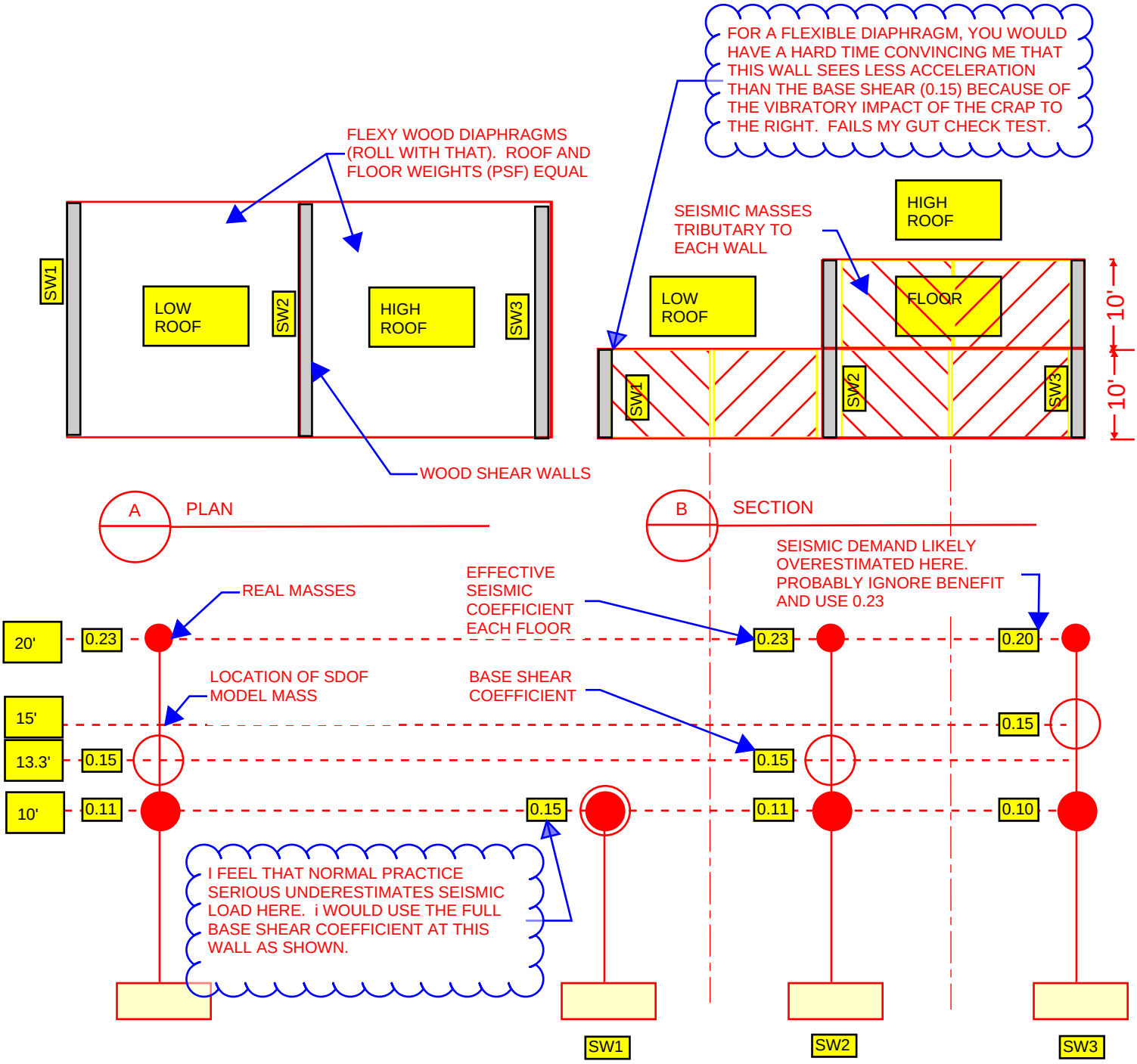
FLEXY WOOD DIAPHRAGMS (ROLL WITH THAT). ROOF AND FLOOR WEIGHTS (PSF) EQUAL
SW1
LOW ROOF
SW2
HIGH ROOF
SW3
WOOD SHEAR WALLS
A PLAN
FOR A FLEXIBLE DIAPHRAGM, YOU WOULD HAVE A HARD TIME CONVINCING ME THAT THIS WALL SEES LESS ACCELERATION THAN THE BASE SHEAR (0.15) BECAUSE OF THE VIBRATORY IMPACT OF THE CRAP TO THE RIGHT. FAILS MY GUT CHECK TEST.
SEISMIC MASSES TRIBUTARY TO EACH WALL
HIGH ROOF
LOW ROOF
FLOOR
10'
10'
B SECTION
SEISMIC DEMAND LIKELY OVERESTIMATED HERE. PROBABLY IGNORE BENEFIT AND USE 0.23
REAL MASSES
EFFECTIVE SEISMIC COEFFICIENT EACH FLOOR
LOCATION OF SDOF MODEL MASS
BASE SHEAR COEFFICIENT
20'
15'
13.3'
10'
0.23
0.15
0.11
0.23
0.15
0.11
0.20
0.15
0.10
I FEEL THAT NORMAL PRACTICE SERIOUS UNDERESTIMATES SEISMIC LOAD HERE. i WOULD USE THE FULL BASE SHEAR COEFFICIENT AT THIS WALL AS SHOWN.
SW1
SW2
SW3
C NORMAL PRACTICE
WHOLE BUILDING
D HOW KOOTK WANTS IT
WALL BY WALL BASED ON TRIB WEIGHTS. REQUIRES VERTICAL DISTRIBUTION OF SEISMIC INDEPENDENTLY FOR EACH FRAMING LINE,