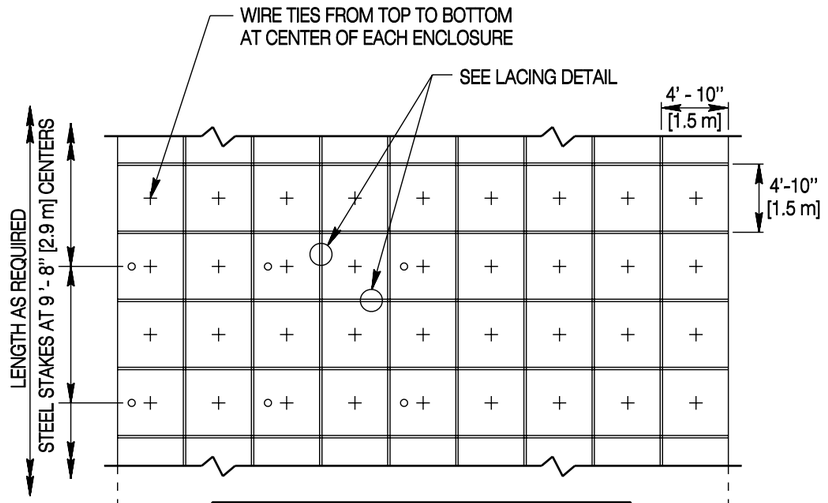
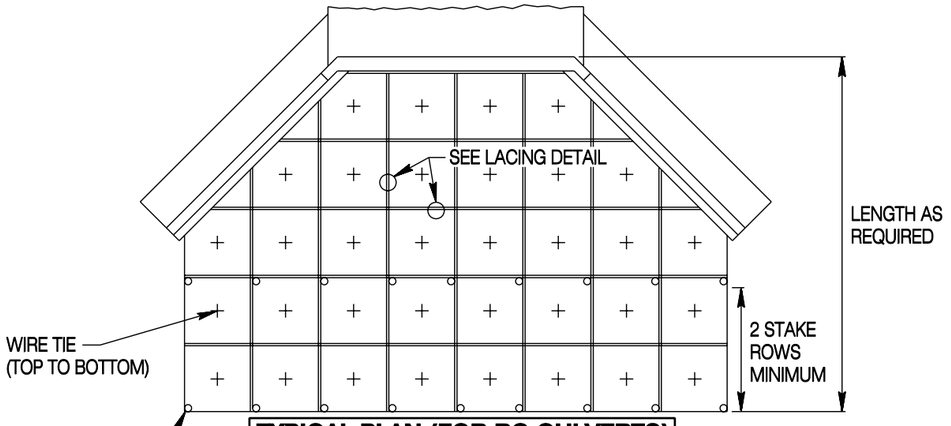
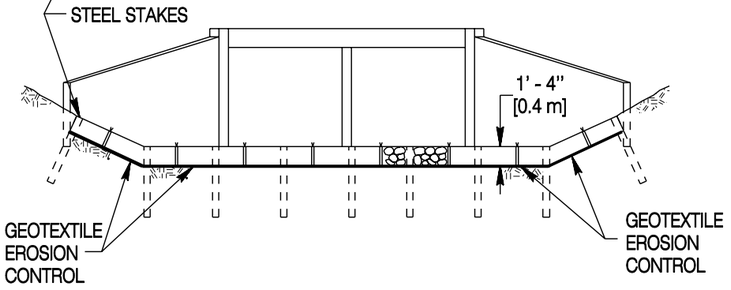


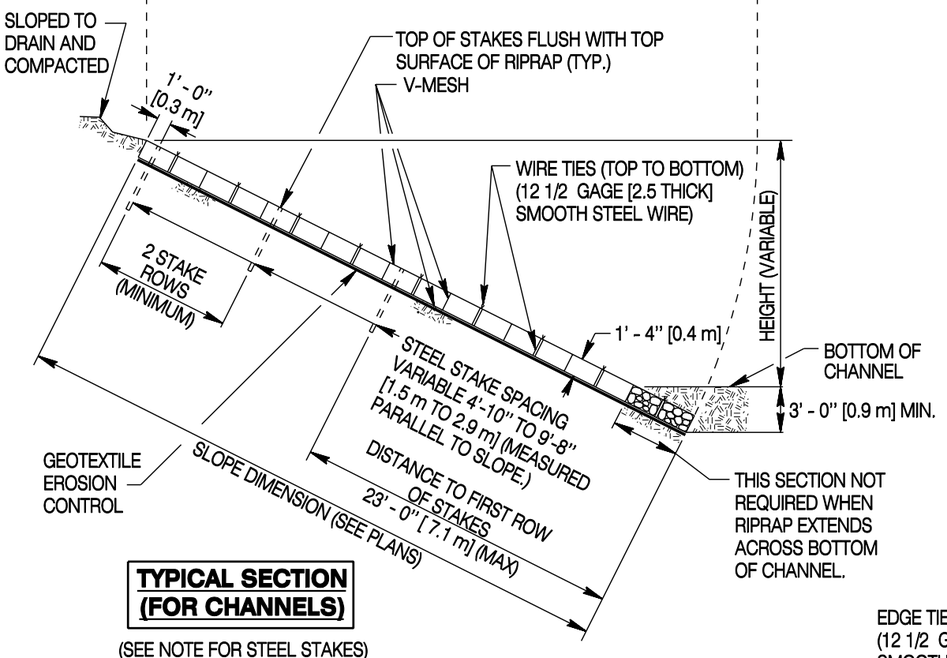
TYPICAL PLAN NORMAL TO SLOPE (FOR CHANNELS)



TYPICAL PLAN (FOR RC CULVERTS)

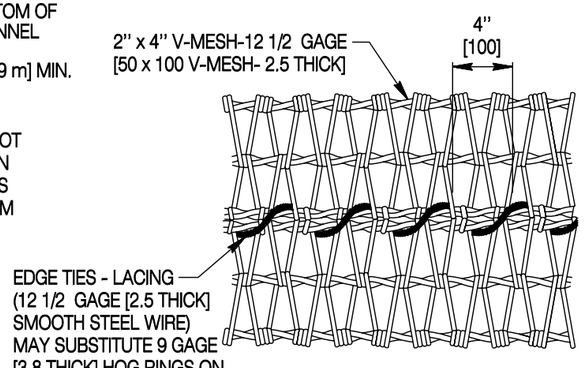


TYPICAL SECTION (FOR RC CULVERTS)

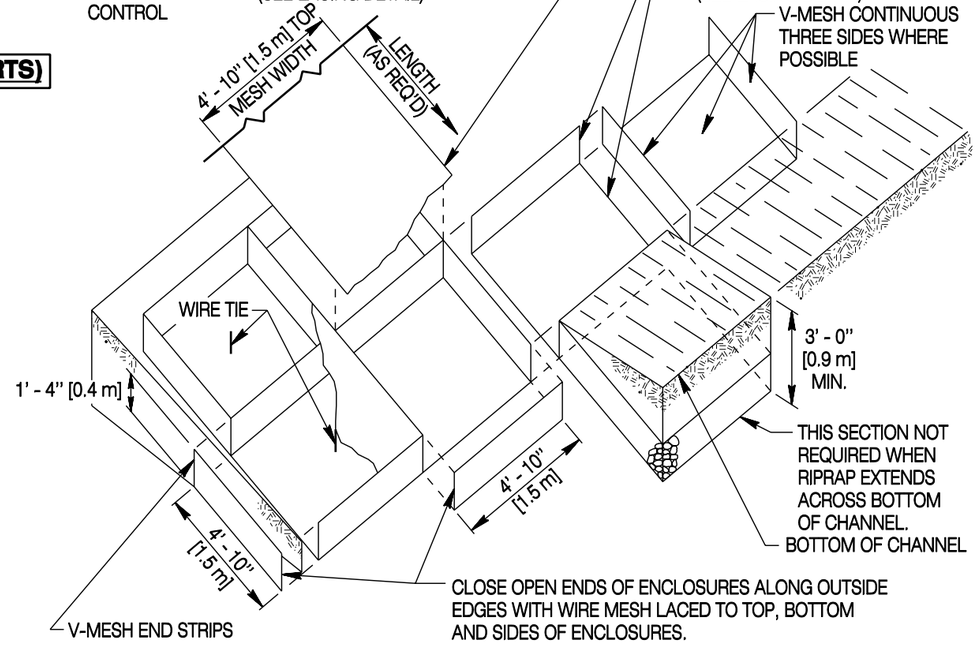


TYPICAL SECTION (FOR CHANNELS)

(SEE NOTE FOR STEEL STAKES)



LACING DETAIL FOR WIRE ENCLOSED RIPRAP



EXPANDED VIEW

General Notes For Wire Enclosed Riprap

Steel Stakes

Use stakes on slopes that are 1V:2H and steeper.

Placement of stakes may vary with site conditions - place stakes as approved by the engineer.

V-Mesh

Use alternate mesh only with the approval of the engineer.

Lacing For Wire Enclosed Riprap

Lace edges and corners of wire mesh together.

Estimated Riprap Quantities

Estimate 0.444 CY [0.400 m^3] of riprap for 1 SY [1 m^2] surface area.

Geotextile Erosion Control (Fabric)

Place Geotextile erosion control under entire surface area of riprap.

Designed by:	CRR
Drawn by:	GLD
Checked by:	WBW
Previous Dwg. No.	511-1

WIRE ENCLOSED RIPRAP DETAILS

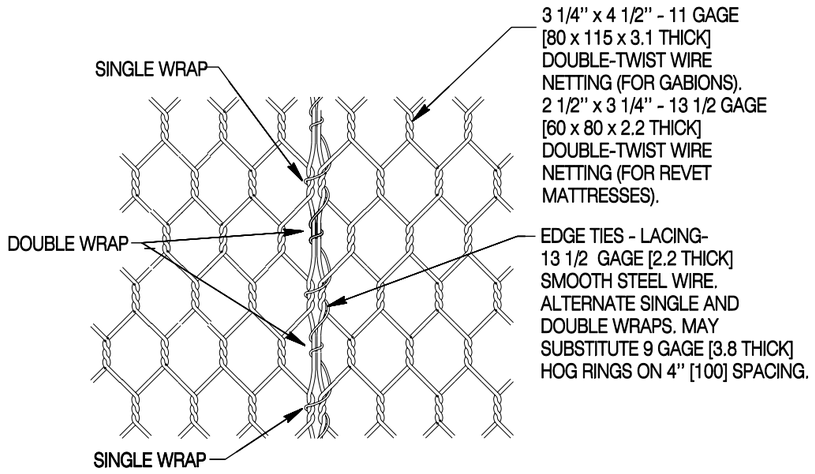
Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.

WYOMING DEPARTMENT OF TRANSPORTATION

WIRE ENCLOSED RIPRAP AND GABIONS

STANDARD PLAN

STANDARD PLAN NUMBER
511-1A
SHEET 1 of 3
Issued by: ENGINEERING SERVICES
Date Issued: DECEMBER 2006



LACING DETAIL FOR GABIONS AND REVET MATTRESSES

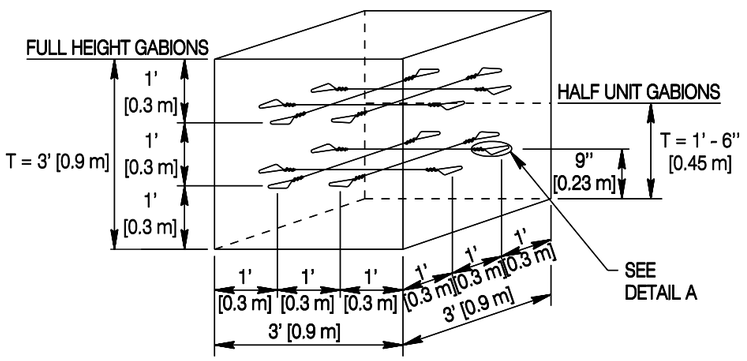
STAKE SPACING TABLE				
SLOPE	SPACING			
	ACROSS		DOWN	
	FT	m	FT	m
1V:2H	6	1.8	8	2.4
1V:2.5H	6	1.8	8	2.4
1V:3H	12	3.6	12	3.6
1V:4H	12	3.6	12	3.6
1V:5H	12	3.6	12	3.6
1V:6H	NONE		NONE	

NOTE: PLACE STAKES NEAR CONNECTIONS OF UNITS WHEN POSSIBLE. USE STRAIGHT STAKES AND DO NOT WIRE TO THE BASKET. SEE GENERAL NOTES, SHEET 1.

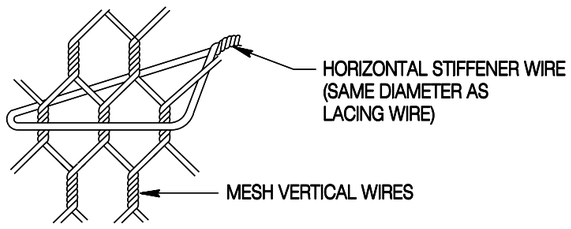
STAKE LENGTH
CLAY SOIL - 4 ft. [1.2 m] SANDY SOIL - 6 ft. [1.8 m]

STANDARD REVET MATTRESS SIZES					
R x S x T		NO. OF CELLS (EACH UNIT)	UNIT CAPACITY		VOLUME PER SURFACE AREA
FT x FT x FT	m x m x m		CY	m^3	
9 x 6 x .75	2.7 x 1.8 x 0.23	3	1.5	1.1	0.028 CY/ft^2
12 x 6 x .75	3.6 x 1.8 x 0.23	4	2.0	1.5	0.23 m^3/m^2

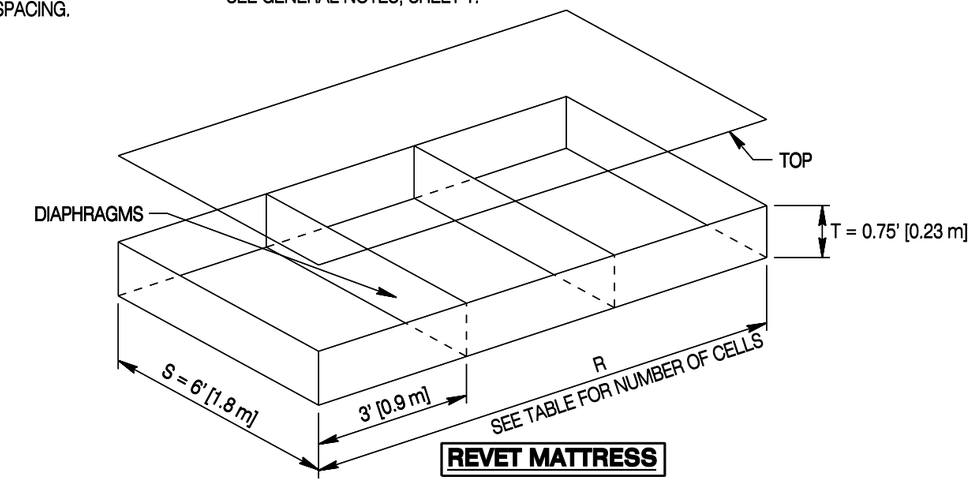
STANDARD GABION SIZES					
R x S x T		NO. OF CELLS (EACH UNIT)	UNIT CAPACITY		VOLUME PER SURFACE AREA
FT x FT x FT	m x m x m		CY	m^3	
6 x 3 x 3	1.8 x 0.9 x 0.9	2	2.0	1.5	0.11 CY/ft^2 0.9 m^3/m^2
9 x 3 x 3	2.7 x 0.9 x 0.9	3	3.0	2.3	
12 x 3 x 3	3.6 x 0.9 x 0.9	4	4.0	3.1	
6 x 3 x 1.5	1.8 x 0.9 x 0.45	2	1.0	0.8	0.056 CY/ft^2 0.45 m^3/m^2
9 x 3 x 1.5	2.7 x 0.9 x 0.45	3	1.5	1.1	
12 x 3 x 1.5	3.6 x 0.9 x 0.45	4	2.0	1.5	
6 x 3 x 1	1.8 x 0.9 x 0.3	2	0.7	0.5	0.037 CY/ft^2 0.30 m^3/m^2
9 x 3 x 1	2.7 x 0.9 x 0.3	3	1.0	0.8	
12 x 3 x 1	3.6 x 0.9 x 0.3	4	1.3	1.0	



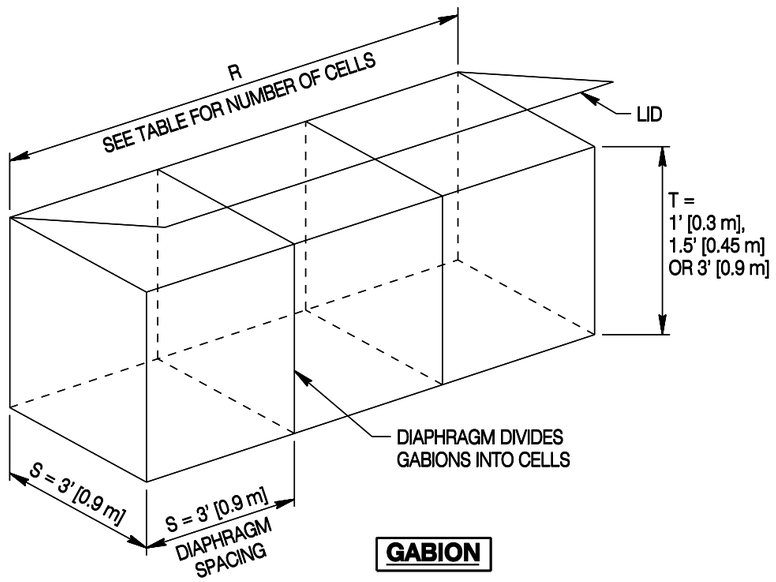
HALF HEIGHT AND FULL HEIGHT GABION CELL HORIZONTAL STIFFENER WIRE REQUIREMENTS



DETAIL A HORIZONTAL STIFFENER WIRE CONNECTION



REVET MATTRESS



GABION

Gabion and Revet Mattress Construction

Place riprap in gabions in lifts not to exceed 1 ft. [0.3 m] or the height of each horizontal stiffener wire level, whichever is less. Install horizontal tie wires and proceed to the next lift. Continue until gabions are full. Lace lid or top to sides and diaphragms and tie to other units.

1 ft. [0.3 m] Gabions and Revet mattresses do not require horizontal stiffener wires.

Designed by: CRR
Drawn by: GLD
Checked by: WBW
Previous Dwg. No. 511-1

GABION AND REVET MATTRESS DETAILS

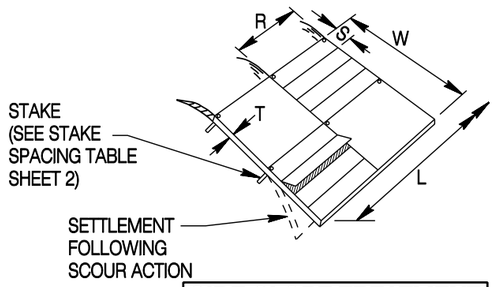
Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.

WYOMING DEPARTMENT OF TRANSPORTATION

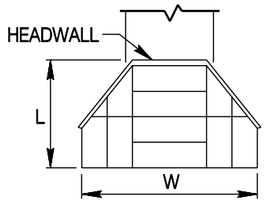
WIRE ENCLOSED RIPRAP AND GABIONS

STANDARD PLAN

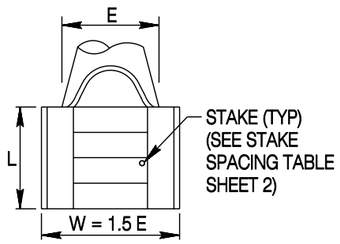
STANDARD PLAN NUMBER
511-1A
SHEET 2 of 3
Issued by: ENGINEERING SERVICES
Date Issued: DECEMBER, 2006



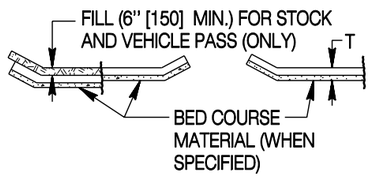
SIDE SLOPE TREATMENT



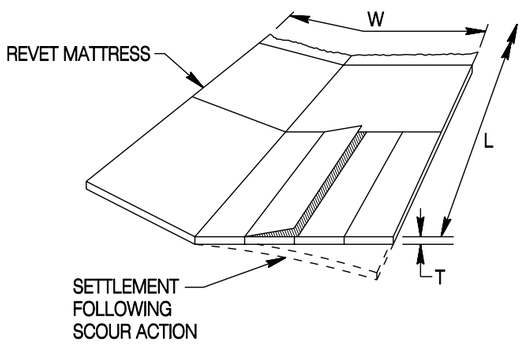
CULVERT



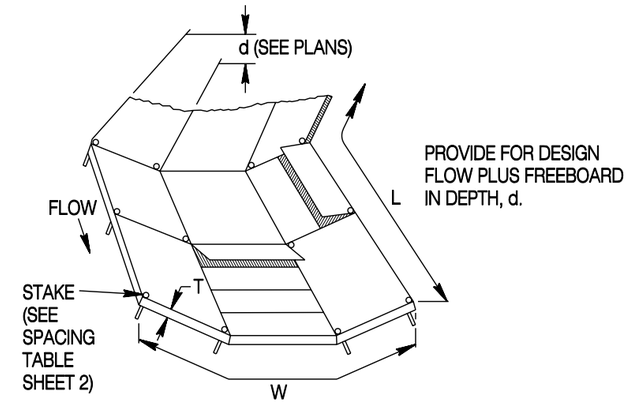
FLARED END SECTION



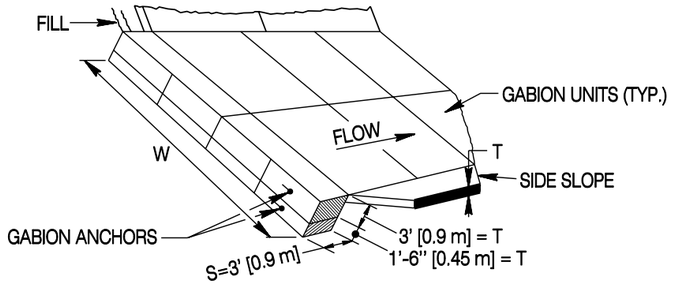
OUTLET TREATMENT

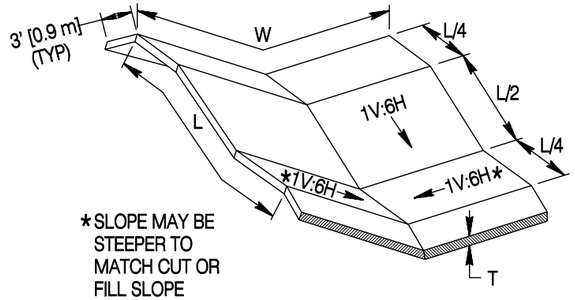


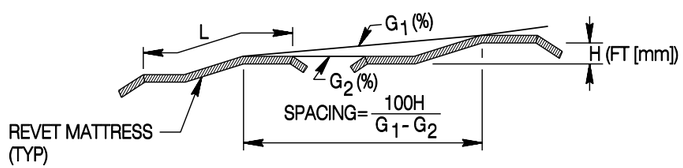
SCOUR APRON



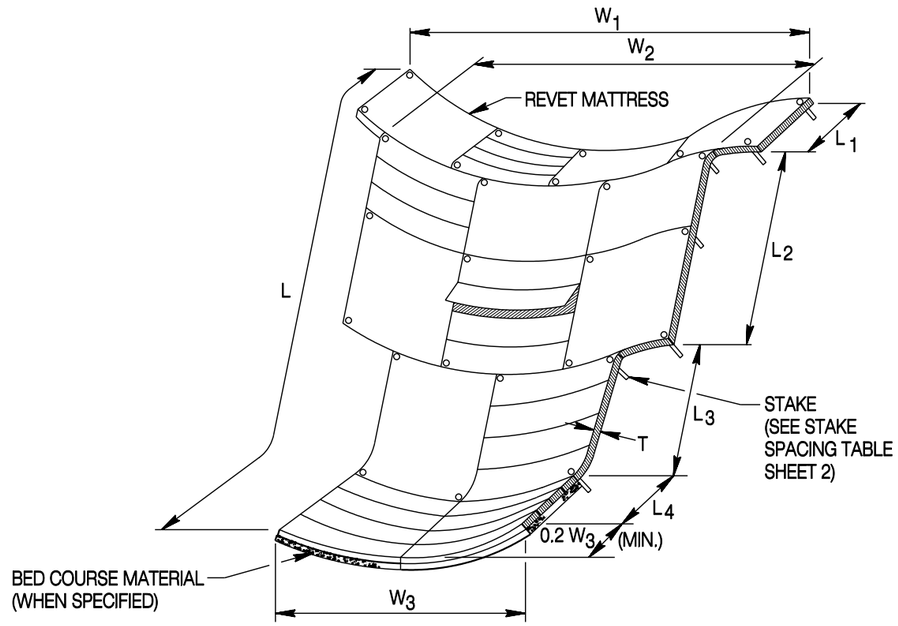
LINED CHANNEL



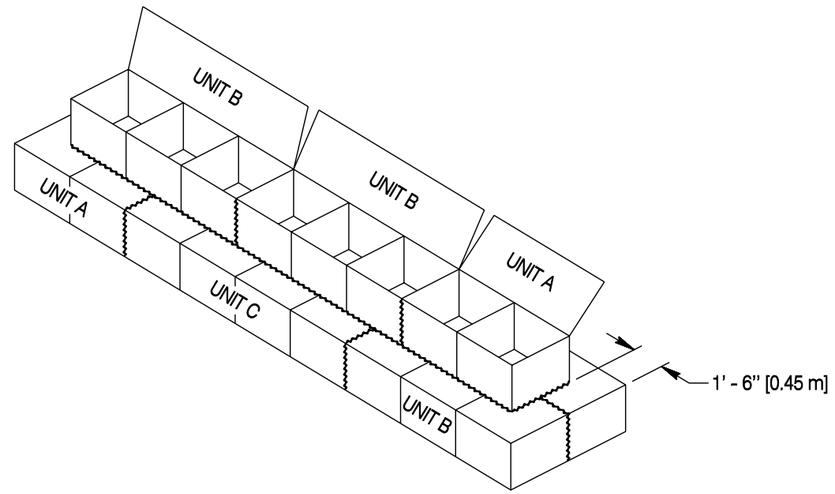




BORROW DITCH CHECK



CHANNEL DROP



PLACING AND FASTENING ADJACENT BASKETS

Designed by: CRR Drawn by: GLD Checked by: WBW Previous Dwg. No. 511-1	GABION AND REVET MATTRESS DETAILS	STANDARD PLAN NUMBER 511-1A SHEET 3 of 3 Issued by: ENGINEERING SERVICES Date Issued: DECEMBER, 2006

Note: Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.

WYOMING DEPARTMENT OF TRANSPORTATION

WIRE ENCLOSED RIPRAP AND GABIONS

STANDARD PLAN