



S.B. Knit composite (6 storied Dyeing & printing)

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Observations



Heavy loading on 1st floor slab

Observations: 6- Storied Building



Heavy machinery



Additional build up floor
build up 280 mm to 350 mm



Heavy machinery with additional build up
observed in 1st floor slab. Building engineer
is required to check the flexure capacity of
the slab.



Building appears to be non-engineered

Observations: Utility Building



Missing beams in short direction



Missing beam in short direction

The building has very long span slabs and a missing downstandbeam. Weak in lateral stability in short direction.



Poor bracing connection

7 **Observations: Boiler Shed**



Poor bracing connection observed in the building shed. Building engineer is required to check & update the connection of the roof bracing.



Problems Observed

6-Storey Building :

1: Heavy loading on 1st floor slab.

Utility Building :

2: Building appears to be non-engineered.

Boiler Shed:

3: Poor bracing connection.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Heavy loading on 1st floor slab (6-Storied Building)	Building engineer is required to check the flexural capacity of slab due to heavy loading.	6-weeks
2	Heavy loading on 1st floor slab (6-Storied Building)	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-weeks
3	Heavy loading on 1st floor slab (6-Storied Building)	Carry out remedial works where necessary.	6-months
4	Building appears to be non-engineered (Utility Building)	Adequacy of slabs and beams to be confirmed as part of Detailed Engineering Assessment.	6-weeks
5	Building appears to be non-engineered (Utility Building)	Detailed Engineering Assessment to be completed and any remedial measures implemented. See attached Scope.	6-weeks
6	Building appears to be non-engineered (Utility Building)	Carryout remedial works where required.	6-months
7	Poor bracing connection (Boiler Shed)	Building engineer is required to check the lateral stability of the shed and adequacy of the bracing connection.	6-weeks
8	Poor bracing connection (Boiler Shed)	Carry out remedial works where necessary.	6-months



Detail Engineering Assessment

This Schedule develops a minimum level of information, Analysis and testing expected as part of a Detail Engineering Assessment.

The Building(s) have been visually assessed and it is deemed necessary that a detailed engineering assessment be carried out by a competent Engineering Team employed by the factory Owner.

This Request should be read in conjunction with the ACCORD DEA guideline , ACCORD standard for Assessment of Structural Integrity of Existing RMG Factory Buildings in Bangladesh (Tripartite Document), the latest version of these document should be referenced. These document also gives guidance on required competency of Engineering Team.

We expect that the following will be carried out:

1. Development of Full Engineering As-Built Drawings showing Structure, loading, elements, dimensions , levels, foundations and framing on Plan, Section and Elevation drawings .
2. The Engineering team are to carry out supporting calculations with a model based design check to assess the safety and serviceability of the building against loading as set out in BNBC-2006, Lower rate provisions can be applied in accordance with the ACCORD DEA guideline , ACCORD standard following international engineering practice, justification for these lower rate provisions must be made.
3. A geotechnical Report describing ground conditions and commenting on foundation systems used/proposed.
4. A report on Engineering tests carried out to justify material strengths and reinforcement content in all key elements studied see ACCORD DEA guideline & ACCORD standard more details.
5. Detailed load plans shall be prepared for each level showing current and potential future loading with all key equipment items shown with associated loads.
6. The Engineering team will prepare an assessment report that covers the following:
 - As-Built drawings including
 - Plans at each level calling up and dimensioning all structural components
 - Cross sectional drawings showing structural beams, slabs, floor to floor heights, roof build-ups and Basic design information of the structure
 - Highlight any variation between As-built compared to the designed structure
 - Results of testing for strength and materials
 - Results of geotechnical assessment and testing/investigation
 - Details of loading, inputs and results of computer modelling
 - Commentary on adequacy/inadequacy of elements of the structure
 - Schedule of any required retrofitting required for safety or performance of Structure

Any proposals for Retrofitting to follow guidance developed in the ACCORD DEA guideline & ACCORD standard (<http://bangladeshaccord.org/factories/resource-centre/>).