RENOVATION OF FRONT FAÇADE OF SBI, LHO, PATNA

BILL OF QUANTITIES

Design, Supply, Installation, Testing & commissioning of the following elements in the façade of SBI, LHO, Patna.

I. Removal of damaged / cracked granite slabs / tiles / etc. along with underlayers as necessary, and replacing with the same quality of the granite, securely fixed, with approved means, all complete with the best available quality / workmanship, in perfect line and level, so as to match the existing granite.

Full care shall be taken not to damage the rest of the granite cladding, and the removal of the Granite shall be done in a very careful manner. If any extra granite is broken / damaged, the same shall have to be made good by the tenderer at the extra cost.

The cost shall include any and all items in the removal, careful staking of the removed pieces as per directions of the E/I, removal of any underlayers as necessary, carefully selecting matching granite, and fixing the same by approved means, all complete. Only the finished area of the new granite shall be measured for payment.

Prior to starting the work, all the damaged areas shall be marked and identified, and the areas calculated & recorded. Only after that the work shall be started, and the areas to be paid shall be restricted to the areas thus measured.

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II) STRUCTURAL GLAZING:

a) Structural glazing is to be fabricated from roll formed sections made of galvanized Pre-painted steel with a combination of specially designed components made up of CRCA with zinc phosphate. Required stiffeners will be inserted to take care of wind loads. A specially designed glass holding section will take care of Weight of the glass. Silicone will be applied to arrest water leakage. The tenderer will submit a shop drawing of the system. The tenderer is solely responsible for the safety and stability of the structure, and shall submit an undertaking for the same.
**b) Detailed Specification for Structural Glazing:**

Providing and Fixing Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / (Base steel as per IS 513 of ‘D’ quality, galvanized as per IS 277 with Zinc of 120 Gm/Sqm) with total coated thickness of 0.72mm. The glass holding section shall be made of 304 grade stainless steel of 0.58mm thick. Galvanized steel sections are to be used as stiffeners inside the colour coated steel/powder coated sections as per design requirement. Primer coat with epoxy primer of 5 – 7 microns thick finish, painted with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick. The vertical section should be of 50mm x100mm x 0.72mm, 33mm x 58mm x 0.72mm for frame horizontal section, stiffener section should be 48mm x 98mm x 1mm, cover profiles sections should be of 20mm x 58mm x 0.58mm, Glass holding section should be of 37mm x 37mm & 37mm x 18mm. Including 6mm thick toughened reflective glass of Saint Gobain make (Cool Lite series), of the color decided by the Bank / Consultant. Brackets to be made of CRCA powder coated/Electroplated, should be used to connect vertical to horizontal, vertical to slab / beam, to fix verticals at top & bottom as per site requirement.

Gaskets shall be made of Ethyl Propylene Diamine Monomer (EPDM). Natural cure, with Good U.V. Resistance Silicon 789 of Dow Corning to be used. Wall fixing of sections to concrete/masonry wall should be with self-expanding cap & screws. Anchor Bolts shall be used wherever necessary.

ACP work on glass: 4mm thick ACP having 0.50mm thick aluminium coil both sides with PVDF coating on desired colour side (make Eurobond, Alucobond, Reynobond) to be used for making architectural lining (as given in the drawing) and as per Shop Drawing to be prepared by the Contractor, on the structural glazing. 38.10 x 25.40 x 1.10mm aluminium profile of Jindal make, un-anodized, to be stuck securely on the glass with the help of 12 x 1.10mm VHB tape (3M). Colour of ACP will be as decided by the consultant / Bank.

3) **MS Built Up Section work:** Horizontal built up sections to be fixed at a height of approx. 3000mm, or as decided by the Bank. This will be done using 72 x 72 x 3.20mm of Tata Structura make sections. Coating shall be of minimum be one coat of red oxide primer & two coats of enamel paint of Asian Paints Apex grade. Section shall be neatly wrapped with ACP 4mm having 0.50mm
aluminium coil with PVDF coating on the desired side. Weather resistant silicone, 789 of Dow Corning, to be used as a sealant.

GRID SIZE of the Structural Glazing: - 1100mm x 1500mm approx..

The rate shall be all Inclusive of:
   a) PPS profiles
   b) GI stiffeners
   c) Standard accessories & screws
   d) EPDM gaskets
   e) CRCA & Glass filled nylon brackets
   f) 6mm reflective toughened glass of Saint Gobain Make (Cool Lite series)
   g) MS truss
   h) ACP
   i) Bamboo scaffoldings
   j) Fabrication, installation, transportation, &
   k) All transport, royalty, etc
   l) Any and all items necessary for the completion of the work, whether on not called out on the BOQ / Specifications.

Drawing of Built-Up Section:

72 x 72 x 3.2mm
MS pipe

4) Payment shall be made on the measurement of the new glass facade area only (LxB).

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Signature of Contractor with Seal