

Aspire Garments Limited (Extension)

491 Dhalla, Singair, manikganj

(23.800650, 90.237545)

5 December 2023

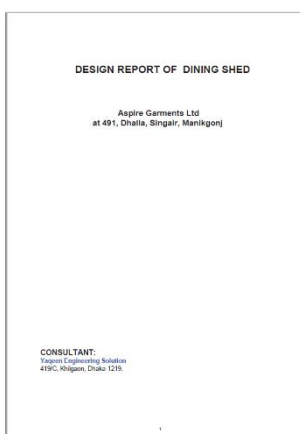


1. Building Information

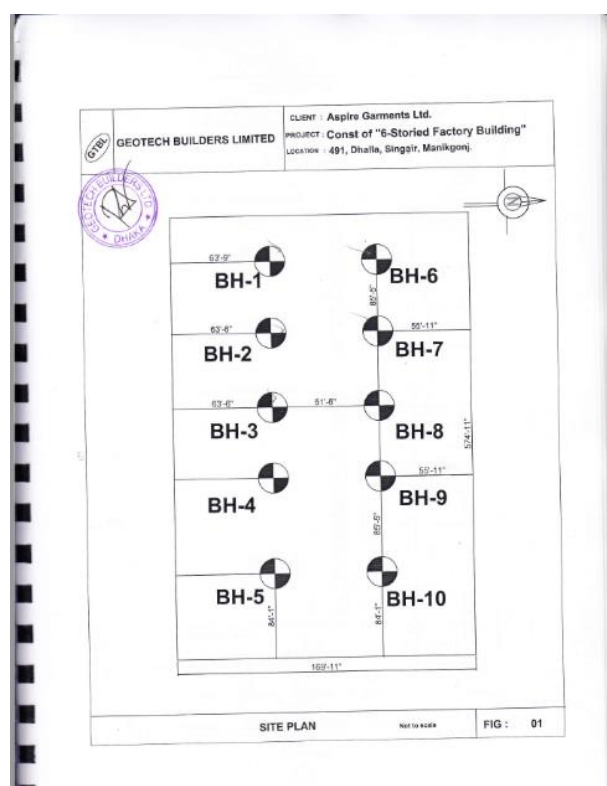
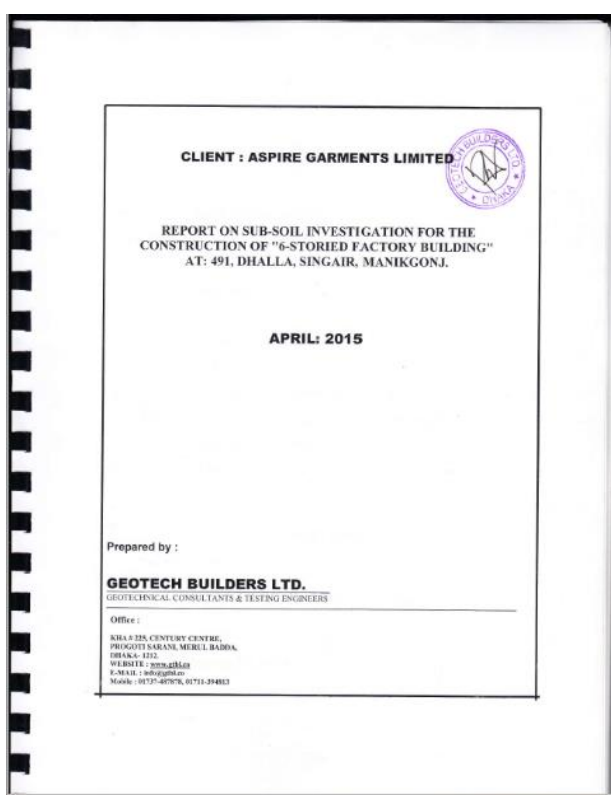
Fabrics and Accessories Shed is a single storied steel shed.

2. Observations

Observation-1: Design report need to be review against lateral loading

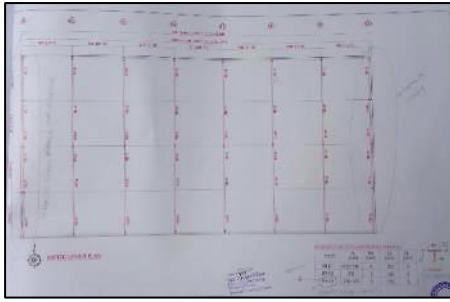


Joint Id	Unfactored Load (DL+LL) kip	Column ID	Footing ID	L (ft)	B (ft)	Ultimate Bearing Capacity (ksf)	Develop Stress (ksf)	Factor Of Safety	Adequacy
112	18.481	C2	F1	6	6	3.81	0.513361	7.421676	ABOVE 2.5
113	25.006	C1	F2	5	5	3.81	1.000224	3.809086	ABOVE 2.5
114	18.49	C2	F1	6	6	3.81	0.513611	7.418064	ABOVE 2.5
115	22.761	C1	F2	5	5	3.81	0.920384	4.18677	ABOVE 2.5
116	22.722	C1	F2	5	5	3.81	0.90888	4.191973	ABOVE 2.5
117	28.232	C1	F1	6	6	3.81	0.786227	4.858317	ABOVE 2.5
118	37.585	C3	F1	6	6	3.81	1.044028	3.649328	ABOVE 2.5
119	28.23	C1	F1	6	6	3.81	0.784167	4.858861	ABOVE 2.5
120	26.548	C1	F1	6	6	3.81	0.731444	5.166401	ABOVE 2.5
121	38.499	C3	F1	6	6	3.81	1.060417	3.56260	ABOVE 2.5
122	26.543	C1	F1	6	6	3.81	0.737306	5.167464	ABOVE 2.5
123	31.259	C3	F1	6	6	3.81	0.868306	4.387856	ABOVE 2.5
124	39.403	C3	F1	6	6	3.81	1.094528	3.480953	ABOVE 2.5
125	26.534	C1	F1	6	6	3.81	0.7385	5.173119	ABOVE 2.5
126	31.260	C1	F1	6	6	3.81	0.868472	4.387014	ABOVE 2.5
127	30.387	C3	F1	6	6	3.81	1.095083	3.482367	ABOVE 2.5
128	26.522	C1	F1	6	6	3.81	0.736722	5.171556	ABOVE 2.5
129	26.585	C1	F1	6	6	3.81	0.738472	5.1595	ABOVE 2.5
130	38.437	C3	F1	6	6	3.81	1.067094	3.568457	ABOVE 2.5
131	26.374	C1	F1	6	6	3.81	0.738167	5.153426	ABOVE 2.5
132	32.835	C1	F1	6	6	3.81	0.912083	4.17725	ABOVE 2.5
133	37.491	C3	F1	6	6	3.81	1.041417	3.658478	ABOVE 2.5
134	28.088	C1	F1	6	6	3.81	0.780227	4.883224	ABOVE 2.5
135	21.584	C2	F1	6	6	3.81	0.599556	6.354707	ABOVE 2.5
136	29.336	C1	F2	5	5	3.81	1.00044	3.789386	ABOVE 2.5
137	18.313	C2	F1	6	6	3.81	0.508694	7.489761	ABOVE 2.5
138	22.374	C1	F2	5	5	3.81	0.89496	4.257174	ABOVE 2.5
139	22.84	C3	F2	5	5	3.81	0.5136	4.170315	ABOVE 2.5



Description: Design report was found available for the structure considered lateral forces for the structural members and connection adequacy. The seismic design category has not been mentioned in the design report. A soil test report for a six storied factory building has been provided. The borehole layout does not represent the Fabrics and Accessories Shed. Additionally, the ultimate bearing capacity of the soil for the footing foundation has been considered 3.81ksf. But no calculation has been provided against the consideration. However, the prepared design documents need to be checked against lateral loads following BNBC 2020 by RSC. Submit the design documents including software-based analysis model to the RSC for detail review.

Observation-2: Improper as-built drawing

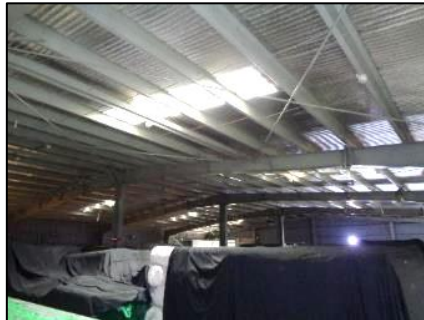


SCHEDULE OF STEEL RAFTER MATERIALS:				
NAME	W (mm)	TW (mm)	BF (mm)	TF (mm)
RR-01	616-366	6	200	8
RR-02	350	5	150	6
RR-03	350-450	5	150	8

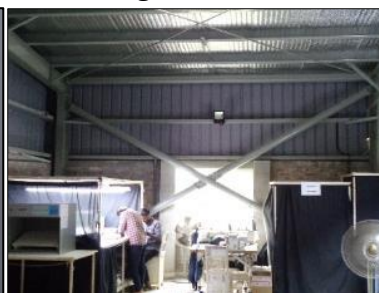
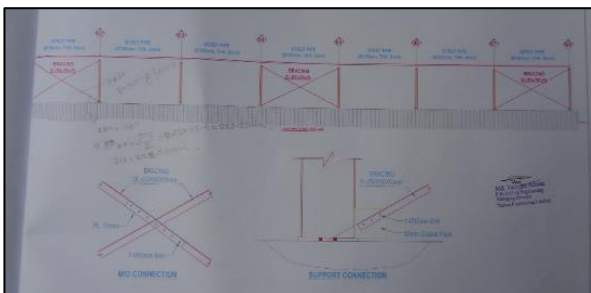
* Regular shape found.



Uniform shape rafter at gable



Roof bracing

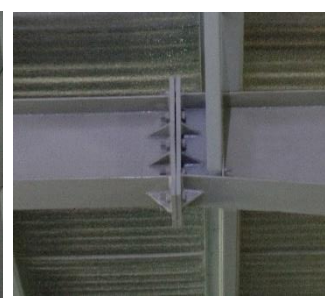
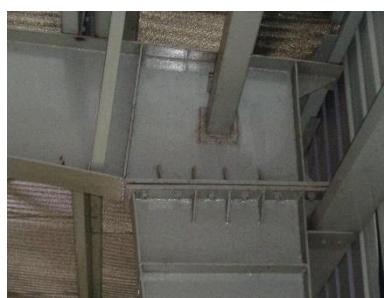


Vertical Bracing- Steel pipe

Description: During inspection, mismatches were found between onsite condition and provided hard copy of the as-built drawing. The shape of the rafter R3 has been shown tapered in drawing but at site condition, shape of rafter was found uniform shape. The web depth for the R3 rafter was found 310mm. The vertical bracing has been shown double angle 2L-05X50X5mm but at site the vertical bracing was found pipe of 140mm dia. Also, the roof bracing has been shown double angle 2L-05X50X5mm but at site the roof bracing was found 25mm dia re-bar and 25mm dia cable. The layout of the compression strut does not match with the between provided as-built drawing and actual site condition.

The construction drawing is re-presentable with site condition with the few mismatches. Building engineer is required to survey the whole structure and prepare accurate as-built drawing.

Observation-3: Connection gap at several location.



Description: Significant gaps observed at column-rafter and rafter-rafter joints at several location. Factory engineer is required to carry out suitable remedial works.

3. Action Plan

Observation	Action Plan	Timeline
Prepared design report needs to be reviewed against lateral loadings.	Prepared design report to be checked against lateral loads following BNBC 2020 by RSC. Submit the design documents including software-based analysis model to the RSC for detail review.	within 6 weeks
	Carry-out remediation work if required.	within 6 months
Improper as-built drawing	The building engineer is required to survey the full structure and produce accurate as-built drawings.	within 6 weeks
Connection gap at several location.	Identify the locations and carryout suitable repair works where necessary.	within 6 weeks