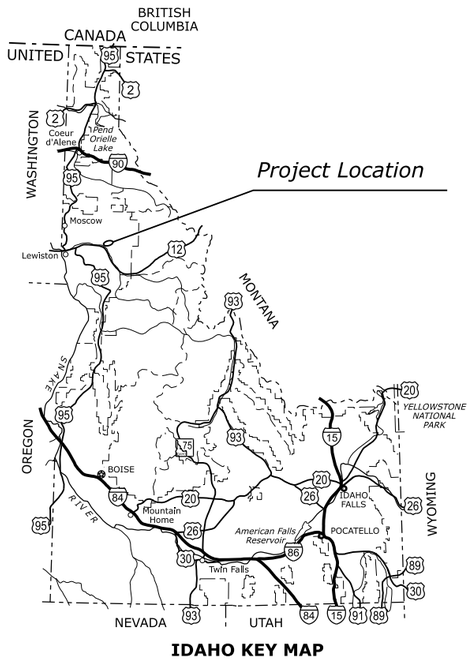
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	A.1

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



IDAHO KEY MAP

PLANS FOR PROPOSED PROJECT

ID FLAP CLEAR 4783(1)

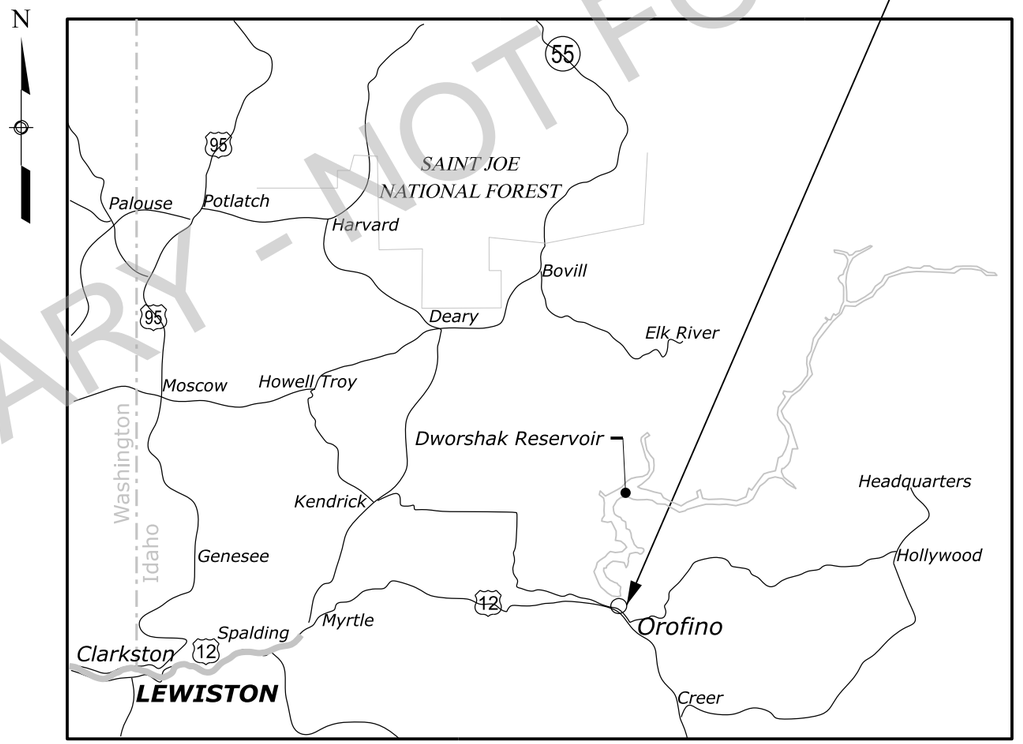
DENT BRIDGE ROAD IMPROVEMENTS

CLEARWATER COUNTY

LENGTH 4.784 MILES

PROJECT LOCATION

DENT BRIDGE ROAD
21+40 to 274+00



TYPE OF CONSTRUCTION:

Base reconditioning, paving, permanent traffic control revision.

DESIGN DESIGNATION:

ADT 2026	*1,223*
ADT 2046	*1,468*
V	*40 MPH*
e (max)	*Match existing*

SPECIFICATION:

Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-24

PLANS PREPARED BY

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

PROJECT MANAGER
D. Arena

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A.1 TITLE SHEET
A.2 PLAN SYMBOLS AND ABBREVIATIONS
A.3 VICINITY MAP

B. SUMMARIES
B.1-2 SUMMARY OF QUANTITIES

C. TYPICAL SECTION
C.1 TYPICAL SECTION
C.2 DEEP PATCH DETAILS

D. LINE GRAPH
D.1 SURVEY CONTROL
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G.1 TABULATION OF PERMANENT TRAFFIC CONTROL QUANTITIES
G.2 CUSTOM SIGN DETAILS
G.3-5 STANDARD DRAWINGS

APPROVED:

_____ *DATE* _____

Chief of Engineering,
Western Federal Lands Highway Division

PRELIMINARY - NOT FOR CONSTRUCTION

--/---- Designed by:
--/---- Checked by:
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25 March 2026 4:49 PM

Δ	total central angle
Δc	curve central angle
Ø	diameter
θs	spiral central angle
abut.	abutment
ADT	average daily traffic
AH	ahead
appr.	approach
BK	back
b.f.	back face
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
btwn	between
cc or c. to c.	center to center
℄	centerline
clr.	clear
CMP	corrugated metal pipe
col.	column
conc.	concrete
conn.	connection
constr. jt.	construction joint
cont.	continuous
CS	point of curve to spiral
ctrs.	centers
CUFT	cubic foot (feet)
culv.	culvert
CUYD	cubic yard(s)
D	diameter
DHV	design hourly volume
dia.	diameter
diaph.	diaphragm
dist.	distance
drwg(s).	drawing(s)
E	east
e	superelevation rate
e.f.	each face
El. 94.16	elevation in feet
elev.	elevation
emb.	embankment
EOP	edge of pavement
EQ or eq.	equation
EW	edge of water
exc.	excavation
exp. jt.	expansion joint
f.f.	front face
fin.	finish
flg.	flange
ftg.	footing
ga.	gage (gauge)
galv.	galvanized
ID	inside diameter
IE	invert elevation
jt.	joint
KSI	thousand pounds per square inch
L	length of curve
lat.	latitude
LNFT	linear foot (feet)
long.	longitudinal
LPSM	lump sum
Ls	length of spiral
lt. or LT	left
LW	low water

M.L.	main line
M.P.	mile post
matl.	material
max.	maximum
MGAL	thousand gallon
min.	minimum
mon.	monument
N	north
NC	normal crown
o.c.	on center
o. to o.	out to out
OD	outside diameter
OG	original ground
OHWM	ordinary high water mark
PC	point of curve
PCC	point of compound curve
PCS	point of curve to spiral
PI	point of intersection
pl.	plate
POC	point on curve
POS	point on spiral
POT	point on tangent
PS	point of tangent to spiral
PSF	pounds per square foot
PSI	pounds per square inch
PSC	point of spiral to curve
PST	point of spiral to tangent
PT	point of tangent
pvmt.	pavement
R	radius
R.	range
R/W	right-of-way
rdwy.	roadway
reinf.	reinforcement
reqd.	required
rt. or RT	right
rte.	route
S	south
SADT	seasonal average daily traffic
SC	point of spiral to curve
sect.	section
shldr.	shoulder
SLRY	slurry unit
spa.	spacing, spaces or spaced
SQFT	square foot
SQYD	square yard
SRS	point of spiral to reverse spiral
SS	point of spiral to spiral (no curve)
ST	point of spiral to tangent
STA, Sta.	station
std.	standard
stgr.	stringer
stiff.	stiffener
struc.	structural
STS	point of spiral to tangent spiral
T	tangent distance
T.	township
TBM	temporary bench mark
thd.	thread
TS	point of tangent to spiral
Ts	tangent distance (spiraled curve)
typ.	typical
V	design speed (velocity)
vph	vehicles per hour
VPI	vertical point of intersection
W	west

NOTE:

1. Other symbols used in the plans will be shown in a legend on the appropriate plan sheet.

National Boundary

State Boundary

County Boundary

City Boundary

Township or Range Line

Section Line

Section Corner (Found, Projected)

¼ Section Line

¼ Section Corner (Found, Projected)

1/16 Section Line

1/16 Section Corner (Found, Projected)

Property Line

Parcel Number

National Park Boundary

National Forest Boundary

National Wildlife Refuge Boundary

BLM Lands Boundary

Indian Reservation Boundary

Existing Roadway (Paved, Gravel)

Railroad

Trail

Fiber Roll

Silt Fence

Sandbag

Intermittent Drainage or Small Creek

Large Creek or River

Lake, Pond or Reservoir; Marshland

Spring or Seep

Treeline; Individual Trees

Material Source; Bore Hole; Test Pit

Spot Elevation; Coordinate Grid Tick

Above Ground Tank; Underground Tank

Boulder; Well; Antenna; Grave

Cooking Grate; Garbage Can; Picnic Table

Flagpole; Fire Hydrant

Gas & Water Meter; Gas & Water Valve

Control Point (Terrestrial and GPS)

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	A.2

	EXISTING	PROPOSED
North Arrow	N	
Slope Stake Limits	Top of Cut / Toe of Fill	
Construction Limits	- no symbol -	
Bottom of Ditch		
Fence		
Gate with Fence		
Cattleguard		
Guardrail		
Concrete Barrier and Guard Wall		
Retaining Wall		wall face
Signs (single, double post; portable)		
Delineators		
Pipe Culvert (arrow shows flow)		
Pipe Culvert with End Section		
Pipe Culvert with Headwall		
Pipe Culvert with Drop Inlet	DI	DI
Box Culvert		
Underdrain	UD	UD
Overhead/Above Ground Utilities	P	P
Underground Utilities	W	W

FM = force main, FO = fiber optic, G = gas, IRR = irrigation, O = oil, P = power, SA = sanitary sewer, SD = storm drain, SS = storm sewer, STEAM = steam, T = telephone, TV = CATV, W = water

Poles (Power, Telephone, Joint Use, Light, Support w/Anchor)

Miscellaneous Utility Features (TP)

EM = electric meter, TP = telephone pedestal, TV = CATV pedestal, UP = transformer or junction box, WF = water fountain

Building		
Right-of-Way Line	r/w	R/W
Permanent Easement	P/E	P/E
Construction Easement	- no symbol -	TCE
Riprap	Section A-A	A A

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY

PLAN SYMBOLS AND ABBREVIATIONS

WFLHD DETAIL W101-1

SPECIFICATION

APPROVED FOR USE 6/2022

PRELIMINARY - NOT FOR CONSTRUCTION

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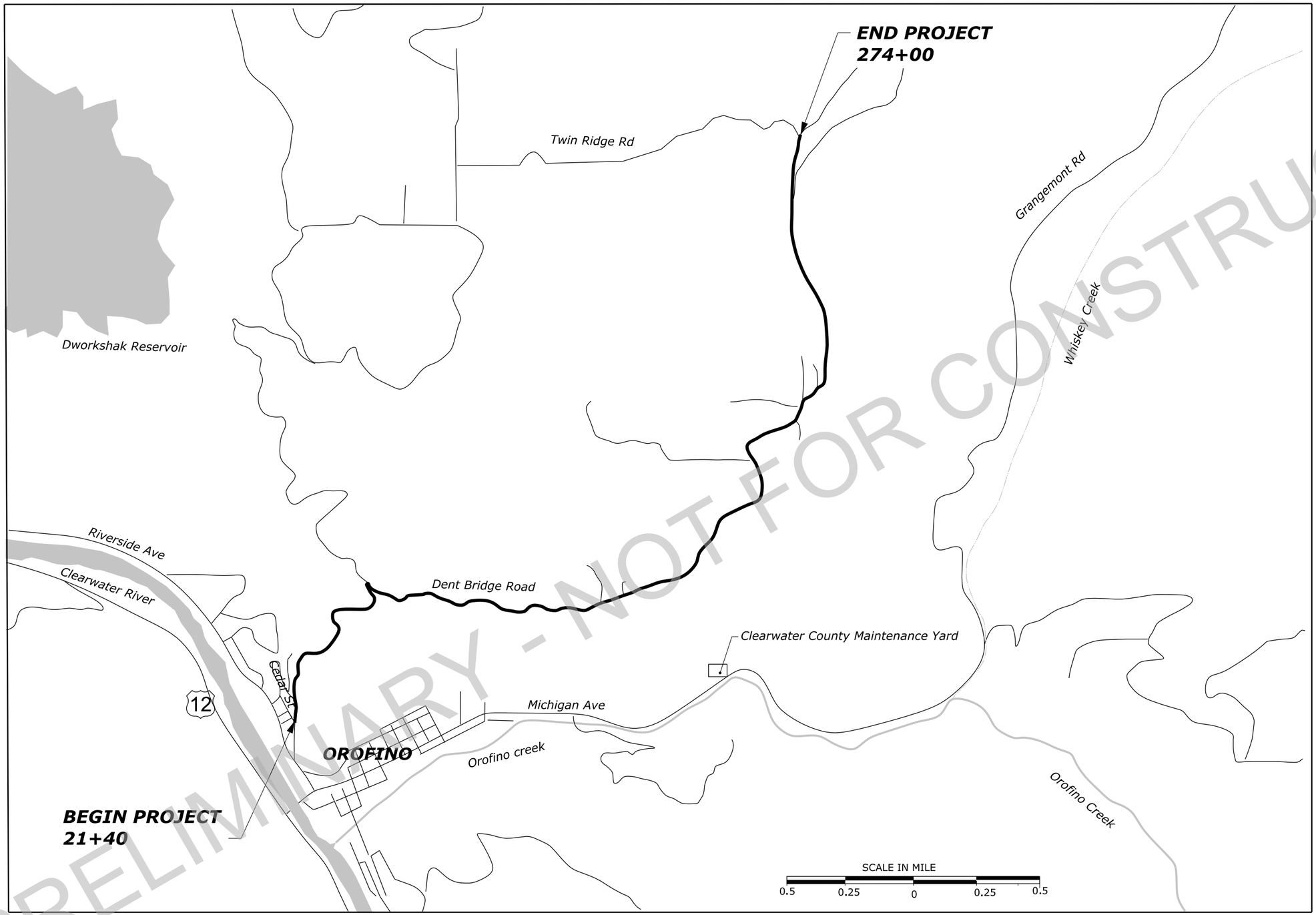
9 October 2025 2:54 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	A.3



PRELIMINARY - NOT FOR CONSTRUCTION

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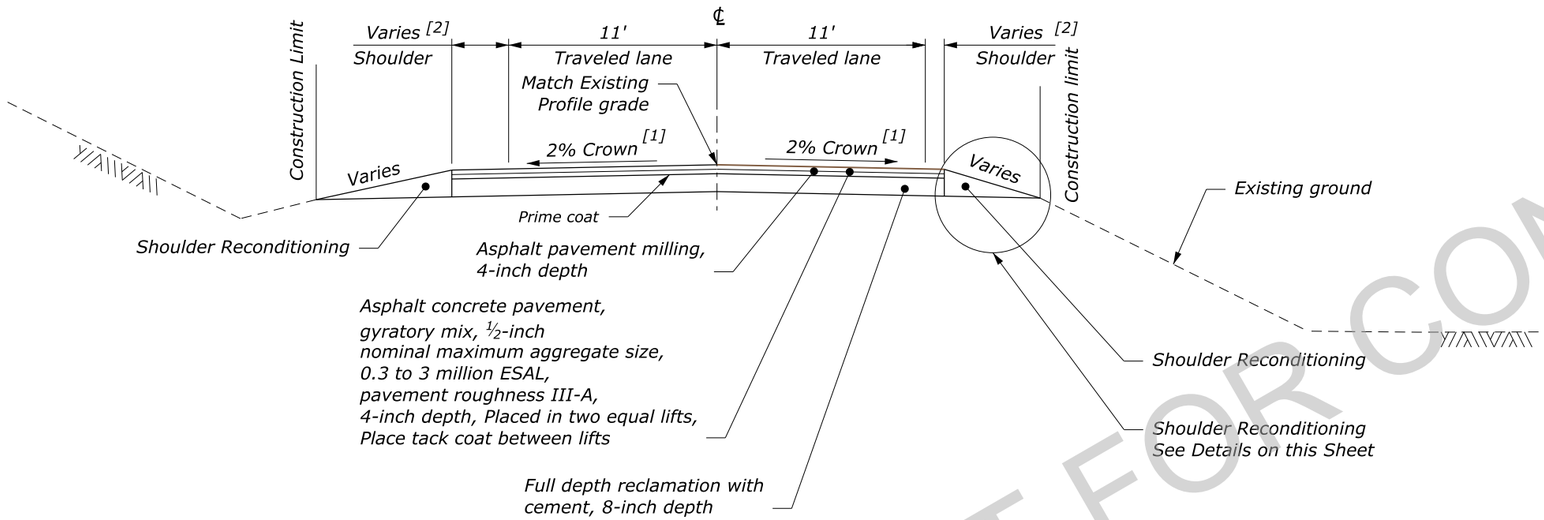
5 May 2026 3:19 PM

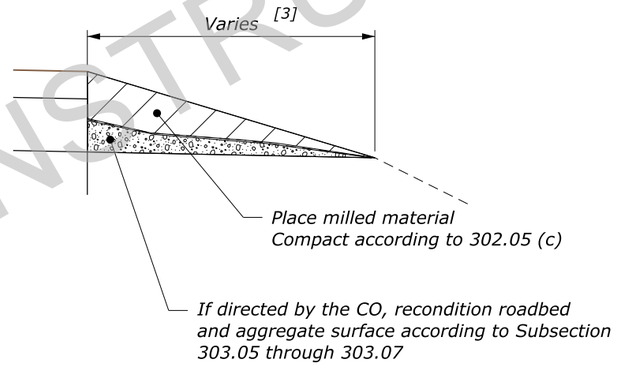
VICINITY MAP

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	C.1



MAIN 01

21+ 40 to 274 + 00
(MP 0.2159 to MP 5.0000)



SHOULDER RECONDITIONING DETAIL

NOTE:

1. *Unless otherwise noted, prescriptive right-of-way is 25 feet from centerline.*
2. *Except for sign post replacement, do not perform work that cause ground disturbance 10 feet beyond existing shoulder.*

FOOTNOTE:

[1] *Survey and establish slope according to Subsection 152.05 (b).*

[2] *Mill existing asphalt and perform full depth reclamation to the hinge point if shoulder is 2' or less. At turnouts and approach roads, milling and full depth reclamation width is 24' plus additional of 2' to 5' depending on locations as directed by the CO.*

[3] *Typical width for shoulder reconditioning is 1 feet to 2 feet for section without turnout, driveway or approach road. Typical width for section with turnout, driveway or approach road is 5 feet.*

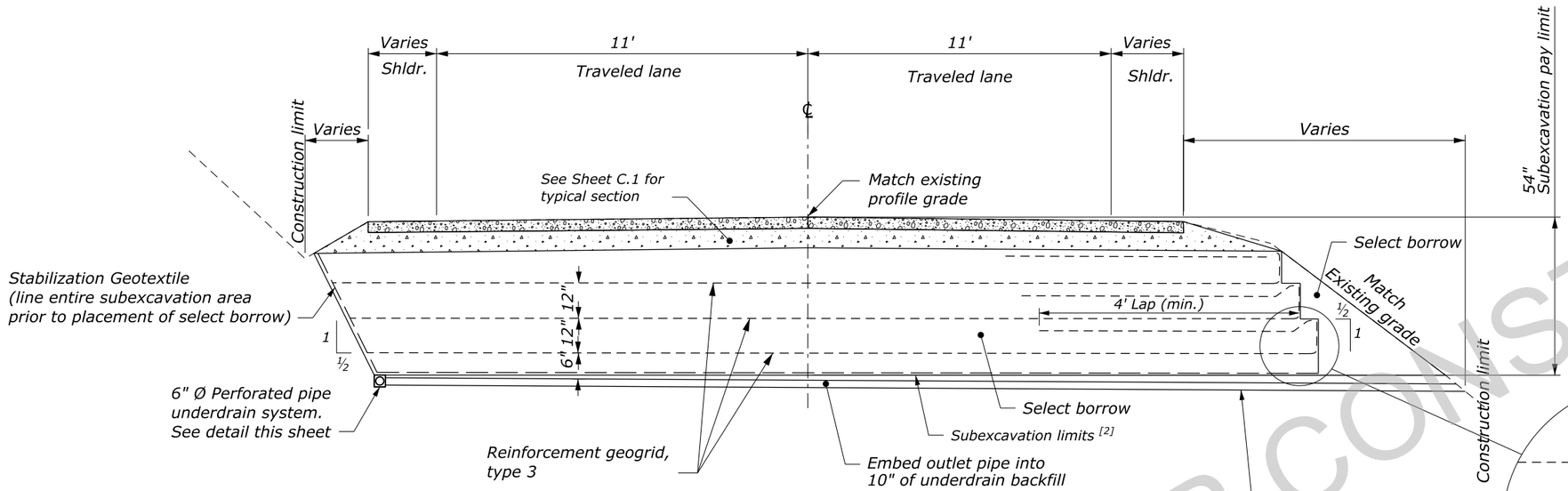
Maximum total depth is 12 inches.

PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw_work_wft\d0534796\ida-clear4783-1_ca.dgn [Typical Section]
30 April 2026 10:36 AM

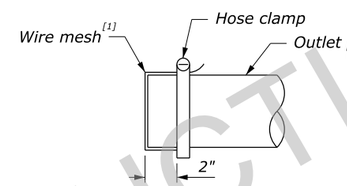
TYPICAL SECTION

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	C.2

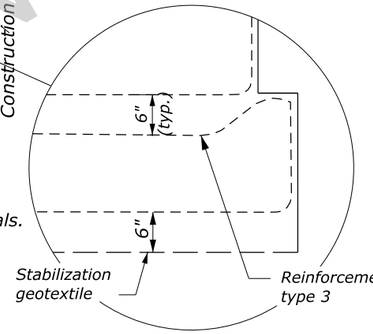


TYPICAL DEEP PATCH SECTION

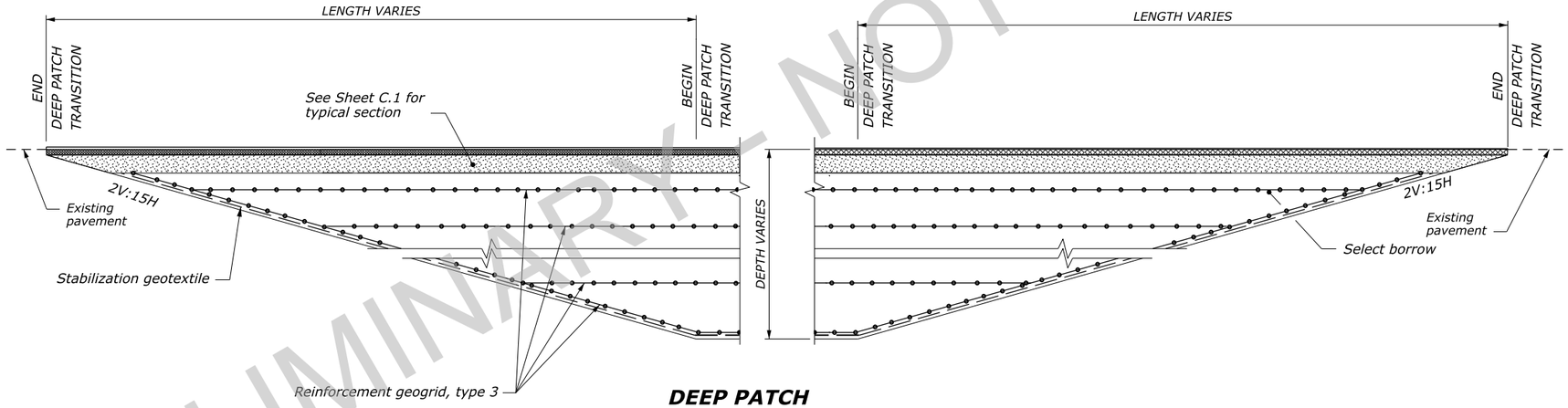
87+45 to 89+30



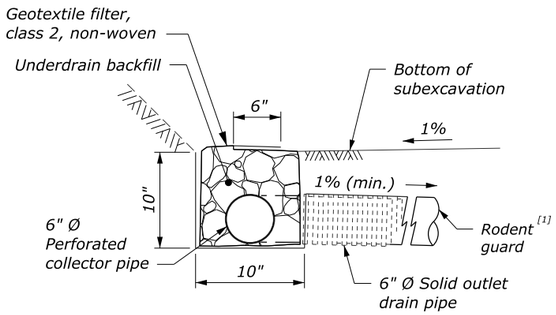
RODENT GUARD DETAIL



GEOTEXTILE DETAIL



DEEP PATCH TRANSITION DETAIL



6" PERFORATED PIPE UNDERDRAIN SYSTEM

FOOTNOTE:

[1] Place rodent guard over the outlet with a maximum screen mesh size of ½-inch. Install rodent guard according to manufacturer's instruction.

[2] See 6" perforated pipe underdrain system detail for slope at the bottom of subexcavation limits.

NOTE:

1. Do not disturb existing features outside of construction limits.

DEEP PATCH DETAILS

PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw_work_wft\d09347961da-clear4783-1_cc.dgn [Typical Section]
30 April 2026 1:22 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	D.1

PROJECT :Dent Bridge Road Improvements
DATE OF FIELD WORK :August 2022
DATE OF FINAL ADJUSTMENT : August 2022

PROJECT UNITS : US Survey foot

COORDINATE SYSTEM : Idaho West SPCS NAD83 2011
VERTICAL DATUM :Orthometric elevations based on the NAVD88 GEOID12b
EPOCH DATE : 2010.0000
CADD COORDINATE SYSTEM : ID83/2011-WF NSRS11(NAD83/2011) Idaho, West Zone, US Foot

POINT NUMBER	STATE PLANE COORDINATES			GEO COORDINATES				
	NORTH	EAST	ORTHOMETRIC ELEVATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	COMBINED FACTOR	DESCRIPTION
1001	1759586.138	2505513.140	2094.572	46°29'34.073176"N	116°13'23.128687"W	2038.3848	0.99985216	CUDDY PLS 88 Plastic cap
2001	1755111.225	2496921.799	1037.902	46°28'49.373329"N	116°15'25.514315"W	981.463	0.999905072	fhwa alum cap
2002	1755385.490	2496623.304	1034.490	46°28'52.061777"N	116°15'29.804944"W	978.0384	0.999905323	fhwa alum cap
2003	1759406.827	2498348.470	1540.212	46°29'31.866829"N	116°15'05.517210"W	1483.7999	0.99988066	fhwa alum cap
2004	1759648.051	2498223.436	1527.455	46°29'34.240206"N	116°15'07.326213"W	1471.0413	0.999881306	fhwa alum cap
2005	1759409.027	2504798.024	2053.565	46°29'32.282434"N	116°13'33.334635"W	1997.3537	0.999854316	fhwa alum cap
2007	1763137.056	2508248.677	2620.337	46°30'09.285716"N	116°12'44.326476"W	2564.3163	0.999826303	fhwa alum cap
2008	1763453.365	2508292.158	2646.611	46°30'12.410651"N	116°12'43.731345"W	2590.5969	0.999825036	fhwa alum cap
2009	1766236.252	2508574.034	2665.790	46°30'39.897974"N	116°12'39.933950"W	2609.8269	0.999824043	fhwa alum cap
2010	1766349.039	2508504.717	2673.290	46°30'41.007346"N	116°12'40.934458"W	2617.327	0.999823703	fhwa alum cap
2011	1769539.113	2508275.395	2951.987	46°31'12.484633"N	116°12'44.480359"W	2896.0585	0.99981045	fhwa alum cap
2012	1769790.287	2508431.741	2972.832	46°31'14.973103"N	116°12'42.265575"W	2916.9099	0.999809413	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.*

PRELIMINARY - NOT FOR CONSTRUCTION

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8-Jan-2026 5:49 PM

SURVEY CONTROL

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	D.3

LINE GRAPH 1 OF 2

PRELIMINARY - NOT FOR CONSTRUCTION

1 May 2026 1:26 PM c:\pw_work_wfl\d0534799\ida-clear4783-1_line-graph.dgn [Line Graph 1 of 2]

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	D.4

250
260
270
280
290
300
310
320
330
340
350
360

END PROJECT
274+00 (MP 5.0000)
END full depth reclamation with cement, 8-inch depth
See Sheet C.1

258+00 (MP 4.6970)
Removal of guardrail, Install guardrail system MGS, type 2, class A steel posts, Install terminal section, type MGS tangent
See Section E

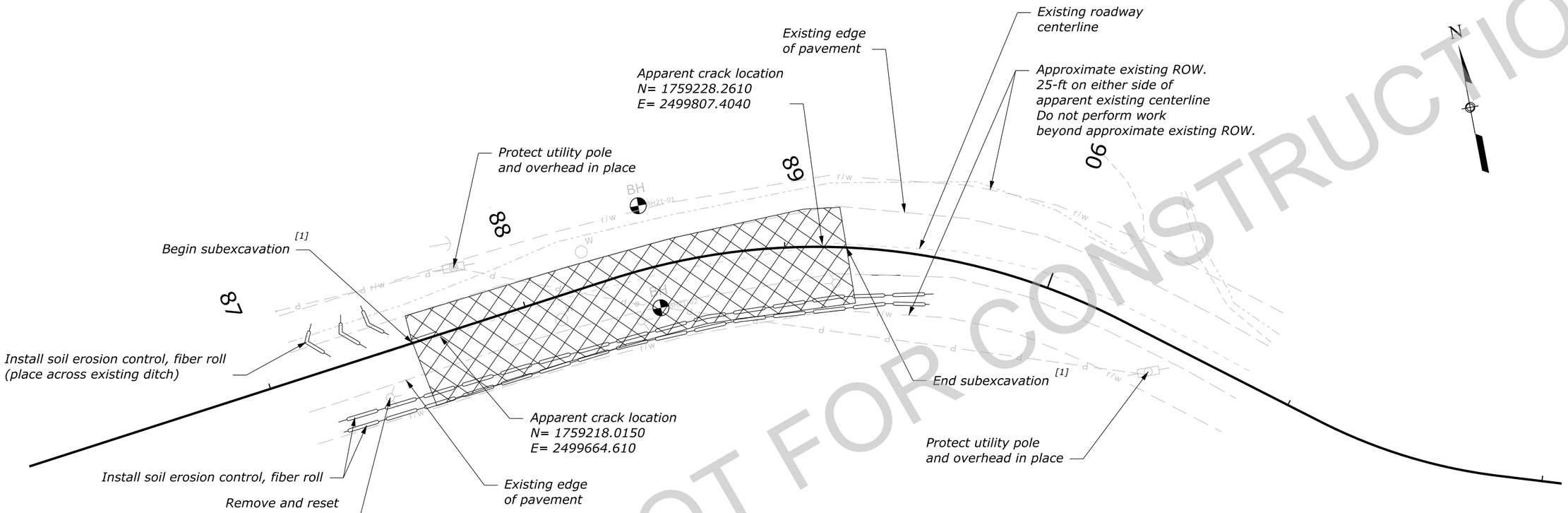
269+00 (MP 4.9053)
Removal of guardrail, Install guardrail system MGS, type 2, class A steel posts, Install terminal section, type MGS tangent
See Section E

PRELIMINARY - NOT FOR CONSTRUCTION

12 February 2026 4:10 PM c:\pw_work\wfl\d0534799\Da-clear4783-1_lhte-graph.dgn [Line Graph 2 of 2]

LINE GRAPH 2 OF 2

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	D.5



Scale in feet

20 0 20 40 60

FOOTNOTE:

[1] The CO will determine the exact locations of deep patch work in the field.

PRELIMINARY - NOT FOR CONSTRUCTION

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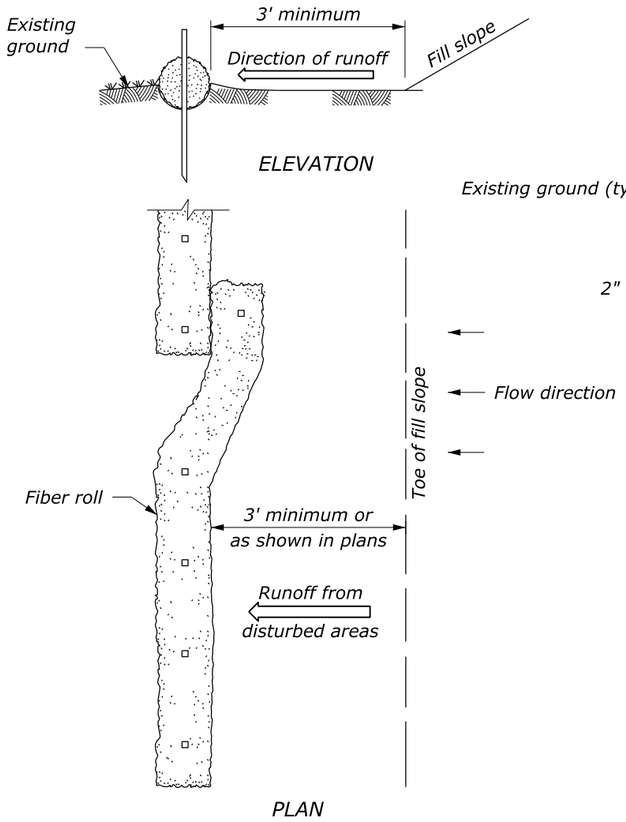
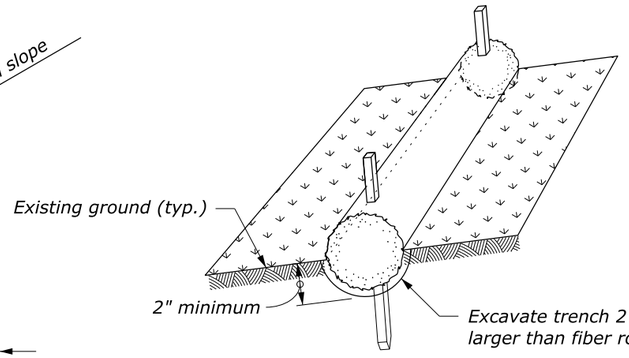
4 May 2026 9:01 AM

DEEP PATCH PLAN

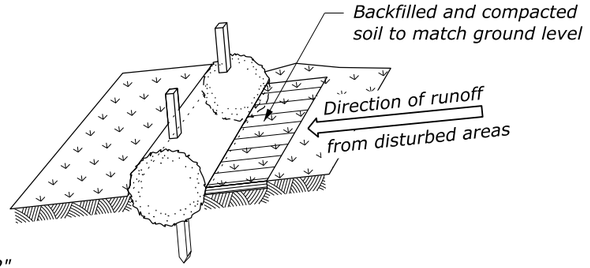
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	D.6



INSTALLATION BEYOND TOE OF SLOPE



Step 1: Excavate trench and install fiber rolls



Step 2: Backfill soil against fiber rolls

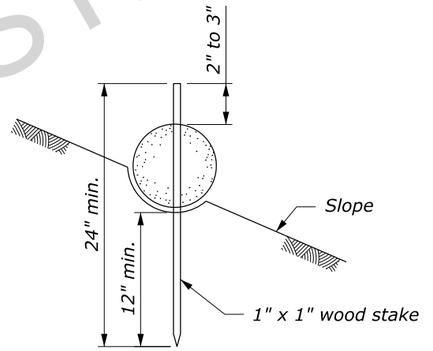
PROPERLY STAKED AND ENTRENCHED FIBER ROLL

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

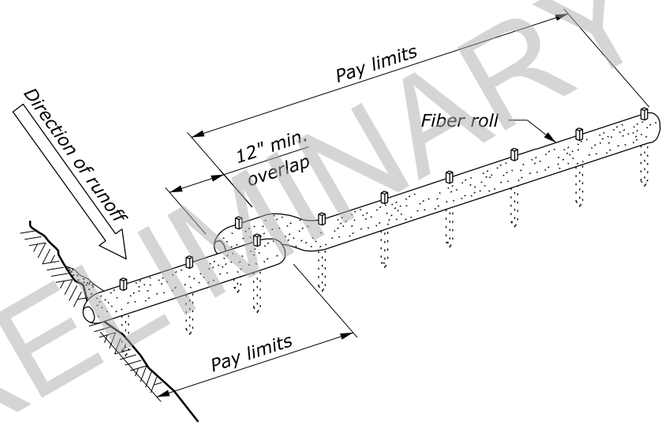
STAKES REQUIRED	
Fiber roll length (FT)	Stakes required for each roll
25	8
20	6
12	4

NOTE:

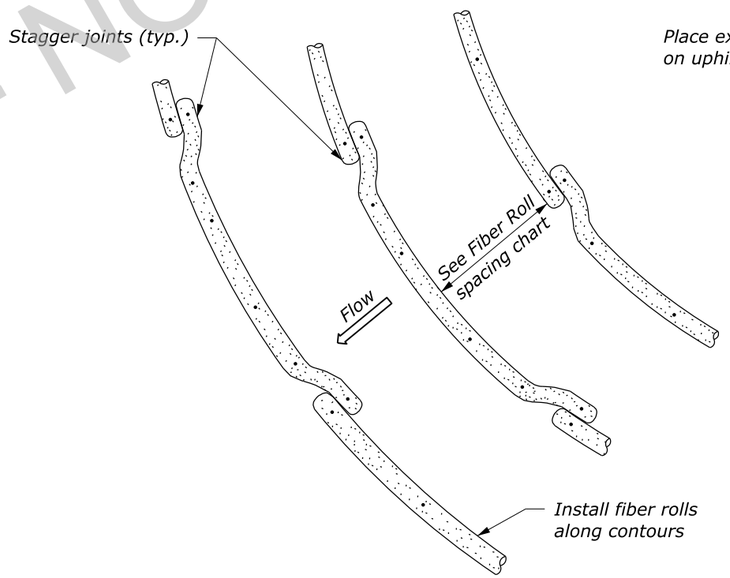
1. Drive stakes at each end and at 4-foot spacing until fiber roll is secure to slope. Live stakes may be used for permanent installations. Do not crush fiber roll while staking.
2. Overlap fiber rolls 12-inch minimum. Drive stakes at 6-inches from fiber roll end angles towards the adjacent fiber roll and space stakes at 4-foot maximum.



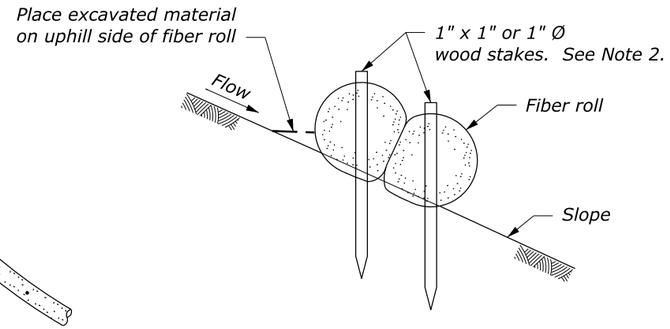
FIBER ROLL STAKING DETAIL



ALTERNATE FIBER ROLL JOINT DETAIL
SLOPE PROTECTION INSTALLATION



INSTALLATION ALONG SLOPES



FIBER ROLL LAPPING DETAIL

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	WFL STANDARD W157-21
FIBER ROLL	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 7/2016

PRELIMINARY - NOT FOR CONSTRUCTION

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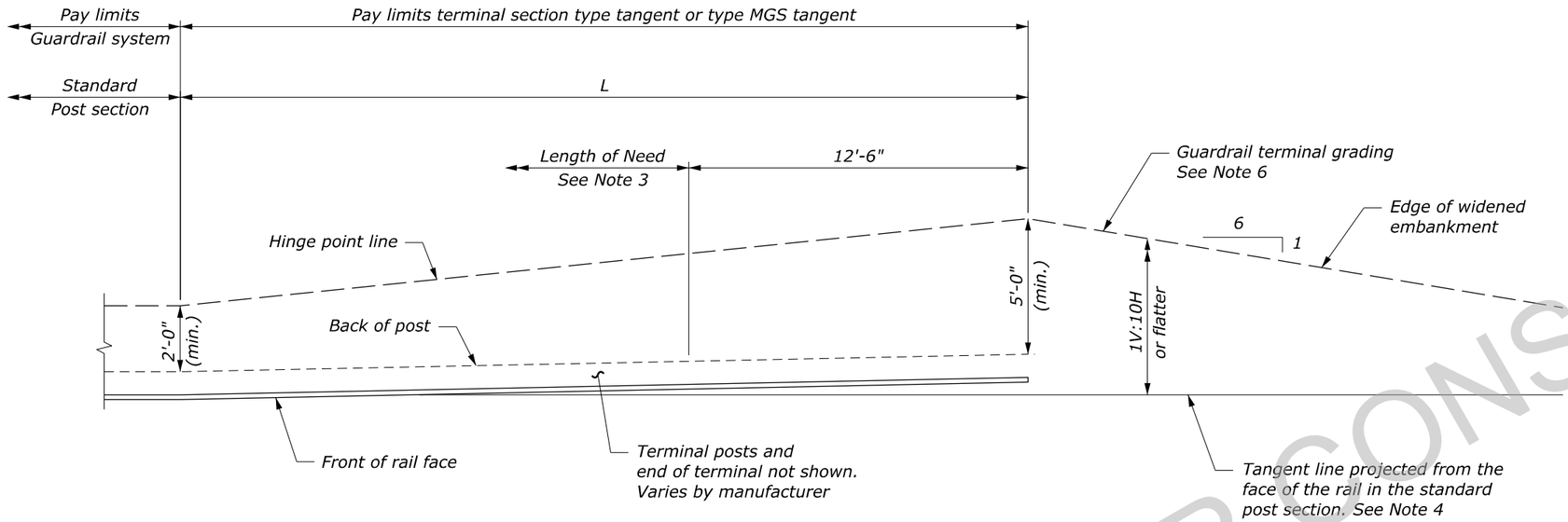
28 March 2025 11:17 AM

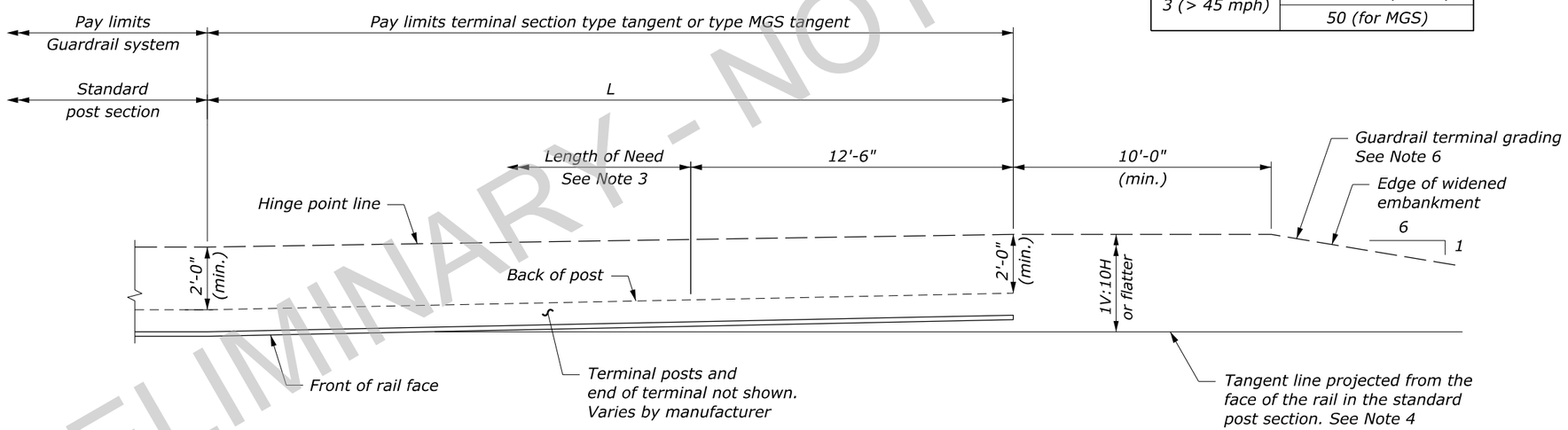
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	E.2



PLAN

PREFERRED GRADING

TEST LEVEL	L (FT)
2 (≤ 45 mph)	25
3 (> 45 mph)	37.5 or 50 (for G4)
	50 (for MGS)



PLAN

ALTERNATIVE GRADING

NOTE:

1. *Install tangent terminal according to the manufacturer's recommendations. See manufacturer's drawings for other details.*
2. *Construct the terminal grading layout as shown in the staking notes or model. If no staking notes or model are provided, use the preferred grading layout as much as practical within site constraints. If necessary because of site limitations, use the alternative grading layout.*
3. *For design purposes, the length of need is assumed to begin at post 3. Verify the length of need with the manufacturer for a specific product. Adjust grading as necessary to install the tangent terminal according to the manufacturer's recommendations.*
4. *Install terminal at a 1:25 taper or flatter to position the end farther from the edge of shoulder, or use a taper according to the manufacturer's recommendations.*
5. *Install a reflectorized object marker on the end of the terminal.*
6. *Construct a 1V:4H slope outside of the guardrail terminal grading extents where practical.*

NO SCALE

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

FLH STANDARD

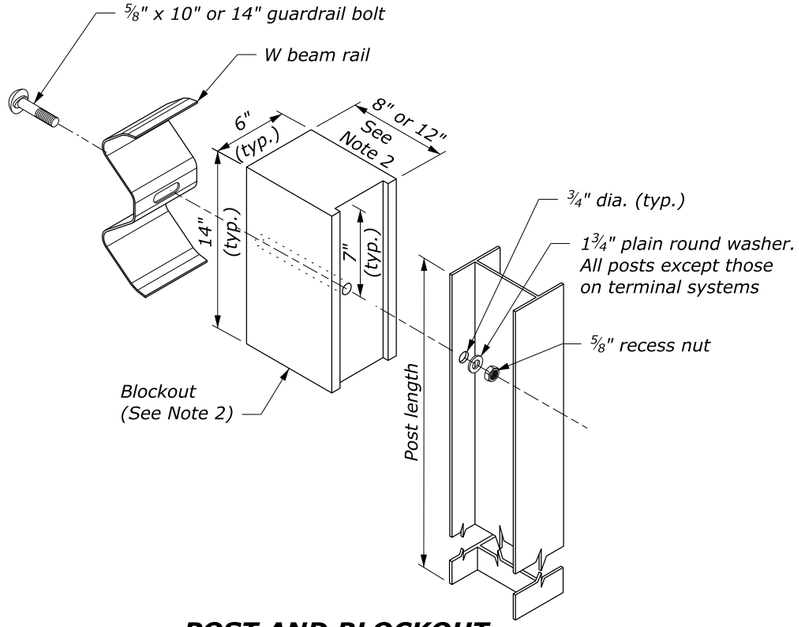
MGS AND G4 W-BEAM GUARDRAIL TYPE TANGENT TERMINAL AND GRADING

STANDARD APPROVED FOR USE 6/2005	STANDARD
REVISED: 6/2022	617-20

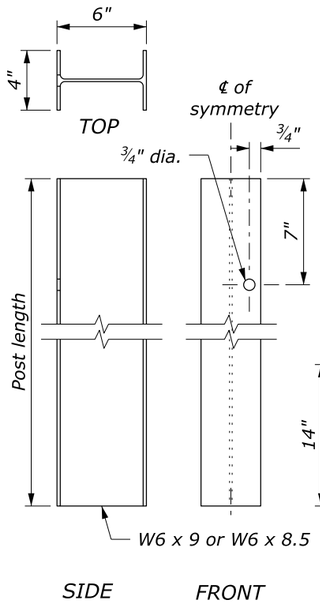
PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw-work\d0419223\Std617-20.dgn [Std 617-20]
10 August 2022 1:53 PM

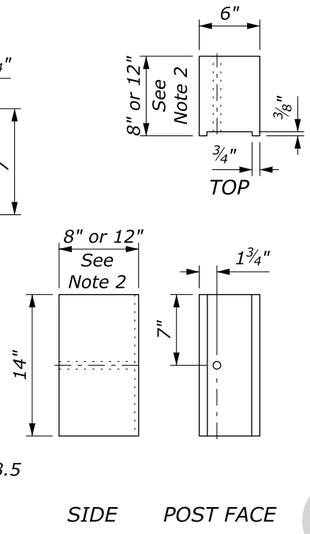
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	E.3



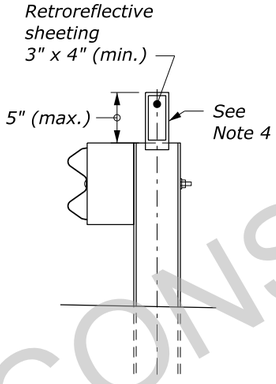
POST AND BLOCKOUT DETAIL



STRUCTURAL SHAPE POST



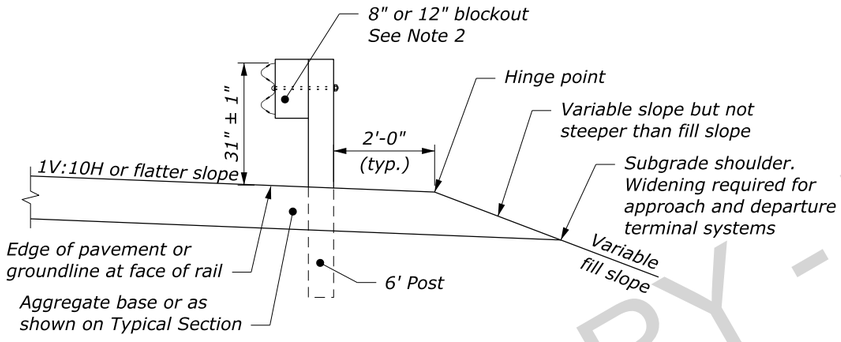
BLOCKOUT



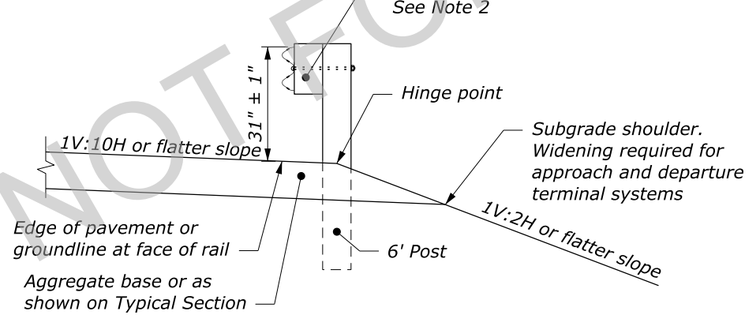
FLEXIBLE DELINEATOR GUARDRAIL MOUNT

NOTE:

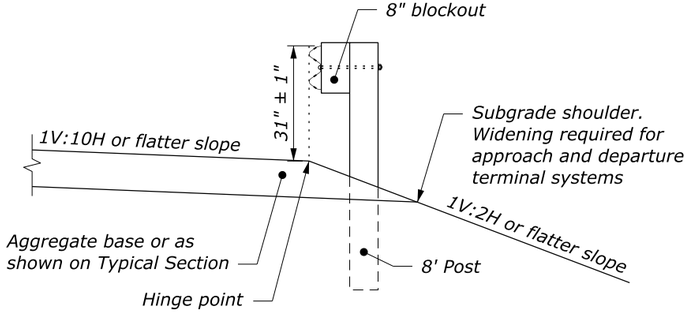
1. When encountering impenetrable material, one post may be omitted in locations where the typical guardrail cross section includes 2-feet (min.) between the back of the guardrail post and the hinge point. For all other locations, see Section 617 and Standard 617-13 or 617-37.
2. Size of blockout shown elsewhere in the plans. Blockout may be wood, plastic, or composite material. Use consistent material throughout the length of guardrail run.
3. Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance, and accepted manufacturing practices.
4. Install a flexible hinged delineator every fourth post. Fasten delineator to the web of the steel post using either an adhesive or mechanical means according to the manufacturer's recommendations.



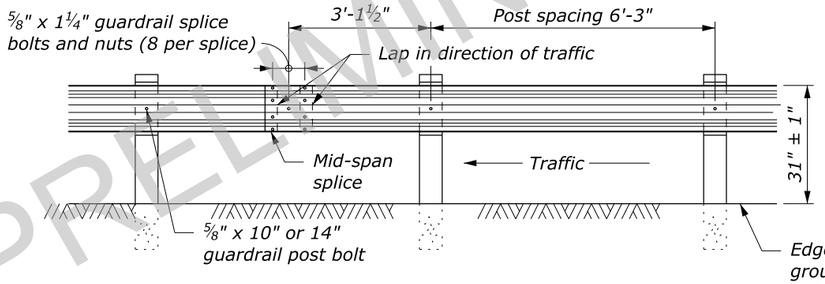
TYPICAL GUARDRAIL CROSS SECTION
6' POST, 8" OR 12" BLOCKOUT



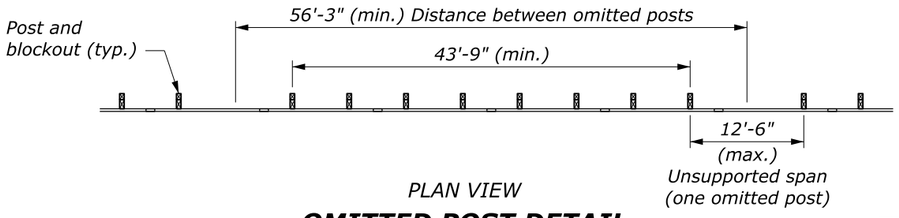
TYPICAL GUARDRAIL CROSS SECTION
6' POST CENTERED ON HINGE, 8" OR 12" BLOCKOUT



TYPICAL GUARDRAIL CROSS SECTION
8' POST ON SLOPE, 8" BLOCKOUT



TYPICAL GUARDRAIL ELEVATION



PLAN VIEW

OMITTED POST DETAIL

See Note 1

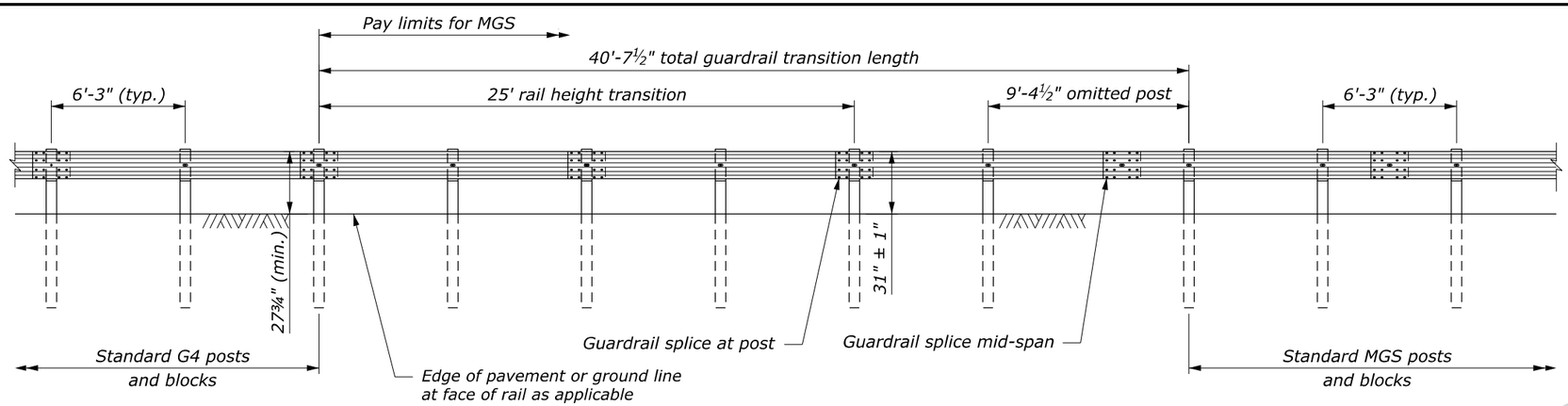
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD 617-32
MGS W-BEAM GUARDRAIL STEEL POSTS	SPECIFICATION FP-24
	APPROVED FOR USE 2/2024

PRELIMINARY - NOT FOR CONSTRUCTION

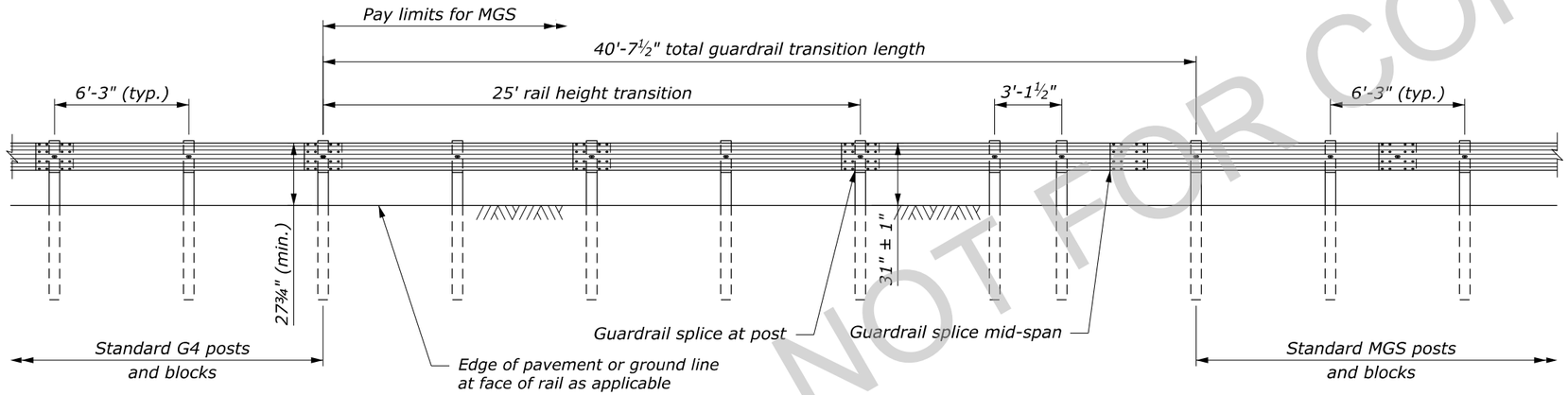
c:\pw-work\d0419223\Std617-32.dgn [Std 617-32]
10 July 2024 10:43 AM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	E.4



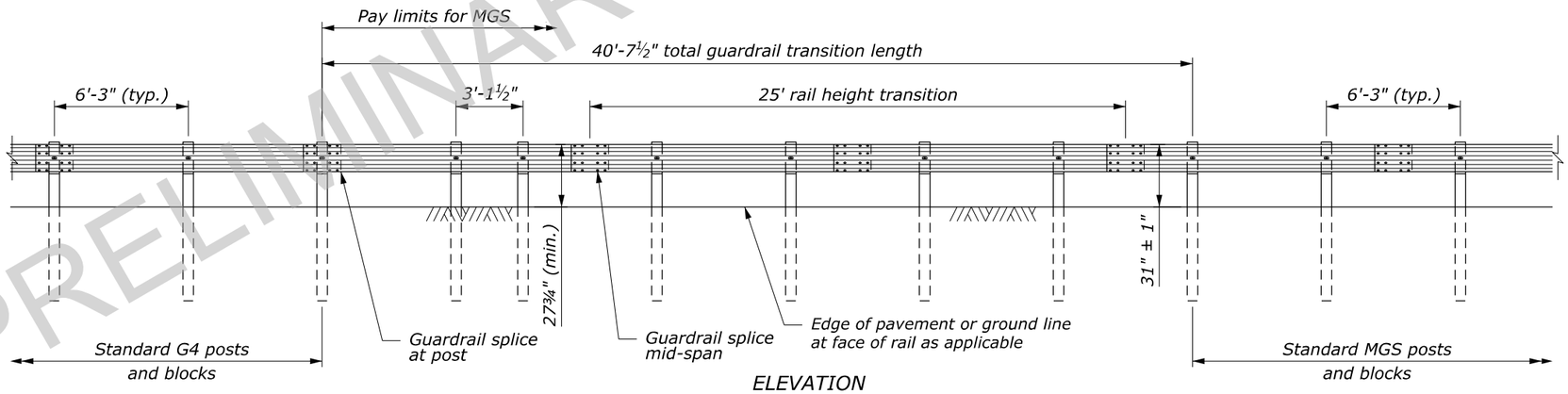
ELEVATION

OMITTED POST OPTION



ELEVATION

HALF-POST SPACING IN MGS OPTION



ELEVATION

HALF-POST SPACING IN G4 OPTION

NOTE:

1. *Unless otherwise specified, use any of the options shown as required to meet project-specific conditions.*
2. *Use consistent guardrail post material throughout the length of the guardrail run.*
3. *If applicable, conversion of the 8-inch wide G4 blockout to the 12-inch wide MGS blockout may occur anywhere within the length of the G4 to MGS transition shown on this sheet.*
4. *See Standards 617-10, 617-11, 617-31, or 617-32 for other assembly details.*

NO SCALE

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

FLH STANDARD

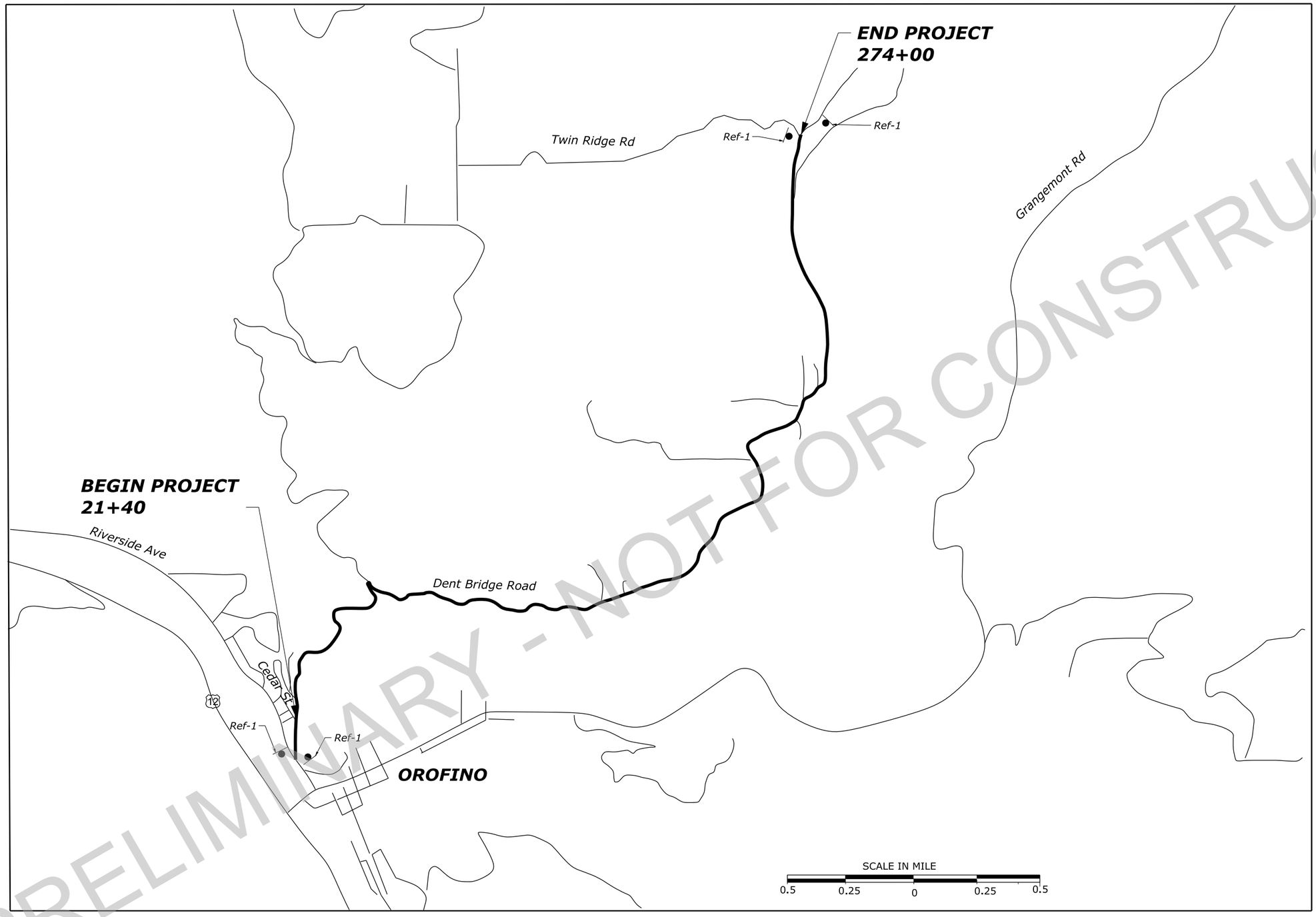
G4 TO MGS W-BEAM GUARDRAIL TRANSITION

STANDARD APPROVED FOR USE 7/2022	STANDARD
REVISED:	617-39

PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw-work\d0419223\Std617-39.dgn [Std 617-39]
10 August 2022 2:52 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	F.2



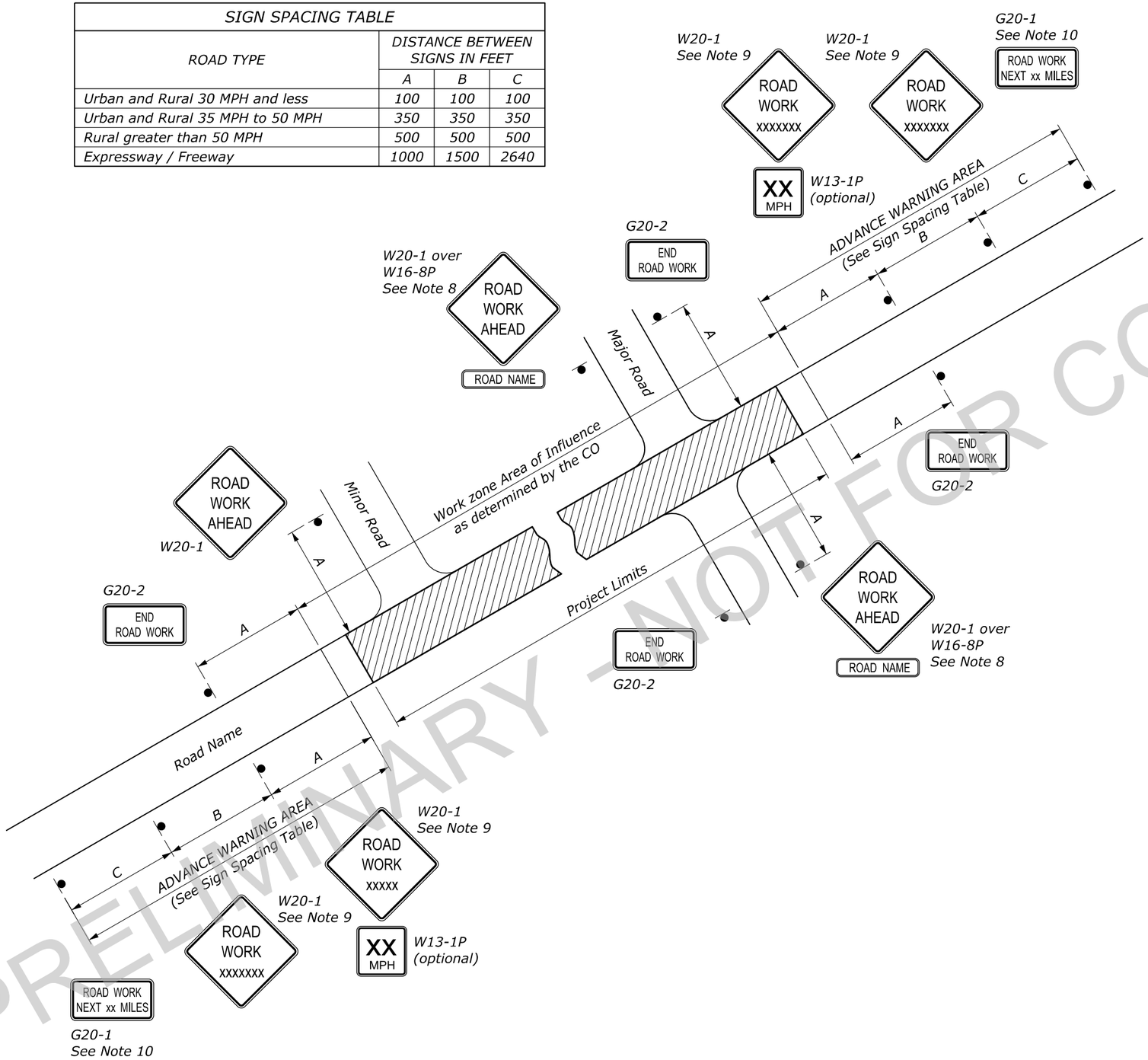
PRELIMINARY - NOT FOR CONSTRUCTION

TEMPORARY TRAFFIC CONTROL PLAN

c:\pw_work_wfh\d0586825\ID-a47831_gc.dgn [Vicinity Map]
6 May 2026 10:33 AM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	F.3

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:

1. *Erect all project advance warning signs before starting construction work.*
2. *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.*
3. *Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs to fit field conditions as approved by the CO. Vary messages as required.*
4. *Install advisory speed plates under the W20 series warning signs as needed to indicate a maximum recommended speed through the construction area.*
5. *Ensure all sign supports exposed to impact by traffic meet the requirements of NCHRP-350 or MASH for crashworthiness.*
6. *Maintain two-way traffic during all non-work hours except as approved by the CO.*
7. *Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.*
8. *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).*
9. *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.*
10. *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.*
11. *If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.*
12. *State standards may be used as an alternative if approved by the CO.*
13. *Refer to Section 635 of the Special Contract Requirements for allowable retroreflective sheeting types.*

NO SCALE

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

FLH STANDARD

TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING

STANDARD APPROVED FOR USE 6/2005	STANDARD
REVISED: 7/2022	635-1

PRELIMINARY - NOT FOR CONSTRUCTION

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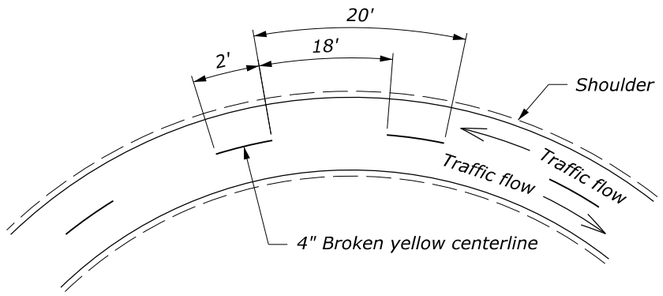
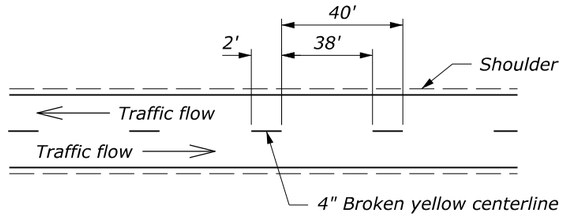
8 August 2022 2:19 PM

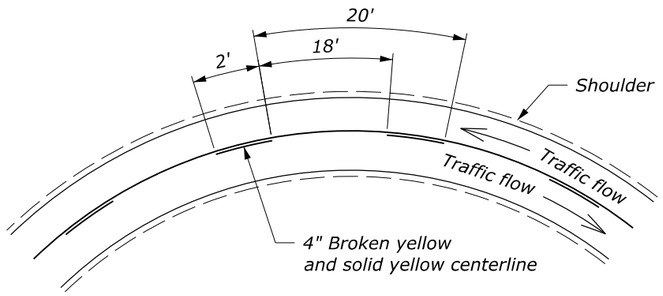
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	F.4



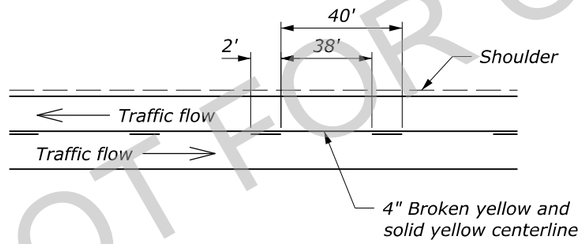
DETAIL A1
Passing zone both directions
Two-way traffic



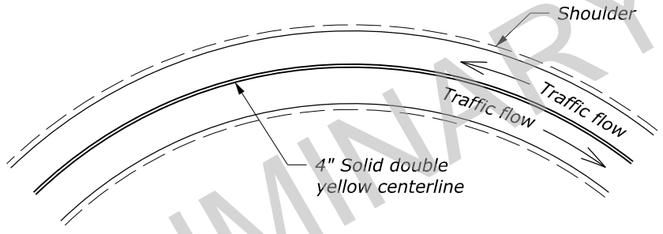
DETAIL B1
Passing zone both directions
Two-way traffic



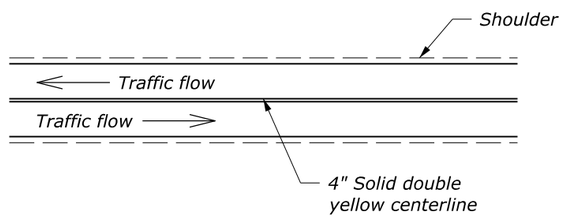
DETAIL A2
No passing zone one direction
Two-way traffic



DETAIL B2
No Passing zone one direction
Two-way traffic



DETAIL A3
No passing zone both directions
Two-way traffic



DETAIL B3
No Passing zone both directions
Two-way traffic

DETAIL A
Curves < 500' Radius

DETAIL B
Tangents or Curves ≥ 500' Radius

NOTE:

1. *To substitute raised pavement markers for lines, use the following patterns:*

   2' broken line: two pavement markers spaced 2' apart allowed by the gap shown based on curvature.

   Single solid line: pavement markers spaced on 10' centers.

   Double solid line: two pavement markers, side by side, spaced on 10' centers.

2. *On two- or three-lane roads, signs may be used instead of temporary pavement markings as shown on Standard 635-3.*

NO SCALE

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

FLH STANDARD

TEMPORARY PAVEMENT MARKINGS

STANDARD APPROVED FOR USE 6/2005	STANDARD
REVISED: 7/2022	635-2

PRELIMINARY - NOT FOR CONSTRUCTION

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8 August 2022 1:19 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	F.5

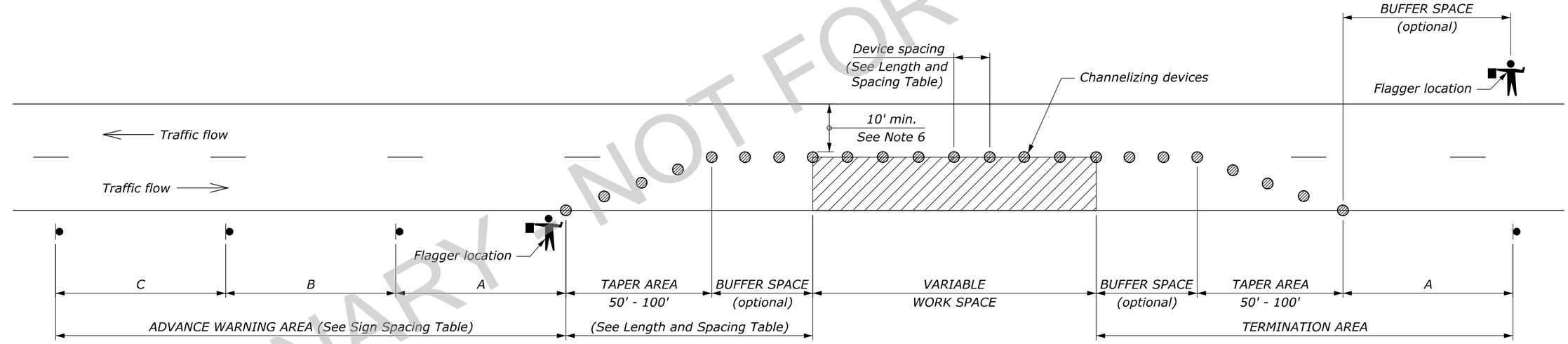
LENGTH AND SPACING TABLE				
APPROACH SPEED*	BUFFER SPACE LENGTH	CHANNELIZING DEVICE		
		TAPER AREA	BUFFER SPACE	WORK SPACE
MPH	FEET	SPACING IN FEET		
20	115	20	40	40
25	155	20	50	50
30	200	20	60	60
35	250	20	70	70
40	305	20	80	80
45	360	20	90	90
50	425	20	100	100
55	495	20	110	110
60	570	20	120	120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

1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
2. Final location and spacing of devices may be changed to fit field conditions as approved by the CO.
3. 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.
4. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
5. For night time flagging operation, provide floodlighting at flagger stations.
6. For project specific minimum width, refer to the Special Contract Requirements, Section 156.
7. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



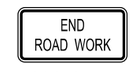
W20-1
See Note 4

W20-4

W13-1P
(optional)

W20-7

W16-2P
(optional)



G20-2
See Note 4

NO SCALE

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

FLH STANDARD

TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH FLAGGERS)

STANDARD APPROVED FOR USE 6/2005
REVISED: 7/2022

STANDARD 635-6

PRELIMINARY - NOT FOR CONSTRUCTION

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8 August 2022 1:46 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	F.6

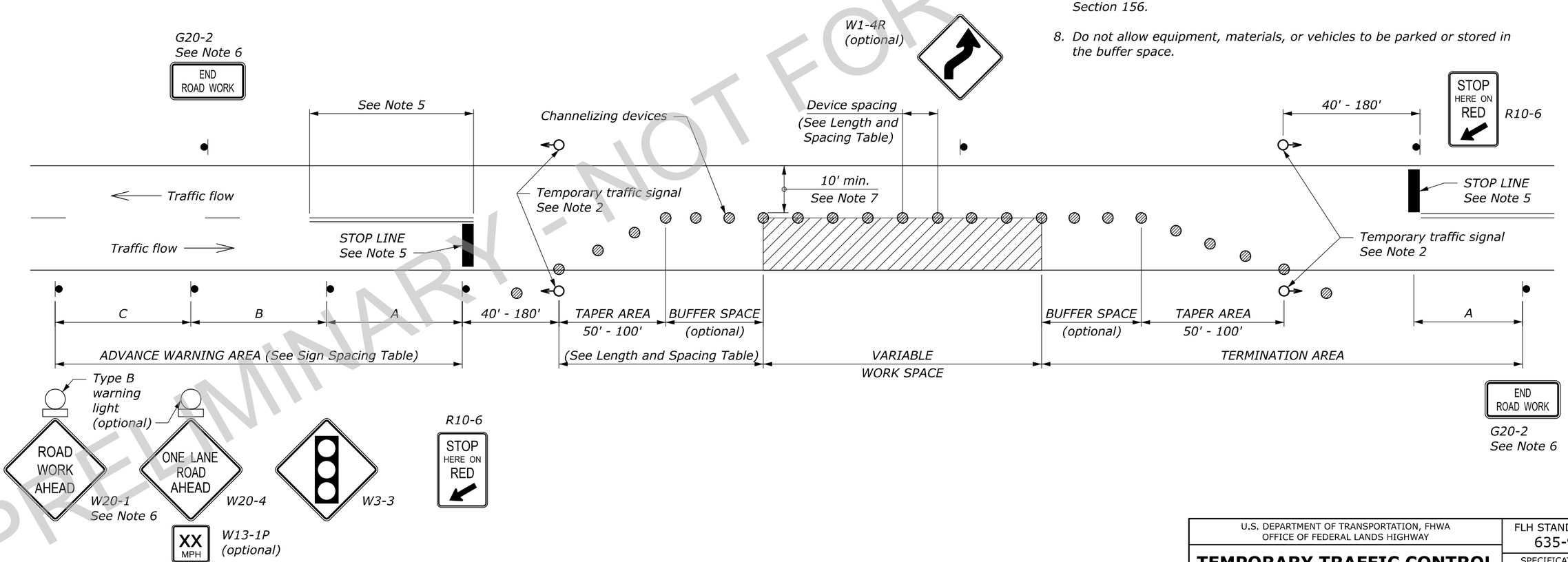
LENGTH AND SPACING TABLE				
APPROACH SPEED* MPH	BUFFER SPACE LENGTH FEET	CHANNELIZING DEVICE SPACING IN FEET		
		TAPER AREA	BUFFER SPACE	WORK SPACE
20	115	20	40	40
25	155	20	50	50
30	200	20	60	60
35	250	20	70	70
40	305	20	80	80
45	360	20	90	90
50	425	20	100	100
55	495	20	110	110
60	570	20	120	120
65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

1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
2. A single signal installation is acceptable, on the right-hand side of the road, if it has two signal faces that are at least 8 feet apart and meets the other requirements of the MUTCD.
3. Install and operate temporary traffic control signals in accordance with the requirements of the MUTCD. Establish signal timing using a qualified engineer. When the signal is changed to the flashing mode either manually or automatically, ensure red signal indications are flashed to both approaches.
4. Final location and spacing of devices may be changed to fit field conditions as approved. If signals are moved, determine revised signal timing using a qualified engineer.
5. For paved roadway surfaces, install stop lines complying with the MUTCD. Remove existing conflicting pavement markings and raised markers between the work space and the stop line. Add no-passing lines in advance of the stop line that comply with the MUTCD. Removable pavement markings may be used for stop lines and no-passing pavement markings.
6. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
7. For project specific minimum width, refer to Special Contract Requirements, Section 156.
8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



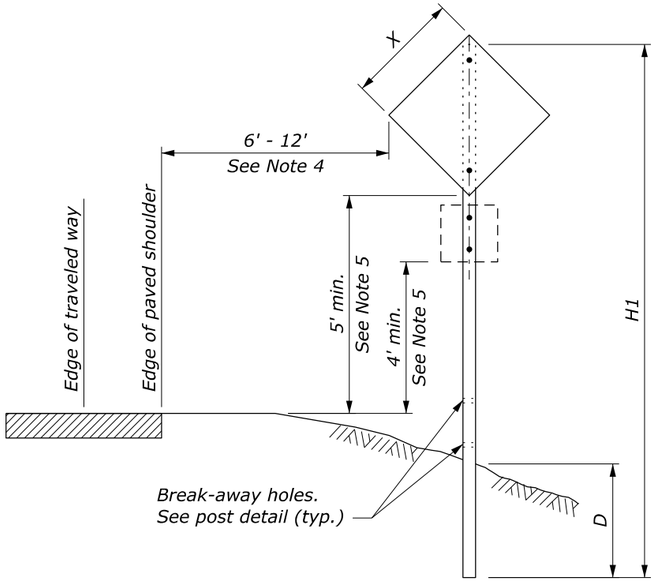
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD 635-9
TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH SIGNALS)	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 2/2024

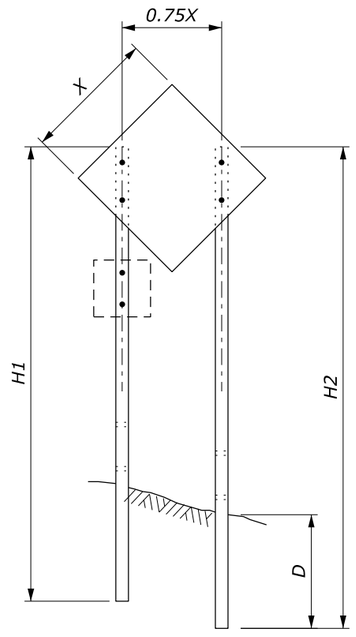
PRELIMINARY - NOT FOR CONSTRUCTION

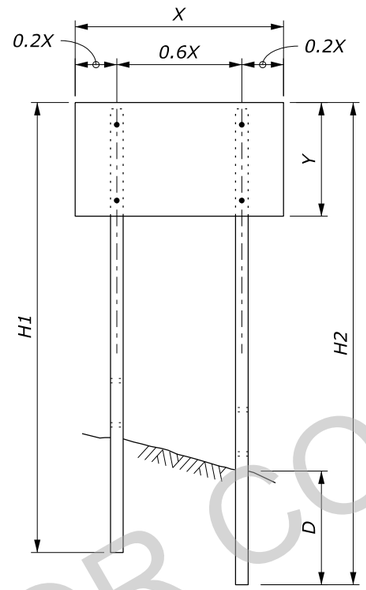
c:\pw-work\dms00753\Std635-9.dgn {Std 635-9}
3 June 2024 2:10 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	F.7



SINGLE POST SIGN





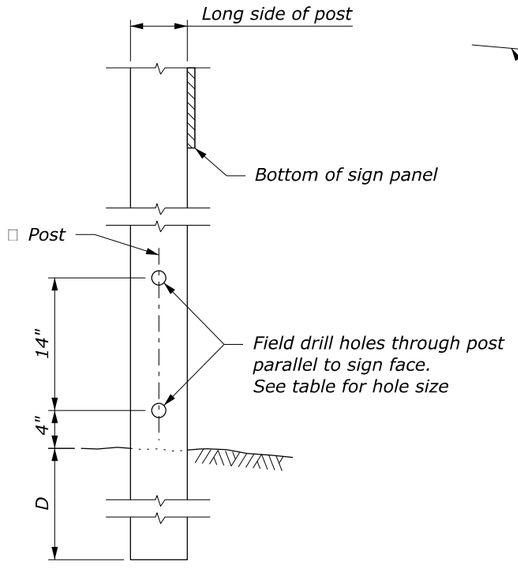
TWO POST SIGN

NOTE:

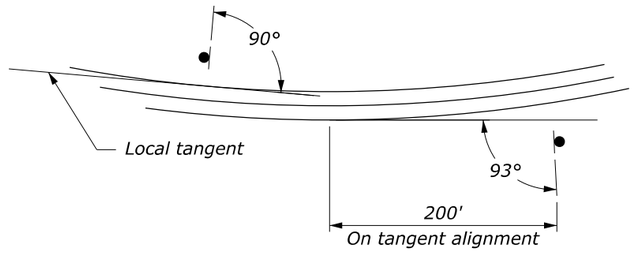
1. *Attach sign panels with a minimum of 2 - ¼" dia. bolts per post.*
2. *H1 and H2 = Overall post length. Select post lengths to fit field conditions.*
3. *D = Post embedment depth for average soil conditions.*
4. *In areas where lateral distance is limited, a minimum lateral offset of 2' may be used. 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	1.5
> 30'	65 - 95	3	6 x 6	48	2



POST DETAIL



SIGN INSTALLATION ANGLE

NO SCALE

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

FLH STANDARD

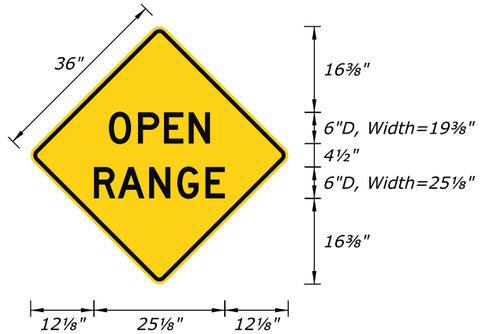
TEMPORARY TRAFFIC CONTROL SIGN INSTALLATION WOOD POSTS

STANDARD APPROVED FOR USE 6/2005	STANDARD
REVISED: 7/2022	635-14

PRELIMINARY - NOT FOR CONSTRUCTION

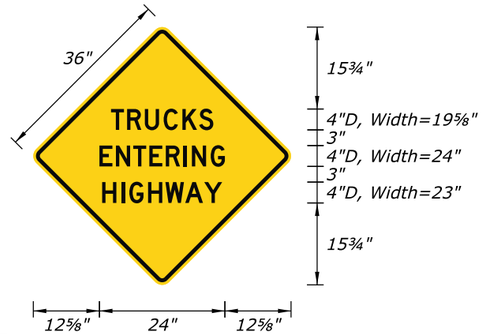
C:\pw-work\dms00753\Std635-14.dgn [Std 635-14]
8 August 2022 2:14 PM

PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	G.2



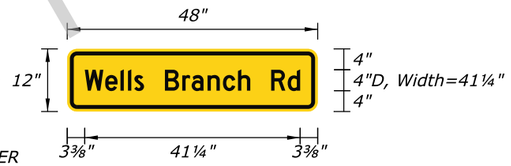
BORDER
R=1⅜"
TH=0¾"
IN=0½"

REF-1



BORDER
R=1⅜"
TH=0¾"
IN=0½"

REF-2



BORDER
R=1⅜"
TH=0¾"
IN=0½"

REF-3

NOTES:

1. *Word message dimensions are approximate. Provide sign panels according to the MUTCD and Standard Highway Signs.*

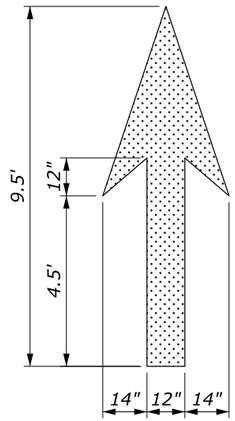
NO SCALE

CUSTOM SIGN DETAILS

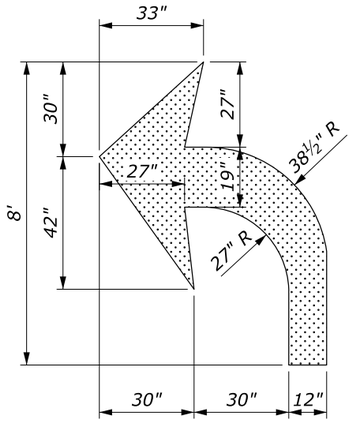
PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw_work_wfld0586826\Dent Bridge Road Custom Signs.dgn [Custom Sign Details]
5 May 2026 10:31 AM

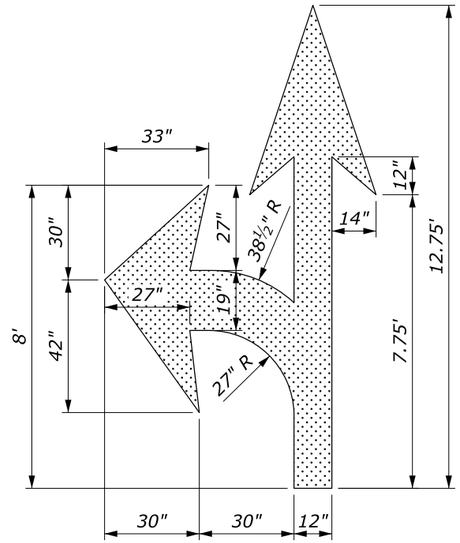
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	G.4



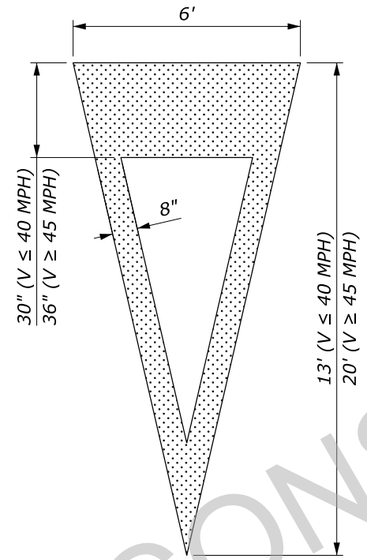
THROUGH LANE-USE ARROW



TURN LANE-USE ARROW



TURN AND THROUGH LANE-USE ARROW

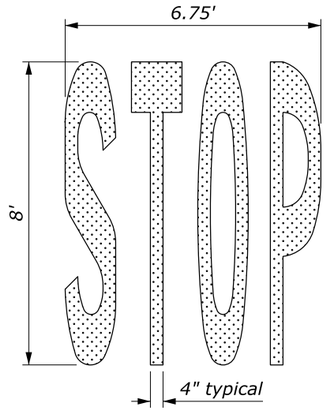


YIELD AHEAD TRIANGLE SYMBOL

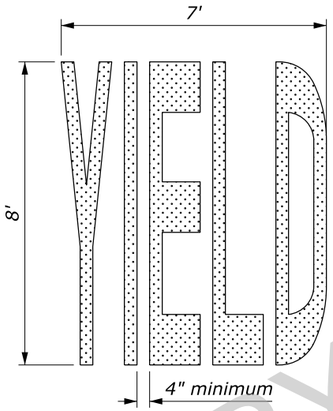
NOTE:

1. *Place pavement word and symbol markings in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), current edition.*
2. *Use the current edition of the "Standard Highway Signs" to size all letters, numerals and symbols.*
3. *The Accessibility Parking Space marking only includes the accessibility symbol unless a border is shown in the Striping Plans.*

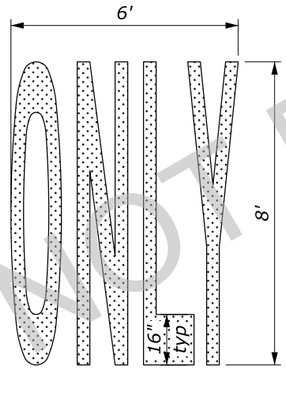
PAVEMENT MARKING AREAS	
TYPE	*SQFT*
Through Lane-Use Arrow	*12*
Turn Lane-Use Arrow	*16*
Turn and Through Lane-Use Arrow	*26*
Yield Ahead Triangle (V≤40 MPH)	*26*
Yield Ahead Triangle (V≥45 MPH)	*37*
Accessibility Marking (symbol only)	*2*
Accessibility Marking w/ border (White)	*5*
Accessibility Marking w/ border (Blue)	*9*
AHEAD Word Marking	*30*
ONLY Word Marking	*21*
SCHOOL Word Marking	*33*
STOP Word Marking	*22*
YIELD Word Marking	*24*



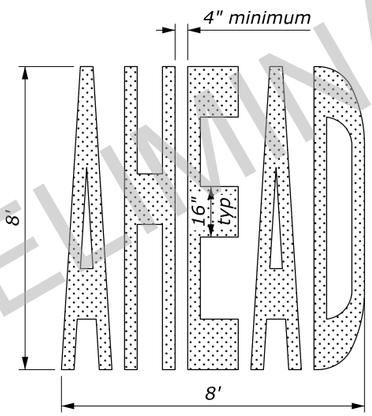
"STOP" WORD MARKING



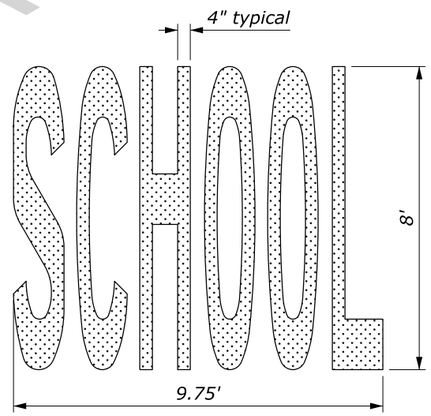
"YIELD" WORD MARKING



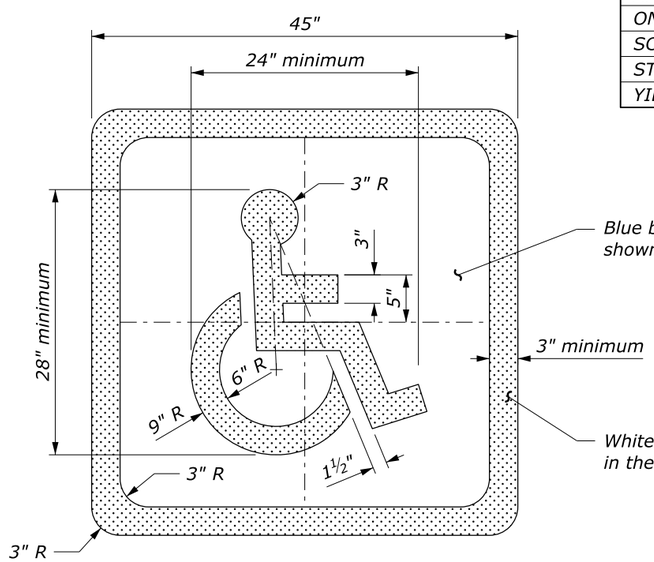
"ONLY" WORD MARKING



"AHEAD" WORD MARKING



"SCHOOL" WORD MARKING



ACCESSIBILITY PARKING SPACE MARKING

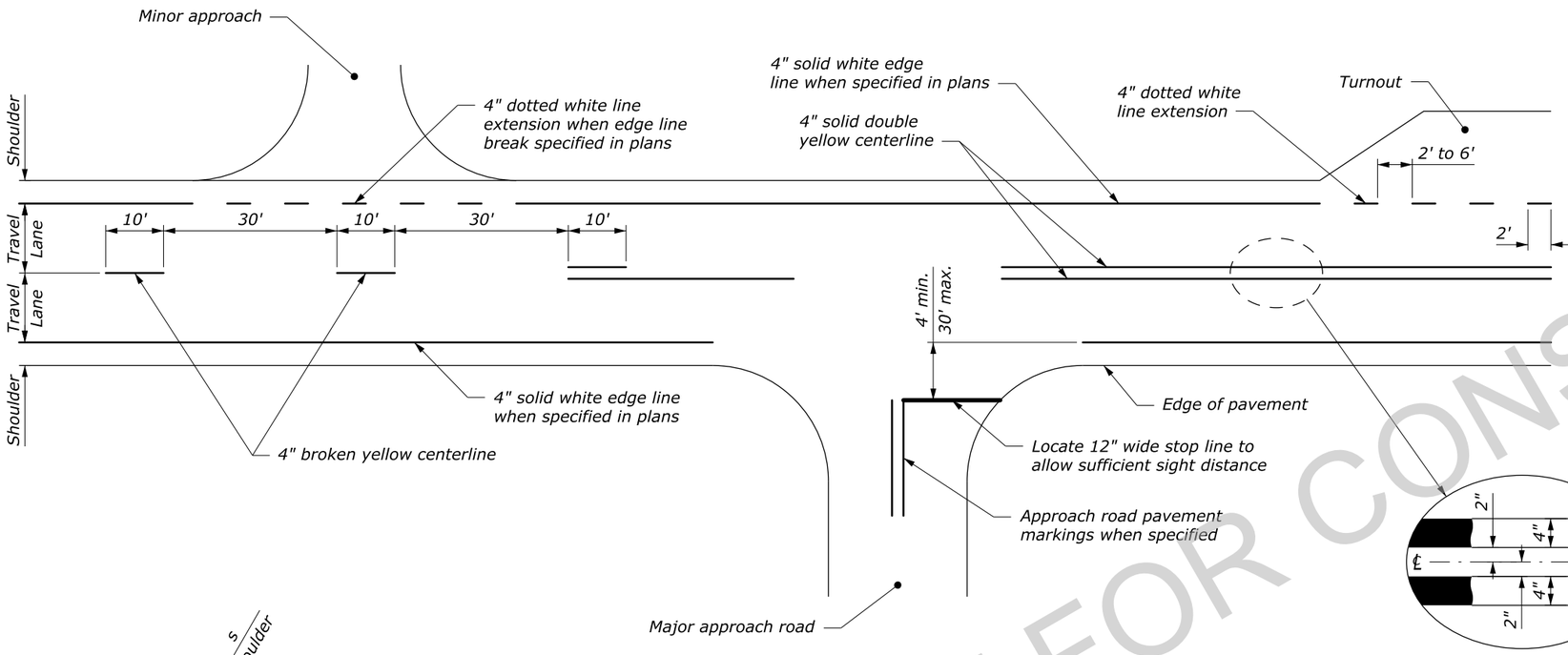
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	WFL STANDARD W634-1
PAVEMENT MARKINGS SYMBOLS AND WORDS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 9/2024

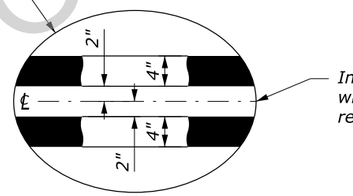
PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw-work\dms43392\W634-1.dgn [Std W634-1]
17 March 2025 3:06 PM

STATE	PROJECT	SHEET NUMBER
ID	FLAP CLEAR 4783(1)	G.5

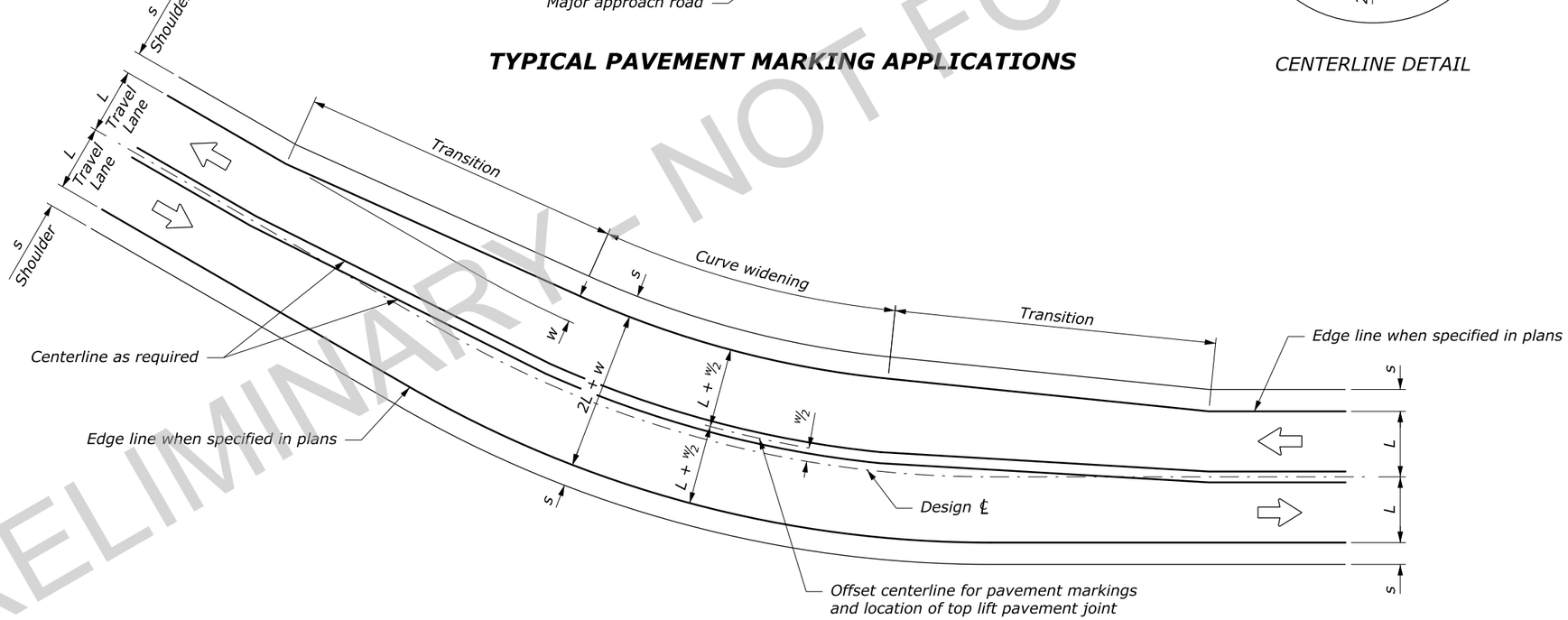


TYPICAL PAVEMENT MARKING APPLICATIONS



Increase spacing between parallel lines when specified in the plans or when required by the maintaining agency

CENTERLINE DETAIL



CENTERLINE MODIFICATION FOR CURVES WITH WIDENING APPLIED ON INSIDE

See Note 2 for treatment of curves when widening "w" is split equally on both sides of centerline

NO SCALE

NOTE:

1. Place edge line pavement markings at asphalt/concrete curb interface when curb is present.
2. Paint centerline pavement markings on curves with curve widening "w" to achieve equal lane widths within the roadway. Maintain a constant shoulder width "s" throughout the curve widening area. See staking details for curve widening transition locations.
3. Typical pavement marking widths are shown. Use wider pavement markings when specified on the plans or when required by the maintaining agency.

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

U.S. CUSTOMARY DETAIL

LINEAR PAVEMENT MARKINGS

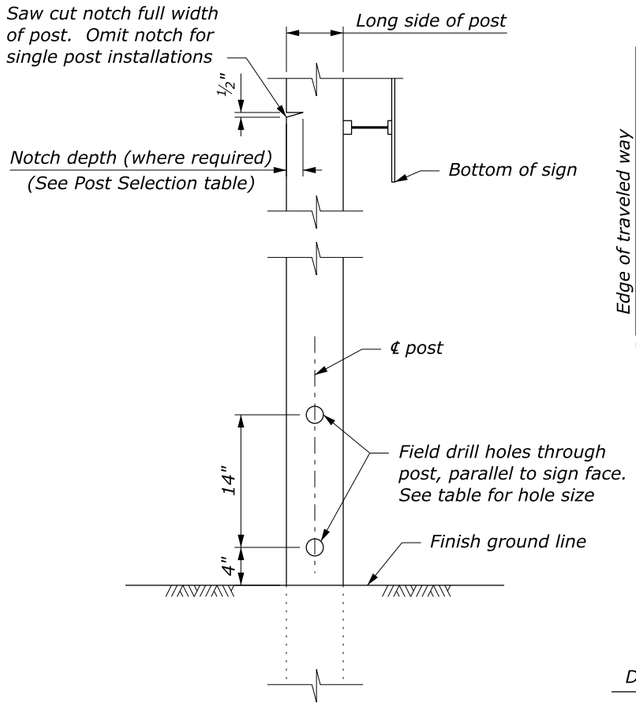
DETAIL APPROVED FOR USE 10/2007
REVISED: 10/2012

DETAIL W634-2

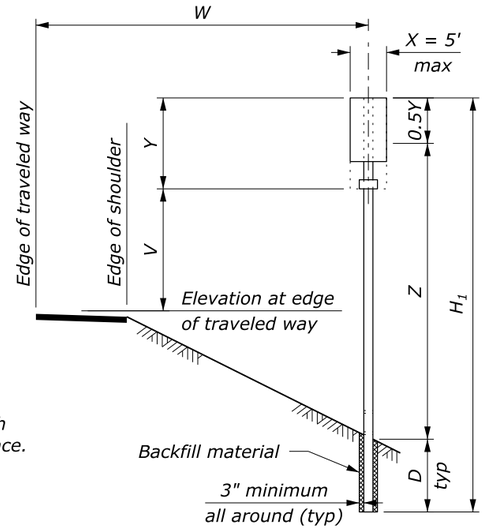
PRELIMINARY - NOT FOR CONSTRUCTION

24 February 2016 8:59 AM c:\myfiles\pw_production\d0243077\FLH-Cells.dgnlib [Border.US]

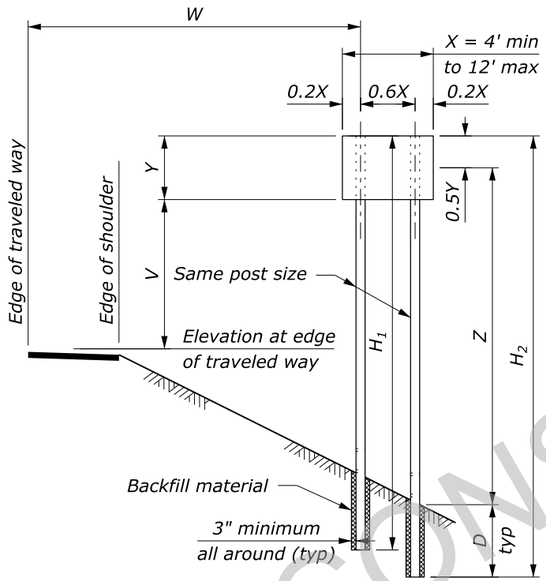
PROJECT	SHEET NUMBER
ID FLAP CLEAR 4783(1)	G.6



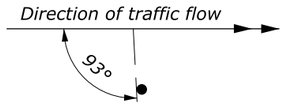
POST DETAIL



SINGLE POST SIGNS



TWO POST SIGNS



SIGN INSTALLATION ANGLE

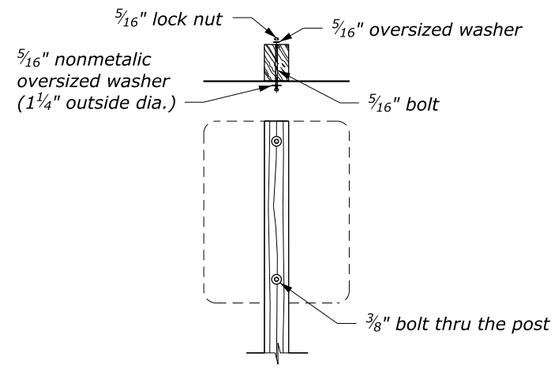
For all retroflectorized signs where W > 25'

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

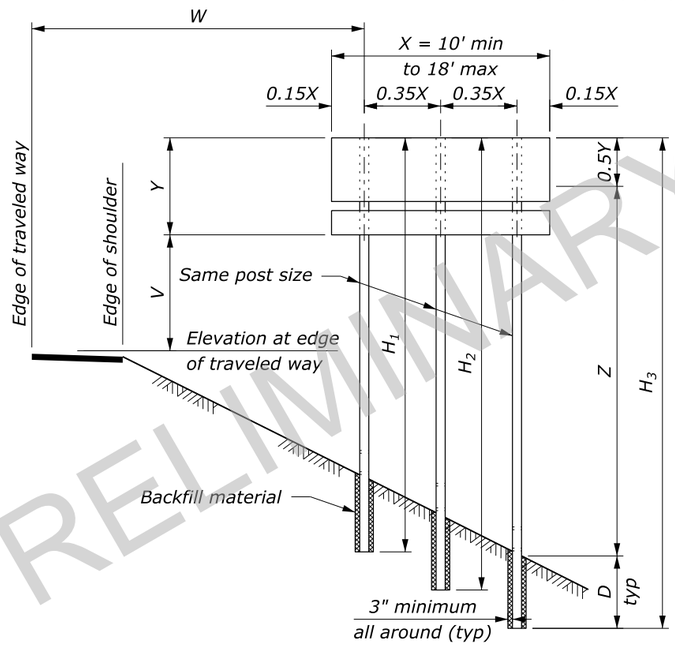
V may be reduced by 1 foot in rural districts for a secondary sign mounted below another sign.

NOTE:

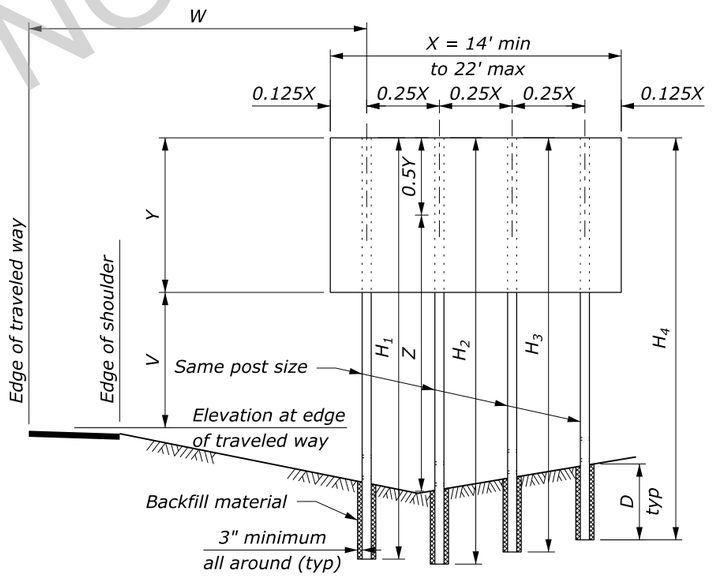
1. *Provide traffic barrier protection for all posts larger than 6 x 8 inches when located within the clear zone or if the post is vulnerable to being struck when placed outside the clear zone.*
2. *H_1 thru H_4 indicate overall post length. Select post lengths to fit field conditions.*
3. *D is the minimum post embedment depth for average soil conditions. See Wood Post Selection Table below.*
4. *Z is the height from ground line to mid-height of sign at the longest post.*
5. *For the purpose of post selection X and Y are as follows:*
   - *Overall dimensions of the sign for a single sign, or back to back signs*
   - *Dimensions of a rectangle enclosing all the signs for multiple sign installations.*



TYPICAL MOUNTING FOR SIGNS WITHOUT ANGLES



THREE POST SIGNS



FOUR POST SIGNS

WOOD POST SELECTION TABLE						
POST SIZE (inch)	NUMBER OF POSTS 1	2	3	4	D	Notch depth and hole diameter
	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.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY

PERMANENT SIGN INSTALLATION WOOD POSTS

WFL STANDARD	W633-7
SPECIFICATION	FP-24, FP-14
APPROVED FOR USE	9/2024

PRELIMINARY - NOT FOR CONSTRUCTION

c:\pw-work\dms43148\W633-7.dgn [Std W633-7]
17 March 2025 11:53 AM