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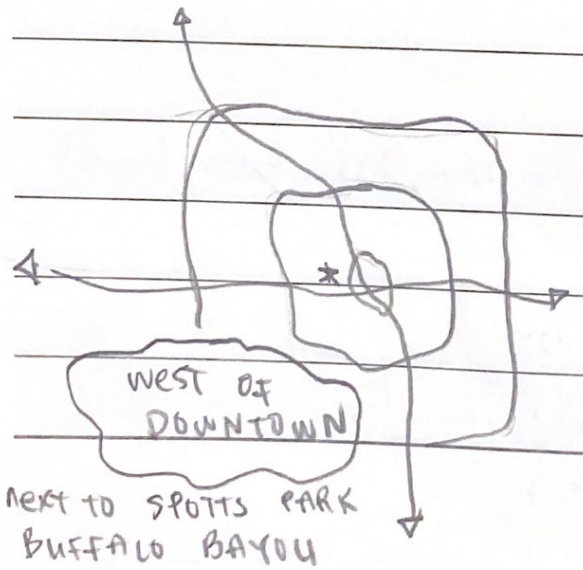
HOUSTON ENDOWMENT headquarters

- Kevin Daly Architects w/ Productora



[CANOPY]

- shading
- extra layer of efficiency for mechanical systems

[Basement]

- Parking garage ↓
- serves as (top) ground level for parks.

[CLT + STEEL Hybrid]

[Design]

- exposed concrete
- net zero aspirations
- canopy
- geothermal / Radiant cooling

All concrete w/ embedded Radiant cooling!

→ BUT COST higher than 2X budgeted

DRIVERS OF COST:

- mobilization of large crane for a relatively small project
- POOR SOIL & SITE OBSTRUCTION
- FORMWORK for each level / long constr. schedule

[WHY MASS TIMBER] ?

SUSTAINABILITY

- low carbon footprint
- possible local material
- light weight

Aesthetics

- structure / finish
- biophilia & natural patterns
- market differentiator

Speed and Cost

- pre-fabrication of engineered wood

Mass Timber:

- > Glulam
- > (CLT) cross laminated Timber
- > (NLT) NAIL " "
- > (DLT) DOWEL " "
- > MASS PLYWOOD panels (MPP)
- > Timber-concrete composites

CLT + steel hybrid

* cheaper
~1/2 cost of concrete scheme

* faster
- steel & CLT effectively prefab & can be installed quickly once footings are poured.
- concrete basement walls phased to be independent of the steel construction.

* lighter
~ 1/2 weight of concrete scheme = smaller foundation
- smaller equipments on site / mobilization costs

* better
- steel allows long span & design flexibility
- CLT reduces carbon footprint
- Raised floor system hides MEP systems but allows for future flexibility.

QUESTIONS:

* HOW WOULD MASS TIMBER COMPARE (longetivity) TO CONCRETE OR STEEL STRUCTURES IN THE LONG RUN.
  → Pretty WELL!

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