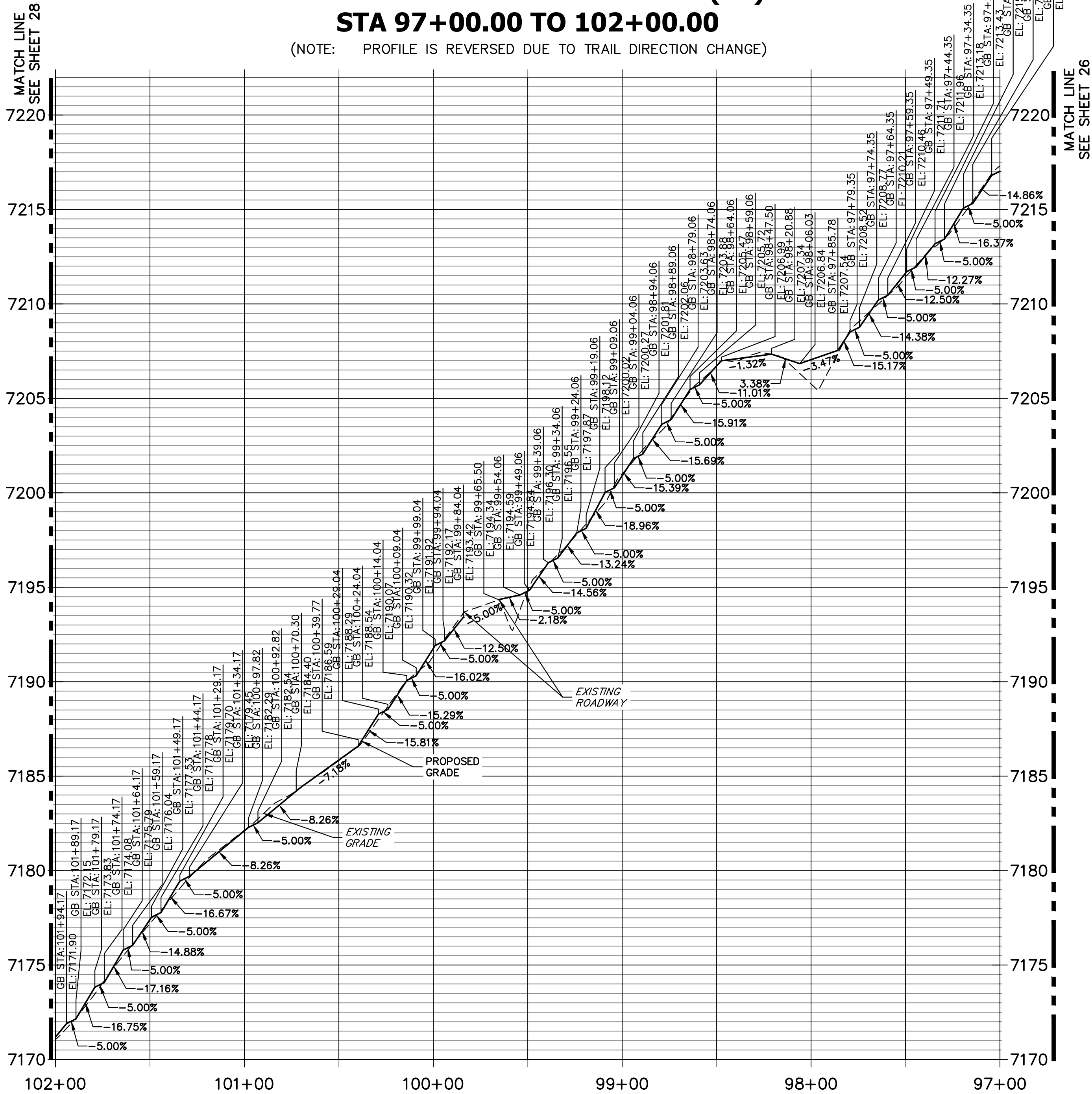
Lewis Palmer School District 38

As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE				Project No./Code	
No Revisions:						M915-009/22585	
Revised:		Designer:	GG	Structure		2520300	
Void:		Detailer:	GG	Numbers			
		Sheet Subset:		Subset Sheets:	OF	Sheet Number 26 OF 44	



LEWIS PALMER TRAIL PROFILE (12)
STA 97+00.00 TO 102+00.00

(NOTE: PROFILE IS REVERSED DUE TO TRAIL DIRECTION CHANGE)



- NOTES:
1. THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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HORIZONTAL
ORIGINAL SCALE: 1" = 40'

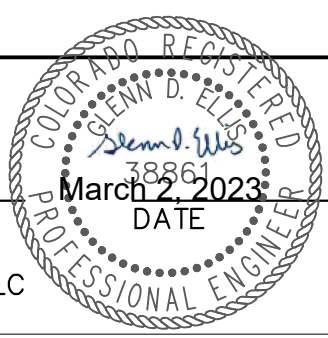
VERTICAL
ORIGINAL SCALE: 1" = 4'

811

Know what's below.
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ENGINEER'S STATEMENT
PREPARED UNDER MY SUPERVISION

GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023

File Name:

Horiz. Scale: 1"=40' Vert. Scale: 1"=4'

Unit name Unit leader

J-R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-583-2593
Fort Collins 970-491-9888 • www.jrengineering.com

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

CDOT

5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

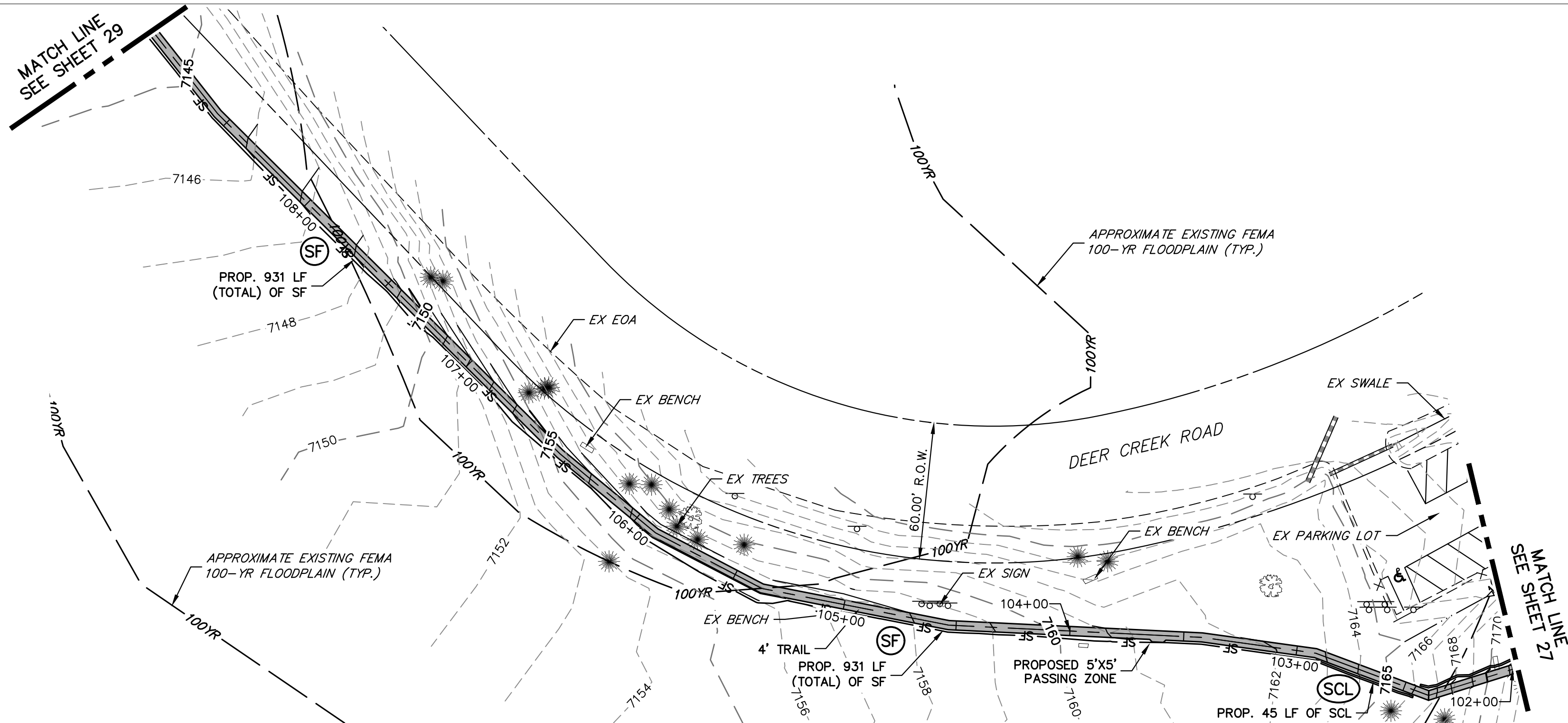
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Lewis Palmer School District 38

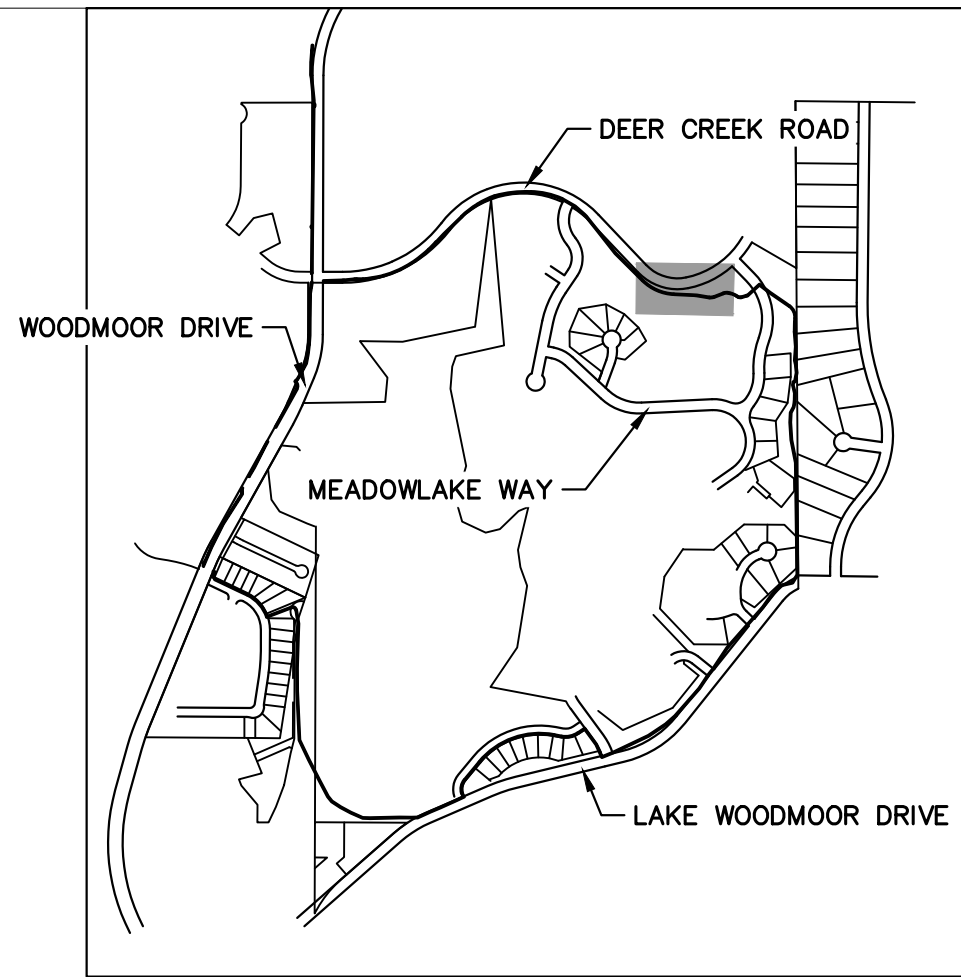
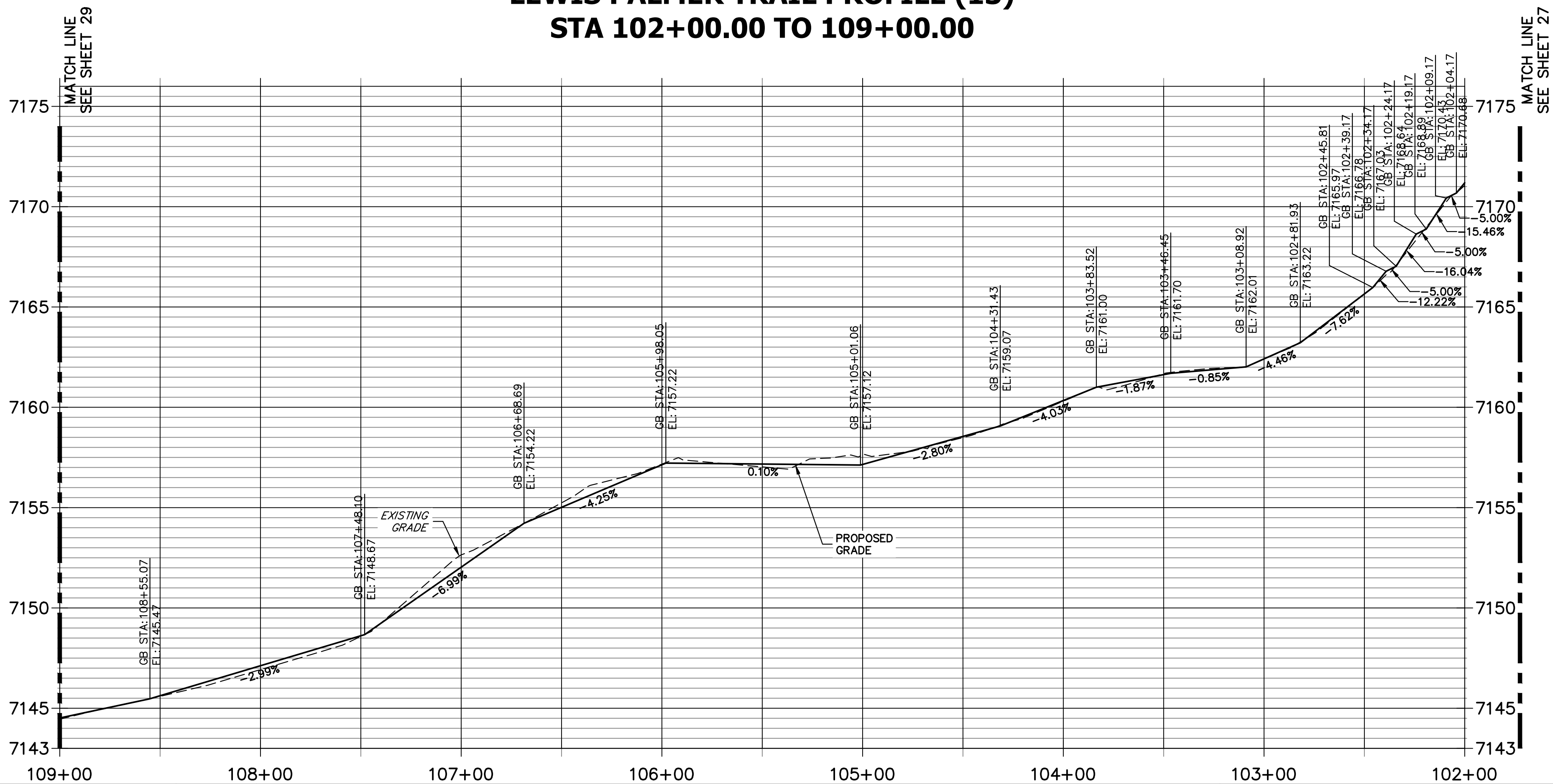
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Revised:
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LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE			
Designer:	GG	Structure Numbers	
Detailer:	GG		
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Project No./Code
M915-009/22585
2520300
Sheet Number 27 OF 44

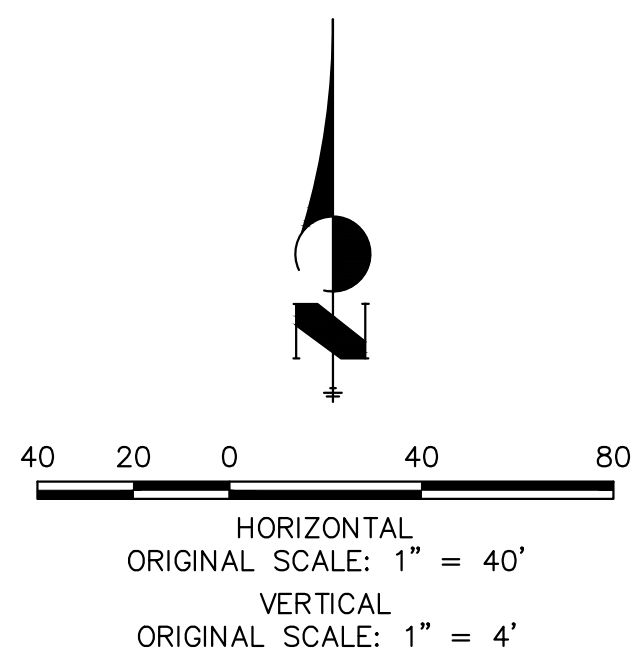


LEWIS PALMER TRAIL PROFILE (13)
STA 102+00.00 TO 109+00.00



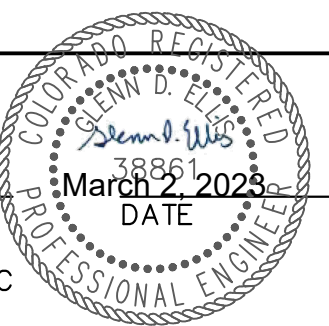
KEY MAP
SCALE: NOT TO SCALE

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ENGINEER'S STATEMENT
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COLORADO P.E. 38861
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File Name:									
Horiz. Scale: 1"=40'	Vert. Scale: 1"=4'	Date:	Comments	Init.	No Revisions:	Designer:	GG	Structure	2520300
Unit name	Unit leader				Revised:	Detailer:	GG	Numbers	
 J-R ENGINEERING A Westrian Company Centennial 303-740-9393 • Colorado Springs 719-583-2583 Fort Collins 970-431-9888 • www.jrengineering.com					Void:	Sheet Subset:		Subset Sheets:	OF

Colorado Department
of Transportation

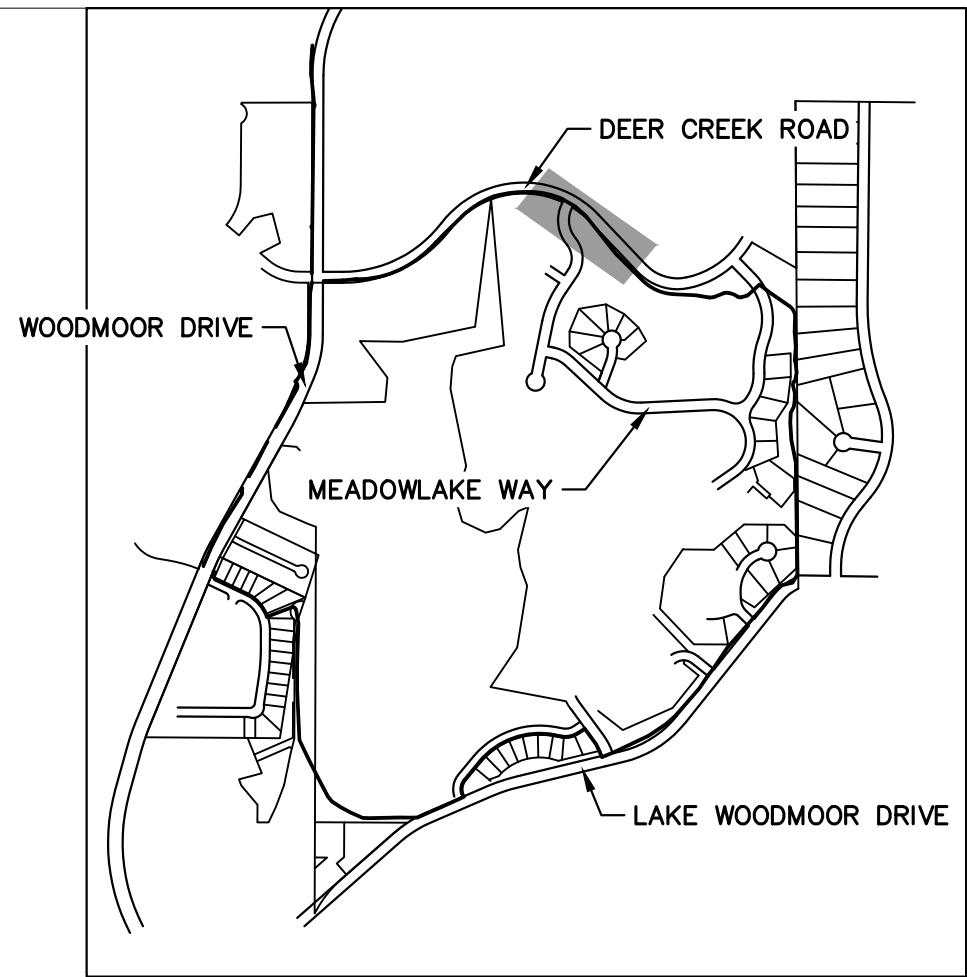
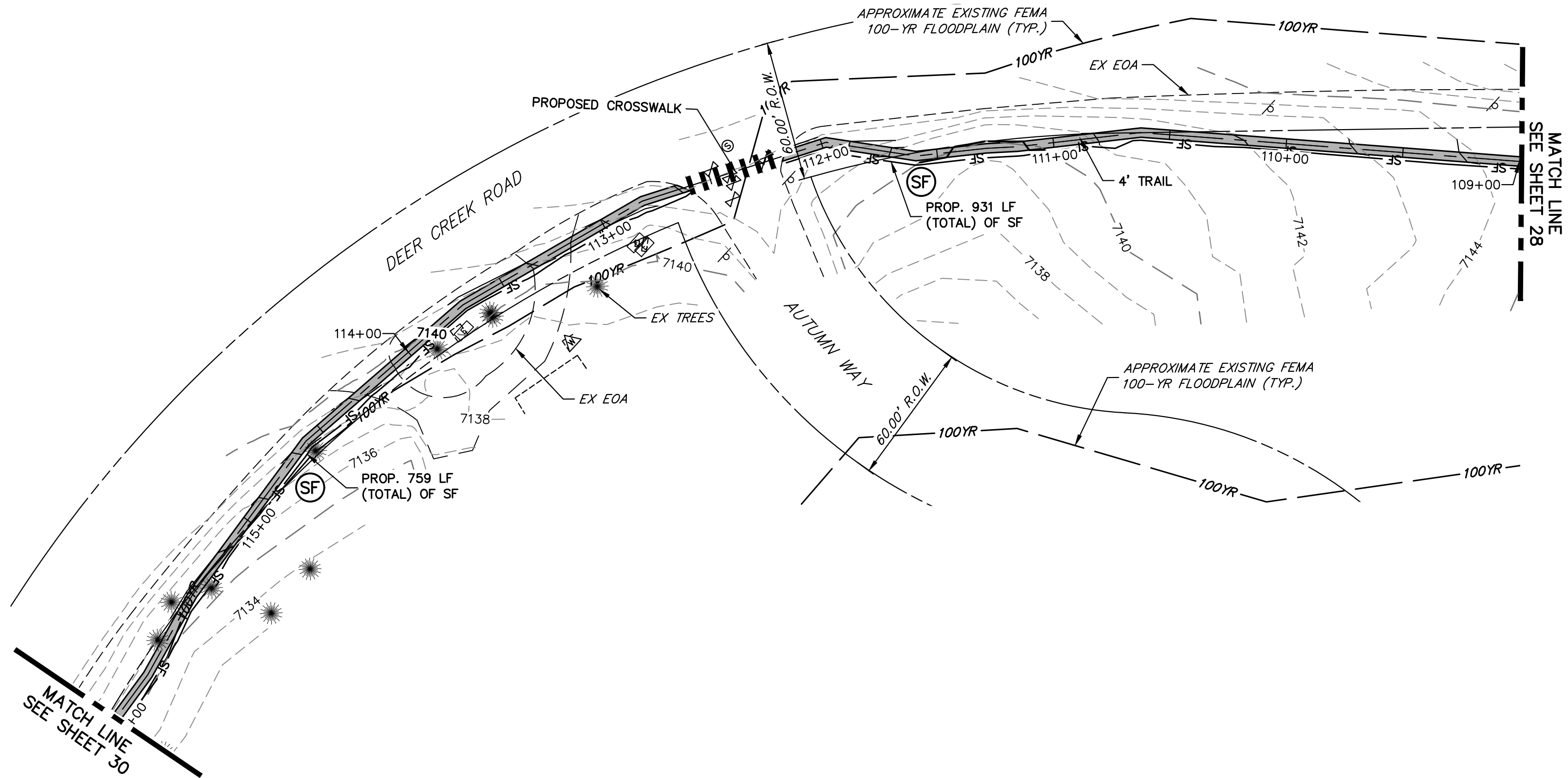


Region 2

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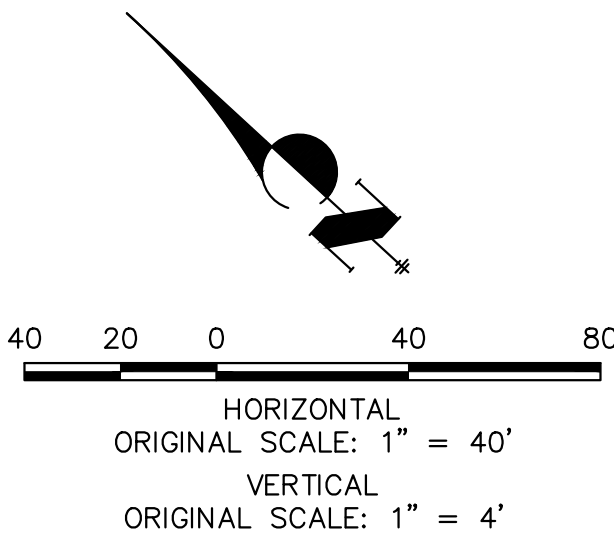
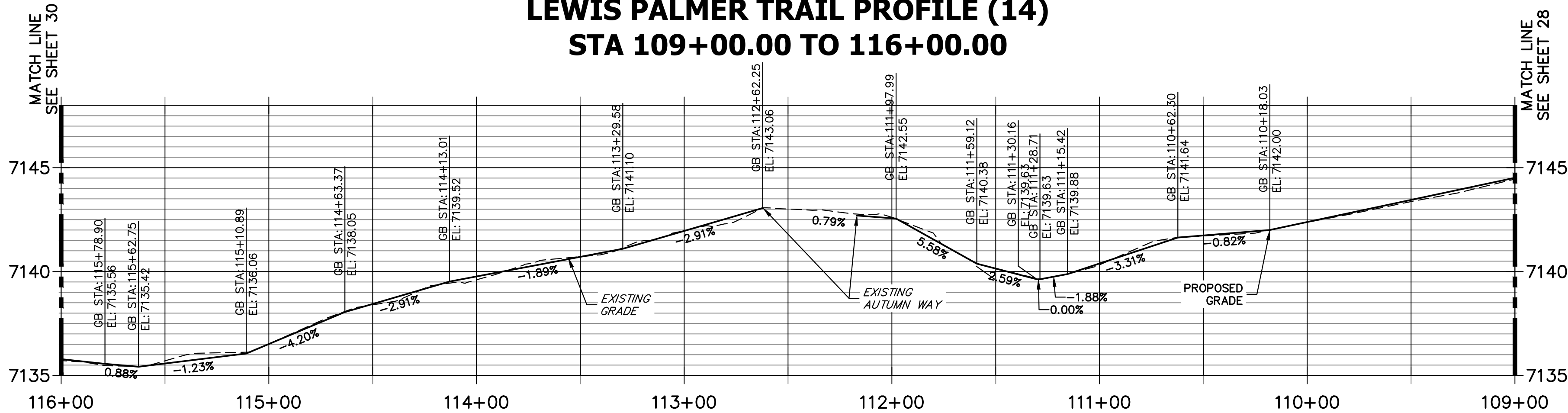


Lewis Palmer
School District 38



- NOTES:
- THE SURVEY OF EXISTING CONDITIONS WAS COMPLETED IN APRIL 2021. THERE ARE A NUMBER OF LOCATIONS ALONG THE CORRIDOR THAT HAVE BEEN MODIFIED BY OTHER WORK SINCE THEN (I.E. UTILITY AND GRADING) THAT ARE NOT REPRESENTED IN THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE TRAIL ALIGNMENT AND BECOMING FAMILIAR WITH THESE LOCATIONS. IF THE CONTRACTOR DETERMINES THAT CHANGES HAVE BEEN MADE THAT IMPACT THE TRAIL DESIGN, THE SCHOOL DISTRICT AND ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF THE SEGMENT OF TRAIL POTENTIALLY IMPACTED.
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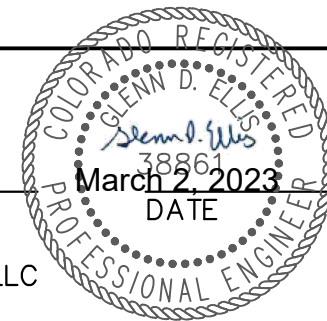
LEWIS PALMER TRAIL PROFILE (14)
STA 109+00.00 TO 116+00.00



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GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023

File Name:

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Unit name Unit leader

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A Westrian Company
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Date:	Comments	Init.

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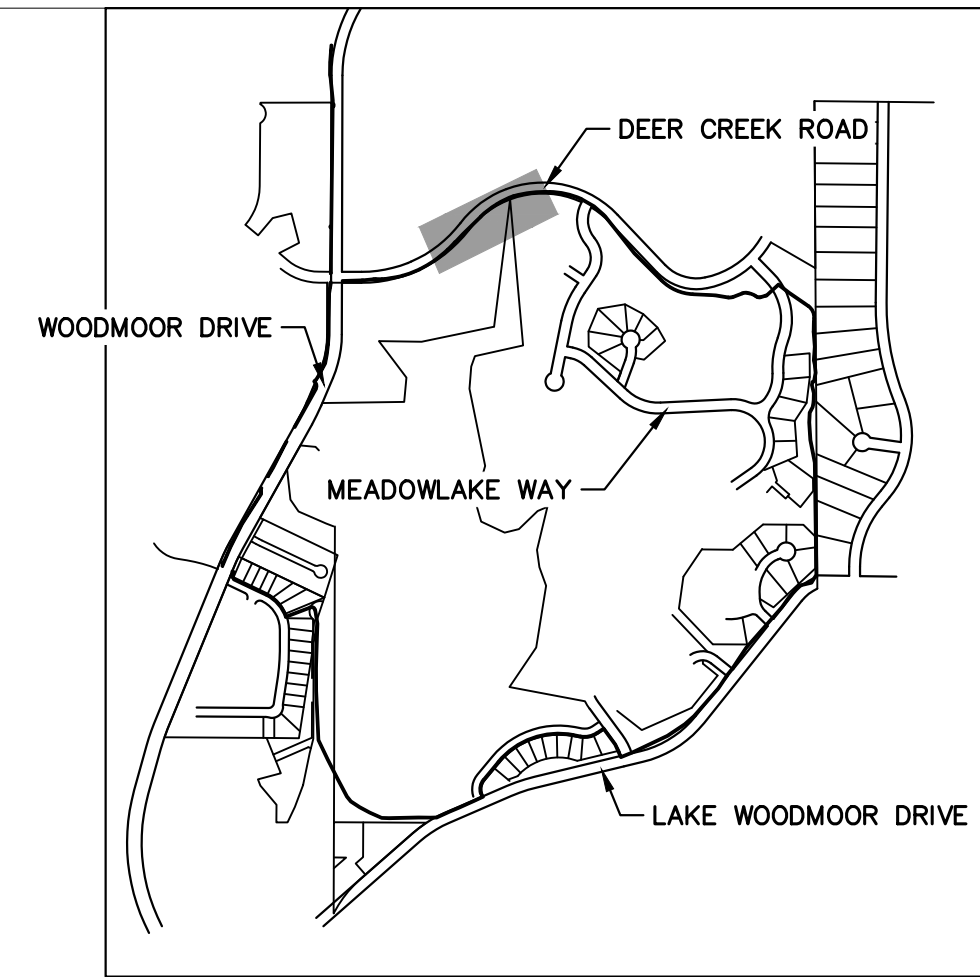
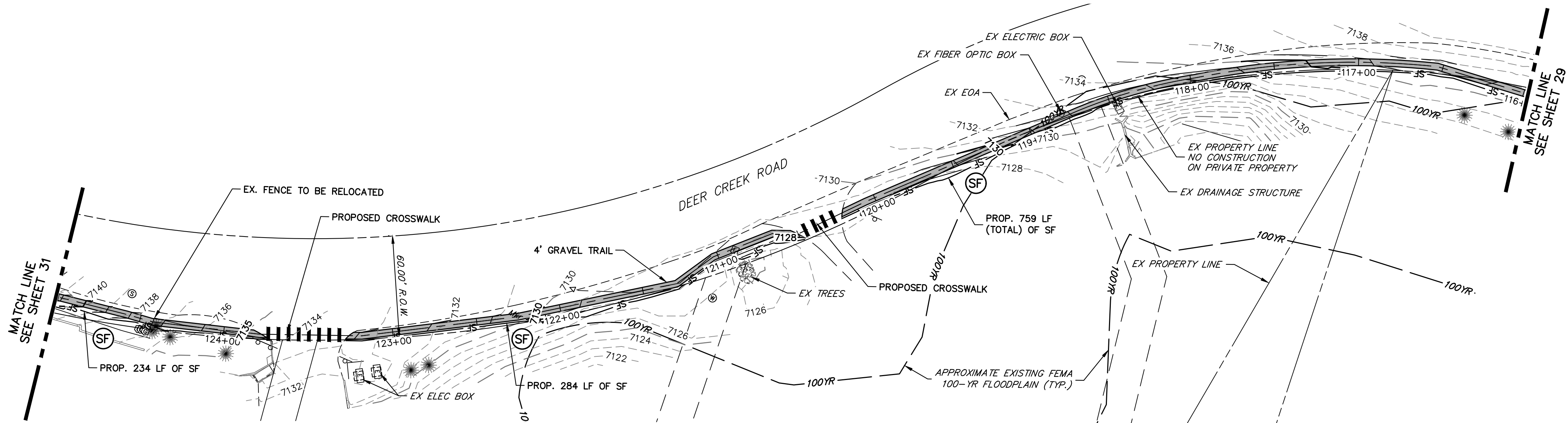
CDOT logo

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Phone: 719-546-5750

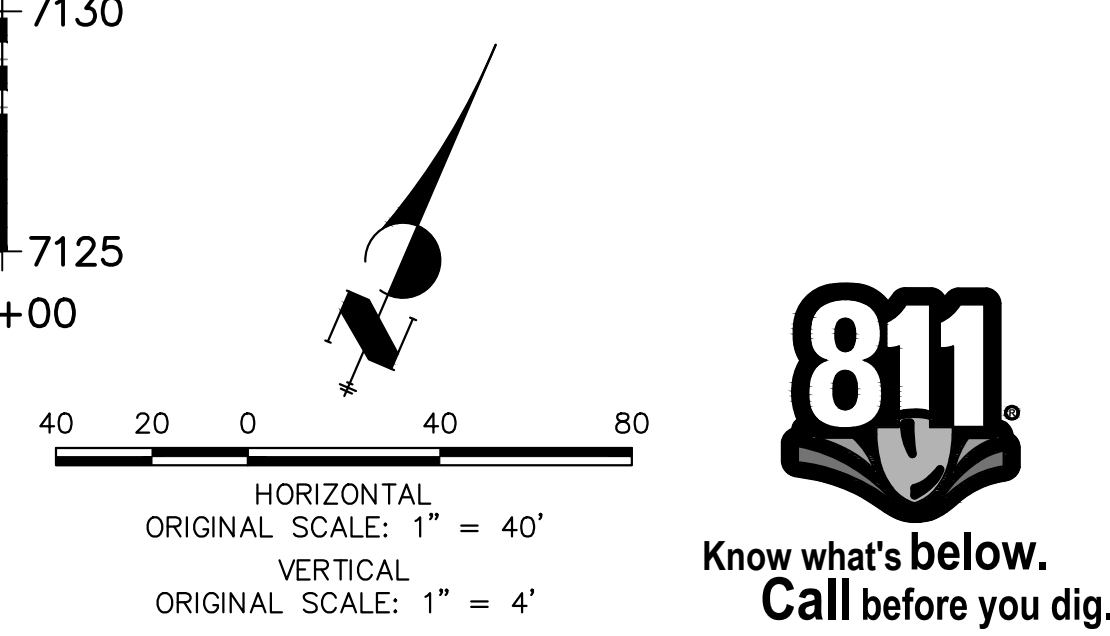
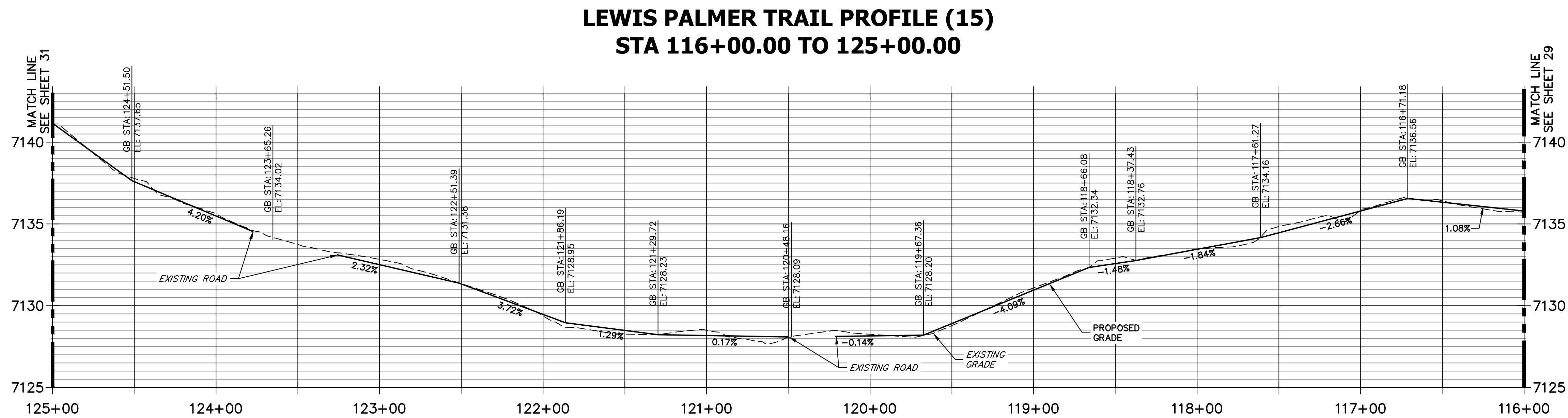
LP logo

Lewis Palmer School District 38
Region 2

As Constructed	LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE			Project No./Code
No Revisions:				M915-009/22585
Revised:	Designer: GG	Structure Numbers		2520300
Void:	Detailer: GG	Sheet Subset:	Subset Sheets: OF	Sheet Number 29 OF 44

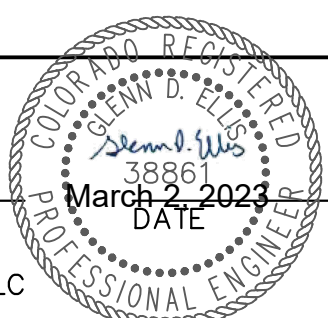


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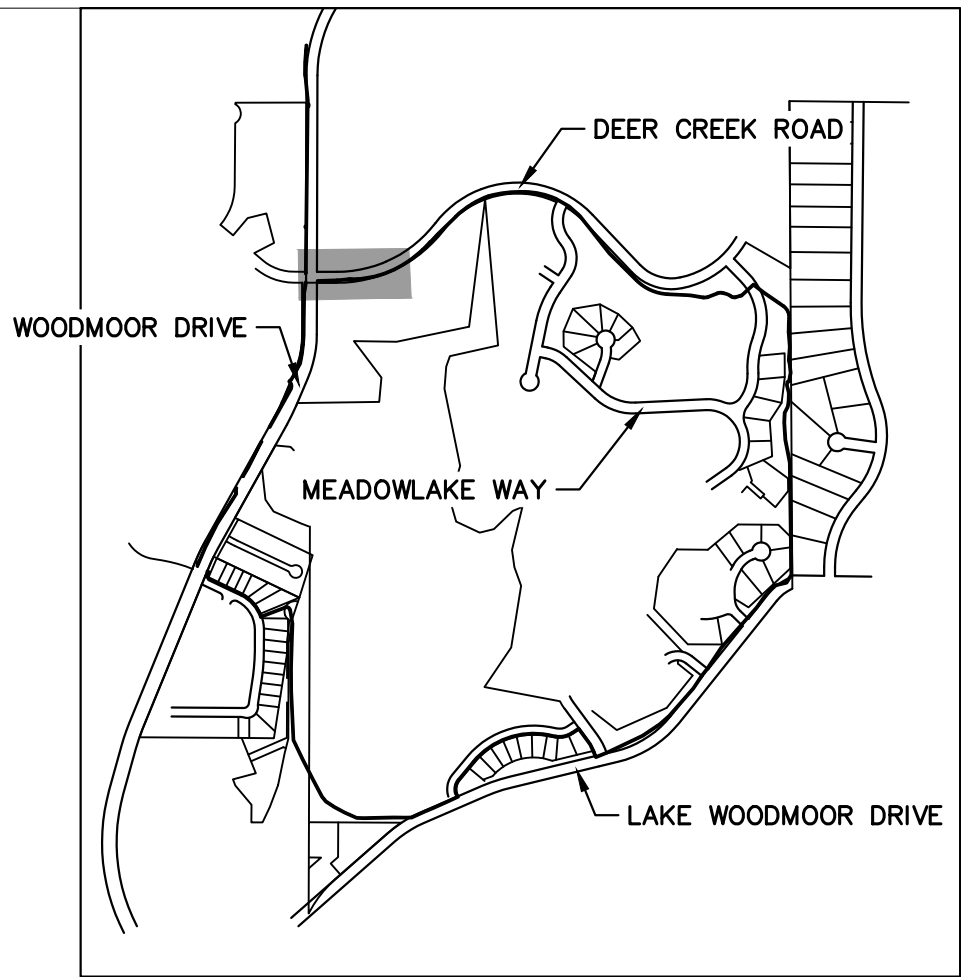
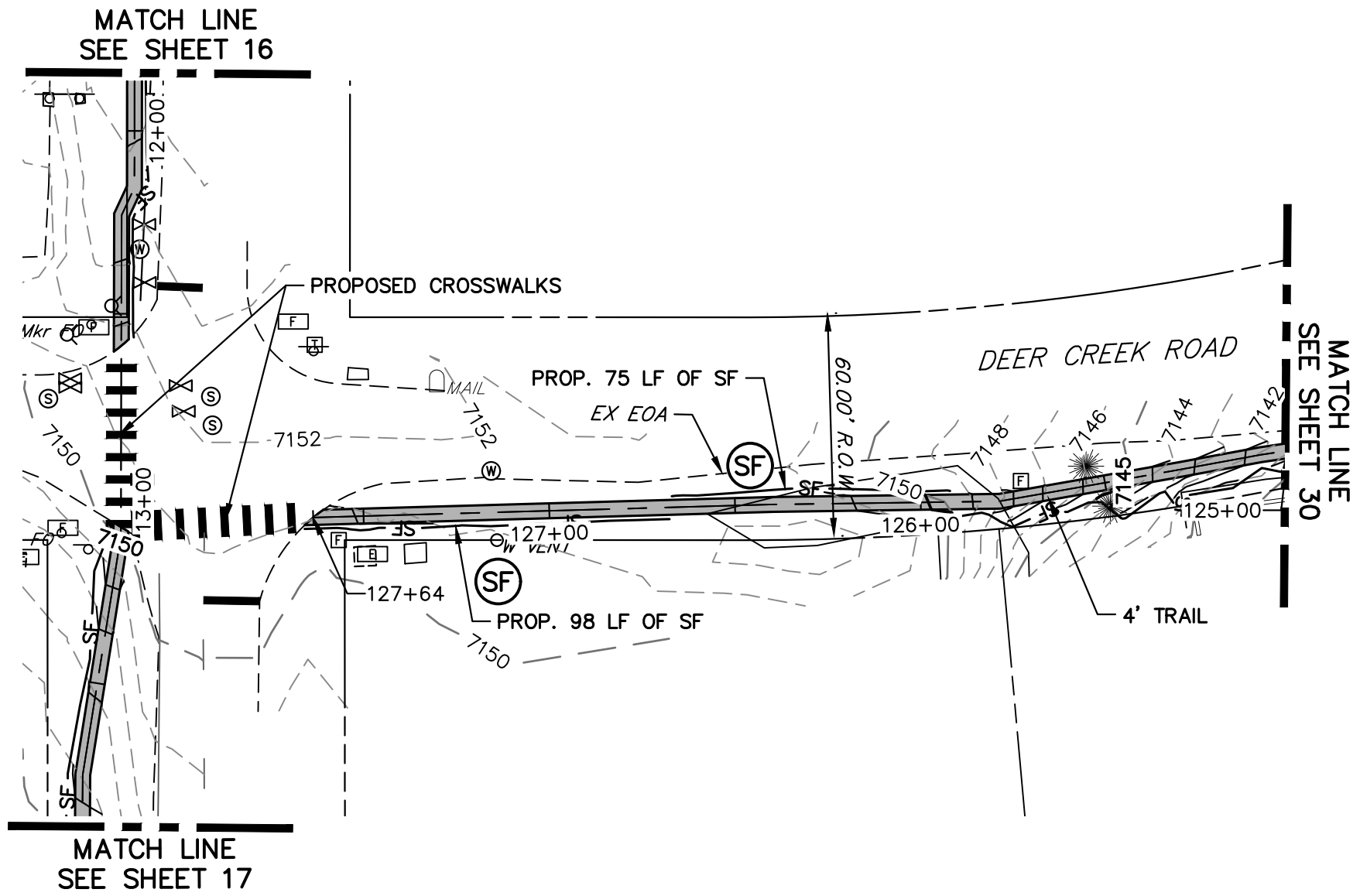
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COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



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File Name:			Date:	Comments	Init.				No Revisions:		M915-009/22585					
Horiz. Scale: 1"=40'			Vert. Scale: 1"=4'						Revised:		Designer:	GG	Structure		2520300	
Unit name			Unit leader						Void:		Detailer:	GG	Numbers		Sheet Number 30 OF 44	
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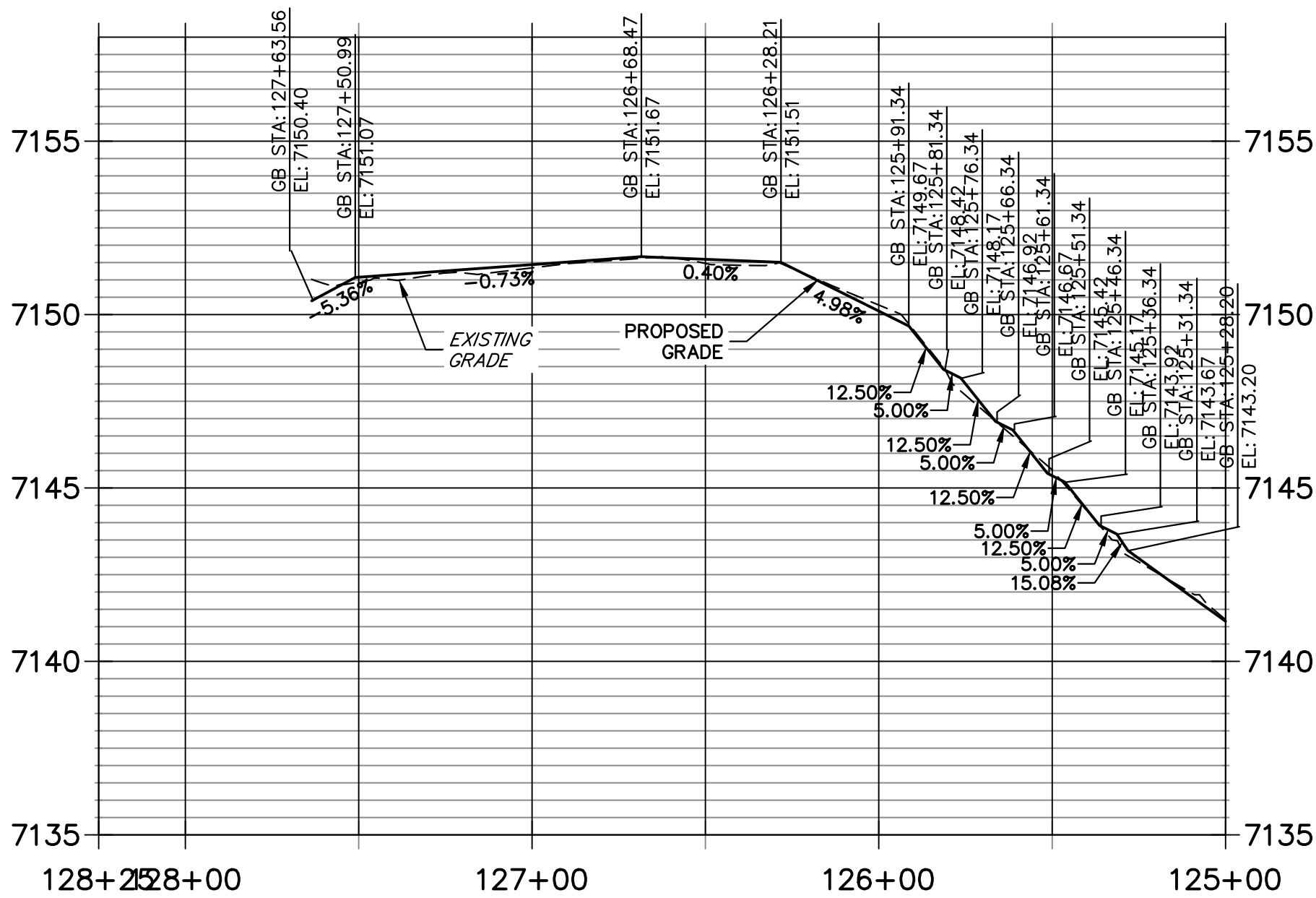
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Lewis Palmer School District 38

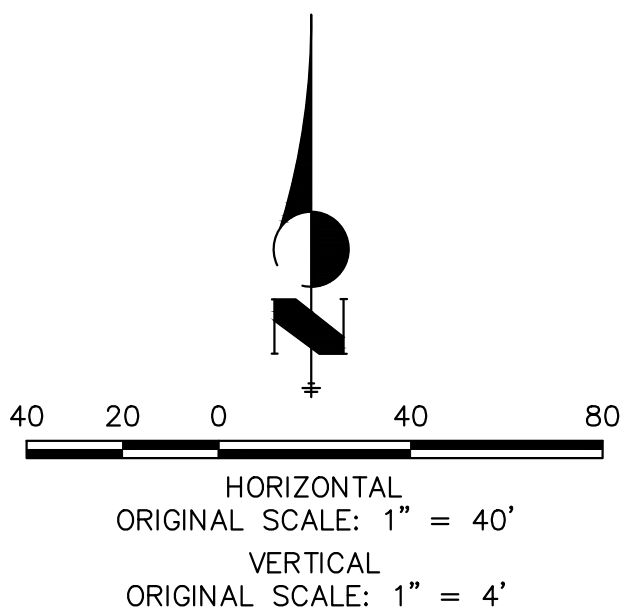


KEY MAP
SCALE: NOT TO SCALE

LEWIS PALMER TRAIL PROFILE (16)
STA 125+00.00 TO 128+25.00



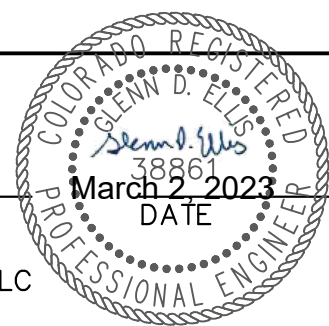
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COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 03/01/2023

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Unit name Unit leader

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Date:	Comments	Init.	

Colorado Department of Transportation

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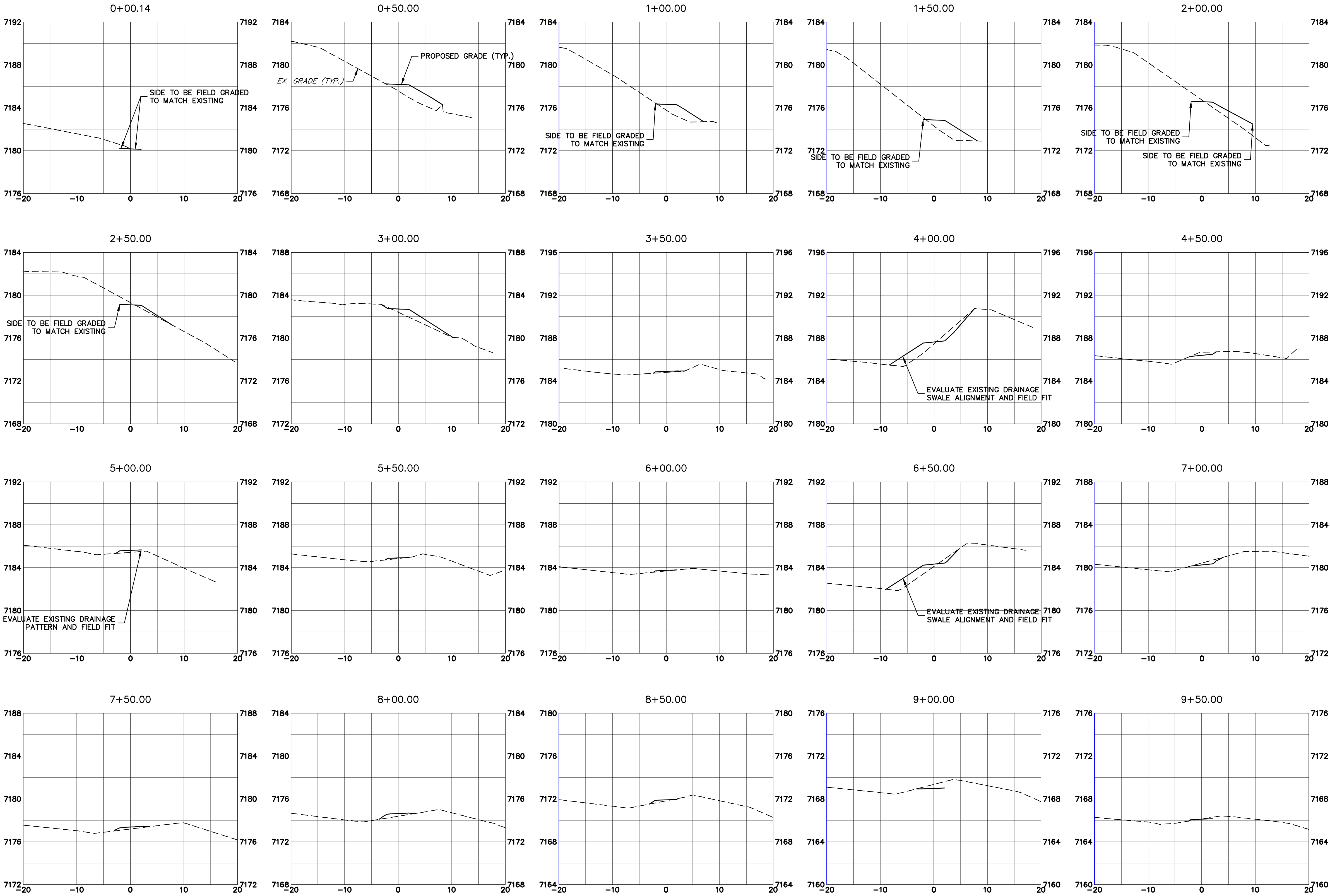
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Lewis Palmer School District 38

Region 2

As Constructed		LEWIS PALMER TRAIL TRAIL PLAN AND PROFILE				Project No./Code	
No Revisions:						M915-009/22585	
Revised:		Designer:	GG	Structure		2520300	
		Detailer:	GG	Numbers			
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File Name:

Horiz. Scale: 1"=10'

Vert. Scale: 1"=5'

Unit name

Unit leader



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Lewis Palmer
School District 38

As Constructed

No Revisions:

Revised:

Void:

LEWIS PALMER TRAIL
CROSS SECTION

Designer:

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Detailer:

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Structure

Numbers

Subset Sheets:

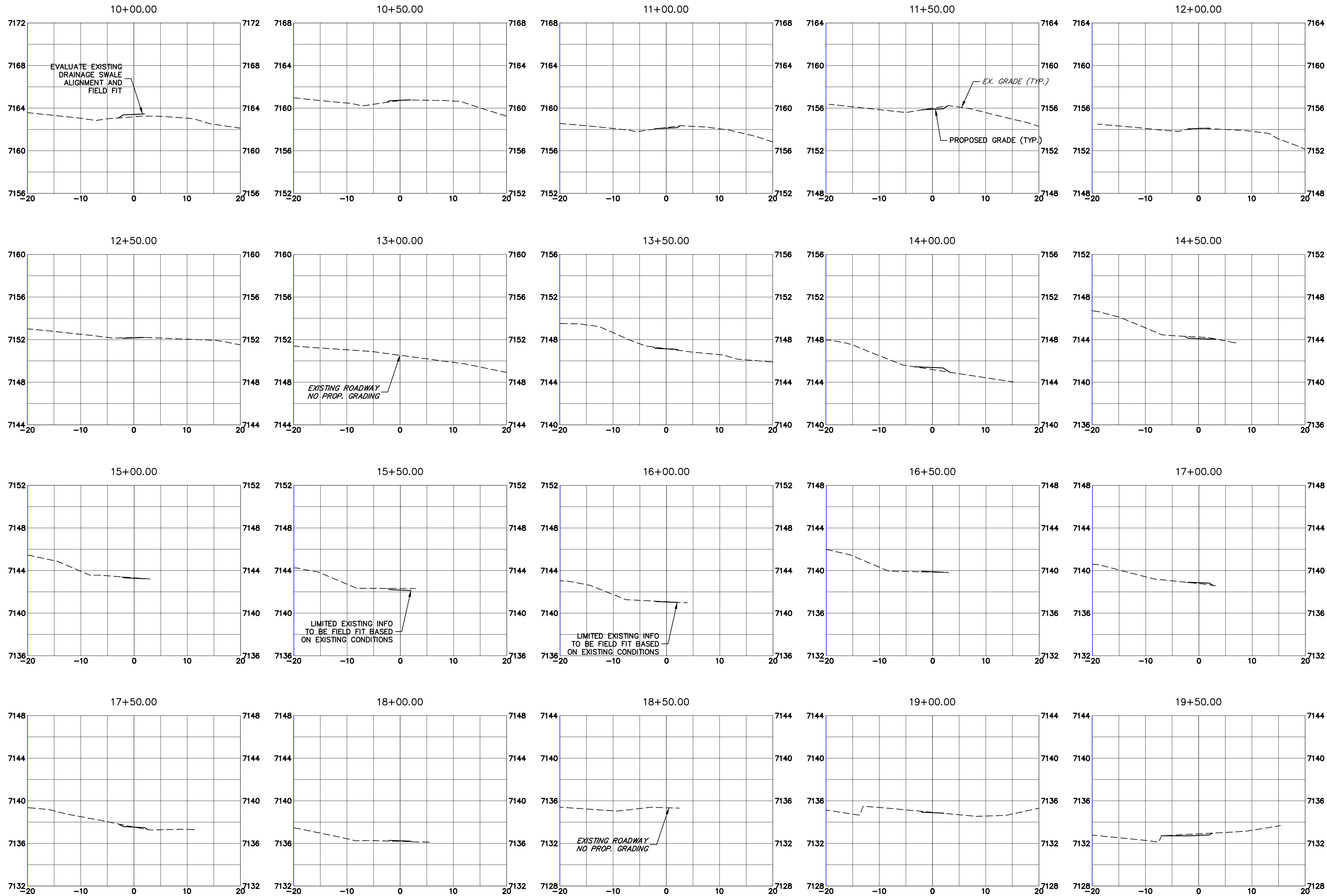
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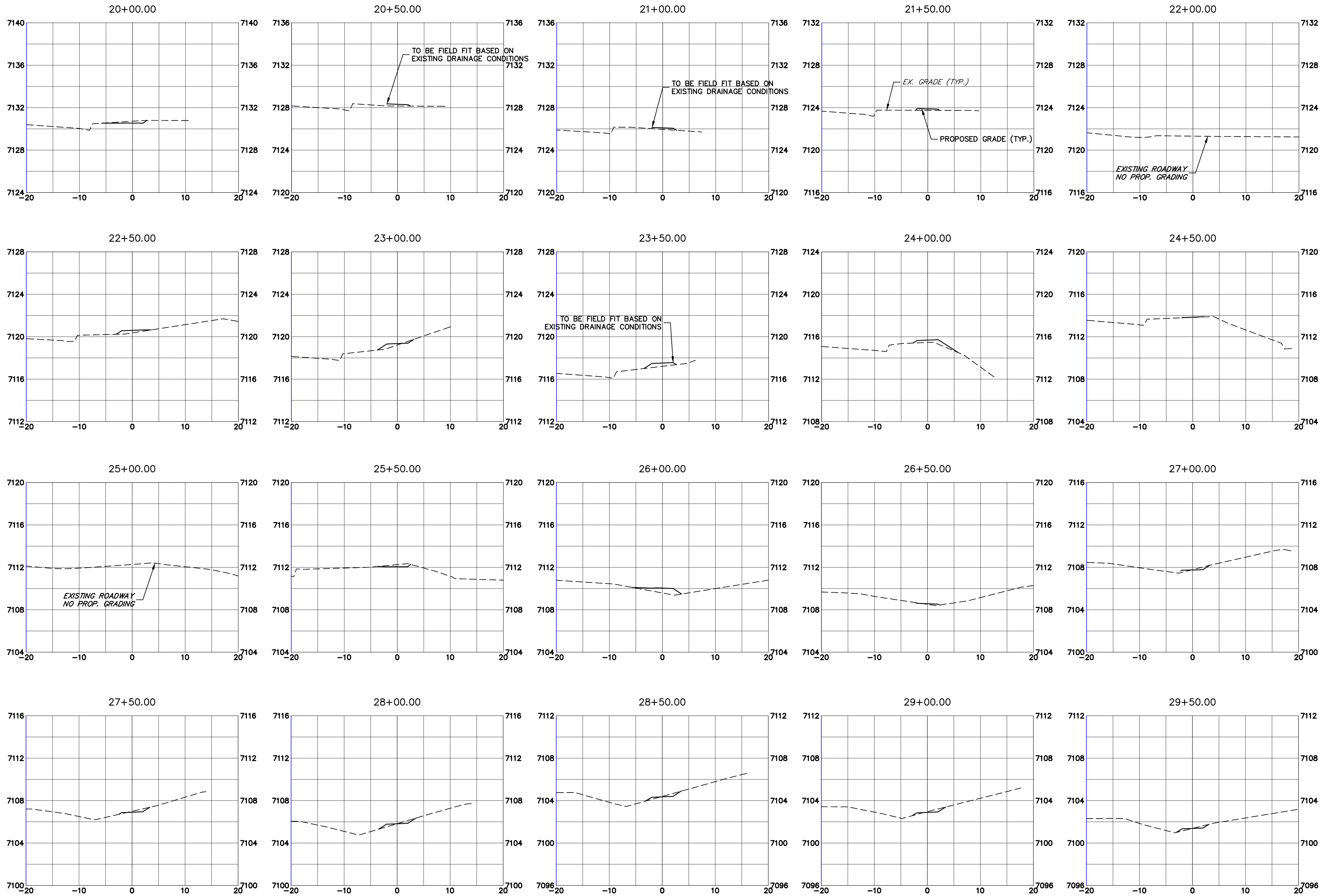
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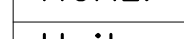


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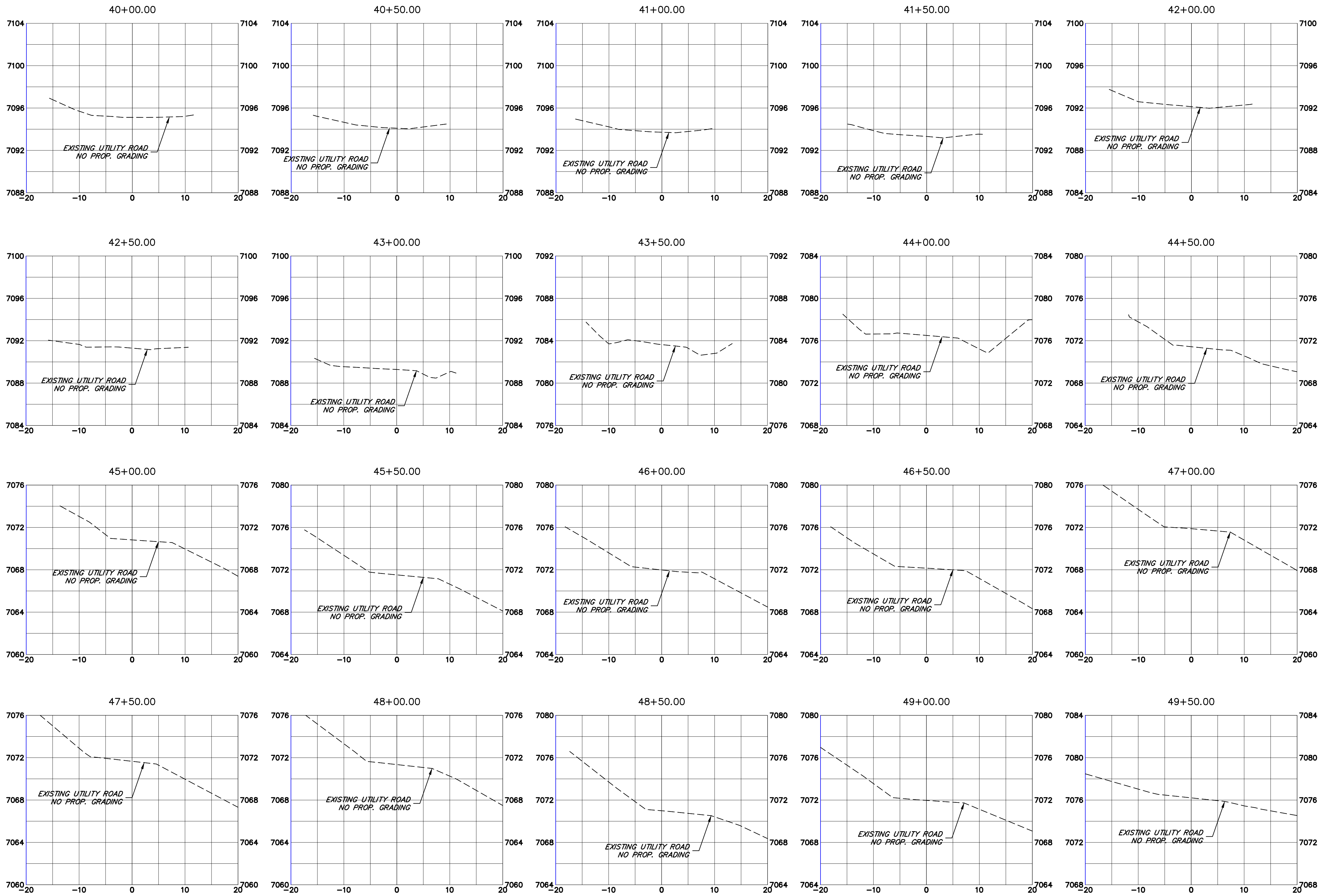


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Lewis Palmer
School District 38



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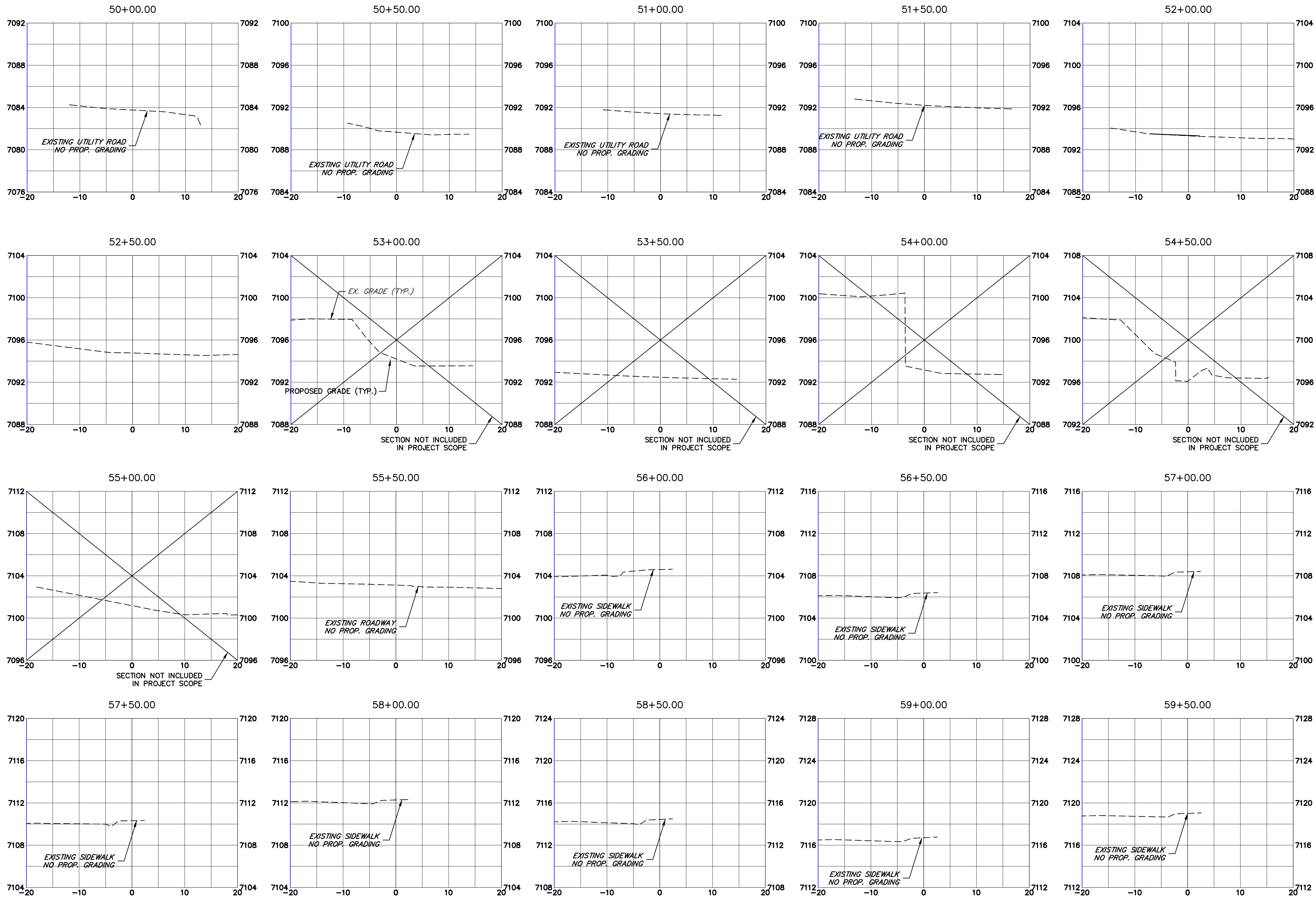


Region 2

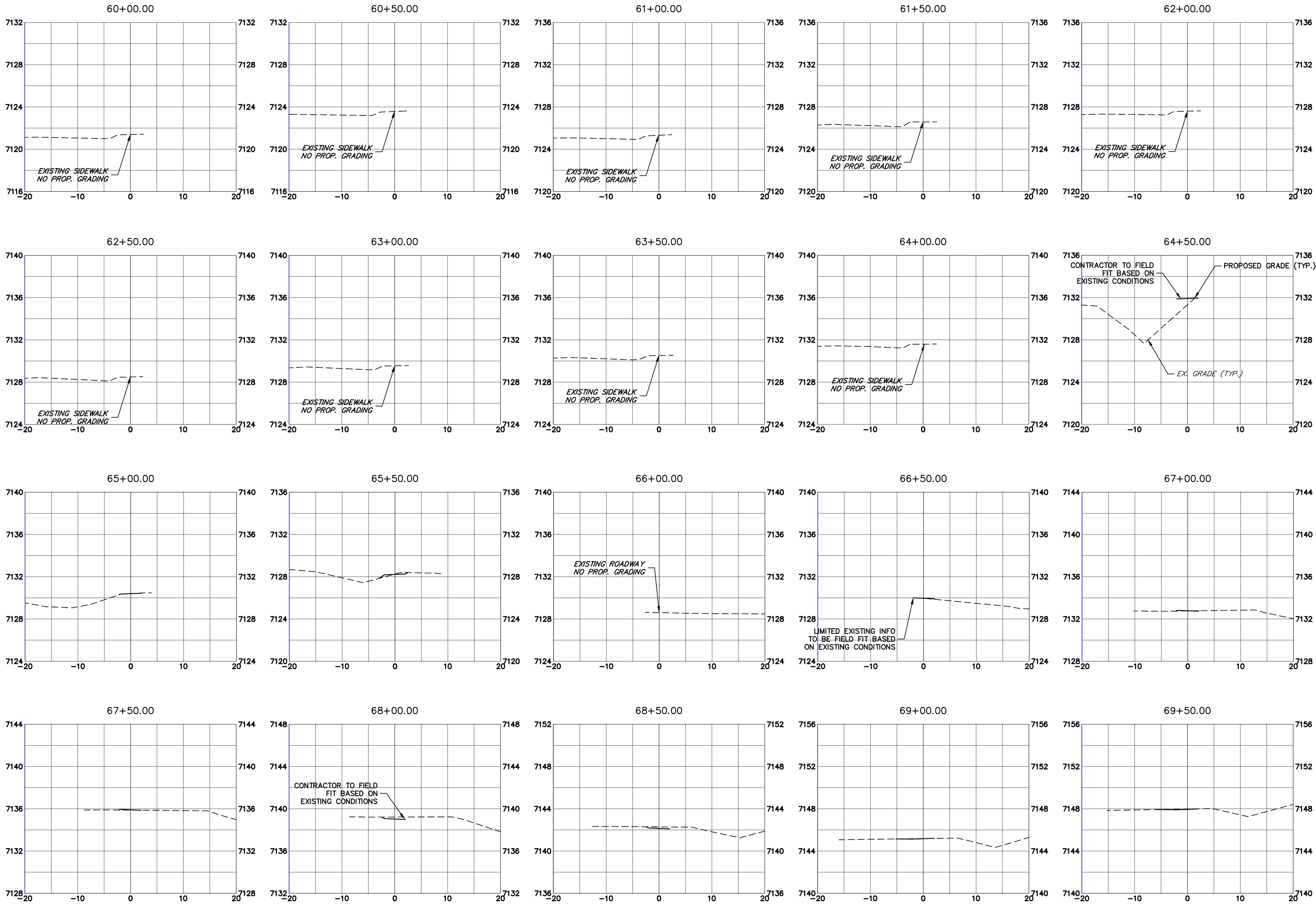
5615 WILL BLVD.
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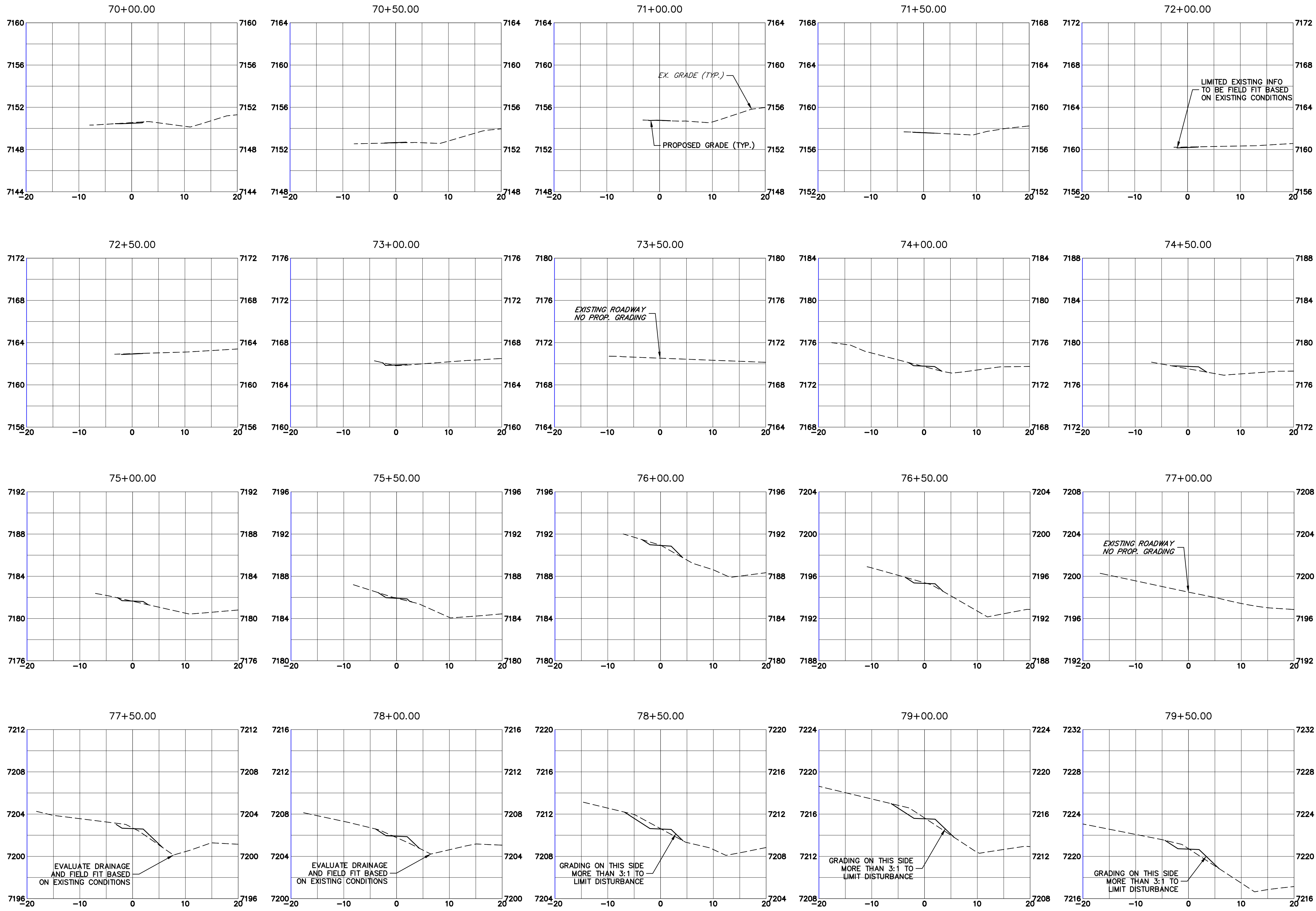
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School District 38



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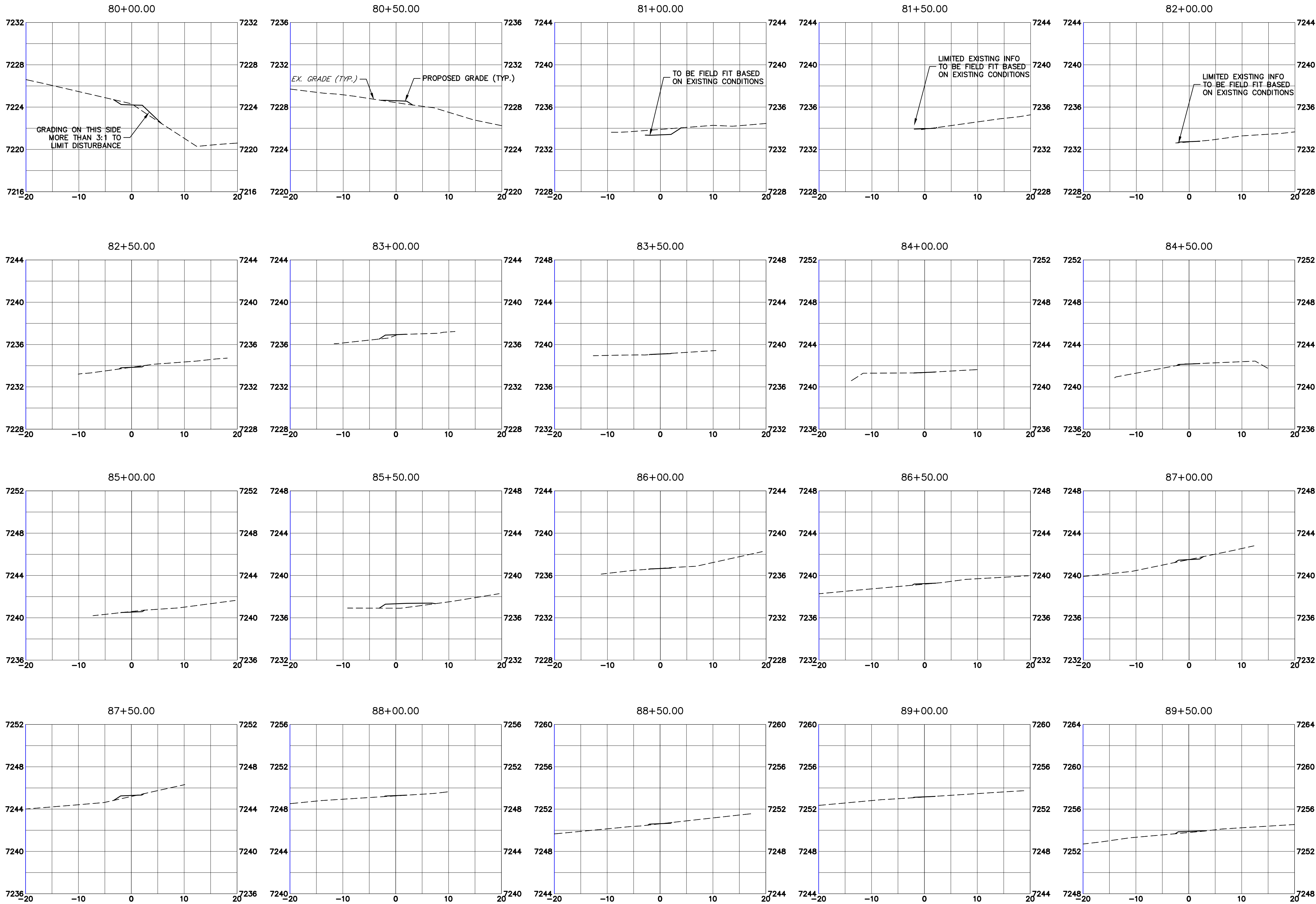


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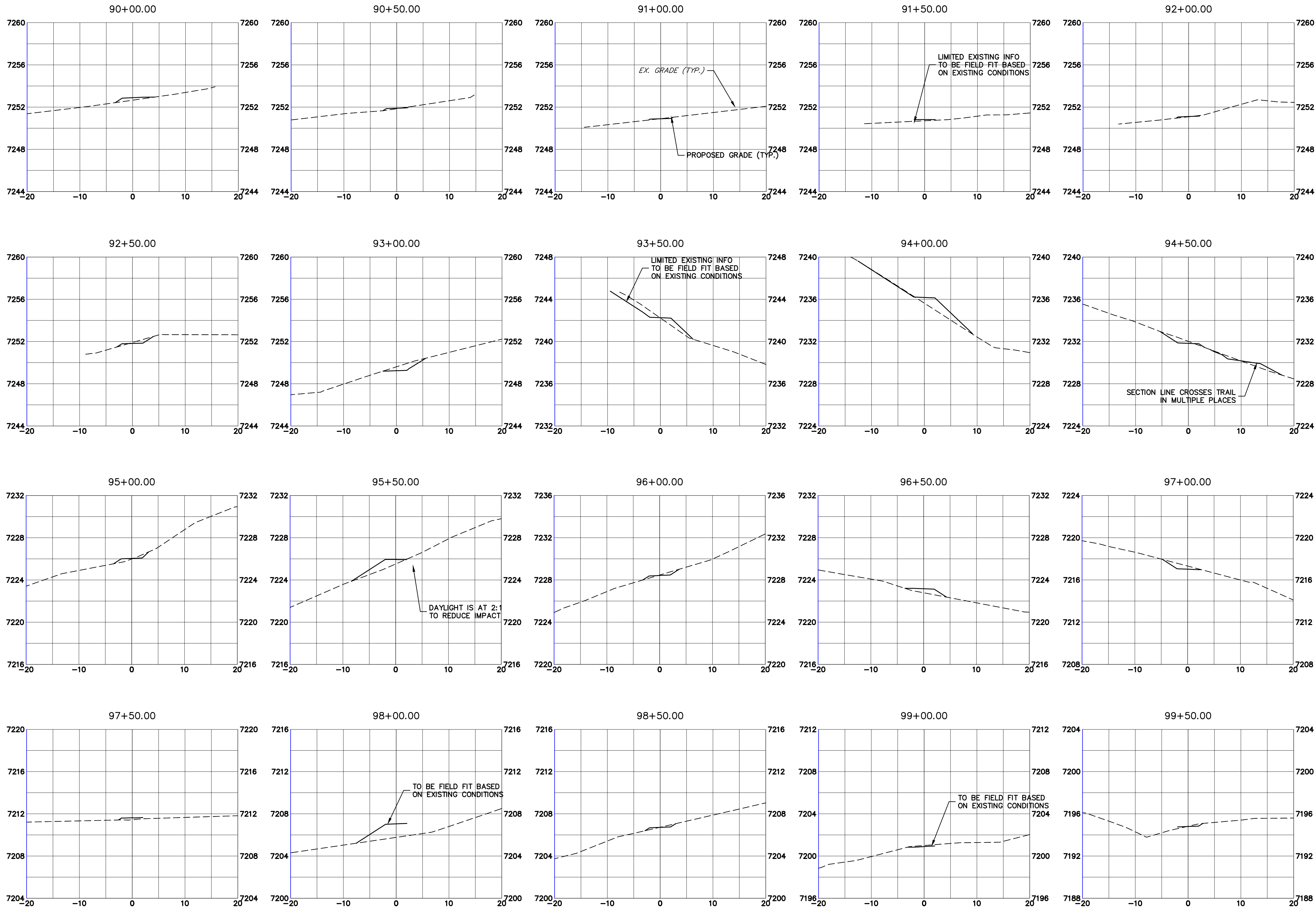


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Unit name					Unit leader							
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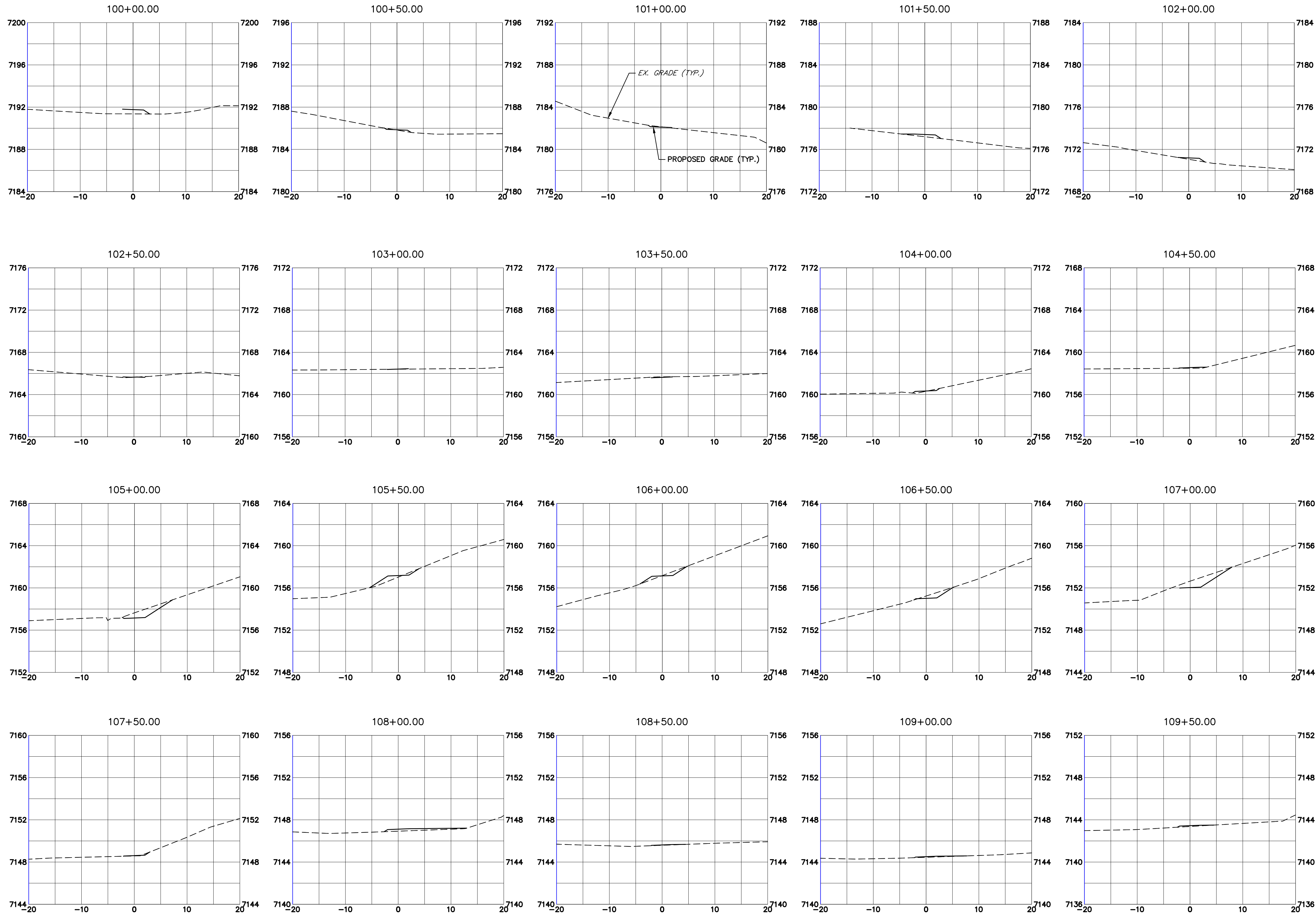


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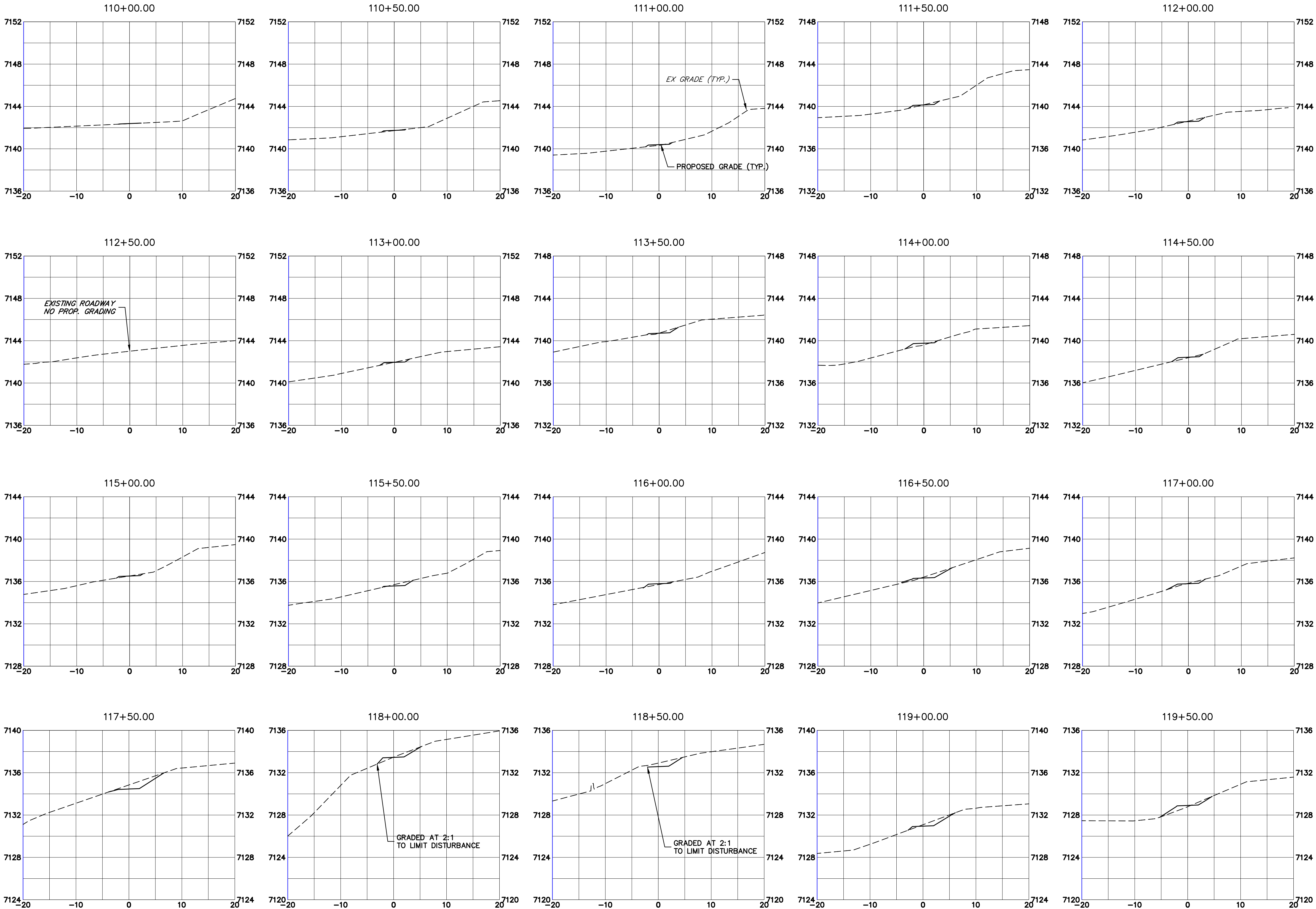
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Unit name

Vert. Scale: 1"=5'

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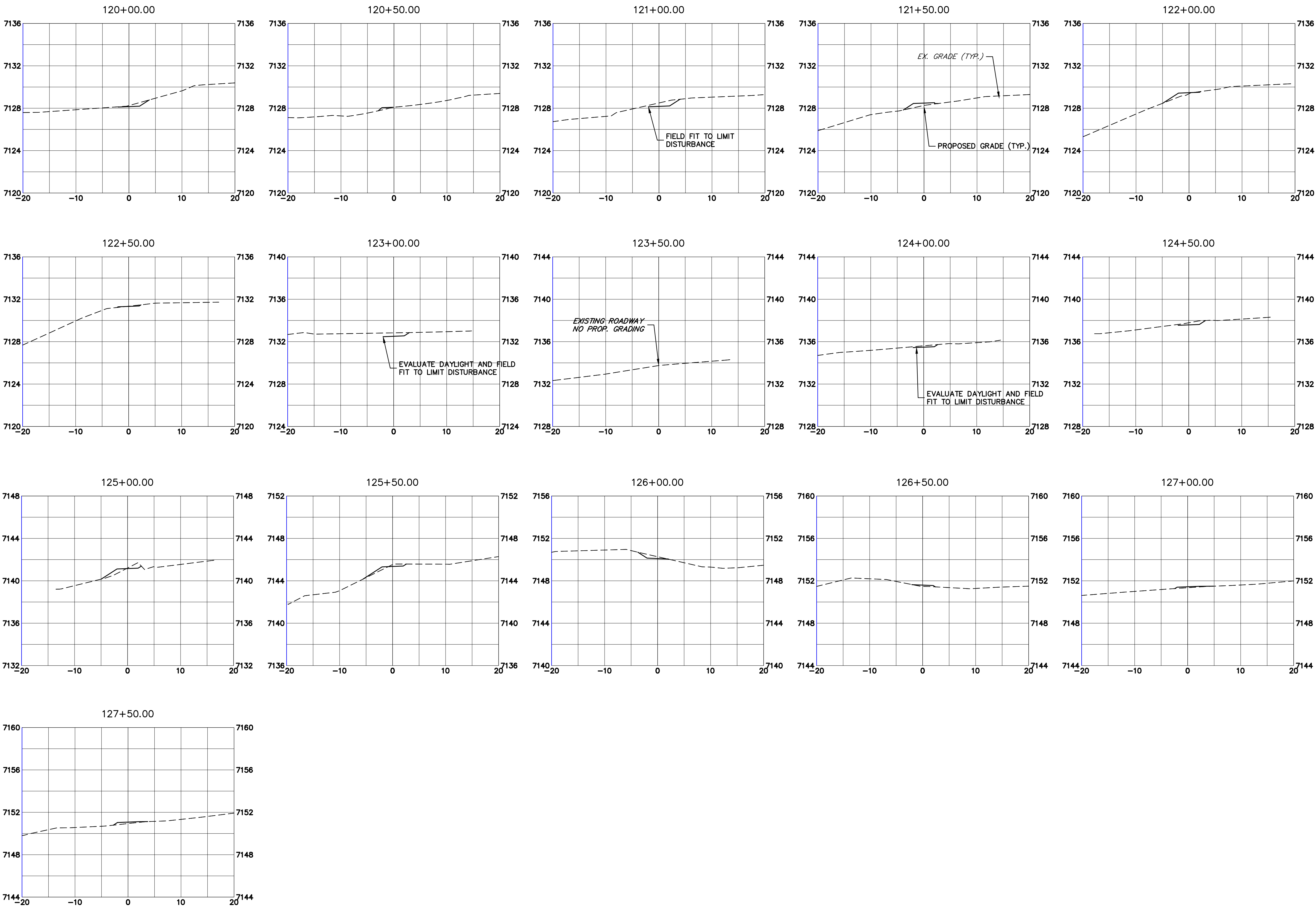
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Region 2

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M915-009/22585

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Sheet Number 44 OF 44