

Panmark Apparels (Pvt) Ltd

34/B, CDA Heavy I/A, Kalurghat, Chattogram, Bangladesh.

(22.388969, 91.872507)

18 December 2025

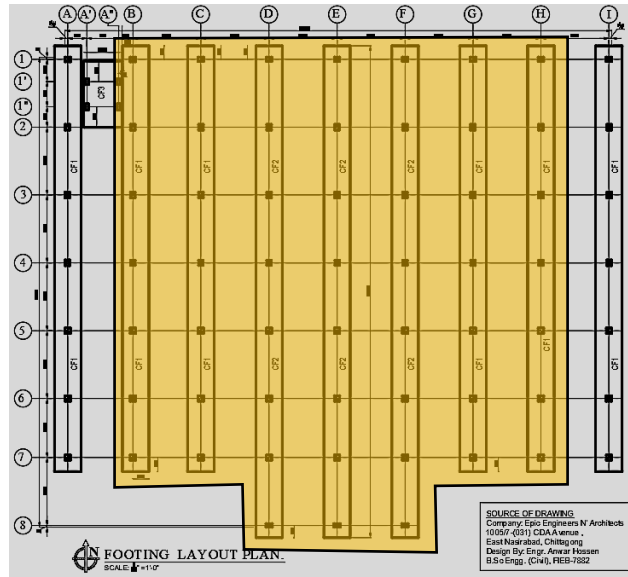


1. Building Information

1. **Main Production Building:** The structure is a partially six-storied (G+5) reinforced concrete (RC) building with a roof top shed.
2. **Sub-station and Boiler Room:** The structure is a single-storied masonry building.

2. Building Information

Observation-01: Stress in the strip footing exceeds the normal design limit. (Main Production Building)



Description: During the inspection and document review, preliminary calculations indicated that the typical strip footings (CF1 and CF2) of the Main Production Building are below the required design capacity. In addition, one footing was shown as retrofitted in the drawings; however, no credible supporting documents were found on site.

The factory is required to engage a qualified structural and geotechnical consultant to:

- Verify the dimensions of the existing and retrofitted footings and review the design assumptions, applied loads, and foundation stresses.
- Conduct a Detailed Engineering Assessment (DEA) based on verified onsite data & material strength.

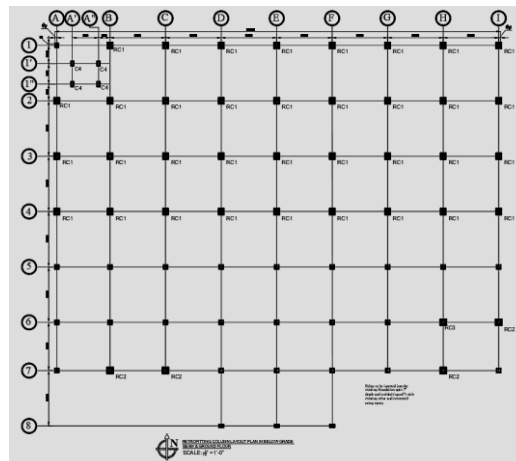
Observation-02: Inconsistency in the design report and lack of lateral stability system at Roof Shed.
(Main Production Building)

[Main Building, Panmark Apparels Ltd.]

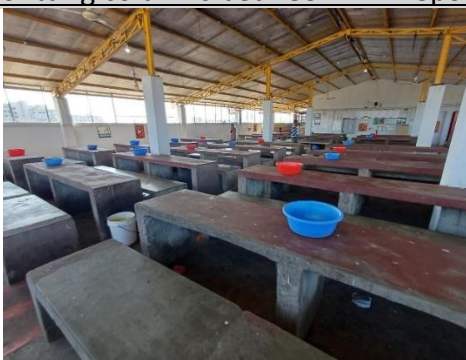
DETAIL ENGINEERING ASSESSMENT REPORT

RECOMMENDATION:

- Under service load condition, the building column is ok but as per NTPA design load and load combination 26 no's columns are overstressed. We are recommending 80 no's column has to be rectified.
- New RCC wall [8" thickness] to be constructed in place of masonry wall in four location below grade beam, new steel bracing has to be provided in four location from the ground floor to 1st floor [See rectification drawing for details]. After successful completion of rectification work the building will be safe for using as RMG building by maintaining proposed load plan. Till the rectification work is not finished, safe live load plan should be maintained.
- A set of as built drawing and floor load plan has been prepared
- One Foundation Size to be increased and thickness will be the same thickness as existing in grid-H [see rectification drawing]
- New truss has to be formed below the existing truss also few members have to be replaced of existing truss [Please see the rectification drawing].
- In grid-F, additional plate [BL-130X10] to be added with the bottom and top flange of existing members
- Toilet Zone, floor build-up maximum 8" is allowed [see retrofitting drawing]



Discrepancy in no. of retrofitting columns between DEA report and retrofitting drawing



Concrete dining table has excess dead load at roof top which not considered in DEA

Design Report for Factory Building of
05 Storied RCC Factory Building with Roof Top Shed
PANMARK APPARELS LTD.
34/B, KALURGHAT V/A, KALURGHAT, CHITTAGONG.



Date Of Submission: MARCH, 2025

Report Submitted By:

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D-CON BD.

Incomplete serviceability, irregularity, and foundation adequacy checks in the design report.



Lack of lateral stability at Roof Shed

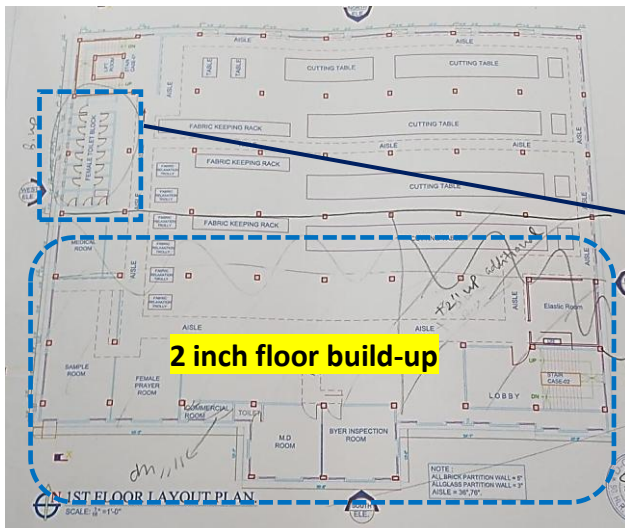
Description: A design report has been prepared for the Main Production Building; however, several inconsistencies were identified in the DEA report.

- A total of 80 columns are recommended for retrofitting in the design report, whereas a lesser number is shown in the retrofitting drawings.
- At the rooftop dining area, excessive dead loads from concrete seats and tables were observed; however, these loads were not considered in the FEA model.
- Detailed and proper adequacy checks for serviceability, structural irregularities, and foundation stresses were not incorporated in the design report.

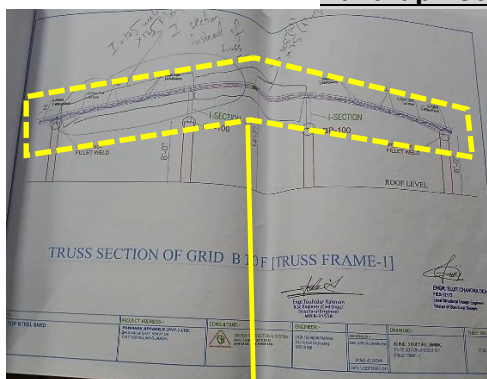
Also, no load transfer media or no lateral load resisting bracing was found at the roof shed of the Main Production Building.

The Building Engineer is required to revise the design documents, check the lateral stability of the roof shed and submit all the required documents to RSC for detail review.

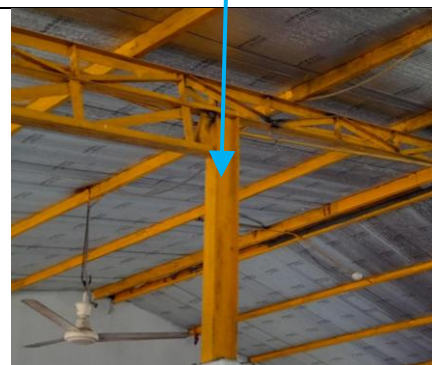
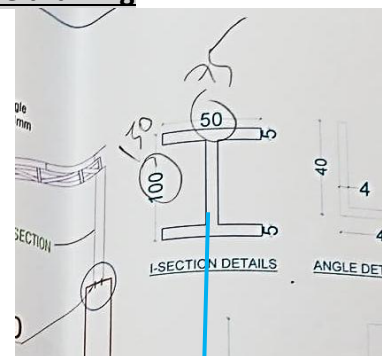
Observation-03: Discrepancies in the as-built and retrofitting drawings. (Main Production Building)



Build-up not mentioned in the drawing



I section found instead of truss at F-grid



Section size mismatch

Description: During inspection, Several inconsistencies were observed in the as-built and retrofitting drawings, as outlined below-

- 2-inch floor build-up was observed at the 1st floor (south side) but is not shown in the architectural drawings. Additionally, toilet floor build-ups for all floors are not mentioned.
- In the retrofitting drawings, the F-grid is shown as a truss; however, an I-section was found on site. Furthermore, the steel column sections shown in the as-built drawings do not match the actual site condition.

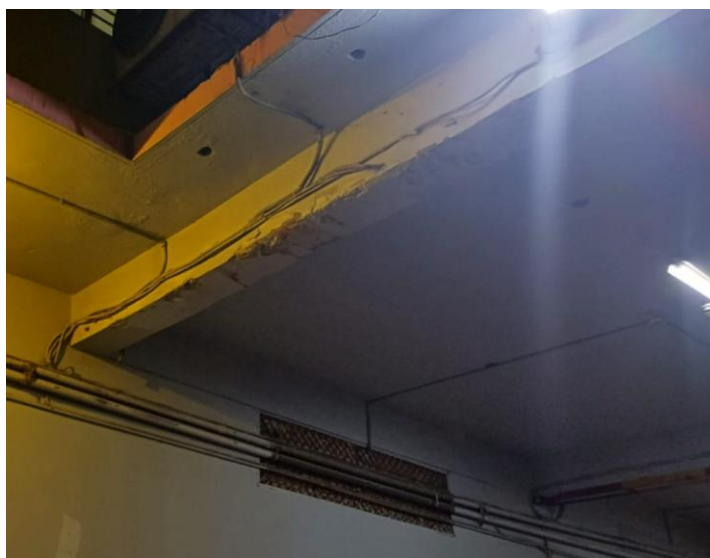
The Building Engineer is required to survey the full structure and prepare as-built as well as retrofitting drawings as per actual site condition.

Observation-04: Cracks on brick walls. (Main Production Building)



Description: During inspection, cracks were found on brick walls at several locations. The building engineer is required to investigate the reason & extent of crack and prepare an investigation report with proper remedial measure. Also, repair the wall cracks as per suggestion of the crack investigation report.

Observation-05: Vehicle impact on ground floor roof beams. (Main Production Building)



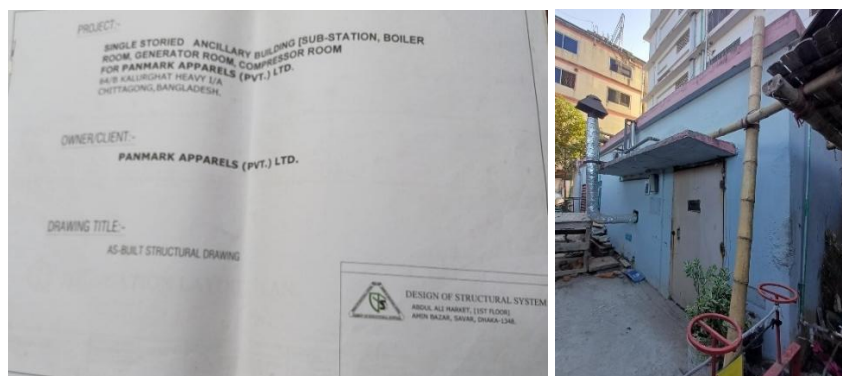
Description: During inspection, vehicle impact was found on ground floor roof beams of loading unloading zone. The building engineer is required to repair the beam surface and provide barriers around the beams to prevent vehicle impact.

Observation-06: Dampness on brick wall and slab. (Main Production Building)



Description: During inspection, dampness was found on walls and slabs. The building engineer is required to repair all the dampness with a suitable method.

Observation-07: Incomplete as-built drawings. (Sub-station and Boiler Room)



Sub-station and Boiler Room

Description: During inspection, complete as-built drawings with detailed information on structural members were not available on-site. The building engineer is required to prepare and submit a complete set of as-built drawings, reflecting the actual site conditions, to RSC for review.

Observation-08: Construction debris on roof. (Sub-station and Boiler Room)



Description: During inspection, construction debris was found on roof of Sub-station and Boiler Room. The building engineer is required to remove the debris and maintain allowable roof loading.

1. Action Plan

Item No	Observation	Action Plan	Timeline
1.	Stress in the strip footing exceeds the normal design limit. (Main Production Building)	The factory is required to engage a qualified structural and geotechnical consultant to verify the dimensions of the existing and retrofitted footings and review the design assumptions, applied loads, and foundation stresses. Also, conduct a Detailed Engineering Assessment (DEA) based on verified onsite data and material strength.	within 6 weeks
2.		Implement the floor load plan.	within 6 months
3.		Carry out the suggested remedial works.	within 6 months
4.	Inconsistency in the design report and lack of lateral stability system at Roof Shed. (Main Production Building)	The Building Engineer is required to revise the design documents, check the lateral stability of the roof shed and submit all the required documents to RSC for detail review.	within 6 weeks
5.		Carry out the suggested remedial works.	within 6 months
6.	Discrepancies in the as-built and retrofitting drawings. (Main Production Building)	The Building Engineer is required to survey the full structure and prepare as-built as well as retrofitting drawings as per actual site condition.	within 6 weeks
7.	Cracks on brick walls. (Main Production Building)	The building engineer is required to investigate the reason & extent of crack and prepare an investigation report with proper remedial measure. Also, repair the wall cracks as per suggestion of the crack investigation report.	within 6 weeks
8.	Vehicle impact on ground floor roof beams. (Main Production Building)	The building engineer is required to repair the beam surface and provide barriers around the beams to prevent vehicle impact.	within 6 weeks
9.	Dampness on brick wall and slab. (Main Production Building)	The building engineer is required to repair all the dampness with a suitable method.	within 6 weeks
10.	Incomplete as-built drawings. (Sub-station and Boiler Room)	The building engineer is required to prepare and submit a complete set of as-built drawings, reflecting the actual site conditions, to RSC for review.	within 6 weeks
11.	Construction debris on roof. (Sub-station and Boiler Room)	The building engineer is required to remove the debris and maintain allowable roof loading.	within 6 weeks