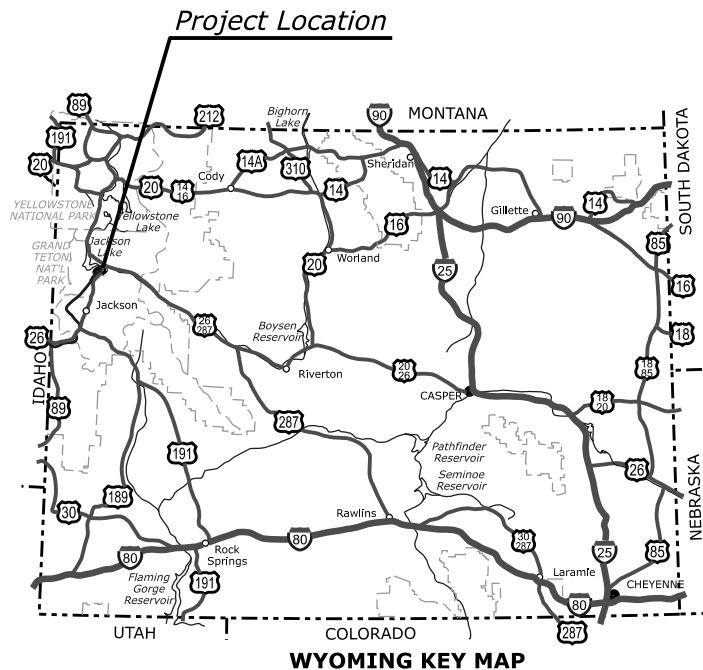


U. S. DEPARTMENT OF THE INTERIOR
FEDERAL HIGHWAY ADMINISTRATION



PLANS FOR PROPOSED PROJECT
WY FLAP TET TR200(1)
SAGEBRUSH CONNECTOR PATHWAY
GRAND TETON NATIONAL PARK
TETON COUNTY
WYOMING

PATHWAY LENGTH = 0.845 MILES



TYPE OF CONSTRUCTION:

Grading, aggregate base, asphalt concrete paving,
parking lot, drainage, and structure.

DESIGN DESIGNATION:

American Association of State Highway
and Transportation Officials, Bicycle
Facility Design Guidelines

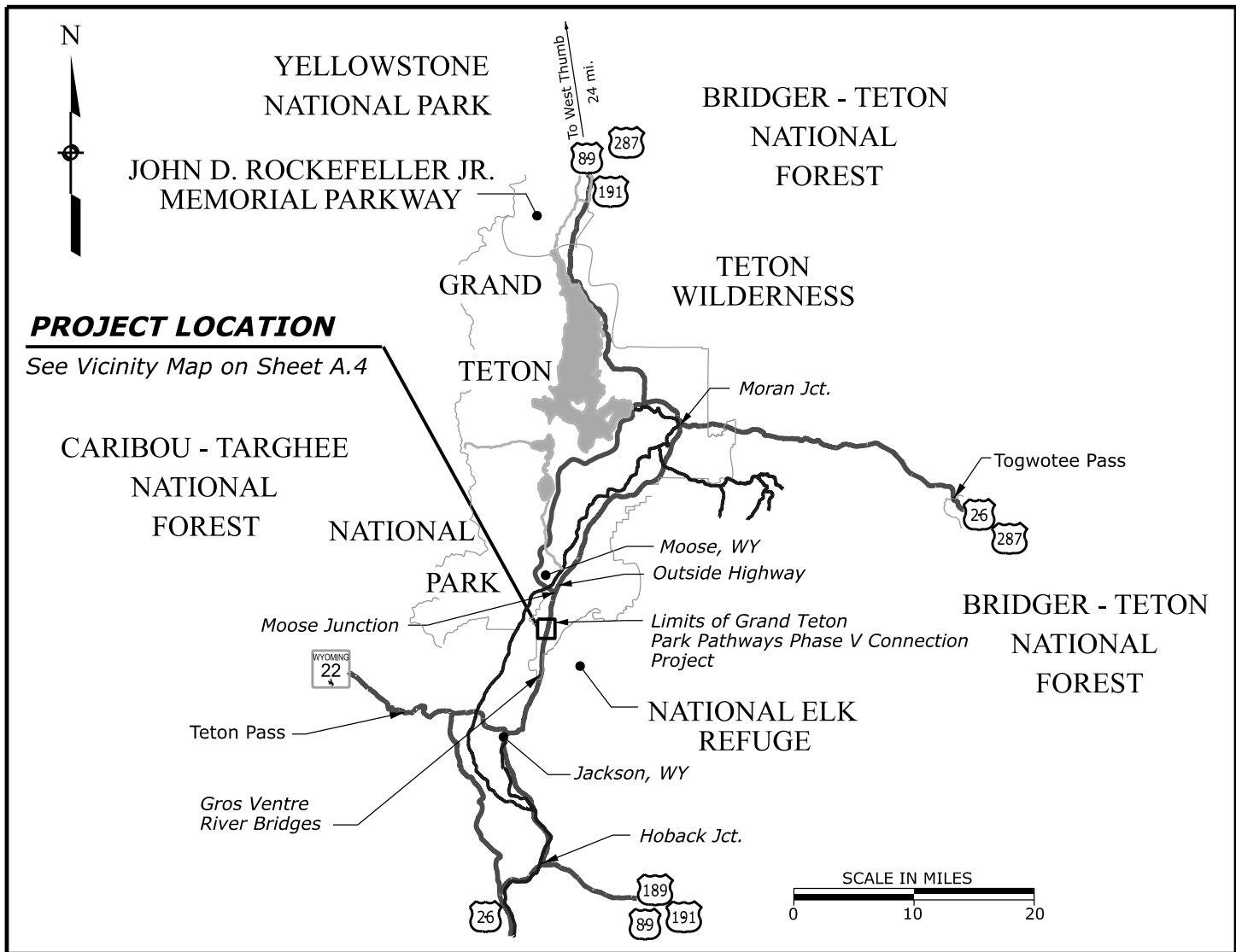
V 20 MPH
e (max) 0.020

SPECIFICATION:

Standard Specifications for
Construction of Roads and Bridges
on Federal Highway Projects, FP-14

PLANS PREPARED BY
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION
VANCOUVER, WASHINGTON

PROJECT MANAGER
K. GRAY



SECTION INDEX	
A.	GENERAL INFORMATION
B.	SUMMARIES
C.	TYPICAL SECTIONS
D.	PLAN & PROFILE
E.	EROSION CONTROL
F.	DRAINAGE
G.	STAGING LOCATIONS
H.	ROADWAY DETAILS
I.	TEMPORARY TRAFFIC CONTROL
J.	PERMANENT TRAFFIC CONTROL

See Sheet A.2 for Index to Sheets.

APPROVED:

Chief of Engineering,
Western Federal Lands Highway Division

DATE

c:\pw-work\0513131\wy-flap-tet-tr200-1_aa.dgn [Title Sheet] 1 December 2022 9:58 AM

7/2017	Checked by: K. Lang	7/2017	Designed by: J. Trujillo	... lwya-tet-tr200-1_ac.dgn [USC]	2/23/2023	<div><div><div><div>Δ</div><div>total central angle</div></div><div><div>Δc</div><div>curve central angle</div></div><div><div>Ø</div><div>diameter</div></div><div><div>θs</div><div>spiral central angle</div></div><div><div>abut.</div><div>abutment</div></div><div><div>ADT</div><div>average daily traffic</div></div><div><div>AH</div><div>ahead</div></div><div><div>appr.</div><div>approach</div></div><div><div>BK</div><div>back</div></div><div><div>BM</div><div>bench mark</div></div><div><div>BP</div><div>balance point</div></div><div><div>br.</div><div>bridge</div></div><div><div>brg.</div><div>bearing</div></div><div><div>cc or c. to c.</div><div>center to center</div></div><div><div>℄</div><div>centerline</div></div><div><div>clr.</div><div>clear</div></div><div><div>CMP</div><div>corrugated metal pipe</div></div><div><div>col.</div><div>column</div></div><div><div>conc.</div><div>concrete</div></div><div><div>conn.</div><div>connection</div></div><div><div>constr. jt.</div><div>construction joint</div></div><div><div>cont.</div><div>continuous</div></div><div><div>CS</div><div>point of curve to spiral</div></div><div><div>ctrs.</div><div>centers</div></div><div><div>CUFT</div><div>cubic foot (feet)</div></div><div><div>culv.</div><div>culvert</div></div><div><div>CUYD</div><div>cubic yard(s)</div></div><div><div>D</div><div>diameter</div></div><div><div>DHV</div><div>design hourly volume</div></div><div><div>dia.</div><div>diameter</div></div><div><div>diag.</div><div>diagonal</div></div><div><div>diaph.</div><div>diaphragm</div></div><div><div>dist.</div><div>distance</div></div><div><div>drwg(s).</div><div>drawing(s)</div></div><div><div>E</div><div>east</div></div><div><div>e</div><div>superelevation rate</div></div><div><div>El. 94.16 ft</div><div>elevation with number</div></div><div><div>elev.</div><div>elevation</div></div><div><div>emb.</div><div>embankment</div></div><div><div>EP</div><div>edge of pavement</div></div><div><div>EQ or eq.</div><div>equation</div></div><div><div>ER</div><div>edge of road</div></div><div><div>EW</div><div>edge of water</div></div><div><div>exc.</div><div>excavation</div></div><div><div>exp. jt.</div><div>expansion joint</div></div><div><div>fin.</div><div>finish</div></div><div><div>flg.</div><div>flange</div></div><div><div>ft2</div><div>square foot</div></div><div><div>ft3</div><div>cubic foot (feet)</div></div><div><div>ftg.</div><div>footing</div></div><div><div>ga.</div><div>gage (gauge)</div></div><div><div>galv.</div><div>galvanized</div></div><div><div>hdwl.</div><div>headwall</div></div><div><div>hex.</div><div>hexagon</div></div><div><div>HW</div><div>high water</div></div><div><div>ID</div><div>inside diameter</div></div><div><div>jt.</div><div>joint</div></div><div><div>L</div><div>length of curve</div></div><div><div>lam.</div><div>lamination</div></div><div><div>lat.</div><div>latitude</div></div><div><div>LNFT</div><div>linear foot (feet)</div></div><div><div>long.</div><div>longitudinal</div></div><div><div>LPSM</div><div>lump sum</div></div><div><div>Ls</div><div>length of spiral</div></div><div><div>lt. or LT</div><div>left</div></div><div><div>LW</div><div>low water</div></div></div></div>	<div><div><div>M.L.</div><div>main line</div></div><div><div>M.P.</div><div>mile post</div></div><div><div>matl.</div><div>material</div></div><div><div>max.</div><div>maximum</div></div><div><div>MGAL</div><div>thousand gallon</div></div><div><div>min.</div><div>minimum</div></div><div><div>mon.</div><div>monument</div></div><div><div>N</div><div>north</div></div><div><div>NC</div><div>normal crown</div></div><div><div>o. c.</div><div>on center</div></div><div><div>o. to o.</div><div>out to out</div></div><div><div>OD</div><div>outside diameter</div></div><div><div>OG</div><div>original ground</div></div><div><div>PC</div><div>point of curve</div></div><div><div>PCC</div><div>point of compound curve</div></div><div><div>PCS</div><div>point of curve to spiral</div></div><div><div>PI</div><div>point of intersection</div></div><div><div>pl.</div><div>plate</div></div><div><div>POC</div><div>point on curve</div></div><div><div>POS</div><div>point on spiral</div></div><div><div>POT</div><div>point on tangent</div></div><div><div>PS</div><div>point of tangent to spiral</div></div><div><div>PSC</div><div>point of spiral to curve</div></div><div><div>PST</div><div>point of spiral to tangent</div></div><div><div>PT</div><div>point of tangent</div></div><div><div>pvmt.</div><div>pavement</div></div><div><div>R</div><div>radius</div></div><div><div>R.</div><div>range</div></div><div><div>R/W</div><div>right-of-way</div></div><div><div>rdwy.</div><div>roadway</div></div><div><div>reinf.</div><div>reinforcement</div></div><div><div>reqd.</div><div>required</div></div><div><div>rt. or RT</div><div>right</div></div><div><div>rte.</div><div>route</div></div><div><div>S</div><div>south</div></div><div><div>SADT</div><div>seasonal average daily traffic</div></div><div><div>SC</div><div>point of spiral to curve</div></div><div><div>sec.</div><div>section</div></div><div><div>shldr.</div><div>shoulder</div></div><div><div>SLRY</div><div>slurry unit</div></div><div><div>spa.</div><div>spacing, spaces or spaced</div></div><div><div>SQFT</div><div>square foot</div></div><div><div>SQYD</div><div>square yard</div></div><div><div>SRS</div><div>point of spiral to reverse spiral</div></div><div><div>SS</div><div>point of spiral to spiral (no curve)</div></div><div><div>ST</div><div>point of spiral to tangent</div></div><div><div>STA, Sta.</div><div>station</div></div><div><div>std.</div><div>standard</div></div><div><div>stgr.</div><div>stringer</div></div><div><div>stiff.</div><div>stiffener</div></div><div><div>struc.</div><div>structural</div></div><div><div>STS</div><div>point of spiral to tangent spiral</div></div><div><div>sym.</div><div>symmetrical</div></div><div><div>T</div><div>tangent distance</div></div><div><div>T.</div><div>township</div></div><div><div>TBM</div><div>temporary bench mark</div></div><div><div>thd.</div><div>thread</div></div><div><div>TS</div><div>point of tangent to spiral</div></div><div><div>Ts</div><div>tangent distance (spiraled curve)</div></div><div><div>typ.</div><div>typical</div></div><div><div>V</div><div>design speed</div></div><div><div>vph</div><div>vehicles per hour</div></div><div><div>VPI</div><div>vertical point of intersection</div></div><div><div>W</div><div>west</div></div><div><div>yd2</div><div>square yard</div></div><div><div>yd3</div><div>cubic yard(s)</div></div></div>	<div><div><div>National Boundary</div><div>State Boundary</div><div>County Boundary</div><div>City Boundary</div><div>Township or Range Line</div><div>Section Line</div><div>Section Corner (Found, Projected)</div><div>¼ Section Line</div><div>¼ Section Corner (Found, Projected)</div><div>⅓ Section Line</div><div>⅓ Section Corner (Found, Projected)</div><div>Property Line w/Found Property Corner</div><div>Parcel Number</div><div>National Park Boundary</div><div>National Forest Boundary</div><div>National Wildlife Refuge Boundary</div><div>BLM Lands Boundary</div><div>Indian Reservation Boundary</div><div>Existing Roadway (Road, Paved, Gravel)</div><div>Railroad</div><div>Trail</div><div>Fiber Roll or Wattle</div><div>Silt Fence</div><div>Intermittent Drainage or Small Creek</div><div>Large Creek or River</div><div>Lake, Pond or Reservoir; Marshland</div><div>Spring or Seep</div><div>Treeline; Individual Trees</div><div>Material Source; Bore Hole; Test Pit</div><div>Spot Elevation; Coordinate Grid Tick</div><div>Above Ground Tank; Underground Tank</div><div>Boulder; Well; Satellite Dish; Grave</div><div>Cooking Grate; Garbage Can; Picnic Table</div><div>Flagpole; Fire Hydrant</div><div>Gas & Water Meter; Gas & Water Valve</div><div>Control Point (Terrestrial and GPS); Jump Hub</div></div></div>	<div><div><div>North Arrow</div><div>Slope Stake Limits</div><div>Fence</div><div>Gate with Fence</div><div>Cattleguard</div><div>Guardrail</div><div>Concrete Barrier</div><div>Retaining Wall</div><div>Signs (single, double post; portable)</div><div>Delineators</div><div>Pipe Culvert (arrow shows flow)</div><div>Pipe Culvert with End Section</div><div>Pipe Culvert with Headwall</div><div>Pipe Culvert with Drop Inlet</div><div>Box Culvert</div><div>Underdrain</div><div>Overhead/Above Ground Utilities</div><div>Underground Utilities</div><div>Poles (Power, Telephone, Joint Use, Light, Support w/Anchor)</div><div>Miscellaneous Utility Features</div><div>Building</div><div>Right-of-Way Line with Monument</div><div>Permanent Easement</div><div>Construction Easement</div><div>Riprap</div></div></div>	<div><div><div>STATE</div><div>PROJECT</div><div>SHEET NUMBER</div><div>WY</div><div>FLAP TET TR200(1)</div><div>A.3</div></div><div><div><div>EXISTING</div><div>PROPOSED</div></div><div><div>Top of Cut</div><div>Toe of Fill</div><div>Transition</div></div><div><div>XX</div><div>XX</div><div>XXX</div></div><div><div>XX</div><div>XX</div><div>XX</div><div>XX</div></div><div><div>wall face</div></div><div><div>TT</div></div><div><div>FM</div><div>FO</div><div>G</div><div>IRR</div><div>O</div><div>P</div><div>SA</div><div>SD</div><div>SS</div><div>STEAM</div><div>T</div><div>TV</div><div>W</div></div><div><div>EM</div><div>T</div><div>TV</div><div>UP</div></div><div><div>R/W</div><div>P/E</div><div>TCE</div></div><div><div>NO SCALE</div></div></div></div>
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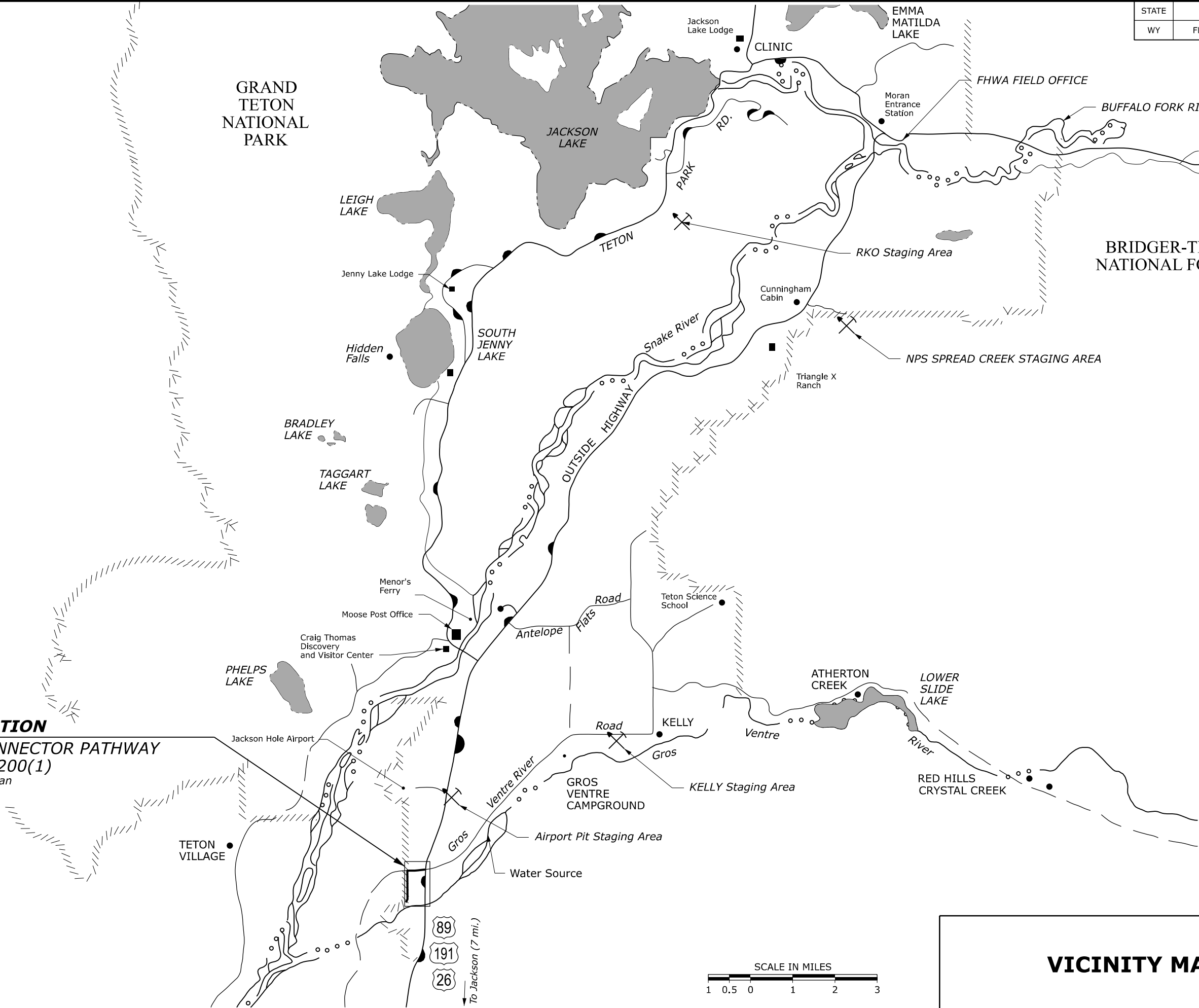
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	A.4

PROJECT LOCATION
SAGEBRUSH CONNECTOR PATHWAY
WY FLAP TET TR200(1)
See Sheet A.5 for Site Plan

TARGHEE
NATIONAL
FOREST

GRAND
TETON
NATIONAL
PARK

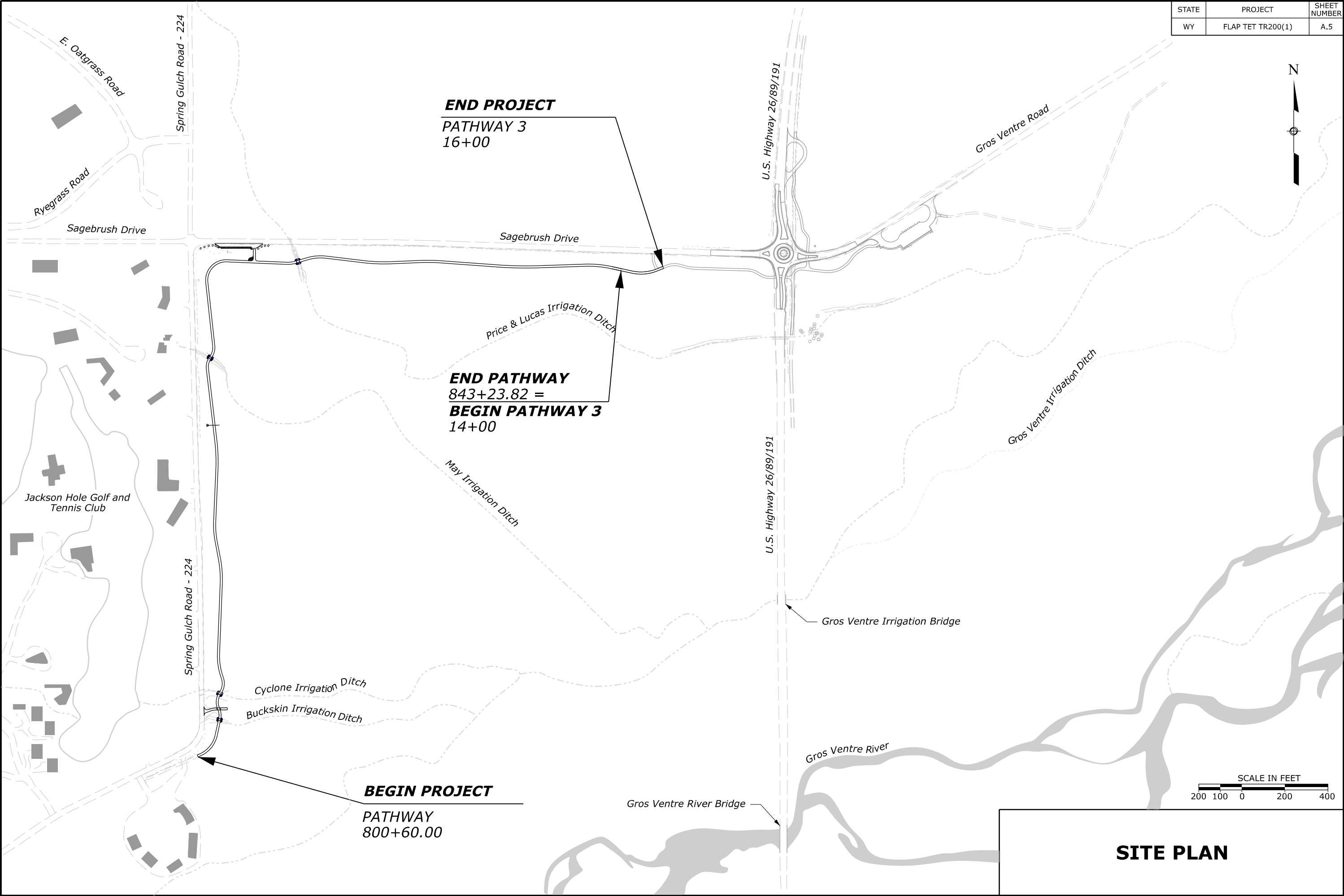
BRIDGER-TETON
NATIONAL FOREST



VICINITY MAP

1/19/2023 ...\\gite70005ae.dgn [US_Sur_ft2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	A.5



SITE PLAN

--/-----

GOBLE

Checked by:

--/-----

WFLHD

Designed by:

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23-Jan-2023 10:21

PROJECT : WY FLAP TET TR200(1)
DATE OF FIELD WORK :Multiple Entries
DATE OF FINAL ADJUSTMENT : 10/2013

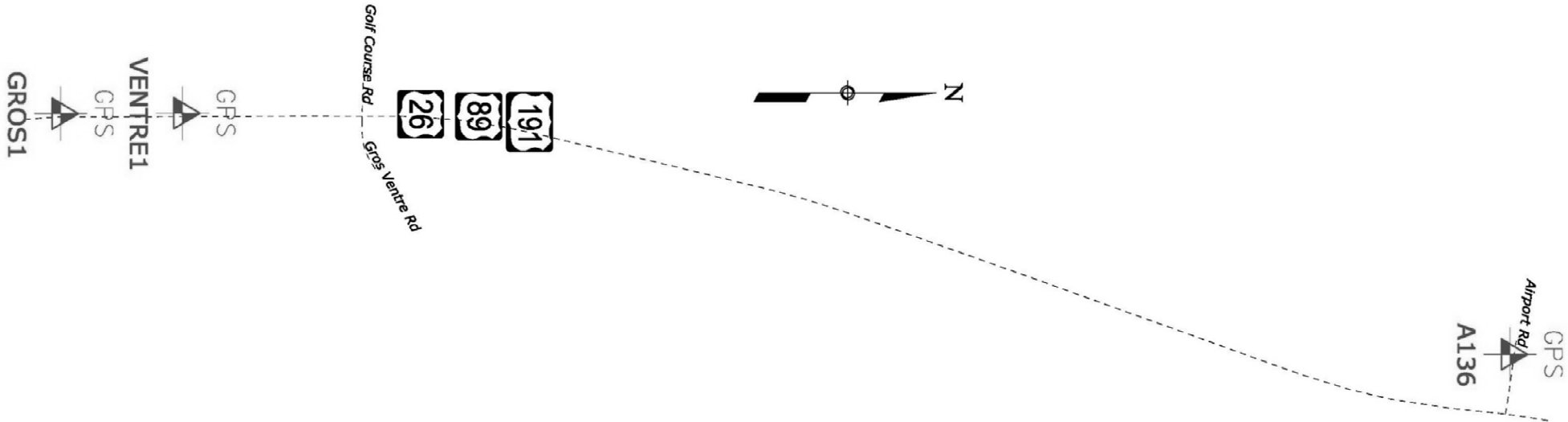
PROJECT UNITS : US SURVEY FOOT
COORDINATE SYSTEM : SPCS NAD83 CORS 96; Wyoming West 4904
EPOCH DATE : 2002.0000
VERTICAL DATUM : NAVD88 based on Geoid 03

STATE	PROJECT	SHEET NUMBER
WY	WY FLAP TET TR200(1)	A.6

POINT NUMBER	STATE PLANE COORDINATES			GEO COORDINATES				DESCRIPTION
	NORTH	EAST	ELEVATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	COMBINED FACTOR	
A136	1458674.904	2454416.543	6429.906	43°36'03.094890"N	110°43'33.840122"W	6399.0888	0.99966495	3" Brass cap
GROS1	1446409.716	2452428.063	6393.425	43°34'01.809340"N	110°43'59.560034"W	6362.3329	0.99966748	5/8" IR w/FHWA Alum Cap
VENTRE1	1447439.833	2452424.612	6398.269	43°34'11.982682"N	110°43'59.716297"W	6367.1943	0.99966725	5/8" IR w/FHWA Alum Cap

NOTE:

1. To precisely check distances between points as measured on the ground, inverse the state plane coordinates and divide the computed distance by a mean combined factor of the two points.



SURVEY CONTROL

SUMMARY OF QUANTITIES

PROJECT

SHEET
NUMBER

WY FLAP TET TR200(1)

B.1

A M E N D	Line Item No.	Pay Item Number	Pay Item Description	Unit	Sheet and Description							Estimated Quantities	Remarks and/or Determination of Estimated Quantity
					Section C	Section D	Section E	Section F	Section I	Section J		Bid Schedule	
					Typical Sections	Plan and Profile	Soil Erosion Control	Drainage	Temporary Traffic Control	Permanent Traffic Control	Allowance		
	A0020	15101-0000	MOBILIZATION	LPSM								ALL	
	A0040	15201-0000	CONSTRUCTION SURVEY AND STAKING	LPSM								ALL	
	A0060	15301-0000	CONTRACTOR QUALITY CONTROL	LPSM								ALL	
	A0080	15401-0000	CONTRACTOR TESTING	LPSM								ALL	
	A0100	15501-0000	CONSTRUCTION SCHEDULE	LPSM								ALL	
	A0120	15705-1400	SOIL EROSION CONTROL, FIBER ROLL	LNFT			434				16	450	
	A0140	15706-1600	SOIL EROSION CONTROL, STABILIZED CONSTRUCTION EXIT (TIMBER MAT SYSTEM, GOVERNMENT FURNISHED)	EACH			2					2	
	A0160	15802-0000	WATERING FOR DUST CONTROL	LPSM								ALL	
	A0180	20101-0000	CLEARING AND GRUBBING	ACRE		3.4					0.2	3.6	
	A0200	20301-0200	REMOVAL OF BOULDER	EACH		14						14	
	A0220	20301-0700	REMOVAL OF DELINEATOR	EACH		2						2	
	A0240	20301-2400	REMOVAL OF SIGN	EACH		3						3	
	A0260	20401-0000	ROADWAY EXCAVATION	CUYD		307					43	350	
	A0280	20402-0000	SUBEXCAVATION	CUYD		1,572					153	1,725	
	A0300	20410-0000	SELECT BORROW	CUYD		6,291					609	6,900	
	A0320	21101-1000	ROADWAY OBLITERATION, METHOD 1	SQYD		328					17	345	
	A0340	25101-0000	PLACED RIPRAP, METHOD A (GOVERNMENT FURNISHED)	CUYD				114			11	125	
	A0360	25125-0000	BOULDER (BIKE RACK, GOVERNMENT FURNISHED)	EACH		3						3	
	A0380	25126-0000	REMOVE AND RESET BOULDER	EACH		10						10	
	A0400	30201-2000	ROADWAY AGGREGATE, METHOD 2	CUYD	1,185						115	1,300	
	A0420	31302-0300	AGGREGATE-TOPSOIL COURSE, 3-INCH DEPTH	SQYD	3,263						337	3,600	
	A0440	40301-0100	ASPHALT CONCRETE PAVEMENT, TYPE 1	TON	902						48	950	
	A0460	60201-0800	24-INCH PIPE CULVERT	LNFT				44			6	50	
	A0480	60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	EACH				2				2	
	A0500	60220-1750	8 FEET SPAN, 3 FEET RISE PRECAST REINFORCED CONCRETE BOX CULVERT	LNFT				46				46	
	A0520	60220-3960	12 FEET SPAN, 3 FEET RISE, PRECAST REINFORCED CONCRETE BOX CULVERT	LNFT				14				14	
	A0540	60902-1000	CURB AND GUTTER, CONCRETE, 12-INCH DEPTH	LNFT		153						153	
	A0560	60905-1000	GUTTER, CONCRETE	LNFT		20						20	
	A0580	61501-0500	SIDEWALK, EXPOSED AGGREGATE CONCRETE (4-INCH DEPTH)	SQYD	114						11	125	
	A0600	61505-1000	ACCESSIBILITY RAMP, CONCRETE	EACH		1						1	
	A0620	61509-0000	DETECTABLE WARNING PANELS	SQYD						3		3	
	A0640	62201-0250	DUMP TRUCK, 10 CUBIC YARD MINIMUM CAPACITY	HOURL							20	20	
	A0660	62201-0600	BACKHOE LOADER, 8 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 30-INCH WIDTH	HOURL							20	20	
	A0680	62201-0850	WHEEL LOADER, 1 CUBIC YARD MINIMUM RATED CAPACITY	HOURL							20	20	
	A0700	62201-1300	BULLDOZER, 160HP MINIMUM FLYWHEEL POWER	HOURL							20	20	
	A0720	62201-3000	HYDRAULIC EXCAVATOR	HOURL							20	20	
	A0740	62201-3500	LOADER, WHEEL, SKID STEER, 40HP MINIMUM	HOURL							20	20	
	A0760	62301-0000	GENERAL LABOR	HOURL							60	60	
	A0780	62405-0350	PLACING CONSERVED TOPSOIL, 5-INCH DEPTH	SQYD		3,217					183	3,400	

MileStone: 100% PS&E

Date Completed: In Progress

Report Date: 02/22/23

SUMMARY OF QUANTITIES

PROJECT	SHEET NUMBER
WY FLAP TET TR200(1)	B.2

A M E N D	Line Item No.	Pay Item Number	Pay Item Description	Unit	Sheet and Description							Estimated Quantities	Remarks and/or Determination of Estimated Quantity
					Section C	Section D	Section E	Section F	Section I	Section J			
					Typical Sections	Plan and Profile	Soil Erosion Control	Drainage	Temporary Traffic Control	Permanent Traffic Control	Allowance	Bid Schedule	
	A0800	63301-1000	SIGN SYSTEM, GOVERNMENT FURNISHED SIGN (TYPE 1)	EACH						5		5	
	A0820	63301-1000	SIGN SYSTEM, GOVERNMENT FURNISHED SIGN (TYPE 2)	EACH						1		1	
	A0840	63316-1000	REMOVE AND RESET SIGN	EACH		1						1	
	A0860	63318-1000	SNOW POLE HOLDER (TYPE I)	EACH						10	1	11	
	A0880	63318-1000	SNOW POLE HOLDER (TYPE II)	EACH						4	1	5	
	A0900	63401-0300	PAVEMENT MARKINGS, TYPE B, SOLID (white)	LNFT						380	40	420	
	A0920	63401-2100	PAVEMENT MARKINGS, TYPE K, SOLID (yellow)	LNFT						1,156	134	1,290	
	A0940	63502-1250	TEMPORARY TRAFFIC CONTROL, TUBULAR MARKER, TYPE 42-INCH	EACH					50			50	
	A0960	63503-1000	TEMPORARY TRAFFIC CONTROL, PLASTIC FENCE	LNFT			277				203	480	
	A0980	63504-1000	TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN	SQFT					144		16	160	
	A1000	63506-0500	TEMPORARY TRAFFIC CONTROL, FLAGGER	HOURL					580		40	620	
	A1020	64603-0300	FIXTURE, BENCH (GOVERNMENT FURNISHED)	EACH		1						1	

MileStone: 100% PS&E
Date Completed: In Progress
Report Date: 02/22/23

3/2/2023

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Designed by: J. Trujillo

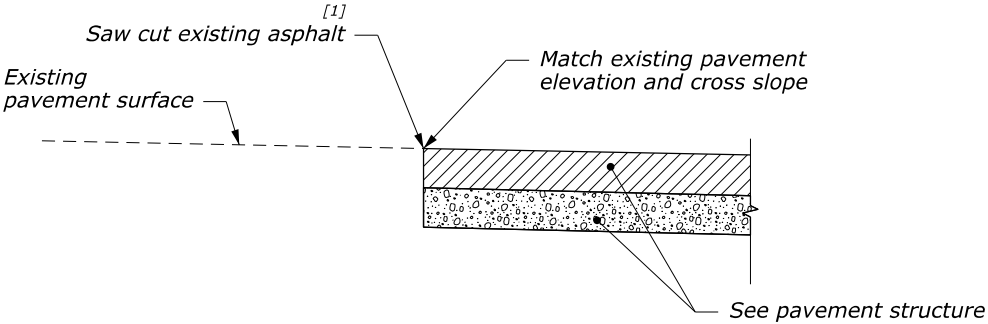
7/2017

Checked by: K. Lang

7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	C.1

PAVEMENT STRUCTURE QUANTITIES						
ITEM	DESCRIPTION	UNIT	QUANTITY			ESTIMATING VALUES
			Pathway & Access Road	Sagebrush Parking Lot & Connector	TOTAL	
30201-2000	ROADWAY AGGREGATE, METHOD 2	CUYD	1,012	173	1,185	
31302-0300	AGGREGATE-TOPSOIL COURSE, 3-INCH DEPTH	SQYD	3,234	29	3,263	
40301-0100	ASPHALT CONCRETE PAVEMENT, TYPE 1	TON	806	96	902	1.94 TON/CUYD
61501-0500	SIDEWALK, EXPOSED AGGREGATE CONCRETE (4-INCH DEPTH)	SQYD	-	114	114	



CONNECTION DETAIL

FOOTNOTE:

[1] Saw cut vertically according to FP-14 Section 203.

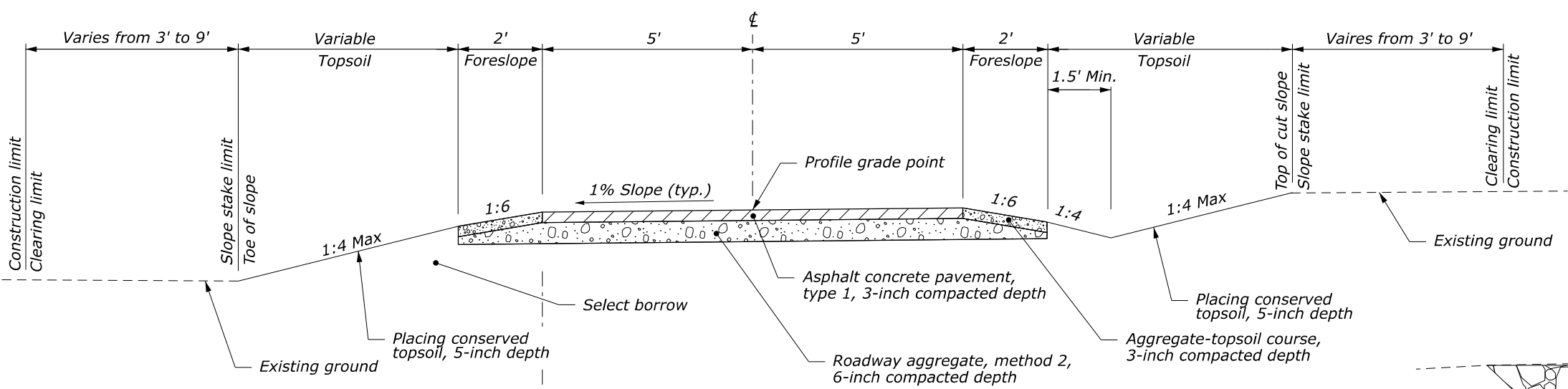
TABULATION OF
TYPICAL SECTION
QUANTITIES

7/2017 7/2017 7/2017 2/21/2023

Checked by: K. Lang
Designed by: J. Trujillo

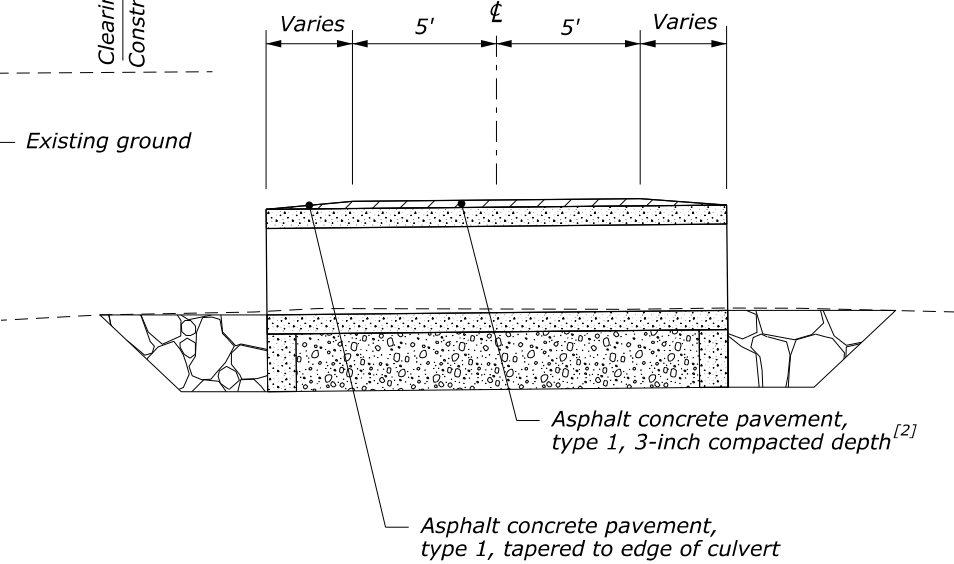
...lgte70005cb.dgn [US_Sur_ft2D]

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	C.2



**PATHWAY
AND PATHWAY CONNECTOR^[1]
TYPICAL SECTION**

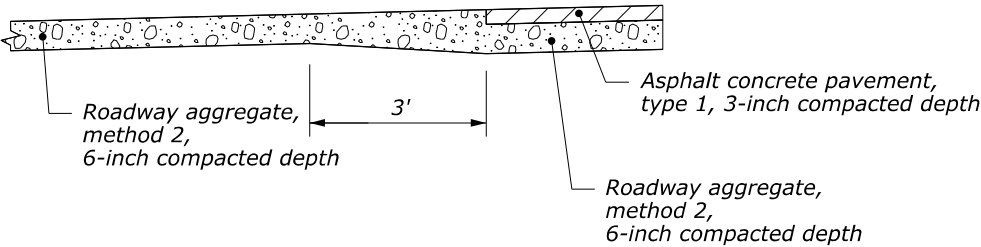
800+60 to 843+23.82 PATHWAY
14+00 to 16+00 PATHWAY 3



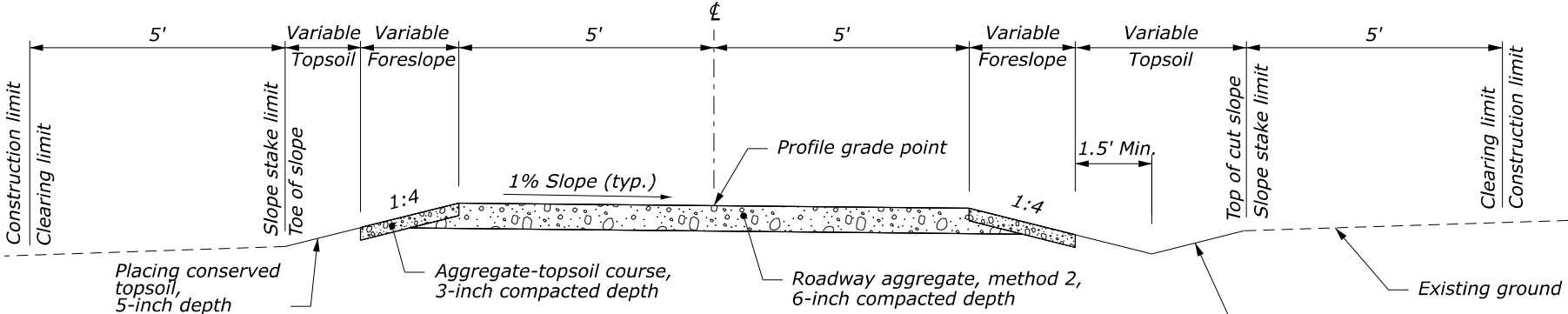
**PATHWAY AT BOX CULVERTS
TYPICAL SECTION**

Asphalt concrete pavement,
type 1, 3-inch compacted depth^[2]

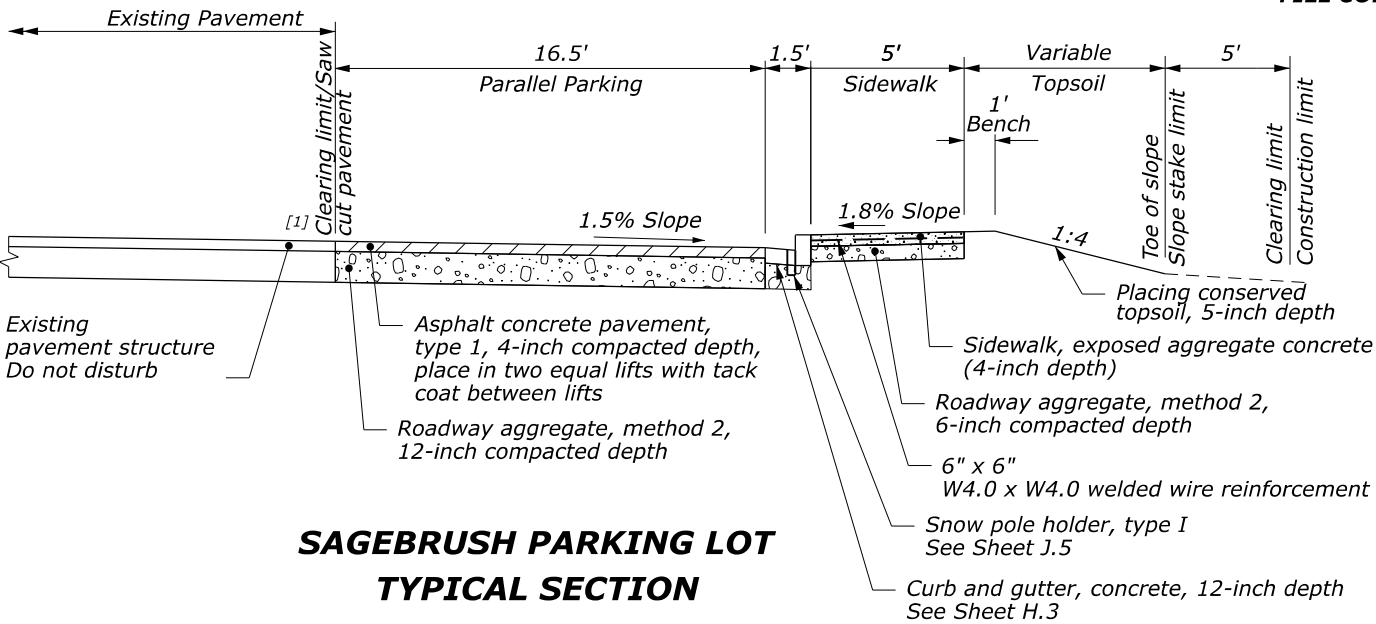
Asphalt concrete pavement,
type 1, tapered to edge of culvert



**PAVED APRON
AT INTERSECTION
WITH ACCESS ROAD**



**ACCESS ROAD
TYPICAL SECTION**
10+00 to 11+18.12 ACCESS ROAD



**SAGEBRUSH PARKING LOT
TYPICAL SECTION**

NOTE:
1. Embankment material will be select borrow. See D.1 for additional information.

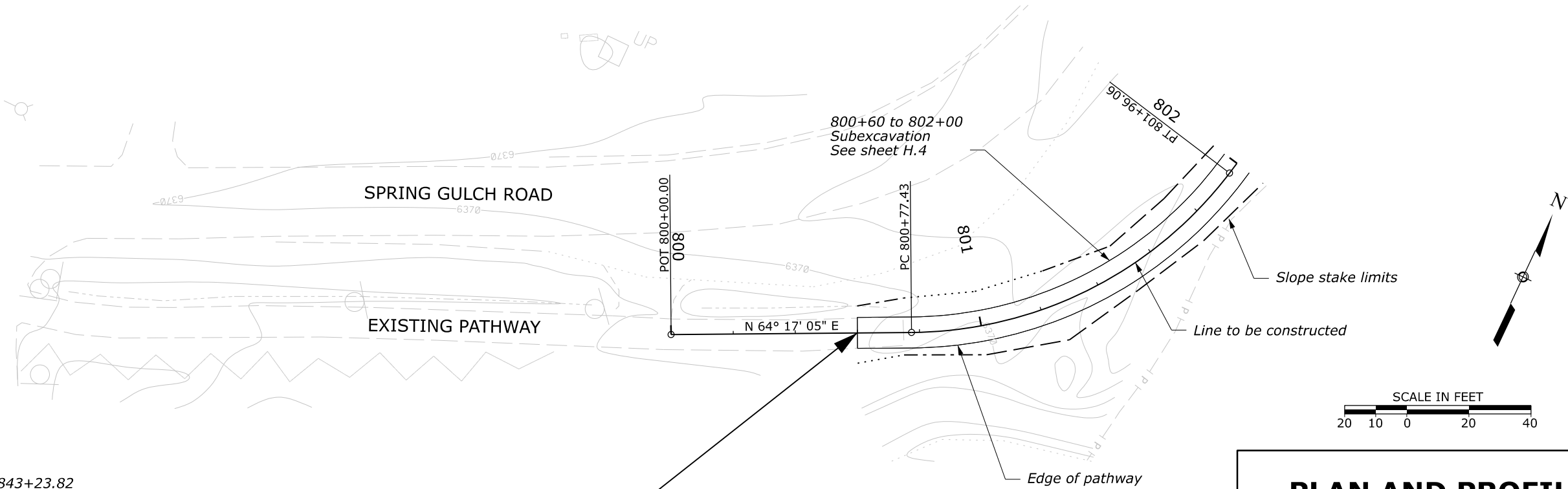
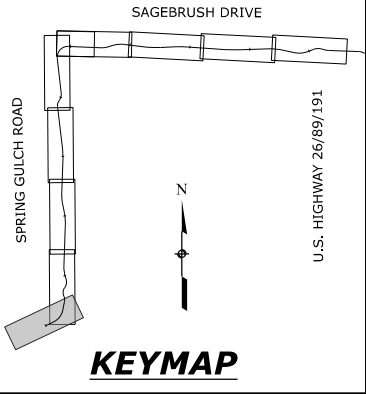
FOOTNOTE:
^[1] See Sheet D.11 for Northing, Easting and Elevation information.
^[2] Place a minimum pavement depth of 1.5 inches on top of the box culverts. Coordinate lifts with CO.

TYPICAL SECTIONS

NO SCALE

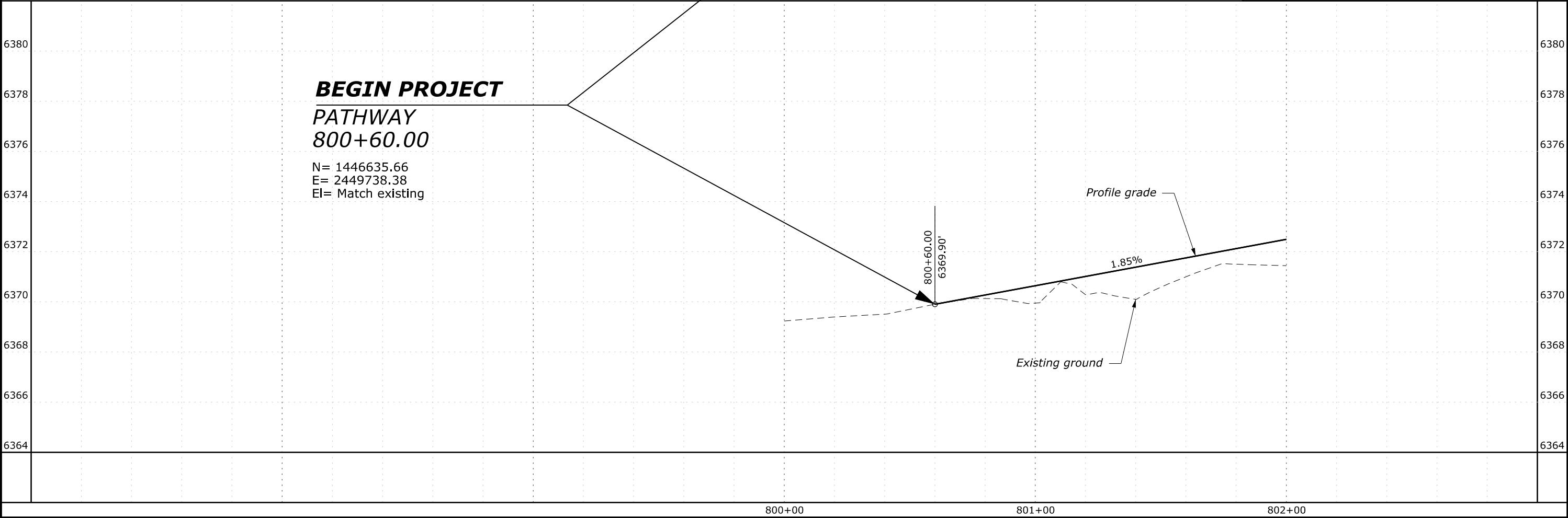
7/2017 7/2017 Checked by: K. Lang Designed by: J. Trujillo ...\\wva-tet-tr200-1_fb.dgn [US_Sur_f2D] 1/17/2023

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.2



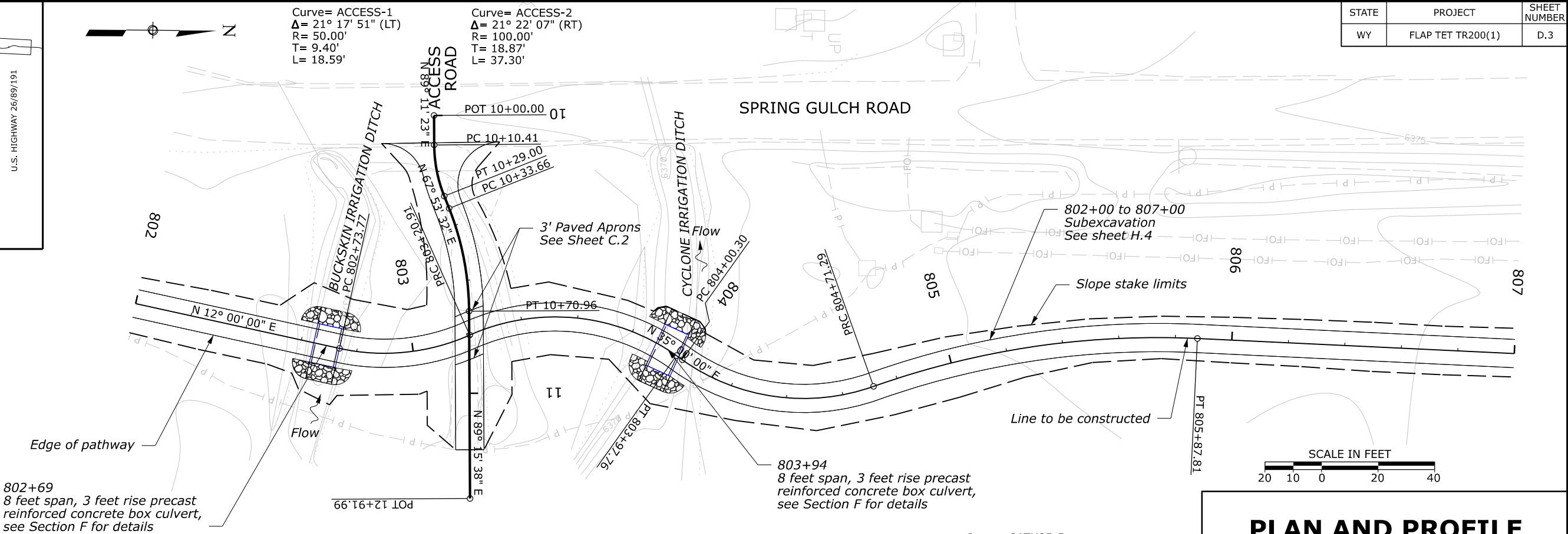
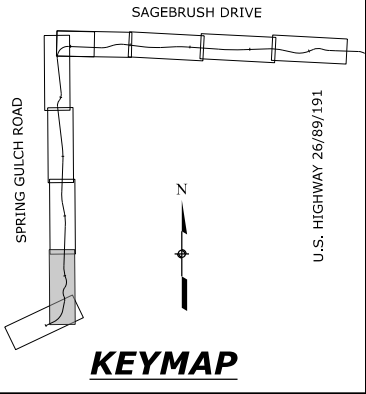
NOTE:
1. Staking notes for 800+60.00 to 843+23.82 provided with the government-furnished information.

**PLAN AND PROFILE
800+60 TO 802+00**

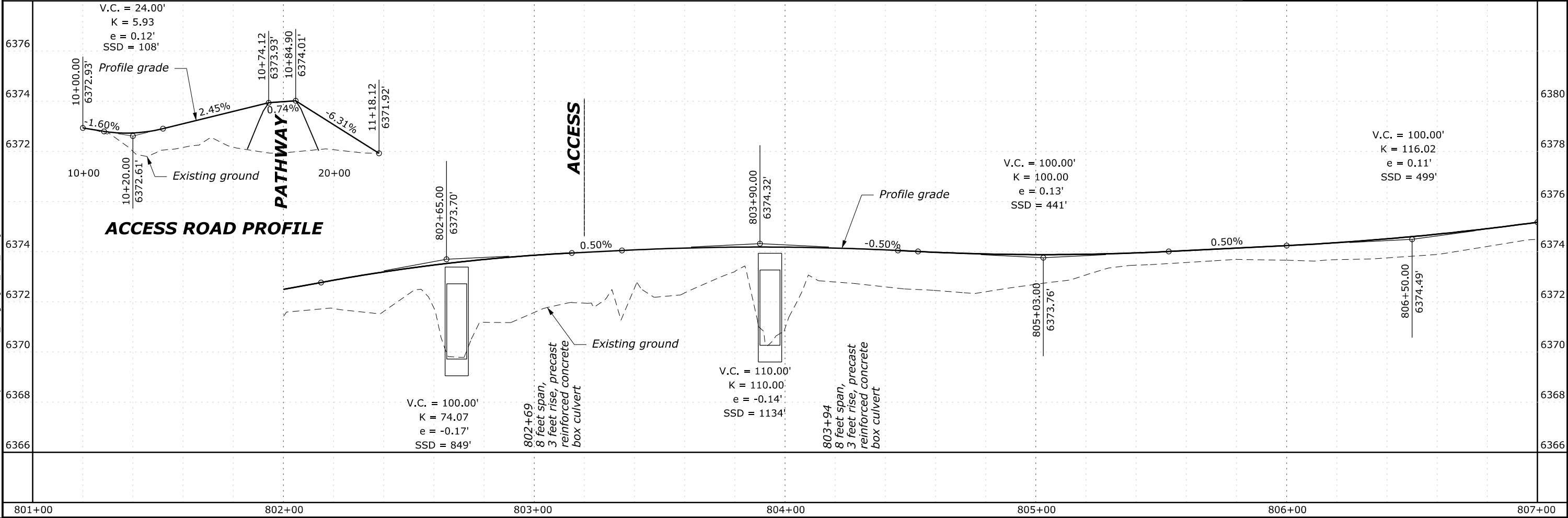


12/7/2022 ...\\wya-tet-tr200-1_fc.dgn [US Sur_ft2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.3

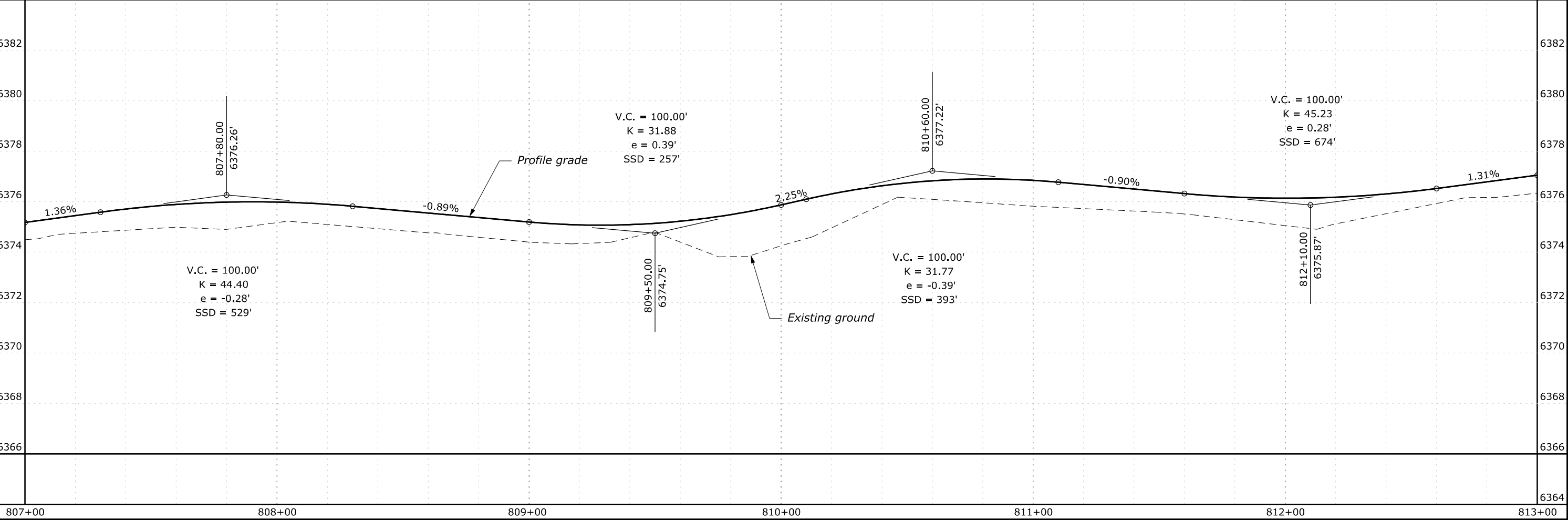
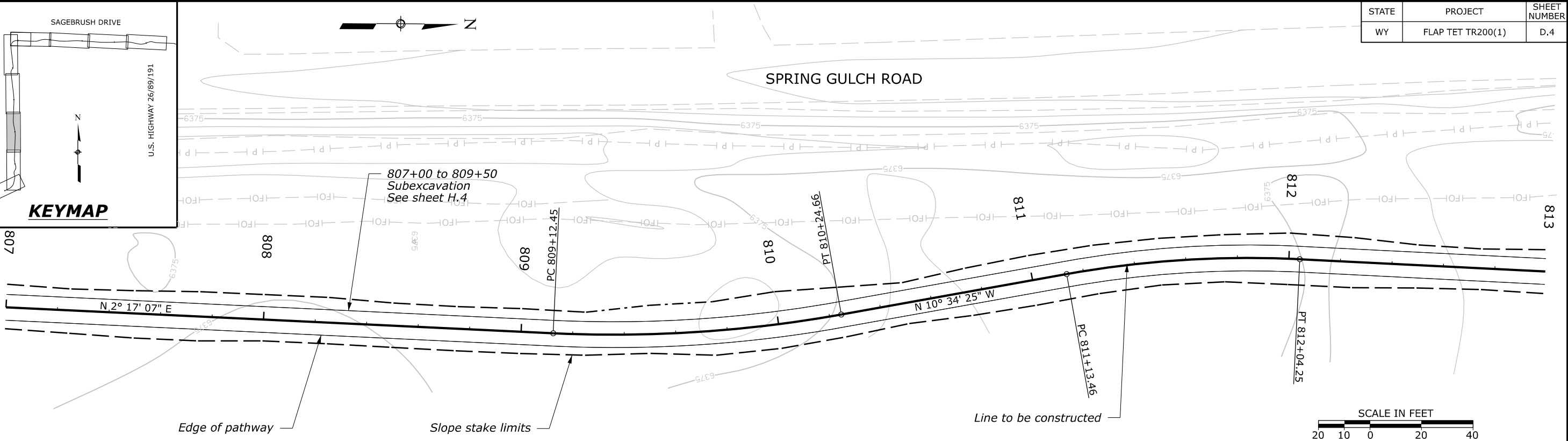
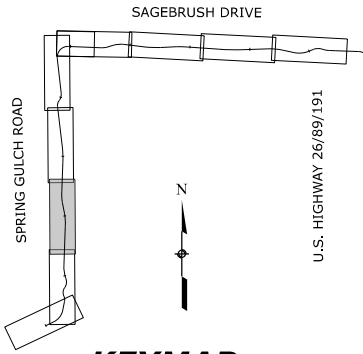


PLAN AND PROFILE
802+00 TO 807+00



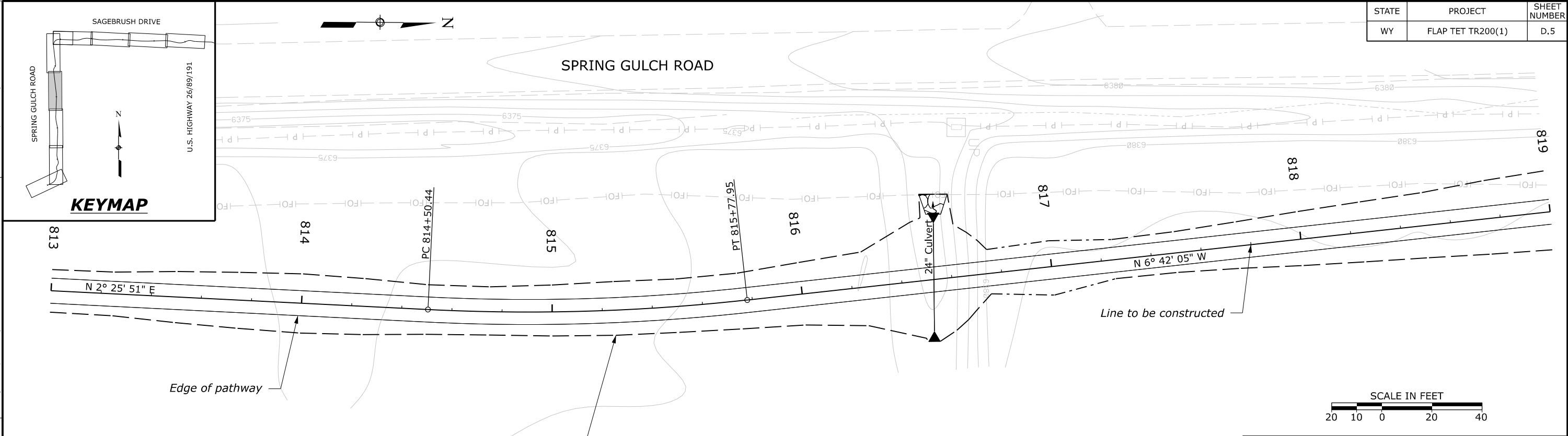
12/7/2022 ...\\wya-tet-tr200-1_fd.dgn [US_Sur_f2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.4

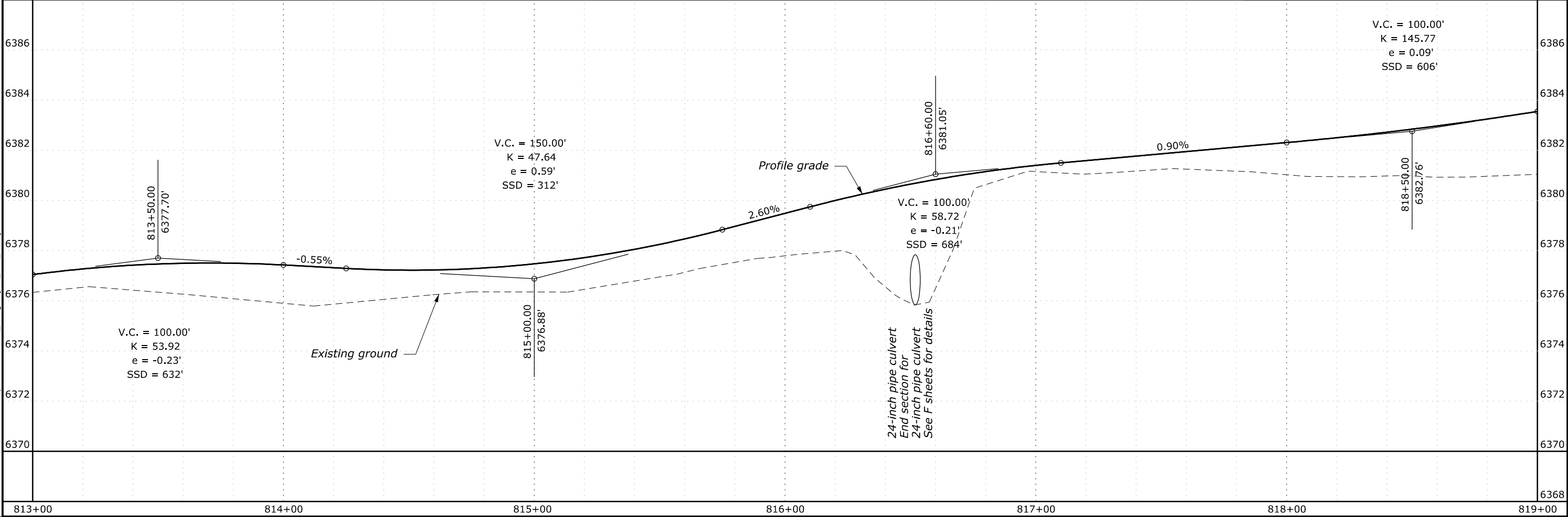


12/7/2022 ...\\wya-tet-tr200-1_fe.dgn [US_Sur_f2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.5

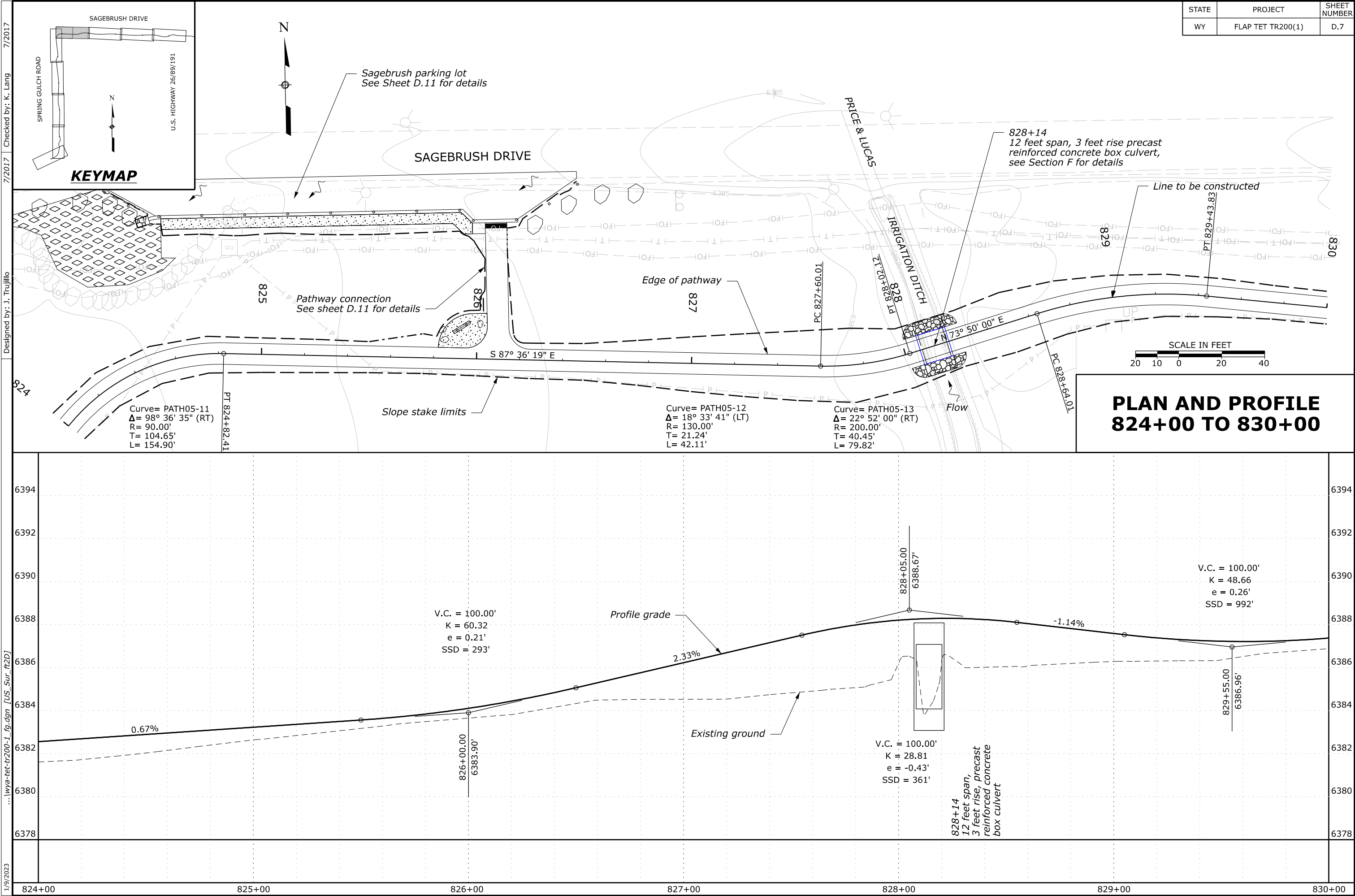


**PLAN AND PROFILE
813+00 TO 819+00**



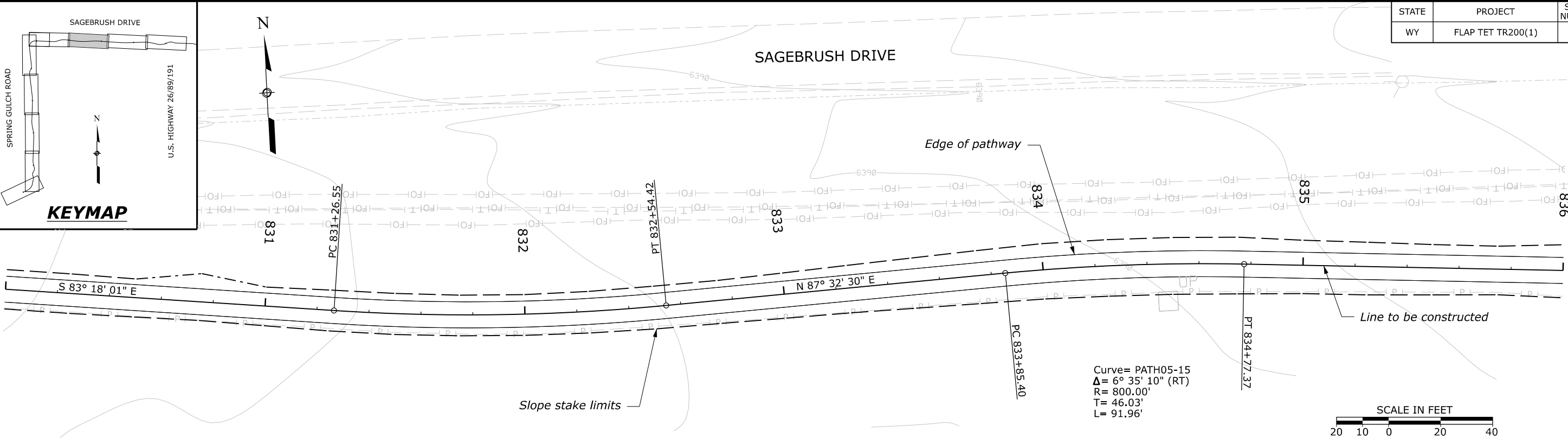
7/2017 7/2017 Checked by: K. Lang 7/2017
Designed by: J. Trujillo
...\\wva-tet-tr200-1_fg.dgn [US_Sur_f2D]
1/9/2023

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.7

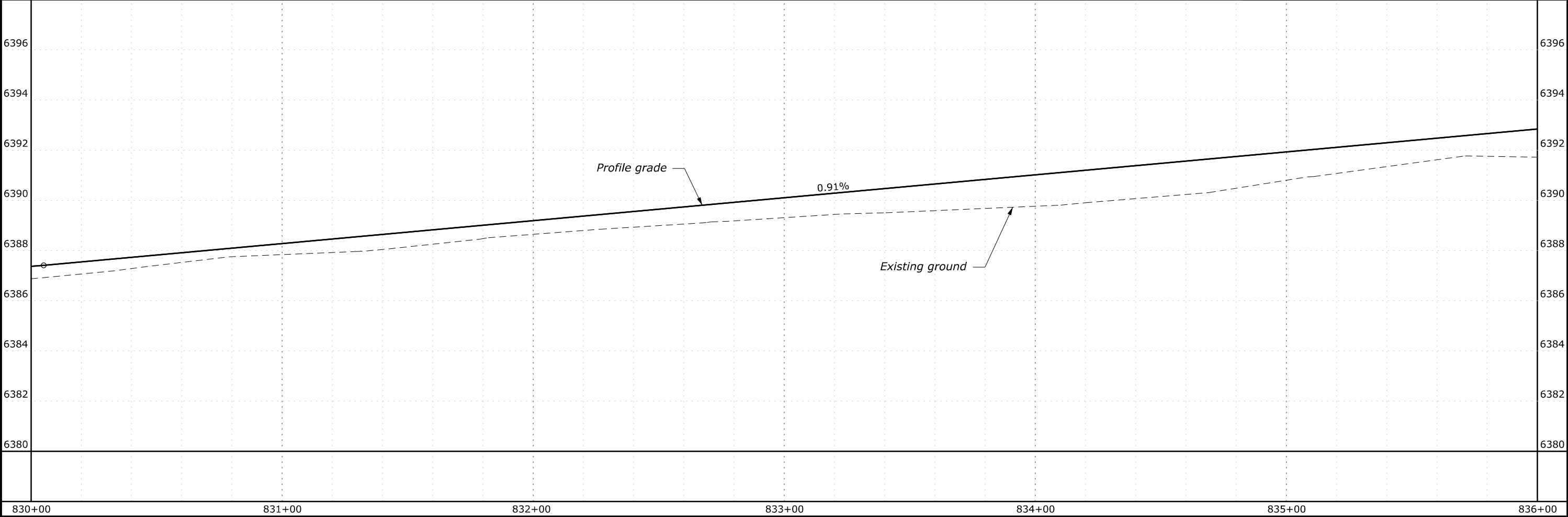


12/7/2022 ...\\wya-tet-tr200-1_fh.dgn [US_Sur_f2D] Designed by: J. Trujillo 7/2017 Checked by: K. Lang 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.8

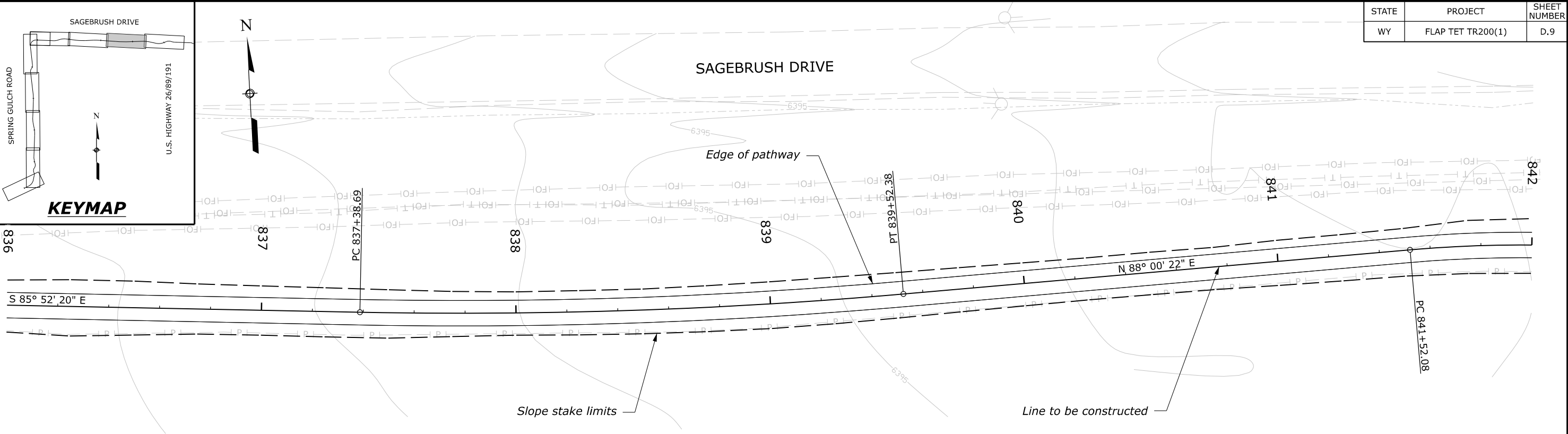


PLAN AND PROFILE 830+00 TO 836+00



12/7/2022 ...|wya-tet-tr200-1_fl.dgn [US_Sur_ft2D] Designed by: J. Trujillo 7/2017 Checked by: K. Lang 7/2017

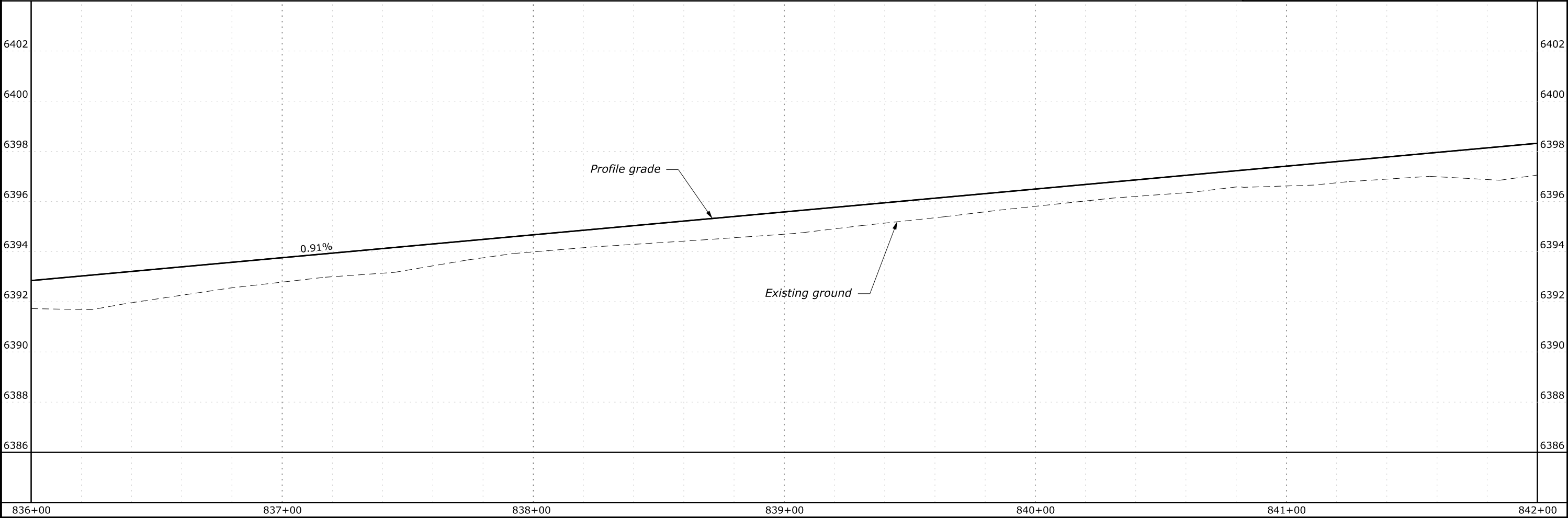
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.9

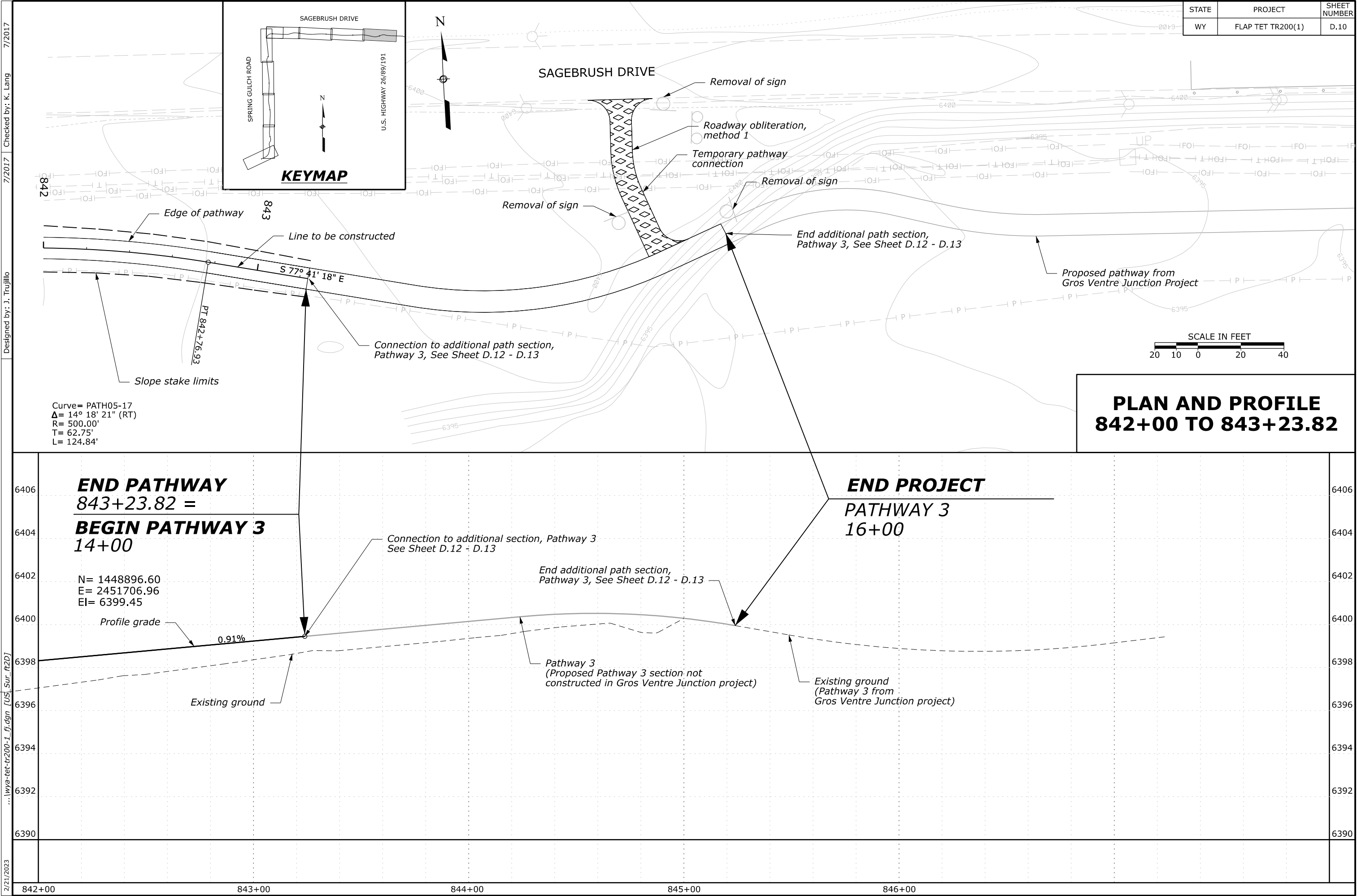


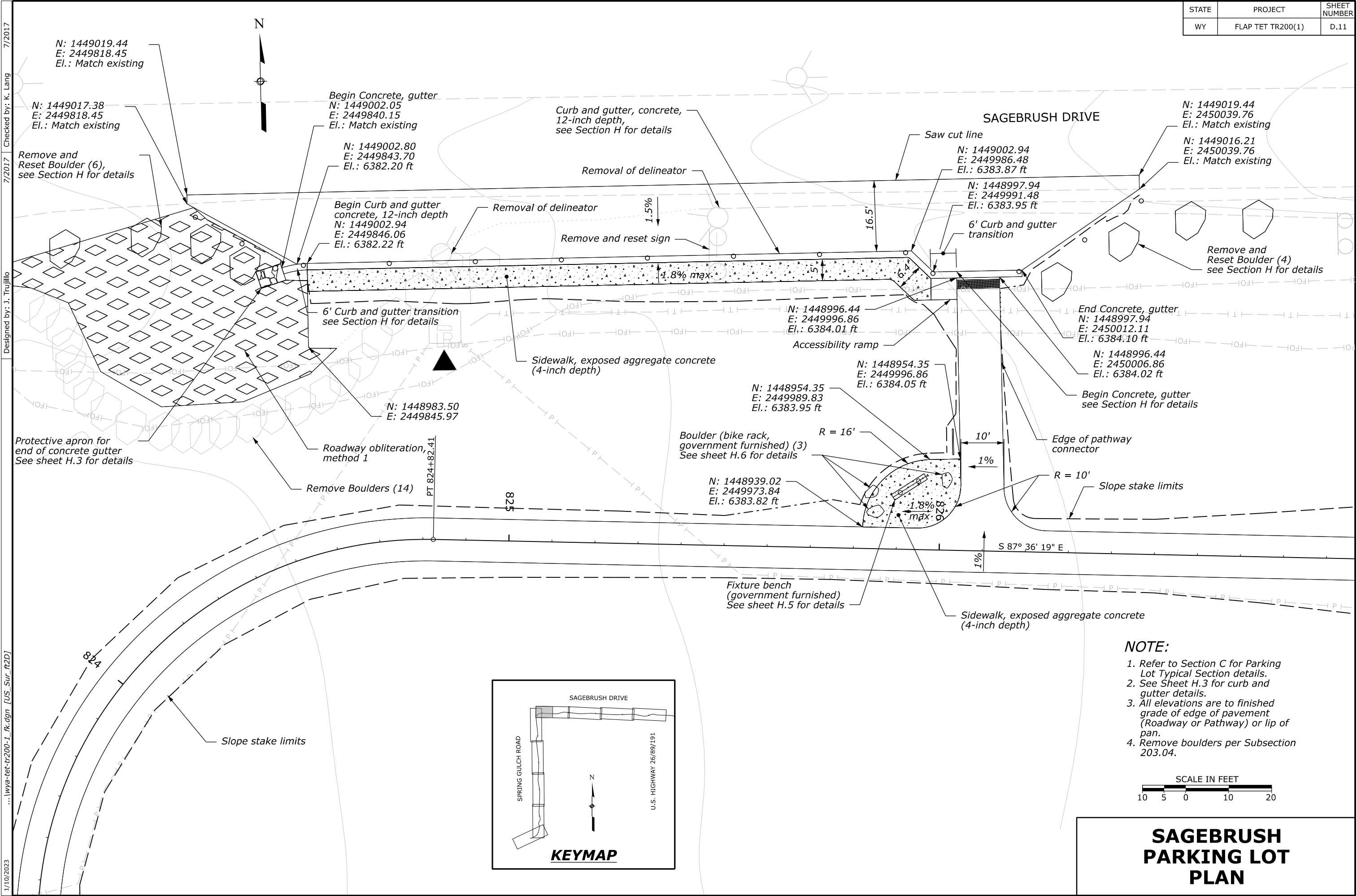
Curve= PATH05-16
Δ= 6° 07' 19" (LT)
R= 2,000.00'
T= 106.95'
L= 213.69'



PLAN AND PROFILE 836+00 TO 842+00







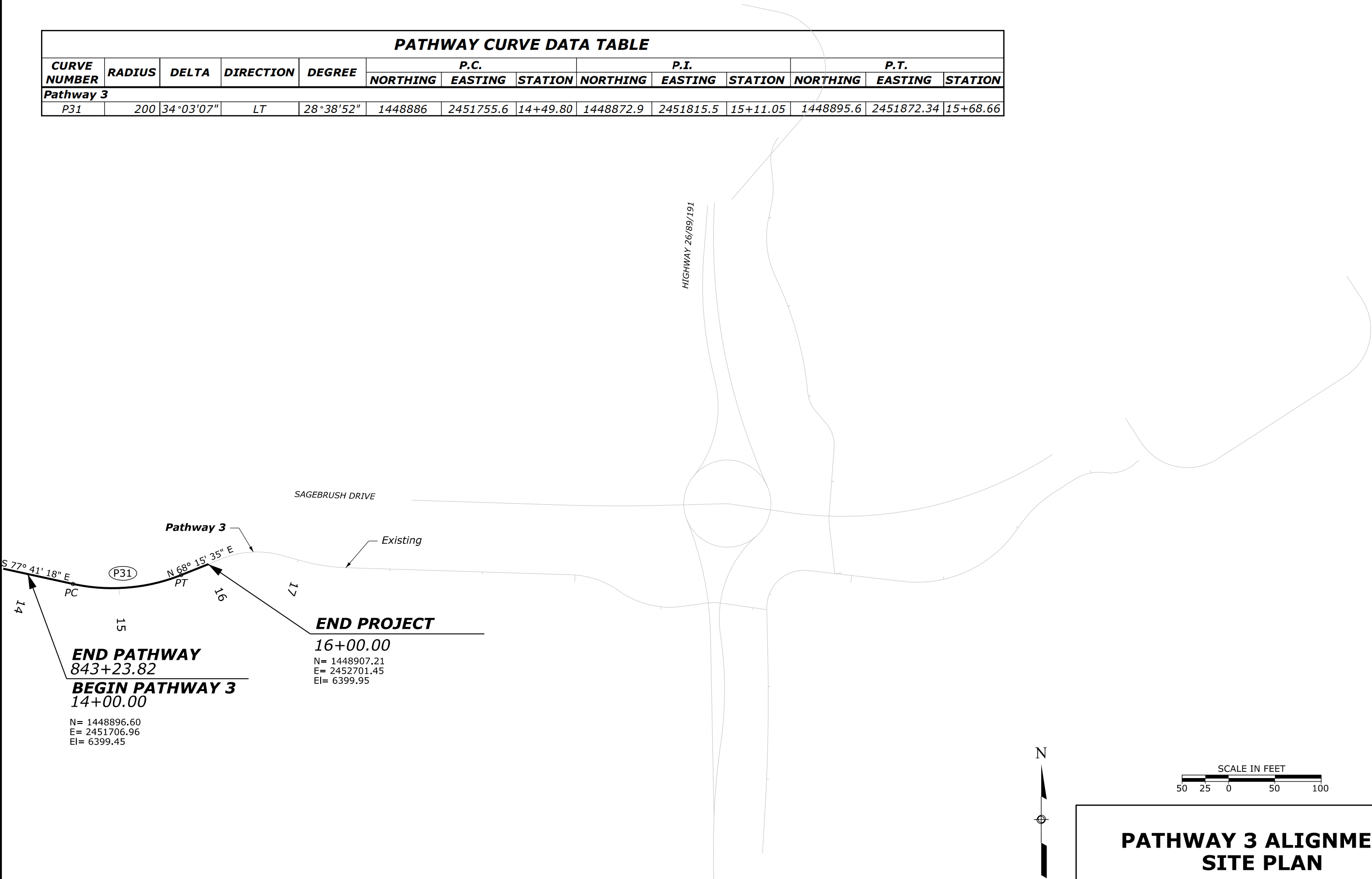
SAGEBRUSH PARKING LOT PLAN

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.12

LEGEND

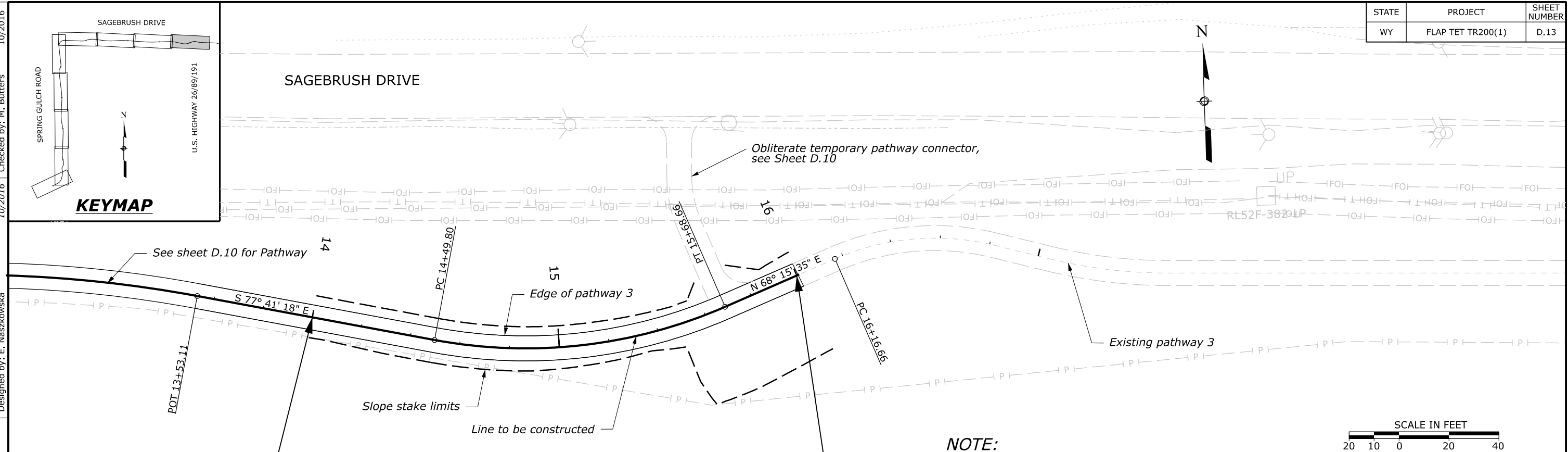
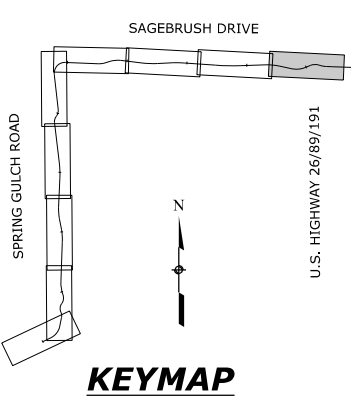
(A1) *Denotes curve name*

PATHWAY CURVE DATA TABLE													
CURVE NUMBER	RADIUS	DELTA	DIRECTION	DEGREE	P.C.			P.I.			P.T.		
					NORTHING	EASTING	STATION	NORTHING	EASTING	STATION	NORTHING	EASTING	STATION
Pathway 3													
P31	200	34°03'07"	LT	28°38'52"	1448886	2451755.6	14+49.80	1448872.9	2451815.5	15+11.05	1448895.6	2451872.34	15+68.66



PATHWAY 3 ALIGNMENT SITE PLAN

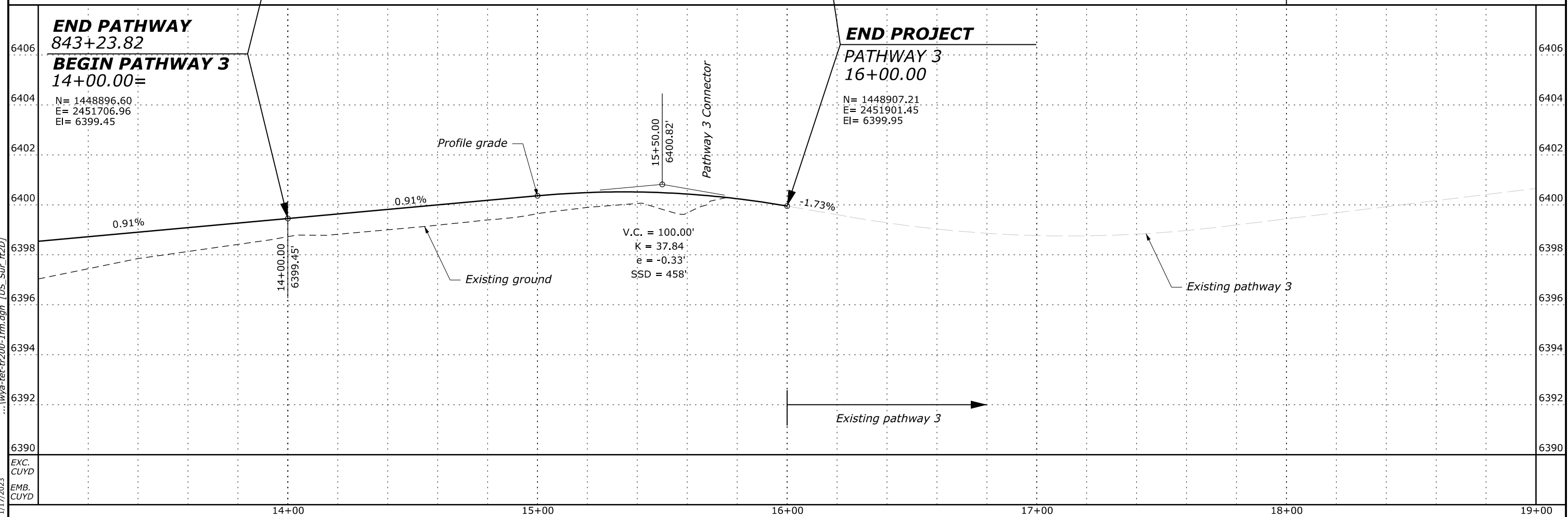
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	D.13



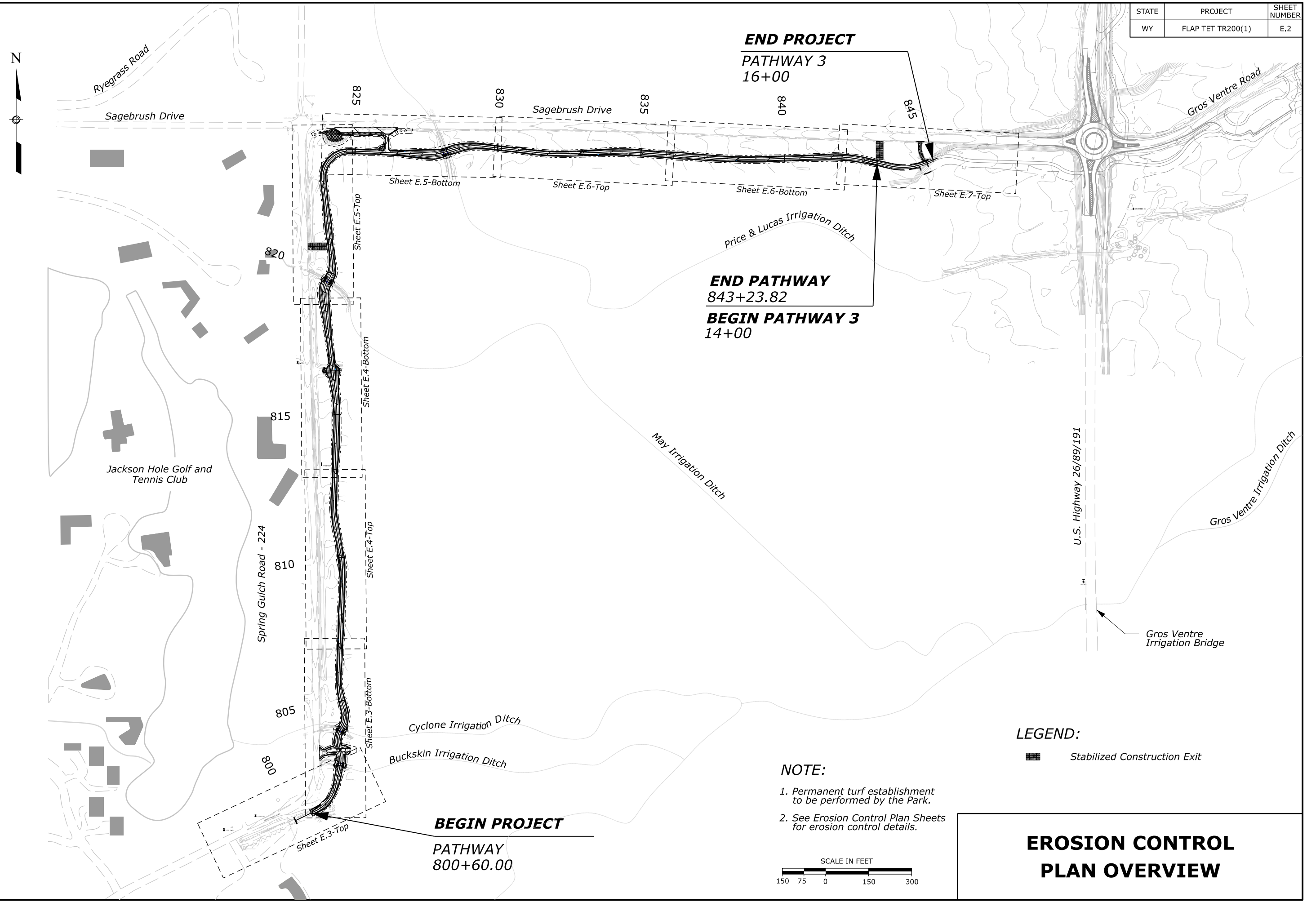
1. See sheet D.12 for curve data information.
2. Staking notes for Pathway 3 provided with the government-furnished information.



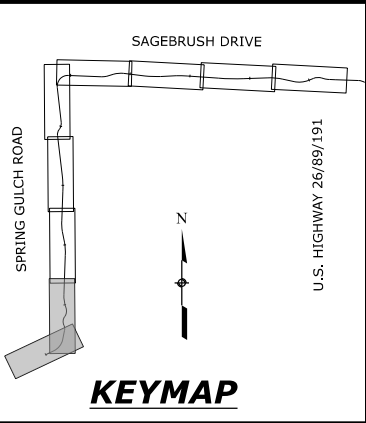
PLAN AND PROFILE
14+00 TO 16+00



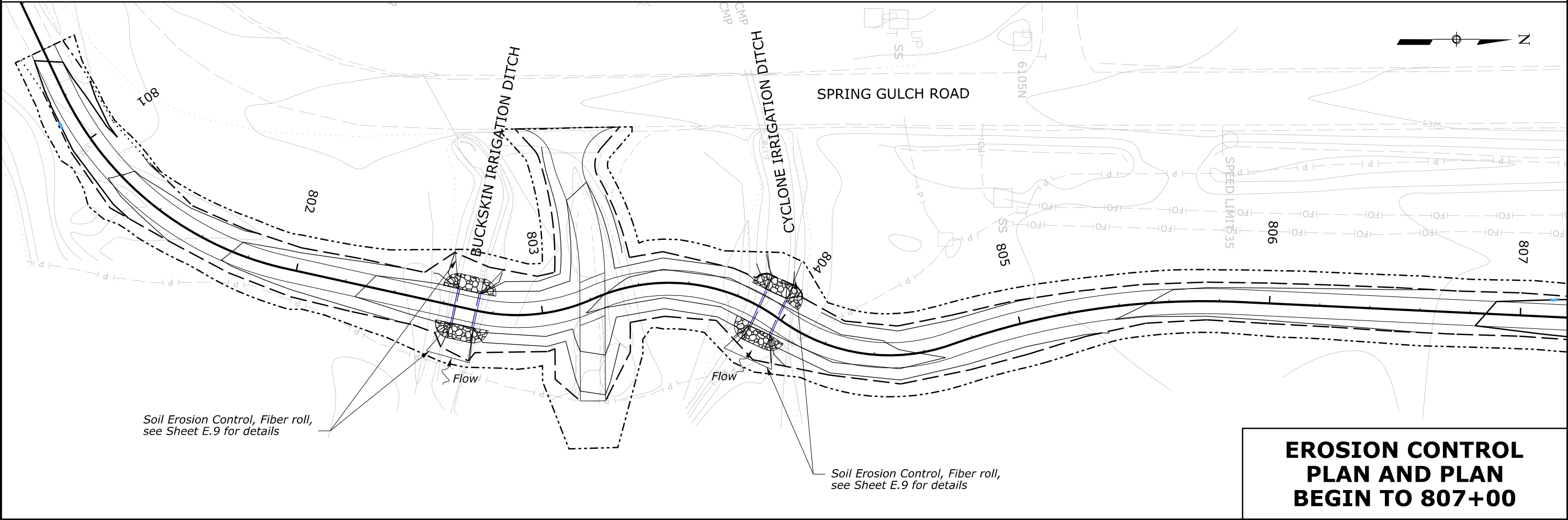
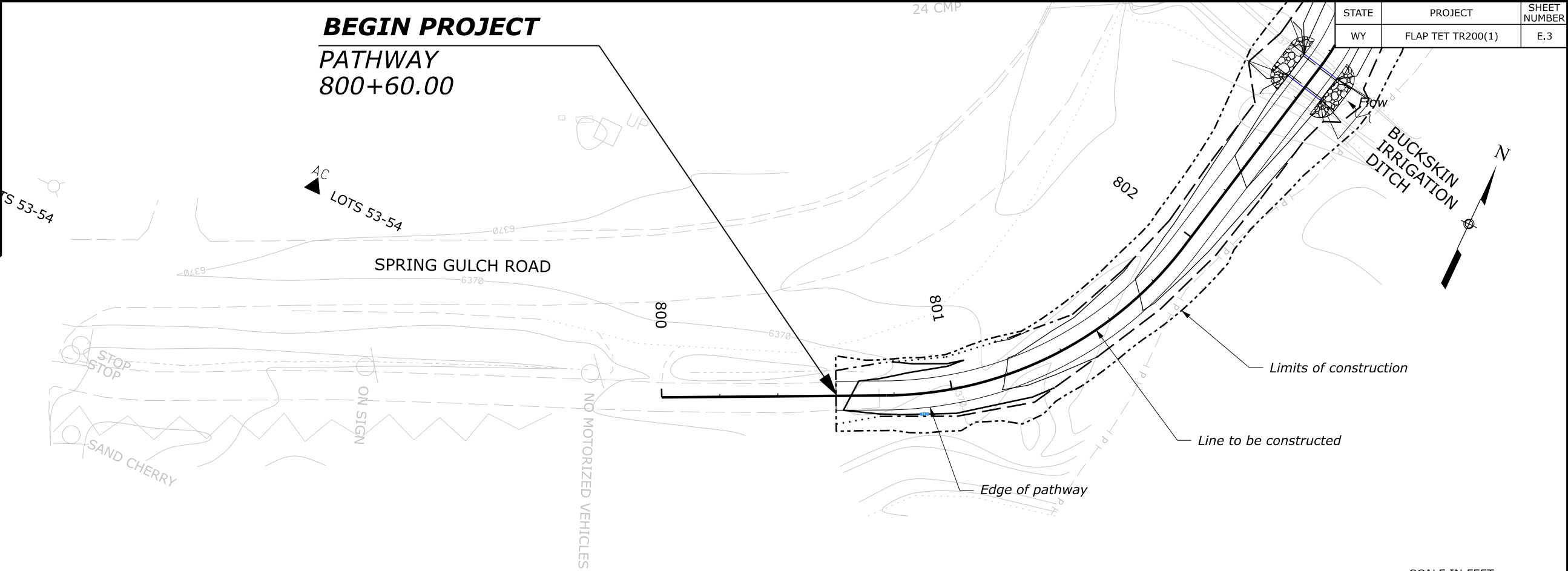
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	E.2



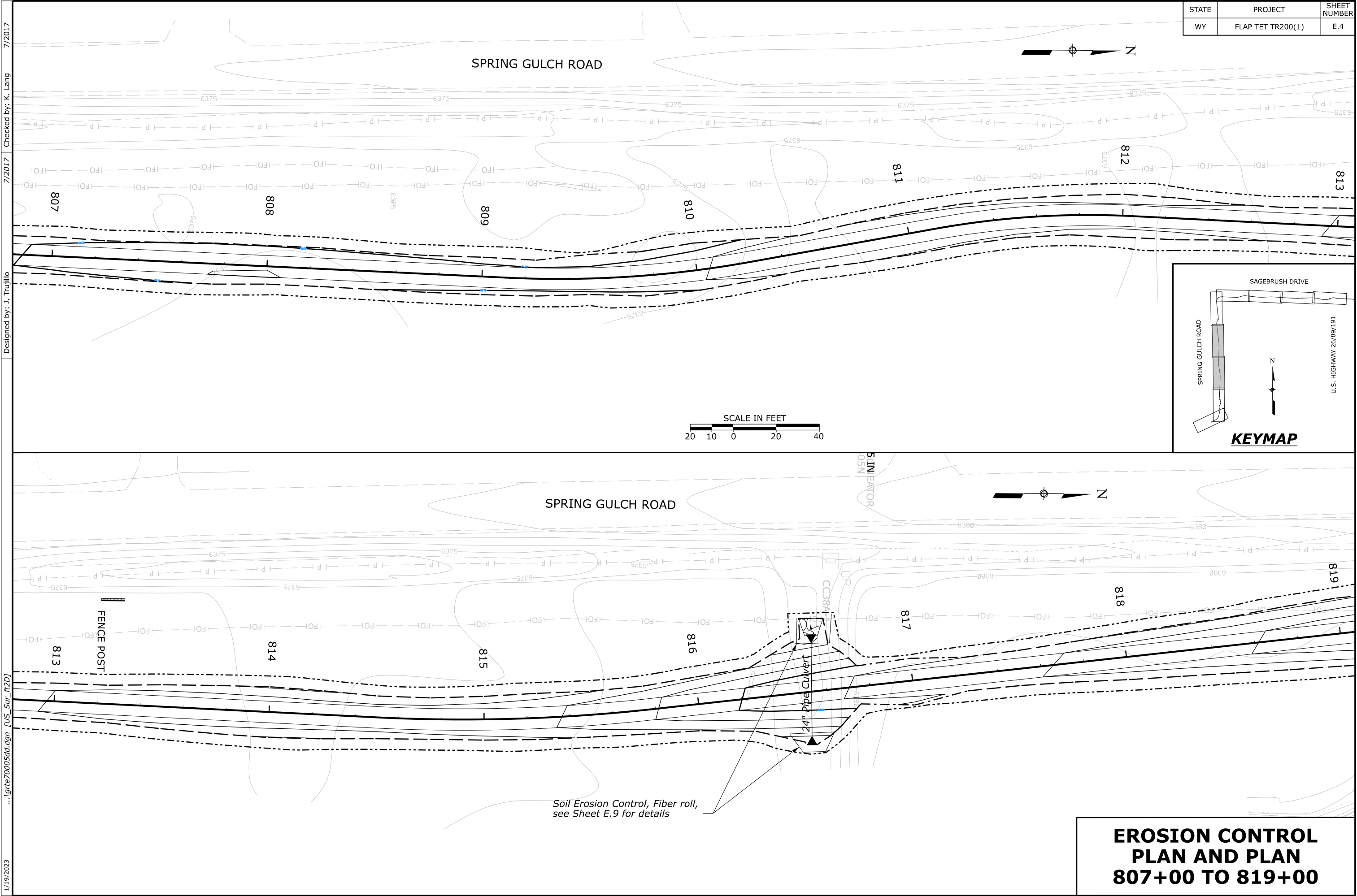
1/18/2023 ...\\grote70005dc.dgn [US Sur ft2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017



BEGIN PROJECT
PATHWAY
800+60.00

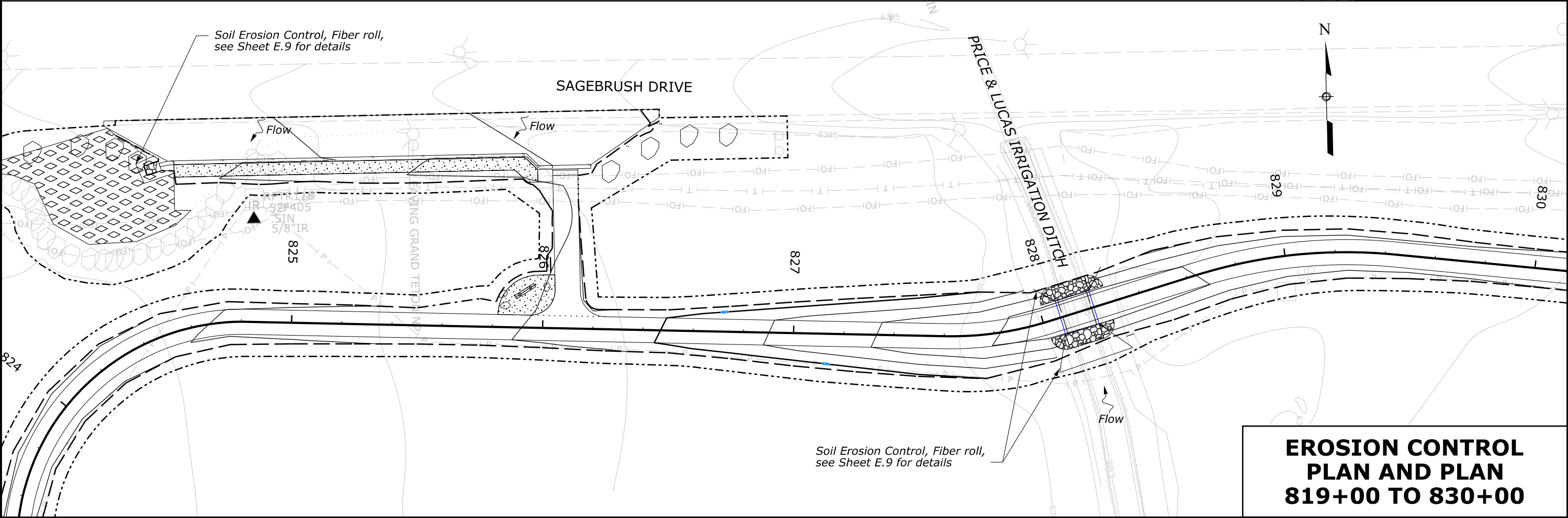
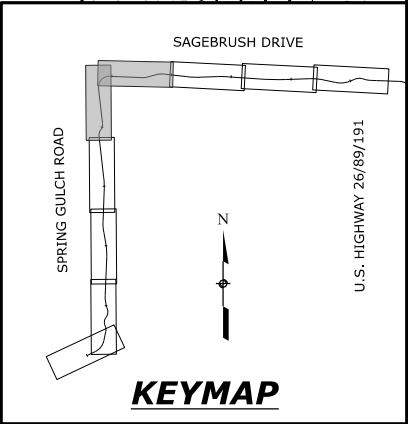
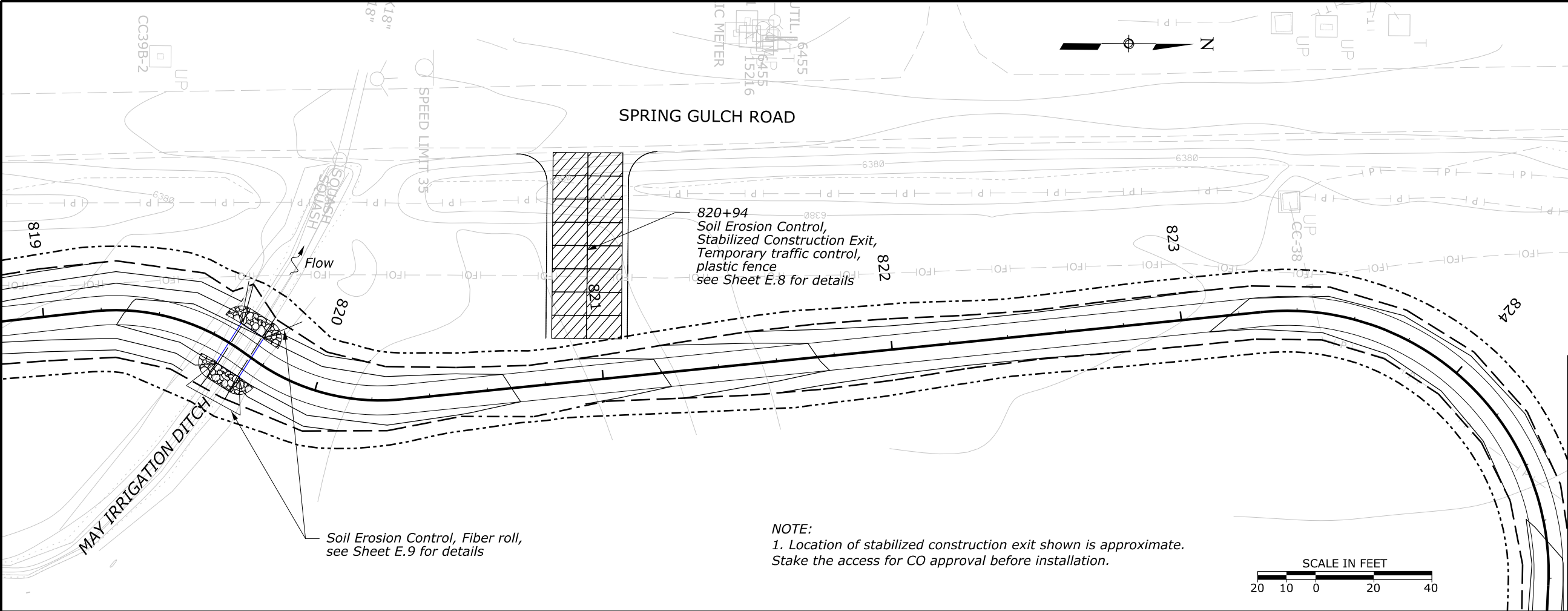


EROSION CONTROL
PLAN AND PLAN
BEGIN TO 807+00



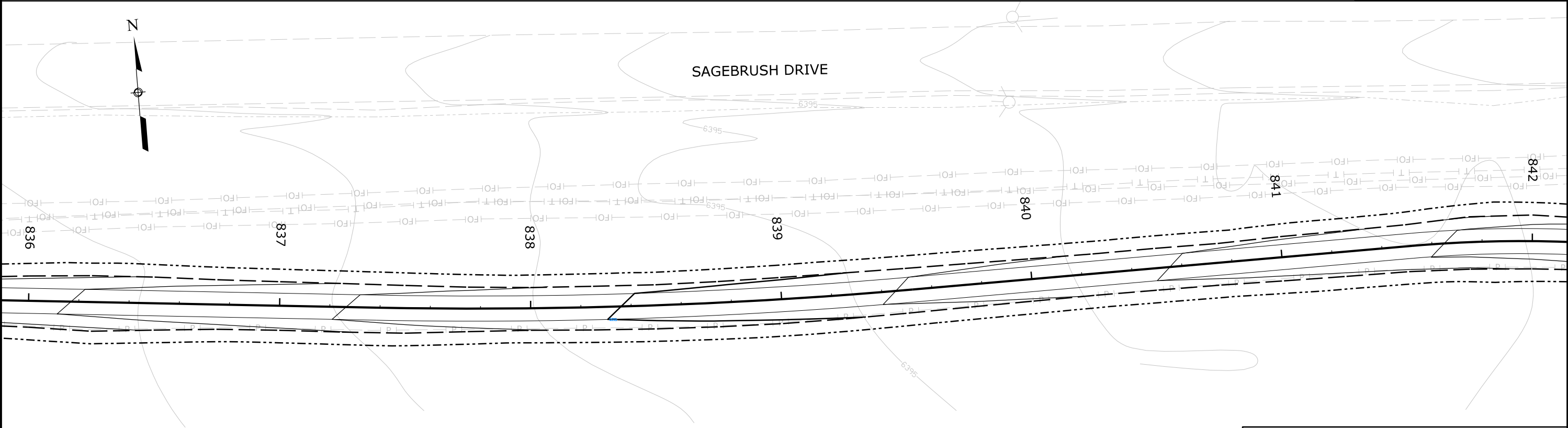
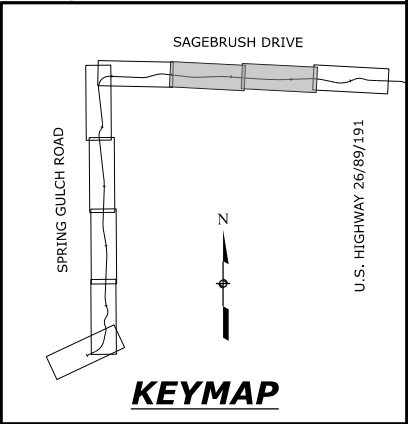
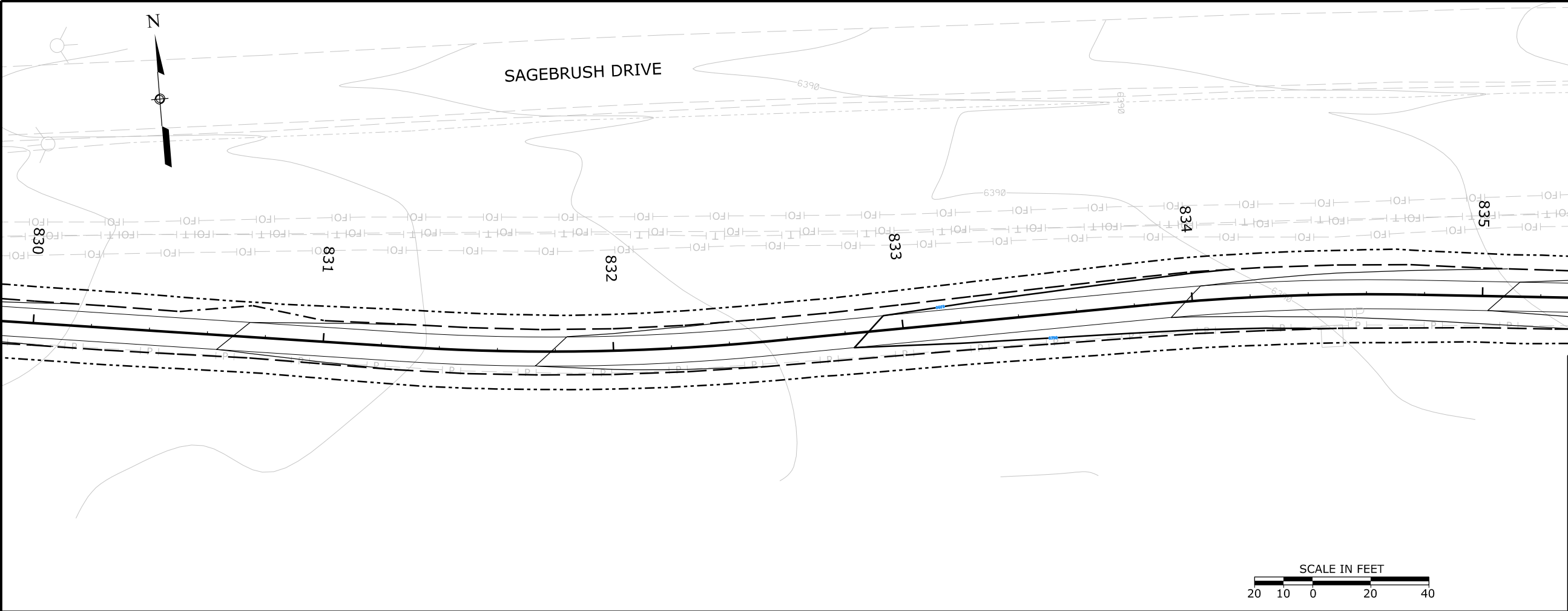
2/23/2023 ...lgte70005de.dgn [US Sur ft2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	E.5



**EROSION CONTROL
PLAN AND PLAN
819+00 TO 830+00**

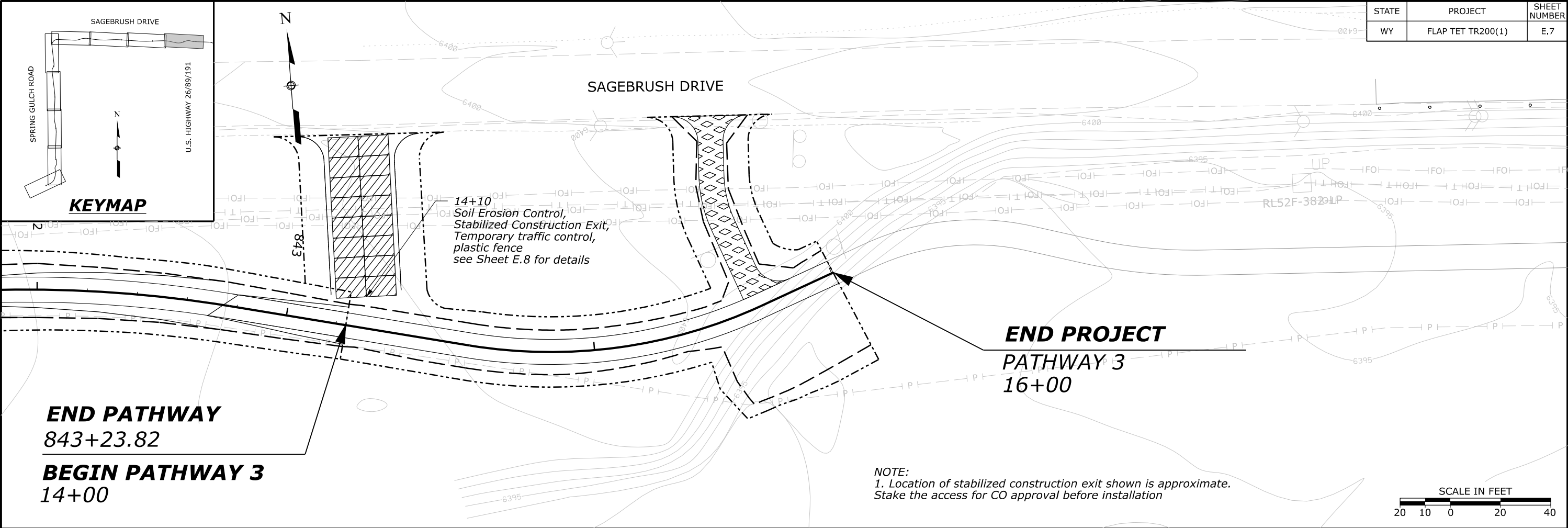
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	E.6



**EROSION CONTROL
PLAN AND PLAN
830+00 TO 842+00**

7/2017 7/2017 Checked by: K. Lang 2/23/2023 ...\\wva-tet-tr200-1_dg.dgn [US_Sur_R2D] Designed by: J. Trujillo

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	E.7

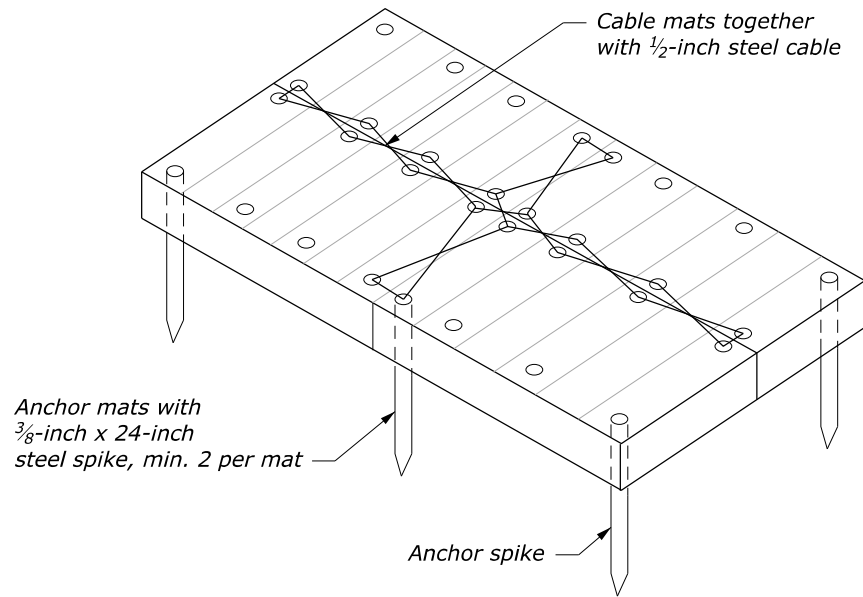


NOTE:
1. Location of stabilized construction exit shown is approximate.
Stake the access for CO approval before installation

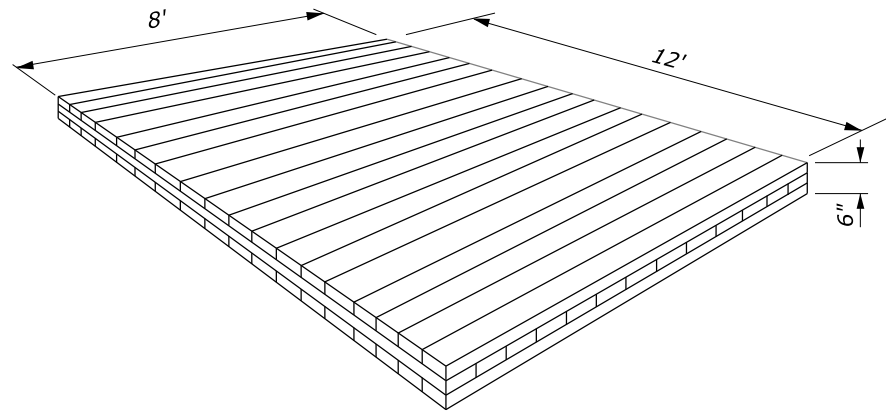


**EROSION CONTROL
PLAN AND PLAN
842+00 TO END**

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	E.8



TIMBER MAT ANCHOR SYSTEM



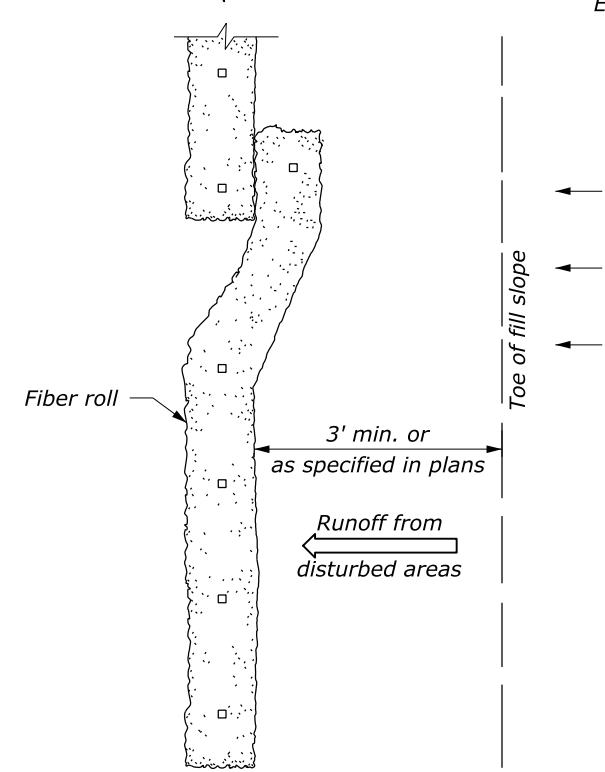
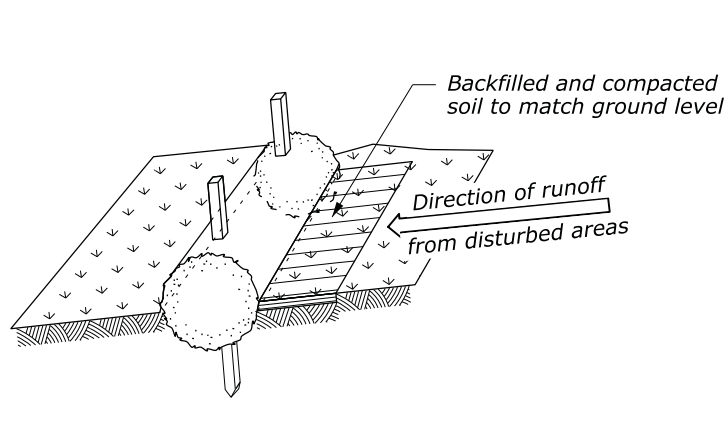
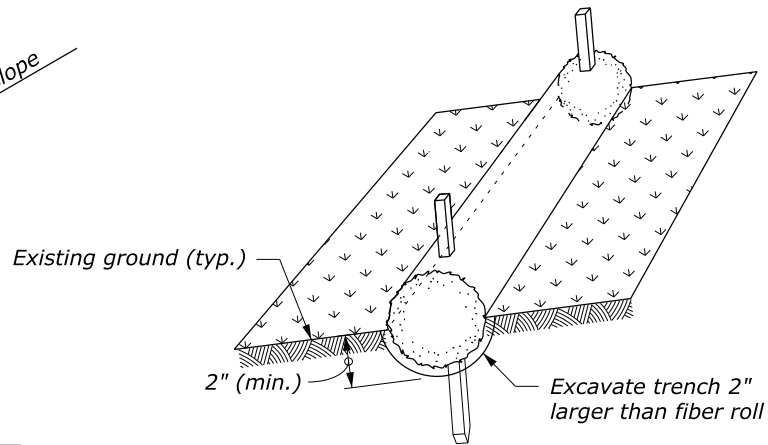
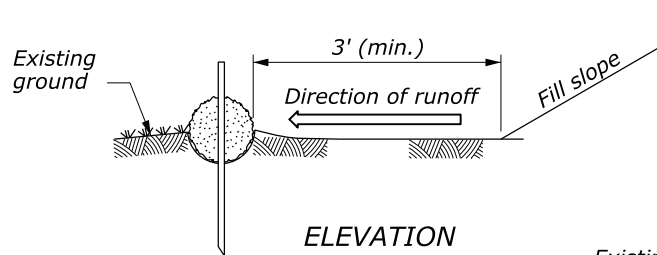
OAK TIMBER MAT SYSTEM
(Government furnished)

NOTE:

1. Secure Timber Mats together and anchor Mat System to the ground as necessary.
2. Anchor system shown is not a mandatory method. Submit securing and anchoring plan to CO prior to commencing work.
3. Do not disturb the area beyond the clearing limits and designated access point limits.
4. After access points are no longer in use, remove roadway Timber Mat System. Clean mats of all soil and seed prior to removal from installed area. See Section 156 for additional construction access requirements.
5. Stake each access for CO approval before installing.
6. Drill 3/4-inch hole through the Timber Mats provided by the government at all four corners and along each edge spaced at 3-foot on center, 2-inch from any edge, and provide 1/2-inch cable to secure mats together. Provide 24-inch steel, 5/8-inch dia. spikes located at outside corners and Timber Mat System edges to anchor mat systems in place. Maintain for duration of use.

NO SCALE

**STABILIZED
CONSTRUCTION EXIT
TYPICAL SECTION**



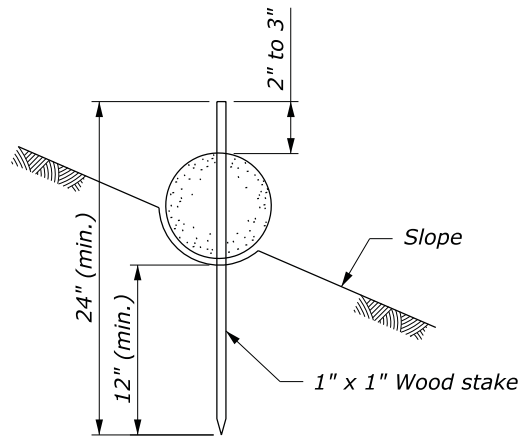
Step 1: Excavate trench and install fiber rolls

Step 2: Backfill soil against fiber rolls

PROPERLY STAKED AND ENTRENCHED FIBER ROLL

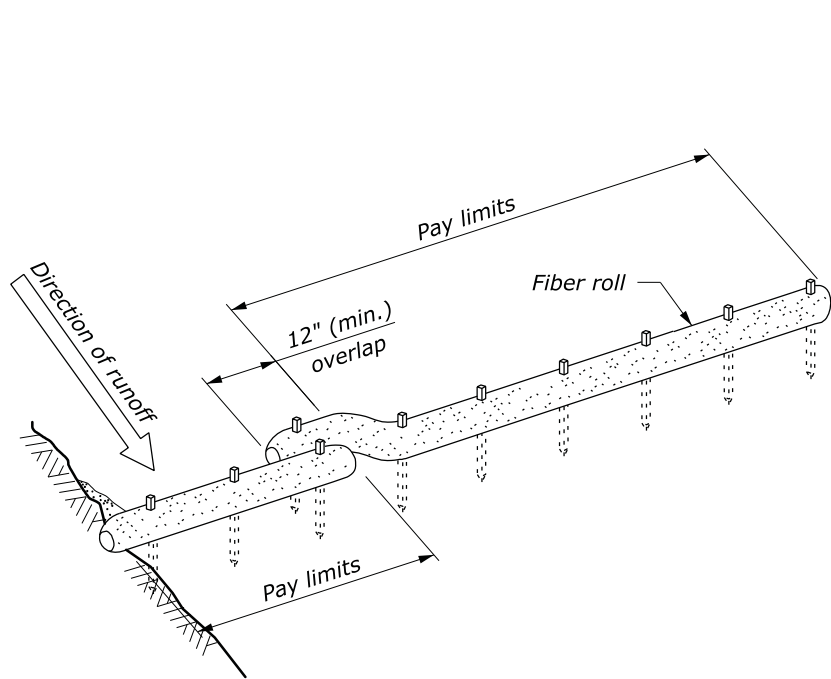
FIBER ROLL SPACING	
Slope	Spacing (FT)
1:4 or flatter	40
1:3	30
1:2	20
1:1	10

STAKES REQUIRED	
Fiber roll length (FT)	Stakes required for each roll
25	8
20	6
12	4

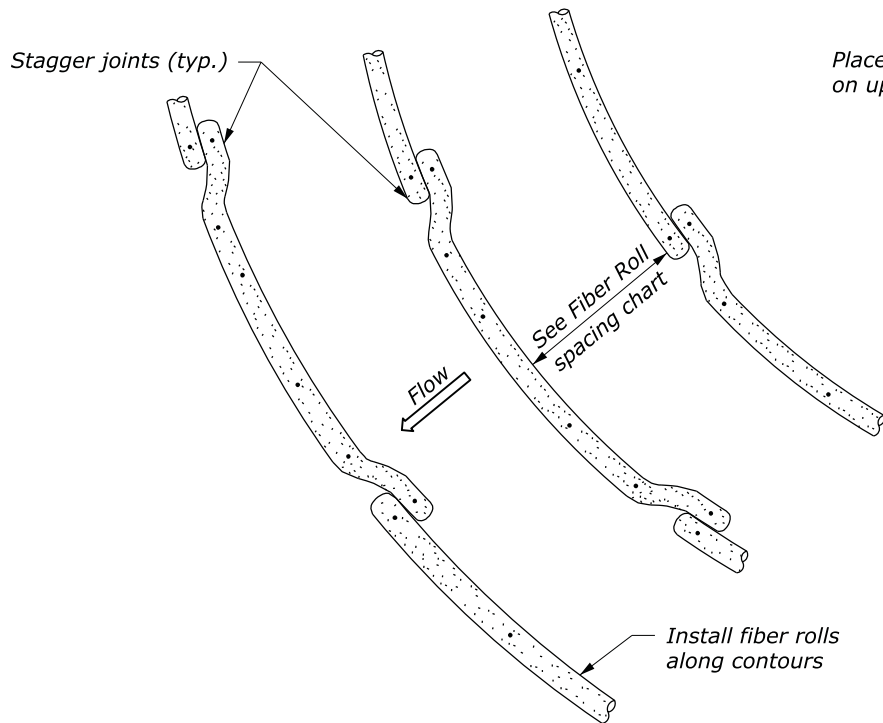


FIBER ROLL STAKING DETAIL

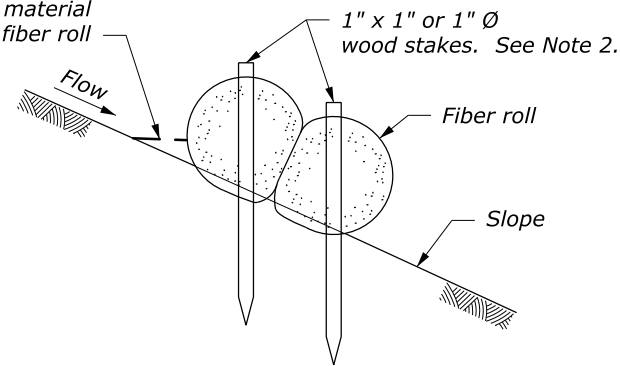
INSTALLATION BEYOND TOE OF SLOPE



ALTERNATE FIBER ROLL JOINT DETAIL SLOPE PROTECTION INSTALLATION



INSTALLATION ALONG SLOPES



FIBER ROLL LAPPING DETAIL

NO SCALE

S. Leon

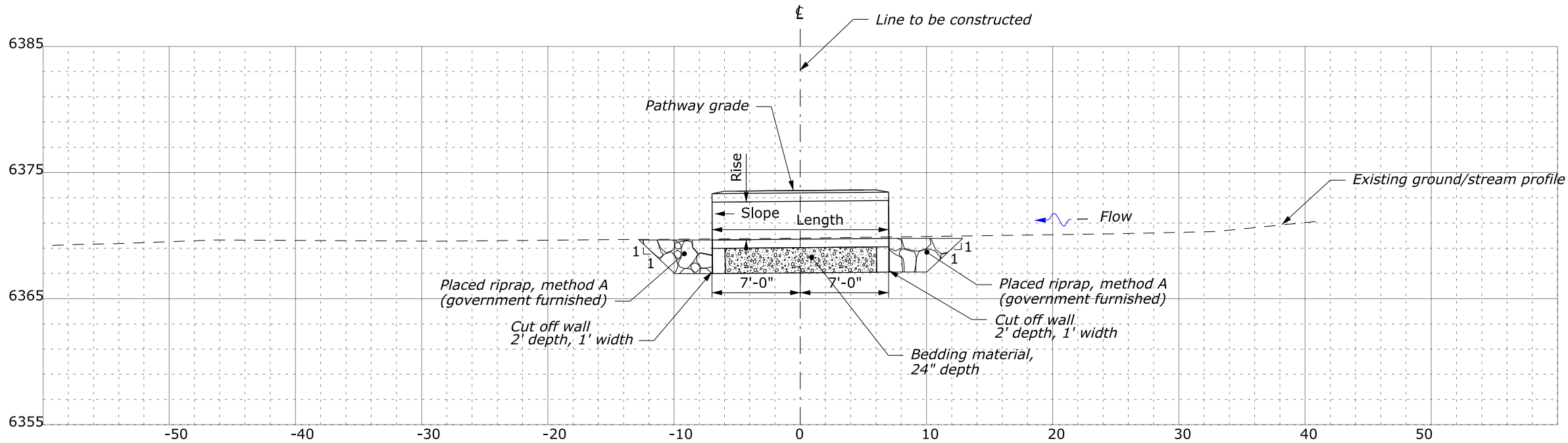
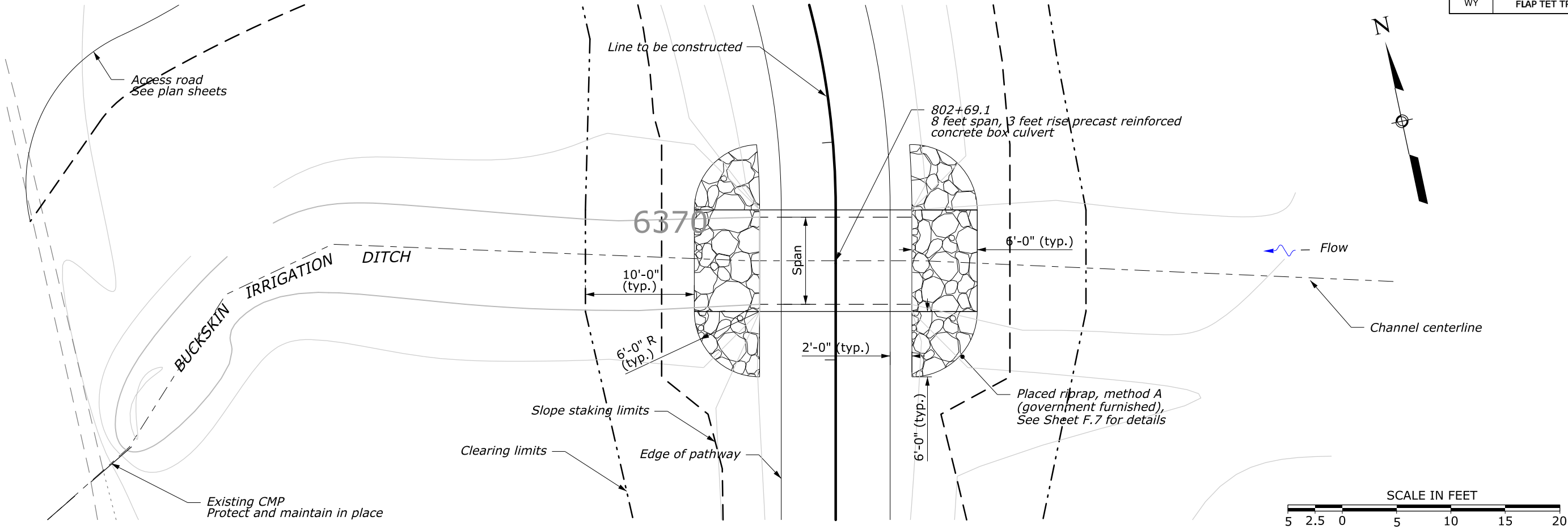
07/2017

C. Sourek

Designed by:

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9 August 2017 5:36 PM



HYDRAULIC INFORMATION

$Q_{IRIGATION}$: 3 CFS Q_{MAX} : 6 CFS
 $d_{IRIGATION}$: 2 FT d_{MAX} : N/A
ACTIVE CHANNEL WIDTH: 5 FT

PIPE

TYPE: CONC. BOX (4-SIDED) SPAN: 8 FT RISE: 3 FT
LENGTH: 14 FT WALL THICKNESS: 8 IN
PIPE SLOPE: 0.01 FT/FT FLOWLINE SLOPE: 0.01 FT/FT
INFILL TYPE: NONE

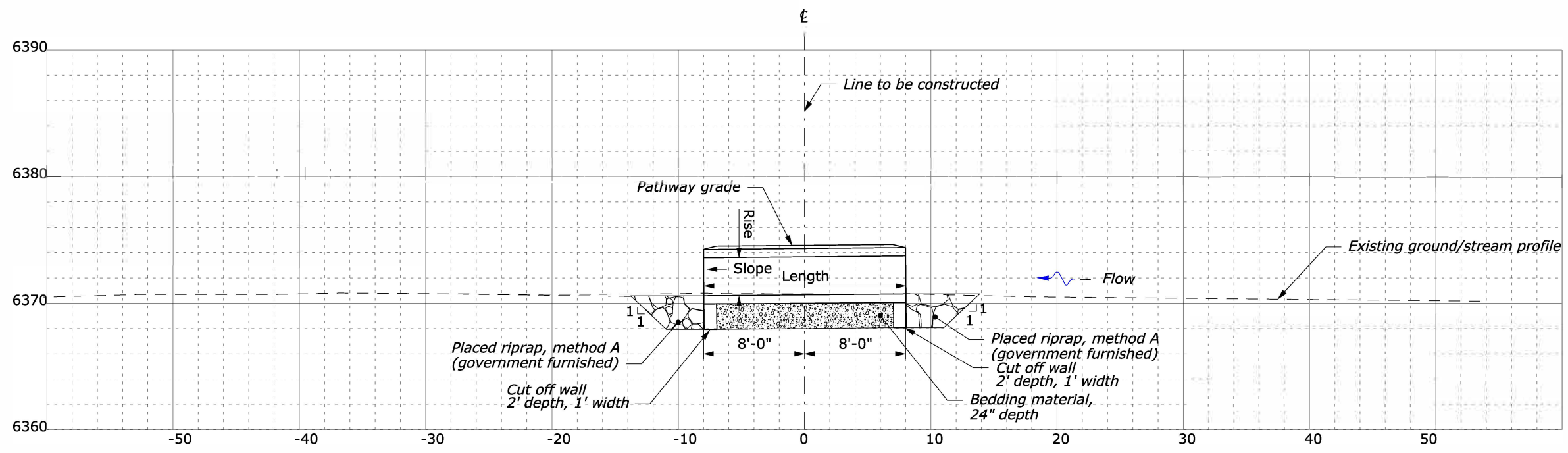
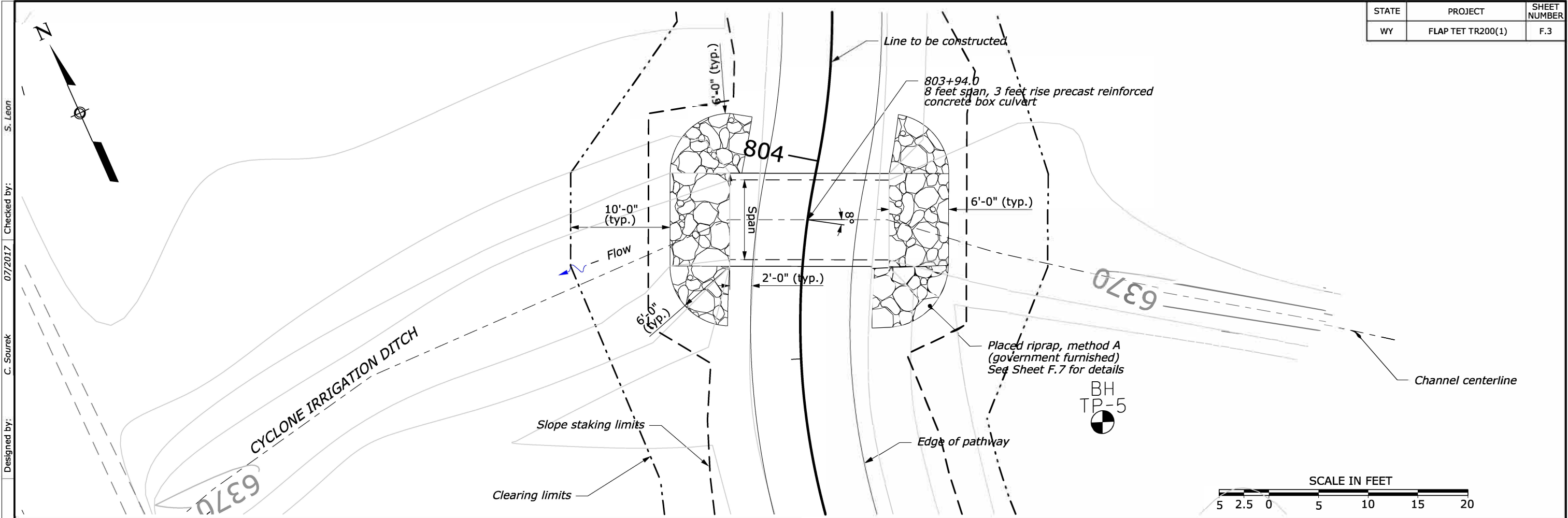
INLET

INV ELEV.: 6369.78
BURIAL DEPTH: 0.0 FT
LOWER BEVEL HEIGHT: NA
BEVEL: NA
HEADWALL: RIPRAP

OUTLET

INV ELEV.: 6369.64
BURIAL DEPTH: 0.0 FT
LOWER BEVEL HEIGHT: NA
BEVEL: NA
HEADWALL: RIPRAP

802+69.1
CONCRETE BOX CULVERT
PLAN AND PROFILE



HYDRAULIC INFORMATION

$Q_{IRIGATION}$: 4 CFS Q_{MAX} : 7 CFS
 $d_{IRIGATION}$: 3 FT d_{MAX} : N/A
ACTIVE CHANNEL WIDTH: 6 FT

PIPE

TYPE: CONC. BOX (4-SIDED) SPAN: 8 FT RISE: 3 FT
LENGTH: 16 FT WALL THICKNESS: 8 IN
PIPE SLOPE: 0.01 FT/FT FLOWLINE SLOPE: 0.01 FT/FT
INFILL TYPE: NONE

INLET

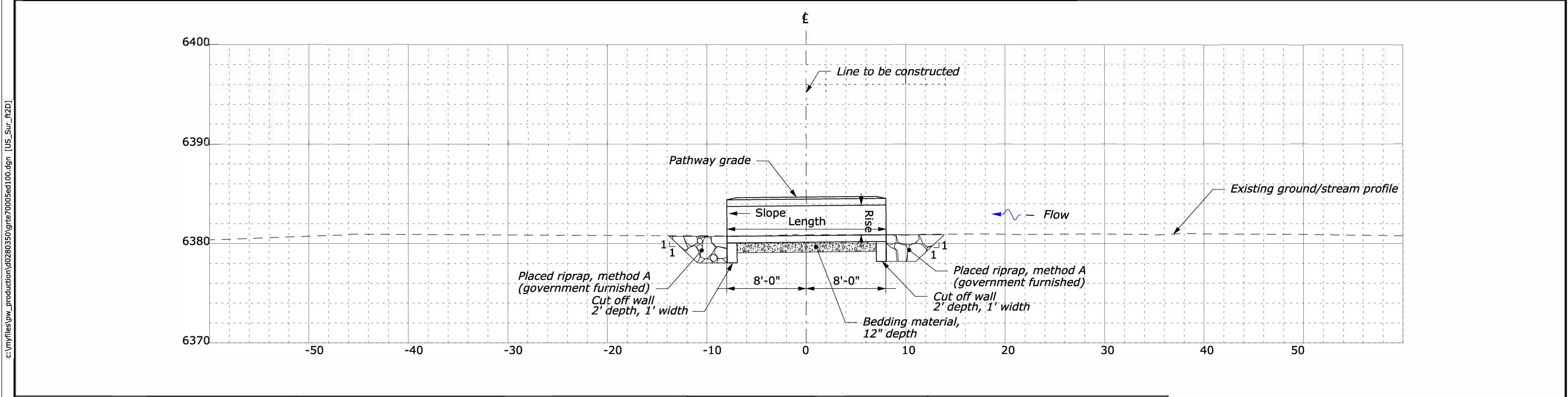
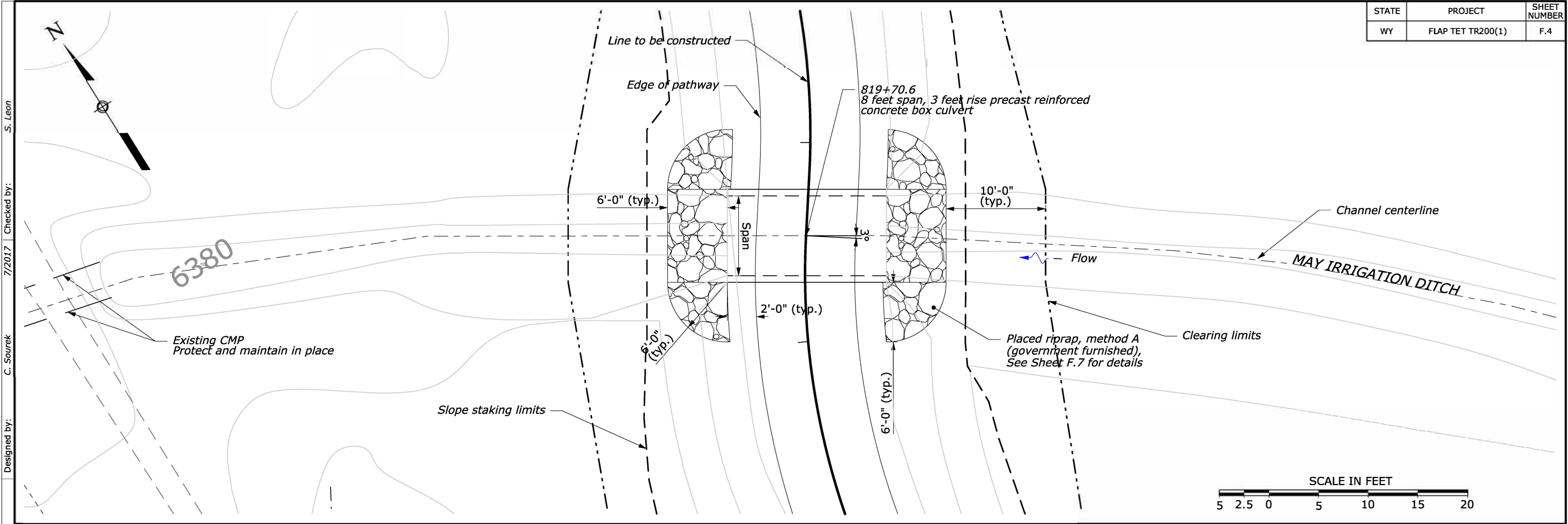
INV ELEV.: 6370.34
BURIAL DEPTH: 0.0 FT
LOWER BEVEL HEIGHT: NA
BEVEL: NA
HEADWALL: RIPRAP

OUTLET

INV ELEV.: 6370.18
BURIAL DEPTH: 0.0 FT
LOWER BEVEL HEIGHT: NA
BEVEL: NA
HEADWALL: RIPRAP

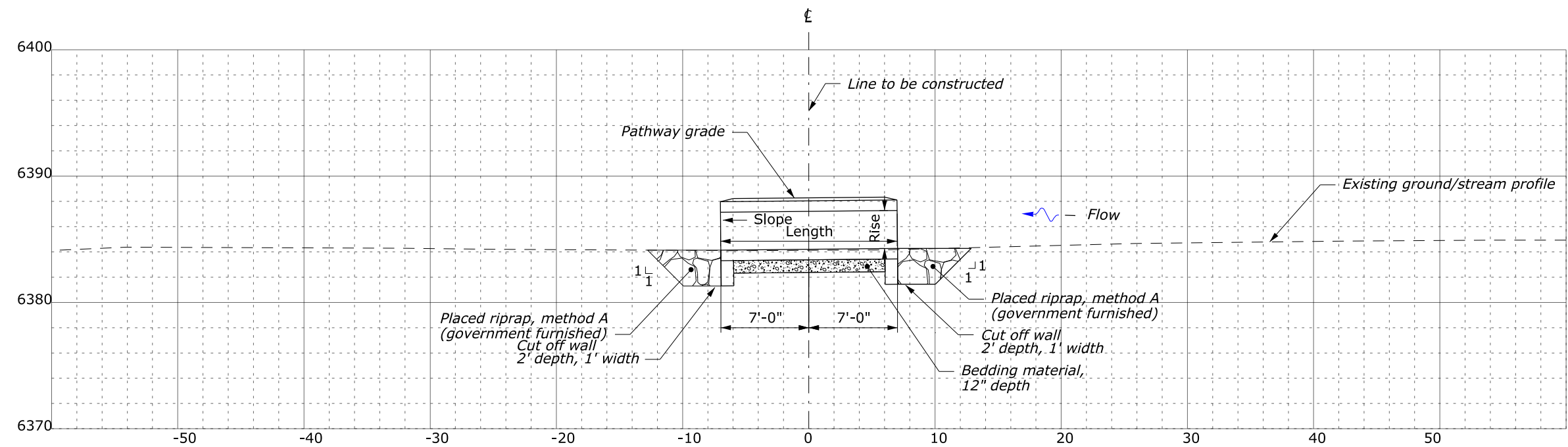
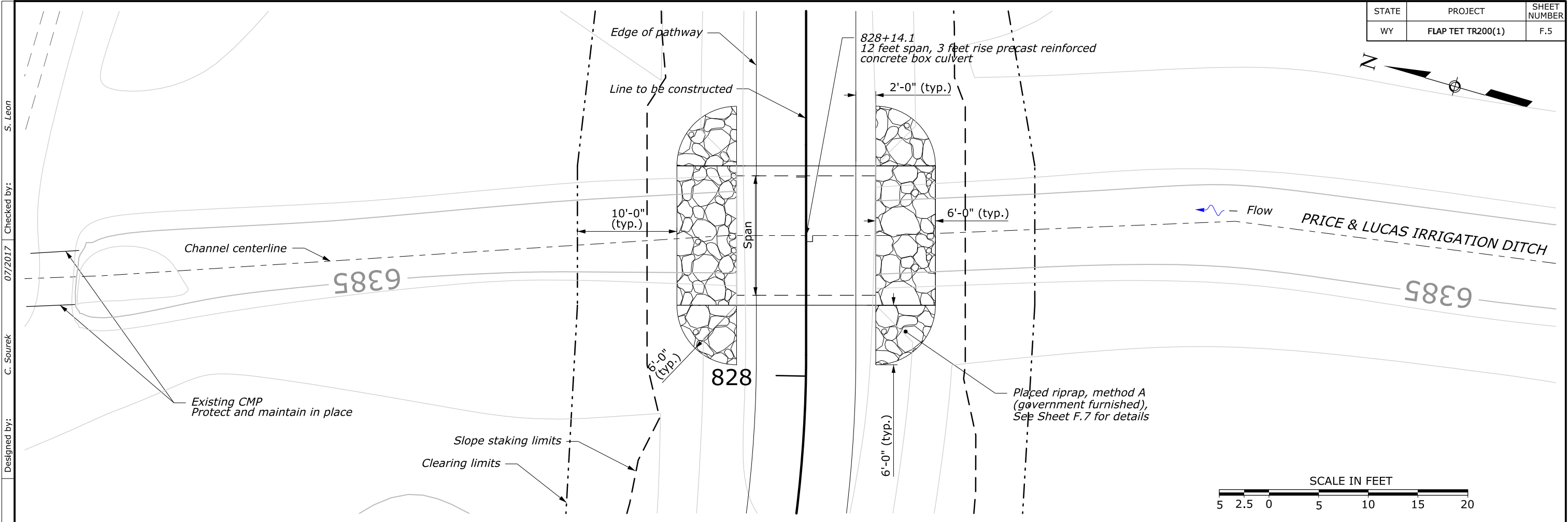
803+94.0
CONCRETE BOX CULVERT
PLAN AND PROFILE

9 August 2017 5:39 PM c:\myfiles\pw_production\00280350\gre7005sec100.dgn [US_Sur_f2D] Designed by: C. Sourek Checked by: S. Leon



HYDRAULIC INFORMATION		PIPE	INLET	OUTLET
$Q_{IRIGATION}$: 1 CFS	Q_{MAX} : 7 CFS	TYPE: CONC. BOX (4-SIDED) SPAN: 8 FT RISE: 3 FT	INV ELEV.: 6380.83	INV ELEV.: 6380.67
$d_{IRIGATION}$: 1 FT	d_{MAX} : N/A	LENGTH: 16 FT WALL THICKNESS: 8 IN	BURIAL DEPTH: 0.0 FT	BURIAL DEPTH: 0.0 FT
ACTIVE CHANNEL WIDTH: 6 FT		PIPE SLOPE: 0.01 FT/FT FLOWLINE SLOPE: 0.01 FT/FT	LOWER BEVEL HEIGHT: NA	LOWER BEVEL HEIGHT: NA
		INFILL TYPE: NONE	BEVEL: NA	BEVEL: NA
			HEADWALL: RIPRAP	HEADWALL: RIPRAP

819+70.6
CONCRETE BOX CULVERT
PLAN AND PROFILE



HYDRAULIC INFORMATION

$Q_{\text{IRRIGATION}}$: 5 CFS Q_{MAX} : 15 CFS
 $d_{\text{IRRIGATION}}$: 2 FT d_{MAX} : N/A
ACTIVE CHANNEL WIDTH: 10 FT

PIPE

TYPE: CONC. BOX (4-SIDED) SPAN: 12 FT RISE: 3 FT
LENGTH: 14 FT WALL THICKNESS: 10 IN
PIPE SLOPE: 0.01 FT/FT FLOWLINE SLOPE: 0.01 FT/FT
INFILL TYPE: NONE

INLET

INV ELEV.: 6384.28
BURIAL DEPTH: 0.0 FT
LOWER BEVEL HEIGHT: NA
BEVEL: NA
HEADWALL: RIPRAP

OUTLET

INV ELEV.: 6384.14
BURIAL DEPTH: 0.0 FT
LOWER BEVEL HEIGHT: NA
BEVEL: NA
HEADWALL: RIPRAP

**828+14.1
CONCRETE BOX CULVERT
PLAN AND PROFILE**

S. Leon

Checked by:

07/2017

C. Sourek

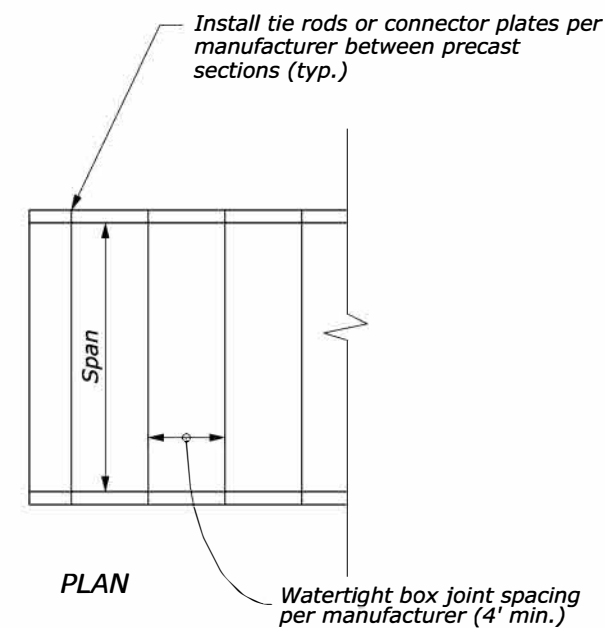
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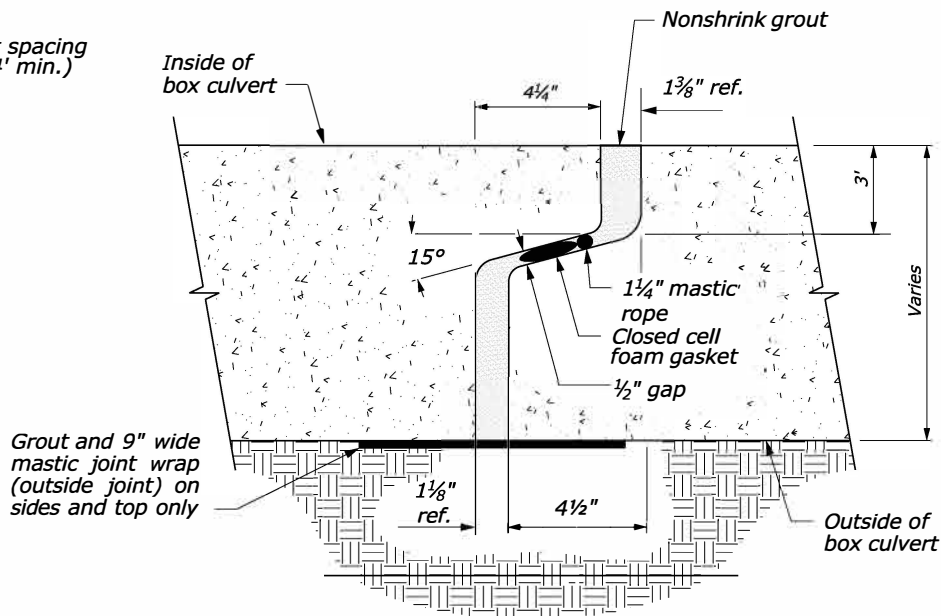
9 August 2017 5:46 PM

5 July 2017 3:47 PM c:\myfiles\pw_production\00280350\grte70005ef100.dgn [In: f2d] Designed by: C. Sourek Checked by: R. Kraig/A. Fisher 07/2017

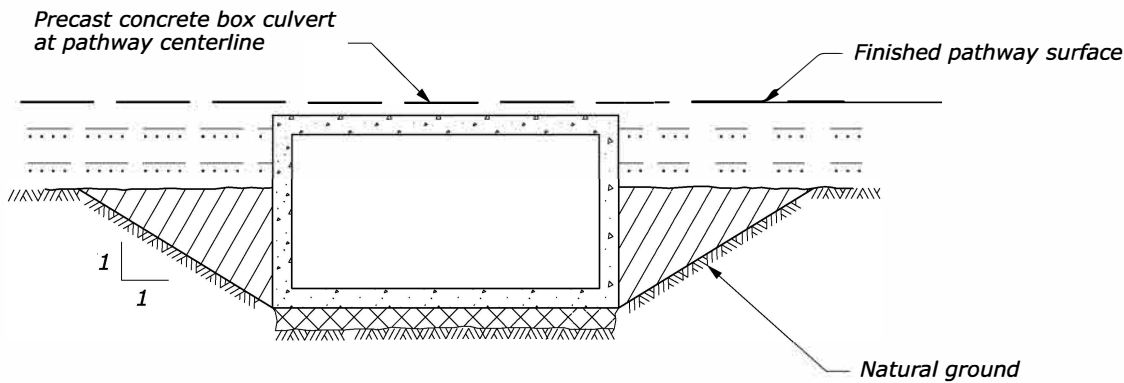
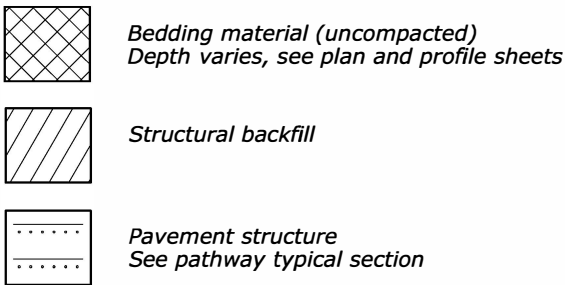
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	F.6



CONCRETE BOX CULVERT



**WATERTIGHT BOX JOINT SECTION
CULVERT BOTTOM AND SIDES**



**ELEVATION
BACKFILL DETAIL**

GENERAL NOTES:

CONSTRUCTION:
Detail is for general information only.

Federal Highway Administration Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-14 (U.S. Customary).

DESIGN:
AASHTO LRFD Bridge Design Specification (latest edition).
Provide precast concrete box culverts conforming to ASTM-C1577 and to the dimensions, lines, and grades shown.

LOADING:
Dead Load - Concrete: 150 lb per cubic foot.
Live Load - HL-93.

CONCRETE:
Furnish structural concrete, class A(AE) with minimum 28-day design compressive strength $f'_c=5000$ psi for all concrete. Chamfer all exposed edges 3/4-inch.

REINFORCING STEEL:
Provide reinforcing steel conforming to ASTM A615 grade 60. Provide welded wire reinforcing (WWR) steel conforming to ASTM A1064 grade 65. Provide 2-inch cover for reinforcing steel.

GEOTECHNICAL:
Construct base of footings at elevations provided on Sheets F.2 through F.5. Construct footings on suitable foundation material and backfill with suitable material as directed:
Foundation material: Unit weight = 120 lb per cubic foot, Effective friction angle = 34 degrees, Cohesion = 0
Structural backfill: Unit weight = 125 lb per cubic foot, Effective friction angle = 30 degrees

Nominal bearing resistance (based on 18 in minimum width) = 8 kips per square foot. Apply a resistance factor of 0.45.

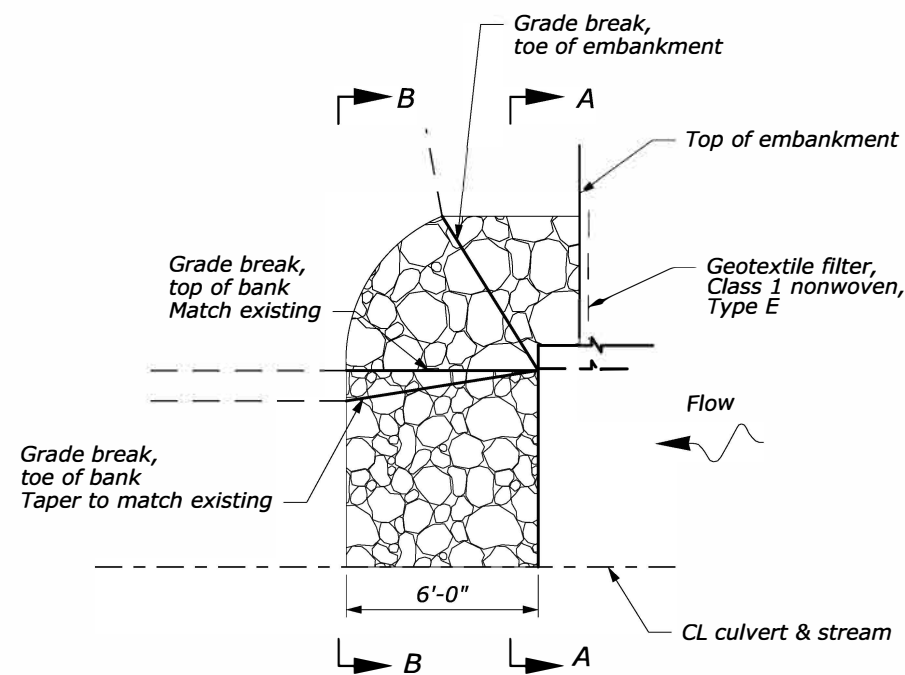
For additional Geotechnical information, see Final Geotechnical Memorandum No. GM33-16, dated December 2016.

NO SCALE

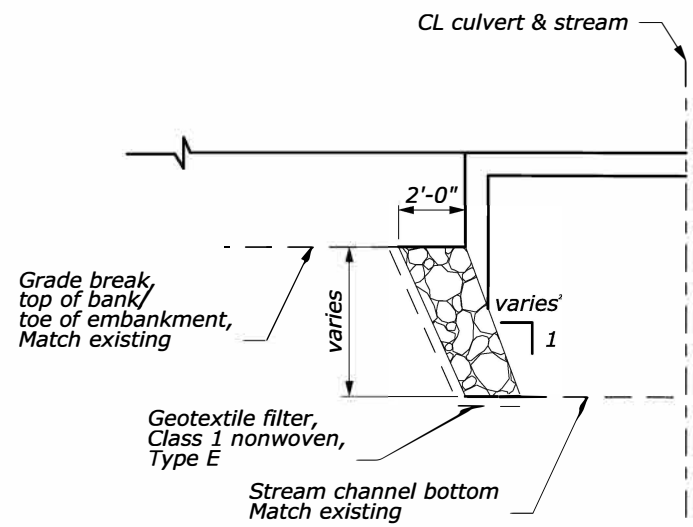
**CONCRETE BOX CULVERT
STRUCTURAL DETAILS**

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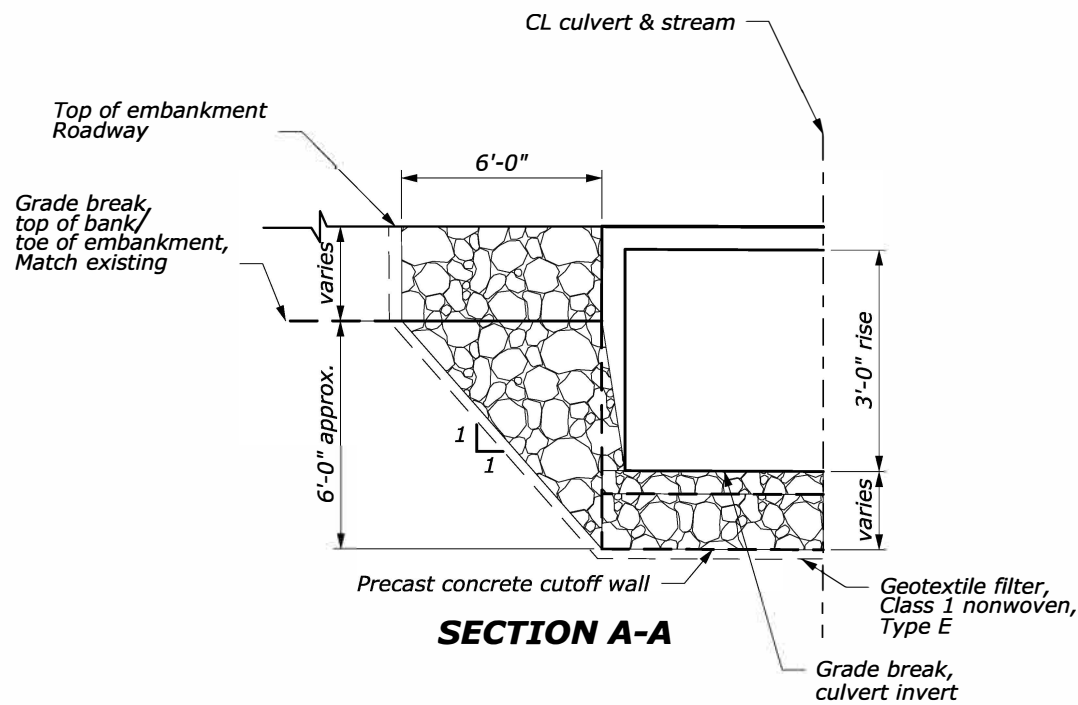
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	F.7



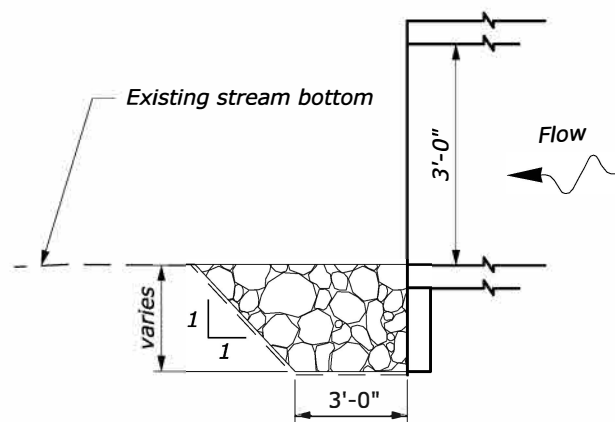
TYPICAL CULVERT INLET/OUTLET PLAN



SECTION B-B



SECTION A-A



TYPICAL CULVERT INLET/OUTLET PROFILE

- NOTE:
1. Detail is for general information only.
 2. Install riprap 2 ft depth min.
 3. Place conserved streambed material over riprap as needed for transition to existing bank top and toe.
 4. Taper riprap slopes to match existing stream bank slopes. 1.5H:1V max.

NO SCALE

CONCRETE BOX CULVERT
RIPRAP DETAILS

METAL ROUND PIPE CULVERT																												
FILL HEIGHT AND METAL THICKNESS TABLE FOR HELICAL LOCKSEAM AND WELDED SEAM PIPE CULVERT																												
STEEL															ALUMINUM													
PIPE SIZE DIAMETER INCHES	MINIMUM COVER INCHES	2⅔" x ½" CORRUGATIONS					3" x 1" CORRUGATIONS					5" x 1" CORRUGATIONS					PIPE SIZE DIAMETER INCHES	MINIMUM COVER INCHES	2⅔" x ½" CORRUGATIONS					3" x 1" CORRUGATIONS				
		METAL THICKNESS (INCH/GAGE)																	METAL THICKNESS (INCH/GAGE)									
		0.064/16	0.079/14	0.109/12	0.138/10	0.168/8	0.064/16	0.079/14	0.109/12	0.138/10	0.168/8	0.064/16	0.079/14	0.109/12	0.138/10	0.168/8			0.060/16	0.075/14	0.105/12	0.135/10	0.164/8					
		MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET)																	MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET)									
12	12	100	100	100	100	100										12	12	100	100	100	100	100						
15	12	100	100	100	100	100										15	12	100	100	100	100	100						
18	12	100	100	100	100	100										18	12	100	100	100	100	100						
21	12	100	100	100	100	100										21	12	88	100	100	100	100						
24	12	100	100	100	100	100										24	12	77	97	100	100	100						
30	12	85	100	100	100	100										30	12	62	77	100	100	100						
36	12	71	89	100	100	100	81	100	100	100	100					36	12	52	64	90	100	100						
42	12	61	76	100	100	100	70	87	100	100	100					42	12	44	55	77	99	100						
48	12	53	66	93	100	100	61	76	100	100	100	54	68	95	100	48	12			67	87	100						
54	12		59	83	100	100	54	68	95	100	100	48	60	85	100	54	18			54	71	88						
60	12			74	97	100	49	61	86	100	100	43	54	76	98	60	18				57	72						
66	12				87	100	44	55	78	100	100	39	49	69	89	66	18					58						
72	12				80	97	40	51	71	92	100	36	45	63	82	72	18					45						
78	12					87	37	47	66	85	100	33	42	58	75	78	24					34						
84	12					75	35	43	61	78	96	31	39	54	70	84	24											
90	12						32	40	57	73	90	29	36	51	65	90	24											
96	12							38	53	69	84		34	48	61	96	24											
102	18							36	50	65	79		32	45	57	102	24											
108	18								47	61	75			42	54	108	24											
114	18								45	58	71			40	52	114	24											
120	18								43	55	67			38	49	120	24											
126	18									52	64				47	126	24											
132	18									50	61				44	132	24											
138	18									48	58				42	138	24											
144	18									56					50	144	24											

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	F.8

- NOTE:
- When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
 - Fill heights exceeding 100 feet require special analysis by the CO.
 - The fill heights in the table are for helical lockseam and welded seam pipe only. Fill heights for culvert pipe with annular corrugations are more restrictive than those of helical lockseam and welded seam pipe. Obtain approval before furnishing annular corrugation pipe.
 - Measure minimum cover from the top of the pipe culvert to the subgrade for flexible pavements, and to the top of the pavement for rigid pavements. Measure maximum fill height from the top of the pipe to the top of the pavement for both flexible and rigid pavement.

METAL PIPE ARCH CULVERT																																
FILL HEIGHT AND METAL THICKNESS TABLE FOR HELICAL LOCKSEAM AND WELDED SEAM PIPE CULVERT																																
STEEL															ALUMINUM																	
PIPE ARCH SIZE SPAN x RISE INCHES	EQUI- VALENT DIAMETER INCHES	MINIMUM CORNER RADIUS INCHES	MINIMUM COVER INCHES	2½" x ½" CORRUGATIONS					3" x 1" CORRUGATIONS					5" x 1" CORRUGATIONS					PIPE ARCH SIZE SPAN x RISE INCHES	EQUI- VALENT DIAMETER INCHES	MINIMUM CORNER RADIUS INCHES	MINIMUM COVER INCHES	2½" x ½" CORRUGATIONS					3" x 1" CORRUGATIONS				
				METAL THICKNESS (INCH/GAGE)																			METAL THICKNESS (INCH/GAGE)									
				0.064/16	0.079/14	0.109/12	0.138/10	0.168/8	0.079/14	0.109/12	0.138/10	0.168/8	0.079/14	0.109/12	0.138/10	0.168/8	0.060/16	0.075/14					0.105/12	0.135/10	0.060/16	0.075/14	0.105/12	0.135/10				
				MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET)																			MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE (FEET)									
17 x 13	15	3	12	13														17 x 13	15	3	12	13										
21 x 15	18	3	12	12														21 x 15	18	3	12	12										
24 x 18	21	3	12	13														24 x 18	21	3	12	13										
28 x 20	24	3	12	13														28 x 20	24	3	12		13									
35 x 24	30	3	12	12														35 x 24	30	3	12		12									
42 x 29	36	3.5	12	12														42 x 29	36	3.5	15			12								
49 x 33	42	4	12		12													49 x 33	42	4	15			12								
57 x 38	48	5	12			12												57 x 38	48	5	15				12							
60 x 46	54	8	15							21						21		60 x 46	54	8	15					21						
64 x 43	54	6	12			12												64 x 43	54	6	18			12								
66 x 51	60	9	15							21						21		66 x 51	60	9	18					21						
71 x 47	60	7	12				12											71 x 47	60	7	18						20					
73 x 55	66	12	18							20						20		73 x 55	66	12	18											
77 x 52	66	8	12					12										77 x 52	66	8	21											
81 x 59	72	14	18						17					17				81 x 59	72	14	21								17			
83 x 57	72	9	12					12										83 x 57	72	9	24								17			
87 x 63	78	14	18						17					17				87 x 63	78	14	21											
95 x 67	84	16	18						17					17				95 x 67	84	16	24											
103 x 71	90	16	18							17				17				103 x 71	90	16	24								17			
112 x 75	96	18	21							16						16		112 x 75	96	18	21											
117 x 79	102	18	21							16						16		117 x 79	102	18	24											
128 x 83	108	18	24								16						16	128 x 83	108	18	24											
137 x 87	114	18	24								16						16	137 x 87	114	18	24											
142 x 91	120	18	24								16						16	142 x 91	120	18	24											

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U.S.

MET

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

METAL PIPE CULVERT

STANDARD APPROVED FOR USE 12/1993
REVISED: 4/1994 6/2005

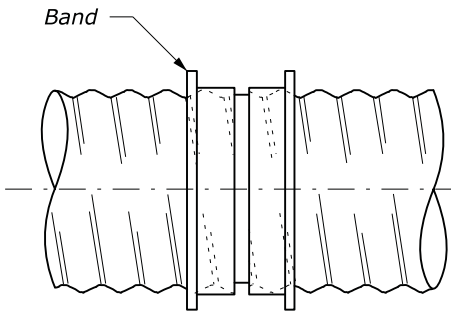
STANDARD
602-1

10/2016
Checked by: H. Schram
10/2016
Designed by: E. Tyson
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STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	F.9

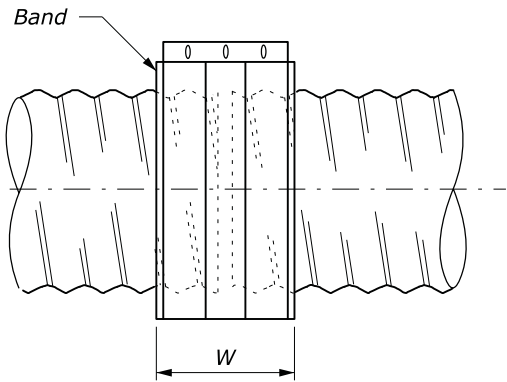
COUPLING BANDS FOR METAL PIPE CULVERT ^[1]					
CORRUGATION SIZE ^[2] INCHES	ROUND PIPE DIAMETER INCHES	PIPE ARCH SPAN × RISE INCHES	MINIMUM BAND WIDTH (INCHES)		
			ANNULAR CORRUGATED BANDS ^[3]	HELICALLY CORRUGATED BANDS ^[4]	SEMI-CORRUGATED BANDS ^[5]
1½ × ¼	underdrain ^[6]	-	10.5	7	10.5
2⅔ × ½	12 to 36	17 × 13 to 42 × 29	7	12	
	42 to 72	49 × 33 to 83 × 57	10.5	12	
	78 to 84	-	10.5	12	10.5
3 × 1	36 to 72	60 × 46 to 81 × 59	12	14	10.5
	78 to 144	87 × 64 to 142 × 91	12	14	10.5
5 × 1	36 to 72	60 × 46 to 81 × 59	20	22	
	78 to 144	87 × 64 to 142 × 91	20	22	

- ^[1] Fabricate annular, helical and semi-corrugated type coupling bands from the same metal as the connecting pipe. Provide coupling bands not more than 3 nominal sheet thicknesses thinner than the thickness of the pipe to be connected, and no thinner than 0.052 inch for steel or 0.048 inch for aluminum. Fasten coupling bands with the following diameter of bolt: ⅜" for 18" round culvert (21" × 15" pipe arch) or less
½" for 21" round culvert (24" × 18" pipe arch) or more
- ^[2] For helically corrugated pipe with rerolled ends, the nominal corrugations size refers to the dimension of the end corrugation in the pipe.
- ^[3] Use annular corrugated bands with pipes having annular corrugations or with helical pipe having rerolled end to form annular corrugations. A 10.5 inch band is acceptable on pipe ends rerolled with 2⅔" × ½" corrugations. A 12 inch band is acceptable on pipe ends rerolled with 3" × 1" pipe corrugations.
- ^[4] Use helical corrugated bands with pipes having helically corrugated ends.
- ^[5] The minimum band widths shown for 3" × 1" and 5" × 1" corrugated sizes apply to 2⅔" × ½" corrugations on rerolled pipe ends.
- ^[6] Smooth sleeve-type couplers and flat bands may be used for pipe diameters of 12" or less. Use a matching metal having a nominal thickness of not less than 0.040 inch for steel, or 0.036 inch for aluminum, or a plastic with an equivalent strength to metal.



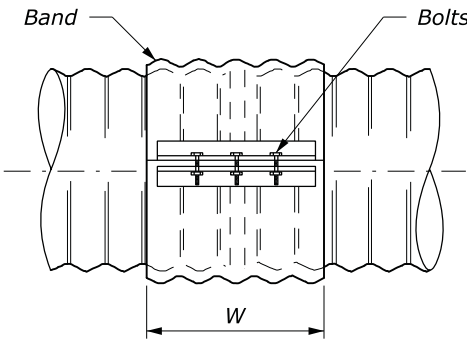
SLEEVE JOINT
Smoother sleeve with center stop.
Stab type joint

SMOOTH SLEEVE BAND

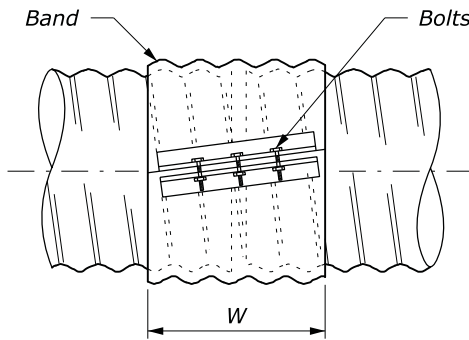


FLAT BAND

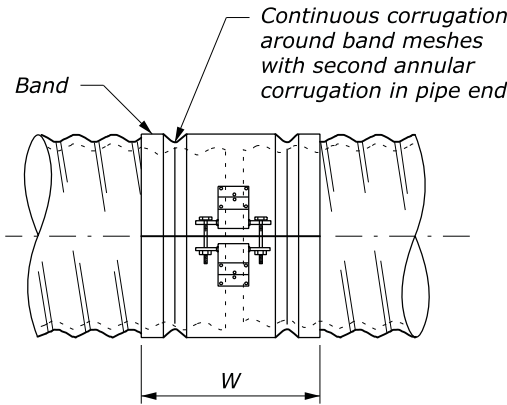
1. Watertight pipe joints are not required unless specified in the Special Contract Requirements.
2. Other types of coupling bands or fastening devices that comply with the joint performance criteria of AASHTO Standard specifications for Highway Bridges, Division II Section 26 may be used.



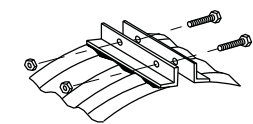
SIDE VIEW



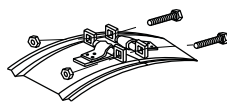
SIDE VIEW



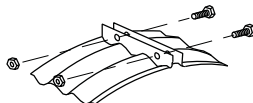
SIDE VIEW



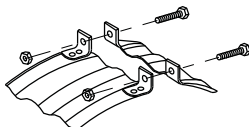
Band Angle



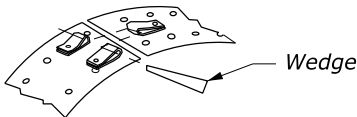
Bar & Strap



Integral Flange

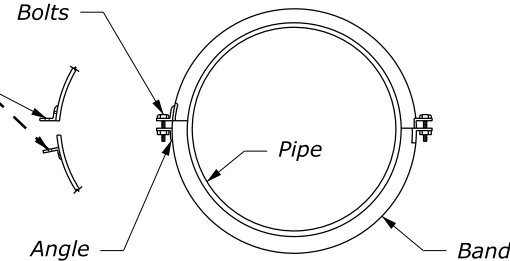


Oval Lug



Wedge and Strap

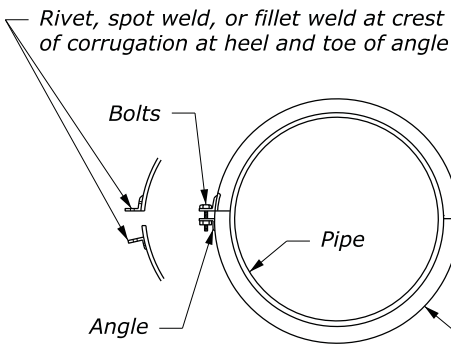
Rivet, spot weld, or fillet weld at crest of corrugation at heel and toe of angle



END VIEW

Second angle connection optional to 42" diameter, required above 42" diameter

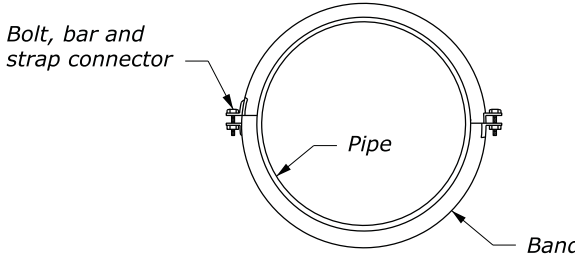
ANNULAR BAND



END VIEW

Second angle connection optional to 42" diameter, required above 42" diameter

HELICAL BAND



END VIEW

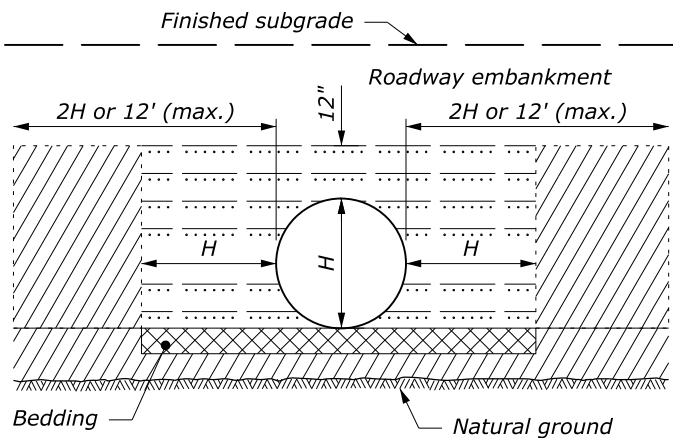
SEMI-CORRUGATED BAND

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
METAL PIPE CULVERT COUPLING BAND	
STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005	STANDARD 602-2

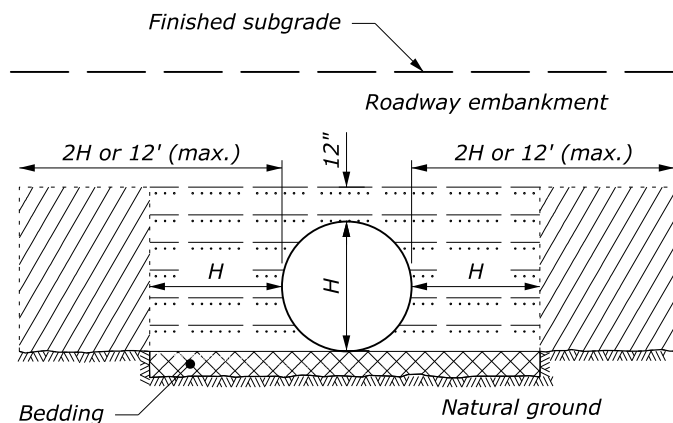
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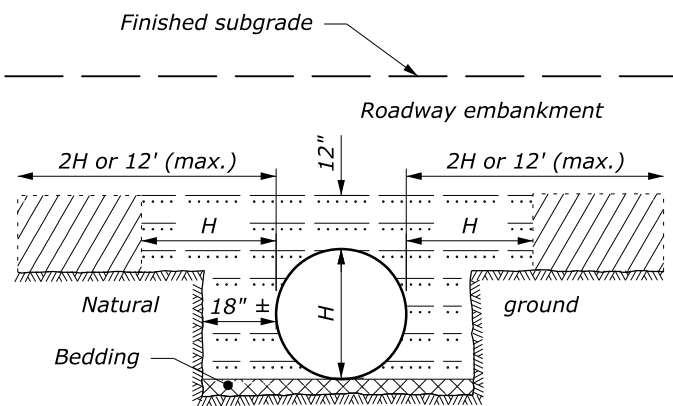
STATE	PROJECT	SHEET NUMBER
WA	FLAP TET TR200(1)	F.10



ABOVE NATURAL GROUND



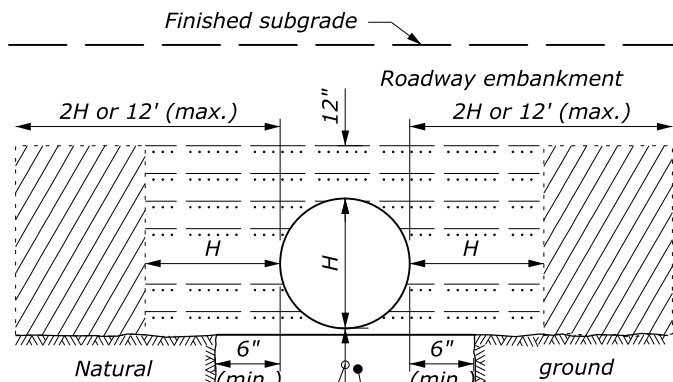
ON NATURAL GROUND



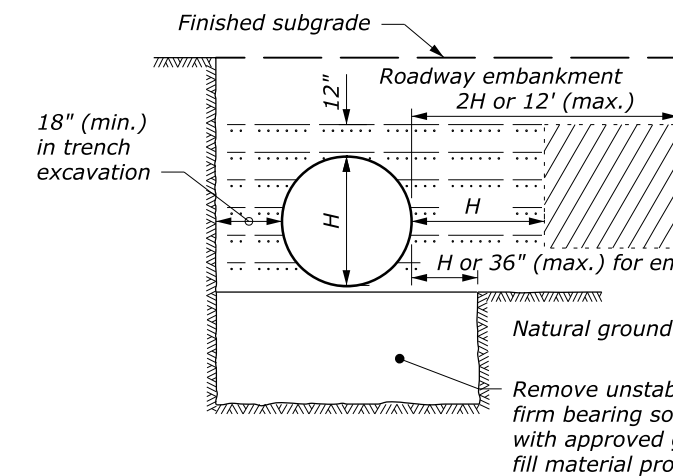
ABOVE AND BELOW NATURAL GROUND

LEGEND:

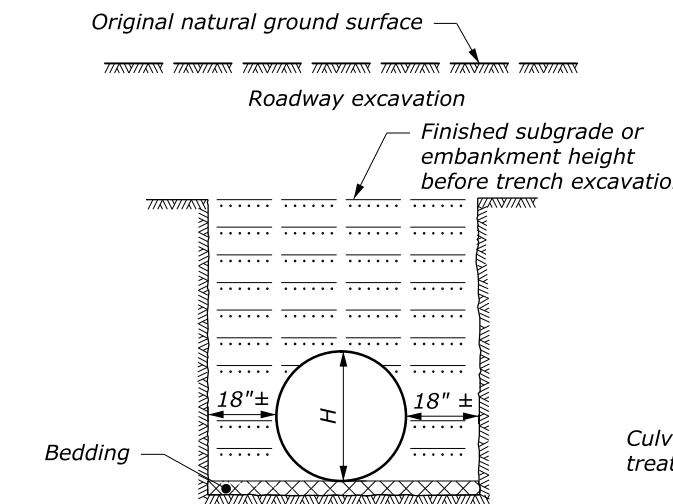
- Bedding material (uncompacted)
- Embankment material placed in layers not exceeding 6" compacted depth.
- Compacted backfill material placed in layers not exceeding 6" compacted depth; or lean concrete backfill in accordance with Section 614.
- Impermeable backfill material.



ON UNYIELDING MATERIAL

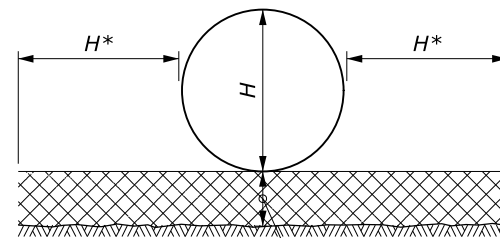


ON UNSTABLE MATERIAL



BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT

BEDDING DEPTH	
PIPE SIZE (H)	DEPTH
12" to 54"	4"
> 54"	6"



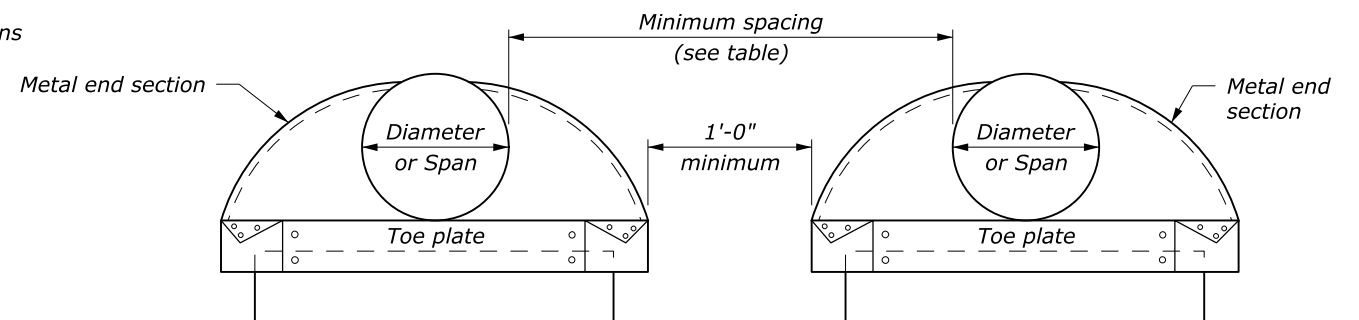
* Reduce to 18" for trench excavations
See bedding depth table

PIPE BEDDING

NOTE:

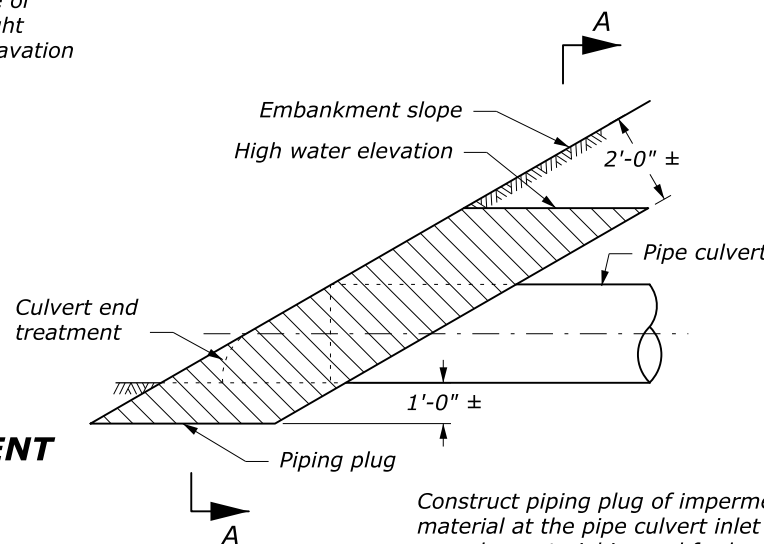
- When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
- H equals the diameter of all round pipe culverts or the rise dimension of all pipe arch culverts.
- See Section 704 for bedding and backfill requirements.

MINIMUM SPACING	
DIAMETER or SPAN	SPACING
UP to 48"	24"
48" and UP	Half diameter or span or 36", whichever is less



ELEVATION

MULTIPLE PIPE INSTALLATION



PIPING PLUG

NO SCALE

Construct piping plug of impermeable backfill material at the pipe culvert inlet where granular material is used for backfill. Width may be adjusted to tie into impervious material.

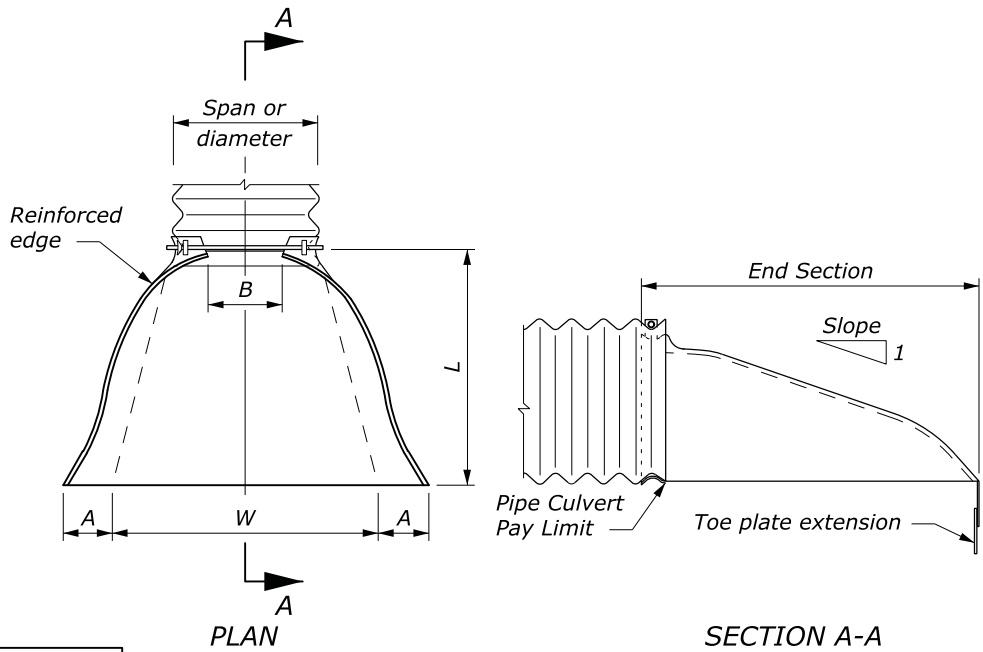
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
METAL AND PLASTIC PIPE CULVERT BEDDING	
STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005 DRAFT: 10/2017	STANDARD 602-3

10/2016
Checked by: H. Schram
10/2016
Designed by: E. Tyson
26-Jan-2017 08:51 AM
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STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	F.11

END SECTIONS FOR ROUND PIPE CULVERT

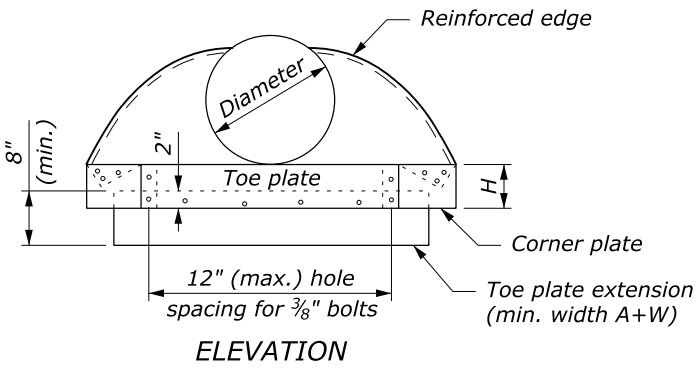
PIPE SIZE DIAMETER INCHES	METAL THICKNESS				DIMENSIONS INCHES					SLOPE Approx.
	STEEL		ALUMINUM							
	INCHES	GAGE	INCHES	GAGE	A (min)	B (max)	H (min)	L (±2")	W (max)	
12	0.064	16	0.060	16	5	7	6	21	44	2¼
15	0.064	16	0.060	16	6	8	6	26	52	2¼
18	0.064	16	0.060	16	7	10	6	31	58	2⅛
21	0.064	16	0.060	16	8	12	6	36	66	2⅛
24	0.064	16	0.060	16	9	13	6	41	72	2⅛
30	0.079	14	0.075	14	11	16	8	51	88	2⅛
36	0.079	14	0.075	14	13	19	9	60	105	2
42	0.109	12	0.105	12	15	25	10	69	122	2⅛
48	0.109	12	0.105	12	17	29	12	78	131	2
54	0.109	12	0.105	12	17	33	12	84	143	2
60	0.109	12	0.105	12	17	36	12	87	157	1⅞
66	0.109	12	0.105	12	17	39	12	87	162	1⅝
72	0.109	12	0.105	12	17	44	12	87	169	1½
78	0.109	12	0.105	12	17	48	12	87	178	1⅜
84	0.109	12	0.105	12	17	52	12	87	184	1½
90	0.109	12	0.105	12	17	58	12	87	188	1¼
96	0.109	12	0.105	12	17	58	12	87	197	1⅞



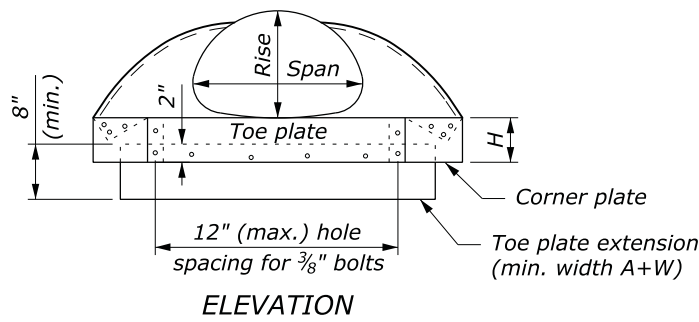
ROUND OR PIPE ARCH CULVERT

END SECTIONS FOR PIPE ARCH CULVERT

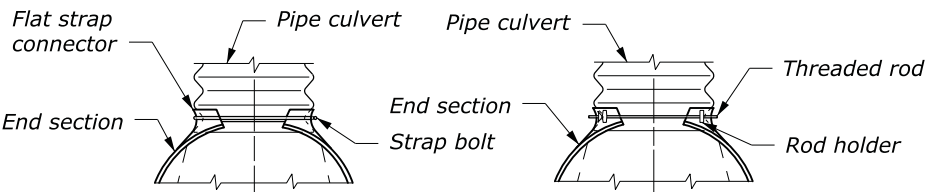
PIPE SIZE SPAN × RISE INCHES	EQUI- VALENT DIAM. (INCHES)	METAL THICKNESS				DIMENSIONS INCHES					SLOPE Approx.
		STEEL		ALUMINUM		A (min)	B (max)	H (min)	L (±2")	W (max)	
		INCHES	GAGE	INCHES	GAGE						
17 × 13	15	0.064	16	0.060	16	7	9	6	19	30	2½
21 × 15	18	0.064	16	0.060	16	7	10	6	23	36	2½
24 × 18	21	0.064	16	0.060	16	8	12	6	28	42	2½
28 × 20	24	0.064	16	0.060	16	9	14	6	32	48	2½
35 × 24	30	0.079	14	0.075	14	10	16	8	39	60	2½
42 × 29	36	0.079	14	0.075	14	12	18	9	46	75	2½
49 × 33	42	0.109	12	0.105	12	13	21	12	53	85	2½
57 × 38	48	0.109	12	0.105	12	18	26	12	63	90	2½
60 × 46	54	0.109	12	0.105	12	18	34	12	70	102	2
64 × 43	54	0.109	12	0.105	12	18	30	12	70	102	2
66 × 51	60	0.109	12	0.105	12	18	33	12	77	116	1½
71 × 47	60	0.109	12	0.105	12	18	33	12	77	114	1½
73 × 55	66	0.109	12	0.105	12	18	36	12	77	126	1½
77 × 52	66	0.109	12	0.105	12	18	36	12	77	126	1½
81 × 59	72	0.109	12	0.105	12	18	39	12	77	138	1½
83 × 57	72	0.109	12	0.105	12	18	39	12	77	138	1½
87 × 63	78	0.109	12	0.105	12	20	38	12	77	148	1½
95 × 67	84	0.109	12	0.105	12	20	34	12	87	162	1½
103 × 71	90	0.109	12	0.105	12	20	38	12	87	174	1½
112 × 75	96	0.109	12	0.105	12	20	40	12	87	174	1½



ROUND PIPE CULVERT

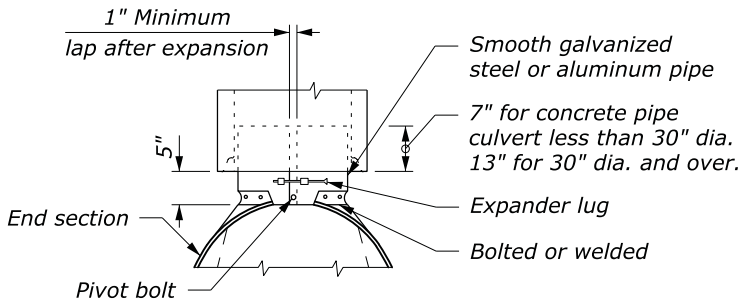


PIPE ARCH CULVERT

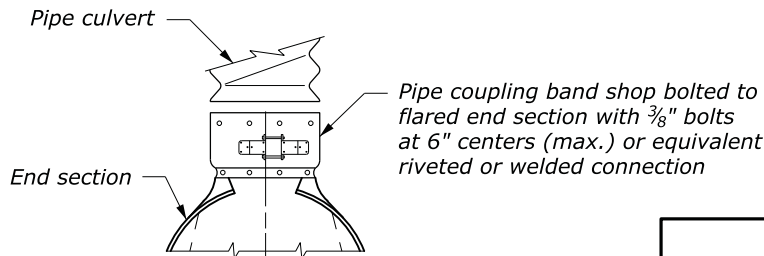


For 12" thru 24" round pipe and 17" × 13" thru 28" × 20" pipe arch For 30" thru 60" round pipe and 35" × 24" thru 66" × 51" pipe arch

DESIGN A
CONNECTION TO ANNULAR
CORRUGATED METAL PIPE



DESIGN B
CONNECTION TO CONCRETE
PIPE INLET END



For all sizes of round pipe and pipe arch
DESIGN C
CONNECTION TO METAL PIPE
OR OUTLET END OF CONCRETE PIPE

NO SCALE

NOTE:

1. Variations in design and dimensions are permitted to allow for manufacturer's standards.
2. Fabricate the diameter of the end section of Design B to match the inside diameter of the concrete pipe culvert.
3. Design C may be used in lieu of design A for all metal pipe culvert sizes. Coupling bands may be any acceptable type for the pipe culvert specified.
4. Fabricate multiple piece bodies with lap seams tightly joined by ⅜" rivets or bolts. Fabricate end section center panels for 60" and larger diameter pipe and equivalent pipe arch from 0.138 inch steel or 0.135 inch aluminum.
5. On end section center panels for 66" and larger equivalent pipe arch provide 2½" × 2½" × ¼" angle reinforcement bolted or riveted under the center panel seam.
6. Supplement the reinforced edges of end sections for 60" and larger diameter pipe and 66" and larger equivalent pipe arch with 2½" × 2½" × ¼" stiffener angles attached with bolts or rivets.
7. Fabricate connector section, corner plate and toe plate extensions from the same metal thickness as the panel body. Use toe plate extension where shown on the plans.
8. Warp embankment slopes to match the slope of the flared end sections.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
METAL END SECTIONS	
STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005 DRAFT: 10/2007	STANDARD 602-4

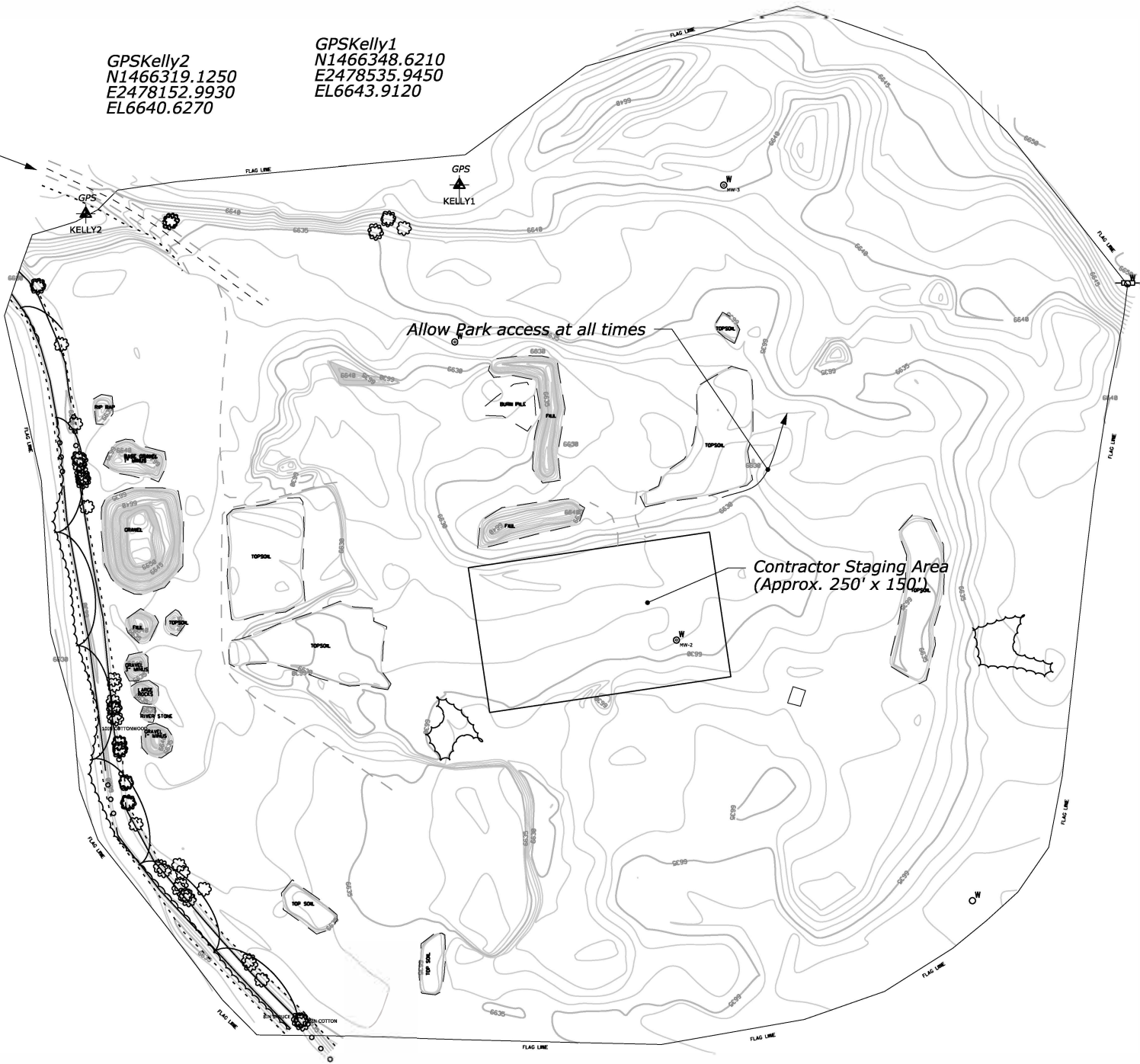
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	G.1



ENTRANCE
(from Gros Ventre Road)
(1 mile from Kelly, WY)
(6 miles from Highway 26/89/191)

GPSKelly2
N1466319.1250
E2478152.9930
EL6640.6270

GPSKelly1
N1466348.6210
E2478535.9450
EL6643.9120

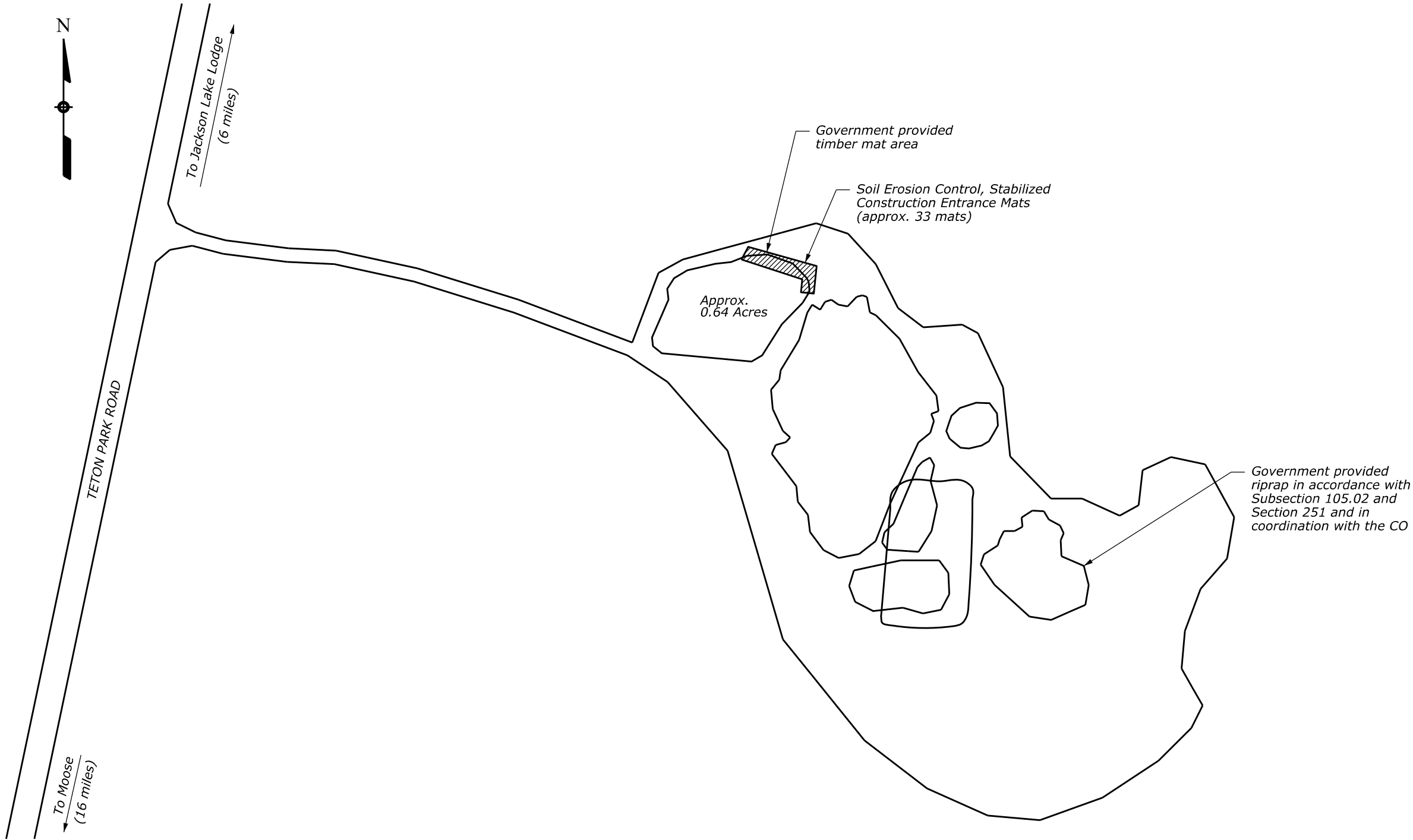


- NOTE:**
- 1. Use this site in accordance with Subsection 105.04.
 - 2. Confine contractor activities to designated areas. Areas may be adjusted by the CO. Do not restrict access to area not authorized for contractor use.
 - 3. Contours shown may have changed since survey conducted in 2013.
 - 4. Pit entrance coordinates are 43° 37' 30" N, 110° 38' 20" W.

KELLY STAGING AREA

NO SCALE

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	G.2

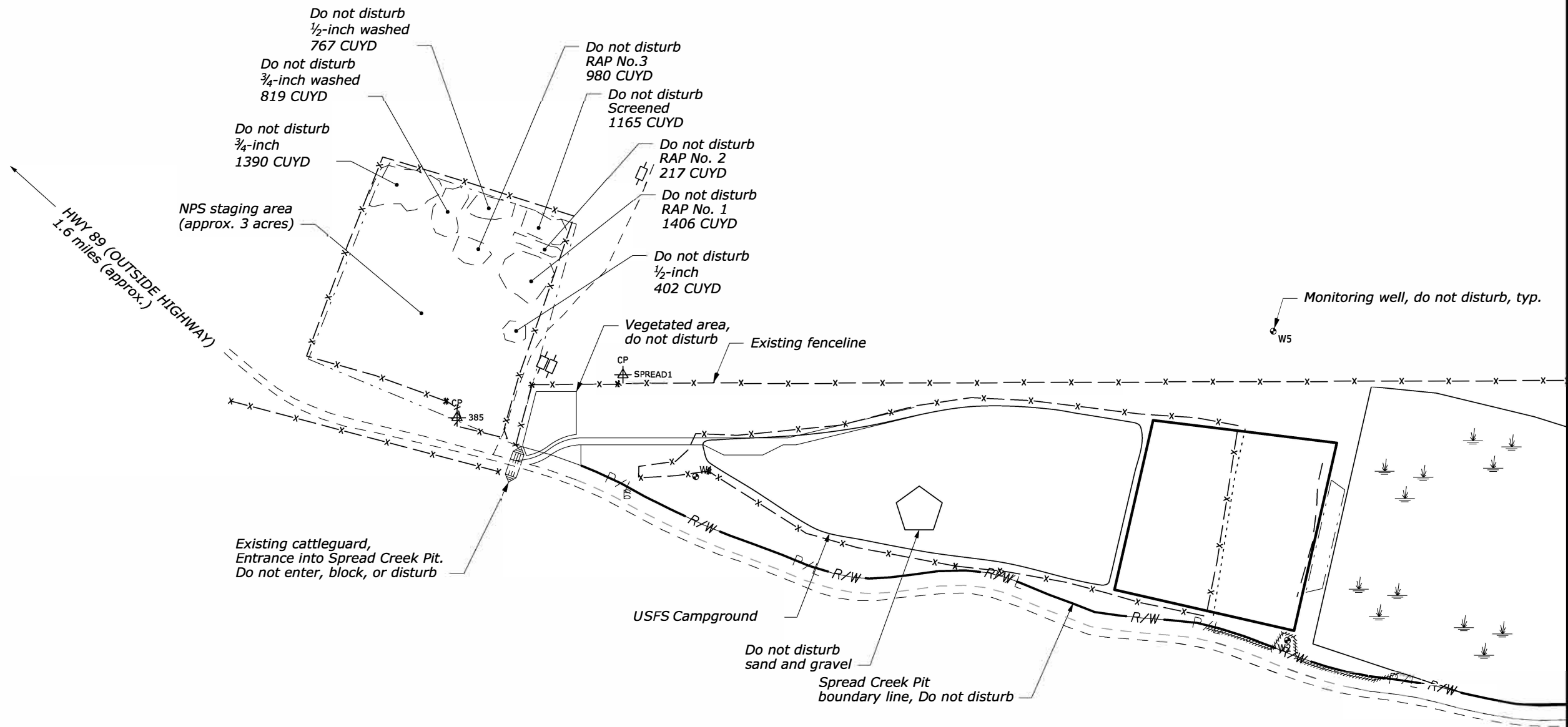


- NOTE:**
1. Use this site in accordance with Subsection 105.04.
 2. Confine contractor activities to designated areas.
Areas may be adjusted by the CO.
 3. Areas shown are approximate.
 4. Provide continuous access.
 5. Pit entrance coordinates are 45° 49' 06" N, 110° 36' 9" W.

NO SCALE

RKO STAGING AREA

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	G.3



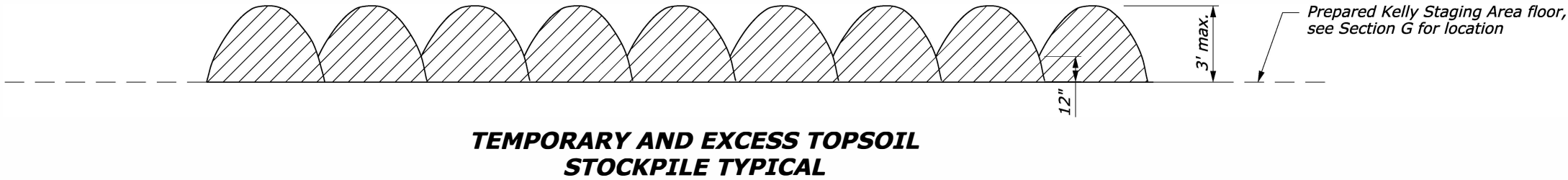
NPS SPREAD CREEK STAGING AREA

- NOTE:**
1. Boundaries shown are approximate and may be adjusted by the CO.
 2. Staging area and pit access available starting June 30 through October 1 of any given year.
 3. Quantities of stockpiles updated as of October 22, 2015.

**NPS SPREAD CREEK
STAGING AREA**

NO SCALE

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	G.4



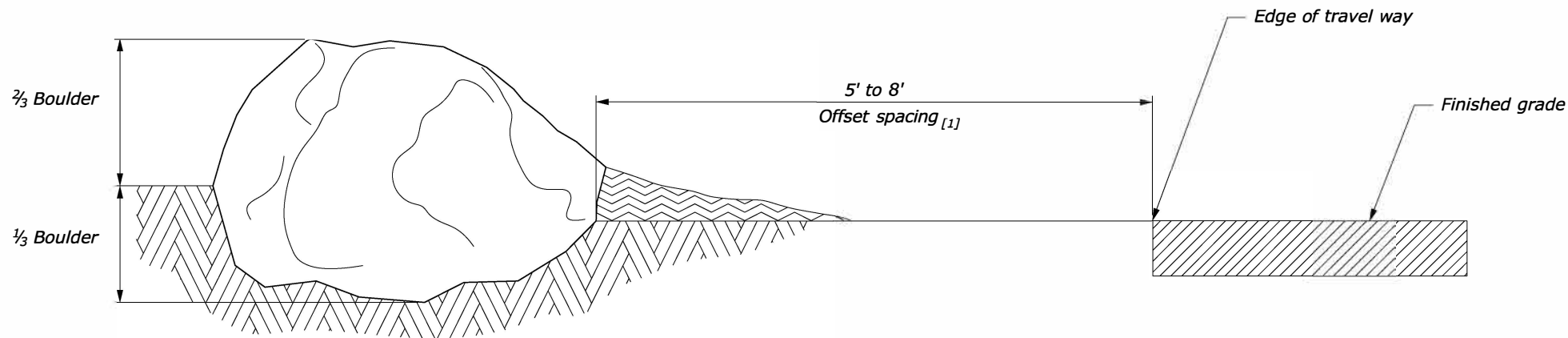
- NOTE:**
- 1. Provide 6-feet separation between topsoil stockpiles and any other stockpiled material.
 - 2. Prepare disposal sites according to Section 204.
 - 3. Stockpile excess roadway excavation separately from topsoil waste.
 - 4. Stockpile excess topsoil at the Kelly Staging Area, as shown above and as directed by the CO.

NO SCALE

TEMPORARY AND EXCESS TOPSOIL STOCKPILE DETAIL

31-Jul-2017 09:53 AM ...|grte70005qa.dgn Designed by: J. Trujillo 7/2017 Checked by: K. Lang 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	H.1



BOULDER PLACEMENT DETAIL

NOTE:

1. Stockpile boulders in approved location.
2. Bury boulders a minimum of $\frac{1}{3}$ of their total size.
3. Place boulders according as directed by the CO.
4. Place in a non-uniform appearance, so as to look natural.
5. Do not scratch, mark, or otherwise damage the boulders.
Use equipment capable of preventing damage.

FOOTNOTE:

^[1] Place final location as approved by the CO.

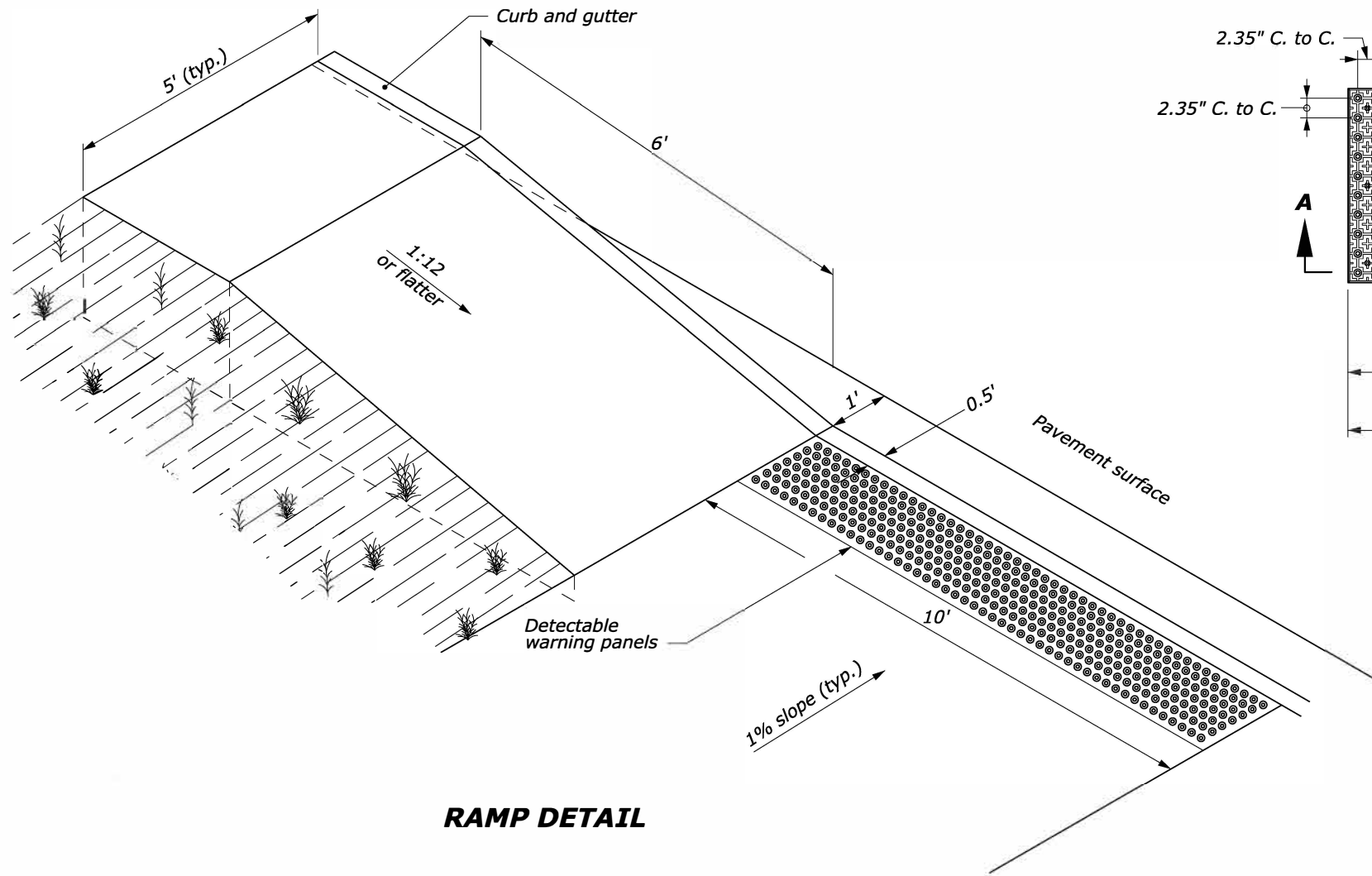
NO SCALE

BOULDER DETAIL

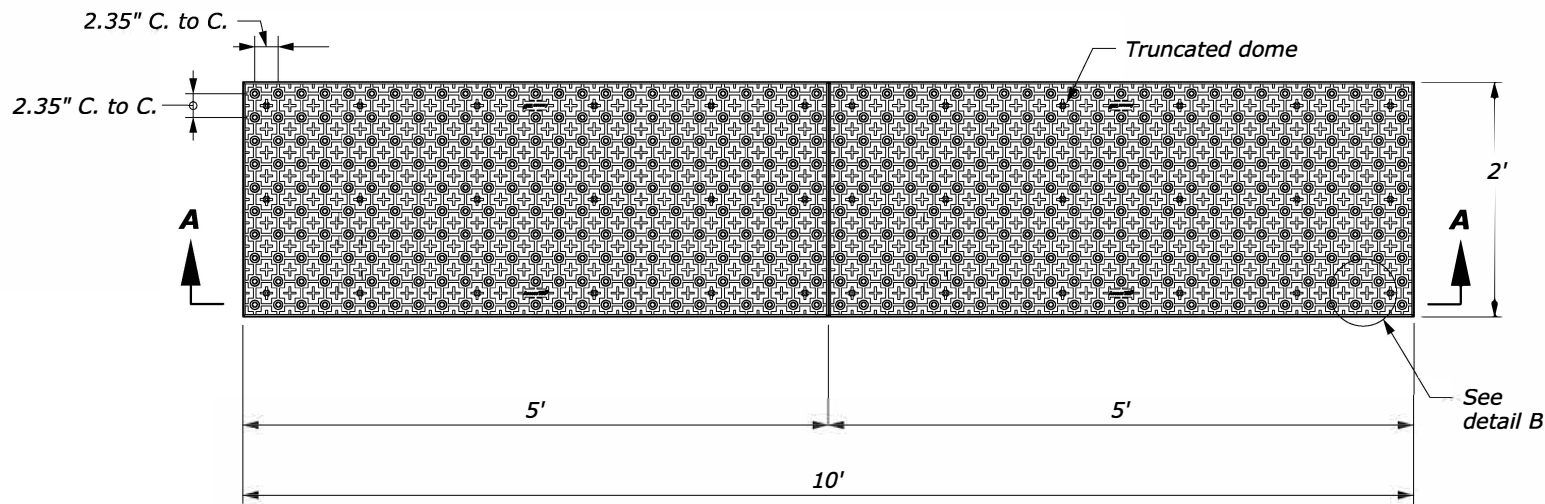
7/2017 7/2017 7/2017 31-Jul-2017 09:53 AM ...lgte7005qdp.dgn

Designed by: J. Trujillo Checked by: K. Lang

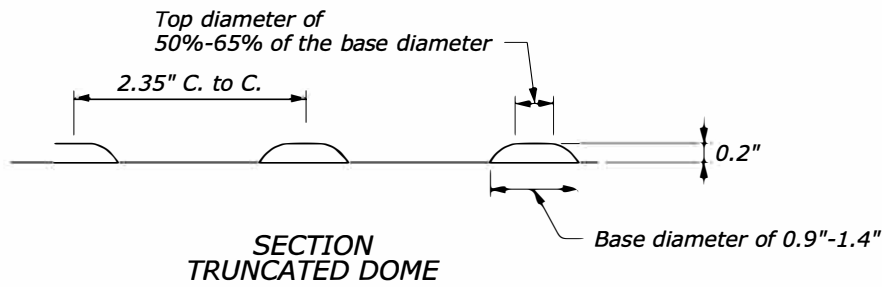
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	H.2



RAMP DETAIL

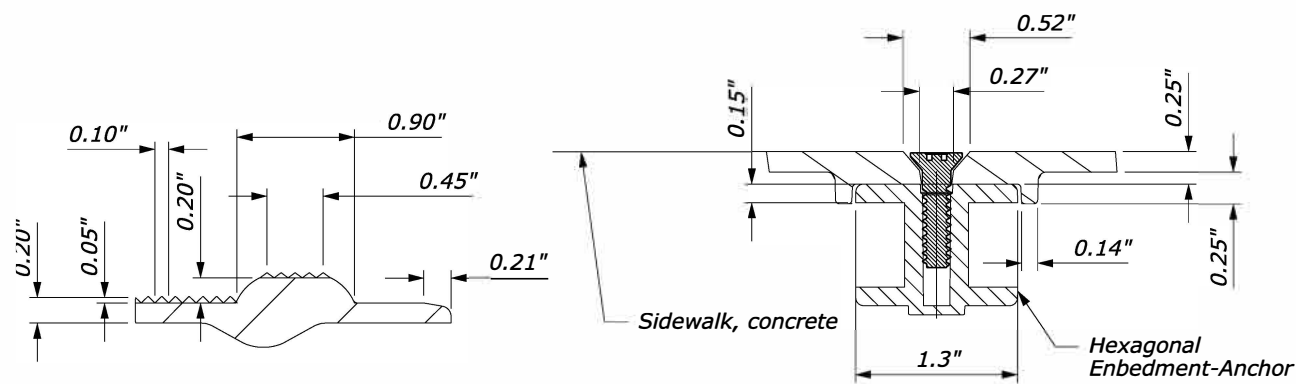


PLAN



SECTION TRUNCATED DOME

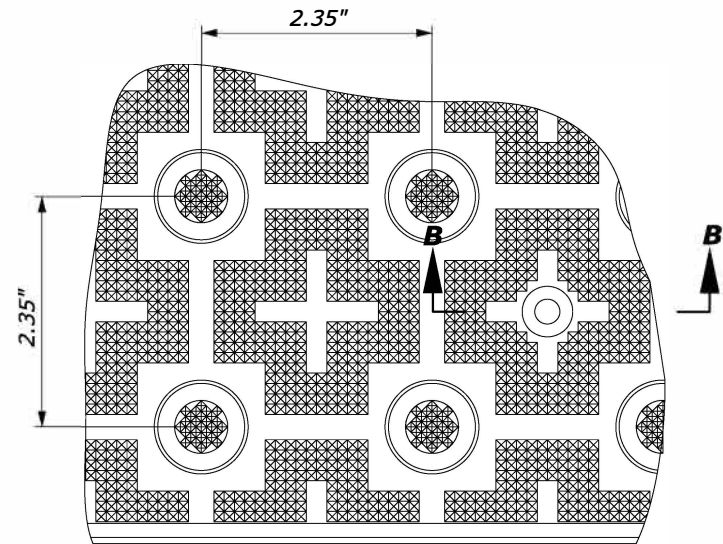
DETECTABLE WARNING PANELS WITH TRUNCATED DOMES



DETAIL C

SECTION B-B

DETECTABLE WARNING PANEL INSTALLATION



DETAIL B



SECTION A-A

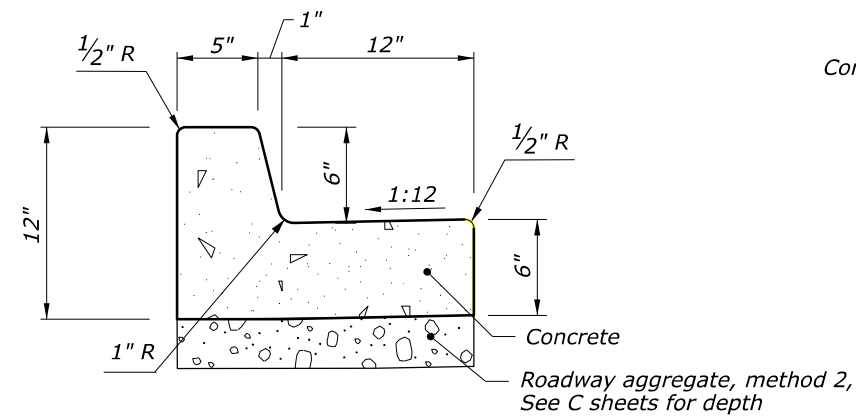
NOTE:

1. Install per manufactured recommendations.
2. Comply with the requirements of Architectural Barriers Act Accessibility Standards (ABAAS) for Accessible Public Rights-of-Way, Section R705 - Detectable Warning.
3. Space anchors per manufacturer's recommendations and as directed by the CO.

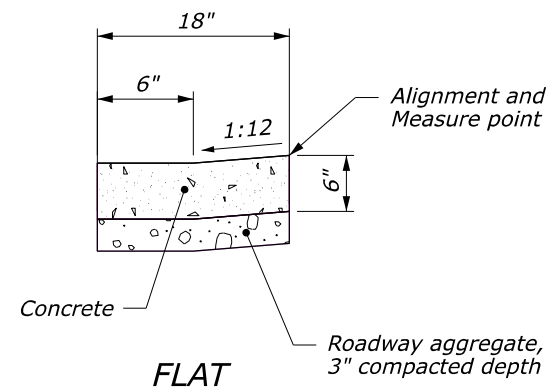
DETECTABLE WARNING PANEL DETAILS

NO SCALE

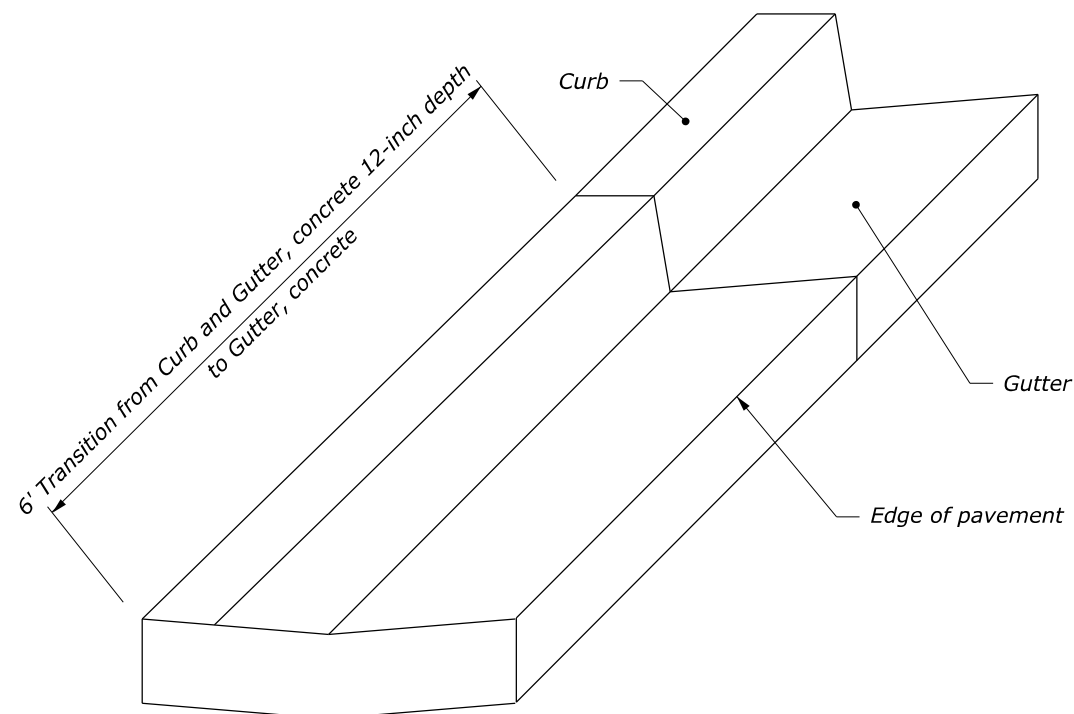
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	H.3



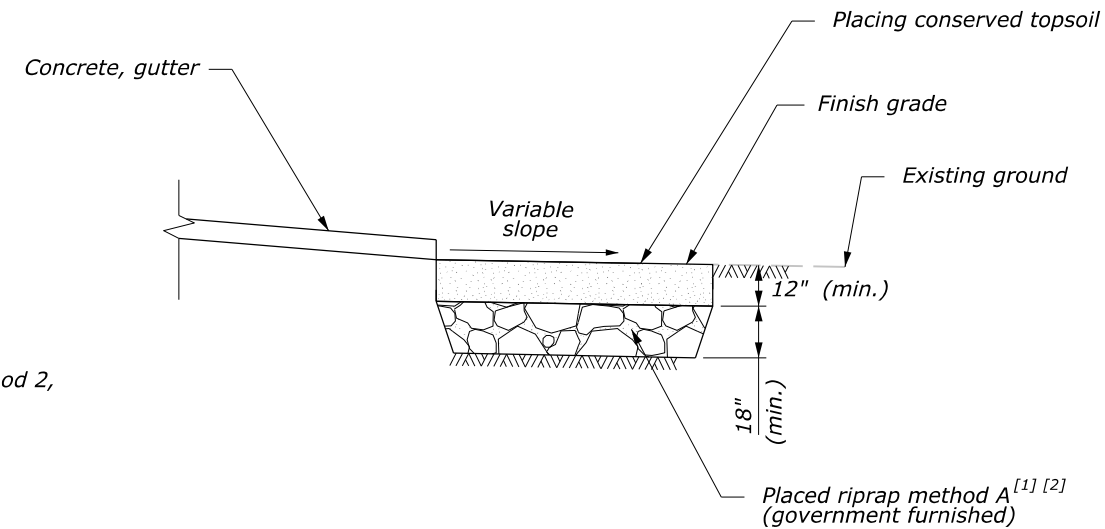
***CURB AND GUTTER, CONCRETE,
12-INCH DEPTH
TYPICAL SECTION***



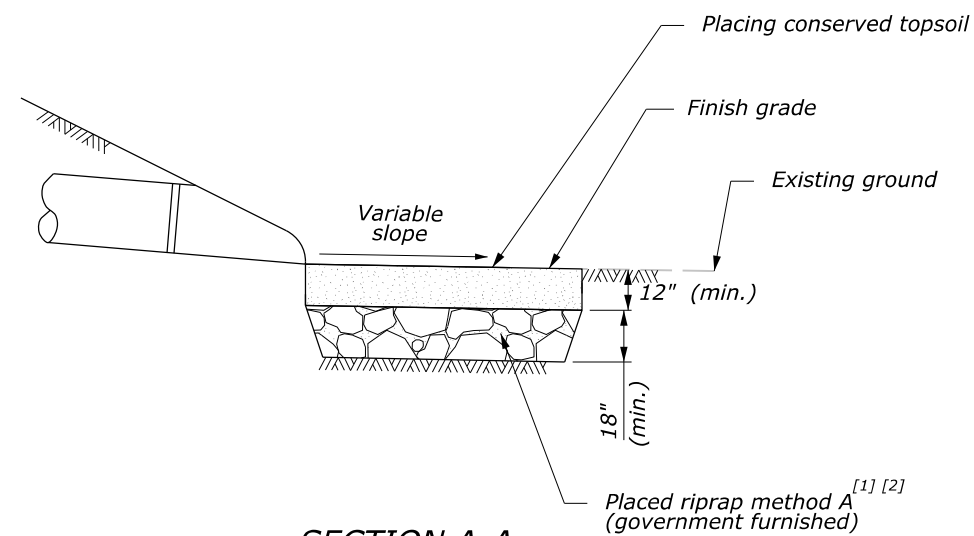
CONCRETE, GUTTER TYPICAL SECTION



CURB AND GUTTER TRANSITION DETAIL

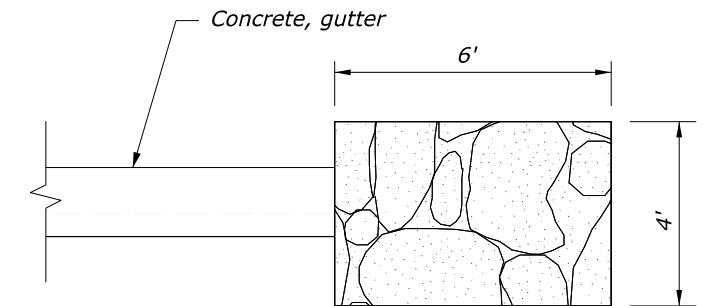


PROTECTIVE APRON FOR END OF CONCRETE GUTTER



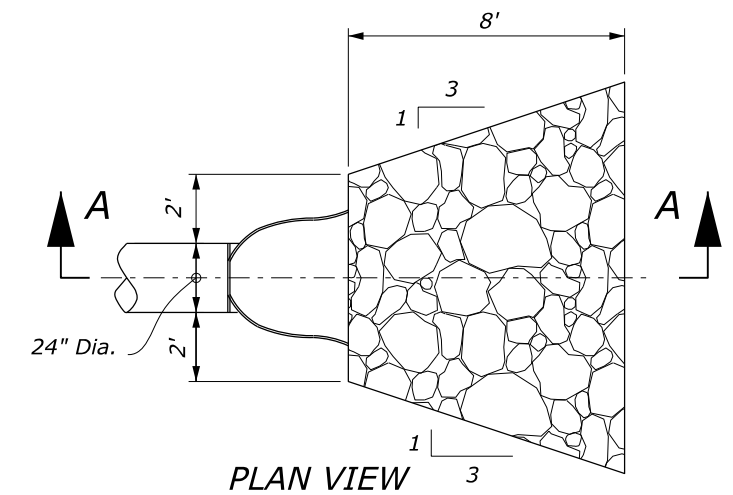
SECTION A-A (government turn)

PROTECTIVE APRON AT CULVERT OUTLET



PLAN VIEW

***PROTECTIVE APRON FOR
END OF CONCRETE GUTTER***



PROTECTIVE APRON AT CULVERT OUTLET

NOTE:

1. Do not measure riprap placement excavation for payment.

FOOTNOTE:

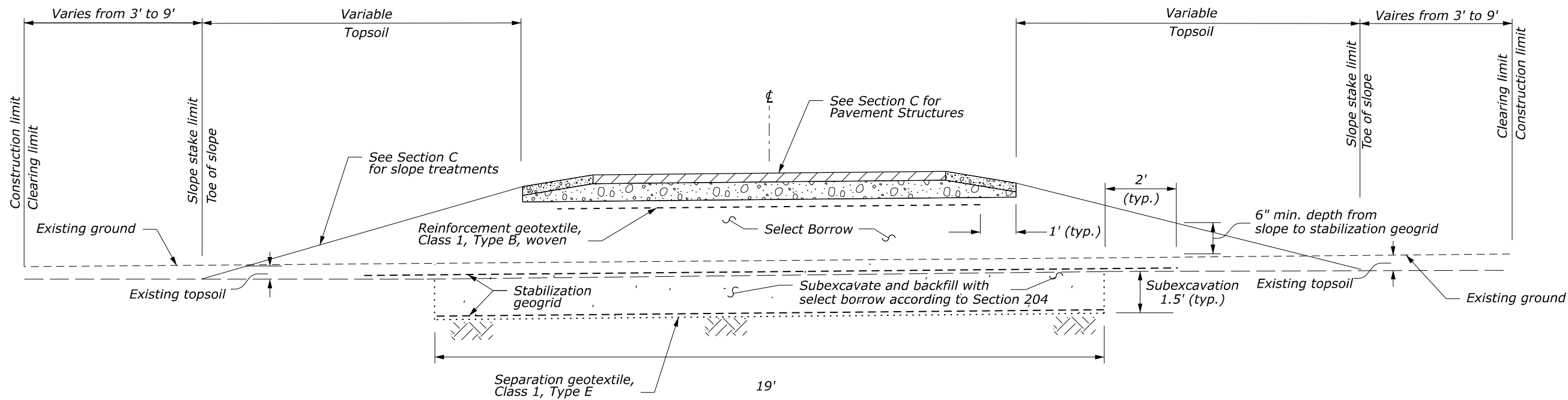
- [1] Mix uniformly 65% riprap by volume with 35% of select borrow by volume prior to placement.*
- [2] Place riprap-soil mix to result in securely interlocked rock at the design thickness and grade. Compact and level to eliminate all voids and rocks projecting above design riprap top grade.*

NO SCALE

CURB AND GUTTER DETAILS

3/1/2023 ...|grte70005qdd.dgn [US Customary] Designed by: J. Trujillo 7/2017 Checked by: K. Lang 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	H.4



**SUBEXCAVATION
TYPICAL SECTION**

NOTE:

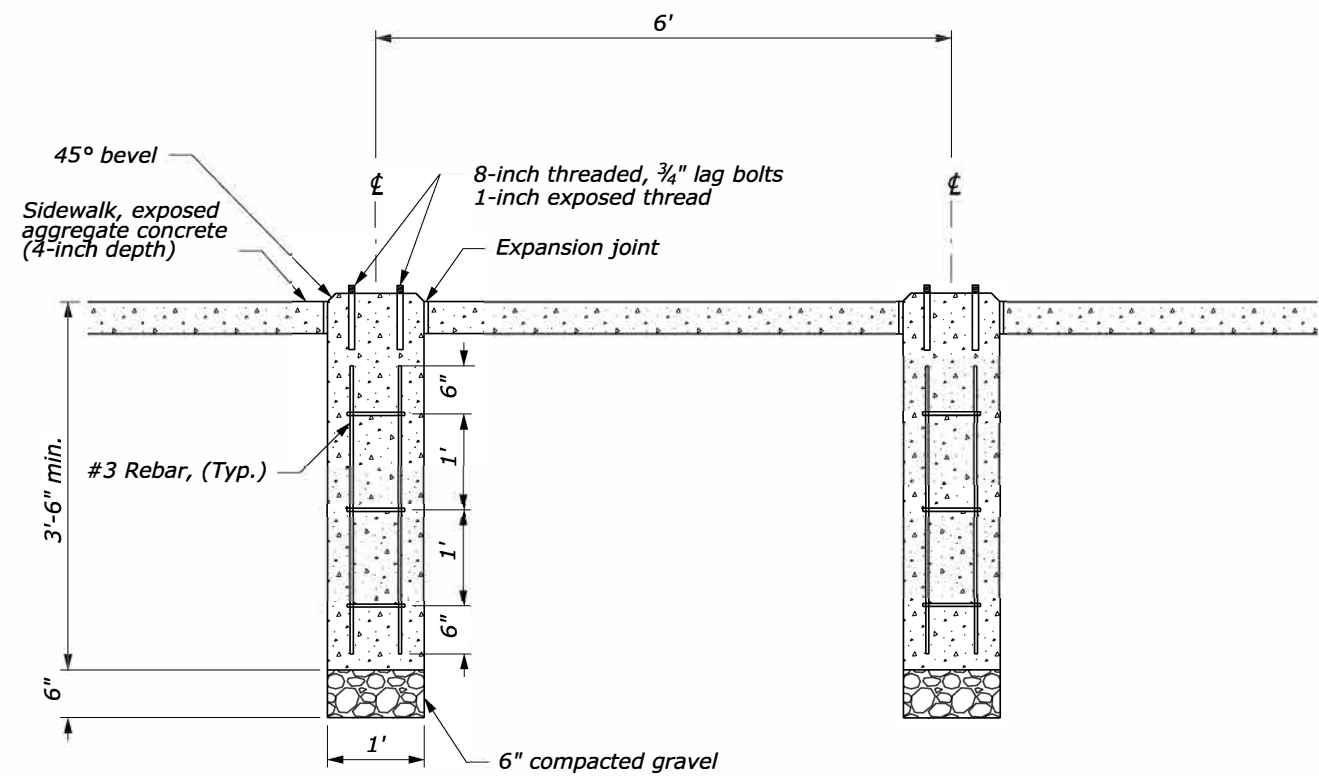
1. Replace unsuitable material according to Subsection 204.07 unless otherwise specified.
2. Daylight to drain where the excavation is within 4 ft of the subgrade hinge point. Slope the excavation bottom 2% toward the daylight for drainage, or match the existing roadway cross slope when steeper than 2%.
3. At daylight locations, match the existing fill slope or make slope adjustments to match the subgrade hinge point. Do not construct slopes steeper than 1:2 unless approved by the CO.
4. Topsoil depth used for quantity calculations: 0.85'.

SUBEXCAVATION

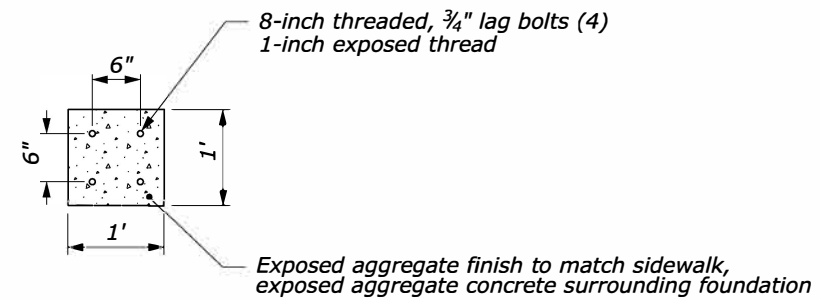
NO SCALE

7/31/2017 ...lgfte70005qe.dgn Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	H.5



SECTION



PLAN VIEW

BENCH FOOTING DETAILS

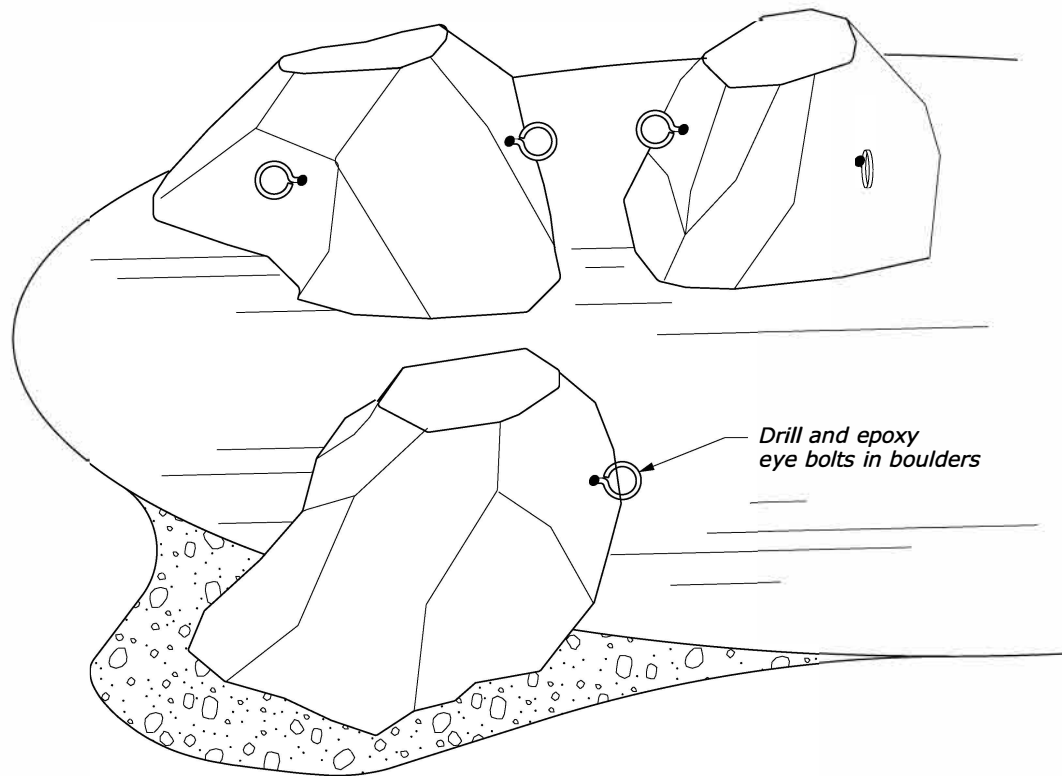
NOTE:

1. See plan sheet D.11 for site location.
2. Rebar must be a minimum of 2 inches from the edge of concrete and tied with galvanized material. See Section 601 for strength requirements.
3. Bench will be government furnished. See Section 646 for installation details. Bench weights approximately 500 lbs.
4. Stake footing locations prior to installation for approval by the CO.

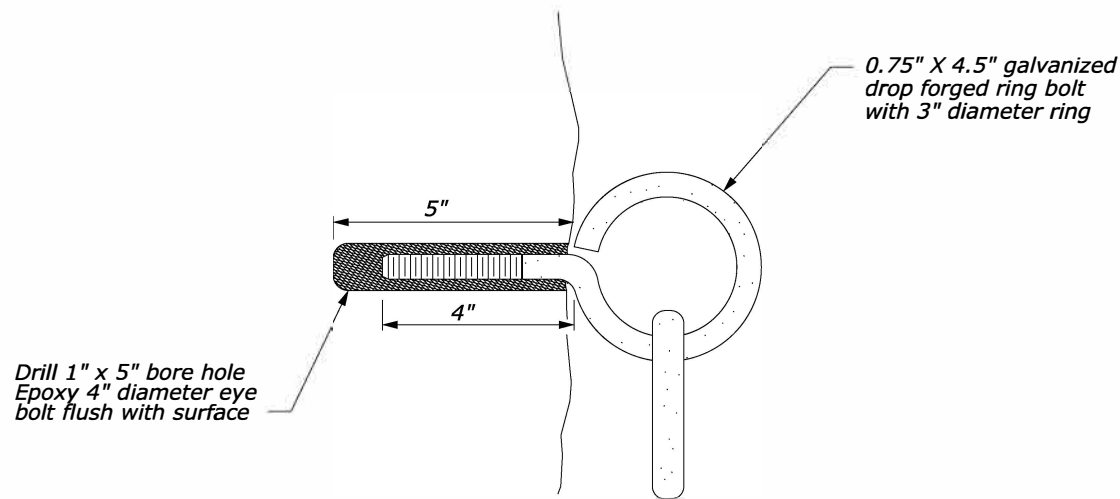
NO SCALE

BENCH FOOTING DETAILS

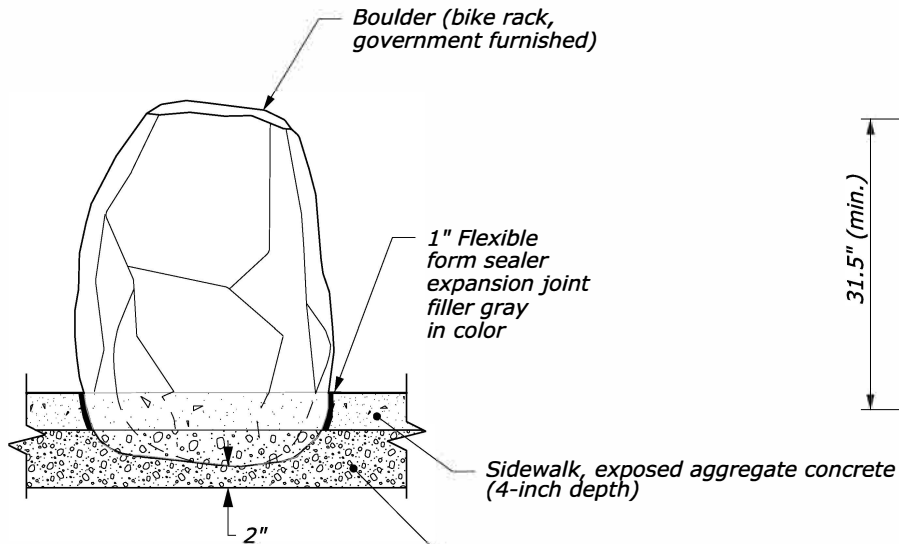
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	H.6



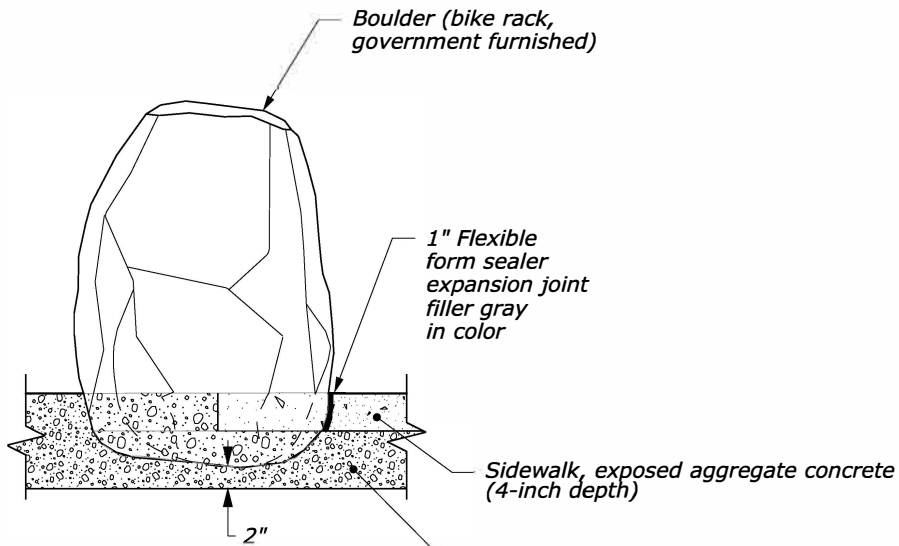
BOULDER BIKE RACK^[1]
Isometric View



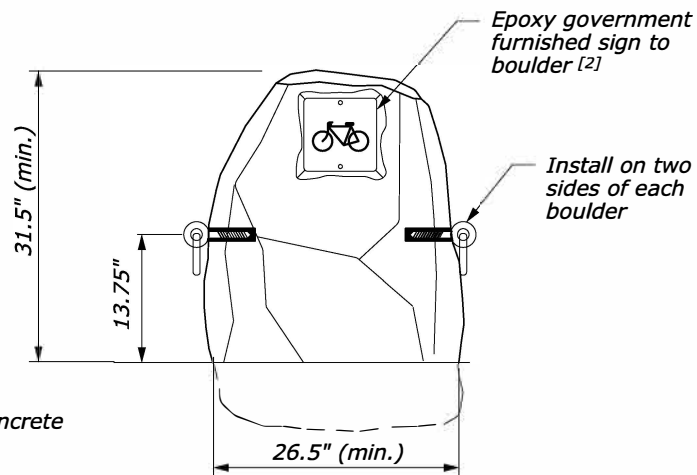
DROP FORGED RING BOLT



BOULDER EMBEDMENT
In sidewalk



BOULDER EMBEDMENT
Partial sidewalk placement



BICYCLE BOULDER

NOTE:

1. Install boulders according to Section 204 & 251.
2. Install boulders furnished by the government.

FOOTNOTE:

- ^[1] Final location of boulders and bolts to be determined by CO.
^[2] Provide level mount to install sign.

BOULDER BIKE RACK

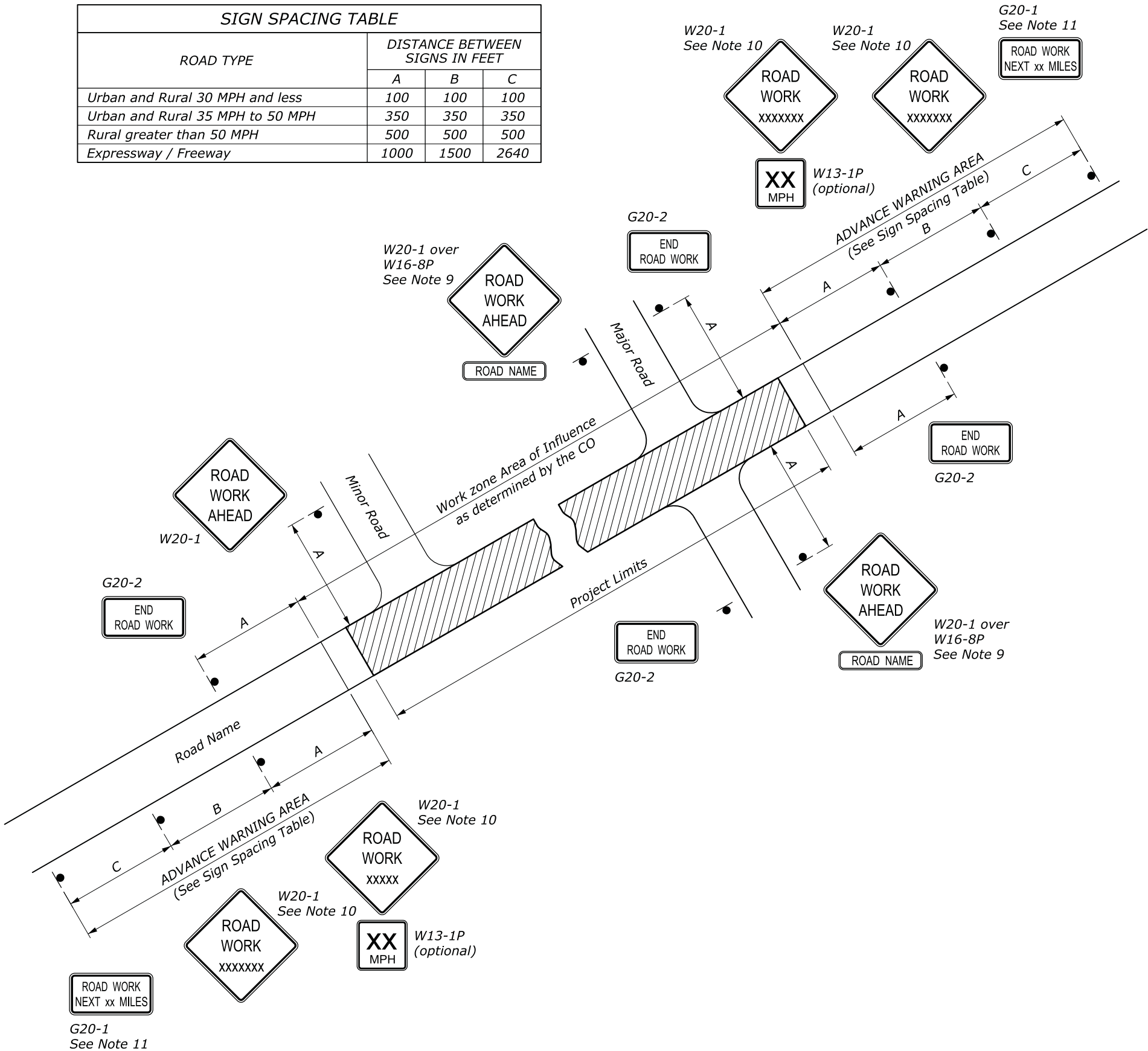
TABULATION OF TEMPORARY TRAFFIC CONTROL DEVICE QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
63502-1250	TEMPORARY TRAFFIC CONTROL, TUBULAR MARKER, TYPE 42-INCH	EACH	50
63509-1000	TEMPORARY TRAFFIC CONTROL, FLAGGER	HOURL	580

ITEM 63504-1000 TEMPORARY TRAFFIC CONTROL, CONSTRUCTION SIGN						
SIGN NO.	MUTCD REF. NO.	SIGN LEGEND	SIGN SIZE IN X IN	NO. OF SIGNS	QUANTITY (SQFT)	LOCATION
1	G20-2	END ROAD WORK	36 X 18	4	18	Sagebrush Drive (2) & Spring Gulch Road (2)
2	W20-1	ROAD WORK 500 FT	36 X 36	4	36	Sagebrush Drive (2) & Spring Gulch Road (2)
3	W20-1	ROAD WORK AHEAD	36 X 36	6	54	Sagebrush Drive (2), Spring Gulch Road (2),& Flagger (2)
4	W20-4	ONE LANE ROAD AHEAD	36 X 36	2	18	Variable
5	W20-7	FLAGGER SYMBOL	36 X 36	2	18	Variable
TOTAL					144	

TABULATION OF
TEMPORARY TRAFFIC CONTROL
QUANTITIES

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	I.2

SIGN SPACING TABLE			
ROAD TYPE	DISTANCE BETWEEN SIGNS IN FEET		
	A	B	C
Urban and Rural 30 MPH and less	100	100	100
Urban and Rural 35 MPH to 50 MPH	350	350	350
Rural greater than 50 MPH	500	500	500
Expressway / Freeway	1000	1500	2640



NOTE:

- Erect all project advance warning signs before starting construction work.
- Not all details shown on the temporary traffic control sheets may be applicable to this project. The Contractor may add or delete information and details in this traffic control plan as necessary to accommodate actual operations.
- Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs as determined by the CO for best results. Vary messages as required.
- Additional or different message signs may be required to fit the actual construction conditions.
- Install advisory speed plates under the W20 series warning signs as needed to indicate a maximum recommended speed through the construction area.
- Ensure all sign supports exposed to impact by traffic meet the requirements of NCHRP-350 or MASH for crashworthiness.
- Maintain two-way traffic during all non-work hours except as approved by the CO.
- Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.
- If W20-1 is placed on a roadway other than that on which the actual construction work occurs, include a supplementary plaque indicating the name of the road on which the construction does occur (applies to major roads only).
- The message on the W20-1 signs may be "ROAD WORK AHEAD" or may specify the distance to the work area in feet or in miles. Install an additional W20-1 sign when approach speeds exceed 50 MPH. When used place the two W20-1 signs "B" feet apart according to the Sign Spacing Table.
- For work zones that are 2 miles or more in length, install G20-1 signs at each end of the project. Show the distance on the G20-1 sign to the nearest whole mile.
- If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.
- State standards may be used as an alternative if approved by the CO.
- Refer to the Section 635 of the Special Contract Requirements for allowable retroreflective sheeting types.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING	
STANDARD APPROVED FOR USE 6/2005	STANDARD
REVISED: DRAFT: 6/2014	635-1

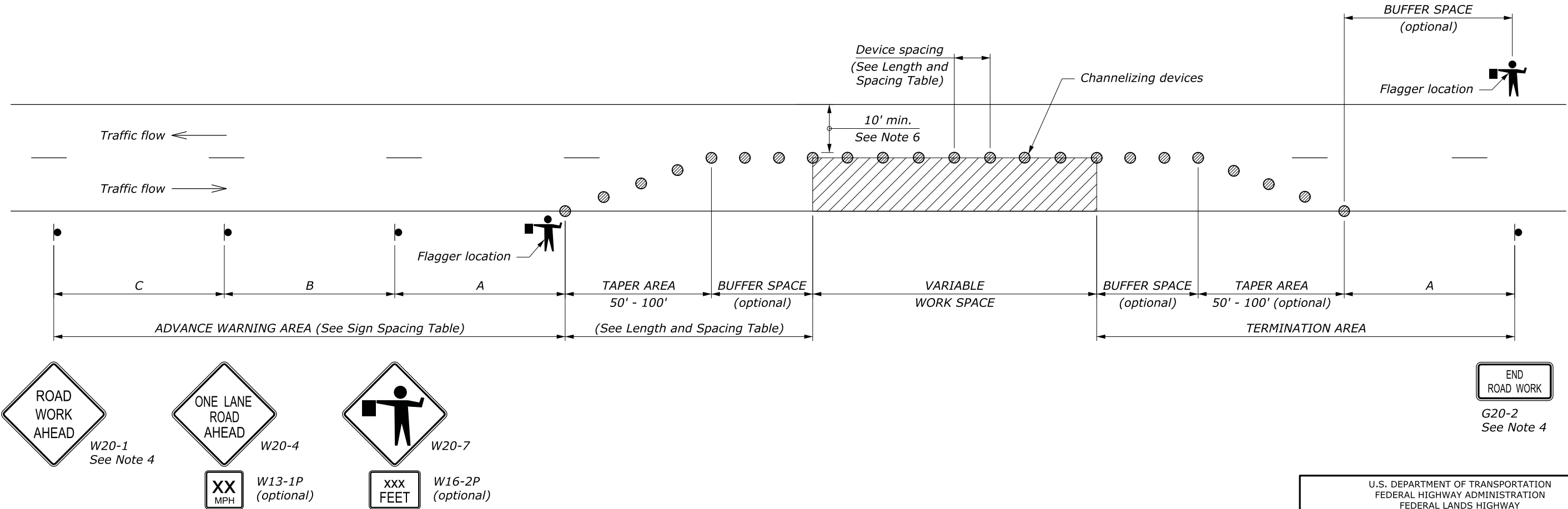
LENGTH AND SPACING TABLE				
APPROACH SPEED*	BUFFER SPACE LENGTH	CHANNELIZING DEVICE		
		TAPER AREA	BUFFER SPACE	WORK SPACE
MPH	FEET	SPACING IN FEET		
20	115	20	40	40
25	155	20	50	50
30	200	20	60	60
35	250	20	70	70
40	305	20	80	80
45	360	20	90	90
50	425	20	100	100
55	495	20	110	110
60	570	20	120	120
65	645	20	130	130
70	730	20	140	140

* Approach speed based on the regulatory posted speed, not the advisory speed.

SIGN SPACING TABLE			
ROAD TYPE	DISTANCE BETWEEN SIGNS IN FEET		
	A	B	C
Urban and Rural 30 MPH and less	100	100	100
Urban and Rural 35 MPH to 50 MPH	350	350	350
Rural greater than 50 MPH	500	500	500
Expressway / Freeway	1000	1500	2640

NOTE:

- Signs are shown for one direction of travel only. Place devices similar to those depicted for the opposite direction of travel.
- Final location and spacing of signs and devices may be changed to fit field conditions as approved by the CO.
- For pilot car operation, mount the PILOT CAR FOLLOW ME (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the contractor on the pilot car.
- If closure is completely within the project limits, eliminate the "ROAD WORK AHEAD" (W20-1) and "END ROAD WORK" (G20-2) signs.
- For night time flagging operation, provide floodlighting at flagger stations.
- For project specific minimum width, refer to the Special Contract Requirements, Section 156.
- Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



END ROAD WORK
G20-2
See Note 4

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL LANDS HIGHWAY

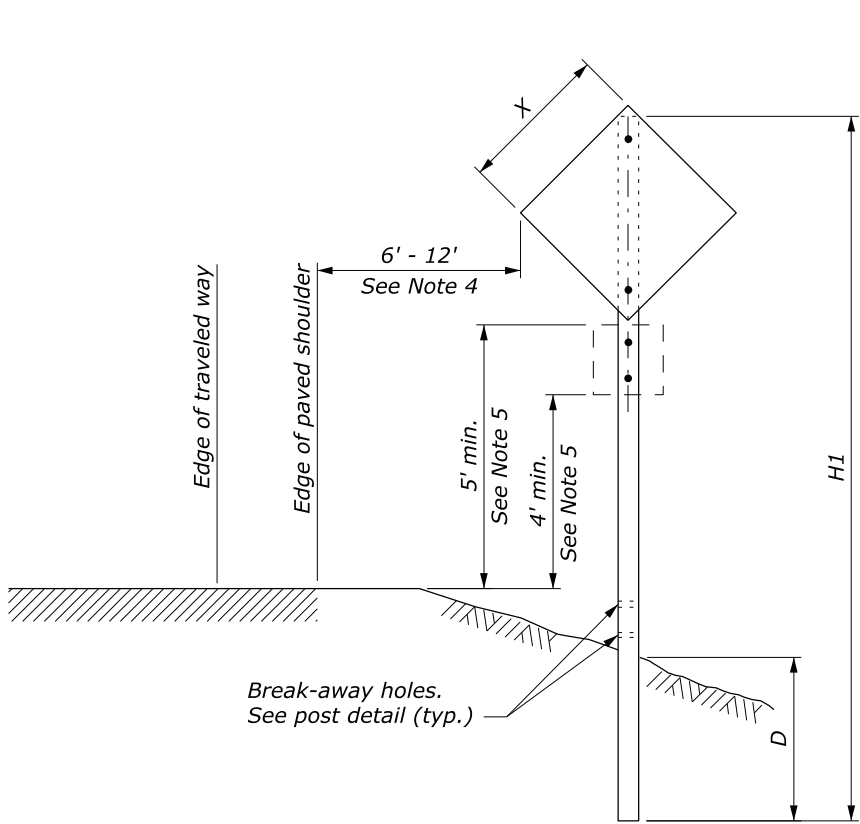
U.S. CUSTOMARY STANDARD
**TEMPORARY TRAFFIC CONTROL
SINGLE LANE CLOSURE LAYOUT
(WITH FLAGGERS)**

STANDARD APPROVED FOR USE 6/2005

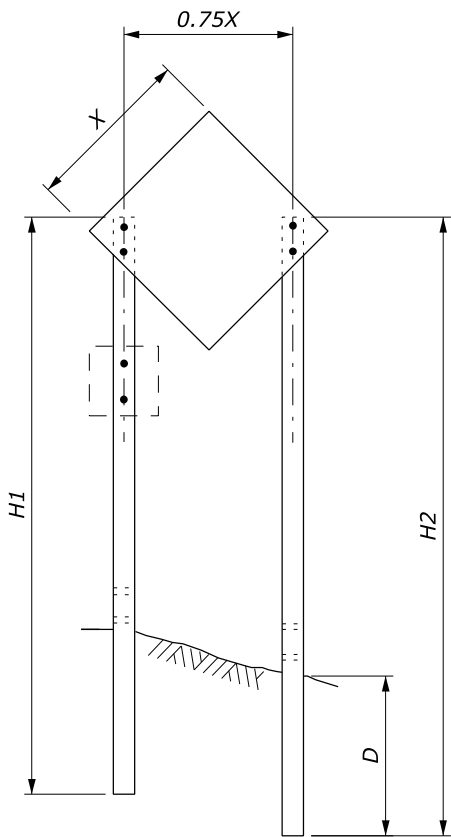
REVISED:
DRAFT: 8/2013

STANDARD
635-6

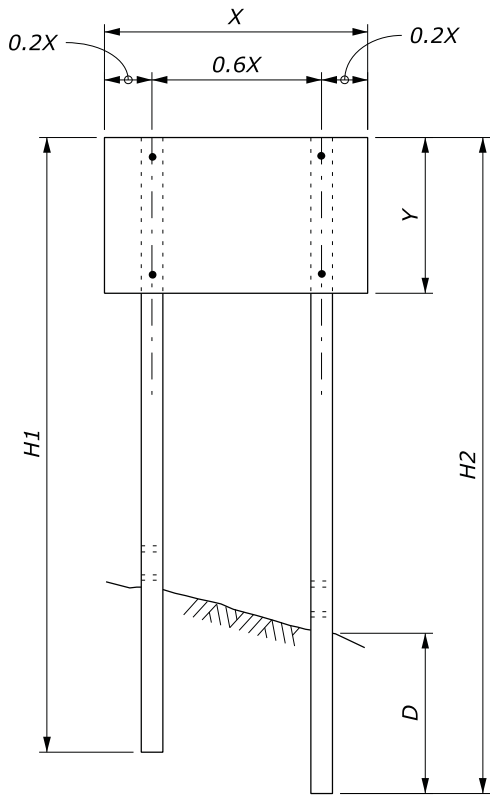
NO SCALE



SINGLE POST SIGN



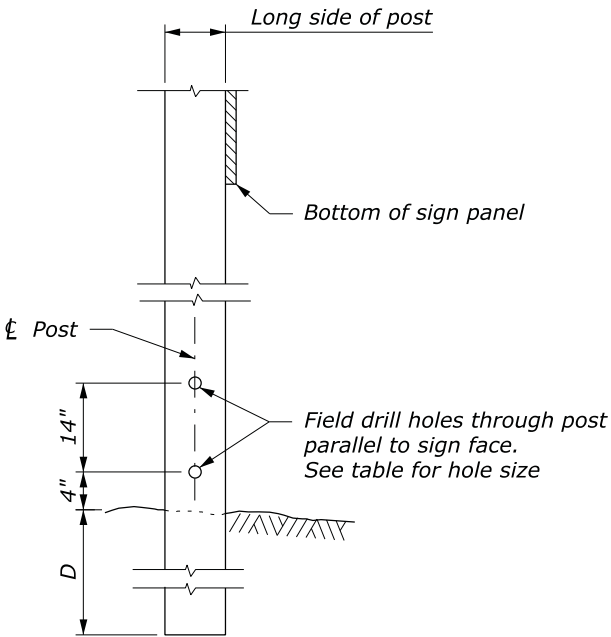
TWO POST SIGN



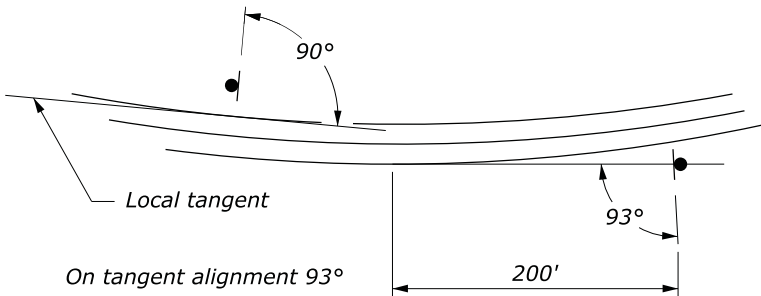
NOTE:

1. Attach sign panels with a minimum of 2 - 1/4" dia. bolts per post.
2. H1 and H2 = Overall post length. Select post lengths to fit field conditions.
3. D = Post embedment depth for average soil conditions.
4. In areas where lateral distance is limited, a minimum lateral offset of 2' may be used. In areas with curbs, a minimum lateral distance of 1' behind the face of the curb may be used.
5. In pedestrian locations, or in areas with obstructed views, use 7' minimum mounting height for main sign and 6' minimum mounting height for secondary sign.
6. Use 7' minimum spacing between posts for sign posts 6" x 6" or larger.
7. State standards may be used as an alternative if approved by the CO.

WOOD POST SELECTION TABLE					
WIDTH "X"	AREA (SQFT)	NUMBER OF POSTS	POST SIZE (INCH)	D (INCH)	HOLE SIZE (INCH)
Diamond ≤ 36" Other Shapes ≤ 48"	< 10	1	4 x 4	36	0
		1	4 x 6	48	1.5
Diamond ≤ 48"	10 - 20	1	6 x 6	48	2
Diamond ≤ 48" Other Shapes ≤ 12'	10 - 20	2	4 x 4	36	0
	20 - 50	2	4 x 6	48	1.5
> 13'	50 - 65	2	6 x 6	48	2
12' - 16'	50 - 65	3	4 x 6	48	1.5
> 17'	65 - 95	4	4 x 6	48	2
> 30'	65 - 95	3	6 x 6	48	2



POST DETAIL



SIGN INSTALLATION ANGLE

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
TEMPORARY TRAFFIC CONTROL SIGN INSTALLATION WOOD POSTS	
STANDARD APPROVED FOR USE 6/2005	STANDARD
REVISED: DRAFT: 9/2014	635-14

2/7/2023

... \grte70005pa.dgn [US_Sur_ft2D]

Designed by: J. Trujillo

7/2017

7/2017

Checked by: K. Lang

7/2017

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	J.1

ITEM 61509-0000 DETECTABLE WARNING PANELS				
LOCATION	QUANTITY			
	FOR INFO ONLY (EACH)	LENGTH (LNFT)	WIDTH (LNFT)	SQYD
Sagebrush Parking Lot	1	10	2	2.2
TOTAL				3

ITEM 63301-1000 SIGN SYSTEM, GOVERNMENT FURNISHED SIGN (TYPE 1)		
LOCATION	SIGN LEGEND / DESCRIPTION	QUANTITY (EACH)
Sagebrush Parking Lot	NO UNATTENDED VEHICLES	1
Sagebrush Parking Lot	NO UNATTENDED VEHICLES	1
Sagebrush Parking Lot	NO UNATTENDED VEHICLES	1
Sagebrush Parking Lot	NO UNATTENDED VEHICLES	1
Sagebrush Parking Lot	NO PARKING	1
TOTAL		5

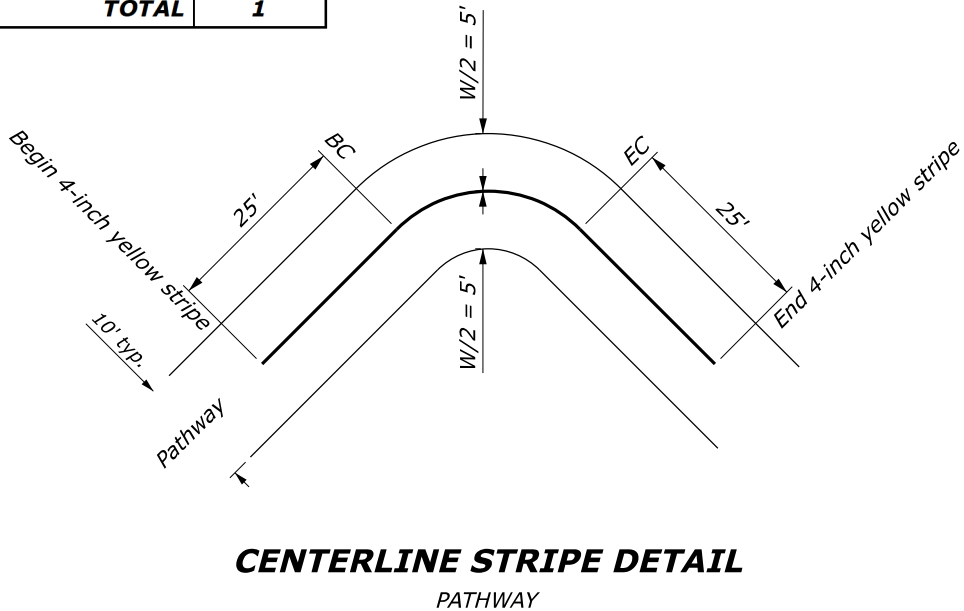
ITEM 63301-1000 SIGN SYSTEM, GOVERNMENT FURNISHED SIGN (TYPE 2)			
LOCATION	SIGN LEGEND / DESCRIPTION	SIGN SIZE (IN x IN)	QUANTITY (EACH)
Sagebrush Parking Lot	Special Government Furnished	72 x 48	1
TOTAL			1

ITEM 63318-1000 SNOW POLE HOLDER (TYPE I)	
LOCATION	QUANTITY (EACH)
Sagebrush Parking Lot	10
TOTAL	10

ITEM 63318-1000 SNOW POLE HOLDER (TYPE II)	
LOCATION	QUANTITY (EACH)
Sagebrush Parking Lot	4
TOTAL	4

ITEM 63401-2100 PAVEMENT MARKINGS, TYPE K, SOLID (yellow)				
LOCATION		LT/RT	QUANTITY (LNFT)	REMARKS
800+60 to 806+13		CL	553	
818+92 to 820+55		CL	163	
823+02 to 825+08		CL	206	
827+35 to 829+69		CL	234	
TOTAL			1,156	

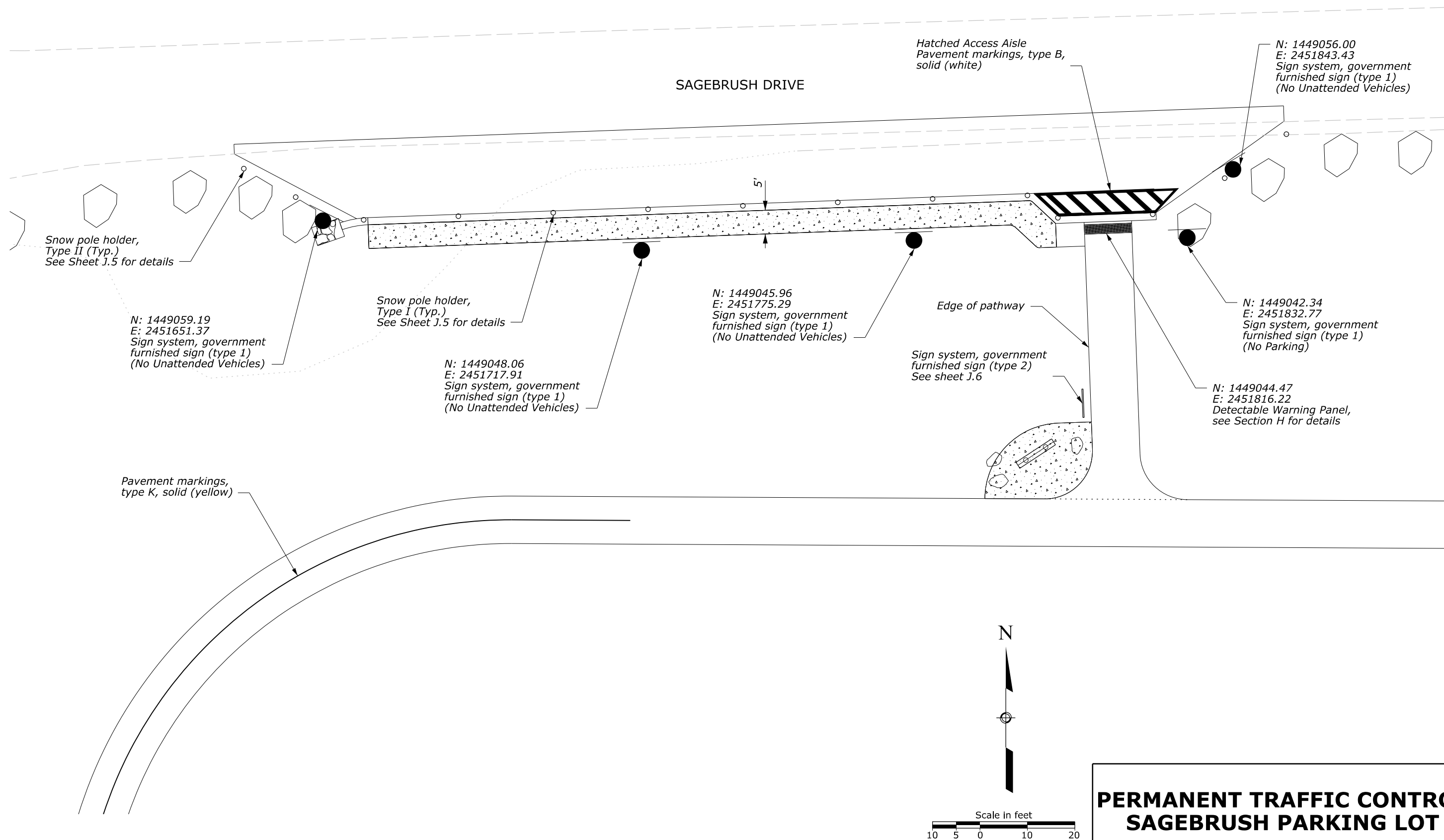
ITEM 63401-0300 PAVEMENT MARKINGS, TYPE B, SOLID (white)		
LOCATION	QUANTITY (LNFT)	REMARKS
Sagebrush Parking Lot	380	Hatched Access Aisle, 8" Stripe
TOTAL	380	



**TABULATION OF
PERMANENT TRAFFIC CONTROL
QUANTITIES**

12/1/2022 ...lgre70005pb.dgn [US_Sur_ft2D] Designed by: J. Trujillo Checked by: K. Lang 7/2017 7/2017

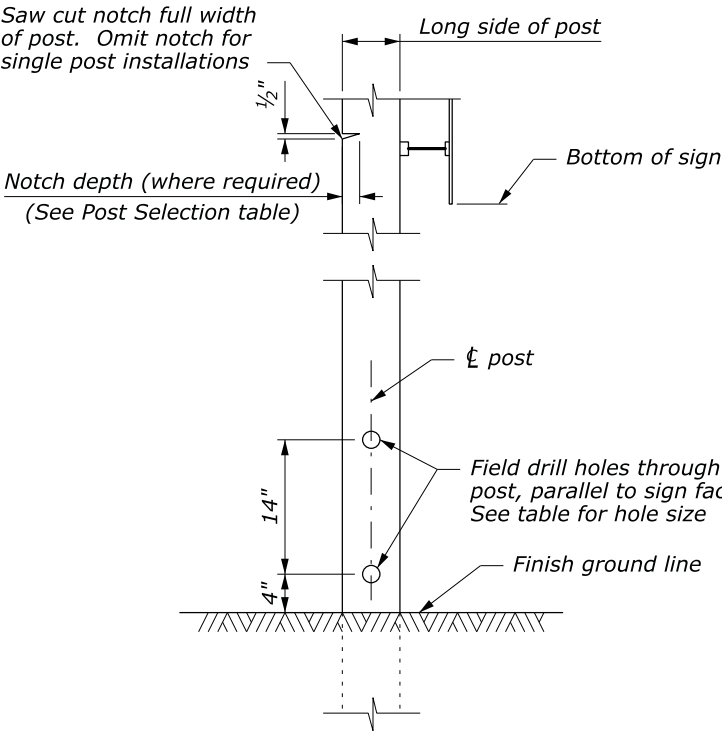
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	J.2



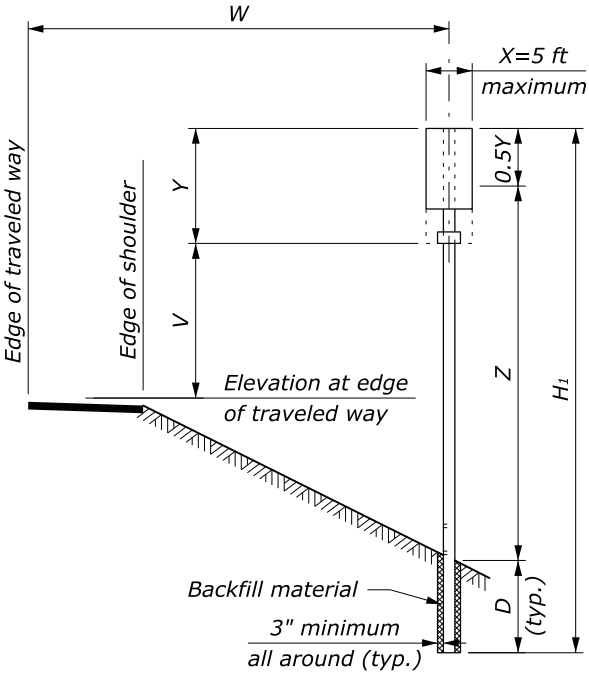
**PERMANENT TRAFFIC CONTROL
SAGEBRUSH PARKING LOT**

7/2017
Checked by: K. Lang
7/2017
Designed by: J. Trujillo
31-Jul-2017 09:54 AM
...lgte70005pc.dgn

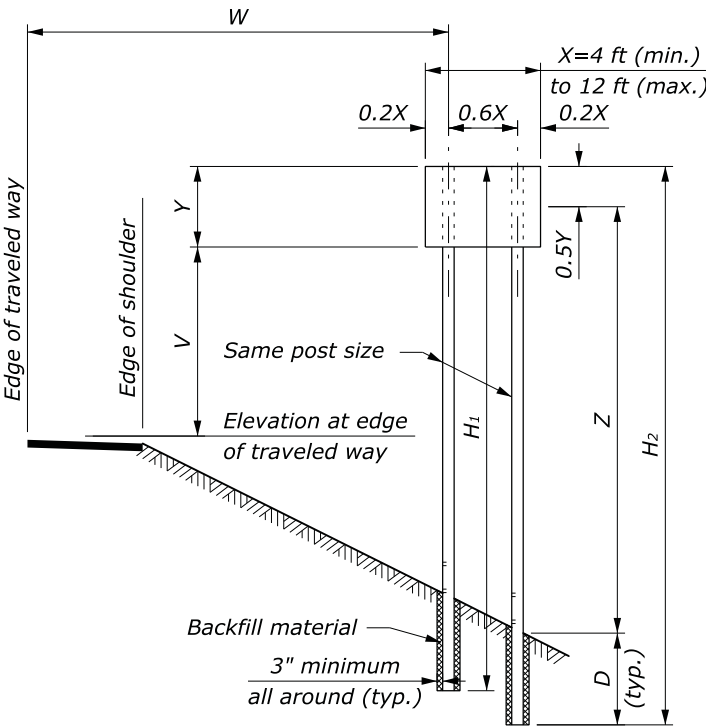
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	J.3



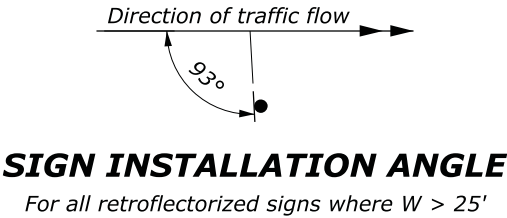
POST DETAIL



SINGLE POST SIGNS



TWO POST SIGNS

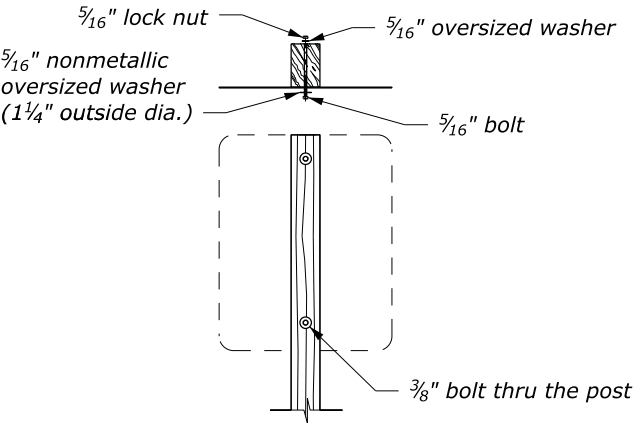


MINIMUM DISTANCE TO SIGN		
Location	Lateral Offset (W)	Mounting Height (V)
Rural Districts	6 ft	5 ft
Business or Residence Districts	2 ft from curb	7 ft

V may be reduced by 1 foot in rural districts for a secondary sign mounted below another sign.

NOTE:

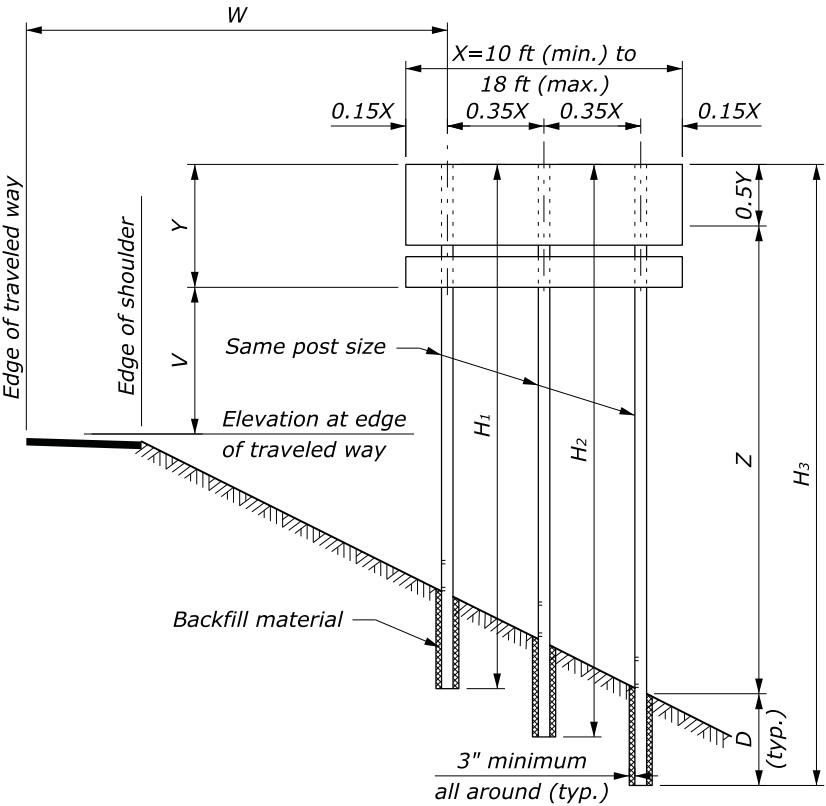
- Traffic barrier protection is required for all posts larger than 6" x 8" when located within the clear zone or if the post is vulnerable to being struck when placed outside the clear zone.
- H₁ thru H₄ indicate overall post length. Select post lengths to fit field conditions.
- D is the minimum post embedment depth for average soil conditions. See Wood Post Selection Table below.
- Z is the height from ground line to mid-height of sign at the longest post.
- For the purpose of post selection X and Y are as follows:
 - Single sign, or back to back signs: X and Y are the overall dimensions of the signs.
 - Multiple sign installations: X and Y are the dimensions of a rectangle enclosing all the signs.



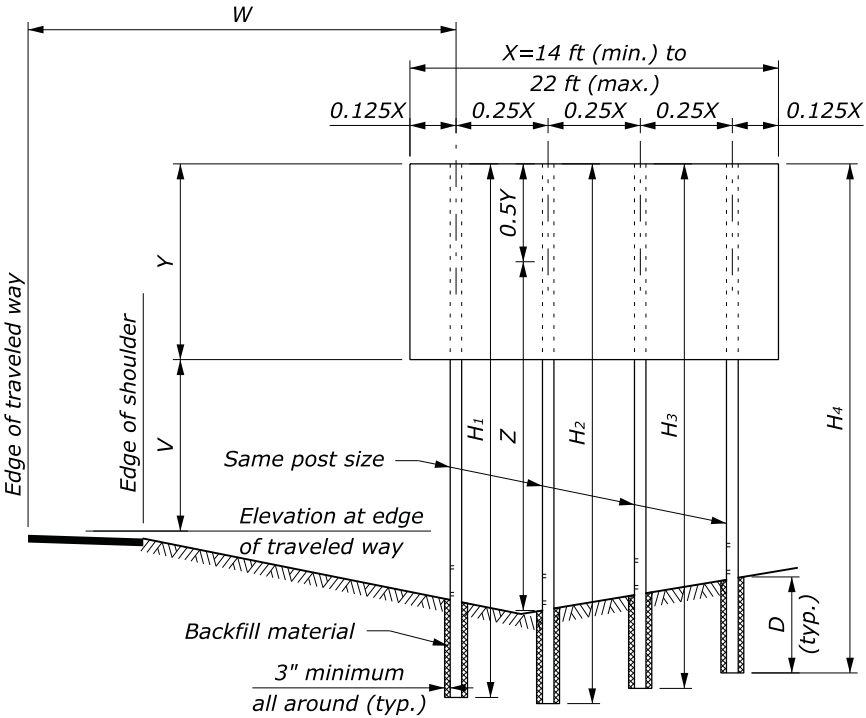
TYPICAL MOUNTING FOR SIGNS WITHOUT ANGLES

WOOD POST SELECTION TABLE						
POST SIZE (inch)	NUMBER OF POSTS				D	Notch depth and hole diameter
	1	2	3	4		
	Product of X-Y-Z in CUFT					
4 x 4	80	155	235	310	3'-0"	-
4 x 6	180	385	545	725	4'-0"	1¾"
6 x 6	235	475	710	950	4'-0"	1¾"
6 x 8	300	850	1280	1700	4'-0"	2½"
6 x 10	385	1180	1170	2360	5'-0"	-
8 x 10	575	1610	2410	3215	5'-0"	-
8 x 12	775	2310	3465	4620	6'-0"	-

Values shown are the maximum permitted. If the product of XYZ exceeds the limit for the largest post, use steel post installation.



THREE POST SIGNS



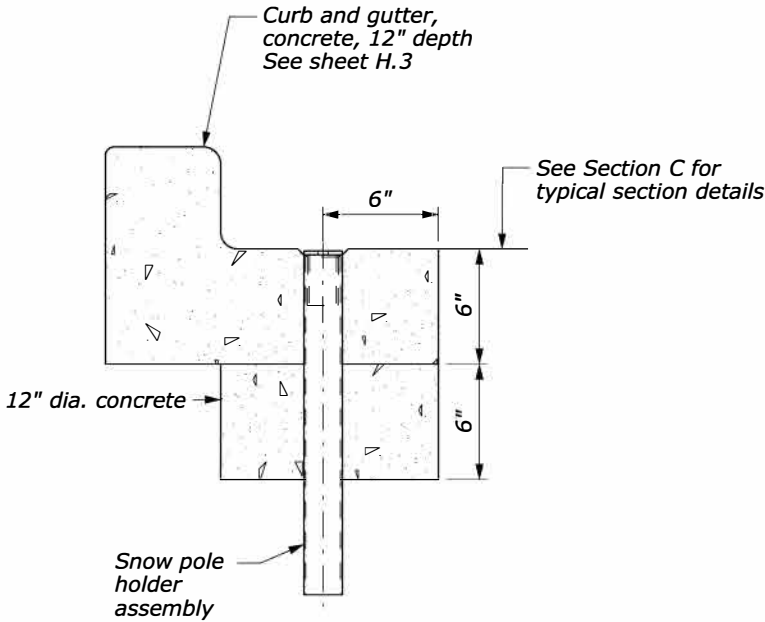
FOUR POST SIGNS

NO SCALE

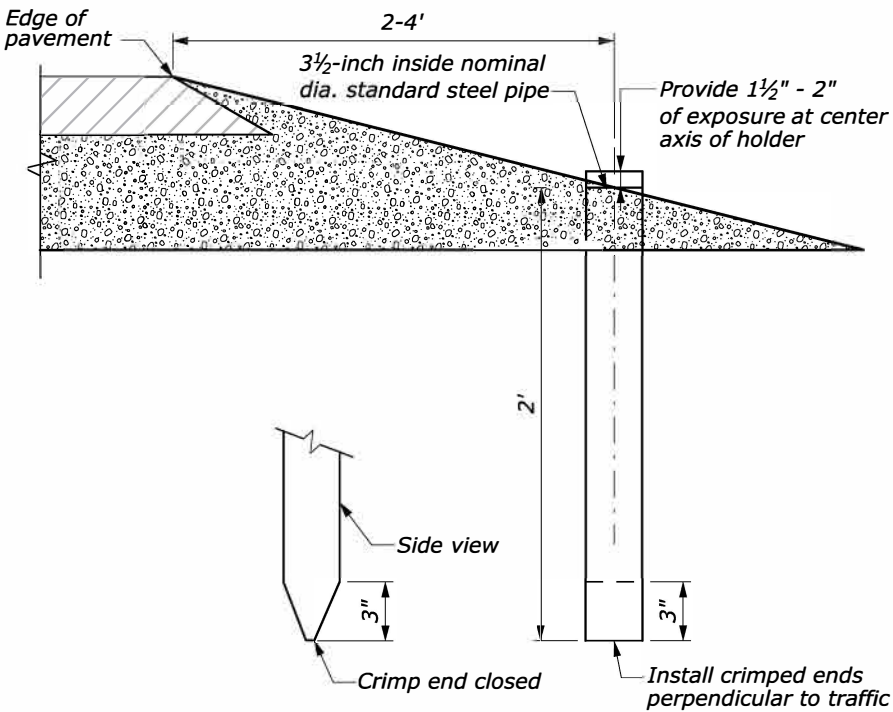
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION	
U.S. CUSTOMARY DETAIL PERMANENT SIGN INSTALLATION WOOD POSTS	
DETAIL APPROVED FOR USE 10/2009 REVISED:	DETAIL W633-7

7/2017
Checked by: K. Lang
7/2017
Designed by: J. Trujillo
...\\gite70005pe.dgn
31-Jul-2017 09:54 AM

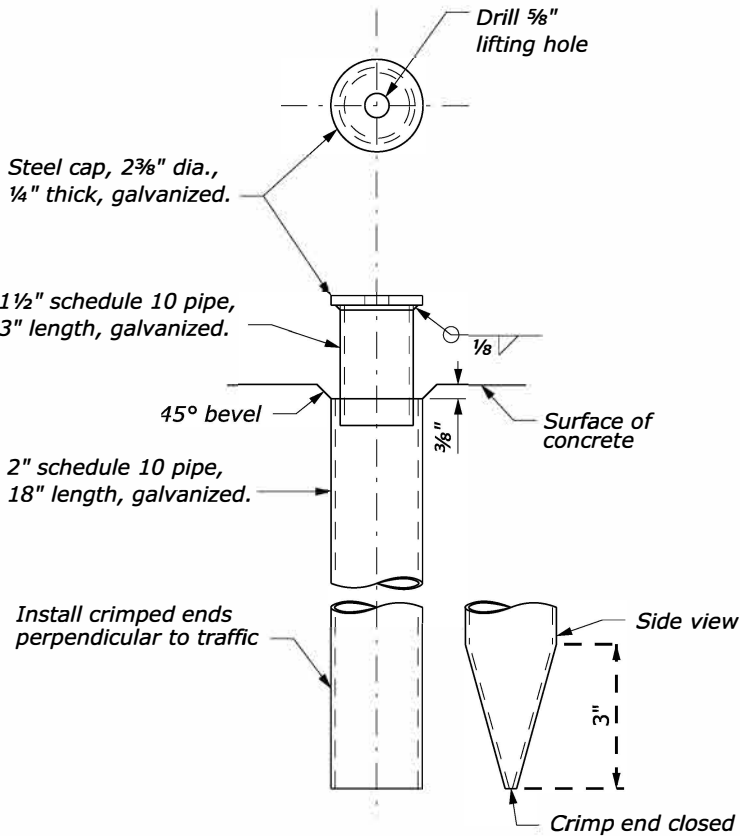
STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	J.5



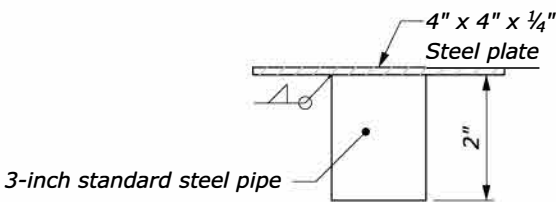
**CURB AND GUTTER
SNOW POLE HOLDER, TYPE I**



SNOW POLE HOLDER, TYPE II



**SNOW POLE HOLDER
ASSEMBLY^[1]**



SNOW POLE HOLDER CAP

NOTE:

1. Supply snow pole holders with a cap to adequately seal the holder when not in use. Furnish and install snow poles and caps for each holder.
2. Remove any material inside the holder. Protect snow pole holder cap during construction. For Type I holders, trowel edge around cap when concrete is poured.
3. See Section 633 for snow pole description.
4. Type I and Type II holders include a fiberglass snow pole.
5. Type I holder concrete and bedding is subsidiary to the snow pole holder pay item.
6. Galvanize entire snow pole holder after crimping and prior to installation.
7. Place snow pole holders shown on the plans and as directed by the CO. Typical spacing is 20' between poles.

FOOTNOTE:

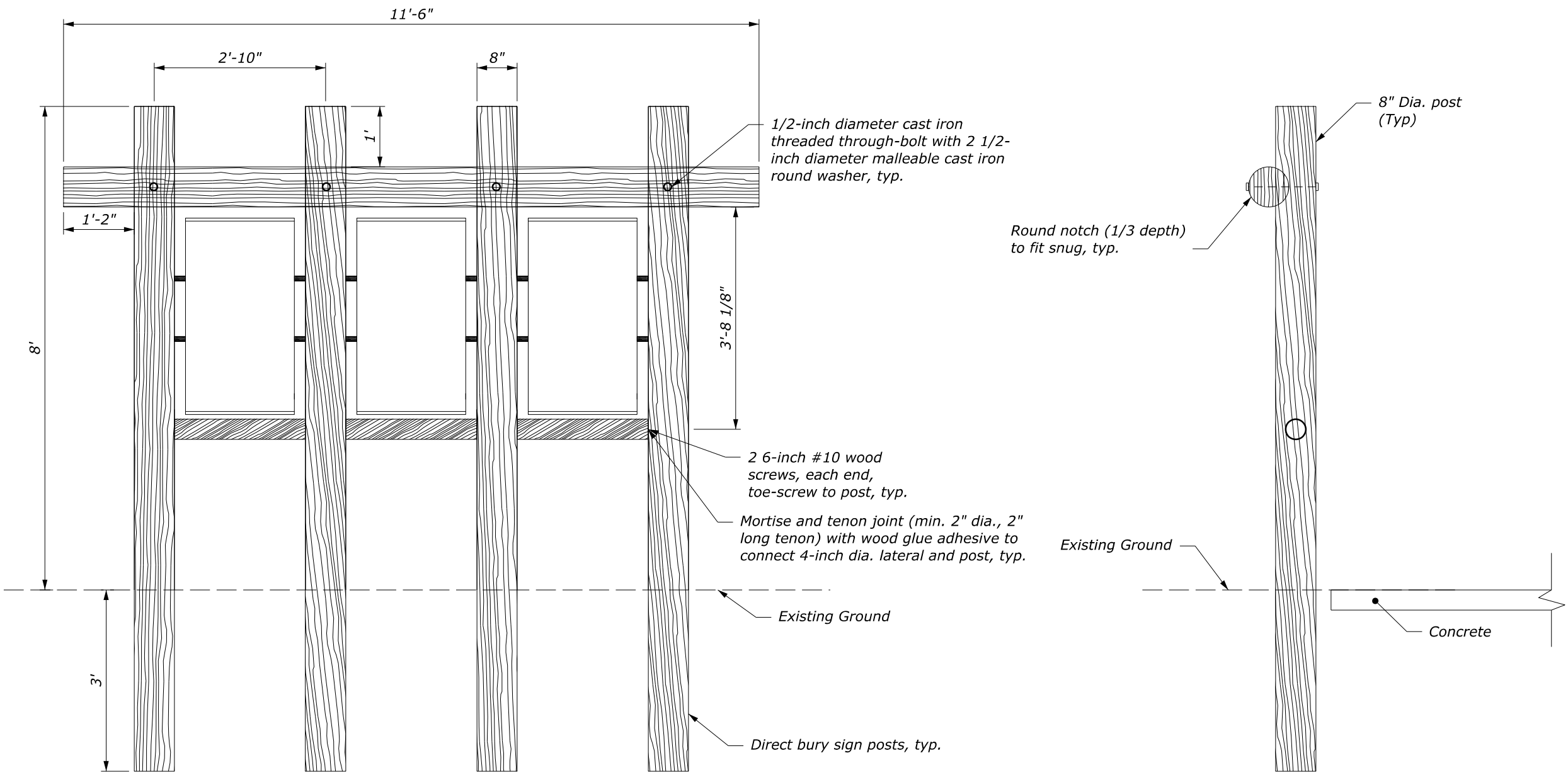
^[1] Snow Pole Holder Assembly is for the Type I holder.

NO SCALE

**SNOW POLE HOLDER
DETAILS**

06/2020 J. PEDERSON
06/2020 B. McCRA Y
Designed by: B. McCRA Y
c:\pw-work\0578240\wya-tet-tr200-1_1_6_Three Panel Sign.dgn
18 January 2023 12:33 PM

STATE	PROJECT	SHEET NUMBER
WY	FLAP TET TR200(1)	J.6



**SIGN SYSTEM, [1]
GOVERNMENT FURNISHED SIGN (TYPE 2)**

NOTES:
1. Logs to be rough hewn, treated, painted brown.
FOOTNOTE:
[1] Final location to be determined by the CO.

THREE-PANEL SIGN DETAIL