

# LATIGO TRAILS - FILING NO. 9

TOWN OF ELBERT  
EL PASO COUNTY  
COLORADO STATE

## ROADWAY CONSTRUCTION DOCUMENTS

### STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOIL AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
  - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - CITY OF COLORADO SPRINGS/ EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS AND BRIDGE CONSTRUCTION
  - CDOT M&S STANDARDS
- 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 VERSIONS 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. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGHT VISIBILITY TRIANGLES ARE IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED IN SIGHT TRIANGLES.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

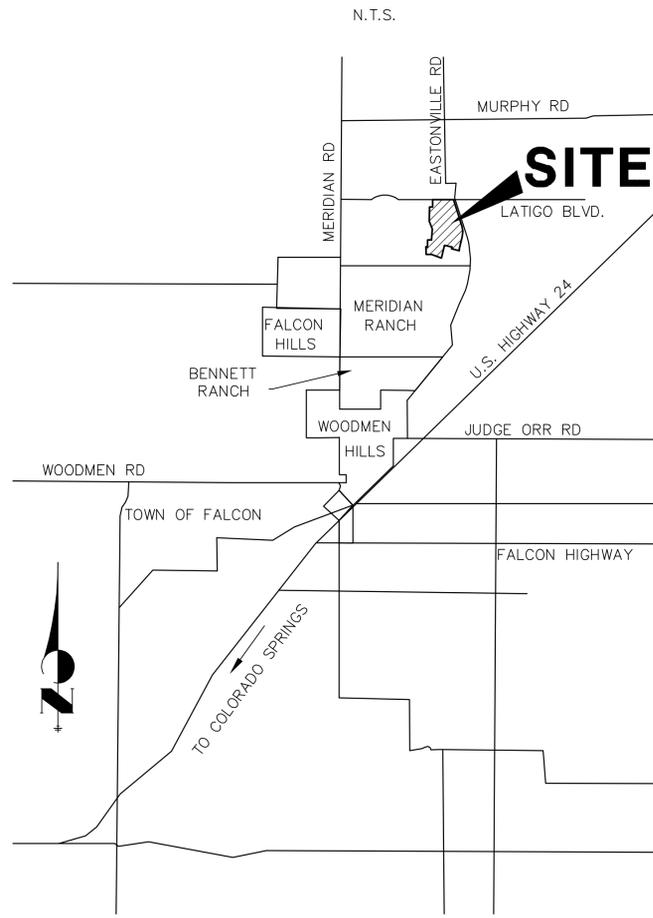
Please fix this typo.

Please add the following note:  
"All storm drain pipe shall be Class III RCP unless otherwise noted and approved by PCD."

### ABBREVIATIONS

AC	ACRE	FL	FLOWLINE	RT	RIGHT
AD	ALGEBRAIC DIFFERENCE	FL	FILING	S	SOUTH
AH	AHEAD	FO	FIBER OPTIC CABLE	STE	STEEL
ARCH	ARCHITECT	GB	GRADE BREAK	SAN	SANITARY SEWER
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	GE	GAS EASEMENT	SF	SQUARE FOOT
ASSY	ASSEMBLY	GIS	GEOGRAPHIC INFORMATION SYSTEM	ST	STREET
AVE	AVENUE	QL	QUALITY	STA	STATION
BB	BOX BASE	GPS	GLOBAL POSITIONING SYSTEM	STM	STORM SEWER
BK	BACK	GV	GATE VALVE	SY	SQUARE YARD
BNDY	BOUNDARY	HBP	HOT BITUMINOUS PAVEMENT	SY-IN	SQUARE YARD INCH
BOP	BOTTOM OF PIPE	HC	HANDICAP	TB	THRUST BLOCK
BOV	BLOW OFF VALVE	HDC	HIGH DEFLECTION COUPLING	TBC	TOP BACK OF CURB
BFV	BUTTERFLY VALVE	HDPE	HIGH DENSITY POLYETHYLENE	TBW	TOP BACK OF WALK
BLVD	BOULEVARD	HGL	HYDRAULIC GRADE LINE	TEL	TELEPHONE
BW	BOTTOM OF WALL	HMA	HOT MIX ASPHALT	TN	TON
C&G	CURB & GUTTER	HOA	HOME OWNERS ASSOCIATION	TOA	TOP OF ASPHALT
CATV	CABLE TELEVISION	HP	HIGH POINT	TOB	TOP OF BOX
CB	CATCH BASIN	HR	HOUR	TOC	TOP OF CURB OR CONCRETE
CBC	CONCRETE BOX CULVERT	HR	HOUR	TOF	TOP OF FOUNDATION
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	I	INLET	TOP	TOP OF PIPE
CDS	CUL-DE-SAC	IE	IRRIGATION EASEMENT	TW	TOP OF WALL
CF	CUBIC FOOT	INT	INTERSECTION	TY	TYPICAL
CFS	CUBIC FEET PER SECOND	INT	INTERSECTION	UDFCD	URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
CL	COMPLETE IN PLACE	IRR	IRRIGATION	UE	UTILITY EASEMENT
CL	CENTER LINE	KB	KICK (THRUST) BLOCK	U&DE	UTILITY & DRAINAGE EASEMENT
CLOMR	CONDITIONAL LETTER OF MAP REVISION	LB	LANDSCAPE EASEMENT	UGE	UNDERGROUND ELECTRIC
CLR	CLEAR	LF	LINEAR FOOT	VCP	VITRIFIED CLAY PIPE
CM	CORRUGATED METAL PIPE	LN	LANE	VPC	VERTICAL POINT OF CURVATURE
CO	CLEAN OUT	LOMR	LETTER OF MAP REVISION	VPI	VERTICAL POINT OF INTERSECTION
COCS	CITY OF COLORADO SPRINGS	LP	LOW POINT	VPT	VERTICAL POINT OF TANGENCY
CNC	CONCRETE	LS	LUMP SUM	VTC	VEHICLE TRACKING CONTROL
CR	CIRCLE	LT	LETTER OF MAP REVISION	W	WEST
CSP	CORRUGATED STEEL PIPE	MAX	MAXIMUM	WL	WATER LINE
CSU	COLORADO SPRINGS UTILITIES	M/D	MOISTURE DENSITY	WM	WATER MAIN
CT	COURT	MDDP	MASTER DEVELOPMENT DRAINAGE PLAN	WRD	WATER RESOURCES DEPARTMENT
CTRB	CONCRETE THRUST REDUCER BLOCK	MH	MANHOLE	WS	WATER SURFACE
CY	CUBIC YARD	MIN	MINIMUM	WSE	WATER SURFACE ELEVATION
DBPS	DRAINAGE BASIN PLANNING STUDY	MS	MOUNTABLE SIDEWALK	WTR	WATER
DE	DRAINAGE EASEMENT	N	NORTH	YR	YEAR
DIA	DIAMETER	NRCP	NON-REINFORCED CONCRETE PIPE		
DIP	DUCTILE IRON PIPE	ODP	OFFICIAL DEVELOPMENT PLAN		
DR	DRIVE	OHE	OVERHEAD ELECTRIC		
DRG	DESIGN REVIEW COMMITTEE	OHU	OVERHEAD UTILITY		
DU	DWELLING UNITS	PC	POINT OF CURVATURE		
DY	DAY	PCC	POINT OF COMPOUND CURVATURE		
E	EAST	PCR	POINT OF CURB RETURN		
EA	EACH	PDP	PRELIMINARY DEVELOPMENT PLAN		
EL	ELEVATION	PE	PROFESSIONAL ENGINEER		
ELEC	ELECTRIC	PI	POINT OF INTERSECTION		
EOA	EDGE OF ASPHALT	PKWY	PARKWAY		
EPC	EL PASO COUNTY	PL	PROPERTY LINE		
ERCP	ELLIPTICAL RCP	PR	PROPOSED		
ESMT	EASEMENT	PRC	POINT OF REVERSE CURVATURE		
EST	ESTIMATE	PT	POINT OF TANGENCY		
EX	EXISTING	PV	PLUG VALVE		
FD	FINAL DEVELOPMENT PLAN	PVC	POLYVINYL CHLORIDE		
FD	FINAL DRAINAGE REPORT	R	RADIUS		
FES	FLARED END SECTION	RCBC	REINFORCED CONCRETE BOX CULVERT		
FF	FINISHED FLOOR ELEVATION	RCP	REINFORCED CONCRETE PIPE		
FG	FINISHED GRADE	RD	ROAD		
FH	FIRE HYDRANT	ROW	RIGHT OF WAY		

### VICINITY MAP



### SHEET INDEX

1	-	COVER SHEET
2	-	LEGEND
3	-	TYPICAL SECTIONS
4	-	HORIZONTAL CONTROL PLAN
5-9	-	STREET IMPROVEMENT PLAN AND PROFILE
10-11	-	SIGNAGE AND STRIPING PLAN
12	-	DETAILS
12	-	TOTAL SHEETS

Update the POC for PCD to Brad Walters Inspections Supervisor 719-520-6819

Apply comment to all the construction drawings cover sheets and GEC cover sheet.

### CONTACTS:

OWNER/DEVELOPER:	BRJM, LLC 101 N. CASCADE, SUITE 200 COLORADO SPRINGS, CO 80903 P~719-475-7474
ENGINEER/SURVEYOR:	JR ENGINEERING, LLC ATTN: MIKE A. BRAMLETT 5475 TECH CENTER DRIVE, SUITE 235 COLORADO SPRINGS, CO 80919 P~303-267-6240
FIRE PROTECTION DISTRICT:	FALCON FIRE FPD 7030 N MERIDIAN RD FALCON, CO 80831 P~719-494-4050
DISTRICT:	MERIDIAN SERVICE METROPOLITAN DISTRICT 11886 STAPLETON DR PEYTON, CO 80831 P~719-495-6567
COUNTY TRANSPORTATION:	EL PASO COUNTY, DEPT. OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, COLORADO 80922 KEVIN MASTIN ~ (719) 520-6300
COUNTY DEVELOPMENT:	EL PASO PLANNING AND COMMUNITY 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 CRAIG DOSSEY ~ (719) 520-6300
ELECTRIC COMPANY:	MOUNTAIN VIEW ELECTRIC ASSOC., INC. 11140 EAST WOODMEN ROAD FALCON, COLORADO 80831 (719) 495-2283

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
BRJM, LLC  
101 N. CASCADE, SUITE 200  
COLORADO SPRINGS, CO 80903  
ATTN: BOB IRWIN  
P~(719)-475-7474

J.R. ENGINEERING  
A Westman Company  
Central 303-740-9883 • Colorado Springs 719-593-2593  
Fort Collins 970-491-9888 • www.jrengineering.com

### BASIS OF BEARING

THE BASIS OF BEARINGS IS THE WESTERLY LINE OF TRACT, B, WOODMOOR PLACER, BEING MONUMENTED BY A 1-1/4" YELLOW PLASTIC CAP ILLIBLEGIBLE AT BOTH ENDS. SAID LINE BEARING N26°20'33"E AS REFERENCED TO COLORADO STATE PLANE CENTRAL ZONE.

### BENCHMARK

NGS MONUMENT T 294 BEING MONUMENTED BY A 3-1/4" BRASS DISC SET IN A 4'x4' BOULDER, LOCATED 1.8 MILES EAST ALONG HIGBY ROAD FROM ITS INTERSECTION WITH JACKSON CREEK PARKWAY, 40 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 6 FEET SOUTH OF A FENCE, AND 5.2 FEET SOUTH OF A WITNESS POST. SAID MONUMENT HAVING A PUBLISHED ELEVATION OF 7247.10 FEET, NAVD88.

### OWNER/DEVELOPER STATEMENT

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

BOB IRWIN \_\_\_\_\_ DATE \_\_\_\_\_  
BRJM, LLC  
101 N. CASCADE  
COLORADO SPRINGS, CO 80903

### 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.

JENNIFER IRVINE, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
COUNTY ENGINEER/ECM ADMINISTRATOR

### ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT 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 PLAN 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.

MIKE A. BRAMLETT, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, LLC

LATIGO TRAILS - FILING NO. 9	COVER SHEET	SHEET 1 OF 12	JOB NO. 25175.01	BY	DATE
No. REVISION	1"=XX'	H-SCALE	V-SCALE	DESIGNED BY	DATE
DRAWN BY	CHECKED BY	DATE	DESIGNED BY	DATE	CHECKED BY



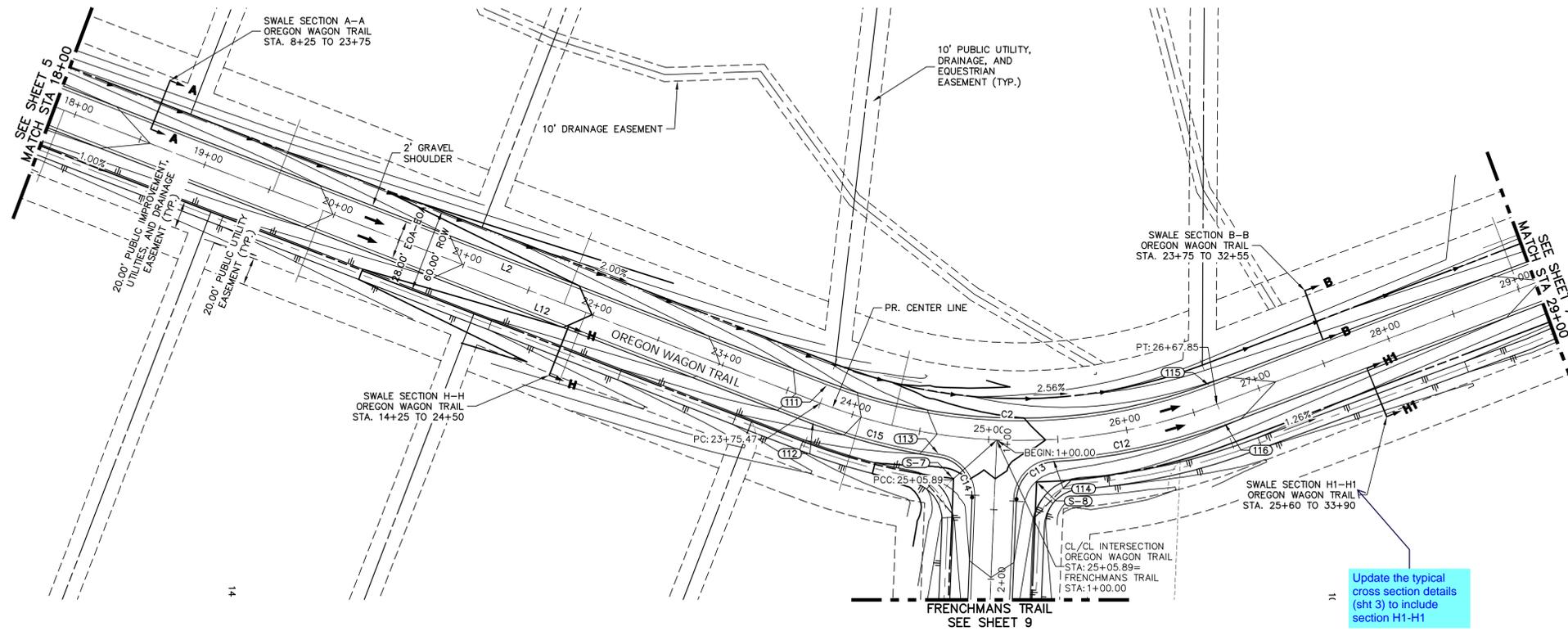
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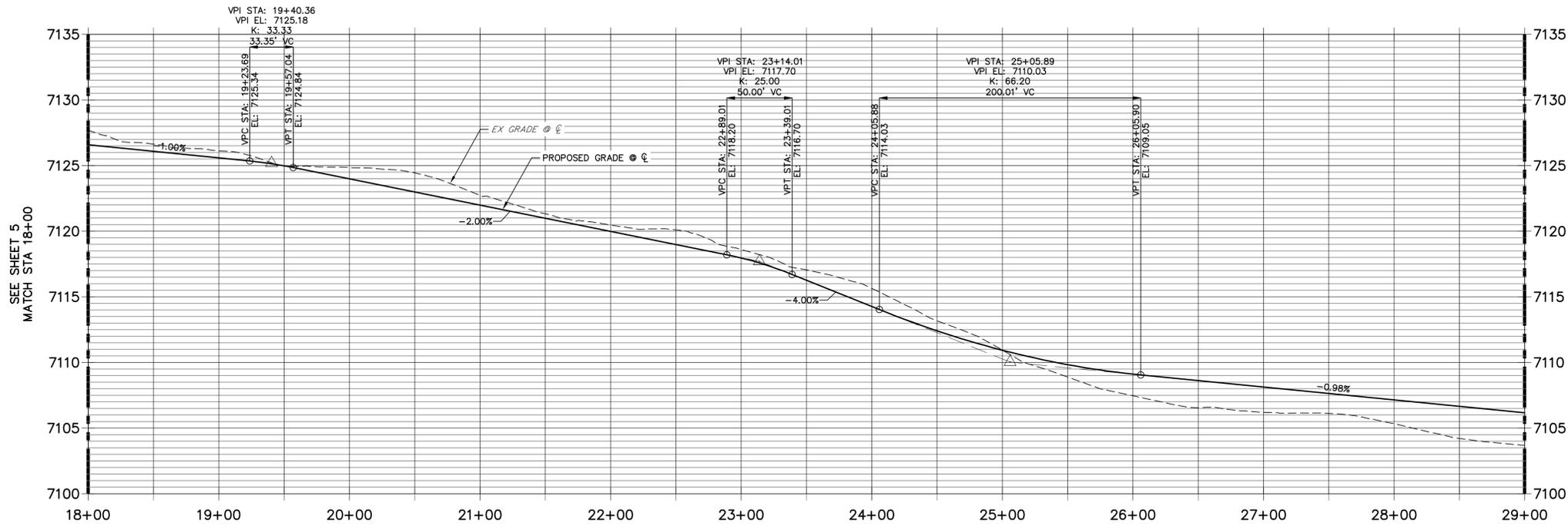








OREGON WAGON TRAIL PROFILE (2)  
STA 18+00.00 TO 29+00.00



LINE AND CURVE TABLE

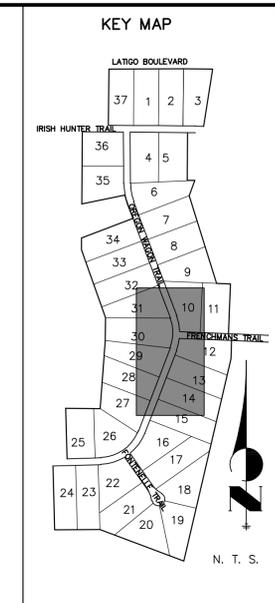
LINE/CURVE	BEARING/Delta	LENGTH	RADIUS
C2	231°1'57"	156.29'	386.00'
C14	84°18'46"	44.15'	30.00'
C12	17°30'43"	126.54'	414.00'
C13	84°18'46"	44.15'	30.00'
L2	S21°04'50"W	782.42'	
L12	N21°04'50"E	782.42'	
C15	12°59'35"	93.88'	414.00'

POINT TABULATION

POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	NOTES	DESCRIPTION
111	23+75.47	14.00' (LT)	OREGON WAGON TRAIL	7114.96		PC
112	23+75.47	14.00' (RT)	OREGON WAGON TRAIL	7114.96		PC
113	24+66.18	14.00' (RT)	OREGON WAGON TRAIL	7111.61		PCR
114	25+45.59	14.00' (RT)	OREGON WAGON TRAIL	7109.64		PCR
115	26+67.85	14.00' (LT)	OREGON WAGON TRAIL	7108.16		PT
116	26+67.85	14.00' (RT)	OREGON WAGON TRAIL	7108.16		PT

POINT TABULATION

POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	NOTES	DESCRIPTION
S-7	24+77.96	30.00' (RT)	OREGON WAGON TRAIL	7109.10		SWALE PI
S-8	25+33.82	30.00' (RT)	OREGON WAGON TRAIL	7107.91		SWALE PI



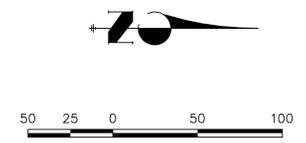
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PREPARED FOR  
**BRUM, LLC**  
101 N. CASCADE, SUITE 200  
COLORADO SPRINGS, CO 80903  
ATTN: BOB IRWIN  
P-(719)-475-7474

**J.R. ENGINEERING**  
A Westrian Company  
Central 303-740-9883 • Colorado Springs 719-583-2593  
Fort Collins 970-491-9888 • www.jrengineering.com

**STREET IMPROVEMENT NOTES**

1. ALL STATIONING IS  $\odot$ , UNLESS OTHERWISE NOTED.
2. ALL PROFILE ELEVATIONS ARE  $\odot$ , UNLESS OTHERWISE NOTED.
3. ALL POINT TABULATIONS ARE EDGE OF ASPHALT, UNLESS OTHERWISE NOTED.
4. ALL CURB RETURN RADII ARE 20', UNLESS OTHERWISE NOTED.
5. ALL SLOPE LABELS ARE SWALE CENTERLINE, UNLESS OTHERWISE NOTED.
6. SEE SHEET 3 FOR TYPICAL STREET SECTIONS, SWALE SECTION A-A AND SECTION B-B DIMENSIONS AND DETAILS.
7. ALL PROPOSED ROW WIDTHS ARE 60', UNLESS OTHERWISE NOTED.
8. ABBREVIATIONS: EOA = EDGE OF ASPHALT, P.I.E. = PUBLIC IMPROVEMENTS EASEMENT.

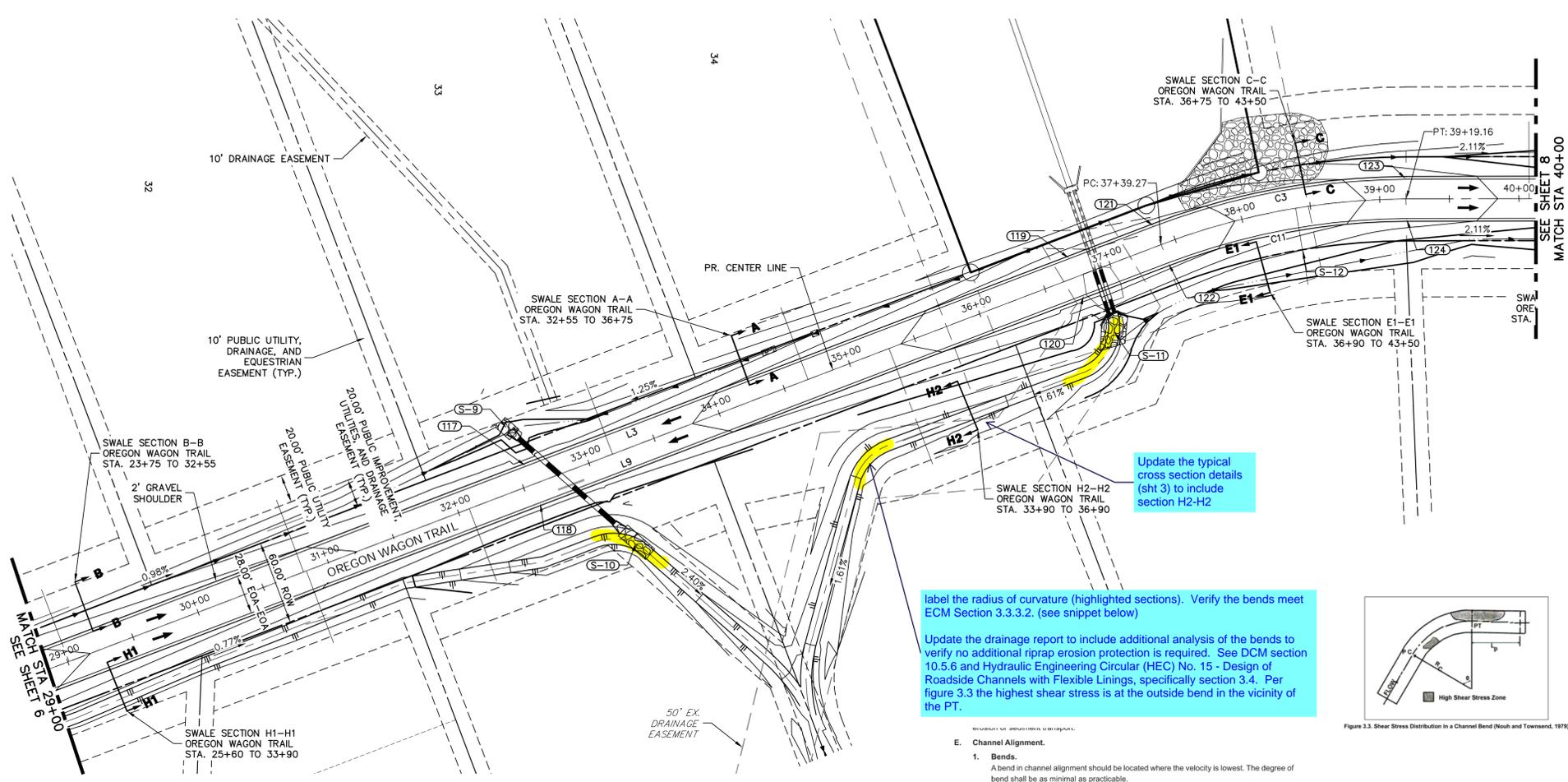


**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

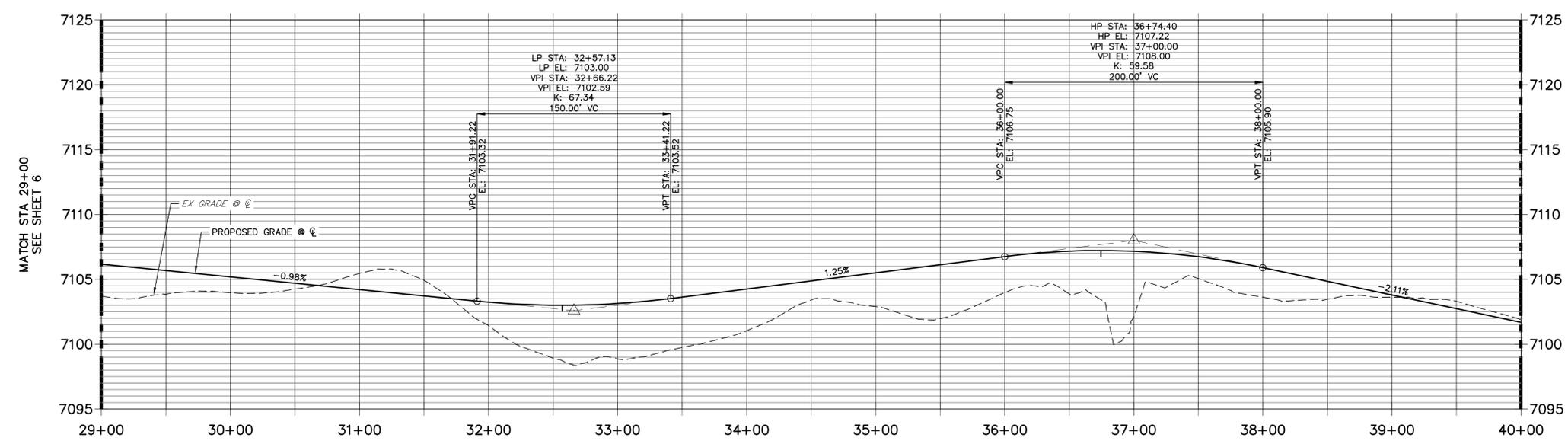
MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, LLC

No.	REVISION	BY	DATE	H-SCALE		V-SCALE		DATE	DESIGNED BY	DRAWN BY	CHECKED BY
				1"=50'	1"=5'	1"=50'	1"=5'				
								09/10/21	XXX	CRB	

LATIGO TRAILS - FILING NO. 9  
STREET IMPROVEMENT PLAN AND PROFILE  
SHEET 6 OF 12  
JOB NO. 25175.01



**OREGON WAGON TRAIL PROFILE (3)  
STA 29+00.00 TO 40+00.00**



**LINE AND CURVE TABLE**

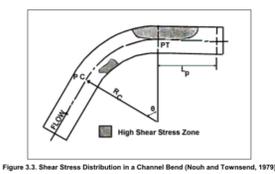
LINE/CURVE	BEARING/Delta	LENGTH	RADIUS
C3	20°36'50"	184.93'	514.00'
L9	N20°47'56"W	1071.42'	
C11	20°36'50"	174.85'	486.00'
L3	S20°47'56"E	1071.42'	

**POINT TABULATION**

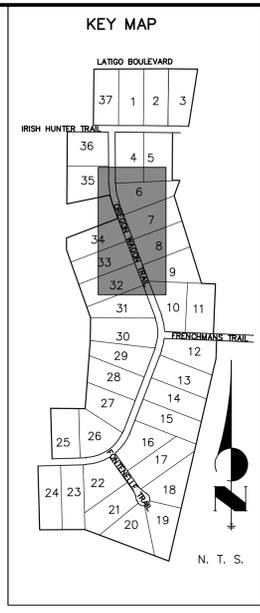
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	NOTES	DESCRIPTION
117	32+57.13	14.00' (LT)	OREGON WAGON TRAIL	7102.72		LP
118	32+57.13	14.00' (RT)	OREGON WAGON TRAIL	7102.72		LP
119	36+74.40	14.00' (LT)	OREGON WAGON TRAIL	7106.93		HP
120	36+74.40	14.00' (RT)	OREGON WAGON TRAIL	7106.93		HP
121	37+39.27	14.00' (LT)	OREGON WAGON TRAIL	7106.59		PC
122	37+39.27	14.00' (RT)	OREGON WAGON TRAIL	7106.59		PC
123	39+19.16	14.00' (LT)	OREGON WAGON TRAIL	7103.10		PT
124	39+19.16	14.00' (RT)	OREGON WAGON TRAIL	7103.10		PT

**POINT TABULATION**

POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	NOTES	DESCRIPTION
S-9	32+54.08	43.74' (LT)	OREGON WAGON TRAIL	7098.54		SWALE GB
S-10	33+11.88	65.08' (RT)	OREGON WAGON TRAIL	7095.15		SWALE GB
S-11	36+85.43	45.64' (RT)	OREGON WAGON TRAIL	7097.57		SWALE GB
S-12	38+39.38	30.00' (RT)	OREGON WAGON TRAIL	7102.04		SWALE GB



- E. Channel Alignment.**
- Bends.**  
A bend in channel alignment should be located where the velocity is lowest. The degree of bend shall be as minimal as practicable.
  - Radius of Curvature.**  
The minimum radius of curvature of the centerline of a channel shall be at least 3 times the width of a rectangular channel or 2 times the top width of a trapezoidal channel to minimize development of spiral flow.



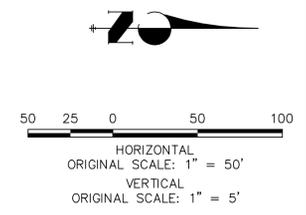
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**STREET IMPROVEMENT NOTES**

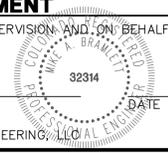
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**ENGINEER'S STATEMENT**

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

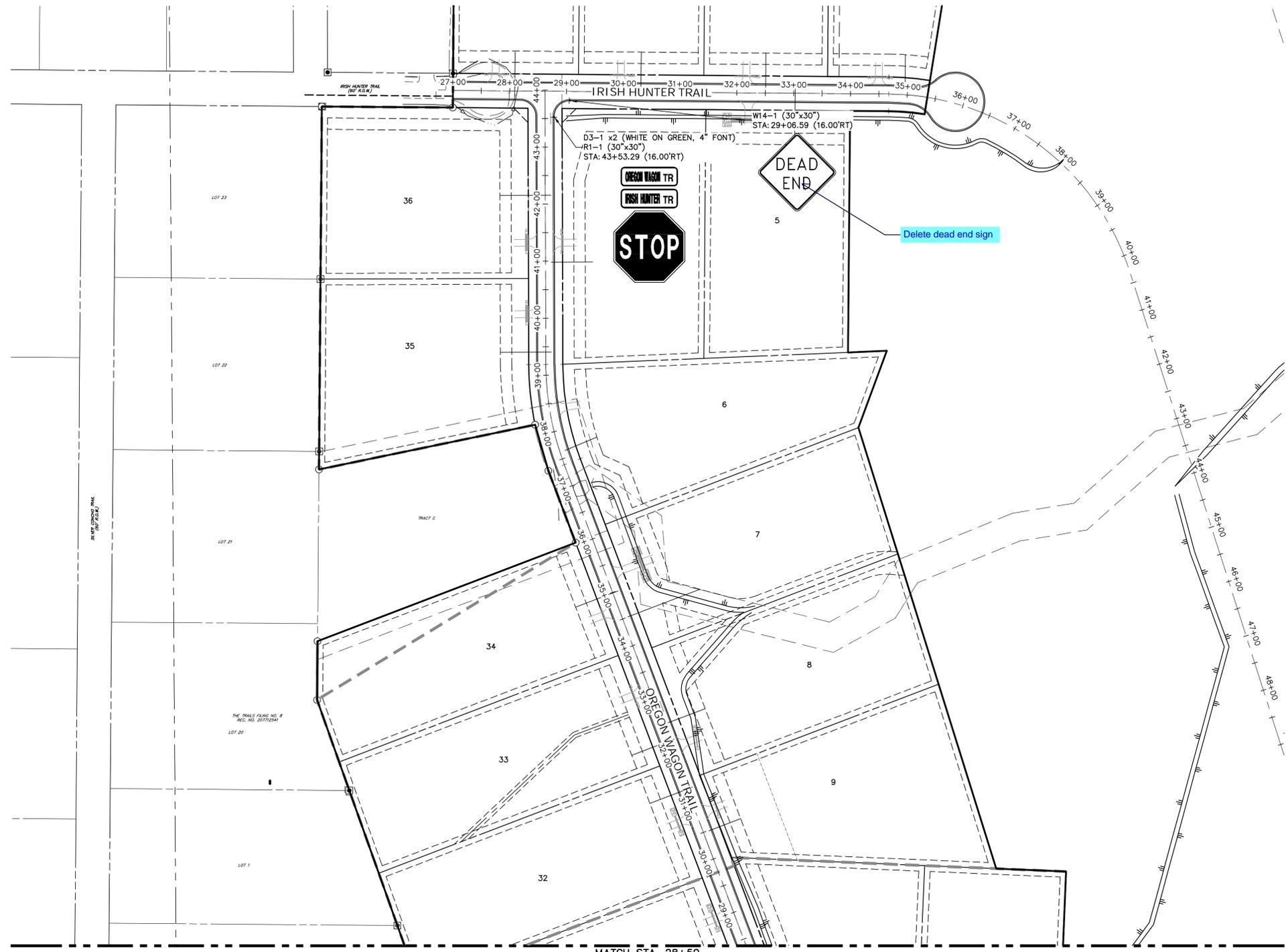
MIKE A. BRAMLETT, P.E.  
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FOR AND ON BEHALF OF JR ENGINEERING, LLC



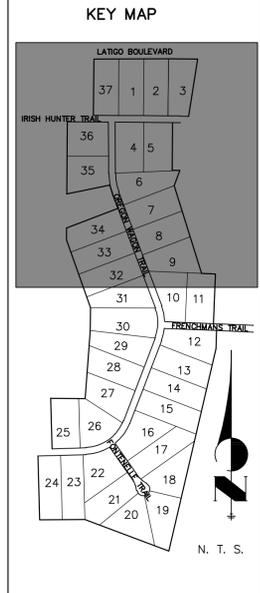
No.	REVISION	DATE	BY	CHECKED BY	DESIGNED BY	DRAWN BY	DATE	H-SCALE	V-SCALE	FILING NO.
										LATIGO TRAILS - FILING NO. 9
										STREET IMPROVEMENT PLAN AND PROFILE
										SHEET 7 OF 12
										JOB NO. 25175.01







MATCH STA. 28+50  
SEE SHEET 11



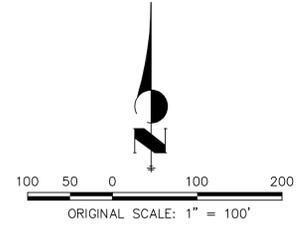
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. THESE USES ARE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
**BRUM, LLC**  
101 N. CASCADE, SUITE 200  
COLORADO SPRINGS, CO 80903  
ATTN: BOB IRWIN  
P--(719)--475-7474

**J.R. ENGINEERING**  
A Westrian Company  
Central 303-740-9883 • Colorado Springs 719-593-2583  
Fort Collins 970-491-9888 • www.jrengineering.com

BY	DATE	No.	REVISION

LATIGO TRAILS - FILING NO. 9	H-SCALE	1"=100'
	V-SCALE	N/A
SIGNAGE AND STRIPING PLAN	DATE	09/10/21
	DESIGNED BY	XXX
SHEET 10 OF 12	DRAWN BY	XXX
	CHECKED BY	
JOB NO.	25175.01	



**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

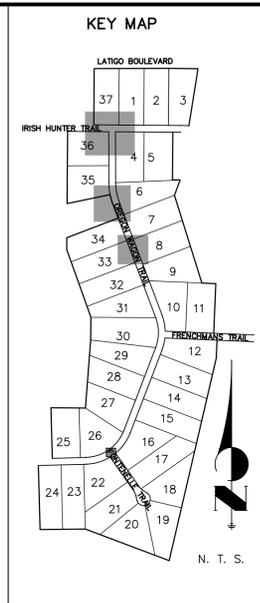
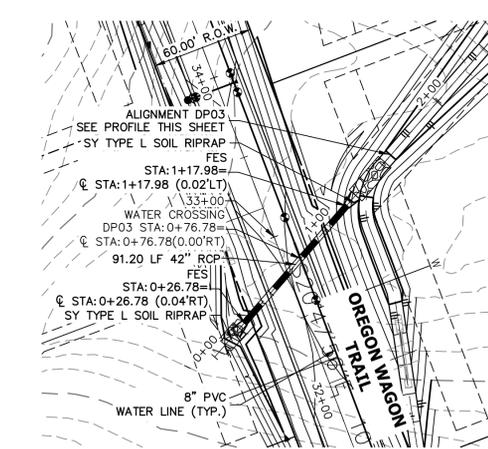
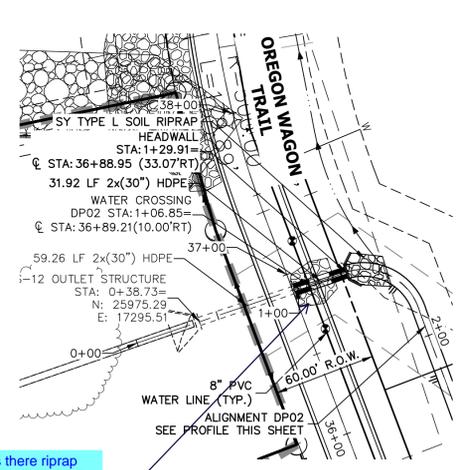
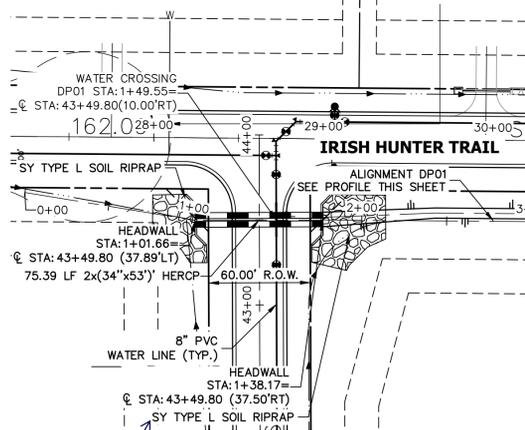












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PREPARED FOR  
**BRUM, LLC**  
 101 N. CASCADE, SUITE 200  
 COLORADO SPRINGS, CO 80903  
 ATTN: BOB IRWIN  
 P~(719)-475-7474

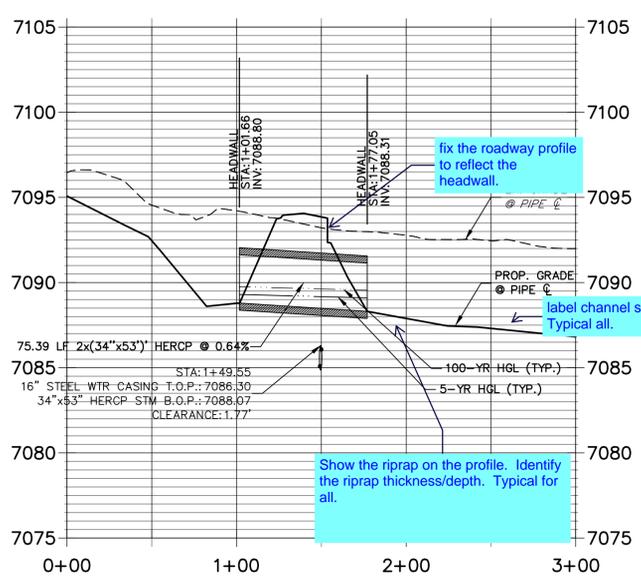
**J.R. ENGINEERING**  
 A Westman Company  
 Central 303-740-9888 • Colorado Springs 719-583-2593  
 Fort Collins 970-491-9888 • www.jrengineering.com

- NOTES**
- SEE SHEET 1 FOR BENCHMARK. SEE SHEET 2 FOR LEGEND.
  - ALL STATIONING IS PIPE CENTERLINE UNLESS OTHERWISE NOTED.
  - ALL RCP STORM SEWER SHALL BE CLASS III UNLESS OTHERWISE NOTED.
  - PIPE LENGTHS ARE MEASURED FROM THE INSIDE WALL OF INLETS AND FROM THE CENTER OF MANHOLES. PIPE LENGTHS INCLUDE FES LENGTH AND/OR HEADWALL THICKNESS.
  - ALL MANHOLE COVERS SHALL BE ORIENTED TO AVOID CURB, GUTTER, SIDEWALK AND CROSSPANS UNLESS OTHERWISE NOTED.
  - ALL MANHOLES SHALL HAVE AN ECCENTRIC CONE UNLESS OTHERWISE NOTED.
  - PROVIDE A MINIMUM OF 18" FROM THE RIM TO THE TOP OF SLAB FOR ALL FLAT TOP MANHOLES.
  - ALL ON-GRADE INLETS ARE TO MATCH TBC ELEVATIONS AT EACH END, FOLLOWING STREET GRADES.
  - INLET STATIONING IS TO CENTER OF INLET.
  - PIPES SHALL HAVE JOINT RESTRAINTS ON LAST 3 JOINTS AT PIPE OUTFALL.
  - ALL CURVED PIPES SHALL BE BUILT IN ACCORDANCE WITH THE AMERICAN CONCRETE PIPE ASSOCIATION (ACPA) DESIGN DATA 21. PIPE MANUFACTURE TO BE USED MUST BE ABLE TO MEET LENGTH AND JOINT OPENING CRITERIA PER ACPA.

update callout to include the number of square yard (SY) riprap. Typical all.

Why is there riprap shown in the ROW? Is this existing to be removed? Update plans accordingly

**DP01 PROFILE  
 STA 0+00.00 TO 3+00.00**

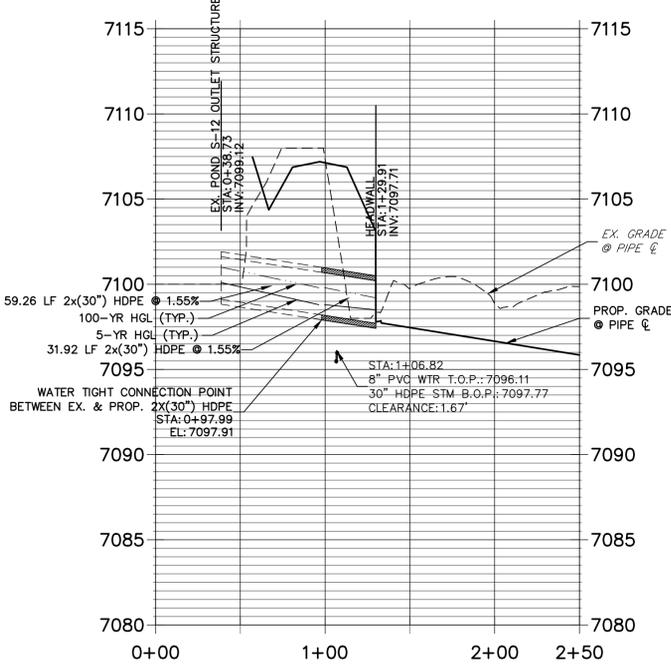


fix the roadway profile to reflect the headwall.

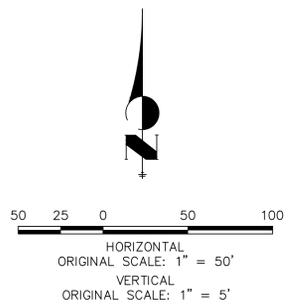
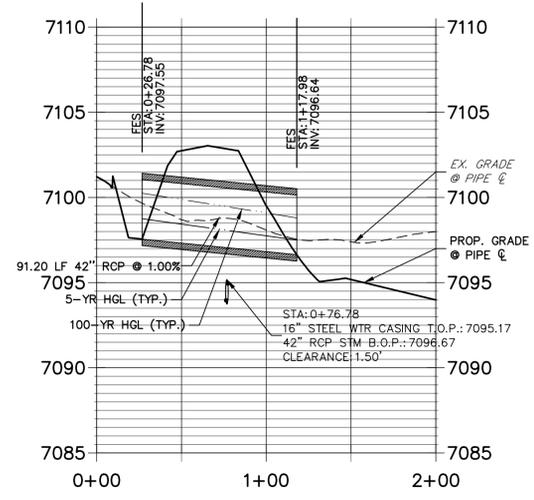
label channel slope. Typical all.

Show the riprap on the profile. Identify the riprap thickness/depth. Typical for all.

**DP02 PROFILE  
 STA 0+00.00 TO 2+50.00**



**DP03 PROFILE  
 STA 0+00.00 TO 2+00.00**



BY	DATE	No.	REVISION

LATIGO TRAILS - FILING NO. 9  
 STORM SEWER PLAN AND PROFILE  
 SHEET 3 OF 7  
 JOB NO. 25175.01



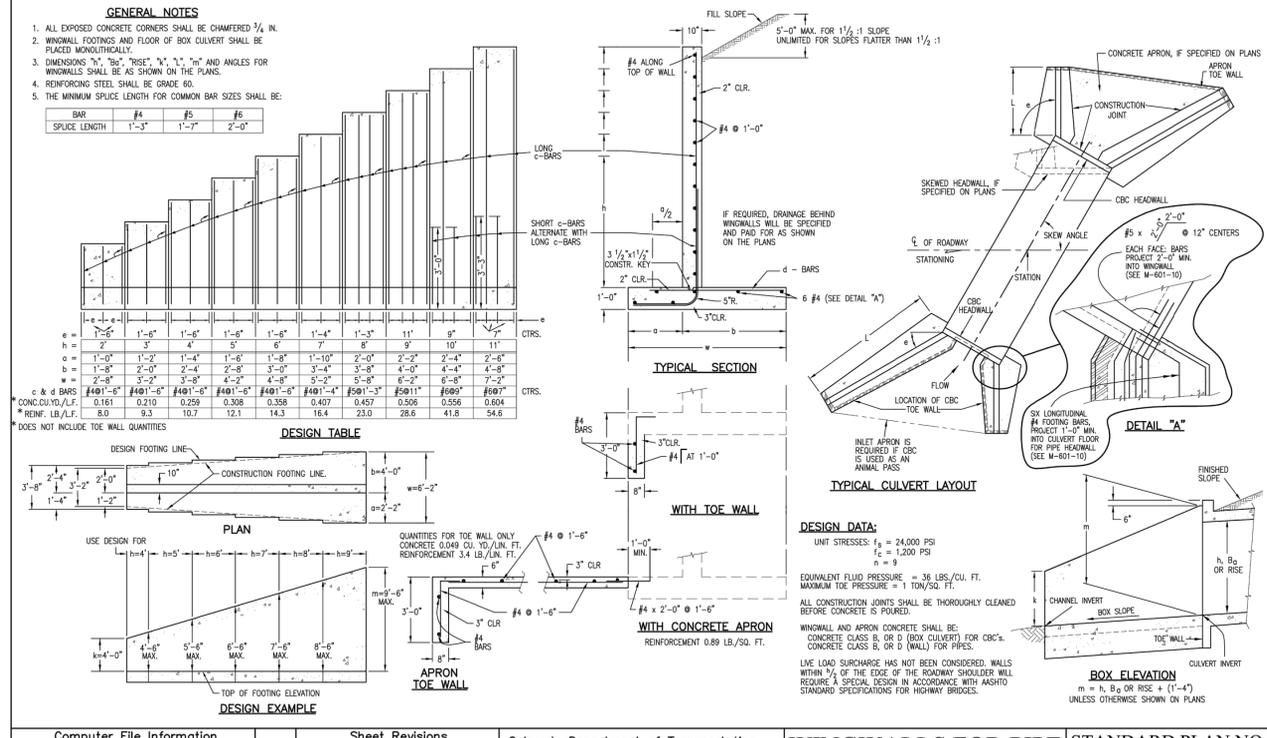
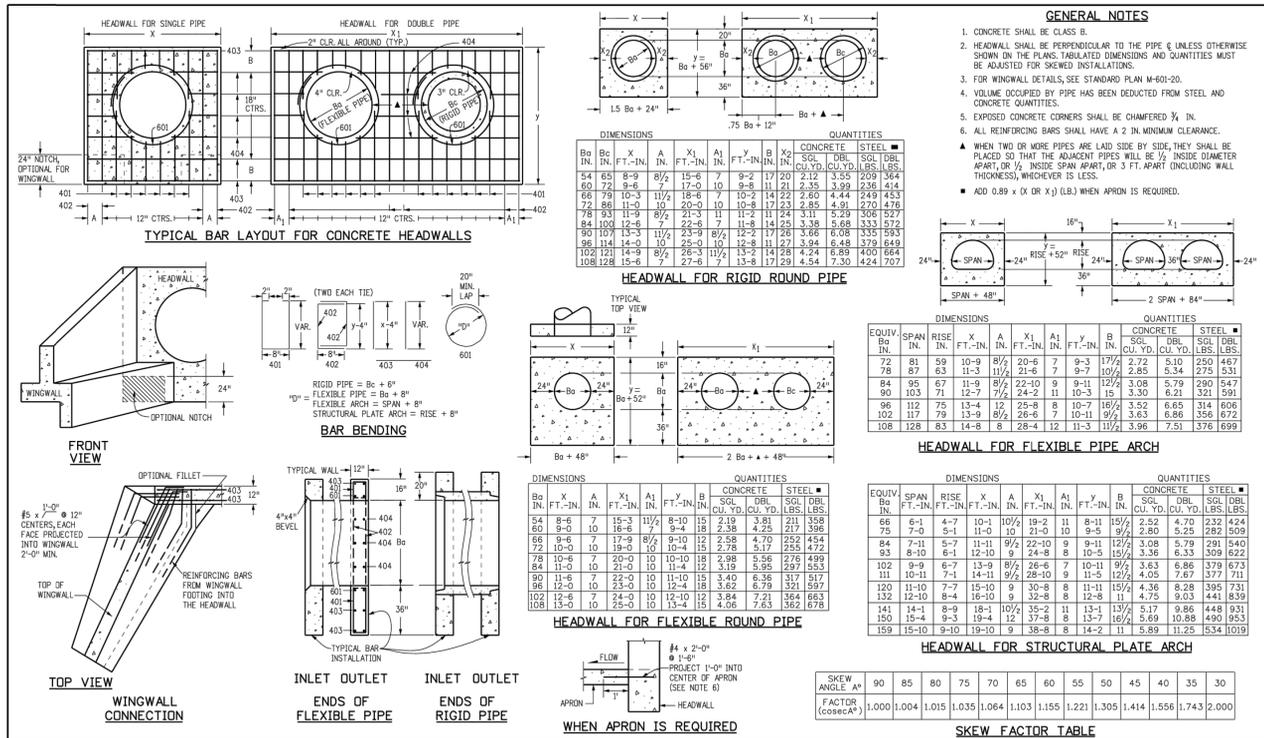
**ENGINEER'S STATEMENT**  
 PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING  
 MIKE A. BRAMLETT, P.E.  
 COLORADO P.E. 32314  
 FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER  
 DATE

X:\2510000\2517501\Drawings\sheet\dwg\CD\2517501\_DP01.dwg, DP01, 9/26/2021 3:27:58 PM, CS









**Computer File Information**

Creation Date: 07/31/19  
 Designer Initials: JKB  
 Last Modification Date: 07/31/19  
 Detailer Initials: LTA  
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

**Sheet Revisions**

Date	Comments

**Colorado Department of Transportation**  
 2829 West Howard Place  
 CDOT HQ, 3rd Floor  
 Denver, CO 80204  
 Phone: 303-757-9021 FAX: 303-757-9868

**Project Development Branch** JKB

**HEADWALL FOR PIPES**  
 STANDARD PLAN NO. M-601-10  
 Standard Sheet No. 1 of 1

Issued by the Project Development Branch: July 31, 2019  
 Project Sheet Number:

**Computer File Information**

Creation Date: 07/04/05  
 Designer Initials: LTA  
 Last Modification Date: 07/04/06  
 Detailer Initials: LTA  
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

**Sheet Revisions**

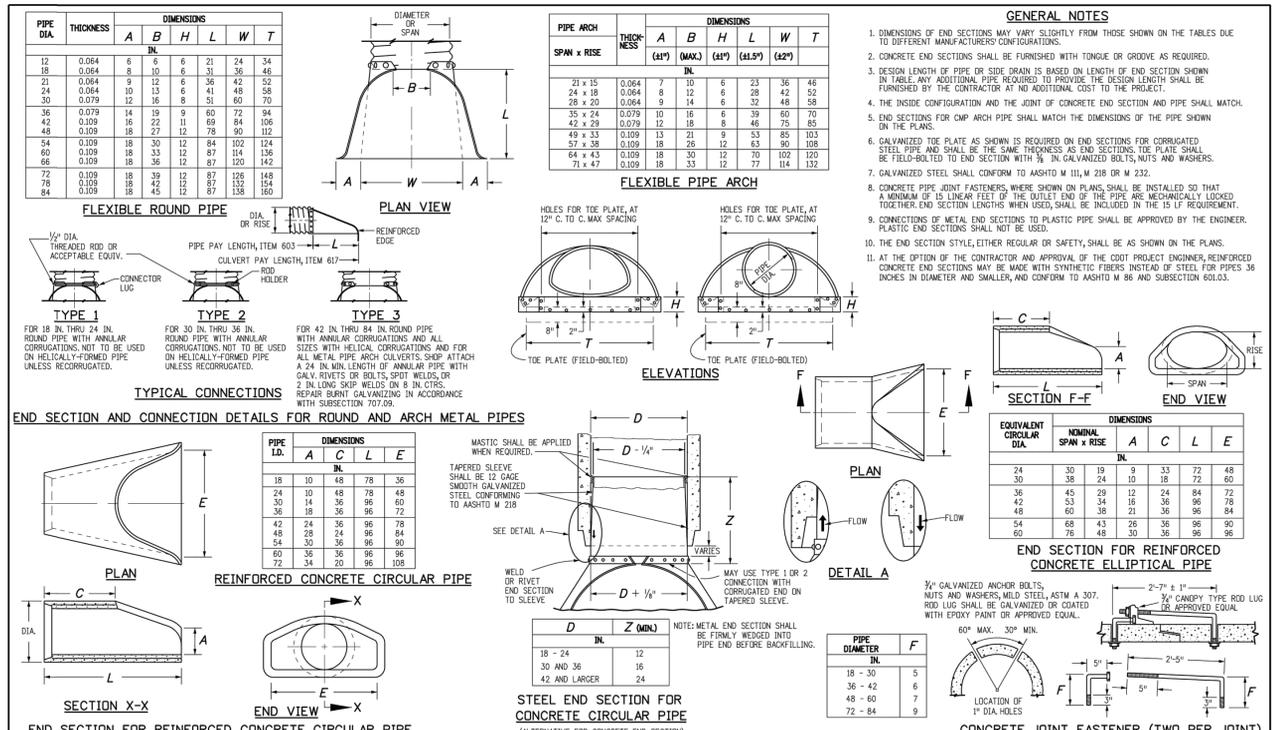
Date	Comments

**Colorado Department of Transportation**  
 4201 East Arkansas Avenue  
 Denver, Colorado 80222  
 Phone: (303) 757-9083  
 Fax: (303) 757-9820

**Project Development Branch** SRJ/LTA

**WINGWALLS FOR PIPE OR BOX CULVERTS**  
 STANDARD PLAN NO. M-601-20  
 Sheet No. 1 of 1

Issued by Project Development Branch on July 04, 2006



**ENGINEER'S STATEMENT**

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.  
 COLORADO P.E. 32314

FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. ANY CHANGES DESIGNATED BY PARTISES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR

**BRUM, LLC**  
 101 N. CASCADE, SUITE 200  
 COLORADO SPRINGS, CO 80903  
 ATTN: BOB IRWIN  
 P~(719)-475-7474

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 Fort Collins 970-491-9888 • www.jrengineering.com

LATIGO TRAILS - FILING NO. 9  
 DETAILS

BY DATE

No.	REVISION	DATE

H-SCALE N/A  
 V-SCALE N/A  
 DATE 09/10/21  
 DESIGNED BY N/A  
 DRAWN BY N/A  
 CHECKED BY N/A

SHEET 7 OF 7  
 JOB NO. 25175.01

# LATIGO TRAILS - FILING NO. 9

TOWN OF ELBERT  
EL PASO COUNTY  
COLORADO STATE

## PUBLIC UTILITY PLAN

If your intent is to have separate plan sets then upload these as a separate document on eDARP

On eDARP there should then be the following separate documents  
- Roadway Construction Documents  
- Storm/Pond Construction Documents  
- Utility Construction Documents

### STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOIL AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
  - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - CITY OF COLORADO SPRINGS/ EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS AND BRIDGE CONSTRUCTION
  - CDOT M&S STANDARDS
- 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 VERSIONS 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. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGHT VISIBILITY TRIANGLES ARE IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED IN SIGHT TRIANGLES.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

Please fix this typo.

Please add the following note:  
"All storm drain pipe shall be Class III RCP unless otherwise noted and approved by PCD."

### ABBREVIATIONS

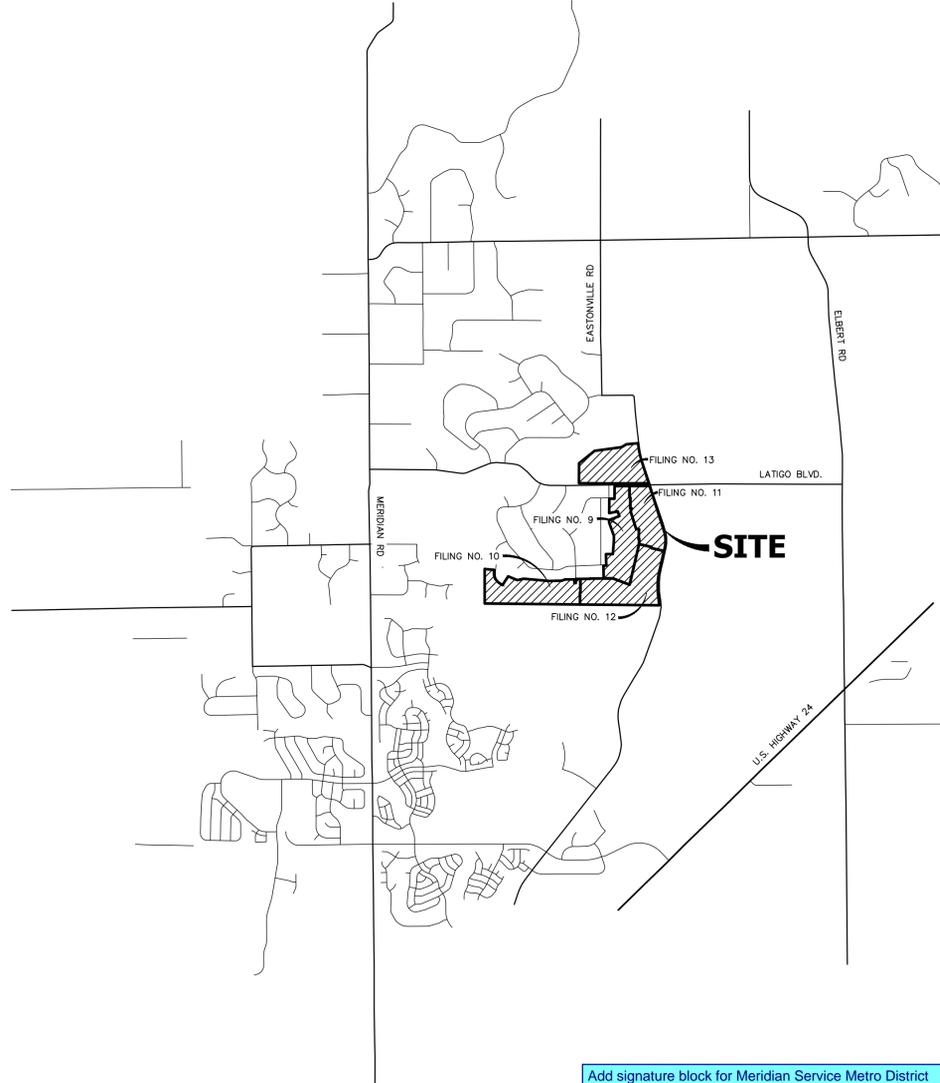
AC	ACRE	FL	FLOWLINE	RT	RIGHT
AD	ALGEBRAIC DIFFERENCE	FIL	FILING	S	SOUTH
AH	AHEAD	FO	FIBER OPTIC CABLE	STE	STEEL
ARCH	ARCHITECT	GB	GRADE BREAK	SAN	SANITARY SEWER
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	GE	GAS EASEMENT	SF	SQUARE FOOT
ASSY	ASSEMBLY	GIS	GEOGRAPHIC INFORMATION SYSTEM	ST	STREET
AVE	AVENUE	QL	QUALITY	STA	STATION
BB	BOX BASE	GPS	GLOBAL POSITIONING SYSTEM	STM	STORM SEWER
BK	BACK	GV	GATE VALVE	SY	SQUARE YARD
BNDY	BOUNDARY	HBP	HOT BITUMINOUS PAVEMENT	SY-IN	SQUARE YARD INCH
BOP	BOTTOM OF PIPE	HC	HANDICAP	TB	THRUST BLOCK
BOV	BLOW OFF VALVE	HDC	HIGH DEFLECTION COUPLING	TBC	TOP BACK OF CURB
BFV	BUTTERFLY VALVE	HDPE	HIGH DENSITY POLYETHYLENE	TBW	TOP BACK OF WALK
BLVD	BOULEVARD	HGL	HYDRAULIC GRADE LINE	TEL	TELEPHONE
BW	BOTTOM OF WALL	HMA	HOT MIX ASPHALT	TN	TON
C&G	CURB & GUTTER	HOA	HOME OWNERS ASSOCIATION	TOA	TOP OF ASPHALT
CATV	CABLE TELEVISION	HR	HIGH POINT	TOB	TOP OF BOX
CB	CATCH BASIN	HR	HOUR	TOC	TOP OF CURB OR CONCRETE
CBC	CONCRETE BOX CULVERT	HR	HOUR	TOF	TOP OF FOUNDATION
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	I	INLET	TOP	TOP OF PIPE
CDS	CUL-DE-SAC	IE	IRRIGATION EASEMENT	TW	TOP OF WALL
CF	CUBIC FOOT	INT	INTERSECTION	TYP	TYPICAL
CFS	CUBIC FEET PER SECOND	INV	INTERSECTION	UDFCD	URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
CIP	COMPLETE IN PLACE	IRR	IRRIGATION	UE	UTILITY EASEMENT
CL	CENTER LINE	KB	KICK (THRUST) BLOCK	U&DE	UTILITY & DRAINAGE EASEMENT
CLOMR	CONDITIONAL LETTER OF MAP REVISION	LB	LOAD	UGE	UNDERGROUND ELECTRIC
CLR	CLEAR	LE	LANDSCAPE EASEMENT	VCP	VITRIFIED CLAY PIPE
CM	CORRUGATED METAL PIPE	LN	LANE	VPC	VERTICAL POINT OF CURVATURE
CO	CLEAN OUT	LOMR	LETTER OF MAP REVISION	VPI	VERTICAL POINT OF INTERSECTION
COCS	CITY OF COLORADO SPRINGS	LP	LOW POINT	VPT	VERTICAL POINT OF TANGENCY
CONC	CONCRETE	LS	LUMP SUM	VTC	VEHICLE TRACKING CONTROL
CR	CIRCLE	LT	LEFT	W	WEST
CSP	CORRUGATED STEEL PIPE	MAX	MAXIMUM	WL	WATER LINE
CSU	COLORADO SPRINGS UTILITIES	M/D	MOISTURE DENSITY	WM	WATER MAIN
CT	COURT	MDDP	MASTER DEVELOPMENT PLAN	WRD	WATER RESOURCES DEPARTMENT
CTRB	CONCRETE THRUST REDUCER BLOCK	MH	MANHOLE	WS	WATER SURFACE
CY	CUBIC YARD	MIN	MINIMUM	WSE	WATER SURFACE ELEVATION
DBPS	DRAINAGE BASIN PLANNING STUDY	MS	MOUNTABLE SIDEWALK	WTR	WATER
DE	DRAINAGE EASEMENT	N	NORTH	YR	YEAR
DIA	DIAMETER	NRCP	NON-REINFORCED CONCRETE PIPE		
DIP	DUCTILE IRON PIPE	ODP	OFFICIAL DEVELOPMENT PLAN		
DR	DRIVE	OHE	OVERHEAD ELECTRIC		
DRC	DESIGN REVIEW COMMITTEE	OHU	OVERHEAD UTILITY		
DU	DWELLING UNITS	PC	POINT OF CURVATURE		
DY	DAY	PCC	POINT OF COMPOUND CURVATURE		
E	EAST	PCR	POINT OF CURB RETURN		
EACH	EACH	PDP	PRELIMINARY DEVELOPMENT PLAN		
EGL	ENERGY GRADE LINE	PE	PROFESSIONAL ENGINEER		
EL	ELEVATION	PI	POINT OF INTERSECTION		
ELEC	ELECTRIC	PKWY	PARKWAY		
EQA	EDGE OF ASPHALT	PL	PROPERTY LINE		
EPC	EL PASO COUNTY	PP	PROPOSED		
ERCP	ELLIPTICAL RCP	PRC	POINT OF REVERSE CURVATURE		
ESMT	EASEMENT	PT	POINT OF TANGENCY		
EST	ESTIMATE	PV	PLUG VALVE		
EX	EXISTING	PVC	POLYVINYL CHLORIDE		
FDP	FINAL DEVELOPMENT PLAN	R	RADIUS		
FDR	FINAL DRAINAGE REPORT	RCBC	REINFORCED CONCRETE BOX CULVERT		
FES	FLARED END SECTION	RCP	REINFORCED CONCRETE PIPE		
FF	FINISHED FLOOR ELEVATION	RD	ROAD		
FG	FINISHED GRADE	ROW	RIGHT OF WAY		
FD	FIRE HYDRANT				

### SHEET INDEX

1	-	COVER SHEET
2-3	-	LEGEND AND NOTES
4	-	OVERALL UTILITY PLAN
5-11	-	DRAINAGE PLAN
12-13	-	DETAILS
13	-	TOTAL SHEETS



Know what's below.  
Call before you dig.



Add signature block for Meridian Service Metro District

### CONTACTS:

OWNER/DEVELOPER:	BRJM, LLC 101 N. CASCADE, SUITE 200 COLORADO SPRINGS, CO 80903 P~719-475-7474
ENGINEER/SURVEYOR:	JR ENGINEERING, LLC ATTN: MIKE A. BRAMLETT 5475 TECH CENTER DRIVE, SUITE 235 COLORADO SPRINGS, CO 80919 P~303-267-6240
FIRE PROTECTION DISTRICT:	FALCON FIRE FPD 7030 N MERIDIAN RD FALCON, CO 80831 P~719-494-4050
DISTRICT:	MERIDIAN SERVICE METROPOLITAN DISTRICT 11886 STAPLETON DR PEYTON, CO 80831 P~719-495-6567
COUNTY TRANSPORTATION:	EL PASO COUNTY, DEPT. OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, COLORADO 80922 KEVIN MASTIN ~ (719) 520-6300
COUNTY DEVELOPMENT:	EL PASO PLANNING AND COMMUNITY 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 CRAIG DOSSEY ~ (719) 520-6300
ELECTRIC COMPANY:	MOUNTAIN VIEW ELECTRIC ASSOC., INC. 11140 EAST WOODMEN ROAD FALCON, COLORADO 80831 (719) 495-2283

### BASIS OF BEARING

THE BASIS OF BEARINGS IS THE WESTERLY LINE OF TRACT, B, WOODMOOR PLACER, BEING MONUMENTED BY A 1-1/4" YELLOW PLASTIC CAP ILLIGIBLE AT BOTH ENDS. SAID LINE BEARING N26°20'33"E AS REFERENCED TO COLORADO STATE PLANE CENTRAL ZONE.

### BENCHMARK

NGS MONUMENT T 294 BEING MONUMENTED BY A 3-1/4" BRASS DISC SET IN A 4'X4' BOULDER, LOCATED 1.8 MILES EAST ALONG HIGBY ROAD FROM ITS INTERSECTION WITH JACKSON CREEK PARKWAY; 40 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 6 FEET SOUTH OF A FENCE, AND 5.2 FEET SOUTH OF A WITNESS POST. SAID MONUMENT HAVING A PUBLISHED ELEVATION OF 7247.10 FEET, NAVD88.

### OWNER/DEVELOPER STATEMENT

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

BOB IRWIN \_\_\_\_\_ DATE \_\_\_\_\_  
BRJM, LLC  
101 N. CASCADE  
COLORADO SPRINGS, CO 80903

### 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 THE 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.

JENNIFER IRVINE, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
COUNTY ENGINEER/ECM ADMINISTRATOR

### ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT 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 PLAN 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.



MIKE A. BRAMLETT, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. USES DESIGNATED BY WRITTEN AUTHORIZATION.

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BY	DATE	No.	REVISION

H-SCALE 1"=XX'  
V-SCALE 1"=X'

DATE 07/06/21  
DESIGNED BY XXX  
DRAWN BY QNL  
CHECKED BY

LATIGO TRAILS - FILING NO. 9  
COVER SHEET

SHEET 1 OF 13  
JOB NO. 25175.01

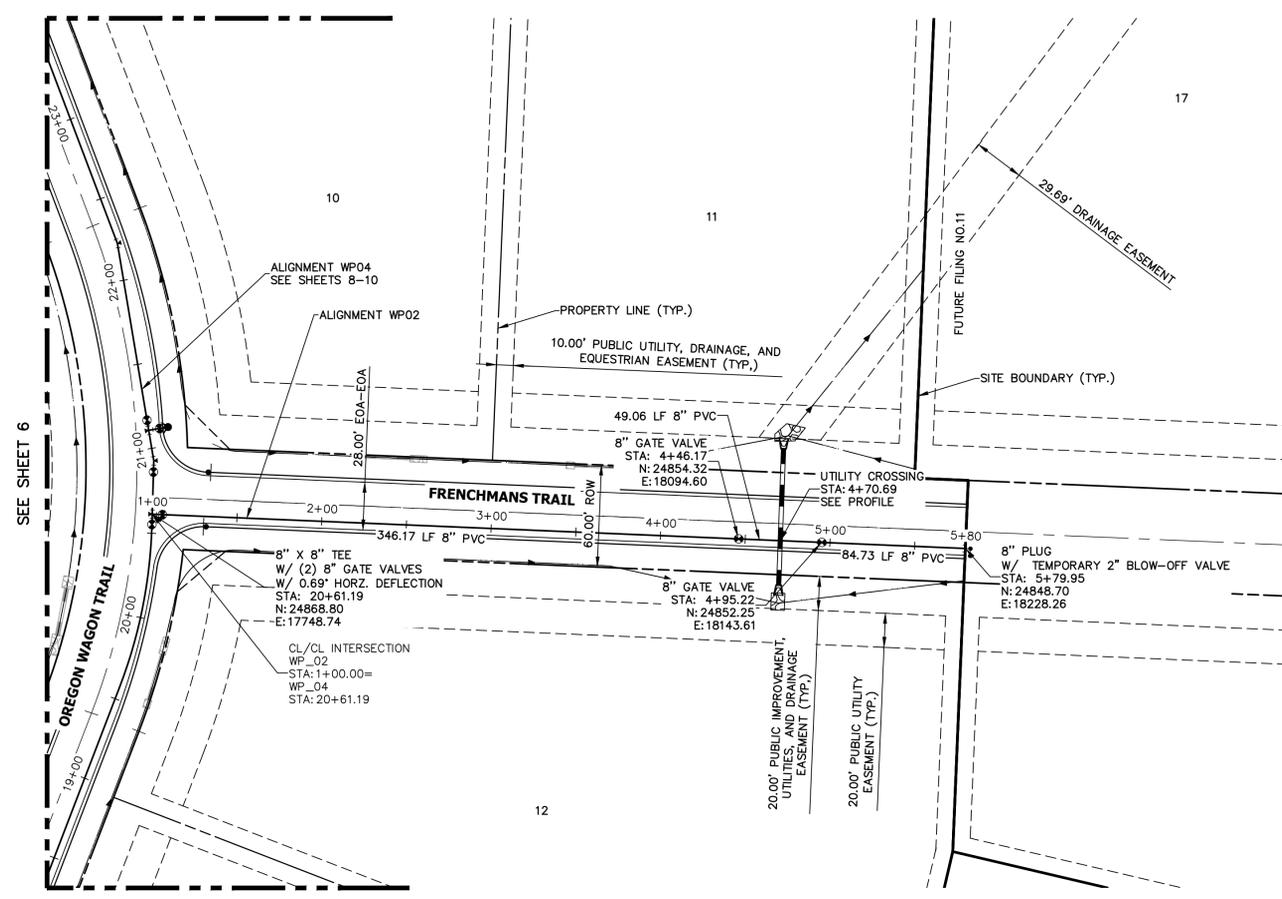
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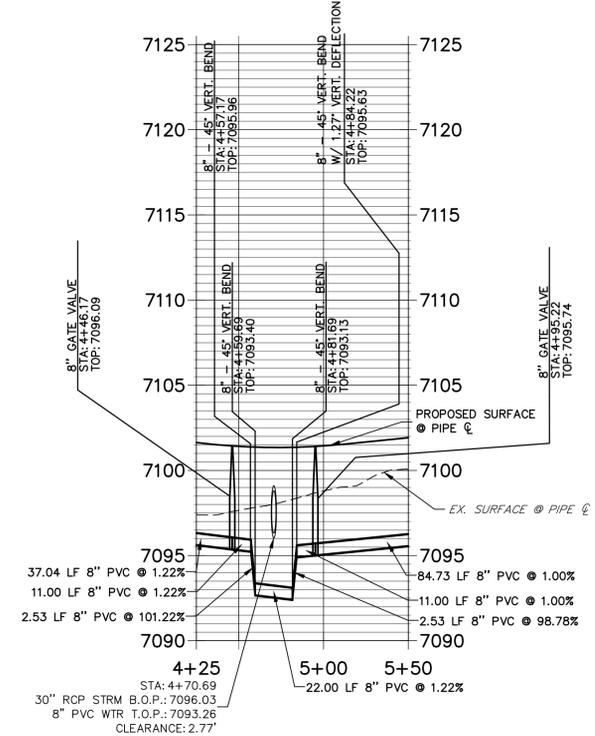








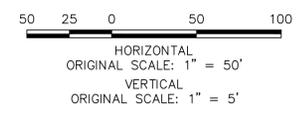
**WP\_02 PROFILE  
STA 4+25.00 TO 5+50.00**



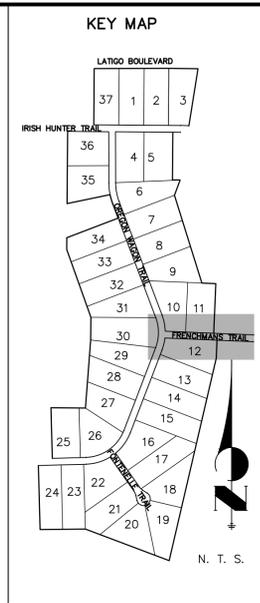
**WATER PIPE NOTES**

- ALL WATER LINES ARE OWNED AND MAINTAINED BY MERIDIAN SERVICE METROPOLITAN DISTRICT (MSMD) UNLESS OTHERWISE NOTED.
- ALL CURVILINEAR PIPE MUST BE ACCOMPLISHED BY HIGH DEFLECTION COUPLERS.
- ALL HORIZONTAL BENDS, TEES, AND CROSSES REQUIRE CONCRETE THRUST REACTION BLOCKS (C+RB). SEE CSU DETAILS A4-2 AND A4-3.
- ALL HORIZONTAL AND VERTICAL DEFLECTIONS TO BE ACCOMPLISHED WITH HIGH DEFLECTION (HD) COUPLINGS.
- ALL VERTICAL BENDS REQUIRE MECHANICAL JOINT RESTRAINTS (MJR). SEE CSU DETAIL A4-4.

THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.



**ENGINEER'S STATEMENT**  
 PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING  
 MIKE A. BRAMLETT, P.E.  
 COLORADO P.E. 32314  
 FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER



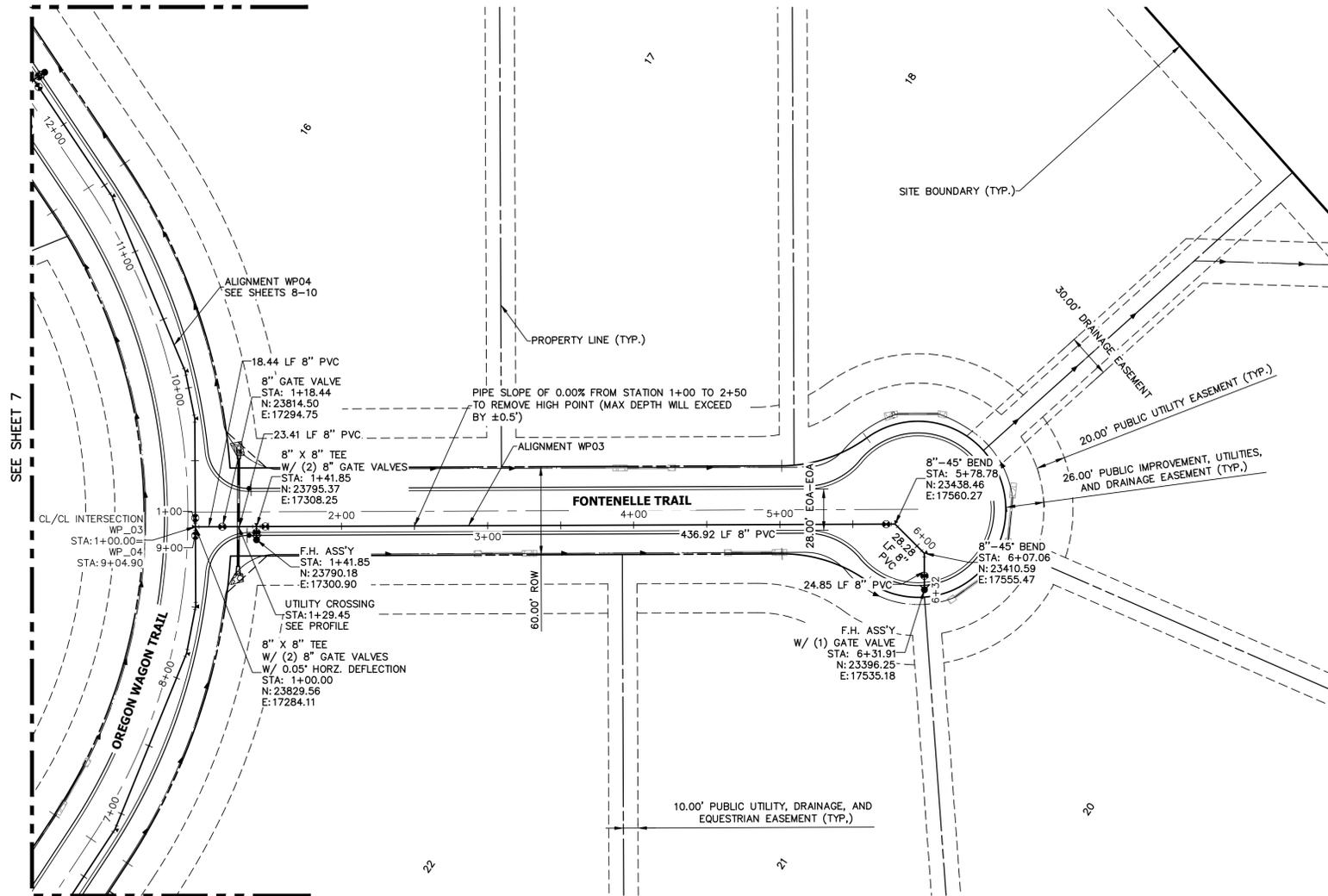
LATIO TRAILS - FILING NO. 9	WATER DISTRIBUTION PLAN	SHEET 6 OF 13	JOB NO. 25175.01	BY	DATE
				No.	REVISION
H-SCALE 1"=50'	V-SCALE 1"=5'	DATE 07/06/21	DESIGNED BY QNL	DRAWN BY QNL	CHECKED BY

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USES DESIGNATED BY WRITTEN AUTHORIZATION.

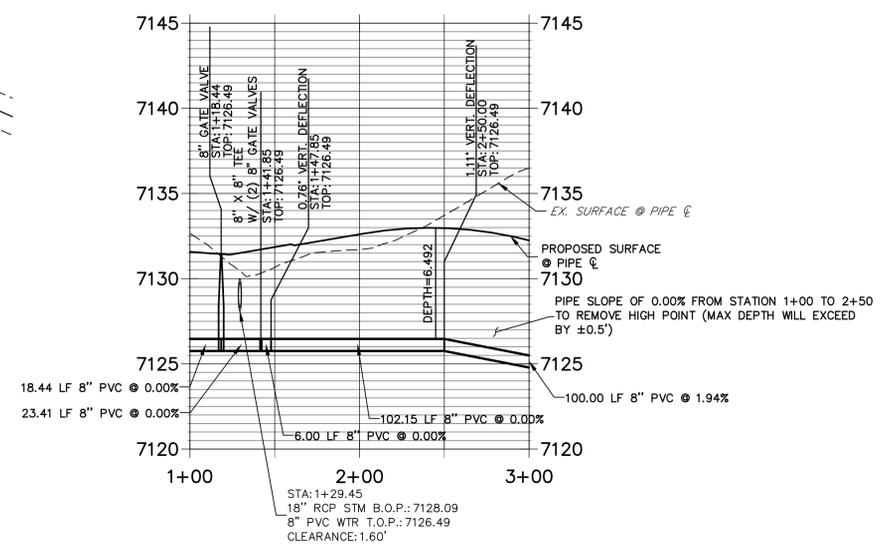
PREPARED FOR  
**BRJM, LLC**  
 101 N. CASCADE, SUITE 200  
 COLORADO SPRINGS, CO 80903  
 ATTN: BOB IRWIN  
 P~(719)-475-7474

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

X:\2510000\2517501\Drawings\sheet.dwg:CD32517501\_WP01.dwg, WP01 1/21, 9/11/2021, 4:22:38 PM, CS

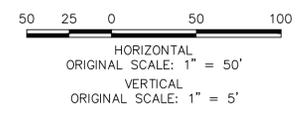


**WP\_03 PROFILE  
STA 1+00.00 TO 3+00.00**



**WATER PIPE NOTES**

1. ALL WATER LINES ARE OWNED AND MAINTAINED BY MERIDIAN SERVICE METROPOLITAN DISTRICT (MSMD) UNLESS OTHERWISE NOTED.
2. ALL CURVILINEAR PIPE MUST BE ACCOMPLISHED BY HIGH DEFLECTION COUPLERS.
3. ALL HORIZONTAL BENDS, TEES, AND CROSSES REQUIRE CONCRETE THRUST REACTION BLOCKS (C+RB). SEE CSU DETAILS A4-2 AND A4-3.
4. ALL HORIZONTAL AND VERTICAL DEFLECTIONS TO BE ACCOMPLISHED WITH HIGH DEFLECTION (HD) COUPLINGS.
5. ALL VERTICAL BENDS REQUIRE MECHANICAL JOINT RESTRAINTS (MJR). SEE CSU DETAIL A4-4.

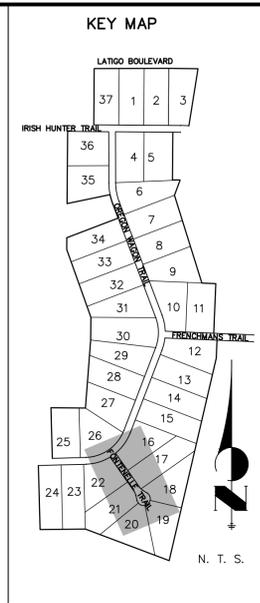


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**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER



UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, OR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
**BRUM, LLC**  
101 N. CASCADE, SUITE 200  
COLORADO SPRINGS, CO 80903  
ATTN: BOB IRWIN  
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BY	DATE	NO.	REVISION

H-SCALE 1"=50'  
V-SCALE 1"=5'  
DATE 07/06/21  
DESIGNED BY QNL  
DRAWN BY QNL  
CHECKED BY

LATIGO TRAILS - FILING NO. 9  
WATER DISTRIBUTION PLAN

SHEET 7 OF 13  
JOB NO. 25175.01

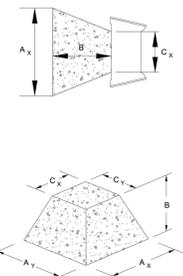






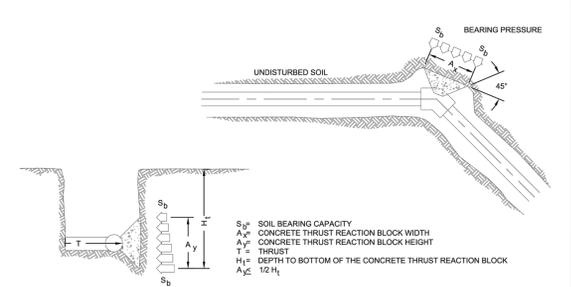


THRUST BLOCK DIMENSIONS and VOLUMES - PVC & DIP 250 psi										
MAN SIZE (IN)	TYPE OF FITTING	MINIMUM BEARING SURFACE AREA (SQ FT)	MINIMUM A/B	MINIMUM A/C	MINIMUM C/B	MINIMUM C/D	MINIMUM B/D	APPROXIMATE VOLUME (CU FT)		
4	11.25' BEND	1.00	1.00	1.00	0.25	0.33	2.00	0.25		
4	22.5' BEND	2.00	1.41	1.41	0.21	0.33	2.00	0.25		
4	45' BEND	3.50	1.87	1.87	0.42	0.33	2.00	0.25		
4	TEE & DEAD END	4.75	2.18	2.18	0.87	0.33	2.00	0.25		
6	11.25' BEND	2.00	1.41	1.41	0.25	0.30	2.00	0.25		
6	22.5' BEND	3.75	1.84	1.84	0.30	0.30	2.00	0.25		
6	45' BEND	7.25	2.69	2.69	0.58	0.30	2.00	0.25		
6	TEE & DEAD END	9.50	3.08	3.08	0.83	0.30	2.00	0.25		
8	11.25' BEND	3.25	1.80	1.80	0.34	0.47	2.00	0.25		
8	22.5' BEND	6.50	2.55	2.55	0.48	0.47	2.00	0.25		
8	45' BEND	12.50	3.07	3.07	0.87	0.47	2.00	0.25		
8	TEE & DEAD END	16.25	4.64	4.64	1.08	0.47	2.00	0.25		



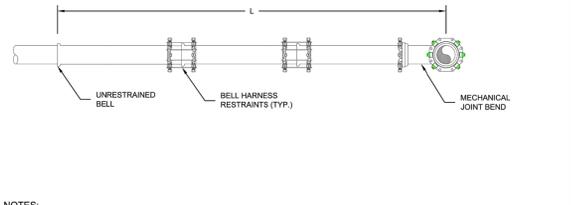
Colorado Springs Utilities  
CONCRETE THRUST REACTION BLOCKS  
DATED 03/2014  
A4-2

CONCRETE THRUST REACTION BLOCK REQUIREMENTS FOR TEES OR TAPS																
WATER MAIN SIZE (INCHES)																
CONNECTION OR FITTING SIZE (INCHES)	4	6	8	10	12	14	16	18	20	22	24	26	28	30	36	42
4																
6																
8																
10																
12																
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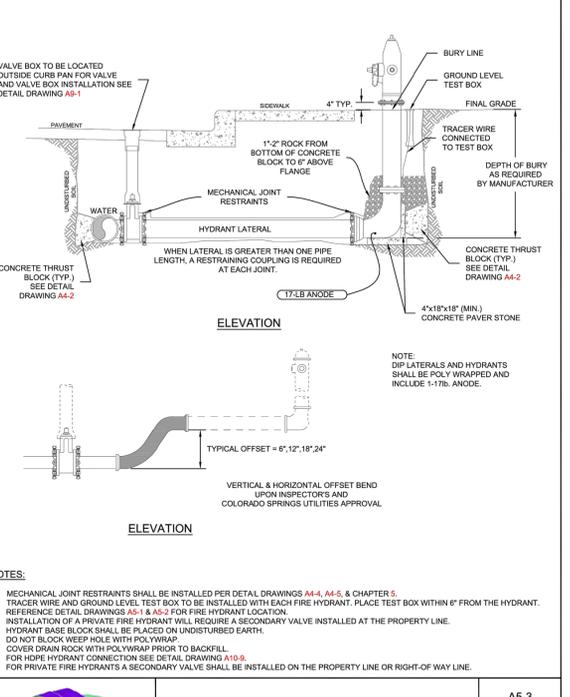


Colorado Springs Utilities  
CONCRETE THRUST REACTION BLOCKS  
DATED 03/2014  
A4-3

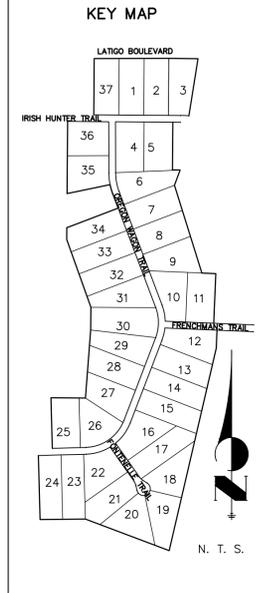
L = MINIMUM RESTRAINED PIPE LENGTH (FEET)												
PIPE DIAMETER	45° BEND			22-1/2° BEND			11-1/4° BEND			DEAD END VALVE OR PLUG TO INCLUDE VALVE WEIGHTS (SEE NOTE 9)		
MAX. STATIC PRESSURE (PSI)	<100	100-150	150-200	<100	100-150	150-200	<100	100-150	150-200	<100	100-150	150-200
6 INCH DUCTILE IRON AND PVC	6	9	12	3	5	6	2	3	3	49	73	97
8 INCH DUCTILE IRON AND PVC	8	12	16	4	6	8	2	3	4	63	94	125
12 INCH DUCTILE IRON AND PVC	12	17	23	6	8	11	3	4	6	89	133	177
16 INCH DUCTILE IRON AND PVC	15	22	29	7	11	14	4	5	7			
20 INCH DUCTILE IRON AND PVC	18	26	35	9	13	17	4	6	8			
24 INCH DUCTILE IRON AND PVC	20	30	40	10	15	20	5	7	10			
30 INCH DUCTILE IRON AND PVC	24	36	48	12	18	24	6	9	12			
36 INCH DUCTILE IRON AND PVC	28	42	56	14	20	27	7	10	14			



Colorado Springs Utilities  
RESTRAINED PIPE LENGTH (FEET) W/MECHANICAL JOINT RESTRAINTS  
DATED 03/2014  
A4-4



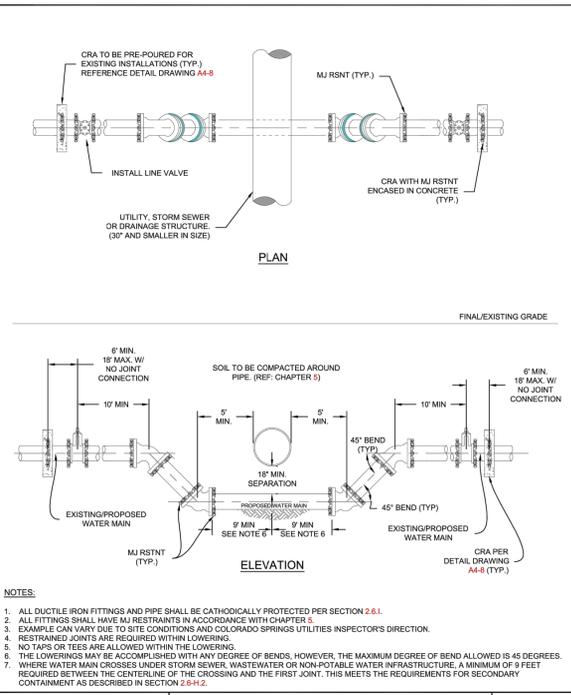
Colorado Springs Utilities  
FIRE HYDRANT INSTALLATION  
DATED 03/2014  
A5-3



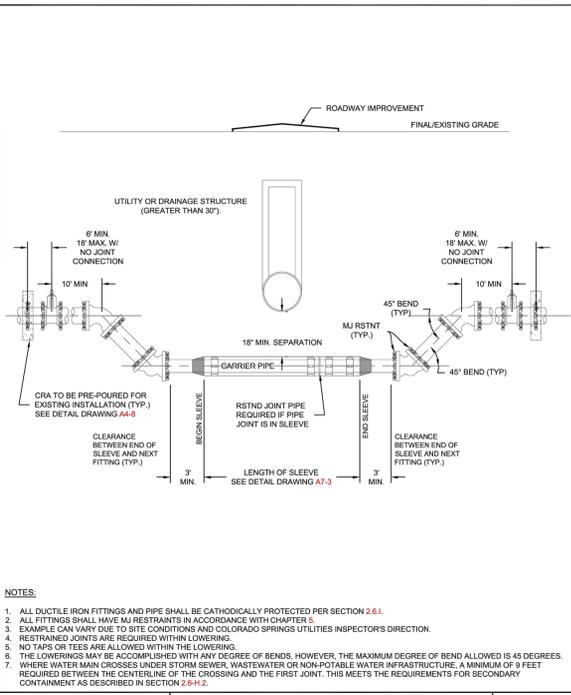
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BRUM, LLC  
101 N. CASCADE, SUITE 200  
COLORADO SPRINGS, CO 80903  
ATTN: BOB IRWIN  
P~(719)-475-7474

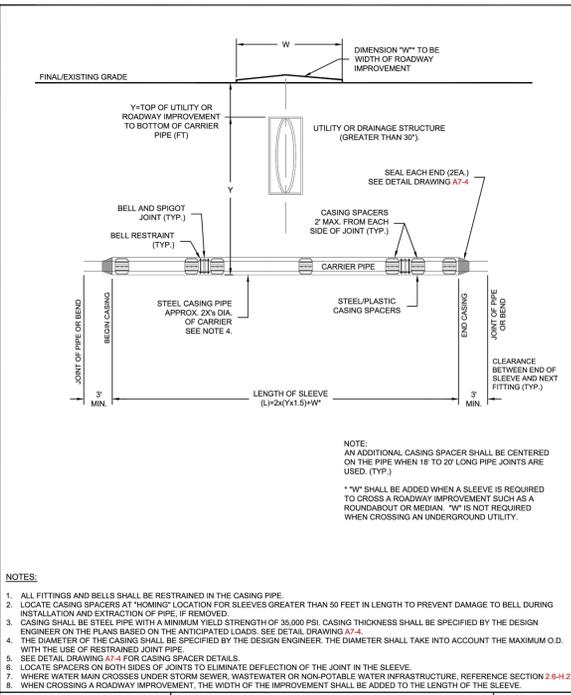
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Fort Collins 970-491-9888 • www.jrengineering.com



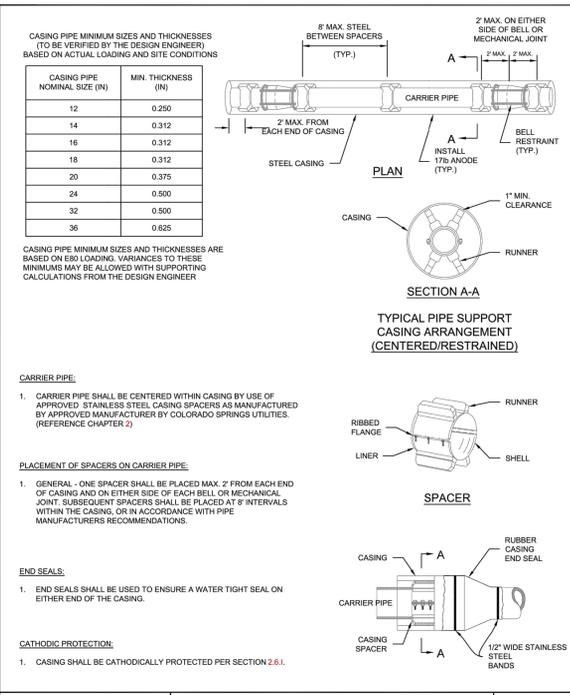
Colorado Springs Utilities  
LOWERING DETAIL UTILITY CROSSING 30° & SMALLER  
DATED 06/2020  
A7-1



Colorado Springs Utilities  
LOWERING DETAIL W/CASING UTILITY CROSSING GREATER THAN 30°  
DATED 06/2020  
A7-2



Colorado Springs Utilities  
TYPICAL STEEL CASING INSTALLATION  
DATED 06/2015  
A7-3



Colorado Springs Utilities  
TYPICAL STEEL CASING INSTALLATION  
DATED 06/2015  
A7-4

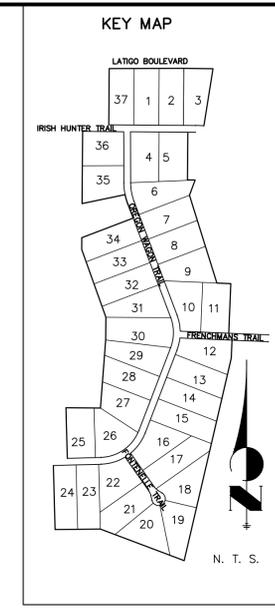
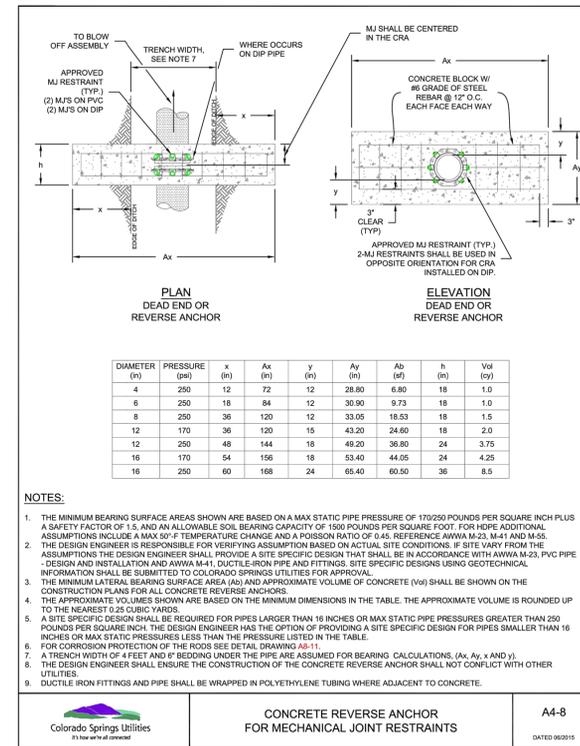
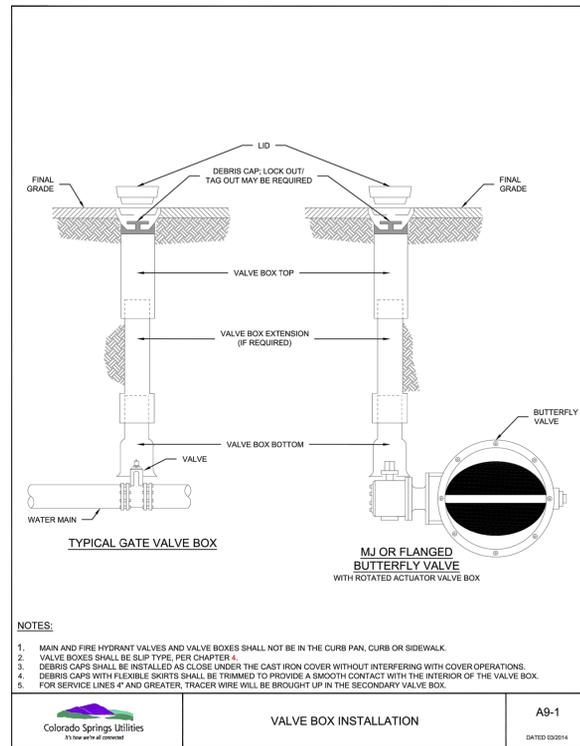
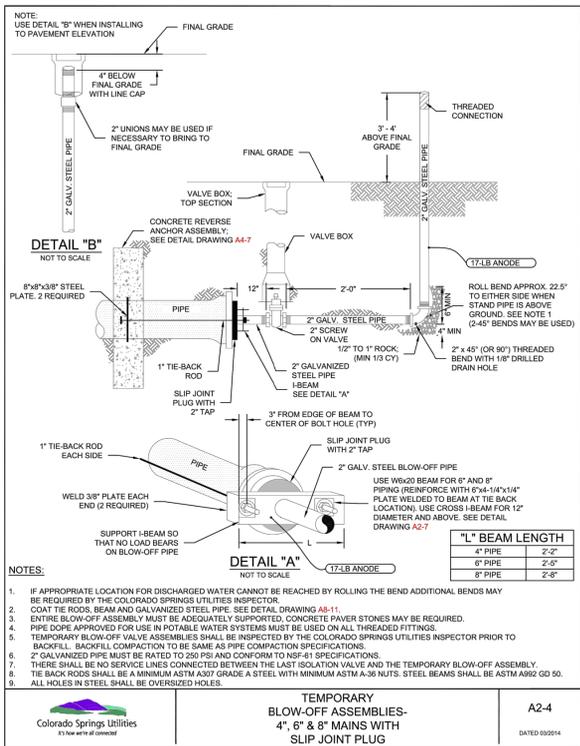
H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	BY	DATE	REVISION	
								No.	DATE
1"=10'	1"=8'	07/06/21	QNL	QNL					



**ENGINEER'S STATEMENT**  
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314  
FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER

32314



UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE. USES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR  
**BRUM, LLC**  
101 N. CASCADE, SUITE 200  
COLORADO SPRINGS, CO 80903  
ATTN: BOB IRWIN  
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Colorado Springs Utilities  
315 West 10th St, Colorado Springs, CO 80901

**LATIGO TRAILS - FILING NO. 9**

**DETAILS**

SHEET 13 OF 13

JOB NO. 25175.01

Colorado Springs Utilities  
315 West 10th St, Colorado Springs, CO 80901

**ENGINEER'S STATEMENT**

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.  
COLORADO P.E. 32314

FOR AND ON BEHALF OF JR ENGINEERING, LOCAL ENGINEER

DATE

Colorado Springs Utilities  
315 West 10th St, Colorado Springs, CO 80901

**811**  
Know what's below.  
Call before you dig.

BY DATE

No. REVISION

H-SCALE 1"=10'/A'  
V-SCALE 1"=4'

DATE 07/06/21

DESIGNED BY QNL

DRAWN BY QNL

CHECKED BY