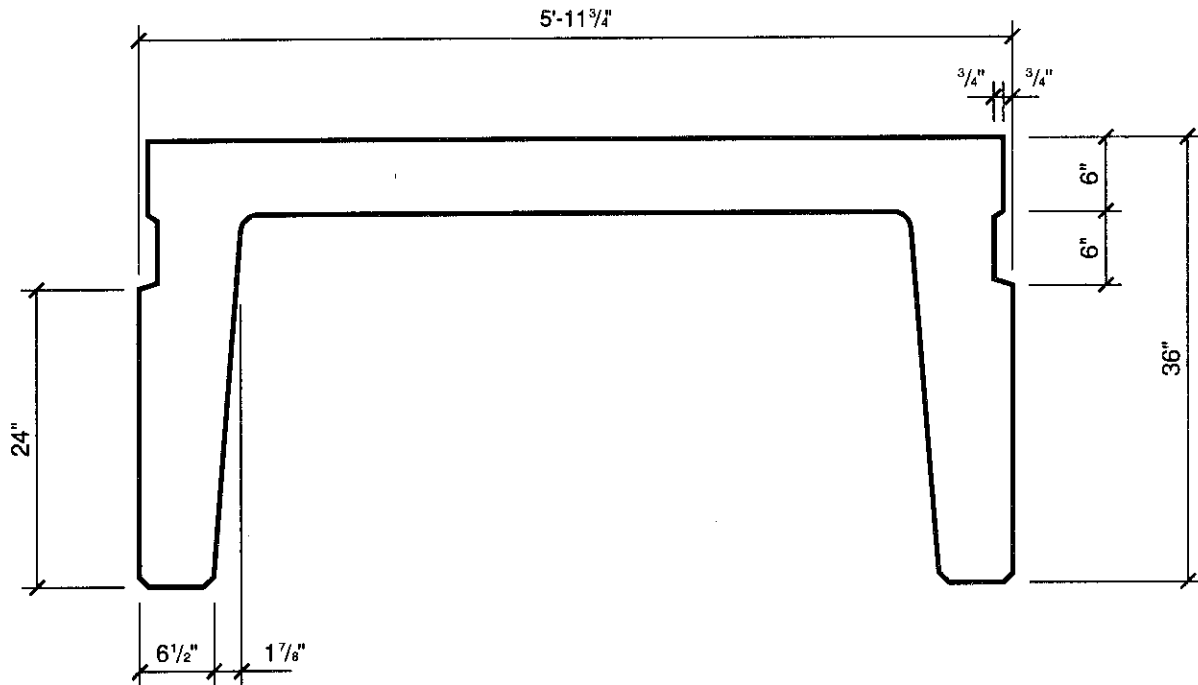




6'-0" x 36" CHANNEL BEAM



SECTION PROPERTIES

$d = 36$ in	$A = 851$ in ²	$Y_t = 12.00$ in	$Z_t = 8315$ in ³
$wt = 0.95$ klf	$I = 99748$ in ⁴	$Y_b = 24.00$ in	$Z_b = 4155$ in ³

DESIGN CRITERIA

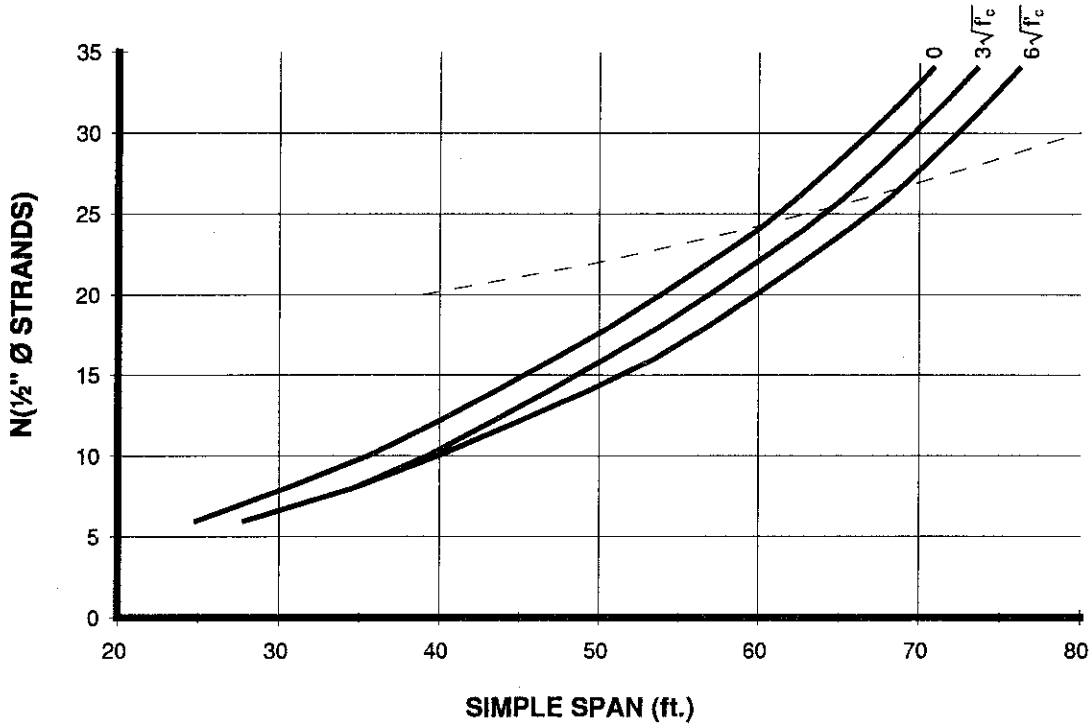
- Charts are based on AASHTO's Standard Specifications for Highway Bridges, 16th Edition, 1996, the PCI Bridge Design Manual, and the WSDOT Bridge Design Manual.
- Dead Load: Channel Beam + 60 psf.
- Live Load: AASHTO Truck, Lane or Alternate Military Loading as applicable, including impact.
- Loading Combinations: AASHTO Group I.
- Live Load Distribution: AASHTO Section 3.23.4.3 for two traffic lanes.
- Concrete: Channel $f'_c = 7000$ psi, $w_c = 156$ pcf.
 $w_c = 160$ pcf used in weight calculations (including reinforcement).
- Prestressing: $f_{pi} = 202.5$ ksi ($0.75 f_{pu}$), $f_{pe} = 154.5$ ksi.
- Allowable Stresses:
 - Service - Tension (Channel) = $0, 3\sqrt{f'_c}$ or $6\sqrt{f'_c}$
 - Compression (Channel) = $0.4(f'_c)$
 - Release - Tension = $7.5\sqrt{f'_{ci}}$
 - Compression = $0.6(f'_{ci})$
- Designs above the dashed line in the chart require f'_{ci} in excess of 6000 psi or post-tensioning.
- Do not extrapolate outside the limits of the chart, as designs in these regions are controlled by other factors (release and shipping stresses, weight, etc.). Interpolation within the chart is acceptable.

NOTE: These charts are intended to be used as aids to preliminary sizing and must be interpreted on the basis of sound engineering judgement.



6'-0" x 36" CHANNEL BEAM

HS 20-44



HS 25-44

