



Proudly Presents...

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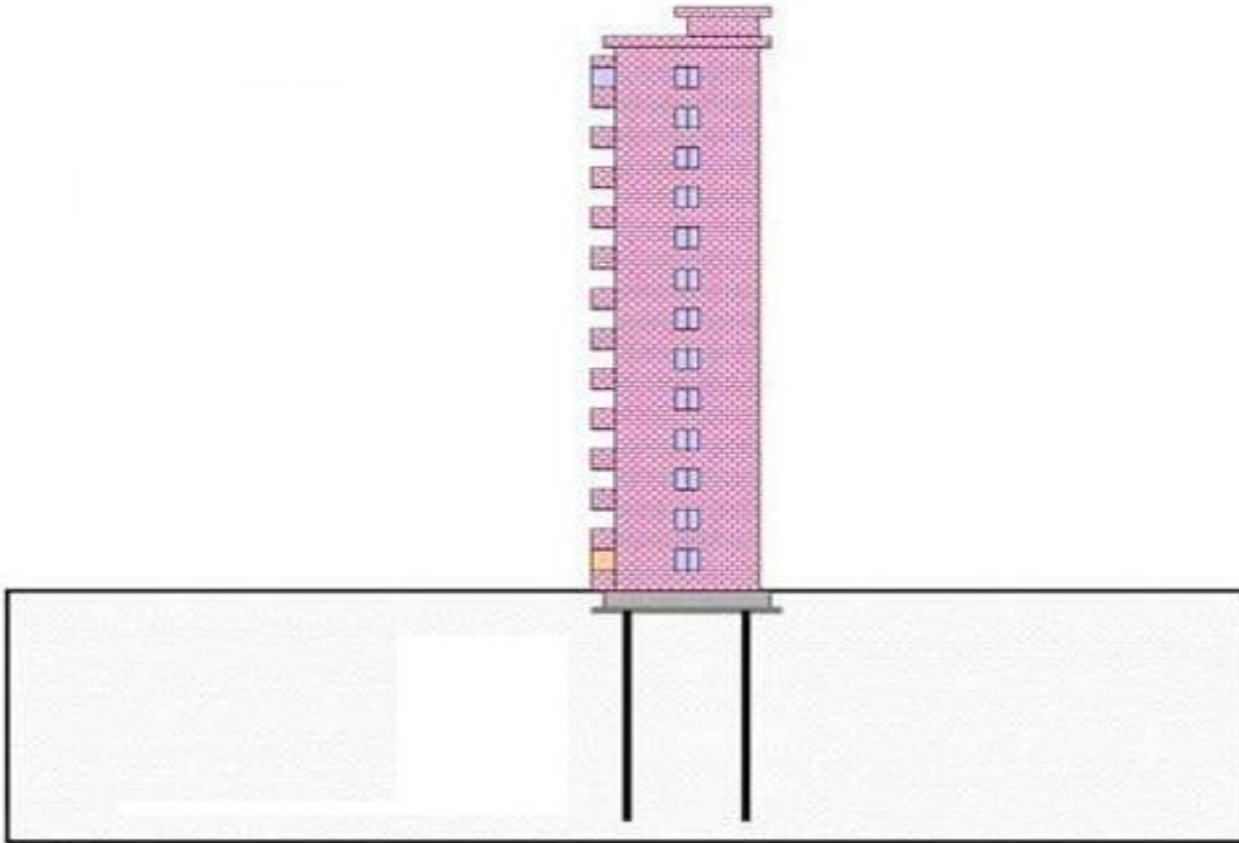
A Dramatic Example of the Effects of
Construction Defects

Construction Defects



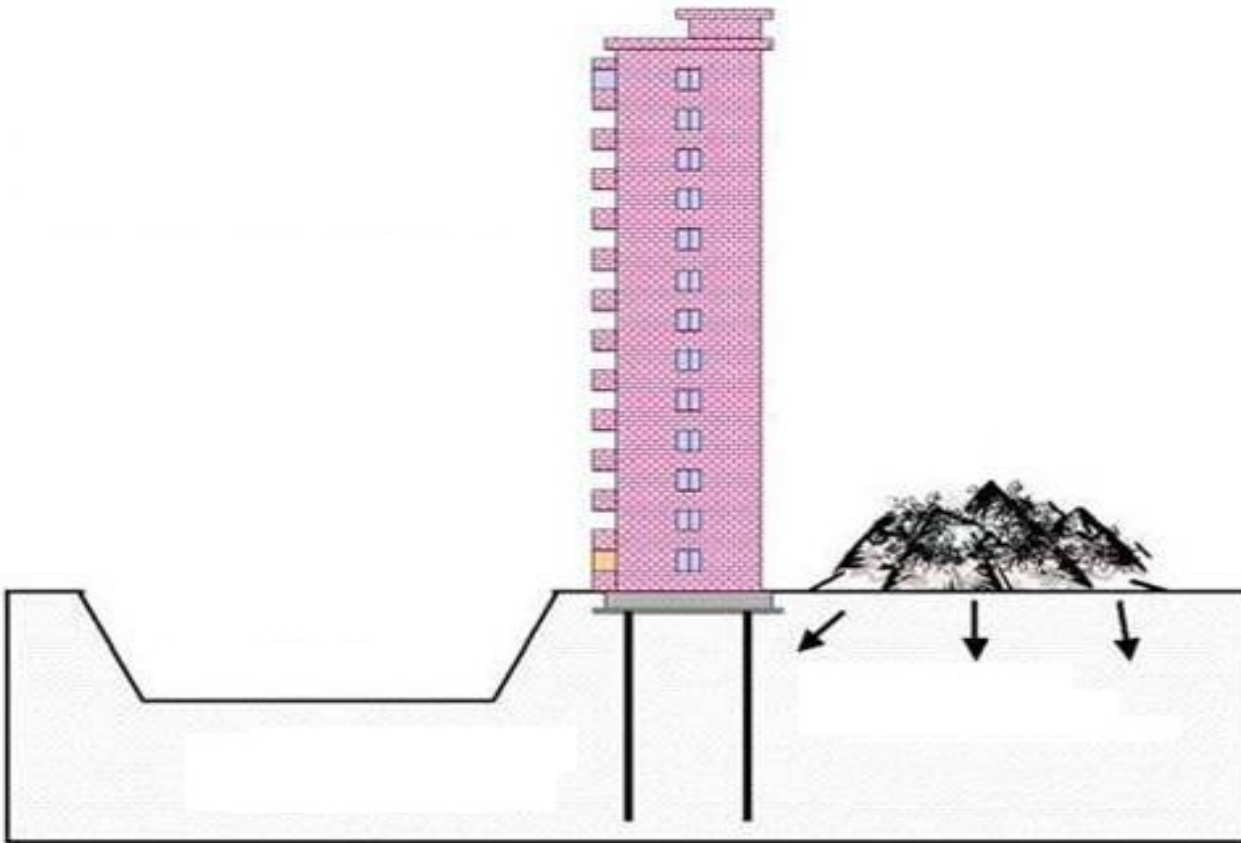
- Shanghai, China on June 27th, 2009
- Lotus Riverside residential complex
- Yes, that is actually a 13 story building lying on its side
- The complex fell due to errors in construction

Construction Defects



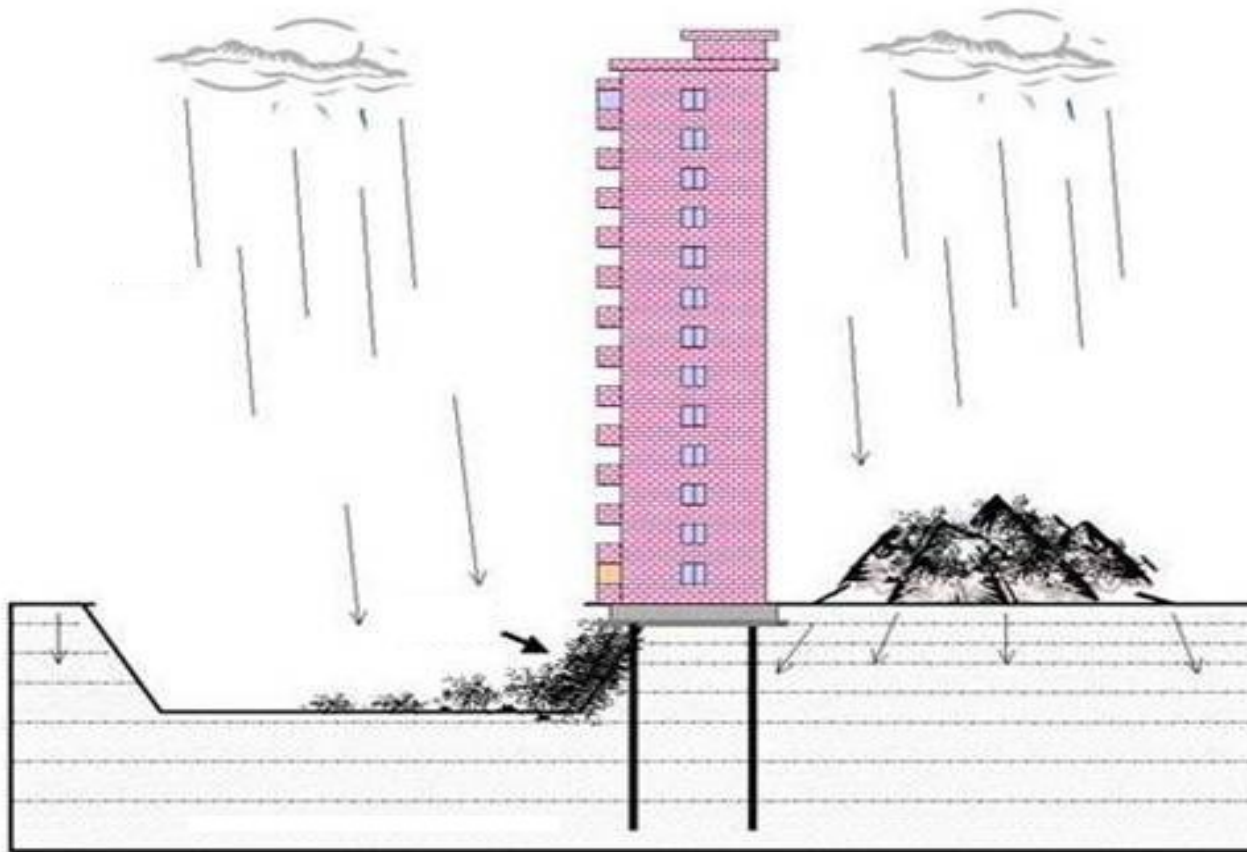
- First, the apartment building was constructed

Construction Defects



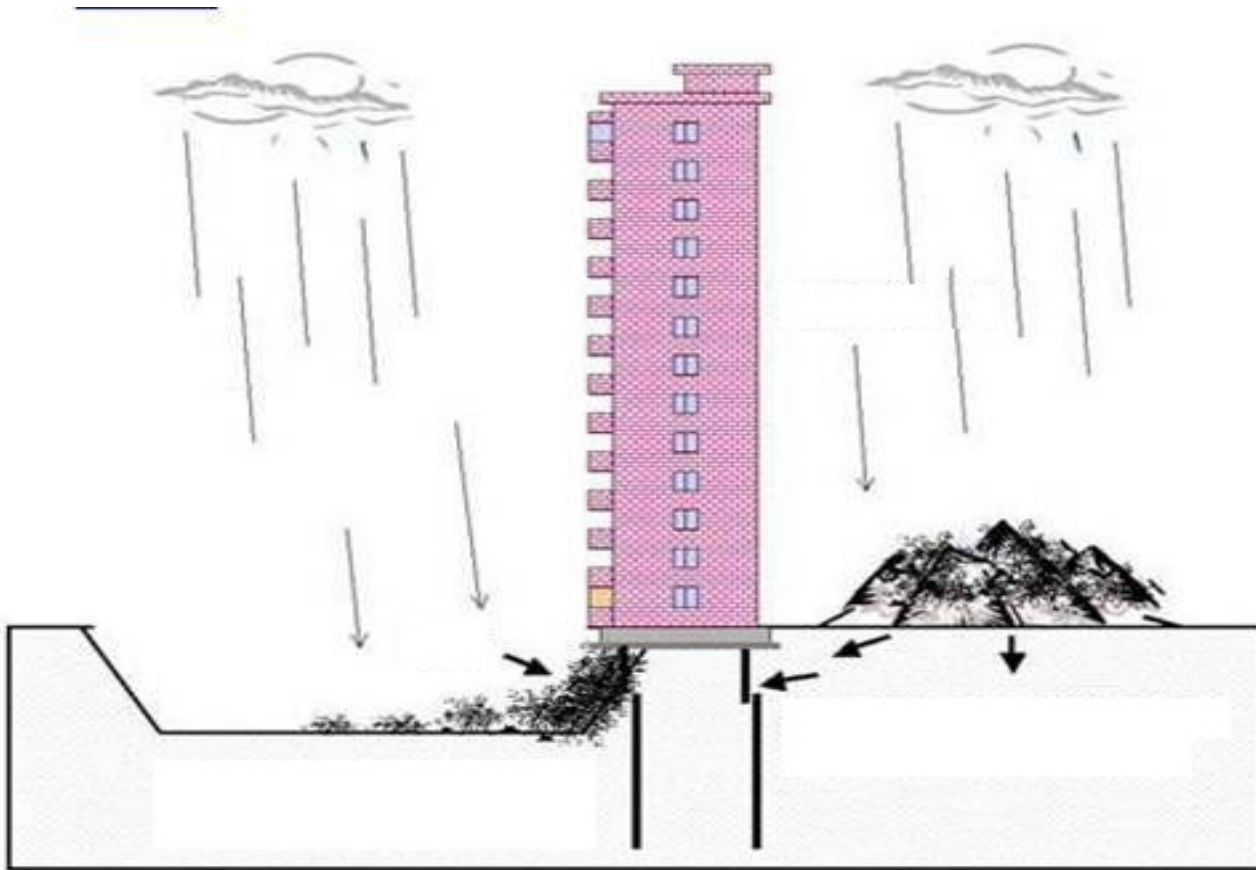
- Then the plan called for an underground garage to be dug out on the south side to a depth of 4.6m
- The excavated soil was piled up to the height of 10m on the north side of the building, putting pressure on the ground below it

Construction Defects



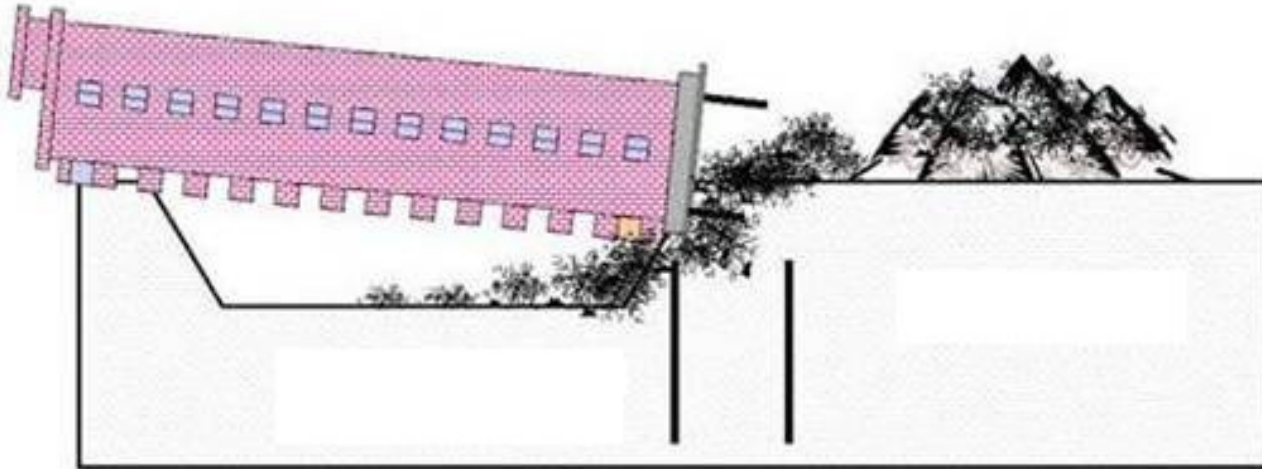
- Heavy rains caused water to seep into the ground
- This weakened and eroded the soil on the sides of the proposed parking garage

Construction Defects



- As a result of the uneven lateral pressure, the building began to shift and tilt.

Construction Defects



- The result was a net lateral pressure of 3,000 tonnes from north to south
- This pressure was greater than what the pilings could tolerate and they therefore snapped
- Thus was born the eighth wonder of the world

Construction Defects



Construction Defects



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Construction Defects



13 Stories, on grade, with no basement, and tied down with hollow pilings with no rebar and significant uneven lateral pressure. The results are no surprise.



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