Styllent Knit Limited

North Gomail, Zirabo, Ashulia, Dhaka-1341

(23.943713, 90.317044)

5 March 2024

RSC RMG SUSTAINABILITY COUNCIL

Level 5, Shanta Forum, 187, 188/B,
Bir Uttam Mir Shawkat Sarak, Tejgaon,
Dhaka- 1208, Bangladesh
PABX : +880 2 41081863-6
www.rsc-bd.org

1. Building Information

1) Main Production Building: The building is a six-storied (G+5) reinforced concrete building with a three-storied (G+2) extension.

2) Utility Building: The building is a two-storied (G+1) reinforced concrete building.

3) Wastage Shed: The building is a single-storied steel shed.

4) Guard Room: The building is a single-storied masonry structure.

5) Fire Pump Building: The building is a single-storied RC structure.

2. Observations

Observation 1: Inadequate number of concrete cylinder test report (Main Production Building).

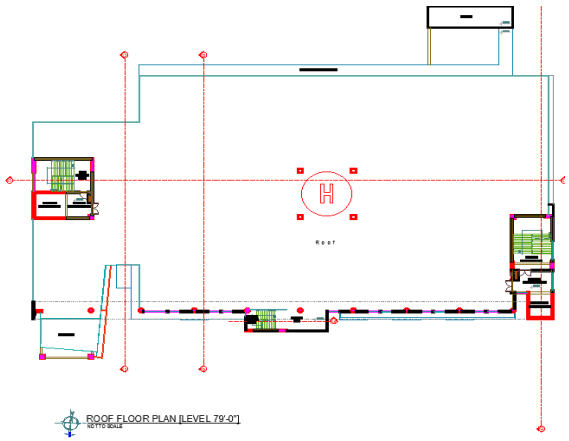
Material strength:

- Compressive strength of concrete (f'c) 3500 psi is considered in structural design.
- Yield strength of reinforcing bar (fy) is 60000 psi. for Foundation, Column, Wall, Beam, Slab etc.

7

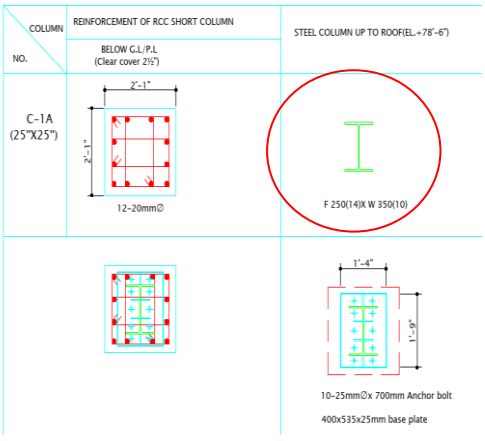
Description: The design strength of all structural members is used as 24.13 MPa (3500 psi). At the time of inspection 16-concrete cylinder test report was available from foundation which doesn't meet the frequency of testing (BNBC). The building engineer is required to check and confirm the design strength by reviewing the existing cylinder test data according to the BNBC. If the existing cylinder test data does not satisfy the BNBC 5.12, confirm the concrete strength by taking 100 mm diameter core (minimum 4 nos.) from lower tier columns. Update the design report as per the in-situ material strength following BNBC 1.9.1.

Observation 2: Discrepancy and missing information in as-built drawing. (Main Production Building).



ROOF FLOOR PLAN [LEVEL 79'-0"]

COLUMN SCHEDULE-1 (STEEL COLUMN)

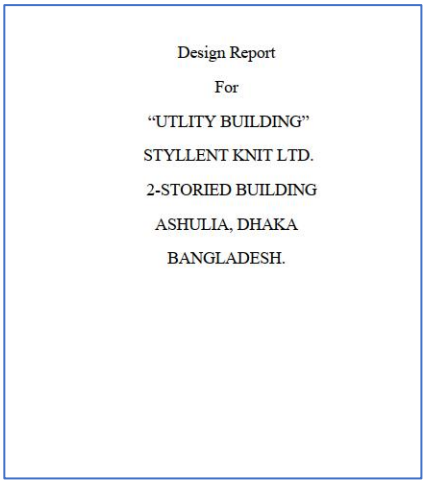


Description: Two undocumented plastic water tanks (5000-liter capacity each) were found on the roof slab. Also, steel column is shown at marked location, but no such column was found. The building engineer is required to update the as-built drawing and consider it in the design check.

Observation-3: Nonstructural elements found not anchored/braced (Main Production Building).

Description: Nonstructural elements found not anchored/braced. The building engineer is required to anchor/brace all nonstructural elements within the factory.

Observation-4: Building to be checked against lateral loading (Utility Building)



Design Report

For

"UTLITY BUILDING"

STYLLENT KNIT LTD.

2-STORIED BUILDING

ASHULIA, DHAKA

BANGLADESH.

Description: A design report was available on site at the time of inspection. The building engineer is required to check the structure against lateral loading and submit the design report to RSC for review.

Observation-5: Stagnant water on the roof slab. (Utility Building).

Description: Stagnant water on the roof slab. The building engineer is required to improve the drainage system on the roof slab.

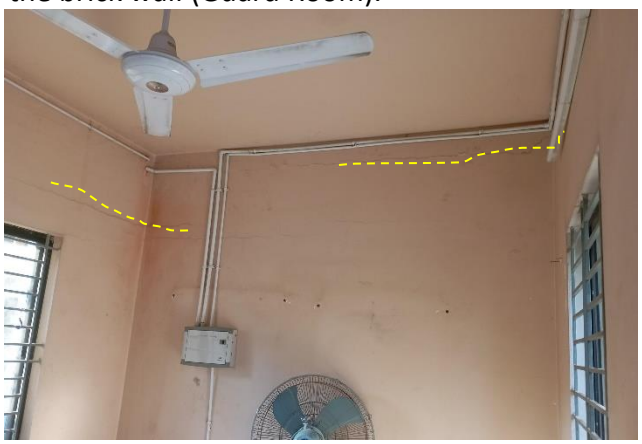
Observation-6: Falling hazard at roof level (Utility Building).

Description: Railing was not found on the staircase. The building engineer is required to provide edge protection to avoid falling hazards.

Observation-7: Nonstructural elements found not anchored/braced (Utility Building).

Description: Nonstructural elements were found not anchored/braced. The building engineer is required to anchor/brace all nonstructural elements within the factory.

Observation-8: Crack on the brick wall (Guard Room).



Description: Crack was found on brick wall surface. The building engineer is required to investigate the cracked area and repair it with a suitable method.

Observation-9: Nonstructural elements found not anchored/braced (Guard Room).

Description: Nonstructural elements were found not anchored/braced. The building engineer is required to anchor/brace all nonstructural elements within the factory.

Observation-10: Lack of as-built drawing (Guard Room).

Description: As-built drawings for these structures were not found on site. The building engineer is required to produce as-built drawing for these structures.

Observation-11: Poor connection (Wastage Shed)

Description: Poor connection was found for the structure. The building engineer is required to provide proper anchorage to resist the uplift forces. Otherwise replace the structure with a well-designed structure.

3. Action Plan:

Observation	Action Plan	Timeline
Inadequate number of concrete cylinder test report (Main Production Building)	The building engineer is required to check and confirm the design strength by reviewing the existing cylinder test data according to the BNBC. If the existing cylinder test data does not satisfy the BNBC 5.12, confirm the concrete strength by taking 100 mm diameter core (minimum 4 nos.) from lower tier columns.	within 6 weeks
	Update the design report as per the in-situ material strength following BNBC 1.9.1. and submit to RSC for review.	within 6 weeks
	Implement remediation work from design review.	within 6 months
Discrepancy and missing information in as-built drawing (Main Production Building)	The building engineer is required to prepare as-built drawings reflecting the on-site condition.	within 6 weeks
Nonstructural elements found not anchored/braced (Main Production Building)	The building engineer is required to anchor/brace all nonstructural elements within the factory.	within 6 months
Building to be checked against lateral loading (Utility Building)	The building engineer is required to check the structure against lateral loading and submit the design report to RSC for review.	within 6 weeks
	Implement remediation work from design review.	within 6 months
Stagnant water on the roof slab. (Utility Building)	The building engineer is required to improve the drainage system on the roof slab.	within 6 weeks
Falling hazard at roof level (Utility Building)	The building engineer is required to provide edge protection to avoid falling hazard.	within 6 weeks
Nonstructural elements found not anchored/braced (Utility Building)	The building engineer is required to anchor/brace all nonstructural elements within the factory.	within 6 months
Repair crack on wall (Guard Room)	The building engineer is required to investigate the cracked area and repair with a suitable method.	within 6 months
Nonstructural elements found not anchored/braced (Guard Room)	The building engineer is required to anchor/brace all nonstructural elements within the factory.	within 6 months

Observation	Action Plan	Timeline
Lack of as-built drawing (Guard Room)	The building engineer is required to prepare as-built drawings reflecting the on-site condition.	within 6 weeks
Poor connection (Wastage Shed)	The building engineer is required to provide proper anchorage to resist the uplift forces. Otherwise replace the structure with a well-designed structure.	within 6 months