Vision Apparels (PVT) Ltd. #9633

Plot # M-1/3, Section-14, Mirpur
(+23.803270N, 90.377548E)
05.MAY.2014

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Identified Priority 1 Concerns

(None)

Identified Priority 2 Concerns

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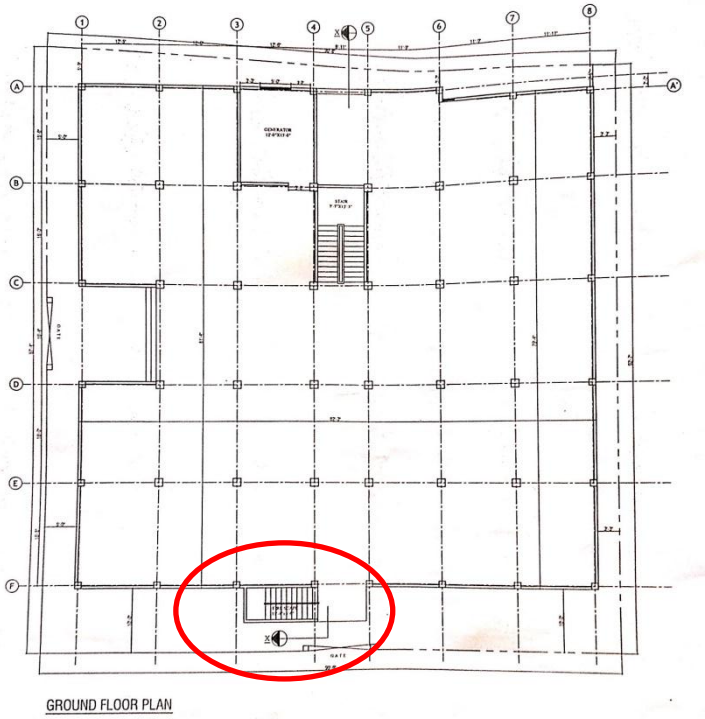
1st Priority 2 Concern



The emergency staircase on the side elevation of the 7 storey building is shown on the Architectural drawings, but is not shown on the structural drawings.

Building Extents

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2nd Priority 2 Concern

6

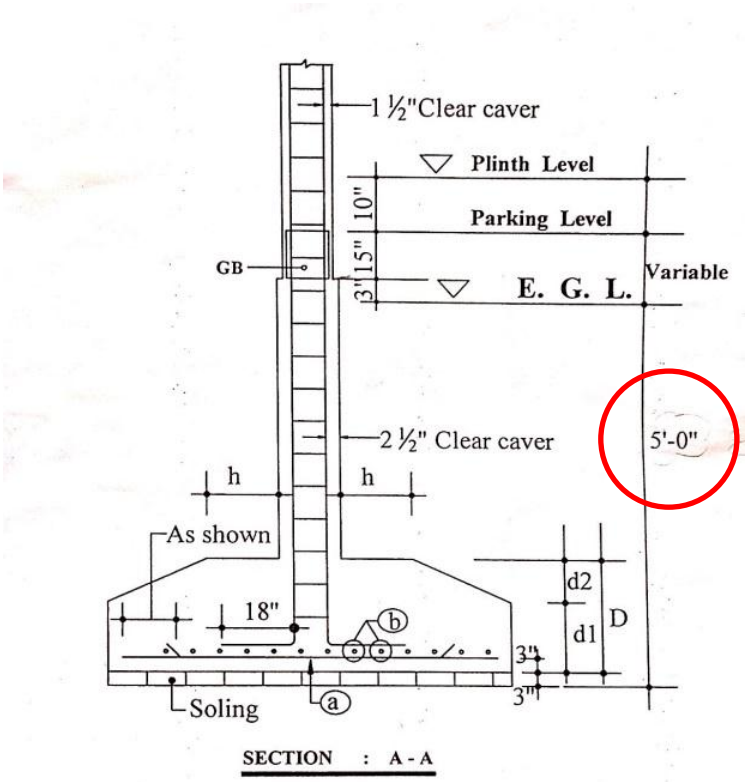
CONCLUSION AND RECOMMENDATION:

The construction proposed 7 (Seven) – Storied Factory Building on Plot No. – M-1/4 & M-1/5, Mouza – Senpara Parbata, Mirpur Housing Estate, Section – 14, Mirpur, Dhaka. The sub-soil exploration at the site consists of total 3 (Three) Nos. exploratory boring up to a depth of 18.0M/15.0 M (60'/50' - 0") below from EGL.

In the light of field and laboratory test result it is observed that the sub-soil at the site up to a depth of 6.0 M (20'- 0") of BH1, BH2 & BH3 are predominated by very loose silty fine sand trace clay and med. stiff to stiff clayey silt trace fine sand. The field SPT (Standard Penetration Test) values of this layer vary from 1 to 13. The allowable bearing capacity for square footing varies from 0.165 kg/cm^2 to 2.145 kg/cm^2.

Under the prevailing sub-soil condition the following suggestions may be considered:

Under the prevailing sub-soil condition it is found that the shallow depth spread (Square) footing foundation may be more suitable and economical for the proposed building. The foundation may be placed at 8' - 0" below from EGL. The allowable bearing capacity at those points may be considered as minimum 1.50 TSF with F. S. = 2.50 (Considering 1 Ton = 2000 lbs, 1 TSF=0.97 kg/cm^2).



SECTION : A - A

The foundation depth shown on the structural drawings for the 7 storey building is shallower than specified in the geotechnical report.

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3rd Priority 2 Concern

9 storey building

7 storey building

No loading plans were provided for either building.

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Identified Priority 3 Concerns

(None)

Overall Stability System

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9 Storey Building

7 Storey Building

We require that these items be investigated in a Detail Engineering Assessment

The building did not feature any core or shear walls. Stability was achieved through sway action between beams and columns and masonry infill walls.

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Water Ingress at Roof Level

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9 Storey Building

7 Storey Building

No waterproofing membrane was visible on the roof of the buildings. This means that any cracks in the surface finishes on the roof will allow water to seep into the concrete slab beneath the finishes, and cause corrosion of the reinforcing steel.

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Priority Actions

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Problems Observed Summary

ITEM 1: (Priority 2) The emergency staircase on the side elevation of the 7 storey building is shown on the Architectural drawings, but is not shown on the structural drawings.

ITEM 2: (Priority 2) The foundation depth shown on the structural drawings for the 7 storey building is shallower than specified in the geotechnical report.

ITEM 3: (Priority 2) No loading plans were provided for either building.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	The emergency staircase on the side elevation of the 7 storey building is shown on the Architectural drawings, but is not shown on the structural drawings.	Detail Engineering Assessment is required for the emergency staircase.	6-weeks
2	The emergency staircase on the side elevation of the 7 storey building is shown on the Architectural drawings, but is not shown on the structural drawings.	Implement any works deemed necessary by the Detail Engineering Assessment.	6-months
3	The foundation depth shown on the structural drawings for the 7 storey building is shallower than specified in the geotechnical report.	Detail Engineering Assessment is required for the foundations of the 7 storey building.	6-weeks
4	The foundation depth shown on the structural drawings for the 7 storey building is shallower than specified in the geotechnical report.	Implement any works deemed necessary by the Detail Engineering Assessment.	6-months
5	No loading plans were provided for either building.	Factory Engineer to develop a loading plan for each floor within the factory complex, giving consideration to slab, beam and column capacity.	6-weeks
6	No loading plans were provided for either building.	Implement and actively manage the loading plan.	6-months