



Profis Anchor 2.7.5

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Page: 2
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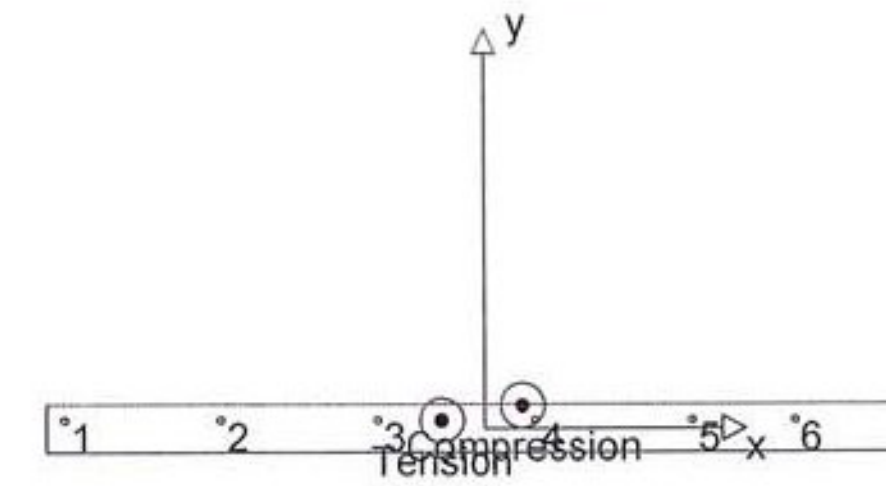
2 Load case/Resulting anchor forces

Load case: Design loads

Anchor reactions [lb]

Tension force: (+ Tension, - Compression)

Table with 5 columns: Anchor, Tension force, Shear force, Shear force x, Shear force y. Row 1: 1, 6035, 667, 667, -8. Row 2: 2, 5956, 667, 667, -5. Row 3: 3, 5877, 667, 667, -1. Row 4: 4, 5797, 667, 667, 2. Row 5: 5, 5718, 667, 667, 5. Row 6: 6, 5667, 667, 667, 7.



max. concrete compressive strain: 0.19 [‰]
max. concrete compressive stress: 238 [psi]
resulting tension force in (x/y)=(-5.383/1.000): 35050 [lb]
resulting compression force in (x/y)=(4.906/2.851): 18202 [lb]

3 Tension load

Table with 5 columns: Load Nsa [lb], Capacity phi Nn [lb], Utilization beta = Nsa/phi Nn, Status. Row 1: Steel Strength*, 6035, 18479, 33, OK. Row 2: Bond Strength**, 35050, 77651, 46, OK. Row 3: Sustained Tension Load Bond Strength*, N/A, N/A, N/A, N/A. Row 4: Concrete Breakout Strength**, 35050, 47970, 74, OK.

* anchor having the highest loading ** anchor group (anchors in tension)

3.1 Steel Strength

Nsa = ESR value refer to ICC-ES ESR-3814
phi Nsa >= Nua ACI 318-11 Table D.4.1.1

Variables

Table with 2 columns: Aso,N [in.²], futa [psi]. Row 1: 0.33, 85000.

Calculations

Table with 1 column: Nsa [lb]. Row 1: 28430.

Results

Table with 4 columns: Nsa [lb], phi steel, phi Nsa [lb], Nua [lb]. Row 1: 28430, 0.650, 18479, 6035.

The load factors per code are not shown. However, the utilization column shows enough capacity & results in a sufficient factor of safety.

Approved AsNoted
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