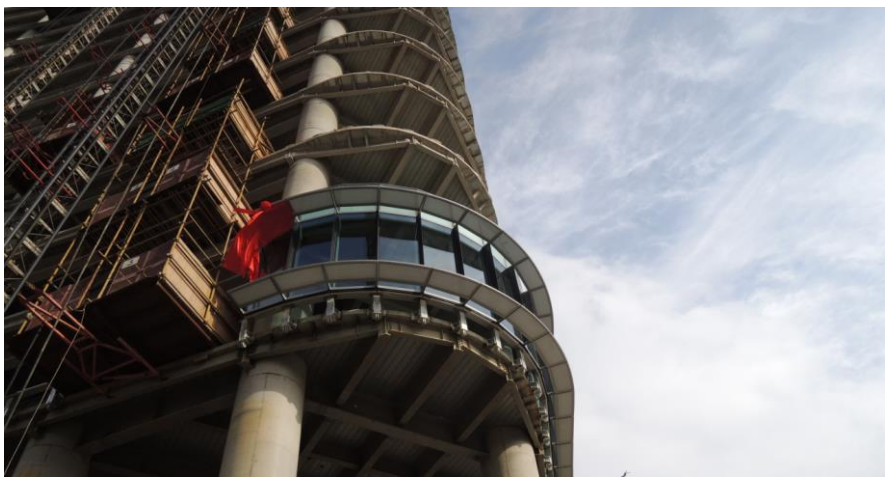
TS 02 MATERIALS - Construction site material exercise
CHAN LEONG NIN

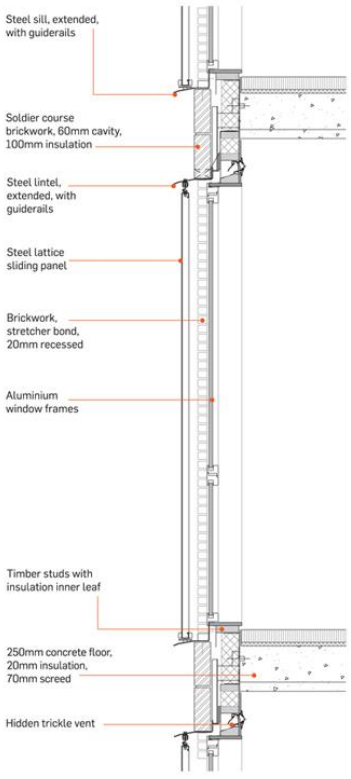
White Magnolia Plaza

Location: Shanghai, China
Number of Stories: 66
Building Height: 319.50 m
Market: Commercial + Office, Hospitality, Mixed Use

The structure of the skyscraper is a combination of reinforced concrete floors and columns with prefabricated glass walls that can be installed at the façade. Each prefabricated glass wall segment is about 2.5m tall. The thickness of the glass wall is about 6mm with double cladding. Within the cladding, there is insulating argon gas of 10mm in between the two pieces of glass.
The photos on the right show the zoom up of the details. The drawing below shows the section of a similar building.

The concrete floor and columns with round- edges were produced by molding with steel beams inside. The reinforcement creates a frame structure that is high relative strength, high toleration of tensile strain, irrespective of pH, moisture. It has thermal compatibility, not causing unacceptable stresses in response to changing temperatures.
The double cladding glass walls provide a buffer zone for thermal changing between inside and outside of the building. The prefabricated glass walls allow a faster construction and have higher strength against the wind.





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