

BILL OF QUANTITY CUM PRICE SCHEDULE

Part 2 : Item Rate

Name of Project

: 66KV GIS FOR OPAL DAHEJ.

Name of Work

: CIVIL WORKS OF GIS BUILDING ABOVE
PLINTH LEVEL

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
1	Supplying and filling CNS in layers not exceeding 20 cm in depth ,consolidating each deposited layer by ramming and watering etc all complete as per direction of Engineer in Charge.	780	cum		
2	Providing ,laying and compacting 200mm thick boulder soling under the floors over compacted earth fill as per direction of Engineer-in-Charge.	1100	sqm		
3	Providing and fixing permanently color coated galvanised MS troughed metal sheet decking plate of approved colour and conforming to Class 3 of IS 14246 over roof purlins for cast-in-situ roof slab as per relevant IS code and specification . Bare metal thickness of deck plate shall be minimum 0.7 mm withtrough depth of 44mm having minimum yield strength of 250 MPa and shall serve as a permanent shuttering to the roof slab 100 mm thick measured over the crest of the metal decking & shall have adequate strength to support weight of green concrete and imposed load of min 150 kg/sqm during construction between the purlins as per the manufacturer's recommendations / calculations/test certificates for approval including fixing of plates to purlins ,side lappings . end lapping etc. all complete for below mentioned spans . The sheet shall be permanently coated with silicon modified polyster paint of minimum 20 micron DFT pn exposed surface (facing operating floor) and minimum 7 micron on other face over epoxy primer applied over hot dipped galvanising @275 gm /sqm including fixing of sheet to purlin with self drilling white zinc plated heat treated carbon steel screws of min 5.6 mm dia @260 mm c/c in the trough and stich screws between the two adjacent sheets and sealing with epoxy sealant . Measurement if profile sheeting shall be of the plan area of the roof covered byt MS trough metal decking .				
(a)	Span upto 1800 mm	1250	sqm		
(b)	Span exceeding 1800 mm and upto 2500 mm	850	sqm		
4	Structural steel works including all labour, material (other than BHEL supplied materials), equipments,transportation, handling, etc. at any level as per specification drawings and as directed by Engineer-in charge.				

	Taking delivery of steel from BHEL stores/store yard, loading, transportation, unloading, Fabrication and erection of structural steel with mild steel rolled section/ built up section/combination of both conforming to IS:2062, pipes conforming to IS:1161/IS:1239, chequered plate conforming to IS: 3052, mild steel rounds, monorails, stays, safety chains, ladder, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings etc including 2 coats of red oxide zinc-chromate primer (one coat at shop and one coat after erection), connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable),.....contd				
contd assembly, edge preparation, preheating (min preheat and interpass temperature of 20o C for welding over 20mm and upto 40 mm & 66o C for welding over 40 mm and upto 63 mm & 110o C for thickness over 63 mm & use of low hydrogen/ radiogenic electrodes), post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc. all complete as per customer Specifications : Cl no. 9.0 of Doc. no. 6987-00-16-48-DB01 of Section C 3.6, Cl. no. 3.7 of Doc. no. 6987-046-16-48-JS-01 (Part-A) of section C 4.6, Cl.no.4.6.3 of Doc. no. 6987-046-16-48-JS-01 (part-A) of Section C-4.6 & Cl.no. 3.6.5 of Doc. no. 6987-046-16-48-JS01 (part-B) of Section C 4.6 (Structural steel to be supplied by BHEL free of Cost)	450	MT		
5	Extra over S NO. 4 for blast cleaning of steel structures to near white metal surface(Sa 2 1/2) using abrasives like copper slag/ Al2O3 particles/chilled cast iron and steel and applying epoxy based zinc phosphate primer in coats of minimum 25 micron (DFT) at shop and 25 micron (DFT) after erection, instead of primer coat of red oxide zinc-chromate, including touch-up painting etc all complete. as per EIL spec. no. 6987-0642-PT-F09, clause 8.2 of table no 8.0	450	MT		
6	Extra over S NO. 4 for providing and application of two coats of primer consisting of chemical resistant epoxy resin and hardener (Minimum 1 Kg of primer mix shall be consumed for priming of 4 to 5 m2 area of surface) instead of primer coat of red oxide zinc-chromate, including touch up painting etc. all complete.	450	MT		
7	Providing & fixing 45mm steel door made of double sheet 18G steel suitably reinforced and filled with mineral wool/PU foam , including frame, fittings and accessories etc., all complete as per specification and instruction of Engineer -in-Charge.	65	sqm		

8	Providing & fixing Acid/Alkali resistant (Chemical resistant) tiles conforming to IS:4457 in flooring/Dado and shall be laid over bitumastic lining of min 12mm thick (to be laid in layers of 6mm each). The tiles shall be applied with 6mm thick Potassium Silicate bedding mortar as per IS: 4441, 4443 & 4832 and including preparation of surface , application of bitumen primer, curing etc. all complete for following thickness. The tiles should be abrasion resistant & durable.				
	20mm thick	20	sqm		
9	Providing and fixing Hand drier electrically operated with photo voltaic control with all fittings etc. all complete as per direction of engineer-in-charge.	1	each		
10	Providing and laying roof water proofing treatment using non woven polyester memberane coated on both sides with APP modified bitumen including raking of joints, laying on dry surface all complete as per customer specification no C 4.6 6987-046-16-48-JS01 Rev 0 clause 3.5 and direction of Engineer-in-charge. (excluding the cost of screed concrete)	1200	sqm		
11	Providing & fixing 0.5mm thick Al false ceiling made of alluminium alloy AA3105 in approved pattern all complete including fixing ,leaving cut out etc required for completion as per customer specification no C 4.6 6987-046-16-48-JS01 Rev 0 clause 3.9.1 and direction of Engineer-in-charge.	200	sqm		
12	Grouting of block outs, pockets, foundations, bolts holes and underside of base plates with ready mixed grout or grout consisting of 2 parts by weight of sand, 1 part by weight of cement including approved plasticizer, non-shrink admixture, in the required proportion as recommended by manufacturer/Engineer, including placing, curing, cleaning, surface preparation, testing, etc. complete with labour, materials, equipment, handling, testing, etc. all complete as per specifications, drawings and instructions of the Engineer.	2	cum		
13	Providing and encasing of structural steel member with masonry work around flanges, webs etc. and filling the gap between steel and masonry by minimum 12mm thick mortar. Encased member shall be wrapped with chicken wire mesh with 50mm lap/mild steel wire fabric etc. complete as per specification. (Chicken wire mesh wire fabric to be paid separately).	150	cum		
14	Providing and fixing phenolic foam underdeck insulation conforming to IS: 13204 density 32kg/cum, 40mm thick, prelaminated with kraft paper on both sides including bituminous priming, fasteners all complete as per customer specification no C 4.6 6987-046-16-48-JS01 Rev 0 clause 3.9.4 and direction of Engineer-in-charge.	550	sqm		
15	Providing and mixing approved Bipolar Concrete penetrating Corrosion inhibiting admixture (from EIL's approved manufacturer in concrete as per customer specification/ manufacturer recommendation etc. all complete	5000	kg		
	Total Amount (Rs.)				