8. Painting

8.1 Painting shall be done in accordance with IS: 1477 (Part 1) and IS: 1477 (Part 2) with suggested primers, coatings, temporary coatings, permanent finishes etc. as the case may be. Painting specifications for Structural Steel.

8.2 Surface preparation shall be as per IS: 1477 (Part 1) – Code of practice for painting of ferrous metals in buildings – Part I - Pre-treatment

1) Option 1 – Solvent Cleaning
2) Option 2 – Shot/slab blasting

NOTE: Let us take quotes for both as painting is being included as in extra item. Subsequently, we can make a call.

8.3 Painting shall be as per IS: 1477 (Part 2) -) – Code of practice for painting of ferrous metals in buildings – Part II – Painting

1) Primer coat – Two component epoxy zinc phosphate primer - 75 microns min. DFT. Can be higher as per manufacturer requirement
2) Middle Coat – Epoxy paint – 100 microns min. DFT
3) Top Coat – Epoxy Paint – 75 microns min. DFT
4) Finish Coat, if required, shall be as per manufacturer (*Currently we don't foresee this requirement, please check with vendors*)
5) Colour/shades shall be as per architectural approvals

8.4 Where Intumescent paint is required for fireproofing – the middle coat (item 8.3-2) shall be replaced by intumescent paint with thickness as calculated for required fire rating

8.5 Intumescent paint for cladded members can be avoided and be replaced with vermiculite. In such case 8.3 to be followed prior to vermiculite coating. Thickness of vermiculite to be as per required fire rating.

9. Testing

9.1 Tests for Hot rolled sections shall be as per requirements specified in IS:2062

1) Chemical analysis as per IS:2062-Section 8
2) Tensile test (including Ultimate Tensile Strength, 0.2% Proof Stress, Elongation % and reduction in area %) as per IS: 1608

9.2 Test for High Strength Bolts (Same as 9.1)

9.3 Testing/Inspection for Welding:

1) Fillet welds Minimum 30% magnetic particle or dye-penetration inspection and 100% visual inspection.
2) Partial penetration butt welds: Minimum 30% ultrasonic and minimum 30% magnetic particle inspection and 100% visual inspection.
3) Full penetration butt welds: 100% ultrasonic and 100% magnetic particle or penetrant inspection and 100% visual inspection.

NOTE: Items 9.3-2 & 3 are not anticipated in this project. However, included in case need arises due to some special conditions.