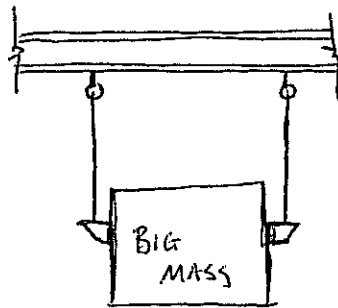


LESSON 3: BASIC STRUCTURAL ELEMENTSTEXT CHAPTER 1A. HANGERS, ^{SUSPENSION} CABLES

LOADING TYPE: AXIAL - TENSION ONLY

B. COLUMNS

LOADING TYPE: AXIAL - COMPRESSION



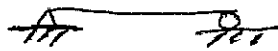
a.) "UPLIFT" MAY INTRODUCE TENSION

b.) COLUMNS SUPPORTING MOMENT & COMPRESSION: "BEAM-COLUMNS"

} PART OF
FRAMESC. BEAMS

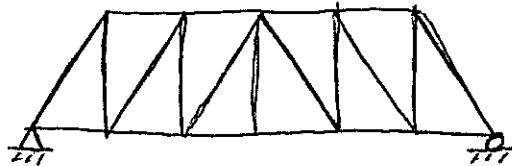
LOADING TYPE: SHEAR AND MOMENT

a.) AXIAL TENSION & COMPRESSION ALSO POSSIBLE

D. TRUSSES

LOADING TYPE: LOADS APPLIED AT JOINTS

MEMBERS IN COMPRESSION OR TENSION



E: ARCHES

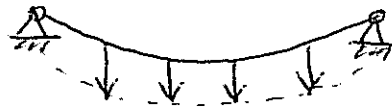
LOADING TYPE: PRIMARILY COMPRESSION,
SOME BENDING AS WELL
(SHAPE OF ARCH INTEGRAL TO PROPER FUNCTION)



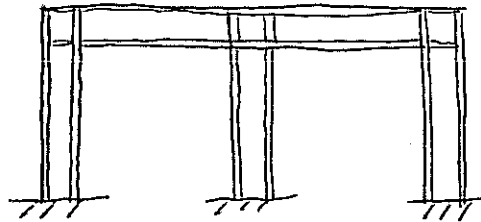
COVERED IN LATER COURSE
CEE 5201

F: CABLES (GENERAL)

LOADING TYPE: TENSION



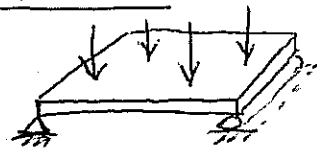
COVERED IN CEE 5201

G: RIGID FRAMES:

LOADING TYPE: SHEAR, MOMENT, AND AXIAL

H: PLATES & SLABS

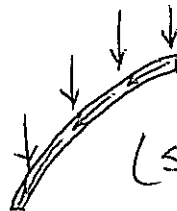
LOADING TYPE: SHEAR AND MOMENT



LOADS APPLIED PERPENDICULAR
TO SURFACE

INCLUDES FLOOR / ROOF DECK

GENERALLY NOT COVERED IN CEE 3202

I: SHELLS

LOADING TYPE: LOADS CARRIED PRIMARILY
IN-PLANE

(SHAPE OF SHELL INTEGRAL TO PROPER
FUNCTION)

NOT COVERED IN CEE 3202