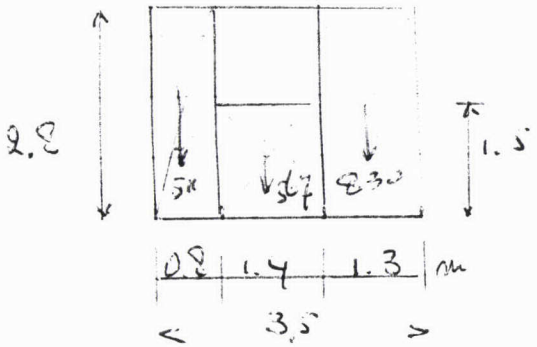
00-490

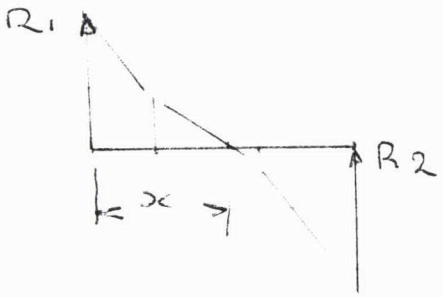
Ie INGEKOMEN - 8 DEC. 2000

BEREKENING ONDERSLAGBALKEN, BEHORENDE BIJ AANVRAAG
UITBOUW „ERKER"
A.W. GROOTESTR. 8 H'KERK



UITGANGSPUNTEN: 1 DAKGOOT 100 kg/m
2 GEVEL 180 kg/m²
3 BALK 35 kg/m

BELASTING: (0,8.2,8.180) + 0,8.100 + 0,8.35 = 511 kg
(1,4.0,5.180) + 1,4.100 + 1,4.35 = 567 kg
(1,3.2,8.180) + 1,3.100 + 1,3.35 = 830 kg
TOTAAL = 1908 kg



830 x 0,65 = 539 kgm
567 x 2,0 = 1134 kgm
511 x 3,1 = 1584 kgm
3257 kgm

$R_1 = \frac{3257}{3.5} = 930\ kg$ $R_2 = 975\ kg$

$x = \frac{511.0,4 + 1,5.567 + 2,85.830}{1908} = \frac{204 + 850 + 2365}{1908} = 1,8\ m$

$M_{x\ max} = 930.1,8 - 511(1,8-0,4) - \frac{1,0^2.567}{2} = 1677 - 715 - 283 = 679\ kgm$

$f_{max} = \frac{5\,M_{max}\,l^2}{48EI} = \frac{l}{600}$ $I_{be} = \frac{5.679.10^2.5,5.600}{48.2,1.10^6} = 704\ cm^4$

$W_{be} = \frac{679.10^2}{1400} = 48,25\ cm^3$

DIN 120 (HE 12 B) $I_x = 864\ cm^4$ $W_x = 144\ cm^3$ $G = 26,7\ kg/m$
INP 160 $I_x = 935\ cm^4$ $W_x = 117\ cm^3$ $G = 17,9\ kg/m$