

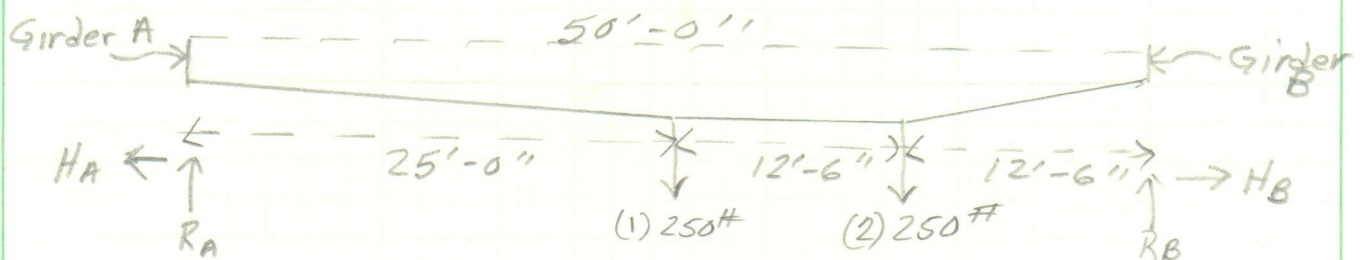
# Textron Stone Road Low Bay

## Safety Harness Support

2 person Analysis 250# Each

Given:

Maximum Span between support girders = 50'-0"



$$R_A = \frac{[(1) 250\# \times 25.0'] + [(2) 250\# \times 12.5']}{50.0'} = 187.5\#$$

$$R_B = \frac{[(1) 250\# \times 25.0'] + [(2) 250\# \times 37.5']}{50.0'} = 312.5\#$$

Allow cable to deflect 12" under load

$$H_A = H_B = \frac{25'}{1'} \times R_A = \frac{25'}{1'} \times 187.5\# = 4687.5\#$$

$$F_{(2) \rightarrow B} = \sqrt{(312.5\#)^2 + (4687.5\#)^2} = 4,698\#$$

Factor of Safety = 3.5  $\therefore 4,698 \times 3.5 = 16,442$

Each end of Safety cable span shall be attached to steel girder with a cable tie rated at a minimum of 20 kips & the

safety cable shall be a minimum

6 x 19 Wire Rope with a diameter of 1/2"

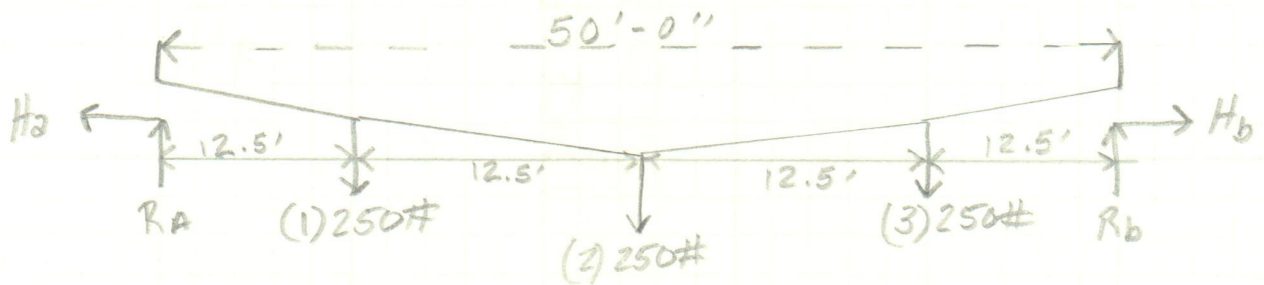
OR Capable of supporting 17 kips.

# Textron Stone Road Low Bay

## Safety Harness Support

3 person Analysis 250# Each

Given: Maximum span between girders = 50'-0"



$$R_A = R_B = \frac{[(1)250 \times 32.5'] + [(2)250 \times 25'] + [250 \times 12.5']}{50'}$$
$$R_A = 350\#$$

Allow cable to deflect 12" under load

$$H_A = H_B = \frac{25'}{12"} \times R_A = \frac{25}{12} \times 350\# = 8,750$$

$$F_{\text{cable}} = \sqrt{350^2 + 8750^2} = 8,757\# \text{ Tension}$$

$$\text{Factor of Safety} = 3.5 \therefore 8757 \times 3.5 = 30,650$$

Each end of the cable span shall be attached to a steel girder with a cable tie rated at a minimum of 31 kips & the safety cable shall be a minimum of 6x19 wire rope with a diameter of 3/4" or capable of supporting 31 kips.

# Attachment to Girder

