



4 Stitch Knit Composite Ltd.

West Shaildubi, Ward No: 05, Kashimpur, Gazipur – 1346, Bangladesh.

Co-ordinates: 23.958288N, 90.307489E

21st July 2019





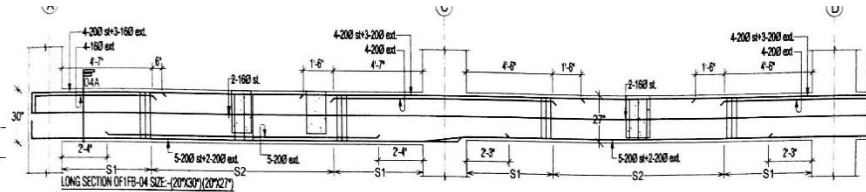
Observations



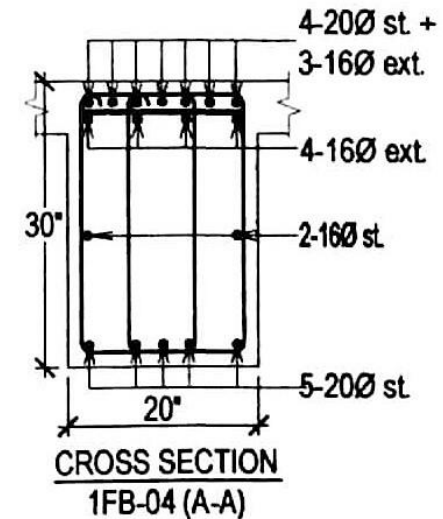
Discrepancies between provided drawing and on-site condition



1st to 5th floor roof beam layout

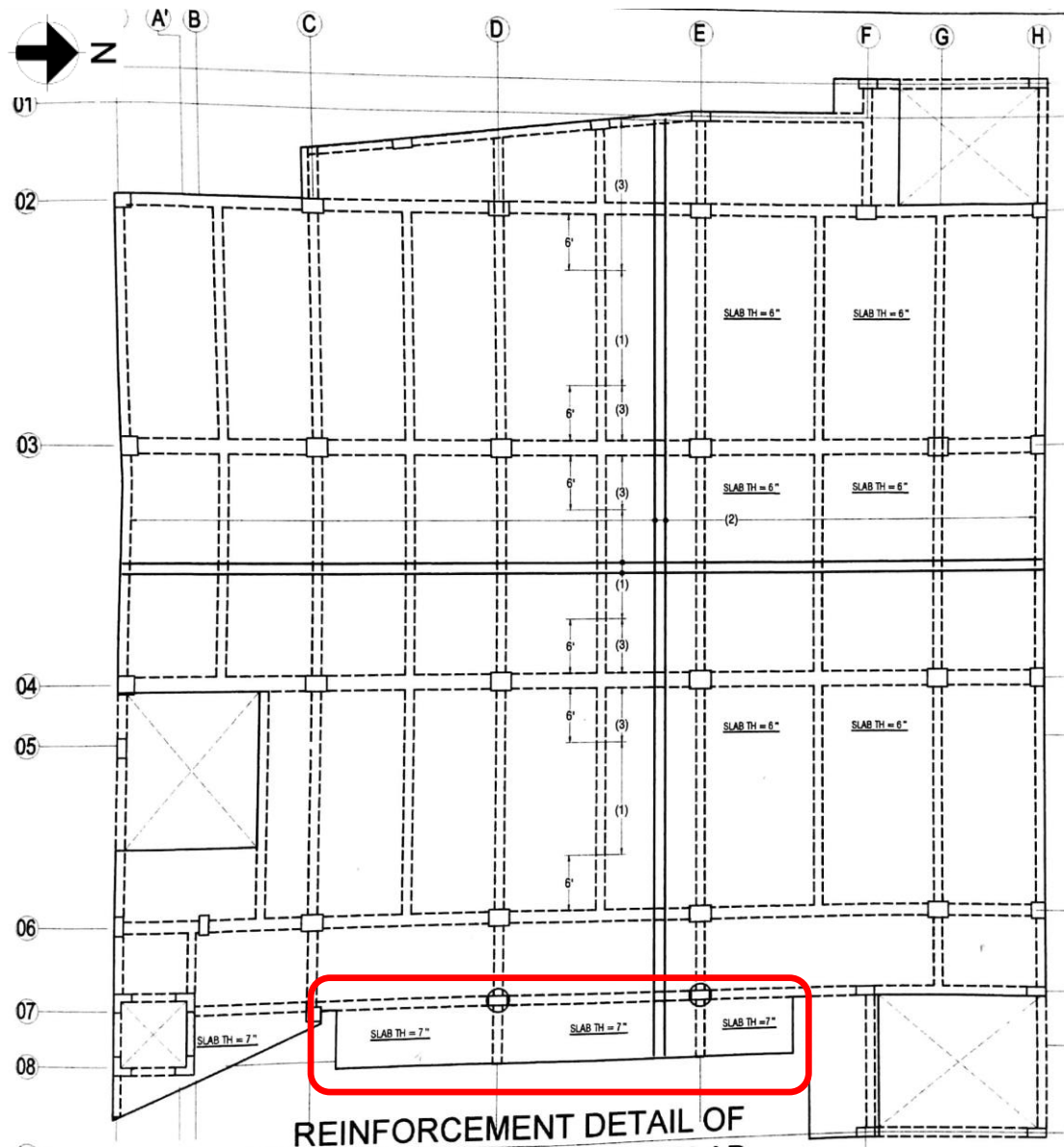


Long section of FB-04



Beam cross section

Beam width of FB-03 & FB-04 was supposed to be 20 inches as per provided as-built drawings. During inspection, beam width of FB-03 & FB-04 on 1st to 3rd floor roof was found 18 inches.



1st to 5th floor roof beam layout



6 inches cantilever slab

Slab thickness of 1st to 3rd floor slab in the cantilever portion (Marked in Layout) was found to be 6 inches whereas slab thickness in that portion was supposed to be 7 inches as per provided slab layout.



Implement floor load management program

Observation: Main Building

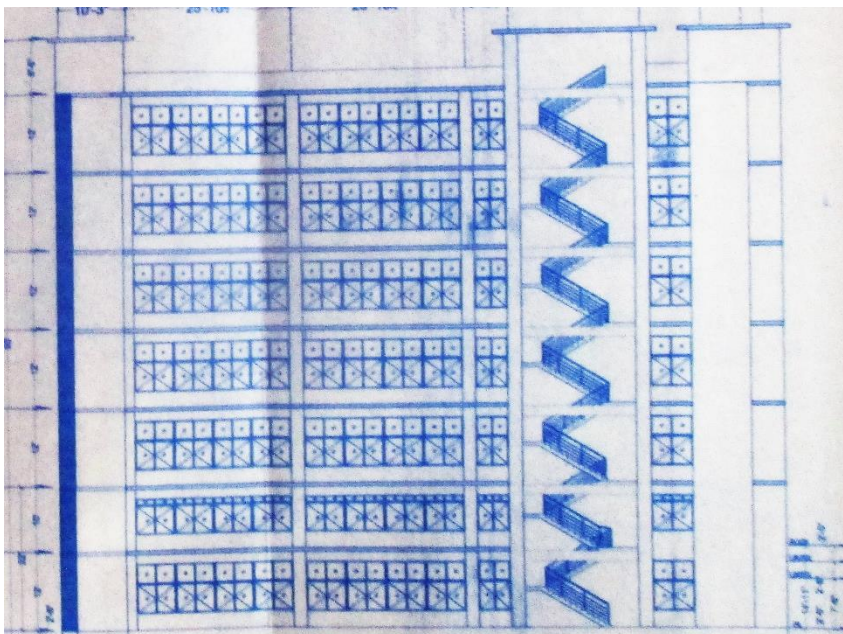


No load management programs were visible. Load plan has been prepared but not posted on floors. Factory is required to implement load management program as per produced load plans for all floors of the buildings and make sure that the workers understand the loading requirements. Also, provide load height marking in storage areas.

Observation: Main Building



Possible vertical extension



LGED Permit drawing showed 6-storied with mezzanine



3-storied Main Building with a mezzanine

This building is permitted for 6 storied with a mezzanine (G+M+5) on the ground floor from LGED. Currently the building is 3 storied with a mezzanine. Factory has a future plan to complete construction up to 6 storeys. Proposed drawings were available during inspection. Factory engineer is required to carry out a Detail Engineering Assessment considering BNBC standard prior to any extension work.

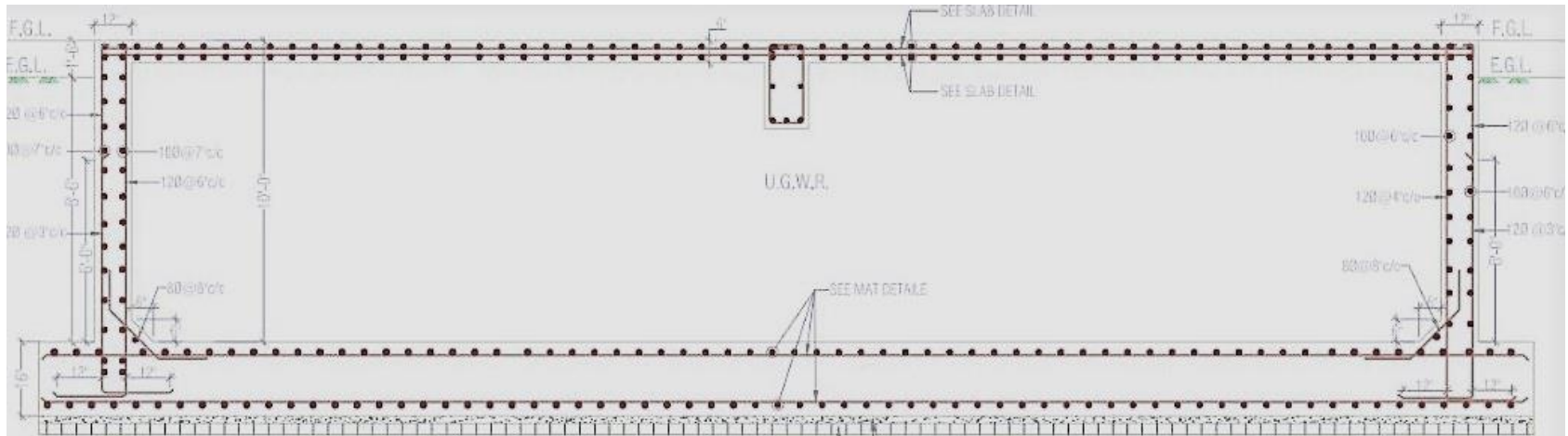


Slab adequacy check of underground water reservoir

Underground Water Reservoir is situated beneath the vehicle parking and loading-unloading zone. Top slab thickness is 6 inches as per provided water reservoir drawing. Therefore, factory is required to check for adequacy of the top slab of water reservoir.



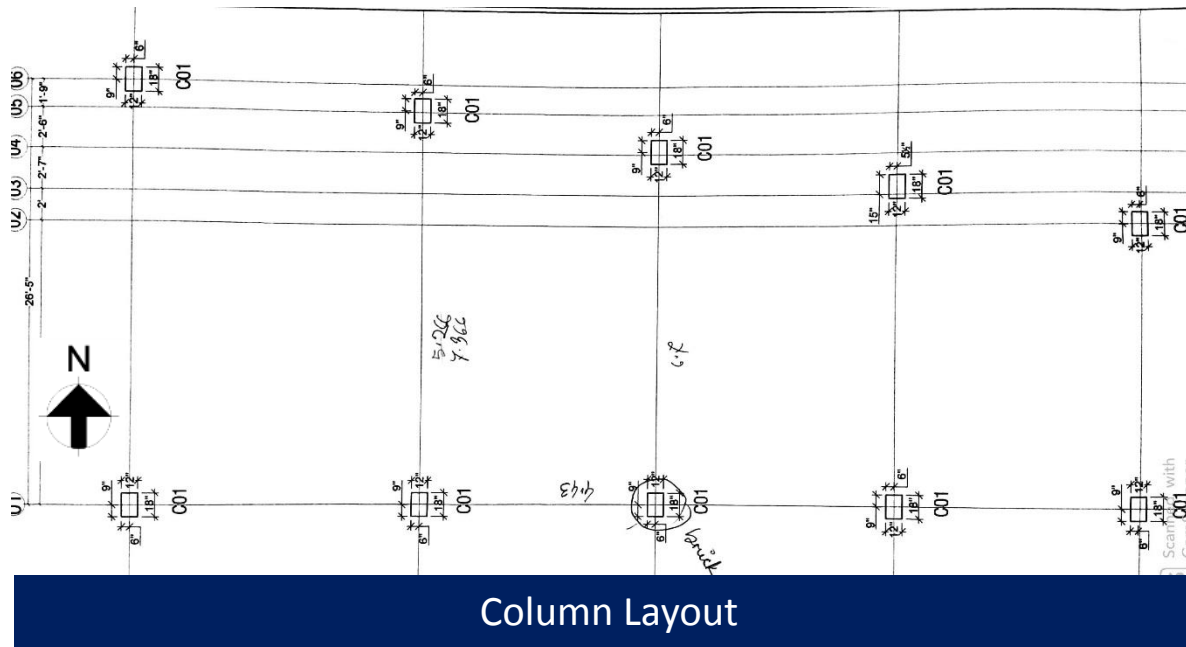
Current roof of factory building



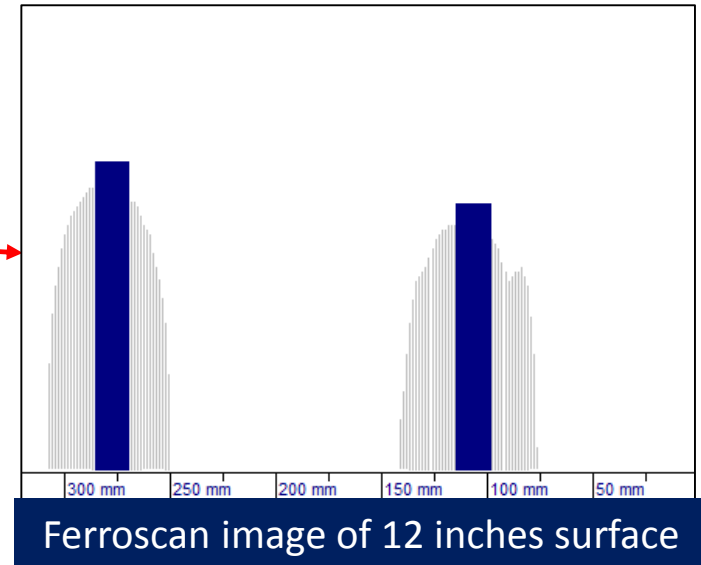
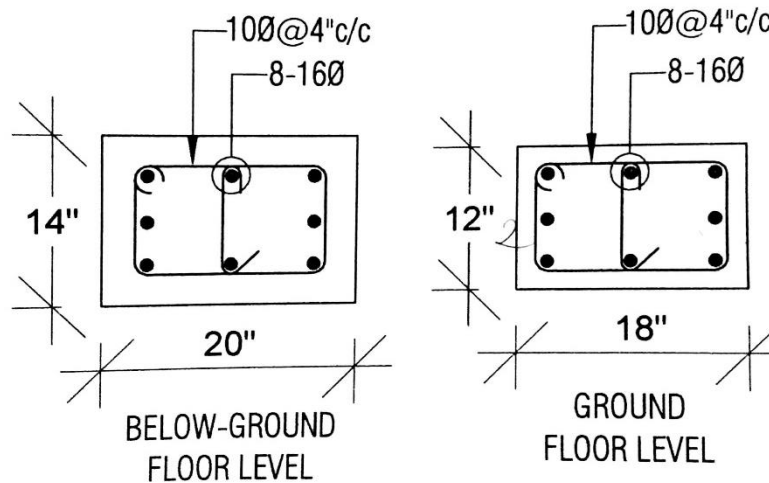
Section of water reservoir



Discrepancies between provided drawing and on-site condition



6-16 mm rebars were found in C1 type columns in stead of 8-16 mm rebars as mentioned in provided as-built structural drawing. Factory is required to update as-built drawings representing actual on-site condition.





Apparently non-engineered shed



Light weight roof supported on RC column



Non-engineered connection

Dining Shed is apparently non-engineered shed. Poor connection between support and rafter. Building engineer to check the stability of the lightweight roof structure against lateral loading and if inadequate then replace the structure with an engineered one. Also, prepare as-built drawings for the structure.



Problems Observed

Main Building:

Item 01: Discrepancies between provided drawing and on-site condition.

Item 02: Implement floor load management program.

Item 03: Possible vertical extension.

Item 04: Slab adequacy check of underground water reservoir.

Utility Building:

Item 05: Discrepancies between provided drawing and on-site condition.

Dining Shed:

Item 06: Apparently non-engineered shed.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Discrepancies between provided drawing and on-site condition (Main Building)	Building engineer to survey the building and update as-built drawings reflecting the as constructed condition.	6-weeks
2	Implement floor load management program. (Main Building)	Factory is required to implement load management program (signage, load restriction height marking) as per floor load plan.	6-weeks
3	Implement floor load management program. (Main Building)	Continue to implement load plan.	6-months
4	Possible vertical extension. (Main Building)	In case of extension, detailed engineering assessment to be carried out following BNBC requirement.	6-weeks
5	Slab adequacy check of underground water reservoir. (Main Building)	Building Engineer to check the adequacy of top slab of underground water reservoir for the applied load.	6-weeks
6	Slab adequacy check of underground water reservoir. (Main Building)	Implement remediation work if required.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Discrepancies between provided drawing and on-site condition. (Utility Building)	Building engineer to survey the building and update as-built drawings reflecting the as constructed condition.	6-weeks
8	Apparently non-engineered shed. (Dining Shed)	Prepare an “as constructed” drawings which reflect the actual site dimensions with complete structural information.	6-weeks
9	Apparently non-engineered shed. (Dining Shed)	Building engineer to check the capacity of the lightweight steel roof against lateral loading.	6-weeks
10	Apparently non-engineered shed. (Dining Shed)	Carry out remedial works resulting from engineering assessment if necessary.	6-months