



CALCULATE A DIFFERENT SLOPE

USE H1, H2, H3, W5, W6, P1, P2, AND P3 FROM CULVERT WING STANDARD.

$$\text{NEW L} = (\text{NEW SLOPE}^*) (H2)$$

FOR SKEWED CULVERTS:

$$\text{NEW X} = \frac{(\text{NEW L}) - [W1 + (W2 - W2 \cos \alpha)]}{2 \sin \alpha}$$

$$\text{NEW W4} = (\text{NEW X}) \sin \alpha$$

$$\text{NEW W7} = (\text{NEW X}) \cos \alpha$$

FOR RIGHT ANGLE CULVERTS:

$$\text{NEW X} = \frac{(\text{NEW L}) - [W1 + 0.5W2]}{1.3660254}$$

TURNED BACK CULVERT WINGS

**FIGURE 9 - 15**