



AUGUST 2022





Client: N 5 Epoxy & Fabrication Solutions Pvt. Ltd. Structural Consultant: Sribarsha Consulting Engineers Pvt. Ltd. Steel Fabricator: TATA Structura Steel tonnage: 310T

## V SRIDHAR REDDY

MANAGING DIRECTOR, SRI HARSHA CONSULTING ENGINEERS PVT. LTD.

The size of the building is 50.0 meters x 108.0 meters in plan and the height is 10.5 meters at the eves level. The main columns are placed at 25.0 meter intervals in across with 7.5 tons crane capacity at 7.5 meters height and longitudinally the columns are placed at 6.0 meter intervals. Here the challenge is that we have to design the structure only with Tata structura members and it should be economical. The total area of the structure is 5400 Sq.Mt (58245 sth). In the normal practice, if we design PEB structure for the same span for such a height, then nearly 10 per cent more steel will be consumed in overall design. For columns, we have used SHS 150x150x6.0 members using SHS 100x100x4.0 for battons. We have avoided inclined members purposely to add more esthetic value to the structure. For the trusses, we have used 'V' type configuration which is nearly makes equilateral triangles by joining top and bottom chords. We have used SHS 150x150x4.0 members for top chord SHS 80x80x3.2 members for inclined members. For purlins, we have used RHS 122x61x4.5 members. We have kept provision for installing Solar panels over the roof of the Structure. In a normal practice in PEB structure, Z purlins are kept but here we have used RHS members which are very strong and efficient compared to Z purlins, which is confirmed by vendor also. For a structural engineer, as well as for on lookers, it is a visual feast looking at the structure.



NS Epoxy & Fabrication Solutions Pvt. Ltd. is an industry which provides epoxy coating along with cut and blend facility over the reinforcement steel which are being used in structures nearer to the coastal areas and also in important structures like national highway bridges, high rise structures where the quality of reinforcement is paramount. Mr. P. Phaninder Reddy insisted on using only Tata Structura(355 yst) members for the design of his factory 'NS Epoxy' to prove the fact that the structure can be designed elegantly, yet it is economical and long lasting.













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