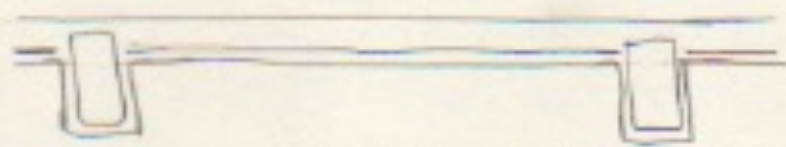


Structure: Concrete



• concrete does not rot or burn
↳ low in cost

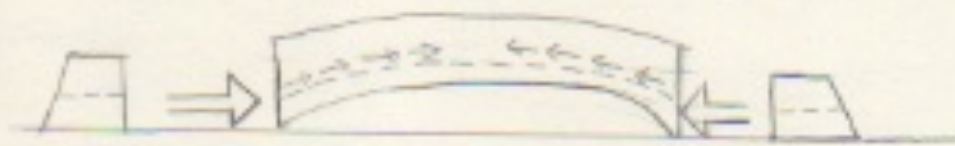
Two-Way Slab and Beam

↳ Effective for medium spans and heavy loads or even high resistance (lateral forces)



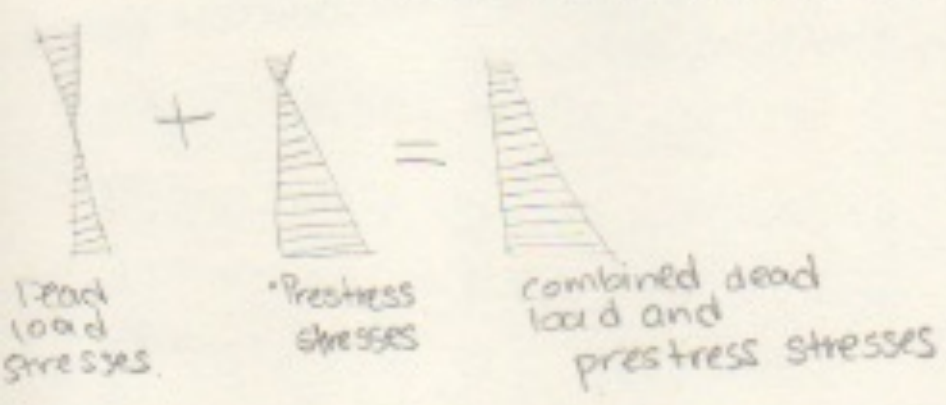
Posttensioning

↳ Reinforcing tendons after concrete sets
- Life span shortens over time due to elastic compression, shrinkage, and creep.

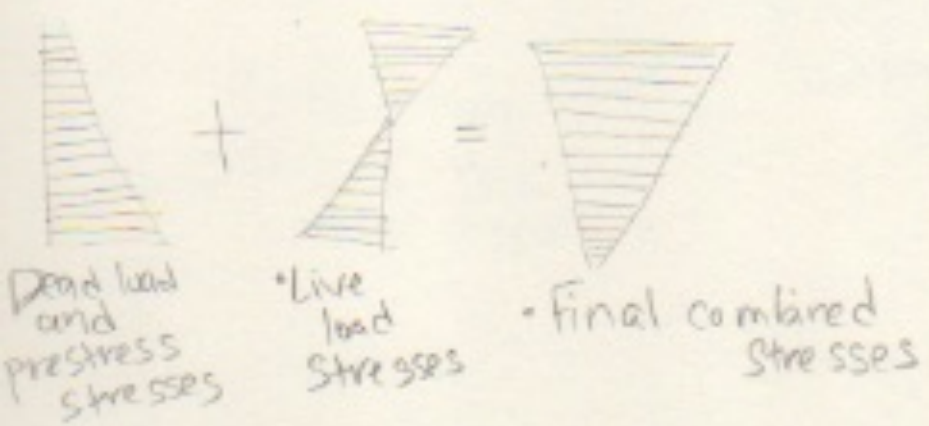


Pretensioning

↳ stretching the reinforcing tendons before the concrete is cast.



Concrete
↳ fine/coarse aggregate, "potable" water, Portland Cement



- Concrete Slabs are thin and prone to cracking.

- Reinforced concrete wall at ground level usually rests on a paired concrete strip footing.

- isolated column = footing, (a pile cap or a Caisson rather than strip footing).

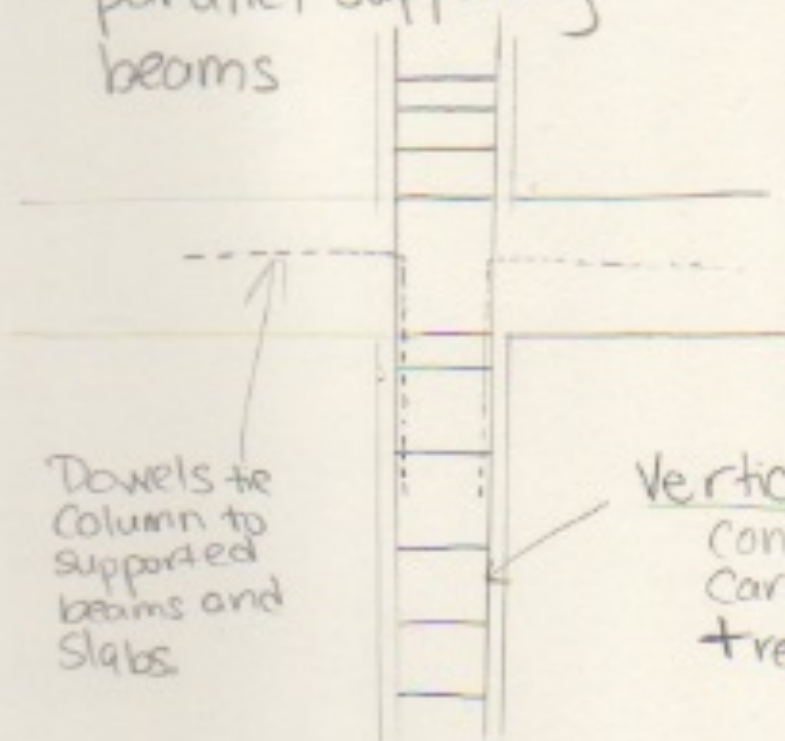
(ICF) Insulating Concrete forms serves both form of the concrete and to remain in place (permanently)

One way slab

↳ uniformly thick
one direction w/
parallel supporting
beams

One-way Joist Slab

↳ closely spaced joists
which results in
support parallel set
of beams
* more suitable
for longer spans
and heavier loads



* Slope shouldn't exceed
1:6 slope

Vertical reinforcement
concrete column to
carry compressive loads
+ reduces effects of shrinkage
+ creep