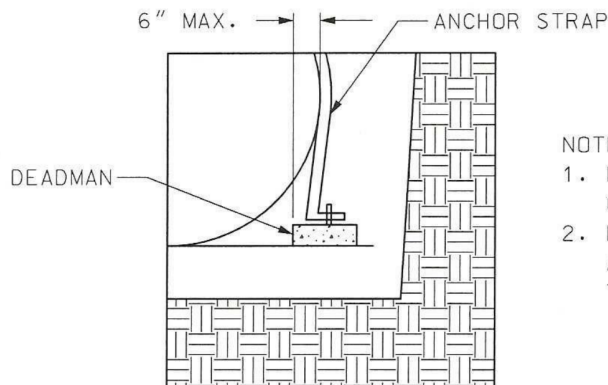


DEADMAN ANCHORS

- 1.1 The weight of overburden on top of the deadman and the tank provides the anchoring force.
- 1.1.1 Lay deadman along each side and parallel to the tank. Deadman shall extend the full length of the tank.
- 1.1.2 The bottom of the deadman shall be placed at least as deep as the bottom of the tank. The edge of the deadman shall not project more than 6 inches (0.15 m) under the outer edge of the tank. Refer to Figure 1.
- 1.2 Deadmen are made with reinforced concrete. Two #6 rebar shall be spaced per Figure 2. Deadmen 12 inches (0.30 m) high and greater shall have a third #6 rebar added midway between the other two rebars.
- 1.2.1 A #6 rebar shall be placed at each anchor point across the width of the deadman and under the rebar that runs lengthwise of the deadman. See Figure 2.
- 1.3 When using deadman anchors, they shall meet the minimum sizes and maximum anchor spacings shown in Table 1.
- 1.3.1 There must be a minimum of two anchor points per deadman section.
- 1.3.2 For tanks requiring four or more anchor points per deadman, two deadman sections of equal length may be butted end to end.



NOTES:

- 1. DEADMAN TO BE FULL LENGTH OF TANK ON BOTH SIDES
- 2. DEADMAN TO BE AT LEAST AS DEEP AS THE BOTTOM OF THE TANK

FIGURE 1: DEADMAN POSITION

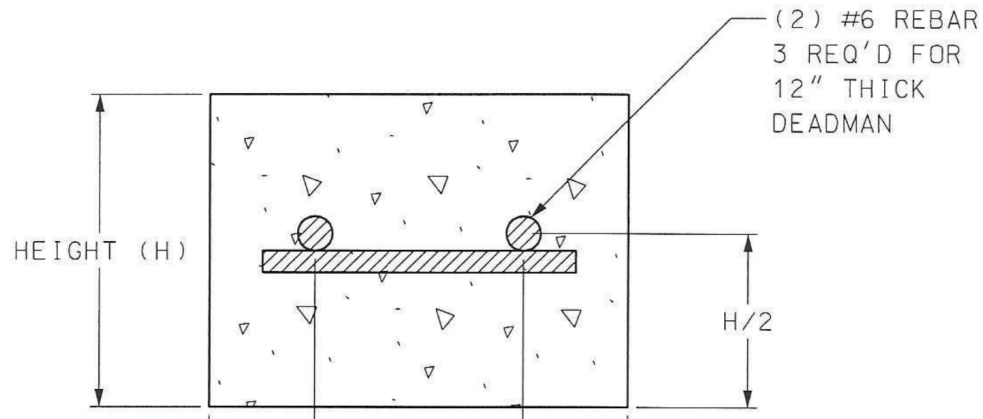


FIGURE 2: REBAR DETAILS

TABLE 1 DEADMAN DESIGN

TANK DIAMETER (FEET)	MINIMUM BURIAL DEPTH (INCHES)	DEADMAN MINIMUM HEIGHT (INCHES)	DEADMAN MINIMUM WIDTH (INCHES)	MAXIMUM ANCHOR SPACING (INCHES)	MAXIMUM ANCHOR POINT LOAD (POUNDS)	MINIMUM ANCHOR BOLT DIAMETER (INCHES)
6 (1.83 m)	36 (0.91 m)	6 (0.15 m)	6 (0.15 m)	96 (2.44 m)	1800 (816.47 kg)	1/2 (0.01 m)

1.3.3 An anchor point shall be located a maximum of one half of the maximum anchor spacing from each end of the deadman. Refer to Figure 3.

1.4 The maximum anchor point load is the load applied to each anchor point on each deadman. If anchor bolts are used, they shall have a minimum pull out strength at least equal to the maximum anchor point load.

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- 1.4.1 Anchor straps shall be designed to meet the requirements of the maximum anchor point load applied to each end of the straps. If turnbuckles are used, they shall meet the anchor point load requirement.
 - 1.4.2 Attachments to the deadman shall meet the loading requirements of the maximum anchor point load.

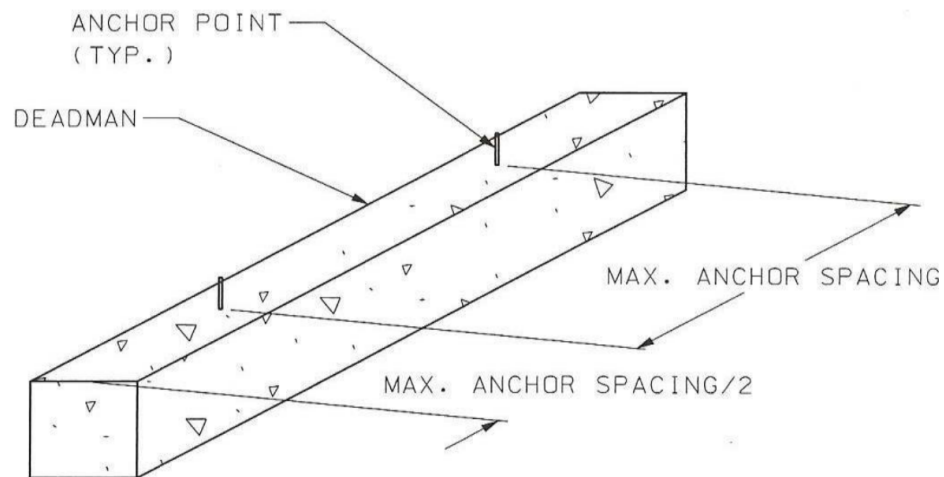


FIGURE 3
DEADMAN DETAIL