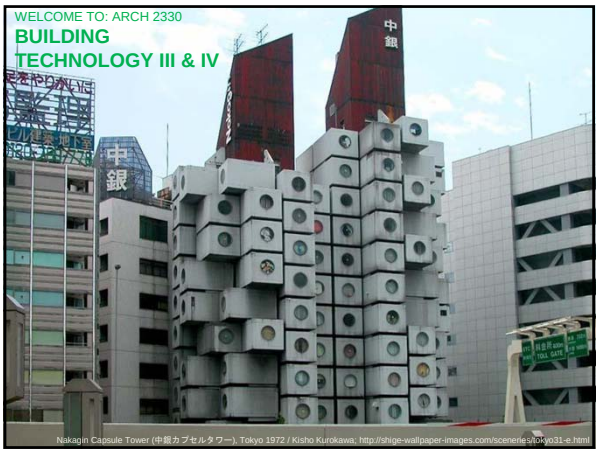


Elevators

We want to create a door component which will describe the elevator in plan on each floor, while showing only one elevator cab in section or 3D.

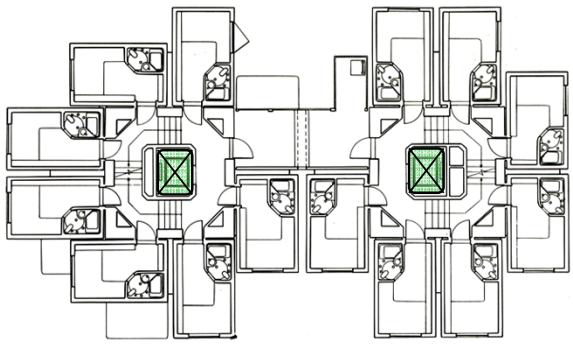
Step required:

a. Understand requirements of elevator manufacturer to place elevator.
b. Download 3D elevator component & elevator door component from SEEK.
c. Alter 3D elevator component to meet manufacturers specified dimensions.
d. Copy 2D linework from plan of 3D elevator family into plan of elevator door Family.
e. Place door component in plans, on each floor as needed.
f. Alter shaft openings as necessary.
g. (optional) Place 3D component on ground floor in same place as door, hide in plan view.

A) Research the dimensions, model, and manufacturer of a commercial elevator that would fit into your shafts; such as from Otis, Shindler or Thyssenkrup.

Typically selecting elevator and shafts sizes is a back-and-forth process between the architect and that engineer.

Nakagin Capsule Tower (中銀カプセルタワー),
Tokyo 1972 / Kisho Kurokawa;

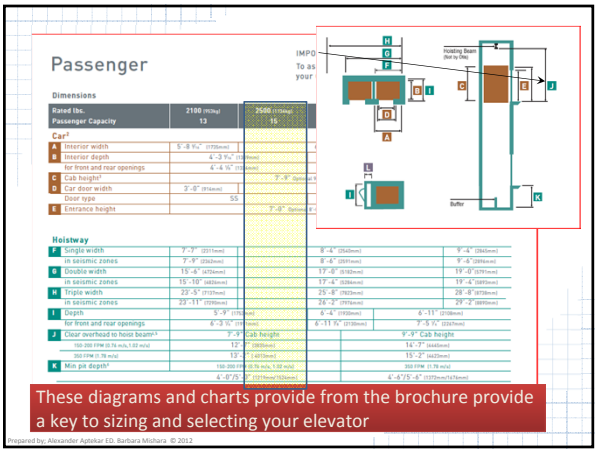


Standard floor plan

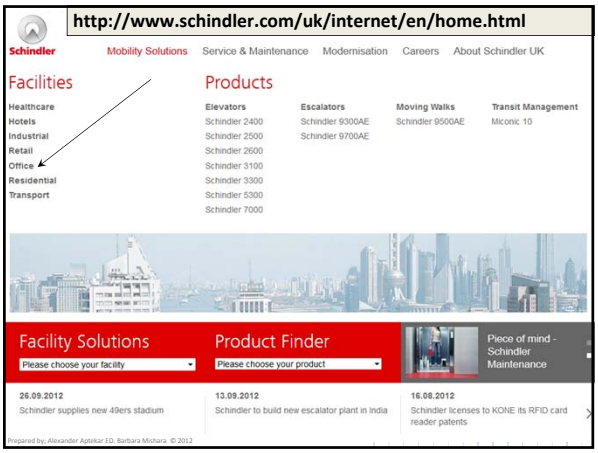
http://moraedesign.wordpress.com/2010/09/14/more-about-nakagin-capsule-tower/
(photo from Kisho Kurokawa: Metabolism and Symbiosis)

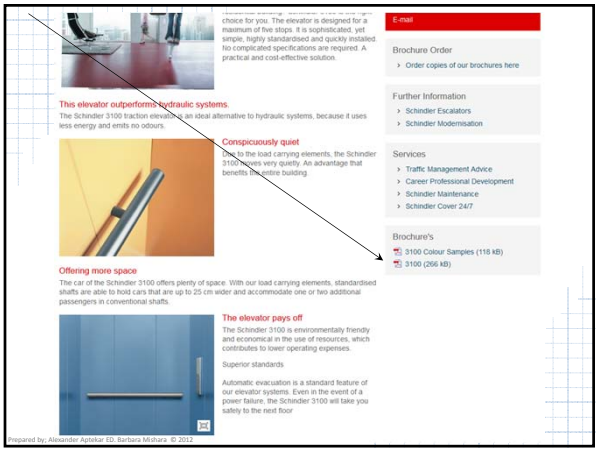
One possible leading commercial elevator manufacturer

1. We can use the Otis Machine room less electric elevator (Gen2 MRL).
We can find additional information in the Brochure

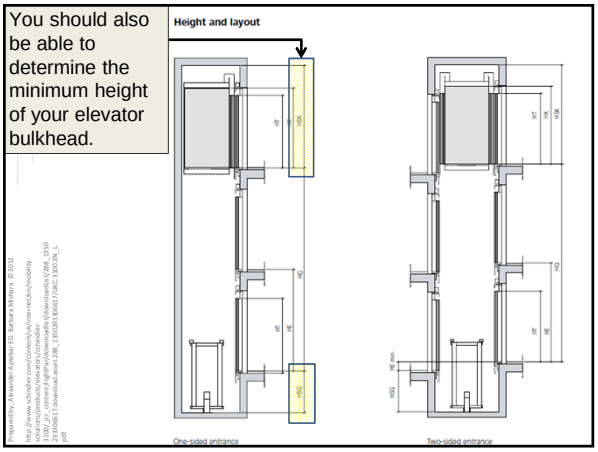


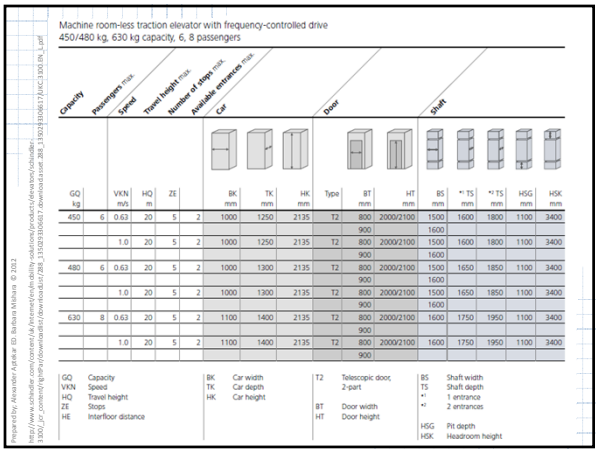
These diagrams and charts provide from the brochure provide a key to sizing and selecting your elevator

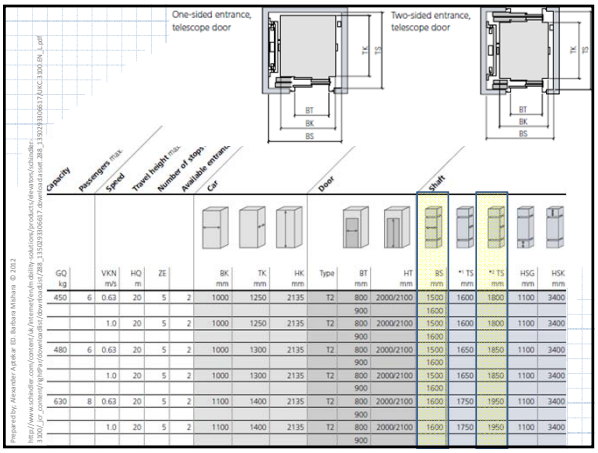


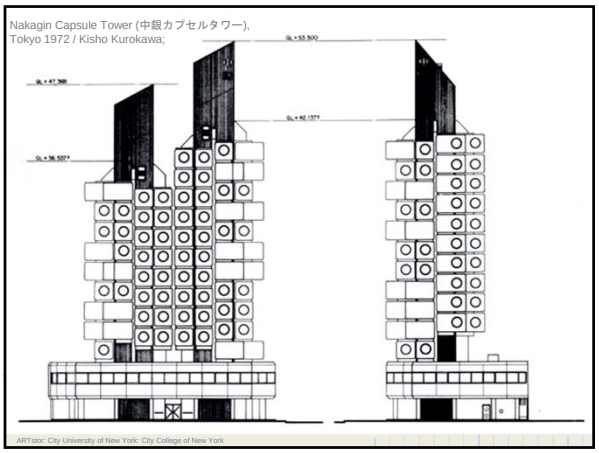


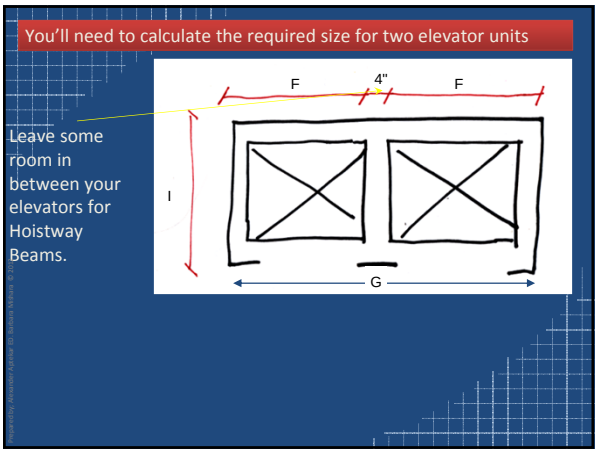
You should also be able to determine the minimum height of your elevator bulkhead.

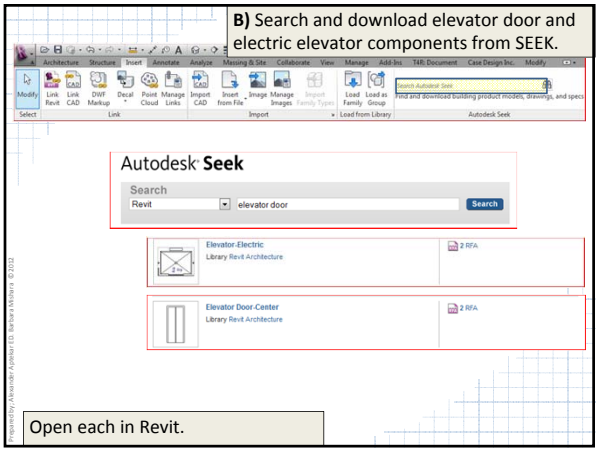


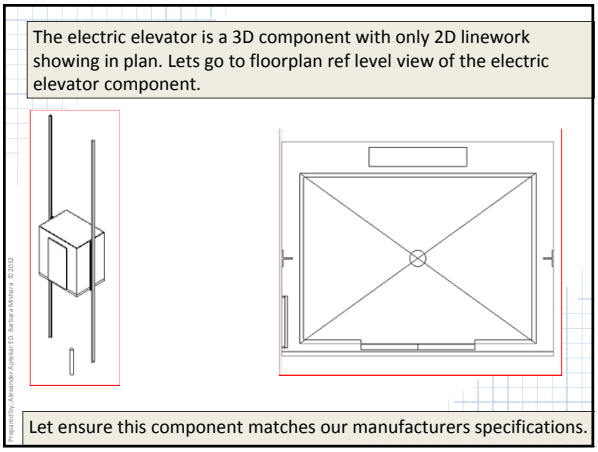


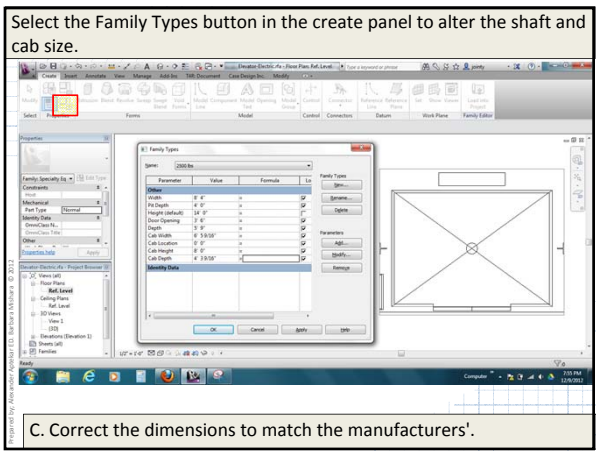


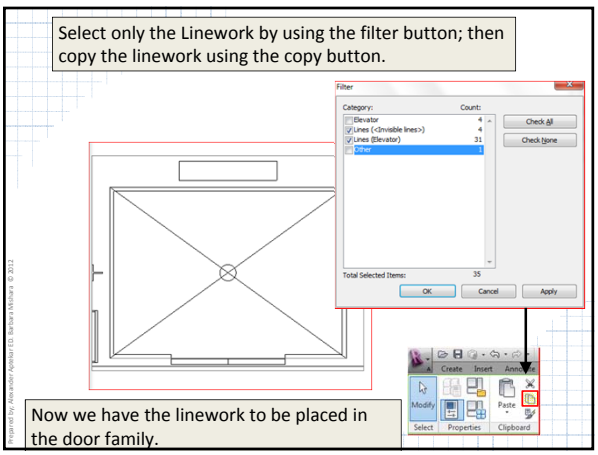

Nakagin Capsule Tower (中銀カプセルタワー),
Tokyo 1972 / Kisho Kurokawa;
ARTstor: City University of New York: City College of New York


You'll need to calculate the required size for two elevator units
Leave some room in between your elevators for Hoistway Beams.
F
4"
F
I
G


B) Search and download elevator door and electric elevator components from SEEK.
Autodesk Seek
Search
Revit
elevator door
Search
Elevator-Electric
Library Revit Architecture
2 RFA
Elevator Door-Center
Library Revit Architecture
2 RFA
Open each in Revit.


The electric elevator is a 3D component with only 2D linework showing in plan. Lets go to floorplan ref level view of the electric elevator component.
Let ensure this component matches our manufacturers specifications.


Select the Family Types button in the create panel to alter the shaft and cab size.
C. Correct the dimensions to match the manufacturers'.

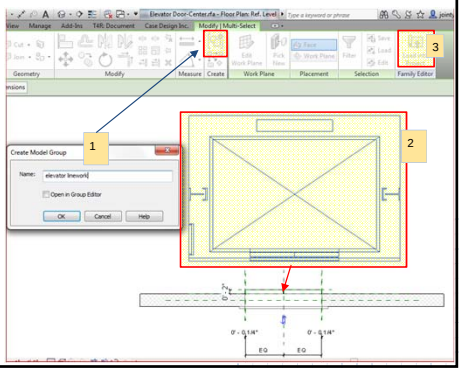

Select only the Linework by using the filter button; then copy the linework using the copy button.
Filter
Category:
Count:
Elevator
Lines (<Invisible lines>)
Lines (Elevator)
Other
Check All
Check None
Total Selected Items:
35
OK
Cancel
Apply
Now we have the linework to be placed in the door family.

D. Paste the linework in to the door family floor plan ref. level view.

1. Group linework using the group button.

2. use align to center group with door and align outer boundary to wall face

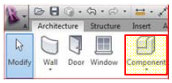
3. Once done, we can start to place the component into our plan. click load into project; load into our building project file.

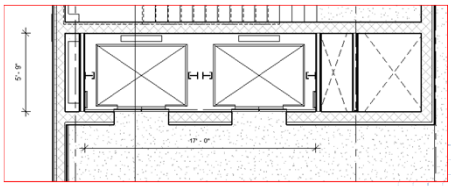


E. Place elevator component in plan within a wall as needed; copy aligned to desired levels.

1. Place component using the component button on the home tab.

2. Copy and paste to selected levels





F. Alter / create shaft outline shaft; take consideration of where floor is not needed, such as between shafts.