



Kaizer Knitwears Ltd.

Nayapara, Kashimpur, Gazipur.

(23.990565N, 90.316825E)

21st May, 2018

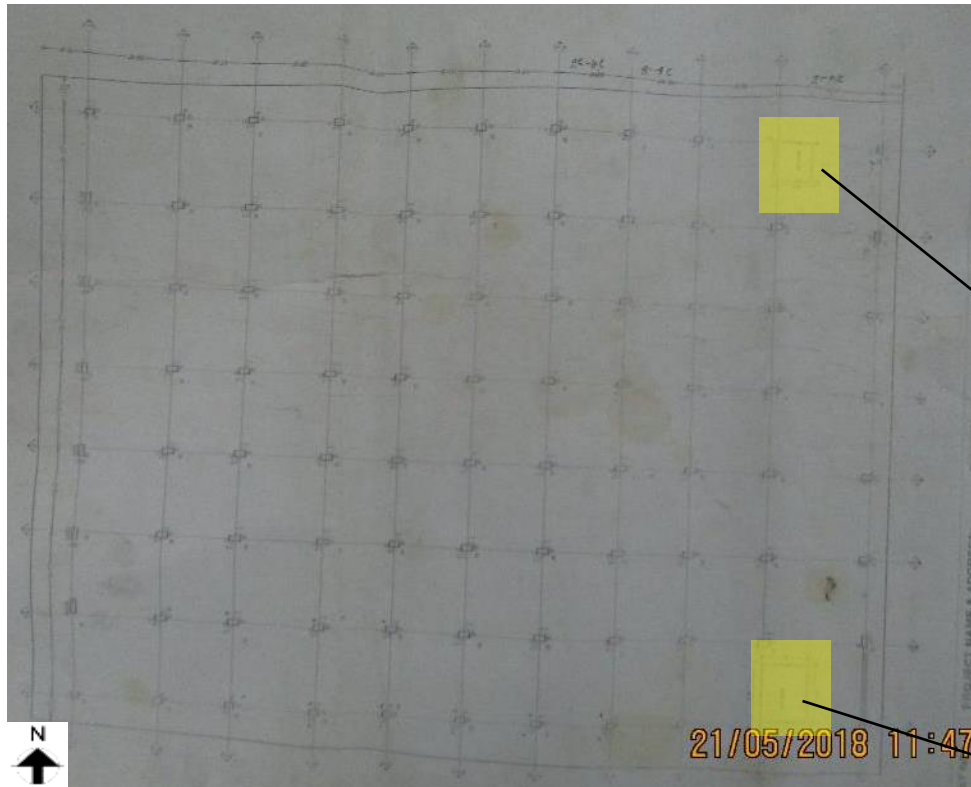




Observations

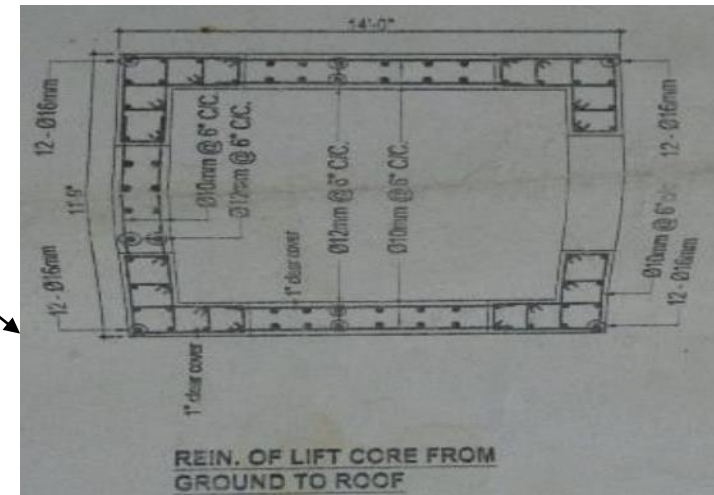


Lateral stability system to be verified



Column and Shear wall layout plan

As per drawing, there are two shear walls provided for the structural system which was not constructed on site. Actual design may have considered the shear walls to resist lateral loads. Building engineer is required to check the structural system considering the moment resisting frame actions.



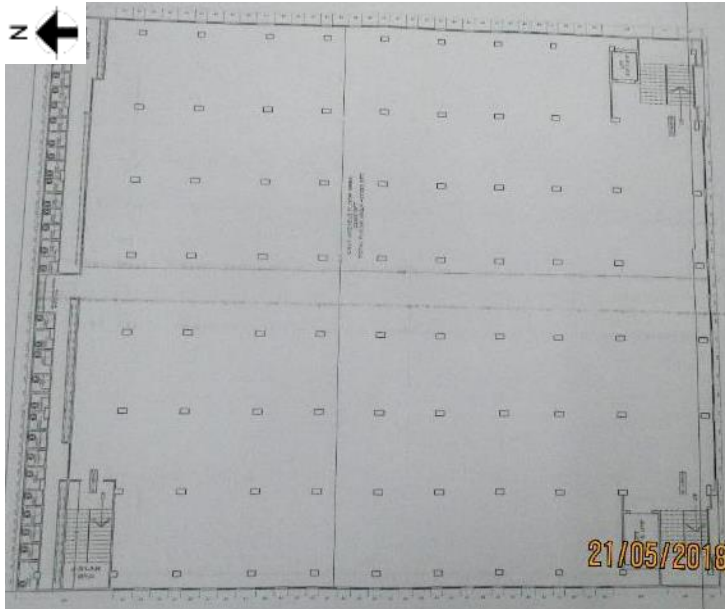
Reinforcement details of Shear wall



Column and Shear wall layout plan

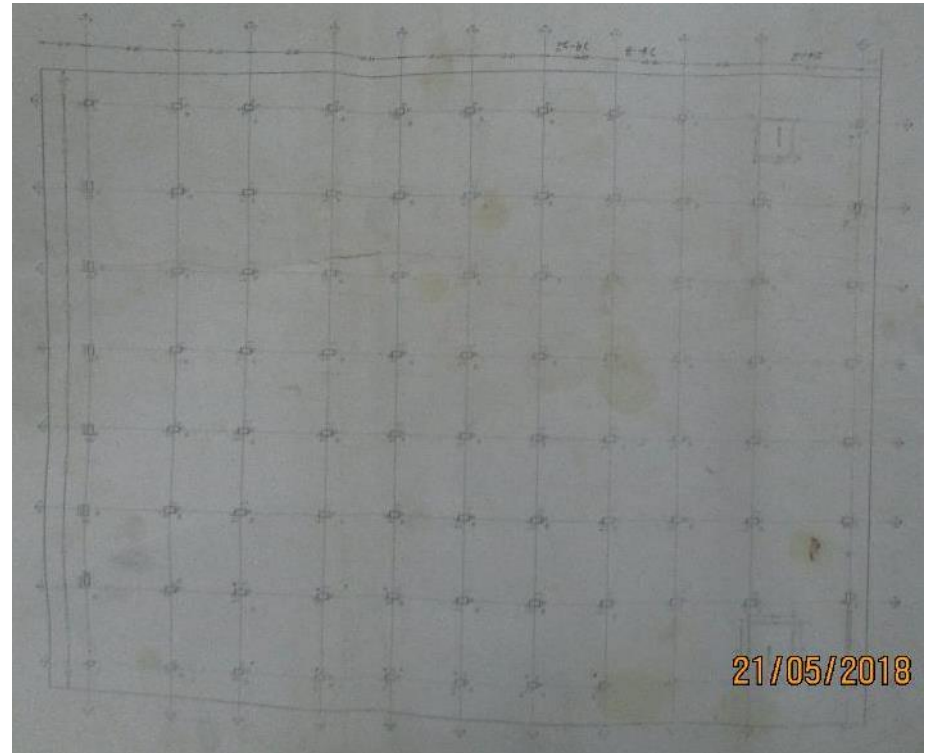


As built drawings not indicative to the site condition



Floor layout plan not matched with site condition.

6 bays constructed instead of 7 in East-West direction. Also stair position not matched.



Column Schedule not matched with site condition.

No credible as built drawings were available on site for review. Building engineer is required to survey the structure and prepare accurate as built drawings.



Implement floor load management program



Uncontrolled loading.

No load management programs were visible. Factory is required to implement load management program as per its floor loading capacity and follow the load plans for all floors of the buildings and make sure that the workers understand the loading requirements.



Columns susceptible to vehicle impact

Observations: Factory Building



Columns were suspected to vehicle impact. Safety barrier is required to protect the vehicle impact.



Falling hazard at roof



No edge protection was provided on roof.



Water ponding and rebar corrosion on roof



Water ponding observed on roof. Very poor drainage system and uncoated slab observed. Building engineer is required to improve the drainage system and apply water proofing membrane on roof.



The exposed rebar's are prone to be corroded. Rust proof coating is required to applied by building engineer.



Non engineer shed to be replaced



Non engineered shed.



Poor connection.

The non engineered shed must be replaced by following reasons:

1. Hazards occupancy like boiler, compressor, generator.
2. Inadequate and distorted steel members.
3. No clear/define load path.
4. Poor connections.
5. Corroded steel.

Observations: Utility Shed



Problems Observed

Factory Building:

- 01: Lateral stability system to be verified.
- 02: Implement floor load management program.
- 03: As built drawings not indicative to the site condition.
- 04: Columns susceptible to vehicle impact.
- 05: Falling hazard at roof.
- 06: Water ponding and rebar corrosion on roof.

Utility Shed:

- 07: Non engineered shed to be replaced.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Lateral stability system to be verified	Building engineer is required to check the lateral stability of the building considering moment resisting frame action. A Engineering Assessment of Factory Building to be carried out.	6-weeks
2	Lateral stability system to be verified	Implement the recommendation of Engineering Assessment.	6-months
3	As built drawings not indicative to the site condition	Building engineer is required to survey the structure and produce as constructed drawings.	6-weeks
4	Implement floor load management program	Maintain loading below 3 kPa.	6-weeks
5	Implement floor load management program	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-weeks
6	Implement floor load management program	Continue to implement load plan.	6-months
7	Columns susceptible to vehicle impact	Safety barrier is required to protect the vehicle impact.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
8	Falling hazard at roof	Provide edge protection to prevent falling hazard.	6-weeks
9	Water ponding and rebar corrosion on roof	For both durability and serviceability, rust proof paint or any appropriate method is recommended.	6-weeks
10	Water ponding and rebar corrosion on roof	Waterproofing on the roof slab is to be applied. Moreover the roof slab drainage system should be investigated and improved.	6-weeks
11	Non engineered shed to be replaced	Demolish the non engineered shed.	6-weeks
12	Non engineered shed to be replaced	Replace the non engineered shed by an engineered structure.	6-months