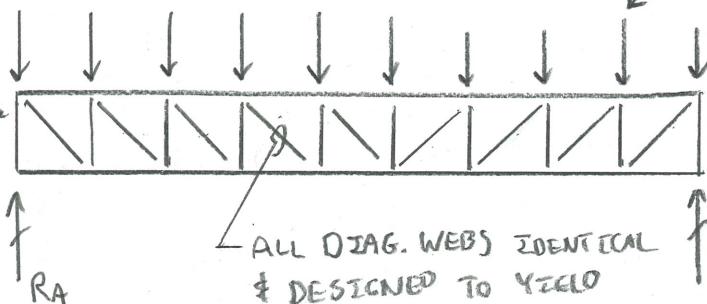


AKH
20/4.05.29

TRUSS ANALOGY

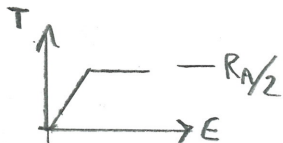
ALL VERT. WEBS IDENTICAL & DESIGNED TO PRECLUDE FAILURE



PANEL POINT LOADS SIMULATING UNIFORM LOAD

HSS CHORDS DESIGNED TO PRECLUDE FAILURE
 $I_{x-CHORD} \gg I_{x-TRUSS}$

ALL DIAG. WEBS IDENTICAL & DESIGNED TO YIELD IN DUCTILE FASHION AT $\frac{R_A}{2}$

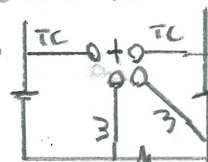


UNIFORM LOAD MOMENT DIAGRAM

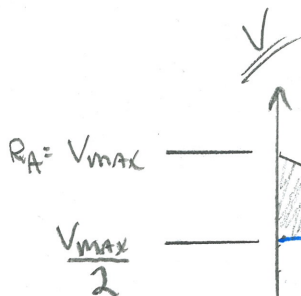
REMAINDER AREA THAT CAN'T BE RESISTED BY "TRUSS" ACTION, SAME AS "B" AREA FOR COMPOSITE BEAM

OVERALL MOMENT DIAGRAM

TRUSS MOMENT CAPACITY ASSUMING THAT CHORDS ARE NOT CONTINUOUS THROUGH PANEL POINTS. THIS TRUSS WOULD FAIL UNDER APPLIED LOADS.



TRUE "PIN" JOINT



SUPPLIED SHEAR CAPACITY (HORIZ. & VERT.). ANALAGOUS TO UNIFORM NELSON STUD LAYOUT

UNIFORM LOAD SHEAR DIAGRAM

OVERALL SHEAR DIAGRAM

TRUSS WEB YIELD ACROSS THIS AREA LIMITING DEVELOPMENT OF MOMENT CAPACITY.

RESIDUAL MOMENT THAT MUST BE RESISTED BY NON-COMPOSITE BENDING IN TOP & BOT CHORDS, ONLY POSSIBLE IF CHORDS ARE CONTINUOUS THROUGH PANEL POINTS

RESIDUAL MOMENT DIAGRAM

