International Trading Services Ltd. (10409)

Jarun, Konabari, Gazipur, Dhaka

25.MARCH.2014

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Identified Priority 1 Concerns

Remove Occupants from Circular 5-Storey Building. The building wasn't being used at the time of our survey – but a small amount of storage was noted.

Priority 1 Concern

The circular 5-storey building adjacent to the 6-storey factory building shows signs of fire damage and structural instability

Fire Damage to 5-Storey Building

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Identified Priority 2 Concerns

Foundation Design Appears Inadequate for Soil Capacity Reported.

Reduce Storage Loading Throughout Factory

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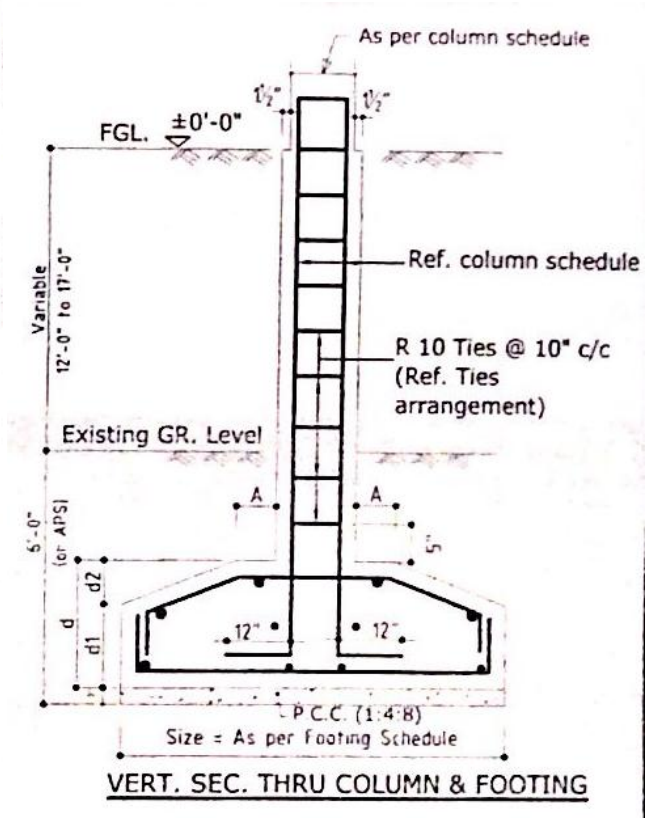
Priority 2 Concern

Table 1(a): Allowable Bearing Capacity For Shallow Foundation

Bore hole No	Depth (m)	Cohesion T/m²	Allowable Bearing Capacity, Ton/m²	
			Strip footing	Isolated col.footing
BH-1	1.6	1.92	4.09	4.61
	2.5	6.40	14.61	16.21
	4.0	6.40	15.68	17.49
BH-2	1.5	4.94	10.54	11.65
	2.5	5.66	12.92	14.34
	4.0	4.48	10.97	12.24
BH-3	1.5	3.86	8.23	9.26
	2.5	4.50	10.27	11.40
	4.0	4.50	11.02	12.30
BH-4	1.8	3.82	8.34	9.36
	2.5	4.59	10.48	11.63
	4.0	4.59	11.24	12.54
BH-5	1.5	3.40	7.25	8.16
	2.5	4.08	9.31	10.33
	4.0	4.08	9.99	11.15
BH-6	1.5	2.95	6.29	7.08
	2.5	4.38	10.00	11.09
	4.0	4.20	10.29	11.48
BH-7	1.5	3.91	8.34	9.38
	2.5	5.21	11.89	13.20
	4.0	5.21	12.76	14.24

Notes : 1. The above values are net ones
2. Skempton's relation has been used
3. B/L=0 & B=1.5m (assumed) for strip footing
B/L=1 & B=2.5m (assumed) for isolated column footing
4. F.S.=3
5. Depth has been measured from EGL of the borehole



Based upon the provided soils reports, spread footing size is inadequate to properly distribute footing loads to the native clay soil

Low Soil Bearing Capacity

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Priority 2 Concern

High local storage loadings were observed throughout both the 11-storied and 6-storied buildings

High Local Storage Loads

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Identified Priority 3 Concerns

(None)

Priority Actions

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Problems Observed Summary

ITEM 1: (Priority 1) A 5-storied circular building adjacent to the 6-storied building was observed to have fire damage to structural members at the ground floor level. Rebar has been exposed and concrete has cracked and fallen away from beams and columns.

ITEM 2: (Priority 2) Foundations of the 11-storied and 6-storied buildings both appear of inadequate size to transmit building loads safely into the native low bearing capacity clay, described in the Geotechnical Reports.

ITEM 3: (Priority 2) High levels of local storage were observed throughout the 11-storied and 6-storied buildings.

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Item 1 and Actions

The 5-storey Fire Damaged building should be left unoccupied

Priority 1 (Immediate – Now)	• The circular 5-storied building should be vacated until results of ongoing engineering assessments are received. This was discussed and agreed at the time of the survey.
Priority 2 (within 6 weeks)	• Act upon any recommendations from that Detailed Engineering Assessment.
Priority 3 (within 6 months)	• Maintain any repairs and monitor for any residual damage.

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Item 2 and Actions

Foundation capacity appears inadequate

Priority 1 (Immediate – Now)	• None
Priority 2 (within 6 weeks)	• A Detailed Engineering Assessment to be carried out upon the 6-storey and 11-storey looking into, in particular the building foundations and the Geotechnical findings.
Priority 3 (within 6 months)	• Implement any recommendations or works deemed necessary by the Detailed Engineering Assessment mentioned above.

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Item 3 and Actions

High levels of local storage

Priority 1 (Immediate – Now)	• None
Priority 2 (within 6 weeks)	• Factory engineer to produce and actively monitor a loading plan for all floor plates within the factory complex, with consideration given to slab, column and foundation capacities.
Priority 3 (within 6 months)	• None

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