



# Knit Syndicate

Jalkuri, Siddirganj, Narayanganj-1400, Bangladesh.

(23.656498N, 90.488284E)

5<sup>th</sup> January, 2017



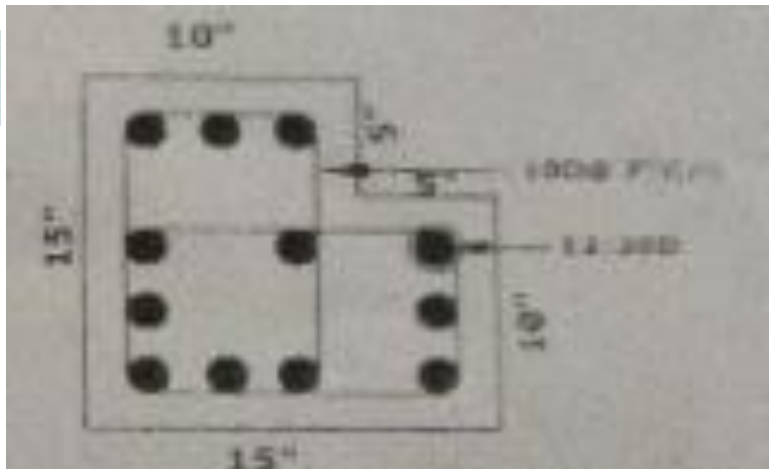


# Observations

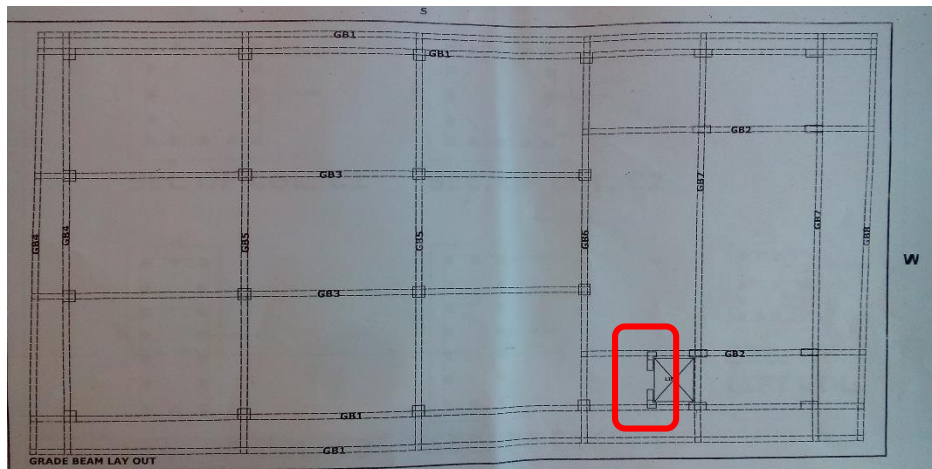


**Columns appear to be stressed in excess of normal design limits**

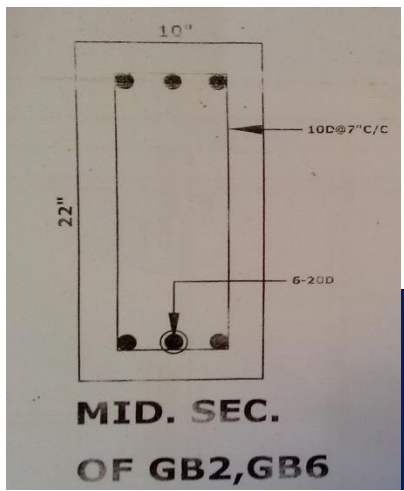




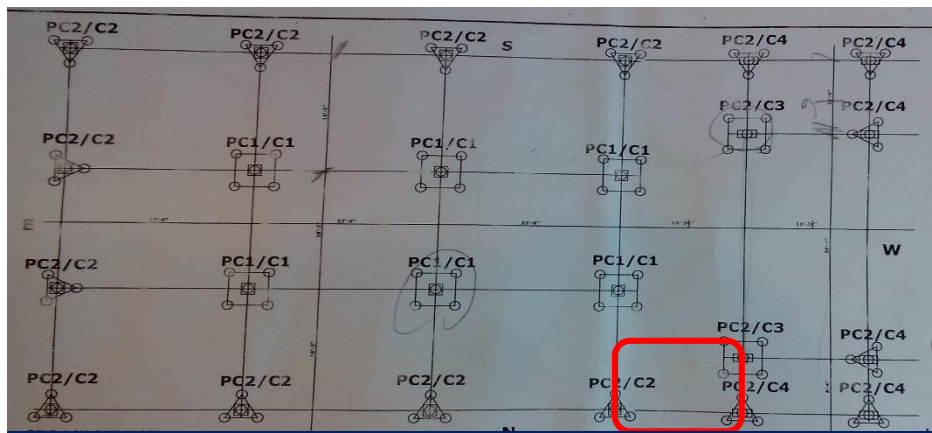
Lift core column detail in column schedule.



Grade beam layout



Mid section detail of Grade Beam that supports the Lift core column



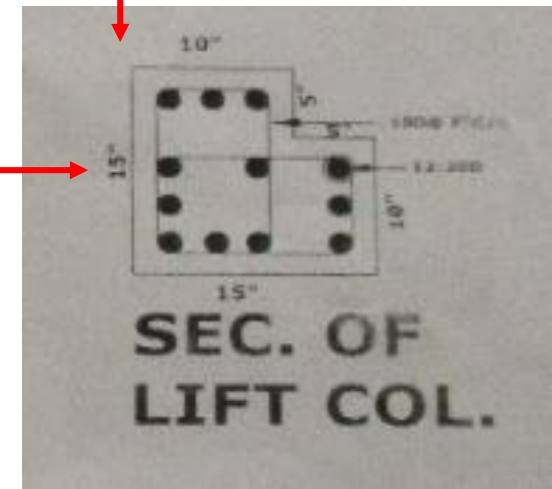
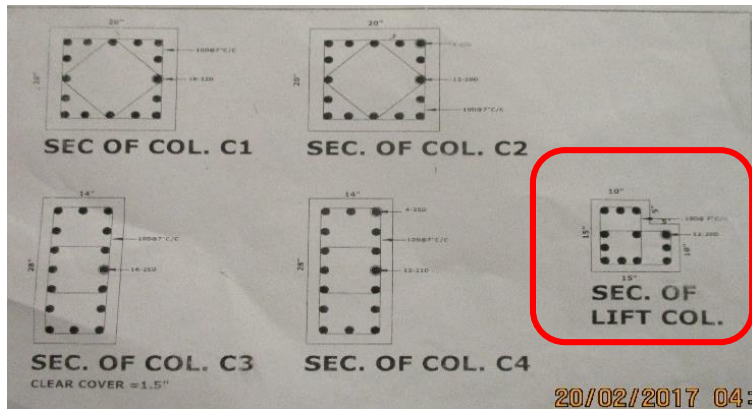
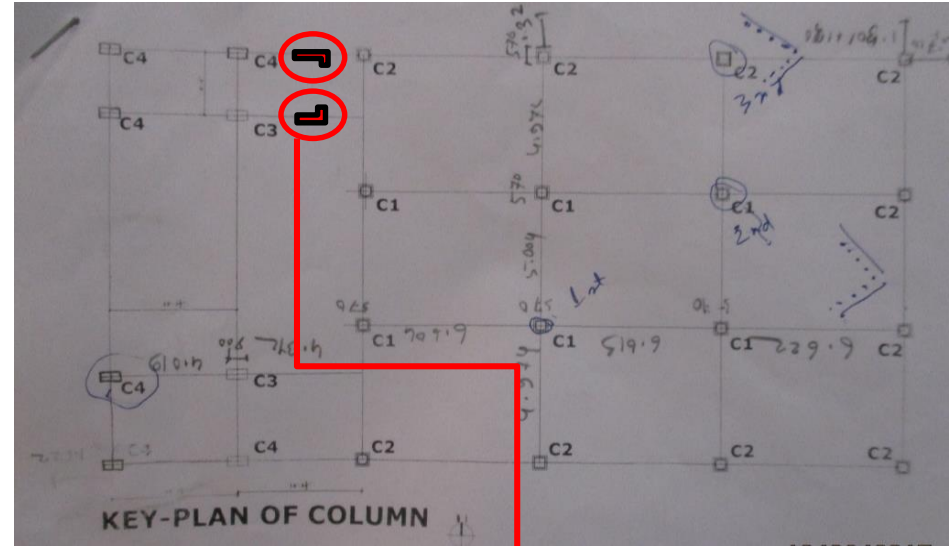
Foundation layout

Lift core columns are appeared in grade beam layout but not exist in foundation layout. Lift core columns was suspected to be supported on mid portion of grade beam. But no connection detail was found in structural drawings. Factory engineer needs to check the adequacy of Grade beam for the concentrated load from lift core columns.

# Observations

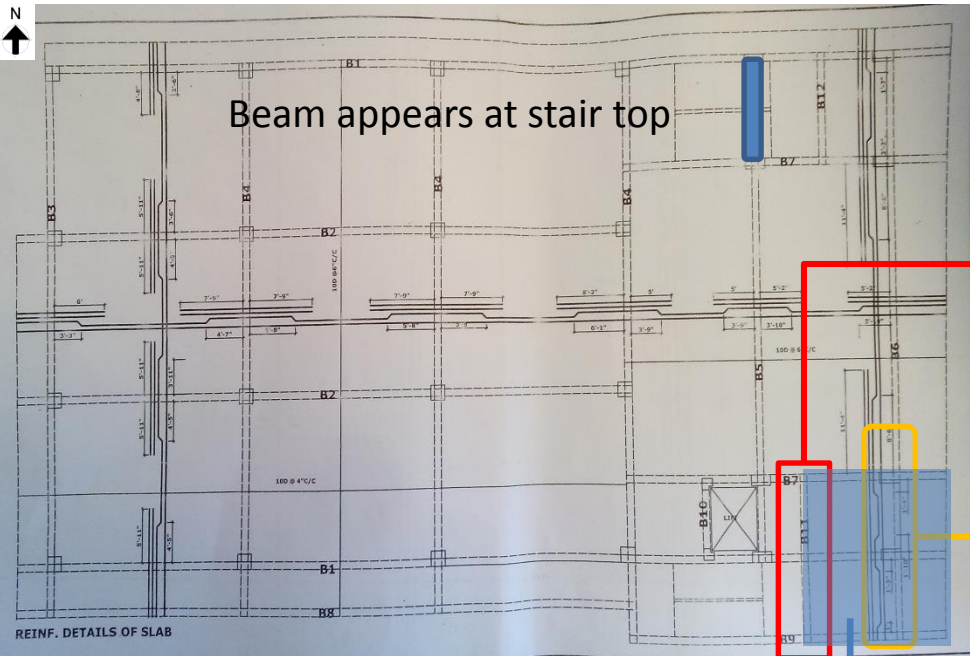


# Discrepancies on the as-built Drawings

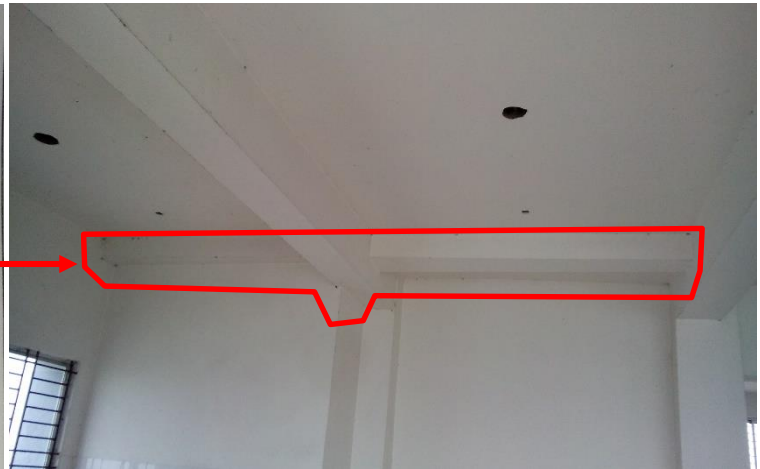


Lift column were shown in the column schedule but not on the column or foundation layout plan. Factory engineer to update the as-built drawings.

# Observations



Beam layout



Beam with different size at west side of building



Mezzanine floor at ground level

Undocumented mezzanine floor was found at ground floor. Discrepancies in beam size was found at roof.

# Observations



**Hairline crack observed on beam & slab soffits**

**Observations**



Hairline cracking observed on beam and slab at 5<sup>th</sup> floor level

## Observations



# Problems Observed

**Item1:** Columns appear to be stressed in excess of normal design limits

**Item2:** Discrepancies on as-built Drawings

**Item3:** Hairline crack observed on beam & slab soffits.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Columns appear to be stressed in excess of normal design limits	Factory Engineer to review design, loads and columns stresses in area identified above.	6-weeks
2	Columns appear to be stressed in excess of normal design limits	Verify insitu concrete stresses either by 100mm dia. cores or existing cylinder strength data for [the identified columns].	6-weeks
3	Columns appear to be stressed in excess of normal design limits	Factory engineer to investigate the support condition for the lift core columns.	6-weeks
4	Columns appear to be stressed in excess of normal design limits	Check the adequacy of the grade beam on which lift core columns are rested on.	6-weeks
5	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.	6-months
6	Discrepancies on the as-built Drawings	Building Engineer to produce a set of as built structural drawing as per as-built condition.	6-weeks
7	Hairline crack observed on beam & slab soffits	Building engineer is required to investigate the extend of cracks.	6-weeks
8	Hairline crack observed on beam & slab soffits	Carry out remedial works if required.	6-months