

NOTE:
REINFORCING COVER IS 1" UNLESS OTHERWISE NOTED.

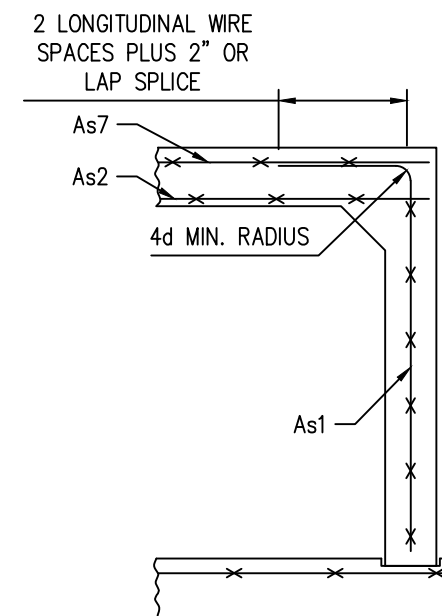
* 2" COVER SHALL BE USED WHEN SOIL COVER IS
LESS THAN OR EQUAL TO 2 FEET.

CULVERT SECTION VIEW
SCALE: N.T.S.

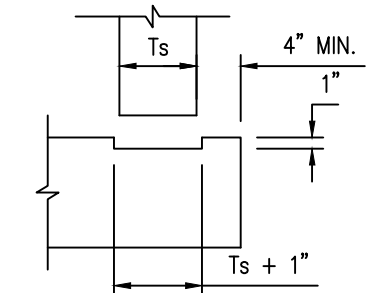
Box Section		Thickness (in)			Reinforcement Areas (in ² /ft)							Min. Reinforcement (in ² /ft)	Earth Cover (ft)
S (ft)	R (ft)	Top Slab, Tt	Bot Slab, Tb	Wall, Tw	As1	As2	As3	As4	As5	As6	As7		
6	4	8	8	7	0.19	0.53	0.31	0.20	0.22	0.27	0.19	0.17	0 - 2
6	4	8	8	7	0.19	0.38	0.31	0.20	0.10	0.10	0.19	0.17	2 - 5

Design Notes:

1. The culverts are designed in conformance with the design criteria given in ASTM C1433 "Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers" and AASHTO "Standard Specifications for Highway Bridges" 17th Edition (2002) for HS20-44 truck wheel and lane loads and for alternate military (interstate) loading.
2. Concrete shall have a minimum net compressive strength of 5,000 psi at 28 days.
3. All reinforcing bars shall conform to ASTM A615 Grade 60 (65,000 psi)
4. All welded wire reinforcement shall conform to ASTM A1064 with a maximum circumferential wire spacing of 4".
5. Recommended distribution reinforcing required is 40% of circumferential wire size per ASTM A497 with 8" maximum spacing.
6. Lifting inserts for handling shall be installed per manufacturer's requirements.
7. Sections designed using Brass-Culvert Version 2.3.0 by Wyoming Department of Transportation.
8. Set culvert on slab and then fill gap with non-shrink grout both inside and outside.



CORNER DETAIL
SCALE: N.T.S.



JOINT DETAIL
SCALE: N.T.S.

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PROJECT:
Box Culvert Structural Details
and Reinforcing Tables

Date:	7/19/16
Drawn By:	JHP
Scale:	As Noted
Sheet No.	1 of 1