Fabrica Knit Composite Ltd.

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Client Summary Report

Observations & Actions

ACCORD
on Fire and Building Safety in Bangladesh

Observations

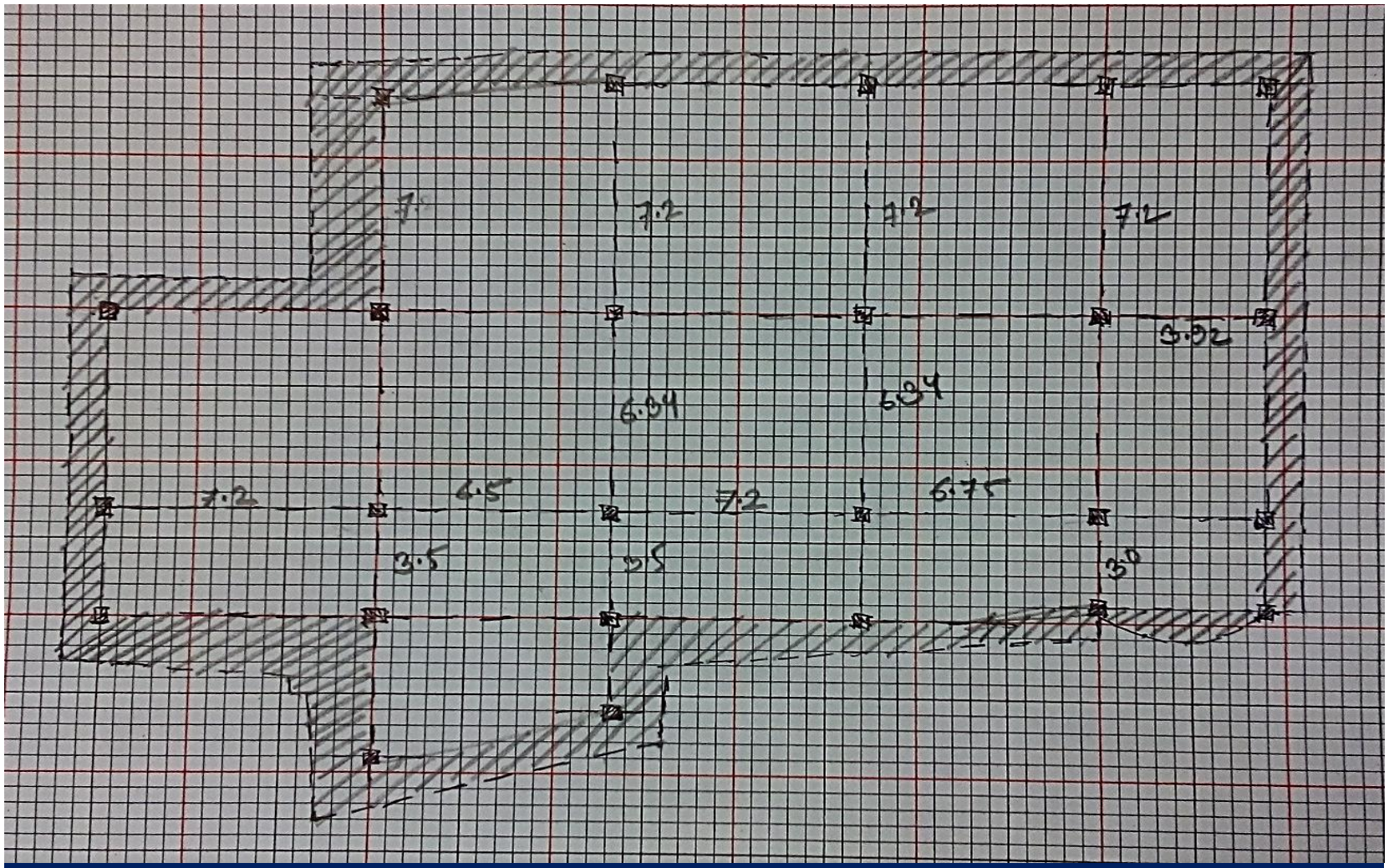
Factory Building

1. Columns appear to be stressed in excess of normal design limits
2. Locally heavy floor loading in some storage areas and cantilevers.
3. Foundations of extra columns in ground floor.
4. Discrepancies in the as constructed drawings
5. Poor connection detailing between streel roof and RCC
6. Apparently non-engineering stair connecting 6^{th} floor to roof.

Observation

Columns appear to be stressed in excess of normal design limits.

Observation



From load rundown working stress of typical columns are found beyond the normal design limit considering existing loading condition.

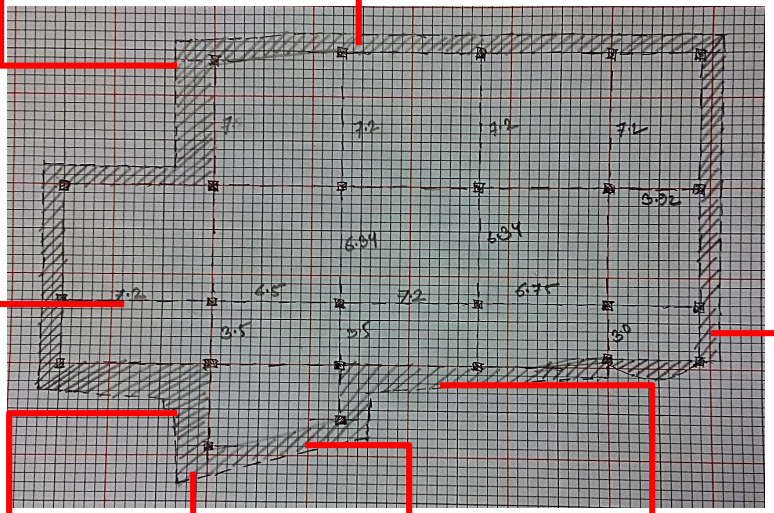
Columns appear to be stressed in excess of normal design limits.

Observation

Locally heavy floor loading in some storage areas and cantilevers.

Observation

Heavy loads was appeared most of the cantilever area and floor built-ups are found in each toilet zone.



Locally heavy floor loading in some storage areas and cantilevers.

Observation

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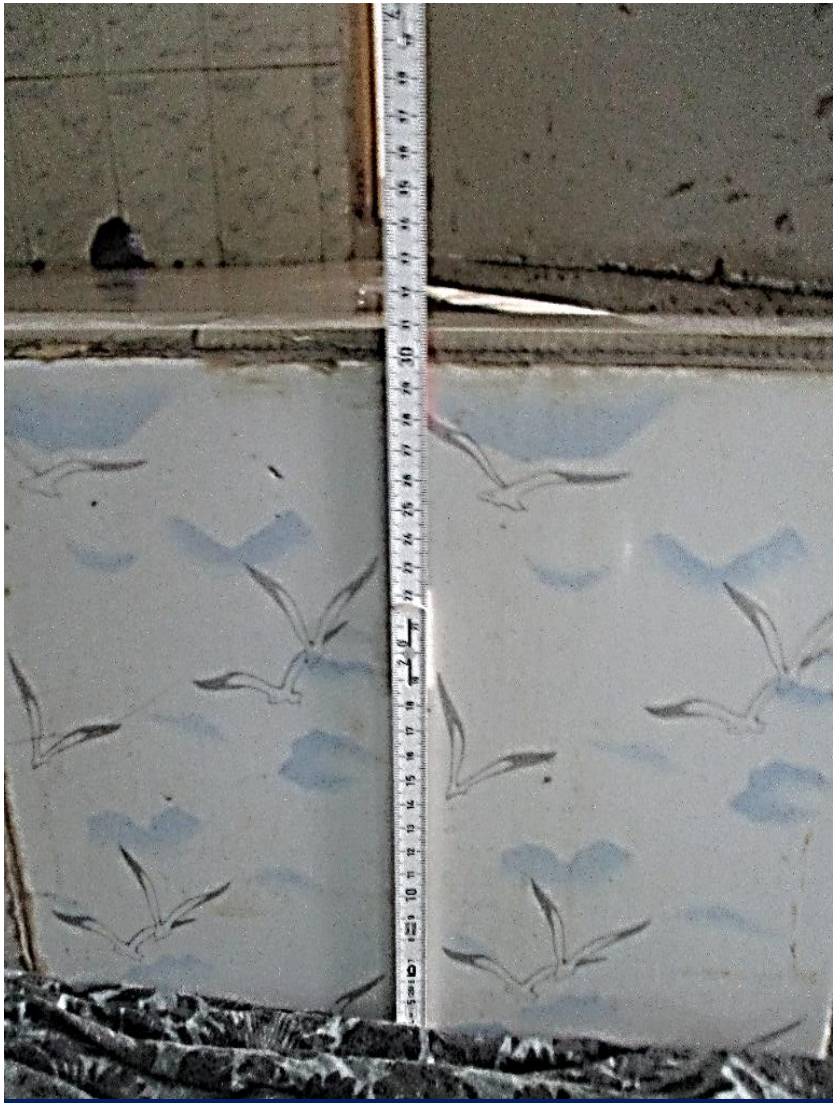


Built-up in toilet zone.

Localized loads on 1st floor level

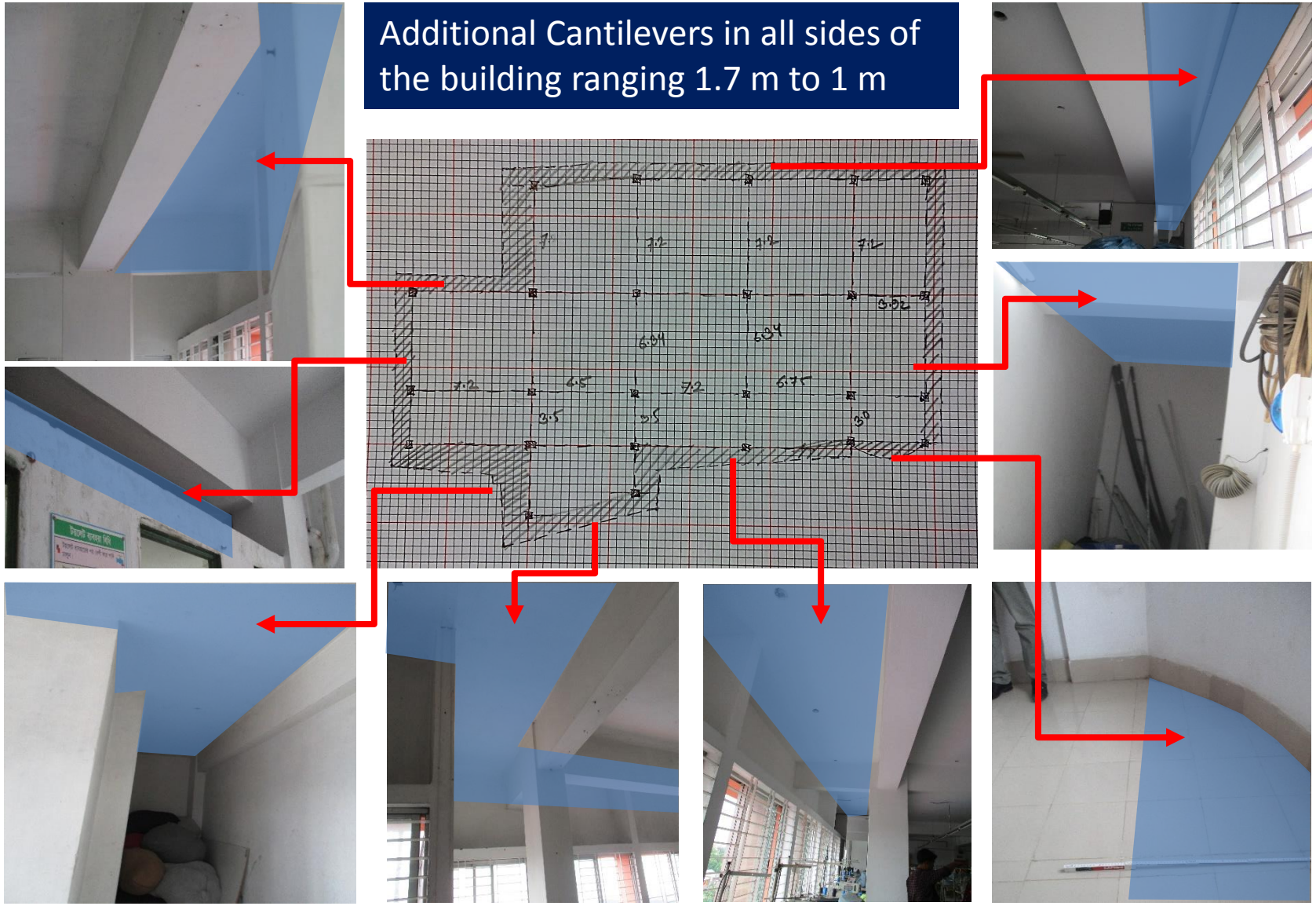
High loads on 3rd floor level

Observation **Locally heavy floor loading in some storage areas and cantilevers.**

Discrepancies in the as constructed drawings

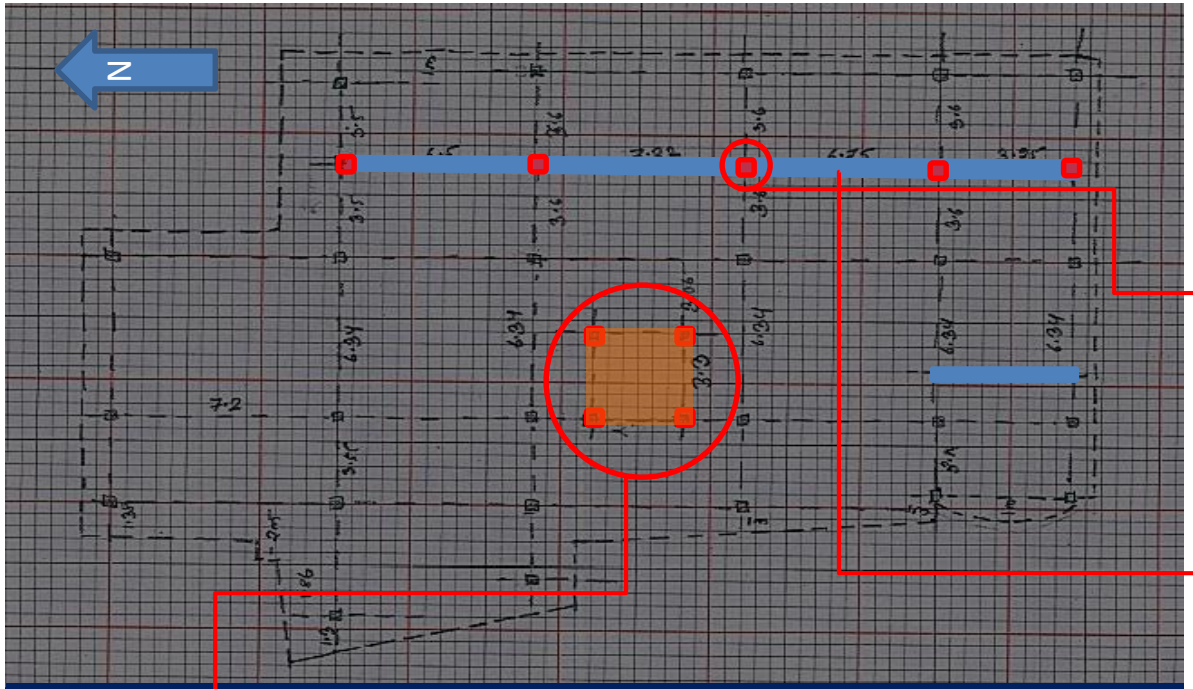
Observation

Additional Cantilevers in all sides of the building ranging 1.7 m to 1 m

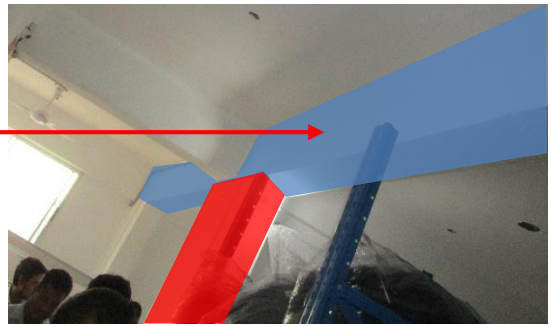


Discrepancies in the as constructed drawings

Observation



Column layout: Ground floor



Additional framing at Ground Floor which is not included in approval drawings and structural drawings.

- Additional columns on Ground Floor
- Additional Beams on Ground Floor
- Undocumented ramp on ground floor

Discrepancies in the as constructed drawings

Observation

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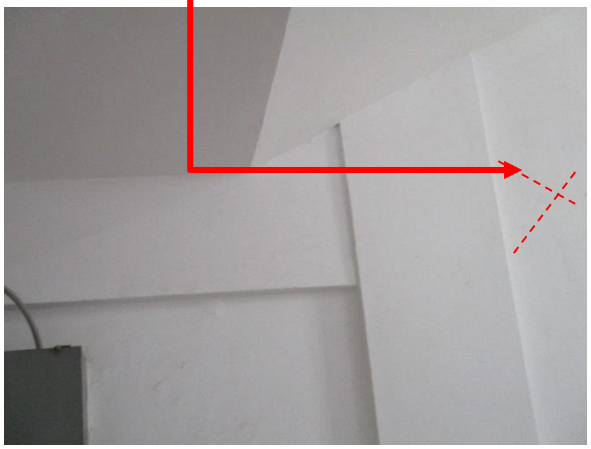

Deviated columns on typical floor from actual drawing

Actual arrangement of floor beam

Missing Beams in stair core.

Additional Beam resting on main beam

Beams and columns deviated from original layout in every floor

Discrepancies in the as constructed drawings

Observation

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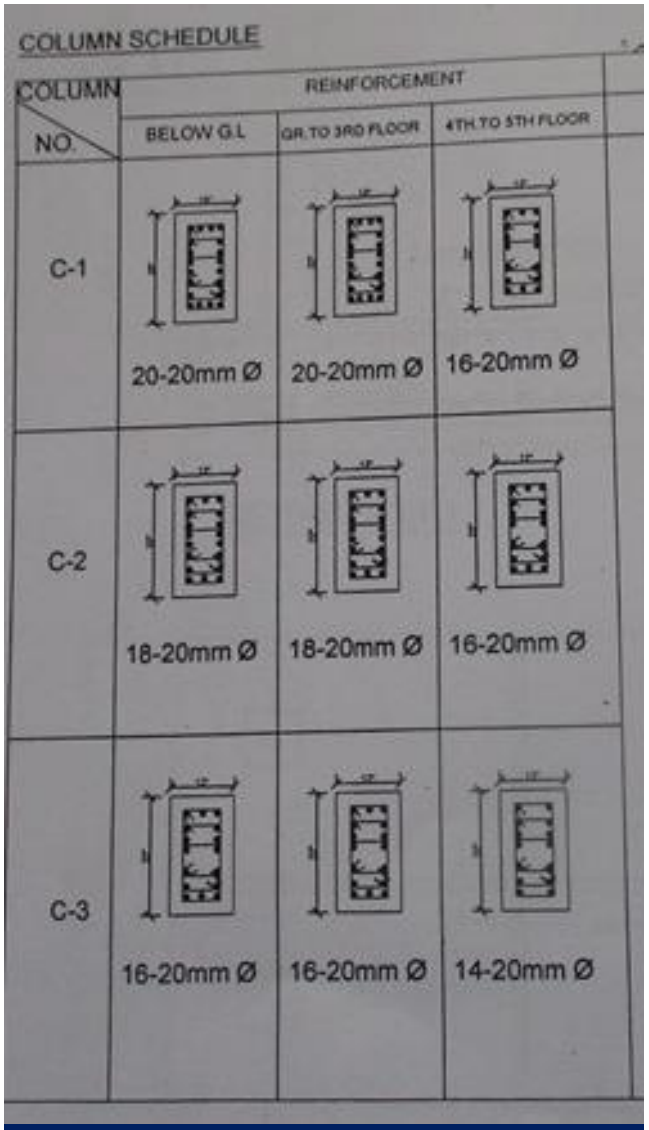
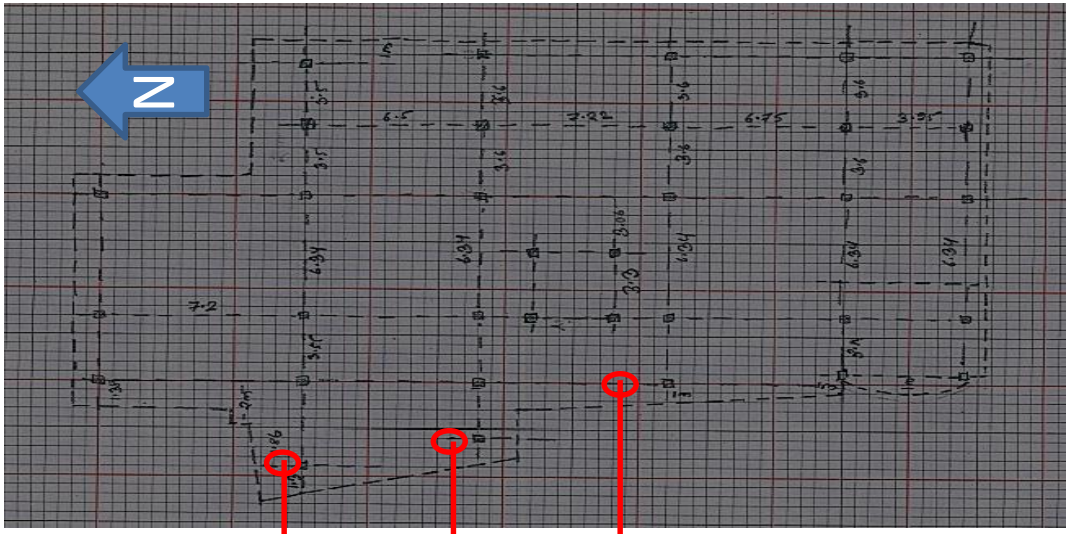


Column schedule from drawing



Circular columns in 1st and 2nd floor

Some columns are found as in circular shape in ground and 1st floor which is not shown in structural drawings .

Discrepancies in the as constructed drawings

Observation

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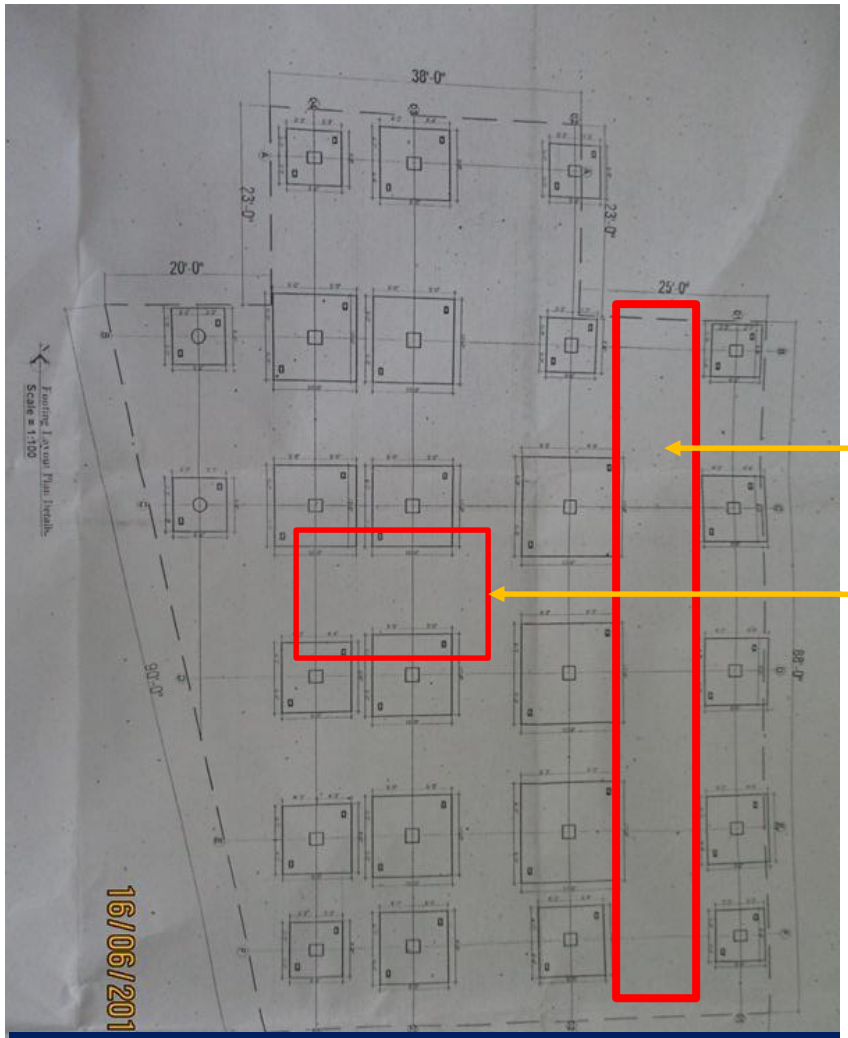
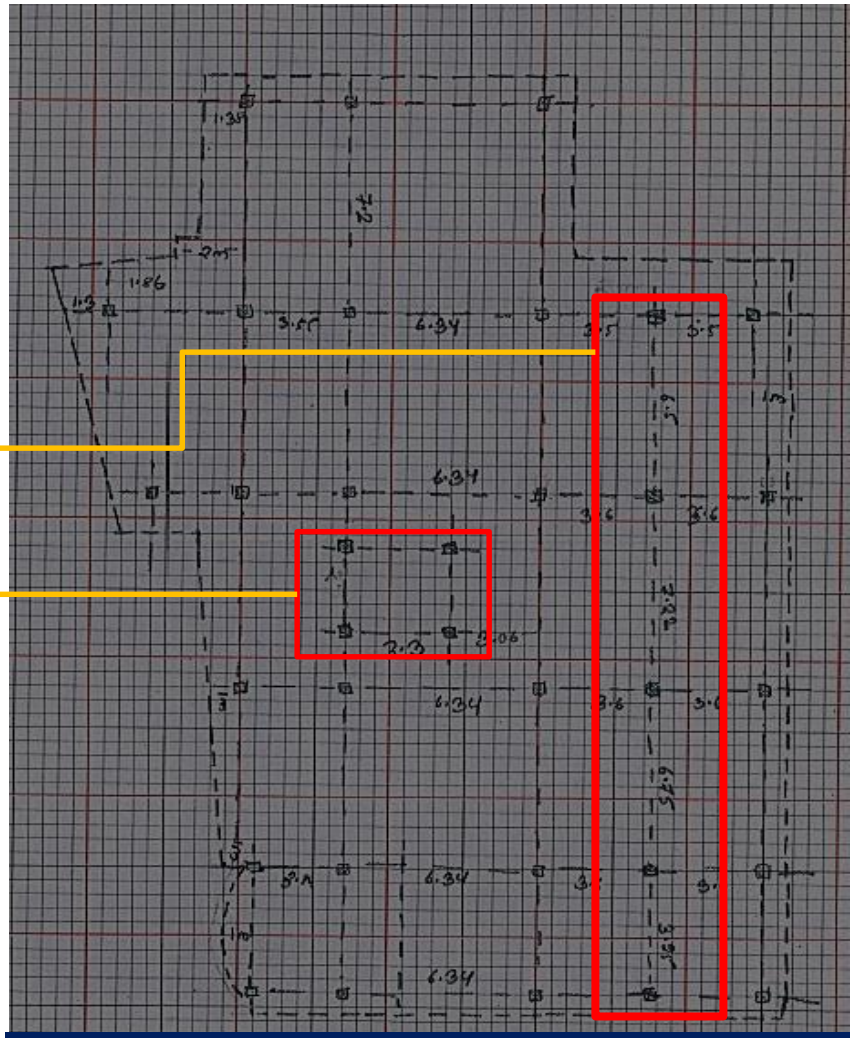
Foundations of extra columns in ground floor.

Observation



Footing Layout



Column Layout

Some columns are appeared on ground floor which is not shown in any of the drawings which served by factory management. Foundation of those columns are also missing from foundation layout.

Foundations of extra columns in ground floor.

Observation

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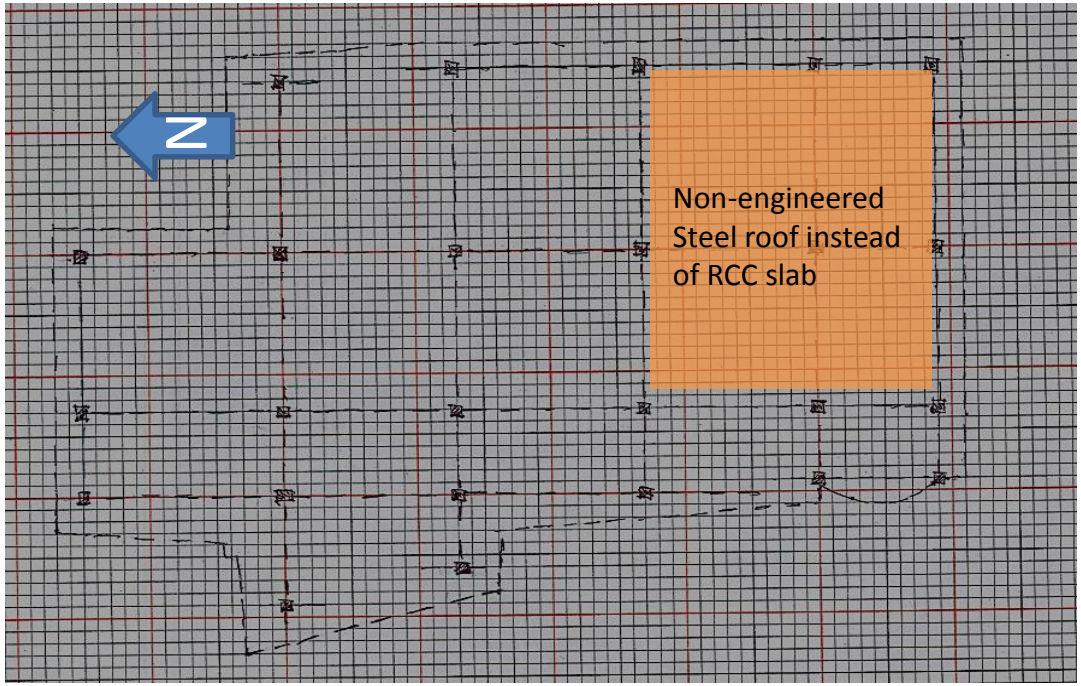
Poor connection detailing between streel roof and RCC

Observation



Apparently non engineered steel shed on roof with trapezoidal sheet over steel angel. Poor welded steel connection appeared.

Poor connection detailing between streel roof and RCC

Observation

Apparently non-engineering stair connecting 6th floor to roof.

Observation

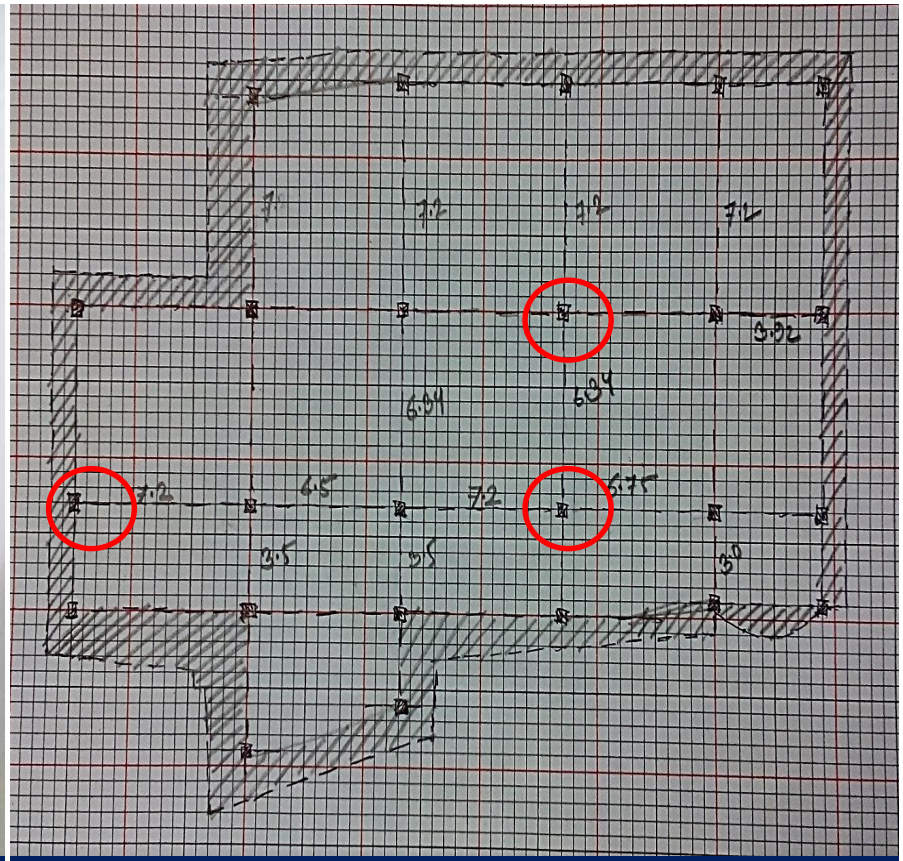
Light weight steel stair between 6th floor and roof. Stair supporting steel box column of 40mm X 40mm & Pipe of 75mm columns appeared poorly connected on the floor slab.

Apparently non-engineering stair connecting 6th floor to roof.

Observation

Test Carried out

Brick chip aggregate observed



Ferro scanning point

Test Carried Out

Priority Actions

Problems Observed

1. Columns appear to be stressed in excess of normal design limits
2. Locally heavy floor loading in some storage areas and cantilevers.
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Item No.	Observation	Recommended Action Plan	Recommended Time Line
1	**Columns appear to be stressed in excess of normal design limits**	Factory Engineer to review design, loads and columns stresses in all columns.	Immediate - Now
1	**Columns appear to be stressed in excess of normal design limits**	Verify in-situ concrete stresses by 100mm diameter cores. Minimum of 4 cores should be collected form ground floor columns.	Immediate - Now
1	**Columns appear to be stressed in excess of normal design limits**	A Detail Engineering Assessment of Factory to be commenced, see attached Scope.	Immediate - Now
1	**Columns appear to be stressed in excess of normal design limits**	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	within 6-weeks
1	**Columns appear to be stressed in excess of normal design limits**	Detail Engineering Assessment to be completed.	within 6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Time Line
1	**Columns appear to be stressed in excess of normal design limits**	Detail Engineering Assessment to be completed.	within 6-weeks
1	**Columns appear to be stressed in excess of normal design limits**	Implement actions raised from DEA.	within 6-months
2	**Locally heavy floor loading in some storage areas and cantilevers**	Reduce all loading including all Storage on factory floors to maximum of 2Kn/m2	Immediate - Now
2	**Locally heavy floor loading in some storage areas and cantilevers**	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	within 6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Time Line
2	**Locally heavy floor loading in some storage areas and cantilevers**	Detail Engineering Assessment to be completed.	within 6-weeks
2	**Locally heavy floor loading in some storage areas and cantilevers**	Continue to implement load plan	within 6-months
3	**Foundations of extra columns in ground floor.**	Check the foundations of the extra columns either it is exist or not	within 6-weeks
2	**Foundations of extra columns in ground floor.**	Building engineer to check the adequacy of the foundations as a part of DEA.	within 6-months

Item No.	Observation	Recommended Action Plan	Recommended Time Line
3	**Foundations of extra columns in ground floor.**	Any action raised by DEA should be implemented.	within 6-weeks
4	**Discrepancies in the as constructed drawings.**	Engage a Building Engineer to survey the structure and prepare a full set of “as-constructed” drawings.	within 6-weeks
4	**Discrepancies in the as constructed drawings.**	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	within 6-weeks
5	**Poor connection detailing between streel roof and RCC**.	Produce “As-constructed” drawings of steel shed	Immediate - Now

Item No.	Observation	Recommended Action Plan	Recommended Time Line
5	**Poor connection detailing between streel roof and RCC**.	Engage a Building Engineer to check the capacity of the lightweight steel roof structure/connection details and wall/connection details.	within 6-weeks
5	**Poor connection detailing between streel roof and RCC**.	Carry out necessary strengthening works if required any arise from Assessment	within 6-months
6	**Apparently non-engineering stair connecting 6th floor to roof.**	Engage a Building Engineer to check the capacity of the lightweight steel roof structure/connection details and wall/connection details	within 6-weeks
6	**Apparently non-engineering stair connecting 6th floor to roof.**	Make any necessary alterations as required.	within 6-months