



Energypac Fashions Ltd-2

Hotapara Bokran Monipur; Bhabanipur; Gazipur, Dhaka

(24.126702N, 90.386228E)

23th January 2018



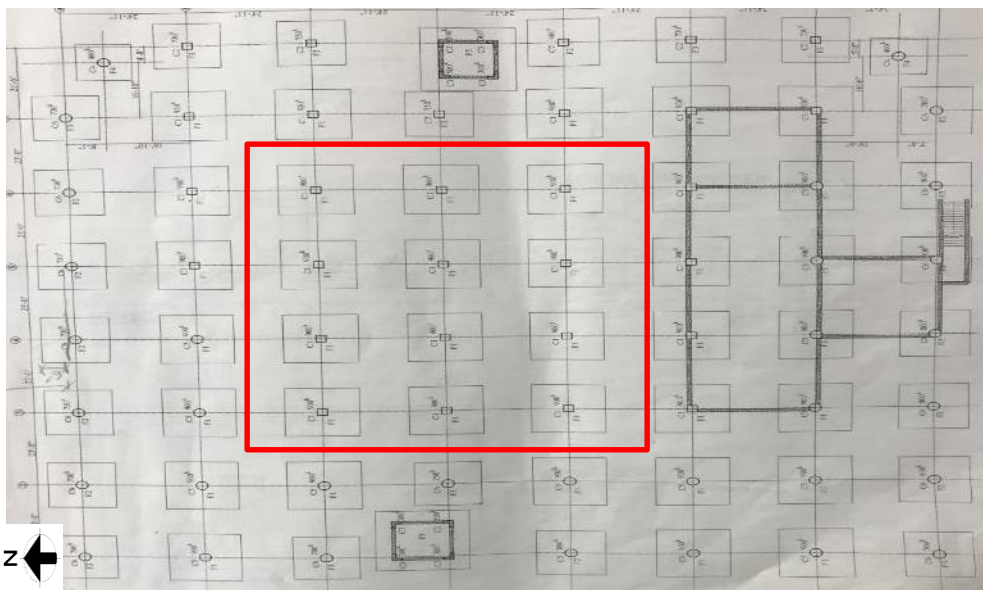


Observations

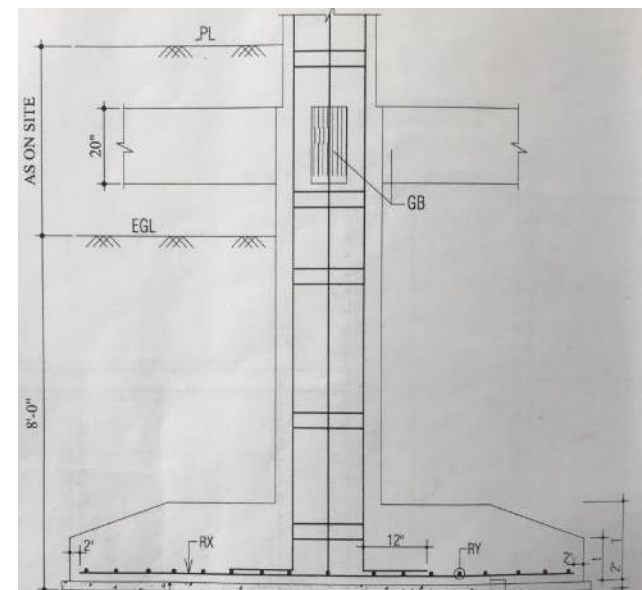


Design check required for the foundation system

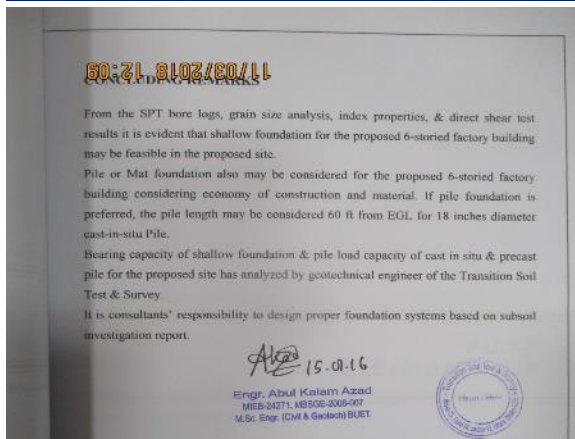
Observation:



Foundation layout plan



Footing cross section drawing



Recommendation of
geotechnical investigation
report

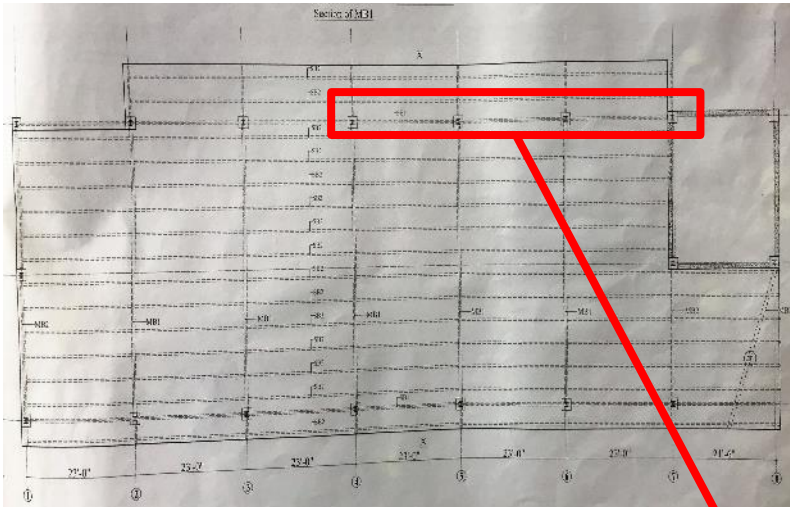
Cursory calculation indicates that footing appears to be stressed above normal design limits in marked zone. Factory engineer is required to review the adequacy of footings considering actual depth of footing and comply with BNBC.

Observation:



Discrepancies between drawings and on-site observation

Observation:

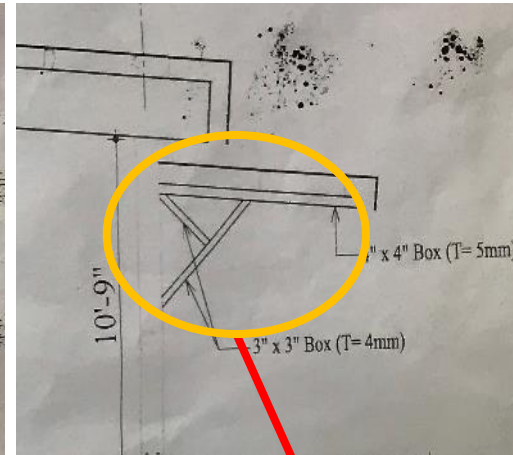


Beam layout plan of roof top shed

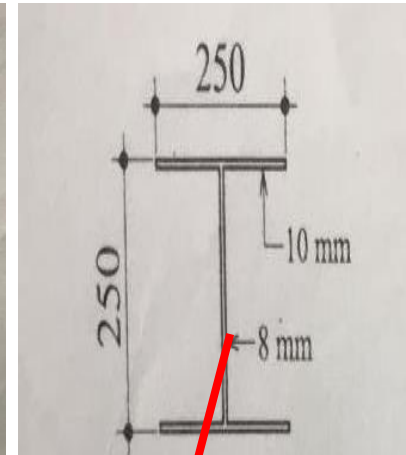
In place of box knee bracing, pipe knee bracing has been installed.

In place of 100mm X 100mm box section, 200mm X 100mm I-section has been provided as beam adjacent to the knee bracing.

Also, column Section were found to be tapered in stead of regular I-section shown in provided drawing



Box knee bracing in provided drawing

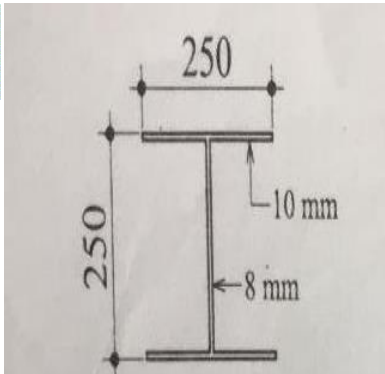


Steel column section

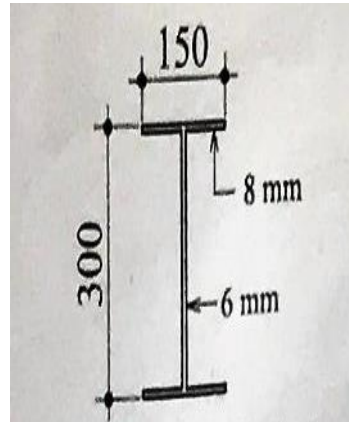


Columns in north side with knee bracing

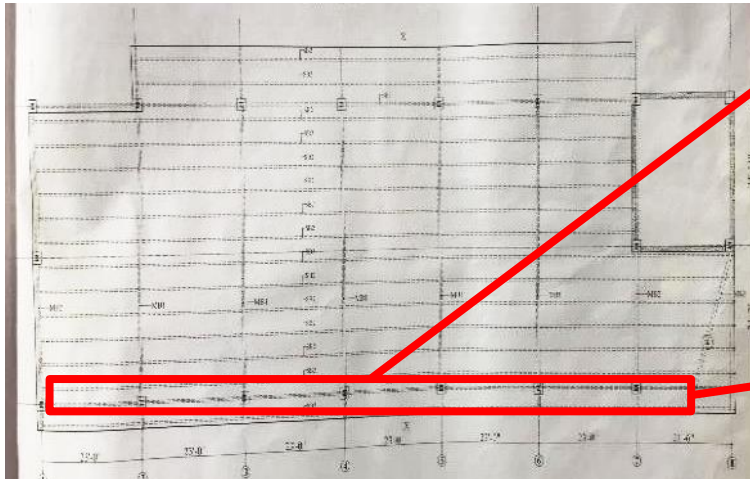
Observation:



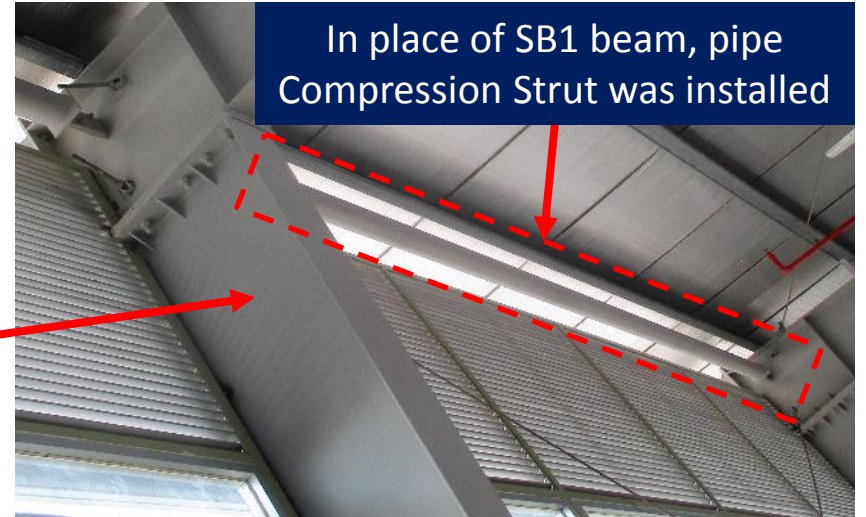
Uniform Steel
column section



Beam section SB1



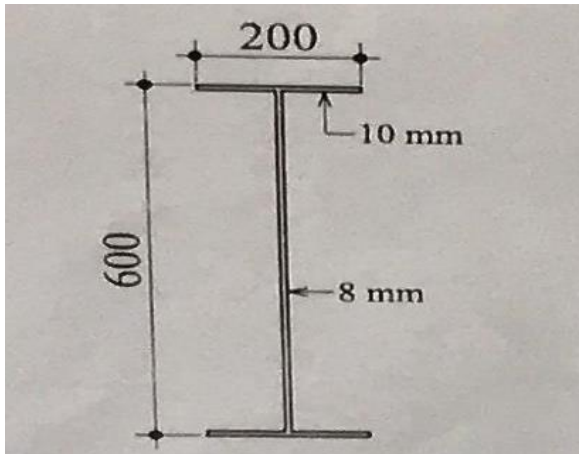
Beam layout plan of roof top shed



In place of SB1 beam, pipe
Compression Strut was installed

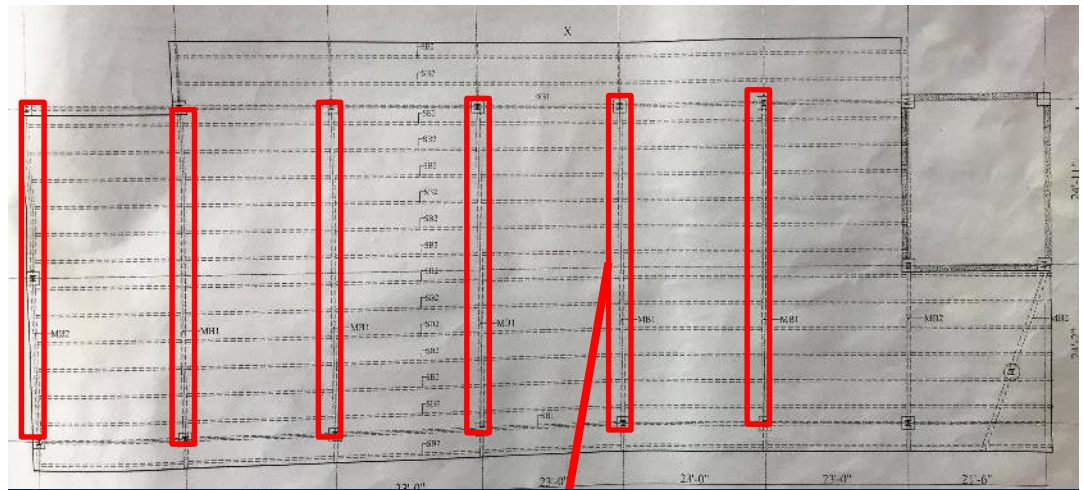
All the columns installed in the roof shed were found to be tapered sections where as uniform I-section is shown in the provided drawing

Observation:



Beam section MB1

All the rafters are in three parts connected by bolts. Two end sections of rafters are tapered sections which were shown as uniform I-section in the provided drawing.

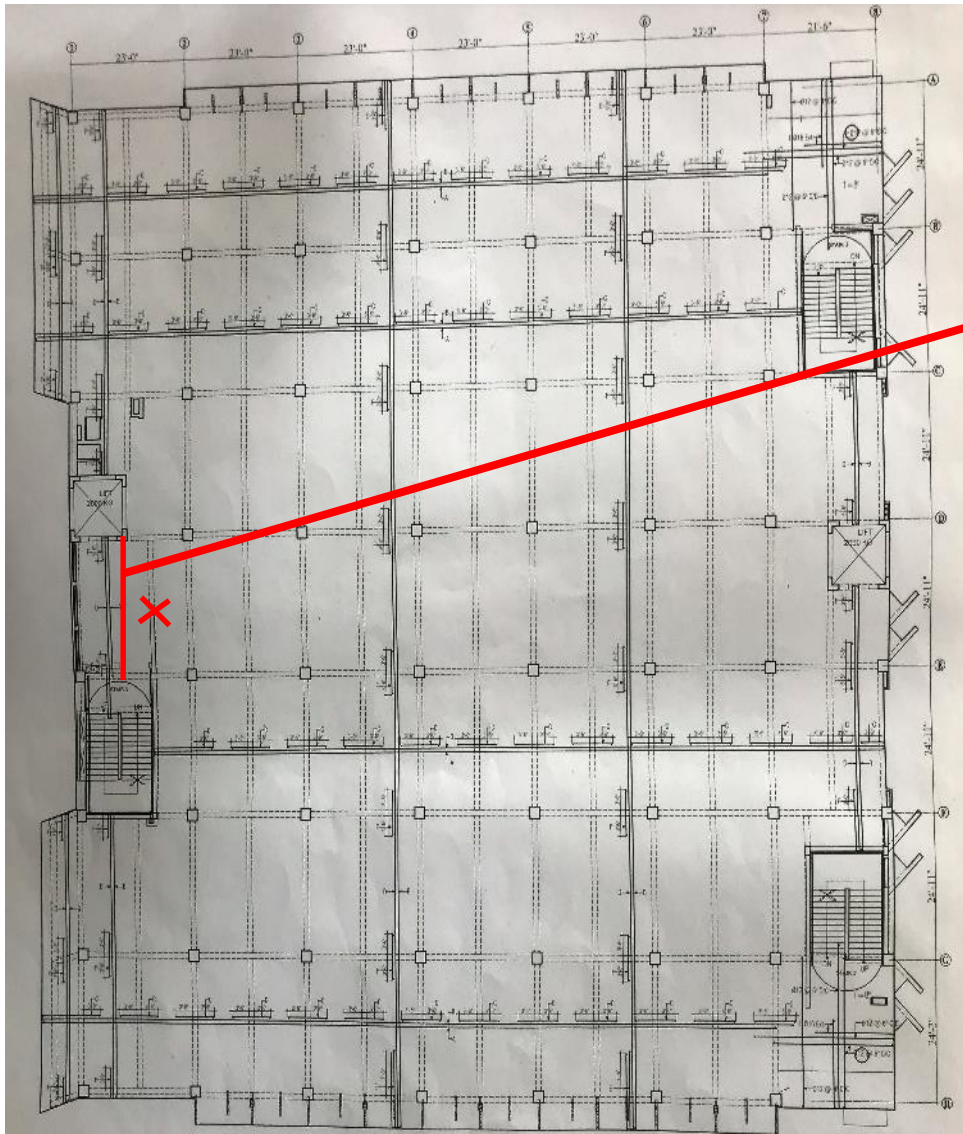


Beam Layout Plan



Internal view of roof top shed

Observation:



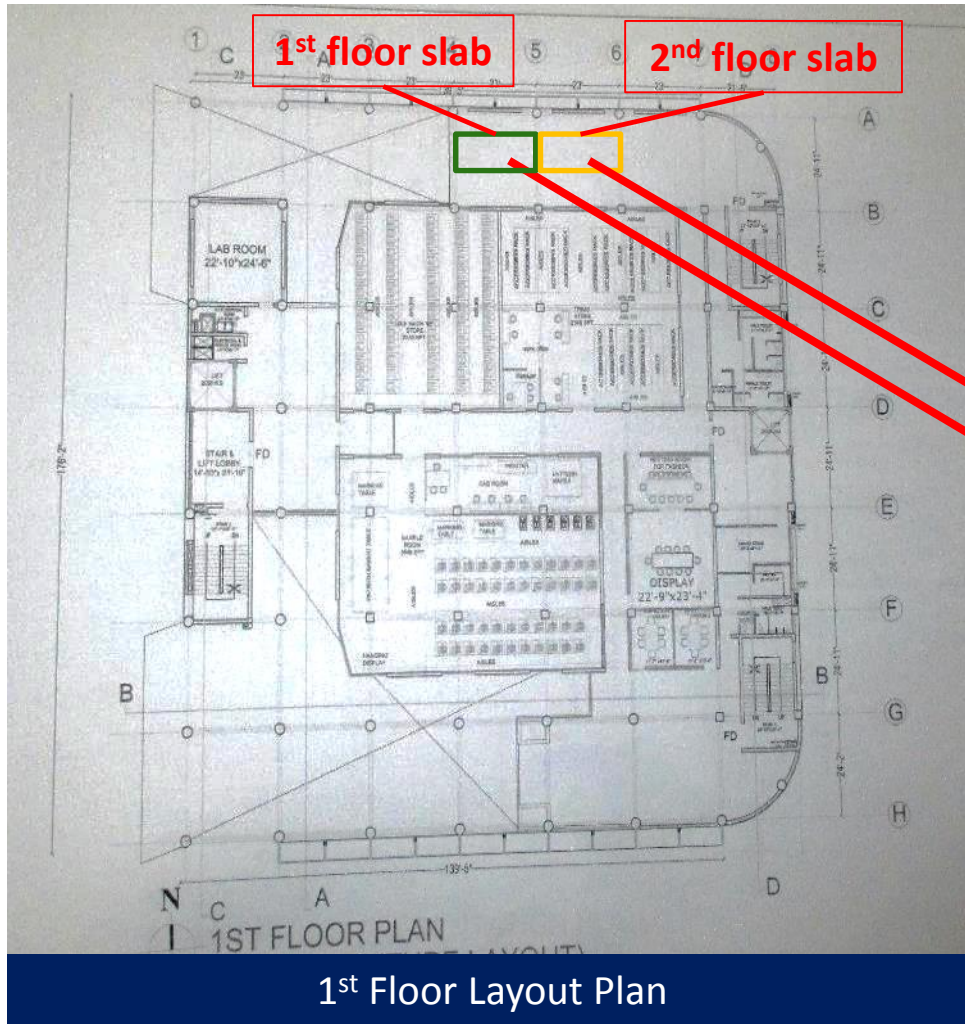
5th Floor Beam Layout Plan

Location of B5 (at grid 2-DE)
shown in provided drawing

Location of B5
found on site

5th Floor beam layout does not match
with provided beam layout plan. Beam
B5 was found 2.3 m offset towards west
from grid 2-DE which is showed in
provided drawing

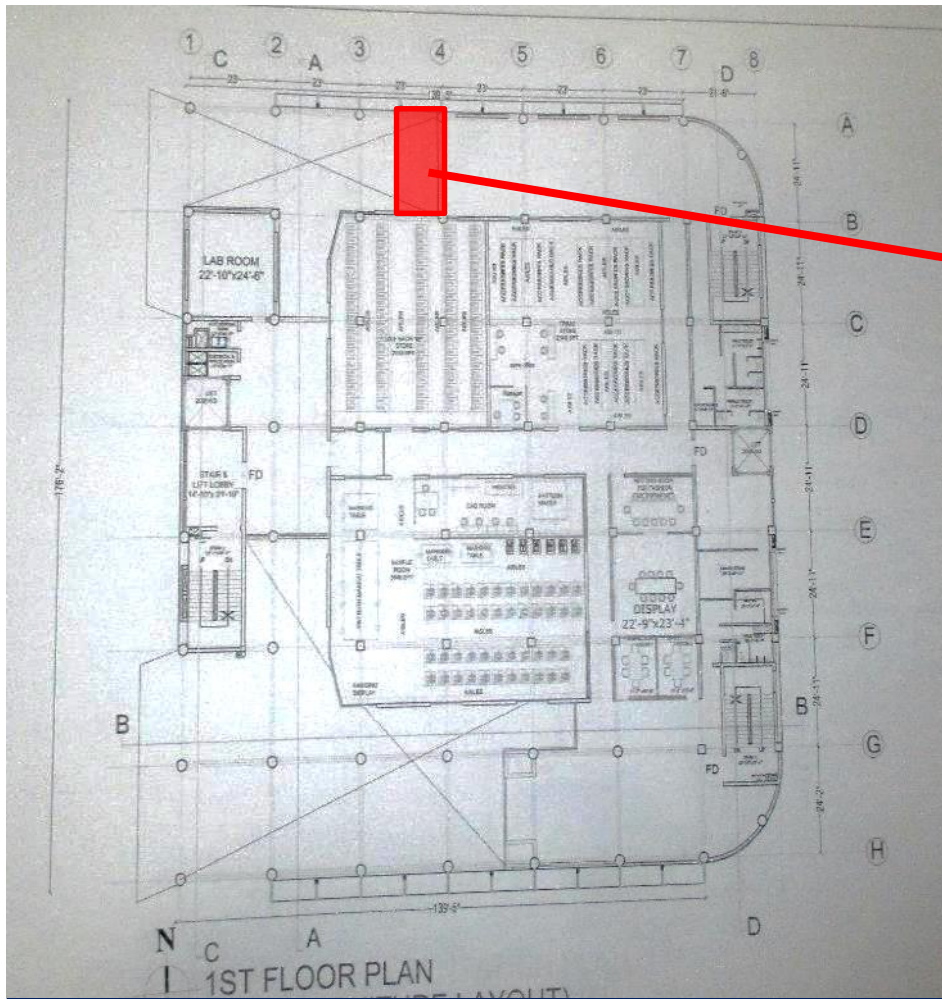
Observation:



Opening in slab due to conveyor facilities

There are openings on 1st (Grid A-B & 4-5) and 2nd (Grid A-B & 5-6) floor slabs for accommodating conveyor which are not shown in floor layout. Also, there are two beams on either side of the void which are not shown in beam layout.

Observation:



1st Floor Layout Plan



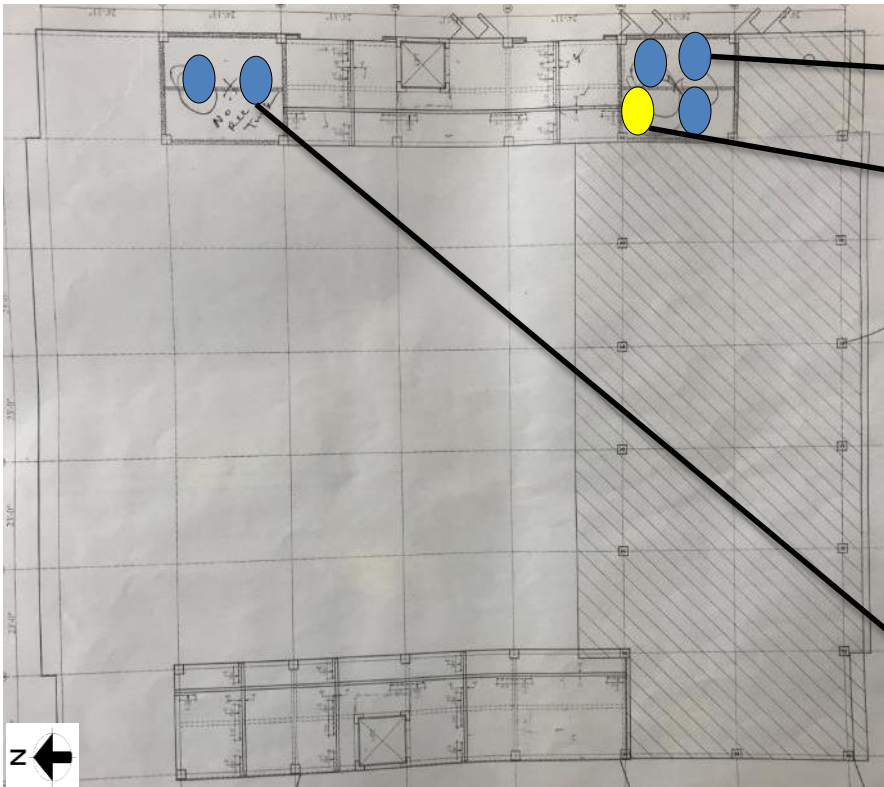
1st floor slab was extended by 7.5 m x 3.3 m in between grid A-B & 3-4.

Observation:



Capacity check of roof slab supporting water tanks

Observation:



Roof plan layout



Three nos. 10000 liter and single 5000 liter water tank on stair case roof slab



Two nos. 10000 liter water tank on stair case roof slab

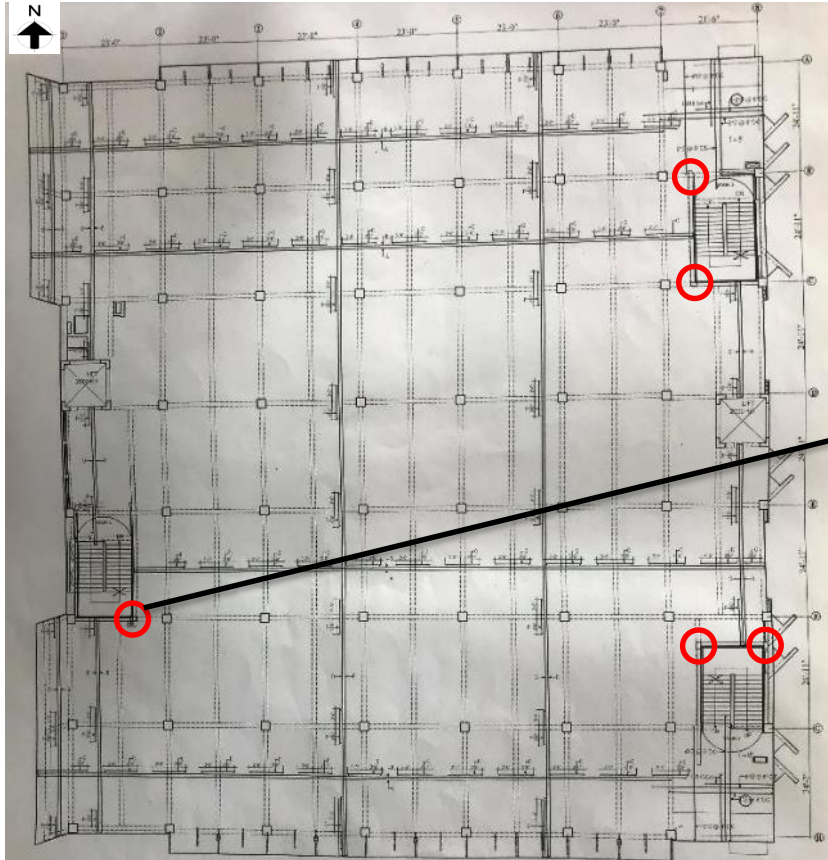
Concerns on the roof slab supporting 10000 Liter water tanks. A capacity check of these slabs and all related elements need to be carried out.

Observation:



Capacity check for the beam of stair case

Observation:



Typical Beam column layout



Short columns were only found between landing beam and main beam but not continue to the floor's roof slab in typical floor

Check the redundancy of the short column load to main beam at stair zone

Observation:



Adequacy check for the support condition of the steam pipe

Observation:



Iron steam pipe was observed in 3rd floor and 2nd floor which were hanging from beam. The joint was bolted. Factory engineer is required to check the capacity of the support system.

Observation:



Problems Observed

Item 1: Design check required for the foundation system

Item 2: Discrepancies between drawings and on-site observation

Item 3: Capacity check of roof slab supporting water tanks

Item 4: Capacity check for the beam of stair case

Item 5: Adequacy check for the support condition of the steam pipe



Priority Actions



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Design check required for the foundation system	Factory Engineer to review design, loads and stresses of foundation system.	6-weeks
2	Design check required for the foundation system	Produce and actively manage a loading plan for all floors.	6-weeks
3	Design check required for the foundation system	Carry out remedial works where necessary.	6-months
4	Discrepancies between drawings and on-site observation	Factory required to produce As Built drawings which reflect the actual condition.	6-weeks
5	Capacity check of roof slab supporting water tanks	Factory Engineer to review design, loads and related elements in area identified above to confirm capacity for the tanks.	6-weeks
6	Capacity check of roof slab supporting water tanks	Carry out remedial works where necessary.	6-months
7	Capacity check for the beam of stair case	Check the redundancy of the short column load to main beam at stair zone.	6-weeks
8	Capacity check for the beam of stair case	Carry out remedial works where necessary.	6-months
9	Adequacy check for the support condition of the steam pipe	Factory engineer is required to check the capacity of the supported system.	6-weeks
10	Adequacy check for the support condition of the steam pipe	Carry out remedial works where necessary.	6-months