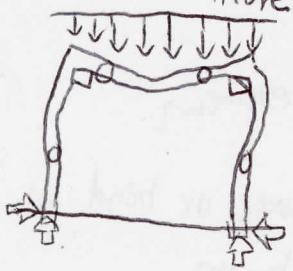
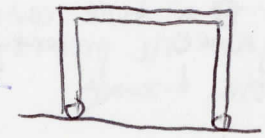
2.17. Rigid frame were joint connecting the columns and beam are capable on force and movement

Applied loads produce bending, shear force in all structure of the frame because rigid joints can limited it rotating freely.

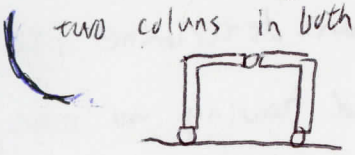
Fixed fram - more resistant to deflection than hinged frame



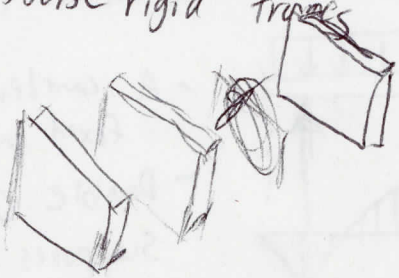
Hing frame - connected its supports with pin joint. It has high bending Stresses to allow it to rotate any direction



Three hinged frame has three pin joint and one has in the middle to connect two colums in both direction



Load bearing wall is useful carrying coplanar, uniformly distributed louds. Rely on cross walls, horizontal slabs, transverse rigid frames



- Two columns and a beam equal to a loadbearing wall
- Arch is mandatory to support the load above a door to allow compressic stresses to flow need the opening

2.18 Plate structures -rigid, planar. Reinforced concrete slab is the common plate structure

- Applied load was to support bending beam
- A plate usually have a square shape to function as two-way structure
- Lest direction develops when it become rectangular shape

Folded planes structures is thin element joined together to brace each against lateral buckling

- The bigger size of bearing area the more number of members into the shear is transfered and less forces in the member