

SDD 08F10 Concrete Masonry Endwalls for Culvert Pipes

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

① MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

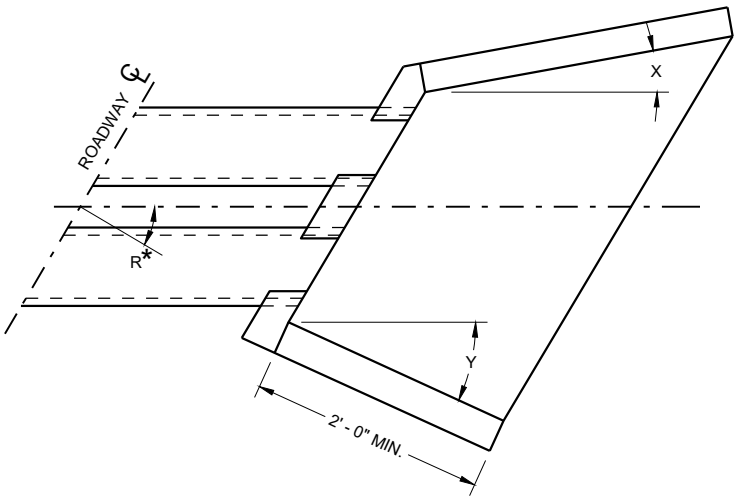
② THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2' - 0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3' - 0"

- ③ LIMITS OF TRENCH BACKFILL
- ④ LIMITS OF FOUNDATION BACKFILL
- ⑤ FOUNDATION AND TRENCH BACKFILL ARE MATERIALS INCLUDED IN PAYMENT FOR CULVERT PIPE, PIPE ARCH, CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPSE OR CONCRETE MASONRY ENDWALLS.
- ⑥ DO NOT PLACE FOUNDATION BACK FILL OR ANY OTHER GRANULAR BACKFILL AROUND OR BELOW CUT OFF WALL. POUR CUT OFF WALL AGAINST NATIVE SOIL
- ⑦ MINIMUM HEIGHT SHALL BE THE GREATER OF 1'- 0" OR ¼ HEIGHT OF CULVERT PIPE.

XXXXXX TRENCH BACKFILL

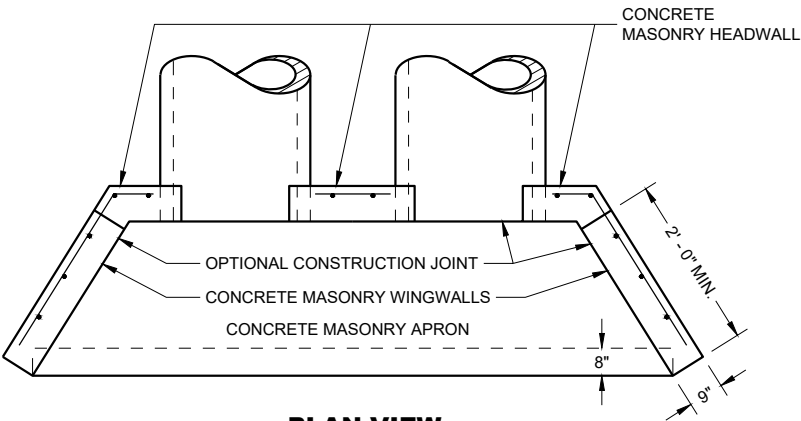
XXXXXX FOUNDATION BACKFILL



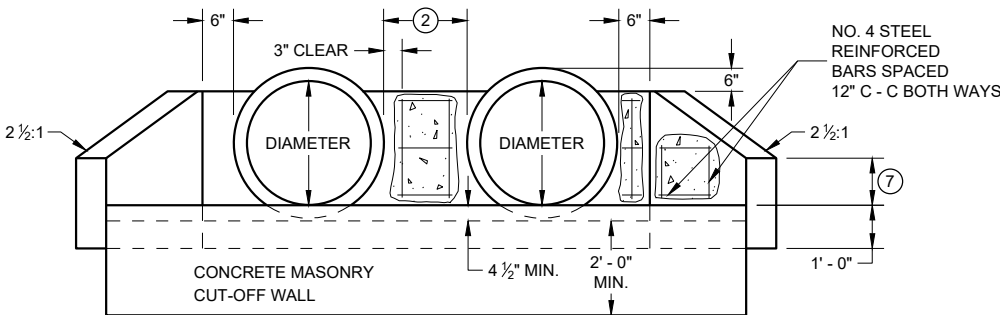
INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	30°	16 - 45°	10°	15°
23 - 37°	20°	30°	46 - 75°	5°	15°
38 - 52°	15°	30°	OVER 75°	0°	15°
53 - 67°	10°	30°			
68 - 82°	5°	30°			
OVER 82°	0°	30°			

R* = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

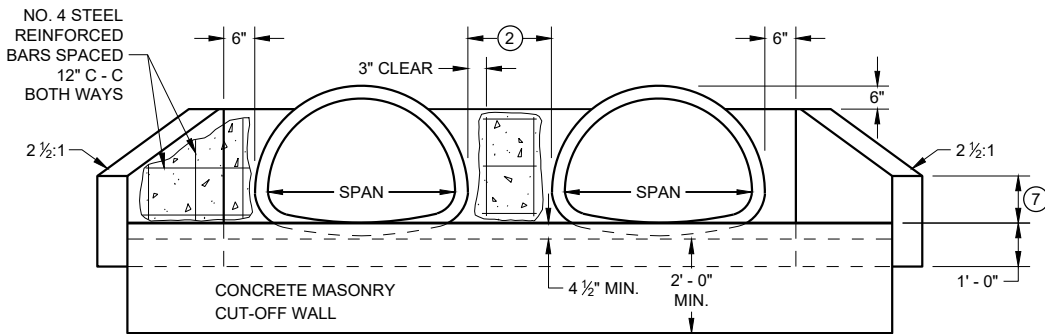
WINGWALL ANGLE DETAILS



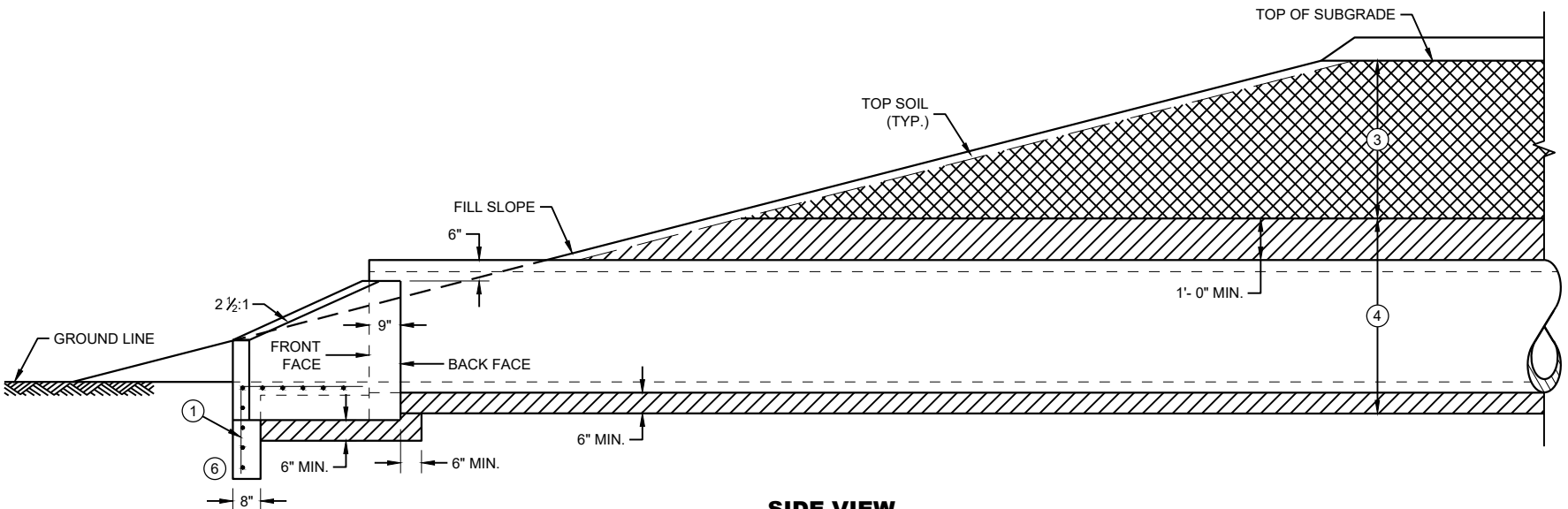
PLAN VIEW



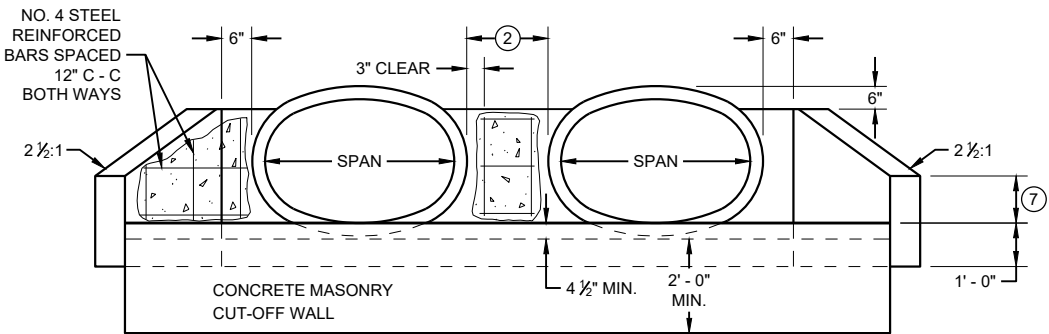
END VIEW
CIRCULAR PIPE



END VIEW
PIPE ARCH



SIDE VIEW
CIRCULAR PIPE, PIPE ARCH OR HORIZONTAL ELLIPSE



END VIEW
HORIZONTAL ELLIPSE

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022

DATE

FHWA

/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

*Concrete Masonry Endwalls for Culvert Pipe and Pipe Arch***References:**

NONE

Bid items associated with this drawing:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
504.0900	Concrete Masonry Endwalls.....	CY

Standardized Special Provisions associated with this drawing:

<u>STSP NUMBER</u>	<u>TITLE</u>
NONE	

Other SDDs associated with this drawing:

NONE

Design Notes:

Endwalls are designed for a maximum height of 7 feet.

Contact Person:

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