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
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
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
diag.	diagonal
diaph.	diaphragm
dist.	distance
drwg(s).	drawing(s)
E	east
e	superelevation rate
El. 94.16 ft	elevation with number
elev.	elevation
emb.	embankment
EP	edge of pavement
EQ or eq.	equation
ER	edge of road
EW	edge of water
exc.	excavation
exp. jt.	expansion joint
fin.	finish
flg.	flange
ft2	square foot
ft3	cubic foot (feet)
ftg.	footing
ga.	gage (gauge)
galv.	galvanized
hdwl.	headwall
hex.	hexagon
HW	high water
ID	inside diameter
jt.	joint
L	length of curve
lam.	lamination
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
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
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
sec.	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
sym.	symmetrical
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
vph	vehicles per hour
VPI	vertical point of intersection
W	west
yd2	square yard
yd3	cubic yard(s)

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 w/Found Property Corner

Parcel Number

National Park Boundary

National Forest Boundary

National Wildlife Refuge Boundary

BLM Lands Boundary

Indian Reservation Boundary

Existing Roadway (Road, Paved, Gravel)

Railroad

Trail

Wattle

Silt Fence

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; Satellite Dish; Grave

Cooking Grate; Garbage Can; Picnic Table

Flagpole; Fire Hydrant

Gas & Water Meter; Gas & Water Valve

Control Point (Terrestrial and GPS); Jump Hub

STATE	PROJECT	SHEET NUMBER

North Arrow

	EXISTING	PROPOSED
Slope Stake Limits	Top of Cut Toe of Fill Transition	
Fence		
Gate with Fence		
Cattleguard		
Guardrail		
Concrete Barrier		
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		
Box Culvert		
Underdrain		
Overhead/Above Ground Utilities		
Underground Utilities		

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

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

Building		
Right-of-Way Line with Monument	R/W	R/W
Permanent Easement	P/E	P/E
Construction Easement	- no symbol -	C/E
Riprap		

NO SCALE

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

U.S. CUSTOMARY DETAIL

PLAN SYMBOLS AND ABBREVIATIONS

DETAIL APPROVED FOR USE 11/2001

REVISED: 9/2005 1/2007 10/2009

DETAIL W101-1

16 October 2009 1:08 PM

H:\StanDraw\w10101.dgn [USC]

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
BM	bench mark
BP	balance point
br.	bridge
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cc or c. to c.	center to center
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EW	edge of water
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exp. jt.	expansion joint
fin.	finish
flg.	flange
ftg.	footing
ga.	gage (gauge)
galv.	galvanized
hdwl.	headwall
hex.	hexagon
HW	high water
ID	inside diameter
jt.	joint
K.P.	kilometer post
L	length of curve
lam.	lamination
lat.	latitude
long.	longitudinal
LPSM	lump sum
Ls	length of spiral
lt. or LT	left
LW	low water

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M.P.	mile post
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PCC	point of compound curve
PCS	point of curve to spiral
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POC	point on curve
POS	point on spiral
POT	point on tangent
PS	point of tangent to spiral
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
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stgr.	stringer
stiff.	stiffener
struc.	structural
STS	point of spiral to tangent spiral
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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
vph	vehicles per hour
VPI	vertical point of intersection
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¼ Section Line

¼ Section Corner (Found, Projected)

1/16 Section Line

1/16 Section Corner (Found, Projected)

Property Line w/Found Property Corner

Parcel Number

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National Forest Boundary

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BLM Lands Boundary

Indian Reservation Boundary

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Railroad

Trail

Wattle

Silt Fence

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

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Flagpole; Fire Hydrant

Gas & Water Meter; Gas & Water Valve

Control Point (Terrestrial and GPS); Jump Hub

North Arrow

	EXISTING	PROPOSED
Slope Stake Limits	Top of Cut / Toe of Fill / Transition	
Fence		
Gate with Fence		
Cattleguard		
Guardrail		
Concrete Barrier		
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		
Box Culvert		
Underdrain		
Overhead/Above Ground Utilities		
Underground Utilities		

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

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Miscellaneous Utility Features

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

Building

Right-of-Way Line with Monument

Permanent Easement

Construction Easement — - no symbol -

Riprap

NO SCALE

STATE	PROJECT	SHEET NUMBER

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

METRIC DETAIL

PLAN SYMBOLS AND ABBREVIATIONS

DETAIL APPROVED FOR USE 11/2001

REVISED: 9/2005 1/2007 10/2009

DETAIL WM101-1

16 October 2009 2:00 PM

H:\StanDraw\wt0101.dgn [Metric]

Δ	total central angle
Δc	curve central angle
Ø	diameter
θs	spiral central angle
abut.	abutment
ADT	average daily traffic
AH	ahead
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BK	back
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
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clr.	clear
CMP	corrugated metal pipe
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ctrs.	centers
CUFT	cubic foot (feet)
culv.	culvert
CUYD	cubic yard(s)
D	diameter
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drwg(s).	drawing(s)
E	east
e	superelevation rate
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exp. jt.	expansion joint
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LPSM	lump sum
Ls	length of spiral
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LW	low water

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M.P.	mile post
matl.	material
max.	maximum
MGAL	thousand gallon
min.	minimum
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N	north
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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
sec.	section
shldr.	shoulder
SLRY	slurry unit
spa.	spacing, spaces or spaced
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stgr.	stringer
stiff.	stiffener
struc.	structural
STS	point of spiral to tangent spiral
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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
vph	vehicles per hour
VPI	vertical point of intersection
W	west
yd2	square yard
yd3	cubic yard(s)

NATIONAL BOUNDARY

STATE BOUNDARY

COUNTY BOUNDARY

CITY BOUNDARY

TOWNSHIP or RANGE LINE

SECTION LINE

¼ SECTION LINE

1/16 SECTION LINE

NATIONAL PARK or FOREST BOUNDARY

PROPERTY LINE — P/L

RIGHT-OF-WAY LINE — EXISTING — R/W

PROPOSED — R/W

RIGHT-OF-WAY LINE with MONUMENT — EXISTING — R/W

PROPOSED — R/W

EASEMENT (Permanent; Non-Permanent) — P/E — C/E

SLOPE STAKE — TOP OF CUT / TOE OF FILL / TRANSITION

ROADWAY, EXISTING

RAILROAD — SINGLE TRACK / MULTIPLE TRACK

WATTLE

SILT FENCE

TRAIL

INTERMITTENT DRAINAGE and SMALL CREEK

LARGE CREEK/RIVER

LAKE, POND or RESERVOIR; MARSHLAND

SPRING

TREELINE; TREE

MATERIAL SOURCE

	FOUND	PROJECTED
SECTION CORNER	36 31 / 1 6	36 31 / 1 6
¼ SECTION CORNER	15 / 22	15 / 22
1/16 SECTION or PROPERTY CORNER		
PROPERTY CORNER	●	No Symbol
PARCEL NUMBER	No Symbol	400

NOTE:

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

NORTH ARROW — N

	EXISTING	PROPOSED
FENCE		
GATE with FENCE		
CATTLEGUARD		
GUARDRAIL		
SIGNS — Post mounted, single		
SIGNS — Post mounted, double		
SIGNS — Portable	No Symbol	
RETAINING WALL		wall face
POWER POLE UTILITIES P=power, T=telephone	P	P
UNDERGROUND UTILITIES G=gas, O=oil, P=power, SA= sanitary sewer, SS=storm sewer, T=telephone, W=water	P	P
SUPPORT POLE with ANCHOR		
TELEPHONE BOOTH or PEDESTAL	TB or TP	TB or TP
STREET LIGHT		
BRIDGE		
PIPE CULVERT (arrow shows flow)		
PIPE CULVERT with END SECTION		
PIPE CULVERT with HEADWALL		
BOX CULVERT		
CULVERT with DROP INLET		
UNDERDRAIN	UD	UD
CONTROL POINT	CP 12345	No Symbol
SURVEY MONUMENT	▲	No Symbol
HUB & TACK	⊙	No Symbol
SPOT ELEVATION	x EL. 1234.56 ft	No Symbol
COORDINATE GRID TICK	N m	No Symbol
BUILDING		
BORING LOCATION		No Symbol
RIPRAP	No Symbol	

STATE	PROJECT	SHEET NUMBER

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

U.S. CUSTOMARY DETAIL

PLAN SYMBOLS AND ABBREVIATIONS

DETAIL APPROVED FOR USE 11/2001

REVISED: 9/2005 1/2007 6/2007

DETAIL W101-1A

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
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
cc or c. to c.	center to center
℄	centerline
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lt. or LT	left
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NC	normal crown
o. c.	on center
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OD	outside diameter
OG	original ground
PC	point of curve
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PI	point of intersection
pl.	plate
POC	point on curve
POS	point on spiral
POT	point on tangent
PS	point of tangent to spiral
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
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reqd.	required
rt. or RT	right
rte.	route
S	south
SADT	seasonal average daily traffic
SC	point of spiral to curve
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V	design speed
vph	vehicles per hour
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NATIONAL BOUNDARY

STATE BOUNDARY

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TOWNSHIP or RANGE LINE

SECTION LINE

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NATIONAL PARK or FOREST BOUNDARY

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EASEMENT (Permanent; Non-Permanent) — P/E — C/E

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MATERIAL SOURCE

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SECTION CORNER	36 31 1 6	36 31 1 6
¼ SECTION CORNER	15 22	15 22
1/16 SECTION or PROPERTY CORNER		
PROPERTY CORNER	●	No Symbol
PARCEL NUMBER	No Symbol	400

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SIGNS — Post mounted, single		
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SUPPORT POLE with ANCHOR		
TELEPHONE BOOTH or PEDESTAL	TB or TP	TB or TP
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CONTROL POINT	CP 12345	No Symbol
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HUB & TACK	⊙	No Symbol
SPOT ELEVATION	x EL. 1234.56 ft	No Symbol
COORDINATE GRID TICK	N m	No Symbol
BUILDING		
BORING LOCATION		No Symbol
RIPRAP	No Symbol	

STATE	PROJECT	SHEET NUMBER

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

METRIC DETAIL

PLAN SYMBOLS AND ABBREVIATIONS

DETAIL APPROVED FOR USE 11/2001

REVISED: 9/2005 1/2007 6/2007

DETAIL WM101-1A

27-Jun-2007 12:32 PM

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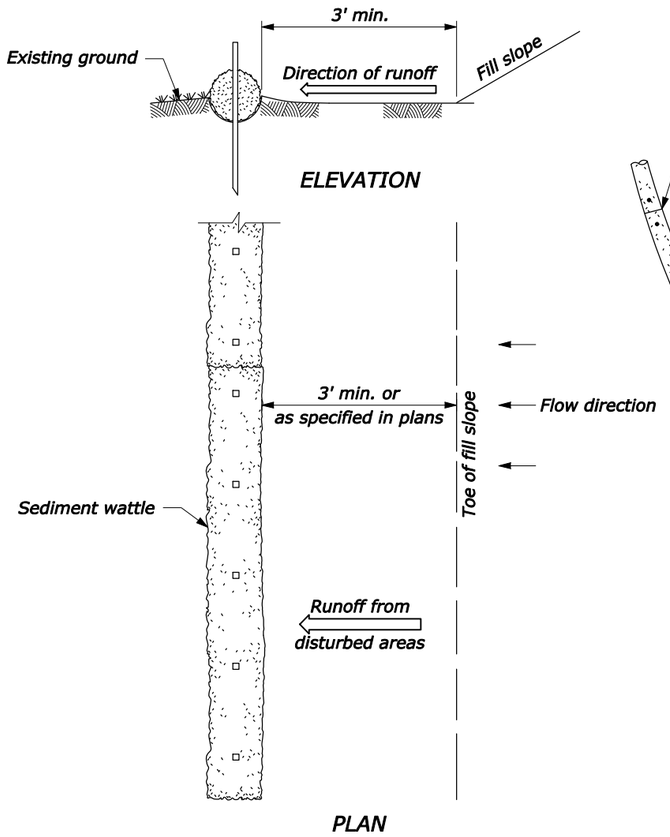
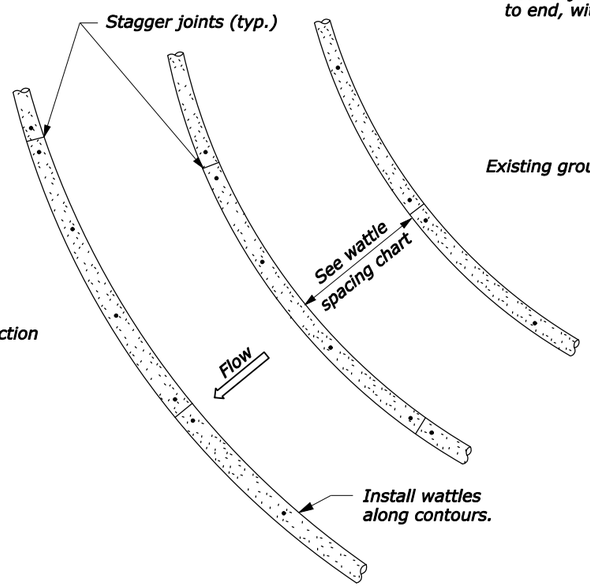
STATE	PROJECT	SHEET NUMBER



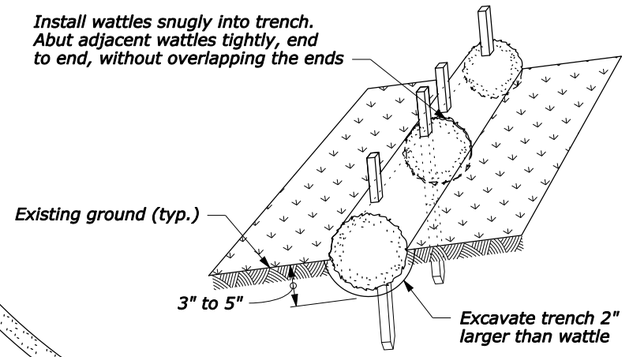
ELEVATION

PLAN

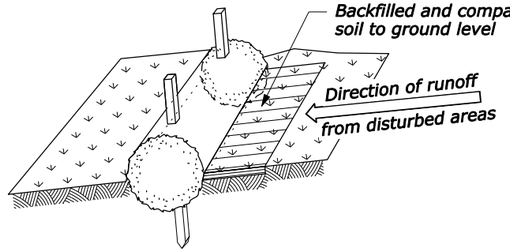
INSTALLATION BEYOND TOE OF SLOPE



INSTALLATION ALONG SLOPES



Step 1: Excavate trench and install wattles



Step 2: Backfill soil against wattles

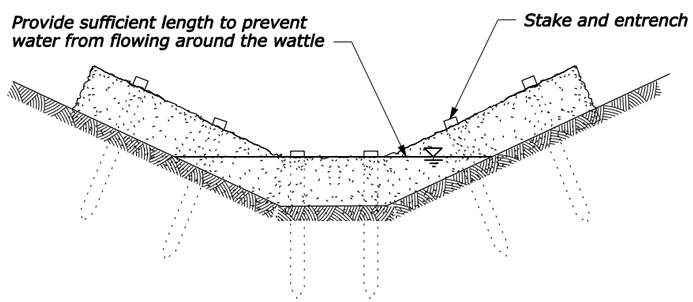
PROPERLY STAKED AND ENTRENCHED WATTLE

NOTE:

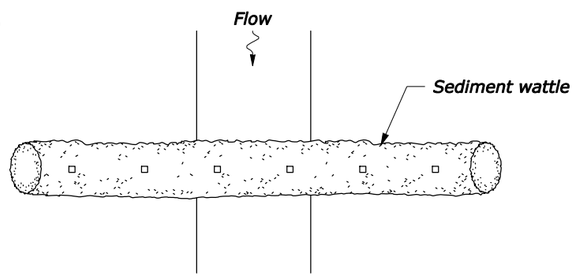
1. Drive stakes at each end and at 4' spacing until wattle is secure to slope. Do not crush wattle while staking. Live stakes may be used for permanent installations.
2. Use drainage ditch installation only in low flow conditions.

STAKES REQUIRED	
Wattle length (ft)	Stakes required for each wattle
25	8
20	6
12	4

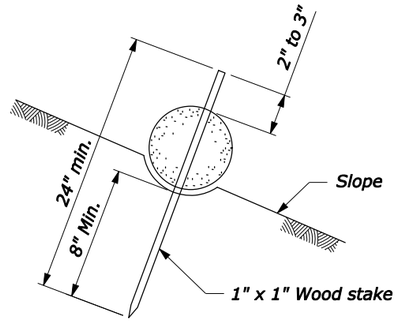
WATTLE SPACING	
Slope	Spacing (ft)
1:4 or flatter	40
1:3	30
1:2	20
1:1	10



ELEVATION



PLAN



WATTLE STAKING DETAIL

DRAINAGE DITCH INSTALLATION

NO SCALE

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

U.S. CUSTOMARY DETAIL

SEDIMENT WATTLE

DETAIL APPROVED FOR USE 9/2007	DETAIL
REVISED:	W157-20

14 October 2009 11:50 AM

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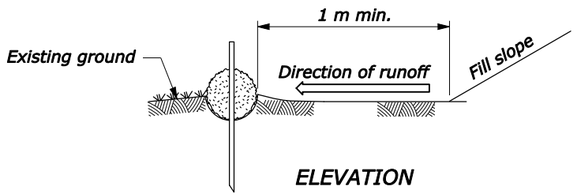
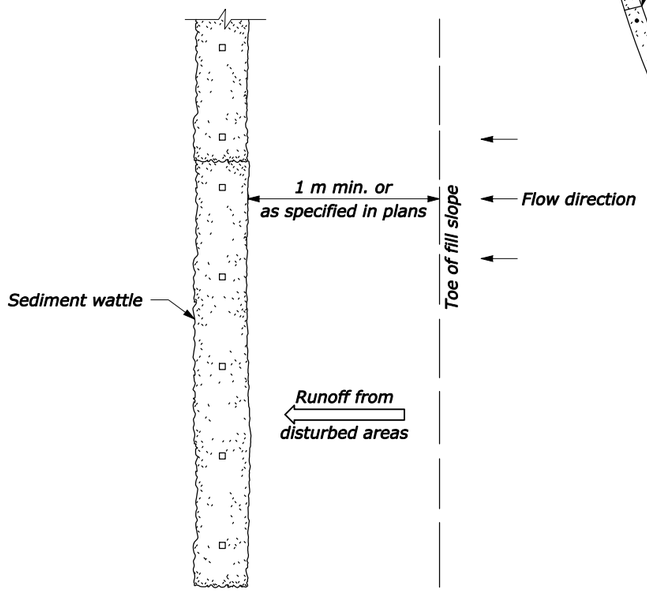
STATE	PROJECT	SHEET NUMBER

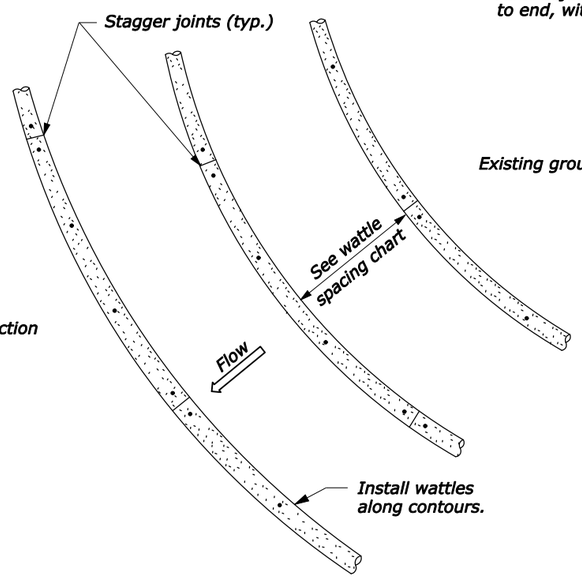


ELEVATION

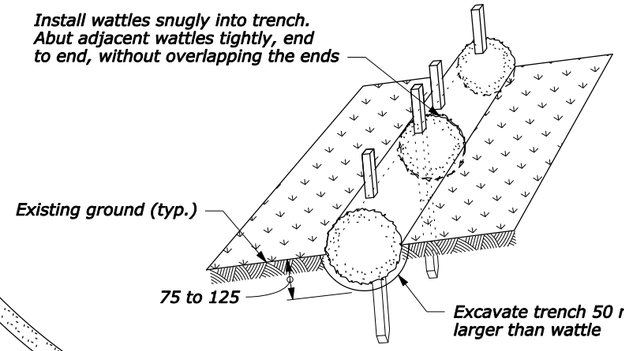


PLAN

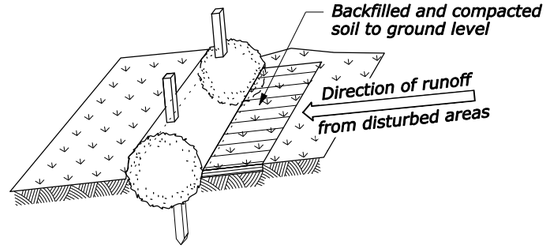
INSTALLATION BEYOND TOE OF SLOPE



INSTALLATION ALONG SLOPES



Step 1: Excavate trench and install wattles



Step 2: Backfill soil against wattles

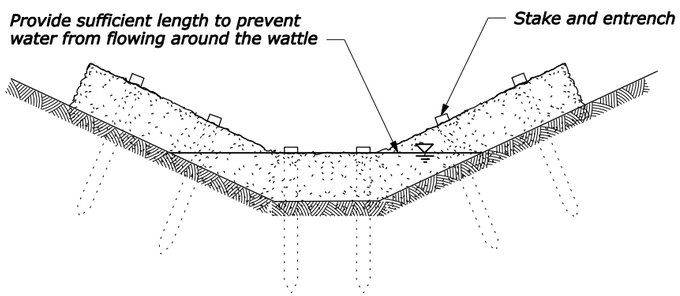
NOTE:

1. Drive stakes at each end and at 1.2 m spacing until wattle is secure to slope. Do not crush wattle while staking. Live stakes may be used for permanent installations.
2. Use drainage ditch installation only in low flow conditions.
3. Dimensions without units are millimeters.

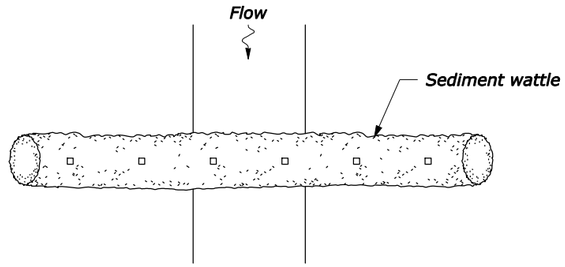
STAKES REQUIRED	
Wattle length (m)	Stakes required for each wattle
7.5	8
6.0	6
3.5	4

WATTLE SPACING	
Slope	Spacing (m)
1:4 or flatter	12
1:3	9
1:2	6
1:1	3

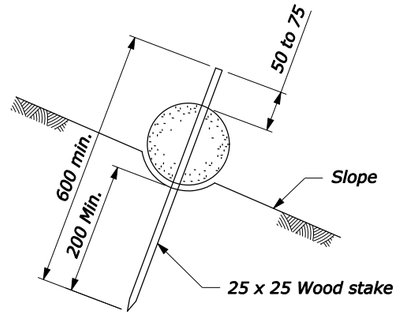
PROPERLY STAKED AND ENTRENCHED WATTLE



ELEVATION



PLAN



WATTLE STAKING DETAIL

DRAINAGE DITCH INSTALLATION

NO SCALE

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

METRIC DETAIL

SEDIMENT WATTLE

DETAIL APPROVED FOR USE 9/2007

REVISED:

DETAIL WM157-20

14 October 2009 11:44 AM

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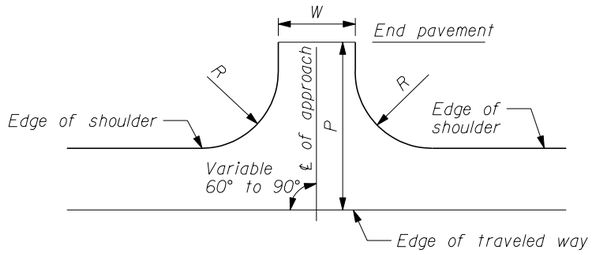
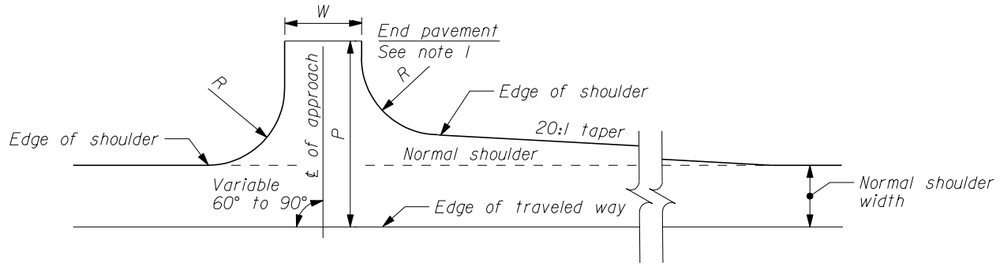
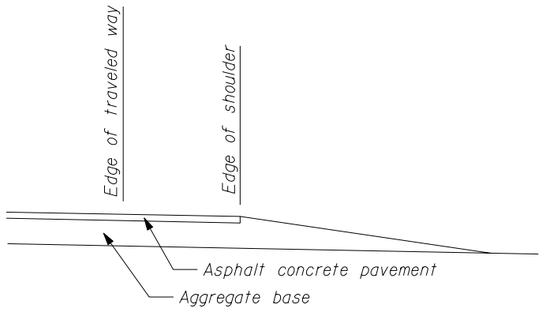
STATE	PROJECT	SHEET NUMBER



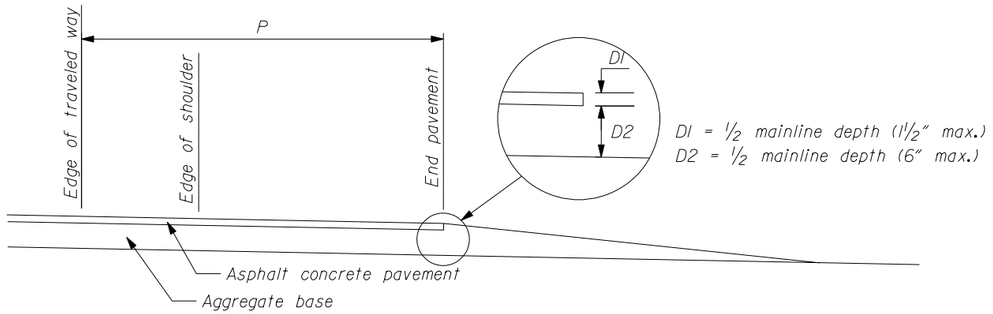
TYPE 1 AND 2



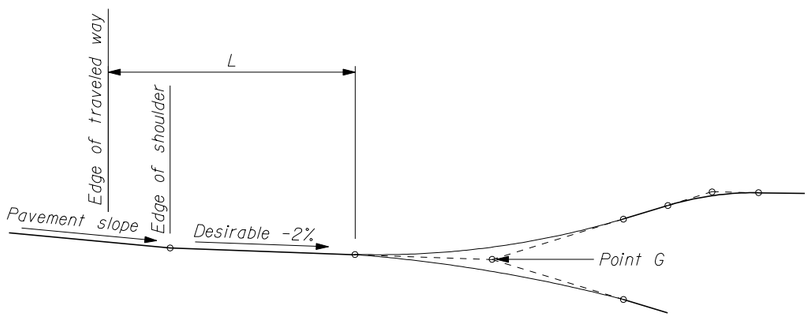
TYPE 3



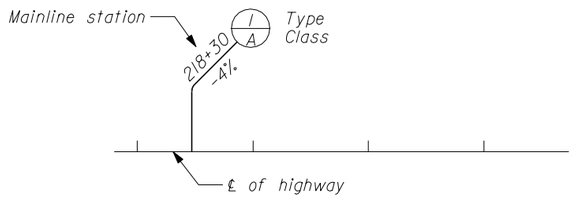
TYPE 1 APPROACH
(UNPAVED)



TYPE 2 APPROACHES



APPROACH PROFILE

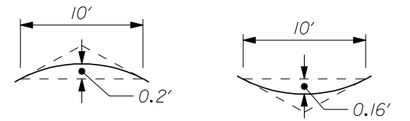


ROAD APPROACH SYMBOL

NO SCALE

NOTE:

1. Finish Type 3 approaches to public roads (county, state and municipalities) and public or private roads used for commercial purposes with the same pavement structure as shown for the adjacent roadbed.
2. Finish other approaches with untreated base. Provide a wearing surface of the same treatment as shown for the adjacent roadbed, but limit the depth to 1 ½" maximum.
3. Construct side slope ratio and degree of finish of approaches compatible with adjacent roadway construction.



MAXIMUM CREST MAXIMUM SAG

Where approach grades meet without vertical curves, limit the maximum algebraic difference to 8% on crests and 12% on sags.

ROAD APPROACHES

TYPE	CLASS	W	R	L (min.)	P
		Dimensions in feet			
Single owner use					
1	A	16	16	16	N/A
2 or 3	A	16	16	16	16
2 or 3	B	20	16	16	16
Two-way multiple use					
2 or 3	C	26	16	to R/W	to R/W
2 or 3	D	32	30	to R/W	to R/W
Public road approach					
3	E	32	55	55	55

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

DETAIL

STANDARD OREGON ROAD APPROACH

DETAIL APPROVED FOR USE 12/2002

REVISED:

DETAIL W200-2

12/24/02

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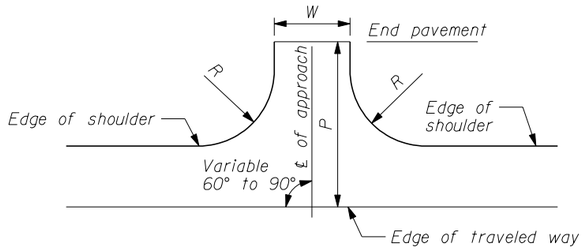
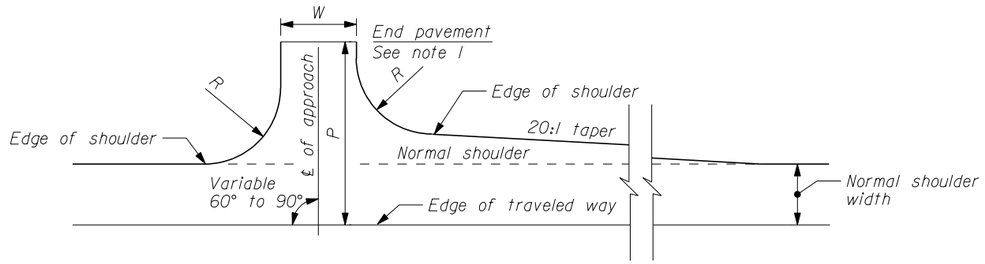
STATE	PROJECT	SHEET NUMBER



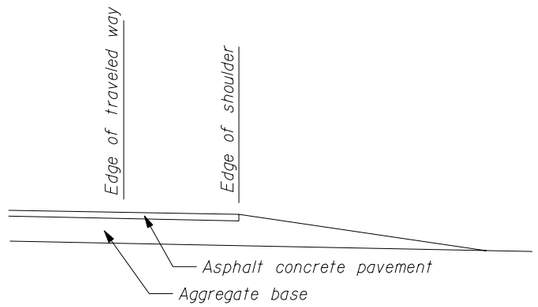
TYPE 1 AND 2



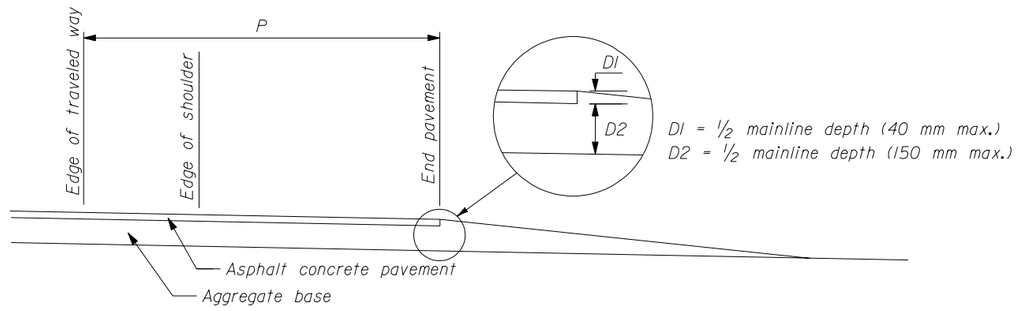
TYPE 3

NOTE:

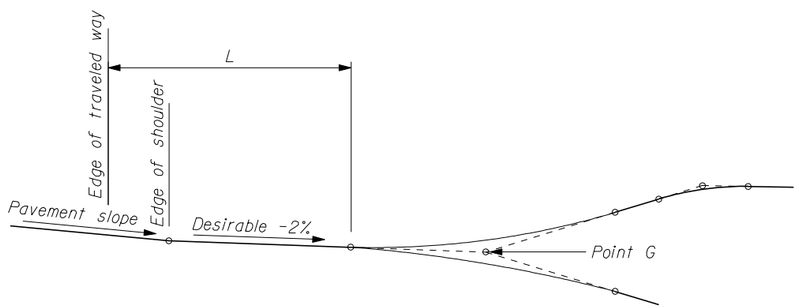
1. Finish Type 3 approaches to public roads (county, state and municipalities) and public or private roads used for commercial purposes with the same pavement structure as shown for the adjacent roadbed.
2. Finish other approaches with untreated base. Provide a wearing surface of the same treatment as shown for the adjacent roadbed, but limit the depth to 40 mm maximum.
3. Construct side slope ratio and degree of finish of approaches compatible with adjacent roadway construction.
4. Dimensions not labeled are in millimeters.



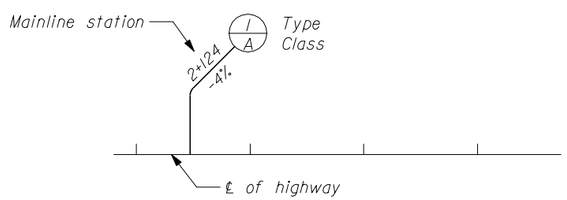
TYPE 1 APPROACH (UNPAVED)



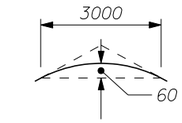
TYPE 2 APPROACHES



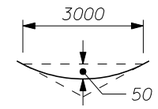
APPROACH PROFILE



ROAD APPROACH SYMBOL



MAXIMUM CREST



MAXIMUM SAG

Where approach grades meet without vertical curves, limit the maximum algebraic difference to 8% on crests and 12% on sags.

ROAD APPROACHES

TYPE	CLASS	W	R	L (min.)	P
		Dimensions in meters			
Single owner use					
1	A	4.8	4.8	4.8	N/A
2 or 3	A	4.8	4.8	4.8	4.8
2 or 3	B	6.0	4.8	4.8	4.8
Two-way multiple use					
2 or 3	C	7.8	4.8	to R/W	to R/W
2 or 3	D	9.6	9.0	to R/W	to R/W
Public road approach					
3	E	9.6	16.5	16.5	16.5

NO SCALE

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

METRIC DETAIL

STANDARD OREGON ROAD APPROACH

DETAIL APPROVED FOR USE 3/1996

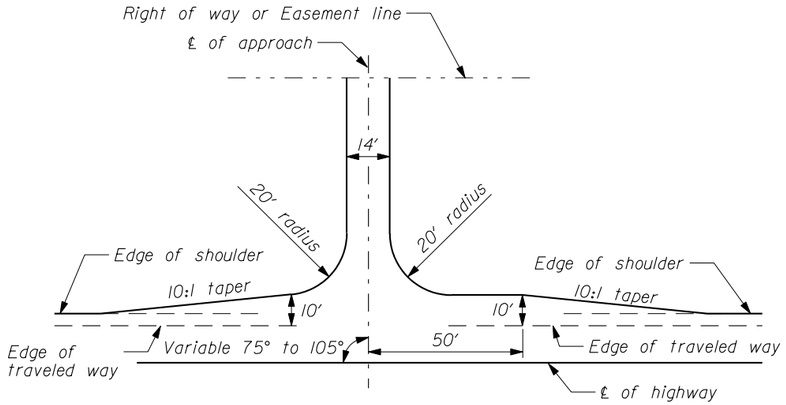
REVISED: 12/2000 9/2001 12/2002

DETAIL WM200-2

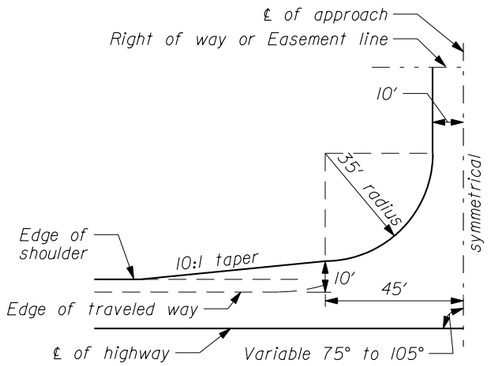
12/24/02

F:\StanDraw\Western\wm20002.dgn

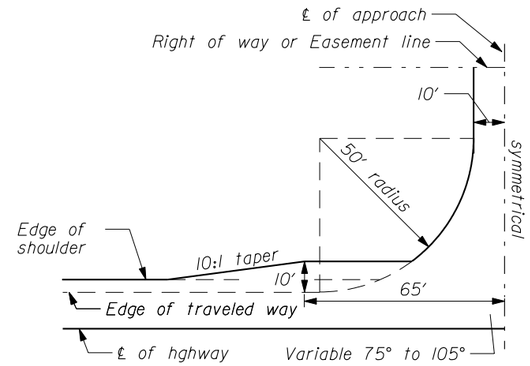
STATE	PROJECT	SHEET NUMBER



PLAN OF TYPE A APPROACH



PLAN OF TYPE B APPROACH

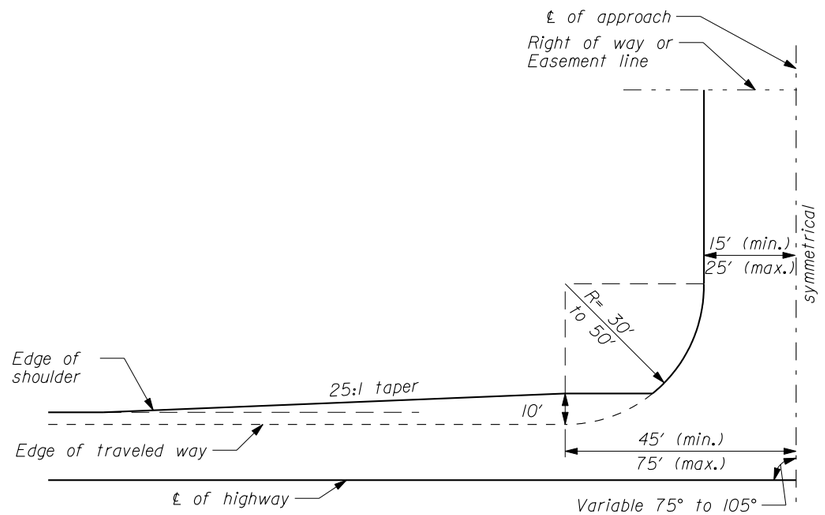


PLAN OF TYPE C APPROACH

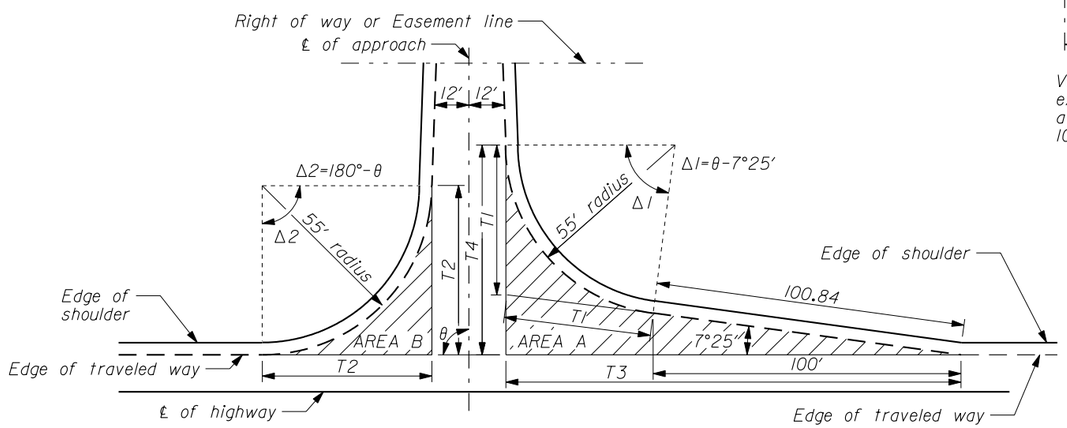
NOTE:

1. Continue approach radius as required if connection to existing alignment of new approach is at an angle.
2. Finish Type D and M approaches with the same treatment as shown for the adjacent roadbed.
3. Finish other approaches with the same treatment as shown for the adjacent roadbed, except the surface course shall not exceed $1\frac{1}{2}$ inches in depth.
4. Extend paving to the right-of-way or easement line unless otherwise shown on the plans.
5. Construct side slope ratios and finish approaches compatible with the adjacent roadway construction.

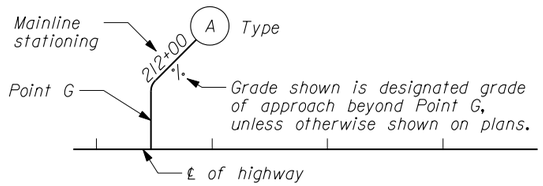
TYPE M INTERSECTION DATA								
SKEW θ	Δ1	Δ2	T1 ft	T2 ft	T3 ft	T4 ft	Area A sqyd	Area B sqyd
75°	67°35″	105°	36.81	71.68	131.74	55.20	157	130
76°	68°35″	104°	37.51	70.40	132.74	55.91	160	125
77°	69°35″	103°	38.21	69.14	133.75	56.64	163	120
78°	70°35″	102°	38.93	67.92	134.77	57.38	166	116
79°	71°35″	101°	39.66	66.72	135.80	58.13	169	111
80°	72°35″	100°	40.39	65.55	136.84	58.90	173	107
81°	73°35″	99°	41.13	64.40	137.89	59.69	176	103
82°	74°35″	98°	41.89	63.27	138.95	60.49	179	99
83°	75°35″	97°	42.65	62.17	140.02	61.31	183	95
84°	76°35″	96°	43.42	61.08	141.10	62.15	187	92
85°	77°35″	95°	44.21	60.02	142.20	63.00	191	88
86°	78°35″	94°	45.00	58.98	143.31	63.88	194	85
87°	79°35″	93°	45.81	57.96	144.44	64.77	198	81
88°	80°35″	92°	46.63	56.95	145.57	65.68	203	78
89°	81°35″	91°	47.46	55.97	146.73	66.61	207	75
90°	82°35″	90°	48.30	55.00	147.90	67.56	211	72
91°	83°35″	89°	49.16	54.05	149.09	68.53	216	69
92°	84°35″	88°	50.03	53.11	150.29	69.52	220	66
93°	85°35″	87°	50.92	52.19	151.52	70.53	225	64
94°	86°35″	86°	51.81	51.29	152.76	71.57	230	61
95°	87°35″	85°	52.73	50.40	154.02	72.63	235	59
96°	88°35″	84°	53.66	49.52	155.30	73.71	240	56
97°	89°35″	83°	54.60	48.66	156.61	74.82	245	54
98°	90°35″	82°	55.56	47.81	157.94	75.95	251	52
99°	91°35″	81°	56.54	46.97	159.29	77.11	257	49
100°	92°35″	80°	57.54	46.15	160.66	78.30	263	47
101°	93°35″	79°	58.55	45.34	162.06	79.51	269	45
102°	94°35″	78°	59.59	44.54	163.49	80.76	275	43
103°	95°35″	77°	60.64	43.75	164.94	82.03	281	42
104°	96°35″	76°	61.71	42.97	166.43	83.34	288	40
105°	97°35″	75°	62.81	42.20	167.94	84.68	295	38



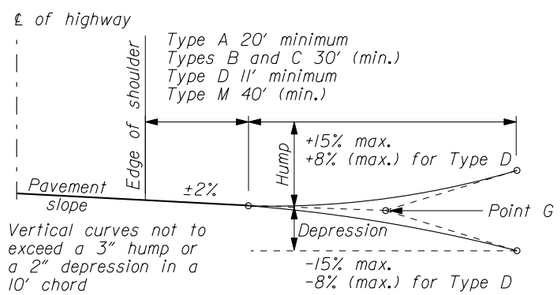
PLAN OF TYPE D APPROACH



PLAN OF TYPE M APPROACH



ROAD APPROACH LOCATIONS ON PLAN SHEETS



PROFILE OF TYPE A, B, C, D, M APPROACHES

NO SCALE

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

DETAIL

STANDARD WASHINGTON ROAD APPROACHES

DETAIL APPROVED FOR USE 3/2003	DETAIL
REVISED: 4/2003	W200-4

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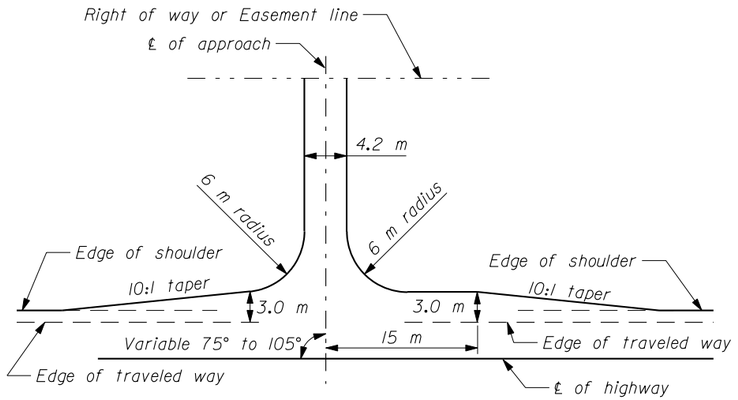
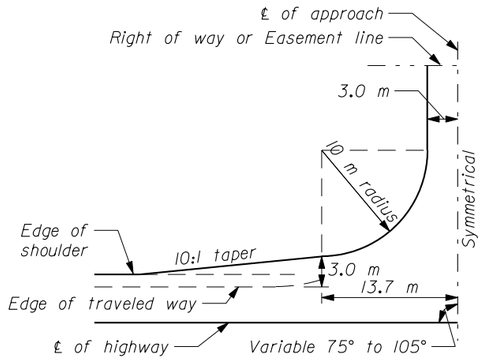
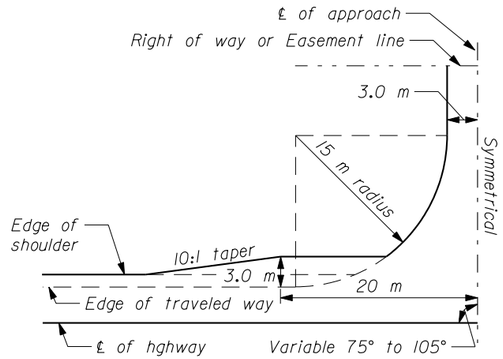
STATE	PROJECT	SHEET NUMBER



PLAN OF TYPE A APPROACH



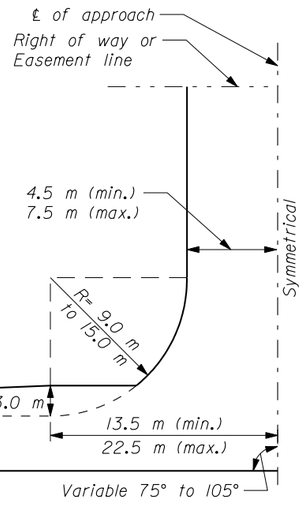
PLAN OF TYPE B APPROACH



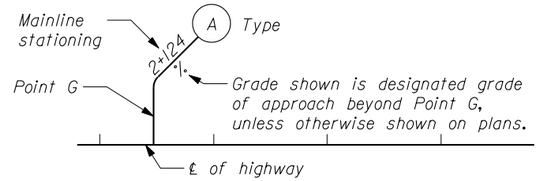
PLAN OF TYPE C APPROACH

NOTE:

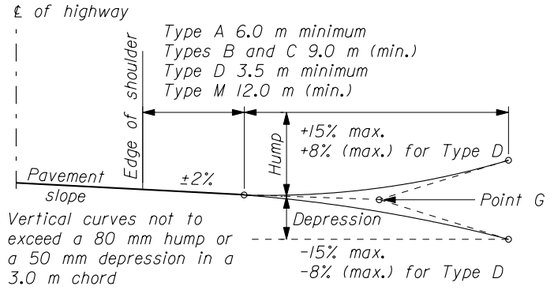
1. Continue approach radius as required if connection to existing alignment of new approach is at an angle.
2. Finish Type D and M approaches with the same treatment as shown for the adjacent roadbed.
3. Finish other approaches with the same treatment as shown for the adjacent roadbed, except the surface course shall not exceed 40 mm in depth.
4. Extend paving to the right-of-way or easement line unless otherwise shown on the plans.
5. Construct side slope ratios and finish approaches compatible with the adjacent roadway construction.
6. Dimensions not labeled are in millimeters.



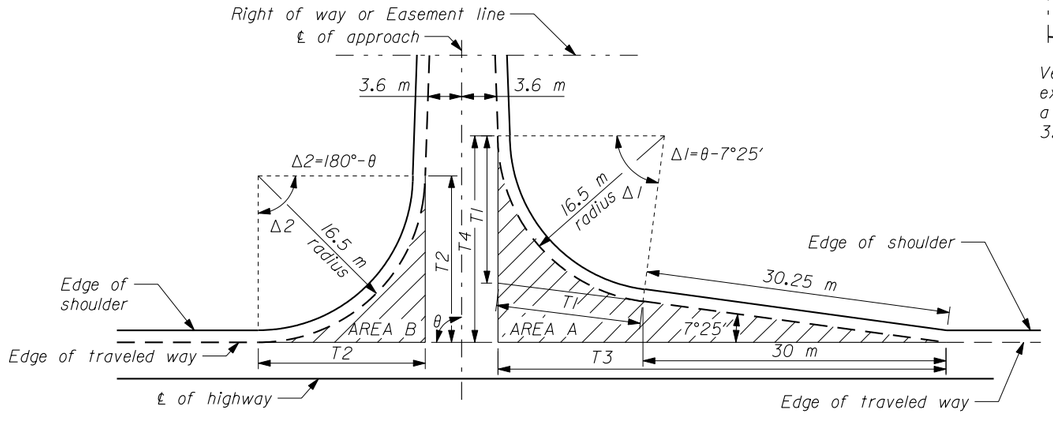
PLAN OF TYPE D APPROACH



ROAD APPROACH LOCATIONS ON PLAN SHEETS



PROFILE OF TYPE A, B, C, D, M APPROACHES



PLAN OF TYPE M APPROACH

TYPE M INTERSECTION DATA

SKEW θ	Δ1	Δ2	T1 m	T2 m	T3 m	T4 m	Area A m2	Area B m2
75°	67°35″	105°	11.04	21.50	39.52	16.56	127	105
76°	68°35″	104°	11.25	21.12	39.82	16.77	129	101
77°	69°35″	103°	11.46	20.74	40.13	16.99	132	98
78°	70°35″	102°	11.68	20.38	40.43	17.21	134	94
79°	71°35″	101°	11.90	20.02	40.74	17.44	137	90
80°	72°35″	100°	12.12	19.66	41.05	17.67	140	87
81°	73°35″	99°	12.34	19.32	41.37	17.91	143	84
82°	74°35″	98°	12.57	18.98	41.68	18.15	145	80
83°	75°35″	97°	12.79	18.65	42.01	18.39	148	77
84°	76°35″	96°	13.03	18.33	42.33	18.64	151	74
85°	77°35″	95°	13.26	18.01	42.66	18.90	154	71
86°	78°35″	94°	13.50	17.69	42.99	19.16	157	69
87°	79°35″	93°	13.74	17.39	43.33	19.43	161	66
88°	80°35″	92°	13.99	17.09	43.67	19.70	164	63
89°	81°35″	91°	14.24	16.79	44.02	19.98	168	61
90°	82°35″	90°	14.49	16.50	44.37	20.27	171	58
91°	83°35″	89°	14.75	16.21	44.73	20.56	175	56
92°	84°35″	88°	15.01	15.93	45.09	20.86	178	54
93°	85°35″	87°	15.27	15.66	45.45	21.16	182	52
94°	86°35″	86°	15.54	15.39	45.83	21.47	186	50
95°	87°35″	85°	15.82	15.12	46.21	21.79	190	48
96°	88°35″	84°	16.10	14.86	46.59	22.11	195	46
97°	89°35″	83°	16.38	14.60	46.98	22.45	199	44
98°	90°35″	82°	16.67	14.34	47.38	22.79	203	42
99°	91°35″	81°	16.96	14.09	47.79	23.13	208	40
100°	92°35″	80°	17.26	13.85	48.20	23.49	213	38
101°	93°35″	79°	17.57	13.60	48.62	23.85	218	37
102°	94°35″	78°	17.88	13.36	49.05	24.23	223	35
103°	95°35″	77°	18.19	13.12	49.48	24.61	228	34
104°	96°35″	76°	18.51	12.89	49.93	25.00	233	32
105°	97°35″	75°	18.84	12.66	50.38	25.40	239	31

NO SCALE

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

METRIC DETAIL

STANDARD WASHINGTON ROAD APPROACHES

DETAIL APPROVED FOR USE 3/1996

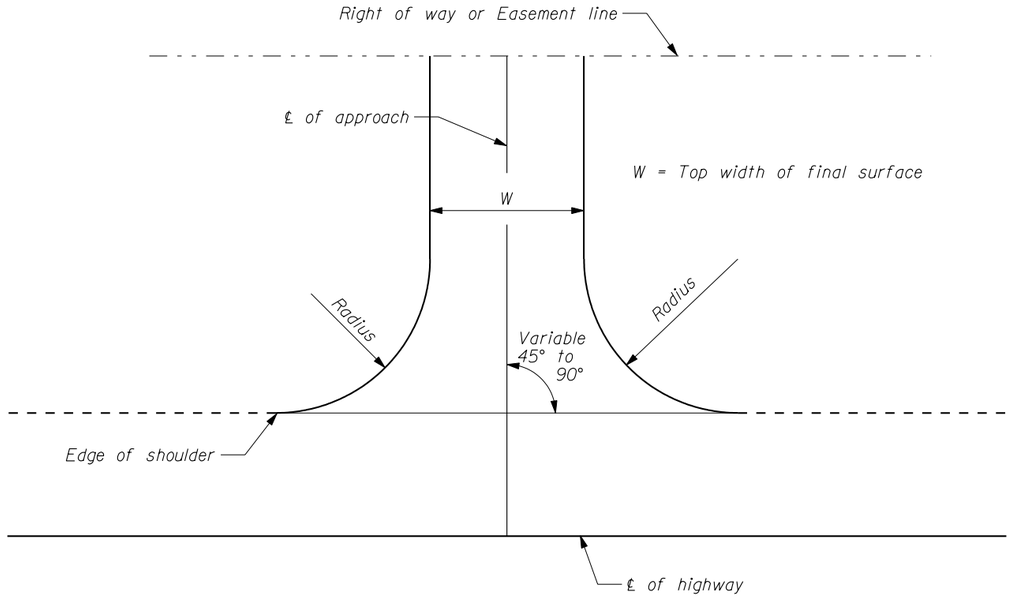
REVISED: 3/1999 12/2000 3/2003 4/2003

DETAIL WM200-4

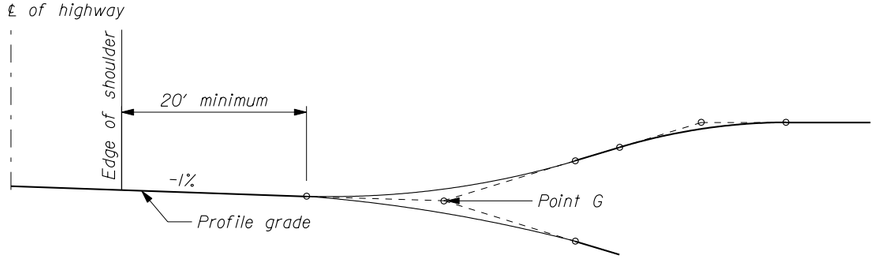
26-Feb-2004 01:25 AM

F:\StanDraw\Western\wm20004.dgn

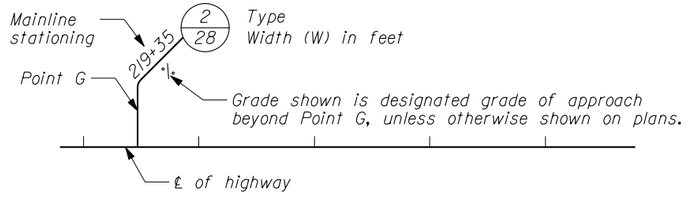
STATE	PROJECT	SHEET NUMBER



APPROACHES FOR UNCURBED HIGHWAYS
TYPE 1 AND TYPE 2



APPROACH PROFILE



ROAD APPROACH LOCATIONS
ON PLAN SHEETS

NO SCALE

NOTE:

1. TYPE 1 APPROACH:
   Top width (W) - 16′ minimum
   Radius - 20′ minimum

2. TYPE 2 APPROACH:
   Top width (W) - 24′ minimum
   Radius - 30′ minimum

3. GRADING REQUIREMENTS: Construct sideslopes of finish approaches compatible with adjacent roadway construction.

4. PAVEMENT STRUCTURE REQUIREMENTS: Extend the surface course to the right-of-way or easement line unless otherwise shown on the plans.

5. Finish approaches to public roads used for commercial purposes with same treatment as shown for the adjacent roadbed.

6. Finish other approaches with aggregate base. Provide a surface course of the same treatment as shown for the adjacent roadbed, but do not exceed 1½″ in depth.

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

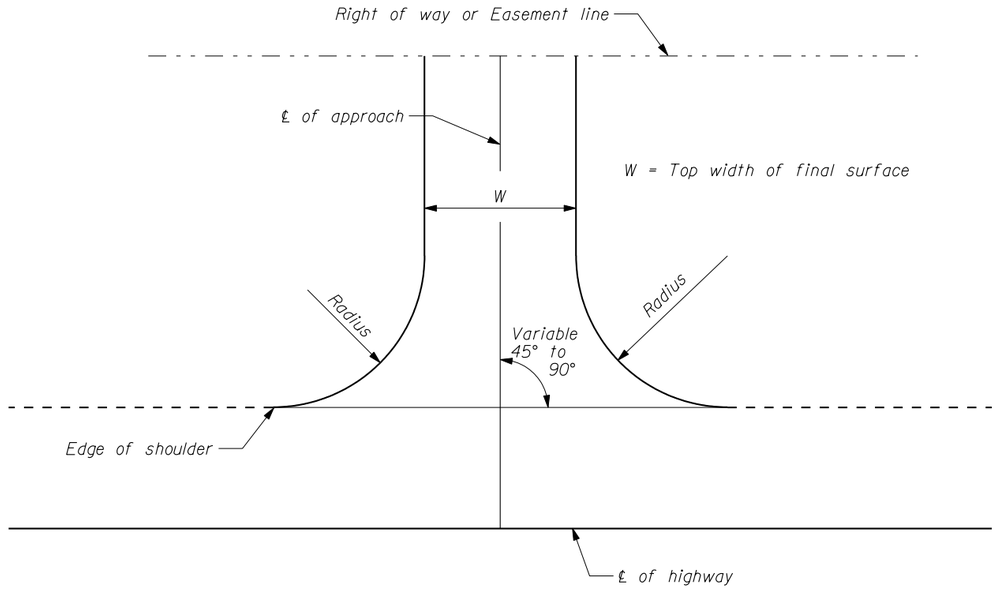
DETAIL

STANDARD IDAHO ROAD APPROACH

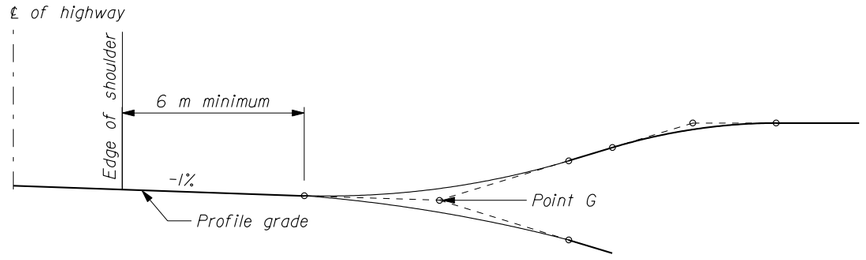
DETAIL APPROVED FOR USE 3/2003	DETAIL
REVISED:	W200-5

f:\StanDraw\Western\w20005.dgn 3/18/2003

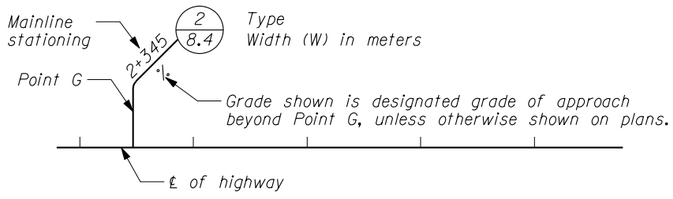
STATE	PROJECT	SHEET NUMBER



APPROACHES FOR UNCURBED HIGHWAYS
TYPE 1 AND TYPE 2



APPROACH PROFILE



ROAD APPROACH LOCATIONS
ON PLAN SHEETS

NOTE:

1. TYPE 1 APPROACH:
   Top width (W) - 4.8 m minimum
   Radius - 6 m minimum
2. TYPE 2 APPROACH:
   Top width (W) - 7.2 m minimum
   Radius - 9 m minimum
3. GRADING REQUIREMENTS: Construct sideslopes of finish approaches compatible with adjacent roadway construction.
4. PAVEMENT STRUCTURE REQUIREMENTS: Extend the surface course to the right-of-way or easement line unless otherwise shown on the plans.
5. Finish approaches to public roads used for commercial purposes with same treatment as shown for the adjacent roadbed.
6. Finish other approaches with aggregate base. Provide a surface course of the same treatment as shown for the adjacent roadbed, but do not exceed 40 mm in depth.
7. Dimensions not labeled are in millimeters.

NO SCALE

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

METRIC DETAIL

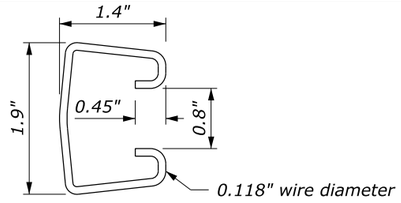
STANDARD IDAHO ROAD APPROACH

DETAIL APPROVED FOR USE 3/1996
REVISED: 12/2000 3/2003

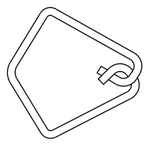
DETAIL
WM200-5

3/18/2003
f:\StanDraw\Western\wm20005.dgn

STATE	PROJECT	SHEET NUMBER



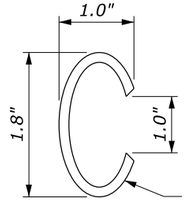
BEFORE CLOSURE



AFTER CLOSURE

NOTE:
All dimensions
are nominal

INTERLOCKING WIRE FASTENER



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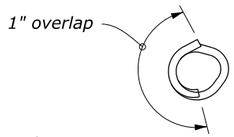
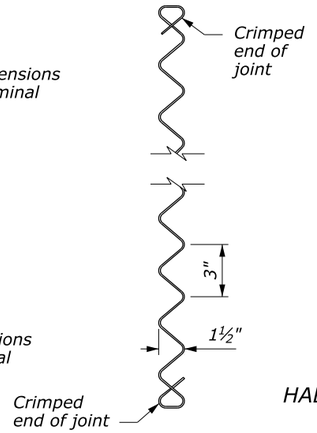


AFTER CLOSURE

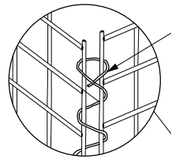
NOTE:
All dimensions
are nominal

OVERLAPPING RING WIRE FASTENER
(Not allowed for basket to basket connection)

ALTERNATE TYING FASTENERS

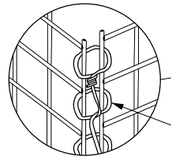


0.150" DIAMETER SPIRAL BINDER

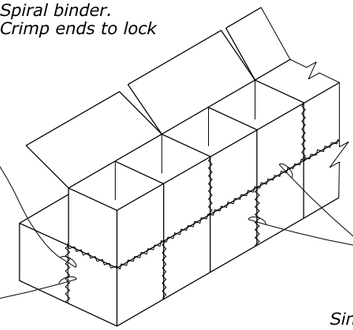


Spiral binder.
Crimp ends to lock

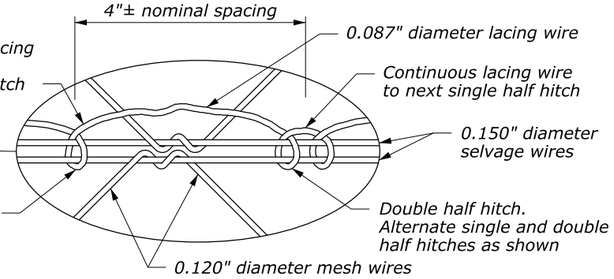
SPIRAL BINDER TIE
(Welded wire mesh)



Lacing wire. Tie with half
hitch loops at 3" spacing

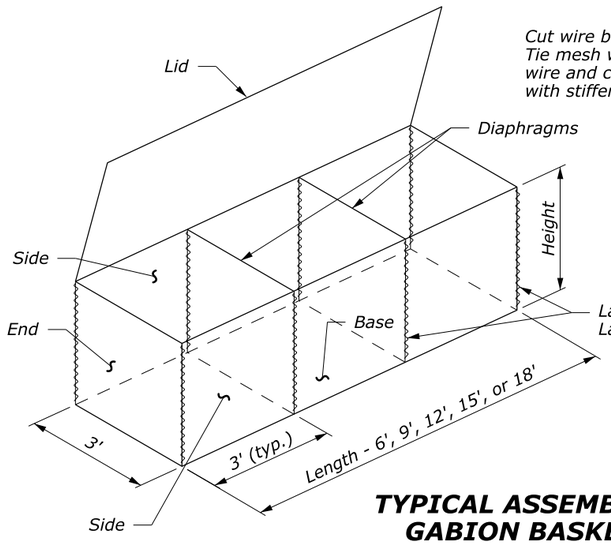


HALF HITCH LACING DETAIL
(Welded wire mesh)

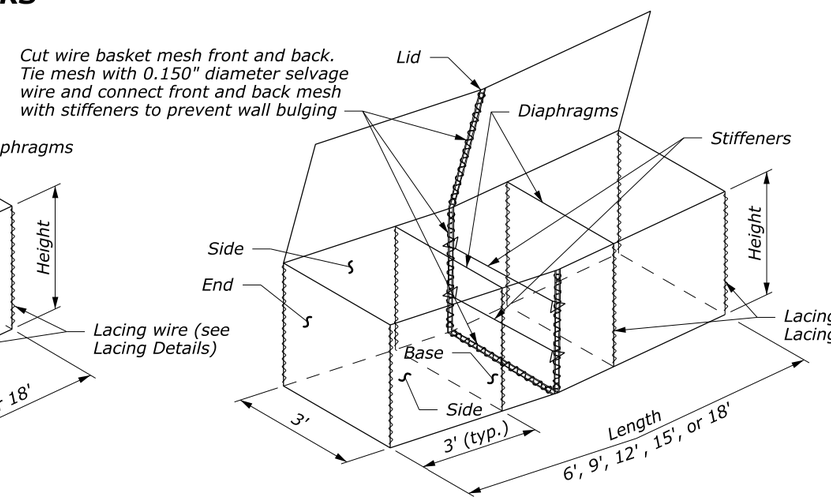


HALF HITCH LACING DETAIL
(Twisted wire mesh)

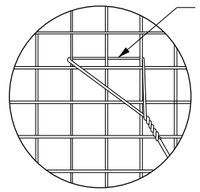
TYPICAL INSTALLATION GABION BASKETS



TYPICAL ASSEMBLED GABION BASKET

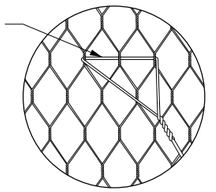


ASSEMBLED GABION BASKET IN WALL GRADE TRANSITION AREAS

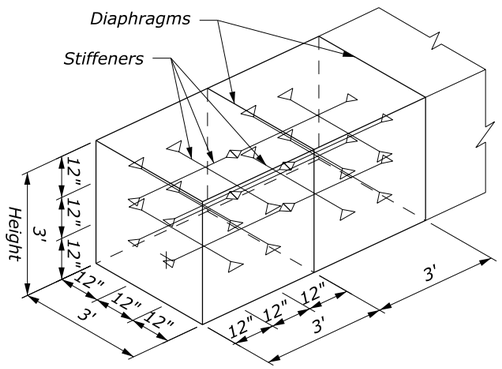


Loop two meshes at
each end of stiffener

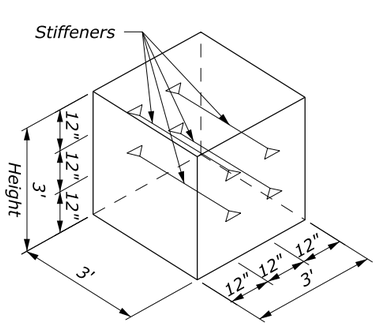
WELDED WIRE MESH



TWISTED WIRE MESH



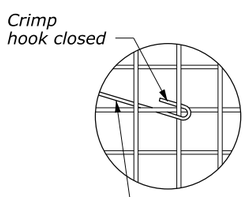
ALL END GABION CELLS

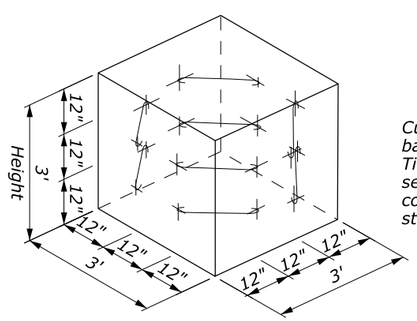


ALL INTERIOR GABION CELLS

TYPICAL STIFFENERS

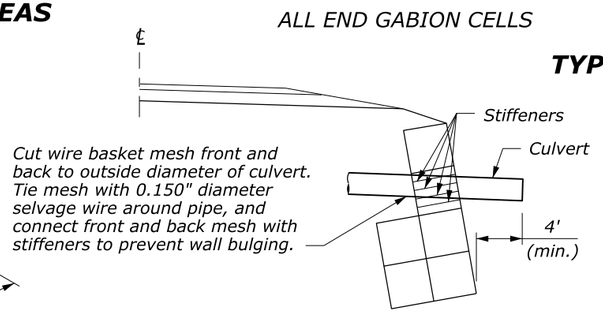
GABION BASKET NOMINAL SIZES AND CAPACITY				
Size Code Letter	Size in feet		Diaphragm Partitions	Capacity (CUYD)
	Length	Height		
A	6	3.0	1	2.00
B	9	3.0	2	3.00
C	12	3.0	3	4.00
X	15	3.0	4	5.00
Y	18	3.0	5	6.00
D	6	1.5	1	1.00
E	9	1.5	2	1.50
F	12	1.5	3	2.00
G	6	1.0	1	0.67
H	9	1.0	2	1.00
I	12	1.0	3	1.33





ALL GABION CELLS

OPTIONAL STIFFENERS WELDED WIRE GABION BASKET



Cut wire basket mesh front and
back to outside diameter of culvert.
Tie mesh with 0.150" diameter
selvage wire around pipe, and
connect front and back mesh with
stiffeners to prevent wall bulging.

TYPICAL CULVERT INSTALLATION
THROUGH GABION WALL

NO SCALE

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

U.S. CUSTOMARY DETAIL

GABION BASKET

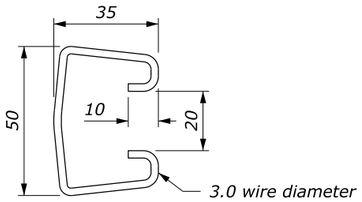
DETAIL APPROVED FOR USE --/----

REVISED:
DRAFT: 9/2011

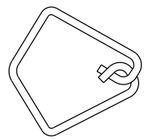
DETAIL
W253-1

1 September 2011 9:02 AM c:\myfiles\pw_production\dms43173\w25301.dgn [USC]

STATE	PROJECT	SHEET NUMBER



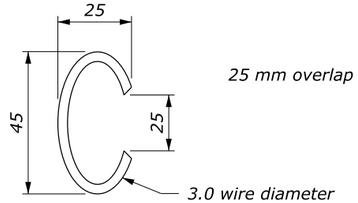
BEFORE CLOSURE



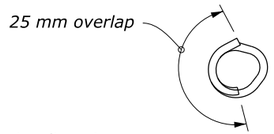
AFTER CLOSURE

NOTE:
All dimensions
are nominal

INTERLOCKING WIRE FASTENER



BEFORE CLOSURE

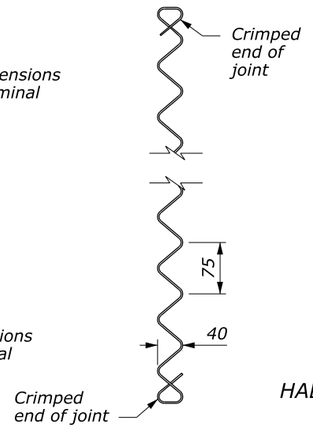


AFTER CLOSURE

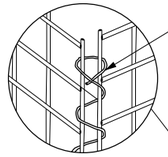
NOTE:
All dimensions
are nominal

OVERLAPPING RING WIRE FASTENER
(Not allowed for basket to basket connection)

ALTERNATE TYING FASTENERS

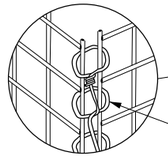


**3.8 mm DIAMETER
SPIRAL BINDER**



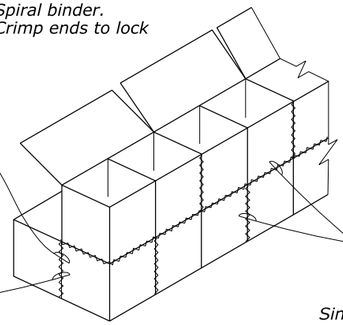
Spiral binder.
Crimp ends to lock

SPIRAL BINDER TIE
(Welded wire mesh)



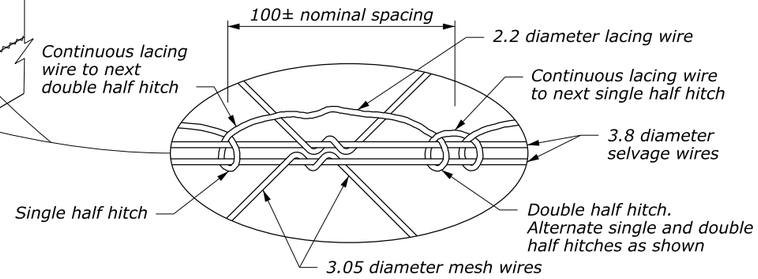
Lacing wire. Tie with half
hitch loops at 75 spacing

HALF HITCH LACING DETAIL
(Welded wire mesh)



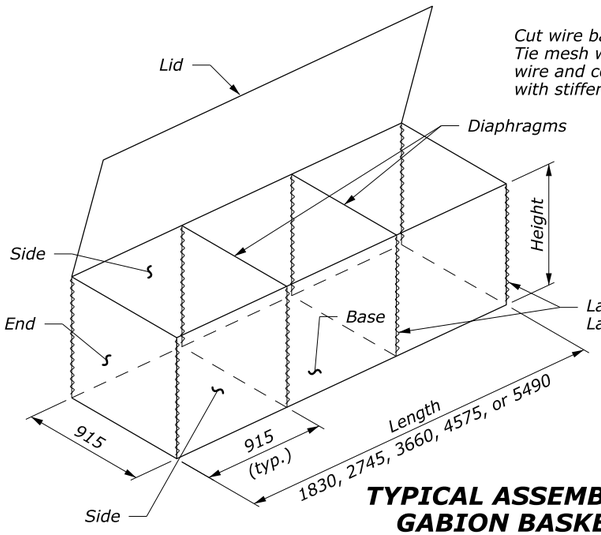
NOTE:

1. Dimensions not labeled are in millimeters.

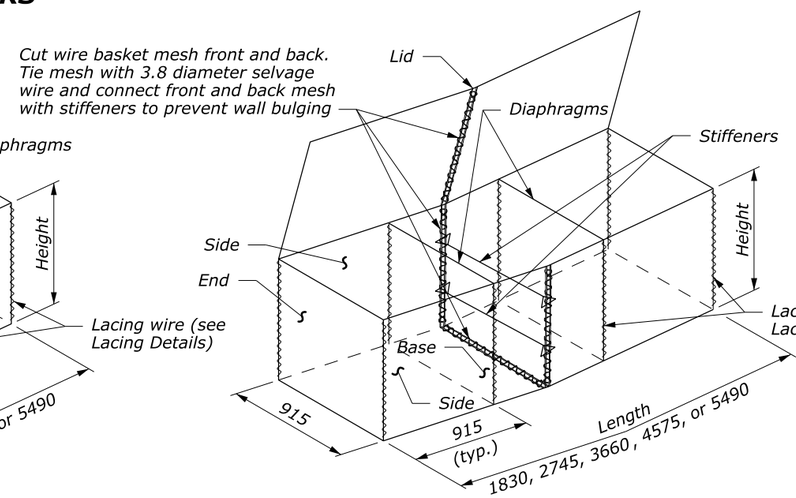


HALF HITCH LACING DETAIL
(Twisted wire mesh)

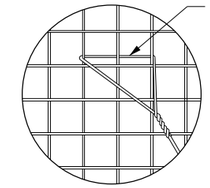
TYPICAL INSTALLATION GABION BASKETS



**TYPICAL ASSEMBLED
GABION BASKET**

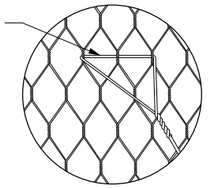


**ASSEMBLED GABION BASKET IN
WALL GRADE TRANSITION AREAS**



Loop two meshes at
each end of stiffener

WELDED WIRE MESH



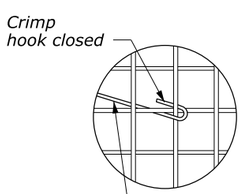
TWISTED WIRE MESH

ALL END GABION CELLS

ALL INTERIOR GABION CELLS

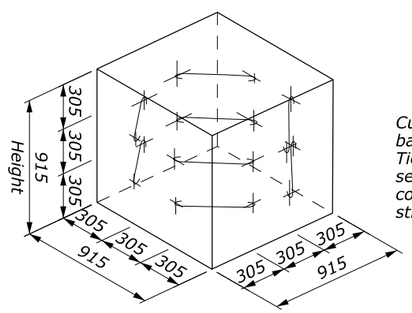
TYPICAL STIFFENERS

GABION BASKET NOMINAL SIZES AND CAPACITY				
Size Code Letter	Size in meters		Diaphragm Partitions	Capacity (m3)
	Length	Height		
A	1.83	0.915	1	1.5
B	2.75	0.915	2	2.3
C	3.66	0.915	3	3.1
X	4.58	0.915	4	3.8
Y	5.49	0.915	5	4.6
D	1.83	0.45	1	0.8
E	2.75	0.45	2	1.1
F	3.66	0.45	3	1.5
G	1.83	0.30	1	0.5
H	2.75	0.30	2	0.8
I	3.66	0.30	3	1.0



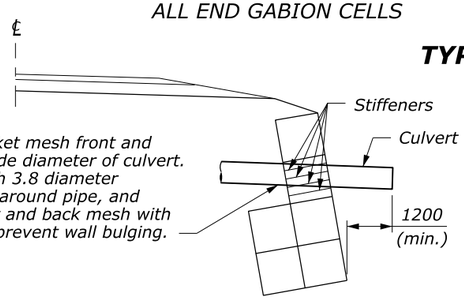
Crimp
hook closed

3.8 diameter
stiffener hooked at
intersection of wires



ALL GABION CELLS

**OPTIONAL STIFFENERS
WELDED WIRE GABION BASKET**



TYPICAL CULVERT INSTALLATION
THROUGH GABION WALL

NO SCALE

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

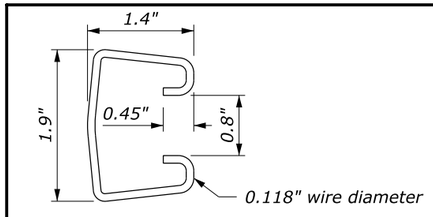
METRIC DETAIL

GABION BASKET

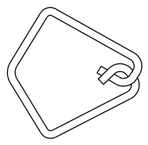
DETAIL APPROVED FOR USE --/----	DETAIL WM253-1
REVISED: DRAFT: 9/2011	

7 September 2011 11:41 AM c:\myfiles\pw_production\dms43173\w25301.dgn [Metric]

STATE	PROJECT	SHEET NUMBER



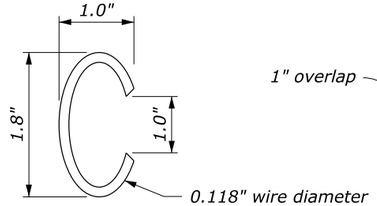
BEFORE CLOSURE



AFTER CLOSURE

NOTE:
All dimensions
are nominal

INTERLOCKING WIRE FASTENER



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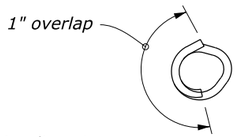
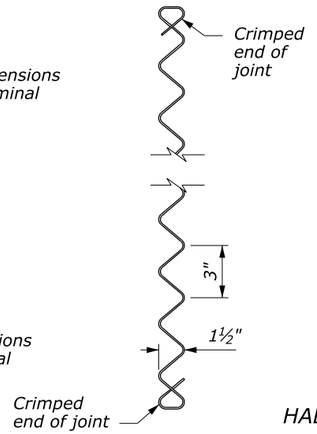


AFTER CLOSURE

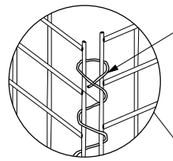
NOTE:
All dimensions
are nominal

OVERLAPPING RING WIRE FASTENER

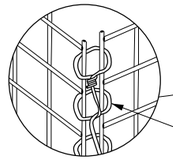
ALTERNATE TYING FASTENERS



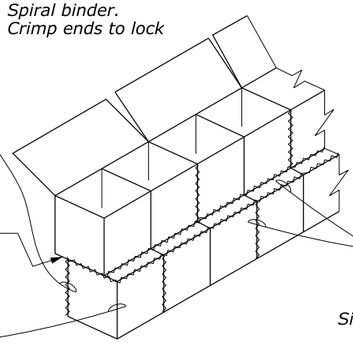
0.150" DIAMETER SPIRAL BINDER

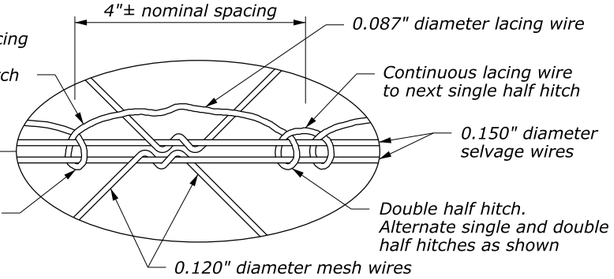


SPIRAL BINDER TIE
(Welded wire mesh)



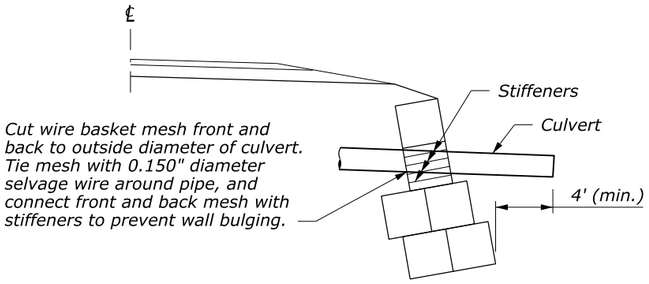
HALF HITCH LACING DETAIL
(Welded wire mesh)



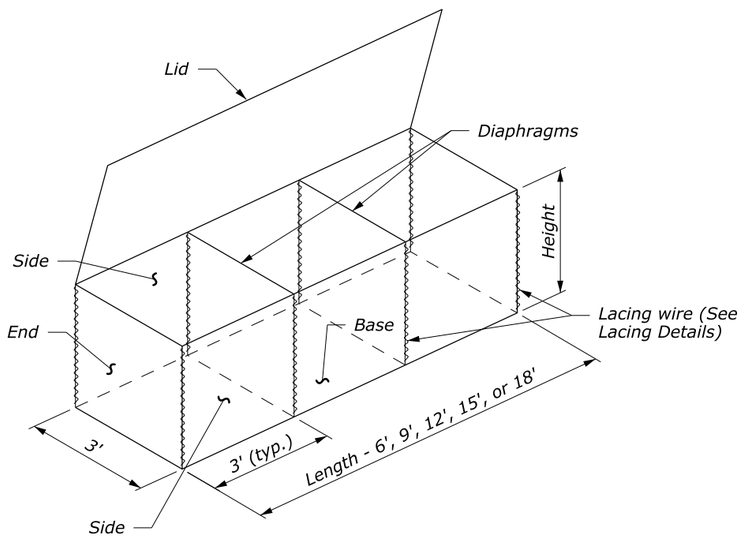


HALF HITCH LACING DETAIL
(Twisted wire mesh)

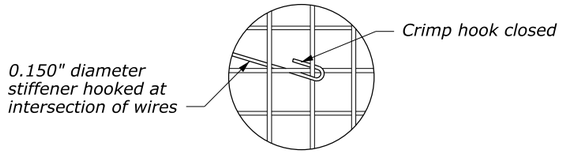
TYPICAL INSTALLATION GABION BASKETS

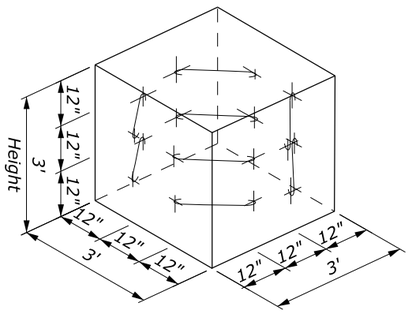


TYPICAL CULVERT INSTALLATION
THROUGH GABION WALL



TYPICAL ASSEMBLED GABION BASKET

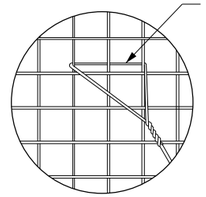




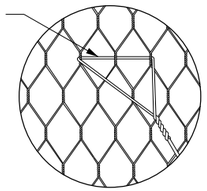
ALL GABION CELLS

OPTIONAL STIFFENERS
WELDED WIRE GABION BASKET

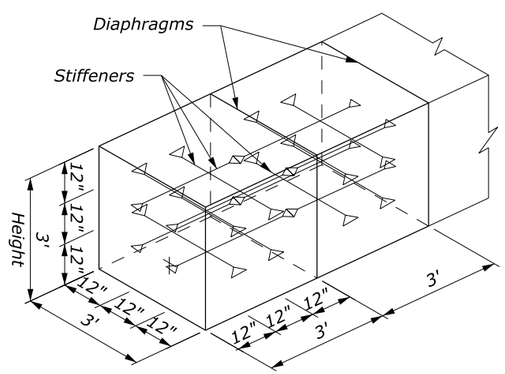
GABION BASKET NOMINAL SIZES AND CAPACITY				
Size Code Letter	Size in feet		Diaphragm Partitions	Capacity (CUYD)
	Length	Height		
A	6	3	1	2
B	9	3	2	3
C	12	3	3	4
X	15	3	4	5
Y	18	3	5	6



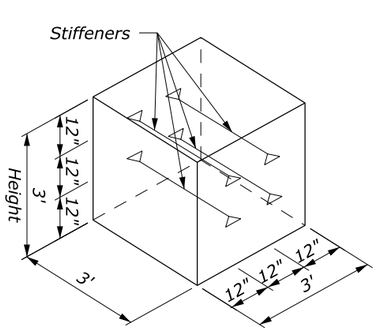
WELDED WIRE MESH



TWISTED WIRE MESH



ALL END GABION CELLS



ALL INTERIOR GABION CELLS

TYPICAL STIFFENERS

NO SCALE

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

U.S. CUSTOMARY DETAIL

GABION FACED WALL

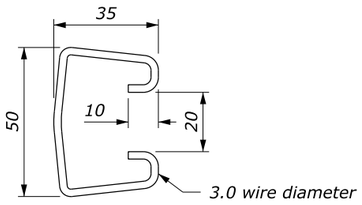
DETAIL APPROVED FOR USE --/---

REVISED:
DRAFT: 9/2011

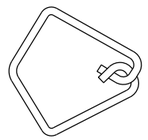
DETAIL
W253-2

7 September 2011 10:41 AM c:\myfiles\pw_production\dms43173\w25302.dgn [USC]

STATE	PROJECT	SHEET NUMBER



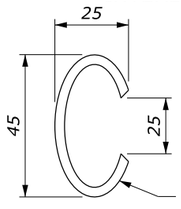
BEFORE CLOSURE



AFTER CLOSURE

NOTE:
All dimensions
are nominal

INTERLOCKING WIRE FASTENER



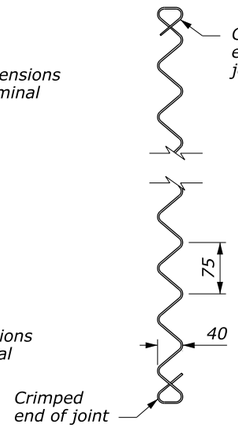
BEFORE CLOSURE

AFTER CLOSURE

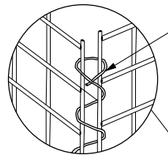
NOTE:
All dimensions
are nominal

OVERLAPPING RING WIRE FASTENER

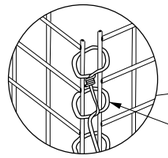
ALTERNATE TYING FASTENERS



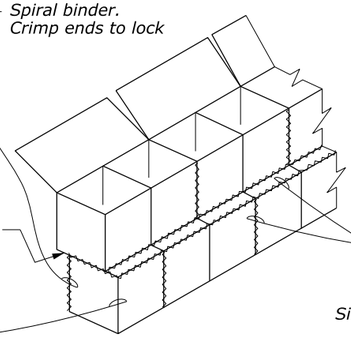
**3.8 mm DIAMETER
SPIRAL BINDER**



SPIRAL BINDER TIE
(Welded wire mesh)

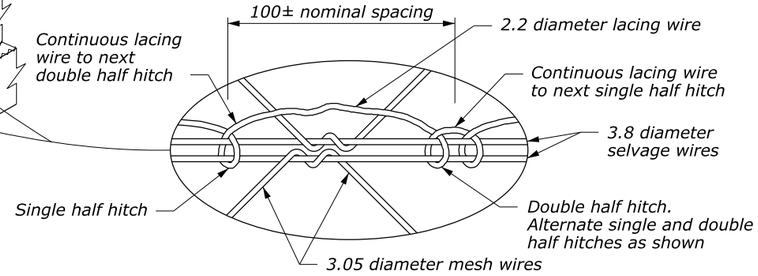


HALF HITCH LACING DETAIL
(Welded wire mesh)



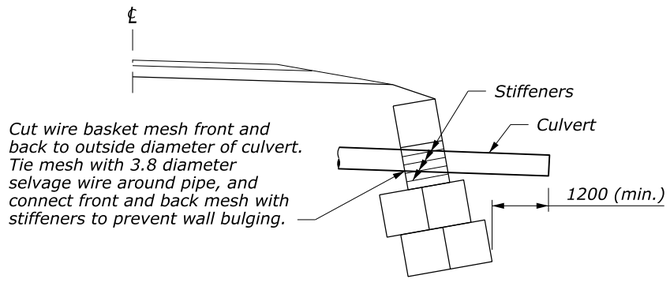
NOTE:

1. Dimensions without units are millimeters.

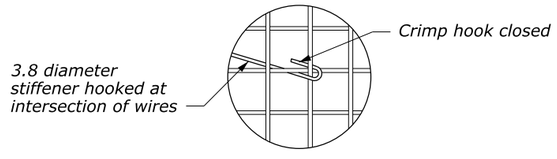


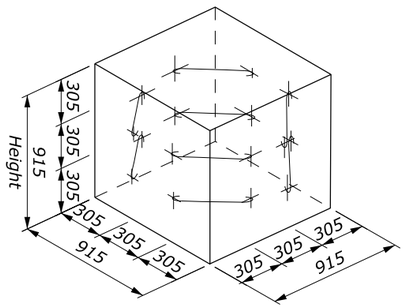
HALF HITCH LACING DETAIL
(Twisted wire mesh)

TYPICAL INSTALLATION GABION BASKETS



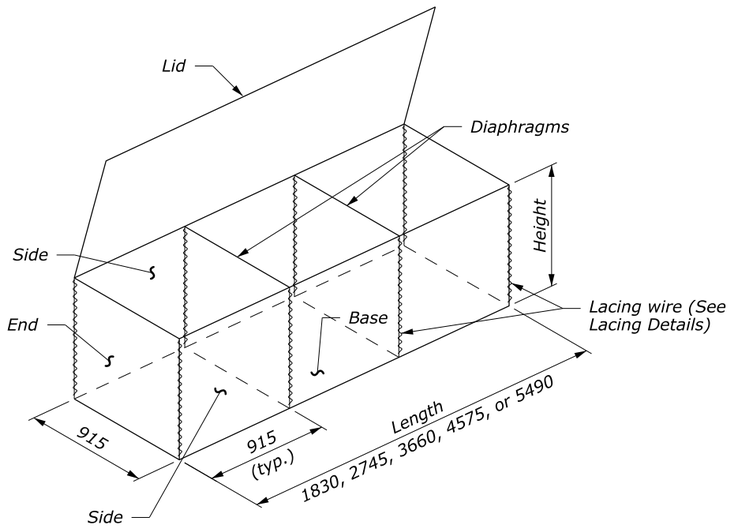
TYPICAL CULVERT INSTALLATION
THROUGH GABION WALL





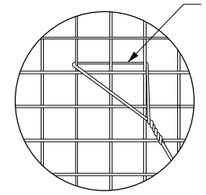
ALL GABION CELLS

**OPTIONAL STIFFENERS
WELDED WIRE GABION BASKET**

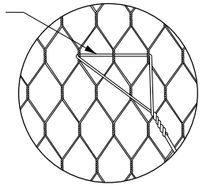


TYPICAL ASSEMBLED GABION BASKET

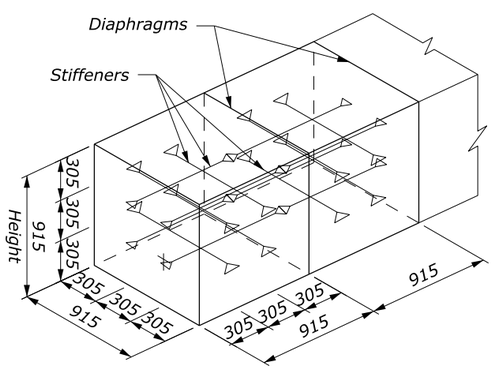
GABION BASKET NOMINAL SIZES AND CAPACITY				
Size Code Letter	Size in meters		Diaphragm Partitions	Capacity m3
	Length	Height		
A	1.83	0.915	1	1.5
B	2.75	0.915	2	2.3
C	3.66	0.915	3	3.1
X	4.58	0.915	4	3.8
Y	5.49	0.915	5	4.6



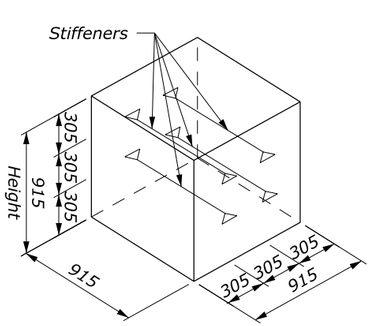
WELDED WIRE MESH



TWISTED WIRE MESH



ALL END GABION CELLS



ALL INTERIOR GABION CELLS

TYPICAL STIFFENERS

NO SCALE

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

METRIC DETAIL

GABION FACED WALL

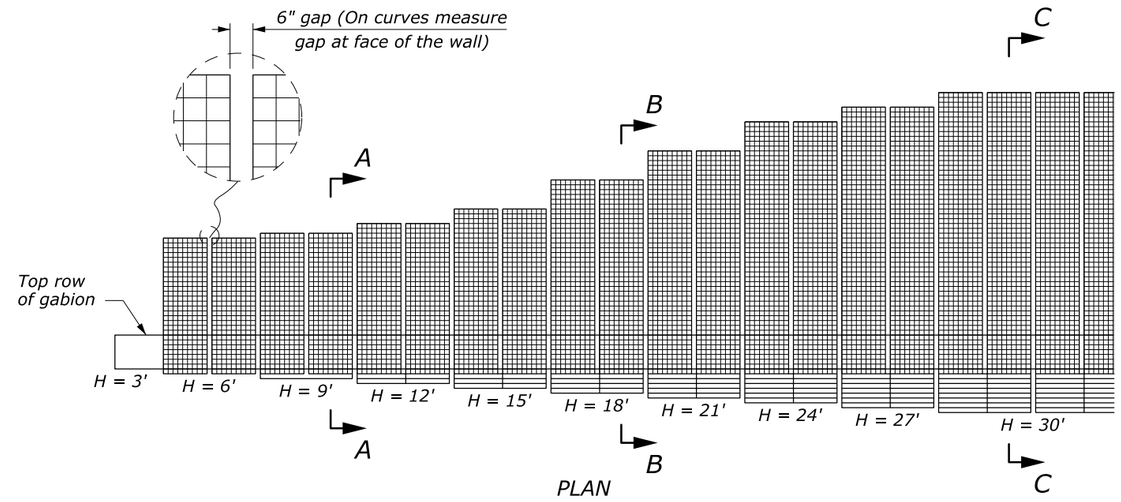
DETAIL APPROVED FOR USE --/----

REVISED:
DRAFT: 9/2011

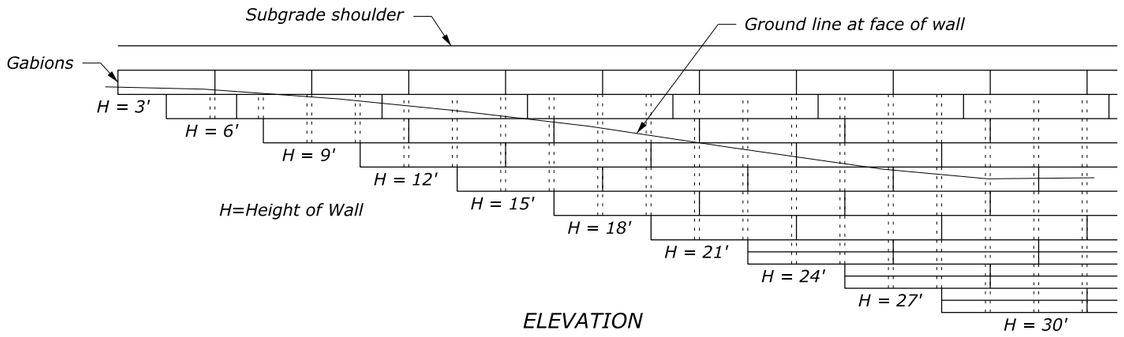
DETAIL
WM253-2

7 September 2011 4:04 PM c:\myfiles\pw_production\dms43173\w255302.dgn [Metric]

STATE	PROJECT	SHEET NUMBER

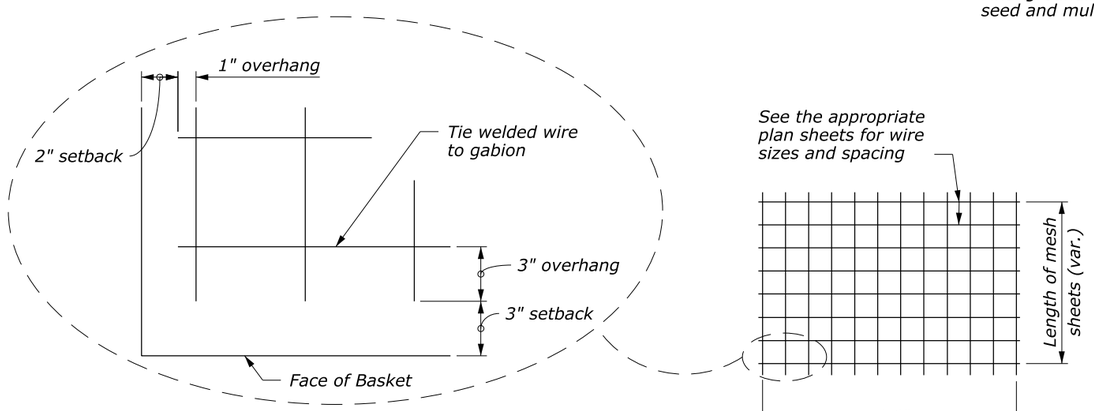


PLAN

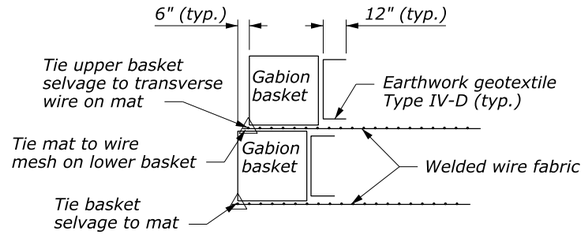


ELEVATION

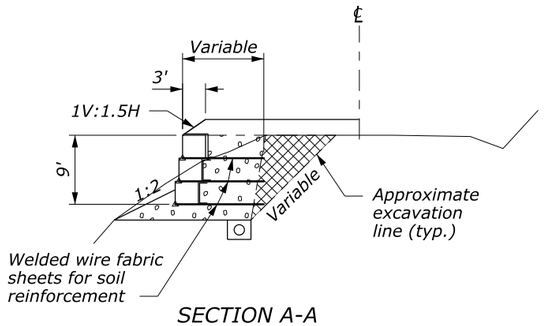
TYPICAL GABION WALL



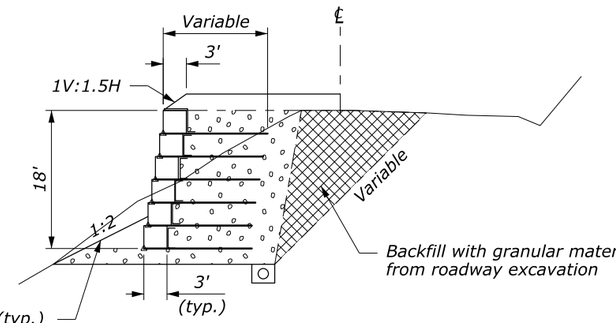
WELDED WIRE FABRIC SHEETS FOR SOIL REINFORCEMENT



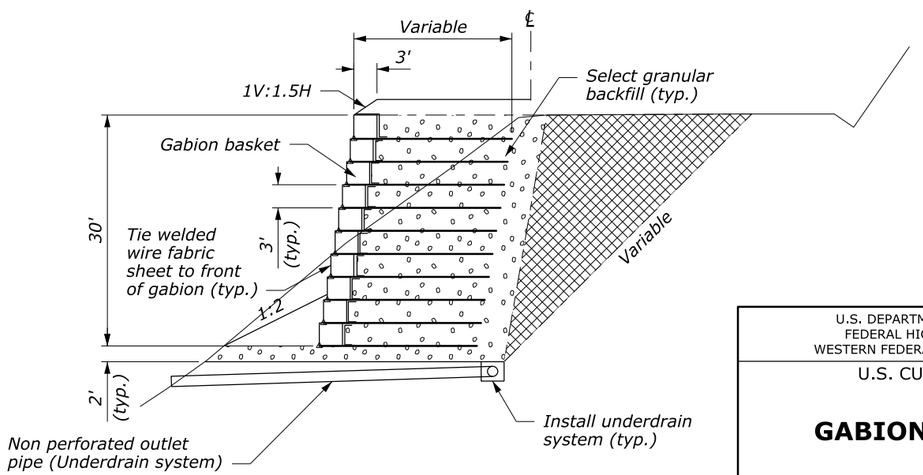
TYPICAL CONNECTION DETAIL



SECTION A-A



SECTION B-B



SECTION C-C

NO SCALE

NOTE:

1. The welded wire fabric sheets vary in length within each wall. The height (H) of the vertical face of the wall determines the length of the welded wire fabric for the entire section. See other plan sheets for fabric lengths, wire sizes and spacing and number of mats. Where the wall construction requires the width of the welded wire fabric sheets to be less than 5.5 feet, the fabric wire may be field cut to fit. Cut fabric at center of mesh of welded wire fabric sheets.
2. Place layers of welded wire fabric sheets with 6" gaps between sheets. The 6" gaps are measured at the face of the wall. Connect the welded wire fabric sheets with spiral binders or tie wire to the front edge of each gabion basket.
3. The heights and quantities are subject to field adjustment. Any increase in wall heights over those shown on the plans require investigation to determine that the safe bearing pressure is not exceeded.
4. Average design assumption values. See the Geotechnical Report, if available, for site specific values.
   Unit weight of backfill material 125 pcf
   Unit weight of filled gabions is 105 pcf
   Ø angle = 35° for backfill material

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

U.S. CUSTOMARY DETAIL

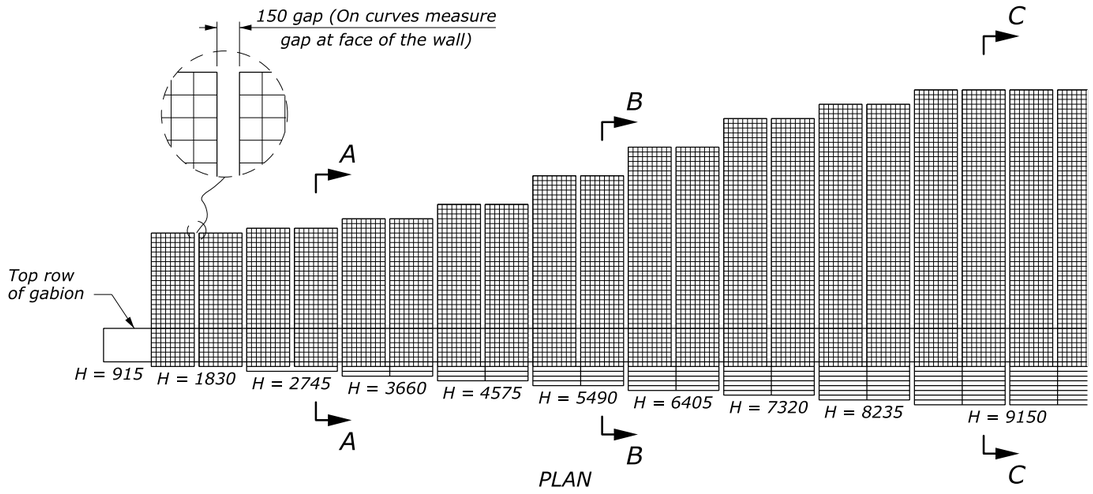
GABION FACED WALL

DETAIL APPROVED FOR USE --/----

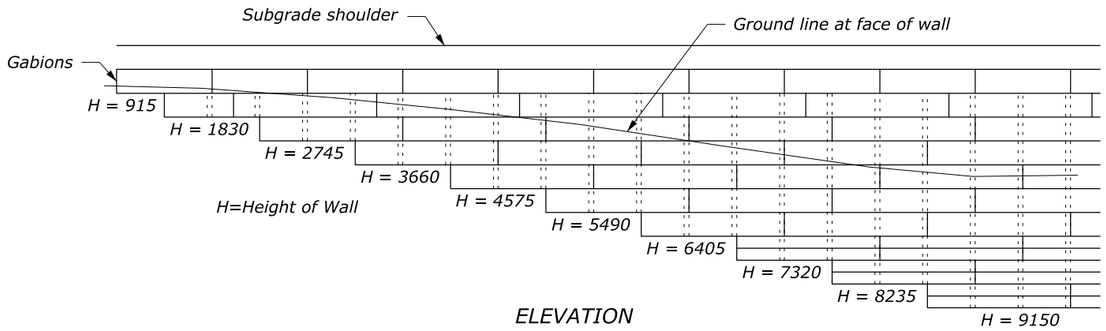
REVISED:
DRAFT: 9/2011

DETAIL W253-3

STATE	PROJECT	SHEET NUMBER

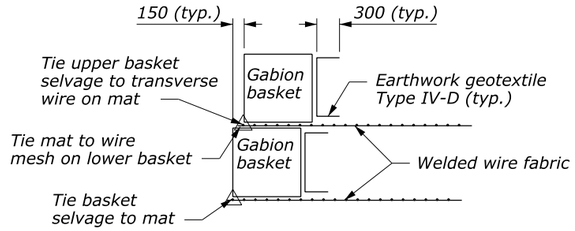


PLAN

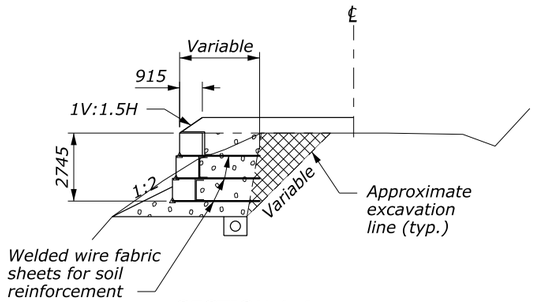


ELEVATION

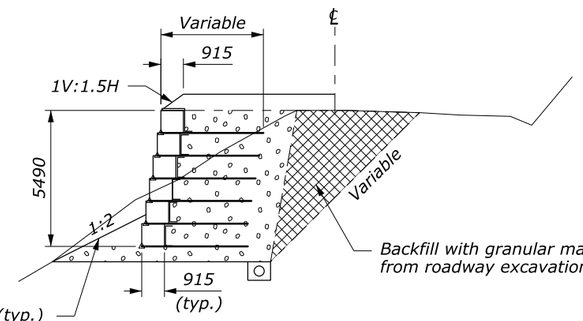
TYPICAL GABION WALL



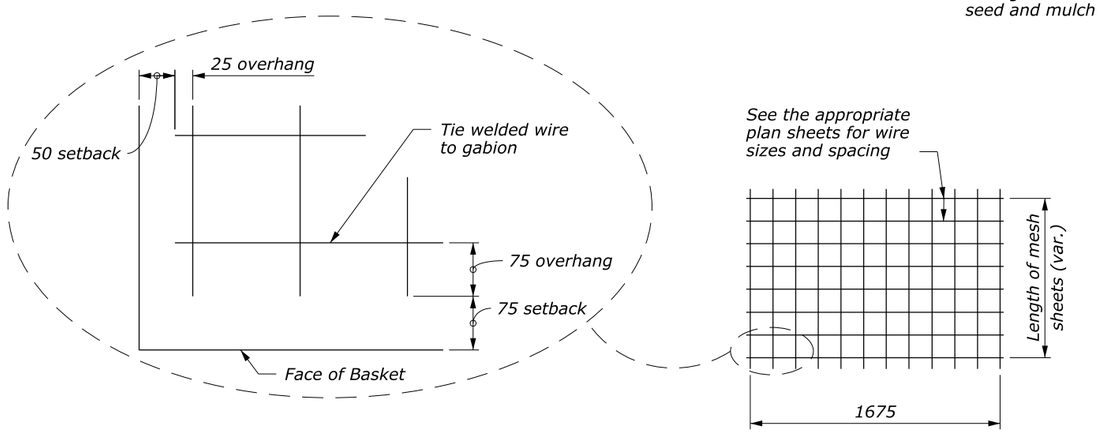
TYPICAL CONNECTION DETAIL



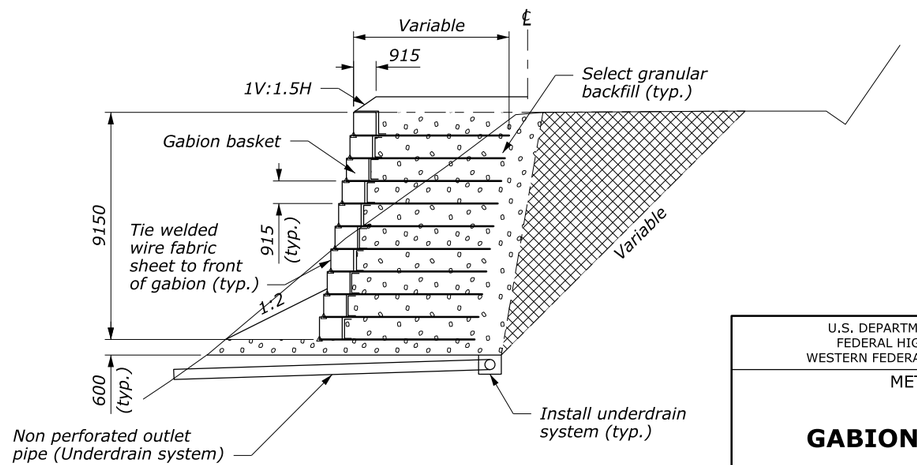
SECTION A-A



SECTION B-B



WELDED WIRE FABRIC SHEETS FOR SOIL REINFORCEMENT



SECTION C-C

NO SCALE

NOTE:

1. The welded wire fabric sheets vary in length within each wall. The height (H) of the vertical face of the wall determines the length of the welded wire fabric for the entire section. See other plan sheets for fabric lengths, wire sizes and spacing and number of mats. Where the wall construction requires the width of the welded wire fabric sheets to be less than 1650 mm, the fabric wire may be field cut to fit. Cut fabric at center of mesh of welded wire fabric sheets.
2. Place layers of welded wire fabric sheets with 150 mm gaps between sheets. The 150 mm gaps are measured at the face of the wall. Connect the welded wire fabric sheets with spiral binders or tie wire to the front edge of each gabion basket.
3. The heights and quantities are subject to field adjustment. Any increase in wall heights over those shown on the plans require investigation to determine that the safe bearing pressure is not exceeded.
4. Average design assumption values. See the Geotechnical Report, if available, for site specific values.
   Unit weight of backfill material 20.8 kN/m3
   Unit weight of filled gabions is 17.6 kN/m3
   Ø angle = 35° for backfill material
5. Dimensions without units are millimeters.

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

METRIC DETAIL

GABION FACED WALL

DETAIL APPROVED FOR USE --/----

REVISED:
DRAFT: 9/2011

DETAIL
WM253-3

8 September 2011 10:13 AM c:\myfiles\pw_production\dms43173\w25303.dgn [Metric]