

**BILL OF QUANTITIES & PRICE BID FORMAT**

**Name of work : Raising of embankment height for ash pond at Tilia  
(Unit # 3 & 4) from RL 208M to RL 212M**

Sl. No	Service Description	Unit	Quantity	Unit Rate	Amount (Rs)
1	Foundation Preparation: Preparation of foundation, for raising of embankment height by inside raising method; dozing and levelling of foundation base, compaction of foundation with chaining and rolling with minimum 6 passes of Vibratory Rollers of min. 10 tone capacity or any approved rollers including cost of labour, equipment, material etc. and all other specified activities complete as per specification, drawings and as directed by the Engineer-In-Charge.	Sqm	162137.000		
2	Construction of core of the ash pond embankment with ash by Excavation of ash from Ash Pond by mechanical means loading into and transportation by mechanical means and unloading the ash within initial lead of 3 km on properly prepared and scientifically approved surface including spreading and leveling the earth in 22.5 cm layers to make ready for watering and compaction with Vibratory rollers and dozers including watering earthwork up to OMC condition and compaction by vibratory roller & dozer in layers not exceeding 22.5cm to required density in dams and dykes for all heights including construction, maintenance, watering and lighting of haul road, hire & running charges of all machineries, royalty, taxes and borrow area etc. complete as per the direction of Engineer-in-charge. (measurement of the fill to be taken on the finished compacted section under OMC condition.)	Cum	462465.500		
3	Formation of Dyke:- Excavation of earth by mechanical means from approved borrow areas outside the ash pond (borrow area will be arranged by the contractor at its own cost and risk), loading into and transportation by mechanical means and unloading the soil within initial lead of 5 km on properly prepared and scientifically approved surface including spreading and leveling the earth in 22.5 cm layers to make ready for watering and compaction with vibro rollers and dozers but excluding watering and compaction for all heights including forming extra width on edges, trimming of slopes and slope compaction with dozers or slope compactors to obtain the section as per construction drawings, with all incidental charges, cost of labour, equipment, materials etc. Complete as per specifications, drawings and as directed by the Owners Representative. including construction, maintenance, watering and lighting of haul road and borrow area etc. complete as per the direction of Owners Representative. (measurement of the fill to be taken on the finished compacted section under OMC condition.).	Cum	474088.655		
4	Watering ash &/or earth work up to OMC condition and compaction by vibratory rollers and dozer in layers not exceeding 25 cm. to required density including hire and running charges of all the machineries complete as per direction of Owners Representative. (measurement to be taken on the finished compacted section of the fill under OMC condition.)	Cum	936554.155		
5	Supplying and spreading sand of approved specification on compacted surface of earth dam or dykes for filter blanket and other horizontal filter zone to proper thickness including surface dressing within initial lead complete as per direction of Engineer-in-charge.	Cum	51328.000		
6	Supplying and filling sand of approved specification in vertical chimney to proper line & level using removable sheet metal separators up to designed height of filter chimney within initial lead as directed by the Engineer-in-charge.	Cum	23680.000		
7	Excavation of compacted Ash/Earth for vertical sand chimney and connecting sand blanket to sand chimney including trimming of slopes and depositing the excavated materials away from site within an initial lead of 1 Km as per direction of EIC	Cum	45140.000		
8	Fine dressing and turfing in position with compact dub grass and ramming with thapies including cost, conveyance, taxes and labour charges etc. complete as per direction of Engineer-in-charge.	Sqm	199560.000		
9	Collecting, stacking and conveying from stack and spreading moorum consolidation with PRR including hire and running charges of PRR & turfing, watering etc. complete as per direction of Engineer-in-charge.	Cum	4690.000		
10	Providing and laying reinforced cement concrete R.C.C (1:1.5:3) using 12 mm size hard granite crusher broken chips including watering, curing, cost, conveyance, royalties, taxes of all materials required for the work etc. complete as per direction of Engineer -in-charge.	Cum	250.000		

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11	Rigid and smooth centering and shuttering for R.C.C works including false works, scaffolding etc. at all elevations and dismantling them after casting including cost of materials, conveyance, taxes and labour charges etc. all complete as per direction of Engineer-in-charge.	Sqm	1250.000		
12	Supplying, cutting, bending & binding and placing TMT reinforcement in position of required dia as per drawing including cost of materials, conveyance, taxes, labour, etc. all complete as per direction of Engineer-in-charge.	Qntl	300.000		
13	Supplying, fabrication and erection of all type of mild steel iron work for all type of structures, sheds, grills, doors, fencing posts, ash pond approach bridge etc. with approved quality (SAIL or TISCO make) steel structural, angles, channels, plates, Ch Plates of all sections at all levels and elevations, painting with 02 coats of High gloss enamel paint over a coat of red oxide primer including all cost of materials, conveyance, taxes, labour charges, T&P, scaffoldings etc. complete in all respect as per the direction of the Engineer-in-Charge.	MT	80.000		
14	Dismantling and shifting of existing cross over 350 NB ash disposal pipes including excavation of earth as per requirement, dismantling of support pedestals, support structures, cutting and shifting of pipes, pedestals etc. all complete as per direction of EIC.	Mtr	3050.000		
15	Dismantling and shifting of existing 200 NB carbon steel seamless Pipes including excavation as per requirement, dismantling, cutting of pipes and shifting including shifting of support pedestals etc. all complete as per direction of EIC.	Mtr	3750.000		
16	Supply of bottom ash slurry disposal pipe line of 350NB MS ERW pipe confirming to IS 3589 FE 410, bevel ends, thickness 9.5mm, including bends, t's etc. as per drawings, specifications and instruction of EIC.	Mtr	1800.000		
17	Erection, positioning and welding of 350 NB MS Pipeline supplied vide item no. 16 and dismantled vide item no. 14 including Ts, bends, etc. including one coat of primer and two coats of paints, pipe pedestals and support structures including pipe clamps, binders etc. all complete as per instruction of EIC.	Mtr	4850.000		
18	Supply of 200 NB Seamless carbon steel pipes confirming to ASTM A106 Grade B, Thickness 11.2mm. Including bends, t's etc. as per drawings, specifications and instruction of EIC, for High Concentrated ash Slurry disposal system.	Mtr	1250.000		
19	Erection, positioning and welding of 200 NB MS Pipeline supplied vide item no. 18 and dismantled and stored vide item no. 15 including one coat of primer and two coats of paints including Ts, bends etc. including one coat of primer and two coats of Paints and pipe pedestals, support structures including installation of pipe clamps, binders etc. all complete as per instructions of EIC.	Mtr	5000.000		
20	Supply of 600NB, MS ERW pipes of 9.5mm thick including materials conveyance loading unloading etc. all complete	Mtr	600.000		
21	Erection & welding of 600NB M.S ERW pipes with rapping and coating with approved materials all complete	Mtr	600.000		
22	Supply of 600NB flanged type butter fly valve both side flange type & with gear box hand operated of L&T or any approved make with all accessories etc. with approved materials including all fittings and raiser spindle all complete as per drawing, specification and instruction of EIC.	Nos	4.000		
23	Erection of 600NB butter fly valve with raising spindle & hand wheel operated of reputed make suitable for ash water medium with all cost of labour etc. all complete as per direction of EIC	Nos	4.000		
24	Supply of 350NB manually operated with hand wheel knife-edge gate valve, Plate thickness 16mm & Plate material SS 304 grade, valve body cast steel, working pressure - 12kg/cm2, Provision for gland packing with gland follower of reputed approved make suitable for bottom & flyash medium etc. all complete as per direction of EIC.	Nos	10.000		

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25	Erection of 350NB manually operated knife-edge gate valve of reputed approved make suitable for bottom & flyash medium with all cost of materials, conveyance, T & P, labour etc. all complete as per direction of EIC.	Nos	10.000		
26	Chute Drain : Providing and laying stone riprap to the slopes of dyke with quarried and blasted stone boulders of size 0.30m and above including dumping on slopes filling interstices with small stones & wedges and packing surface to proper line and levels including fixing wave breakers for concrete chute on d/s face of the embankment as per approved drawing and direction of Owner's Representative. (Concrete Qty will be measured and paid separately complete with all leads & lifts complete as directed by the Engineer-in-charge.	Cum	1631.250		
27	Cement concrete(1:3:6) using 12 mm graded hard granite crusher broken chips including all cost, laying of concrete watering, curing, conveyance, T & P, royalties, taxes of all materials required for the work , Scaffolding & labour charges etc. complete as per the direction of Engineer-in-charge.	Cum	427.812		
28	Dewatering of ash water from PST for construction of separation bund in between PST : Placing , fixing and operational at site the 40HP diesel de-watering pumps with minimum suction of 2.0rmt and maximum of 8.0rmt of suitable diameter , delivery to the nearest disposal location up to maximum distance of 150.0rmt of suitable diameter including the cost of pump , fittings, suction, delivery , lubricating oil consumptions, maintenance and operator, helper including all cost of fuel and consumables etc. all as directed by the EIC. Supplying, Necessary PPE/ Safety equipment's is in the scope of contractors , as per OPGC safety norms, considering 8 hrs. of working in a day	Hrs.	480.000		
29	Providing and laying all types of pre-cast cement concrete units (reinforced) of grade (1:1.5:3) in opening of water escape structure, MS Pipe support, Road edge guard posts, at any RCC structure etc. at all levels, with graded stone chips (20 /12.5 / 10 mm nominal size), including all labour, material, equipment, handling, transportation, formwork, TMT, batching, mixing, casting, compacting, curing, testing, rendering, exposed surface with cement sand mortar 1:3, handling, storing, trans-orting, for all leads and lifts, erection, setting in position with cement sand mortar 1:3, all complete, as per specifications, drawings and instructions of the Owner's Representative.	Cum	80.000		
30	Solar street lights: Dismantling of installed solar street light poles in the dyke top including all costs for labour, equipment, tools etc. Transportation, shifting and keeping the poles and panels securely and re installing the poles at the top of the dyke after completion of bund raising work as per specification and instruction of EIC.	Nos	280.000		
31	Instrumentation: Providing and installing in position porous tube piezometer at specified locations including drilling cased bore holes of 100 mm diameter, cleaning them, assembling porous tube and PVC pipe of about 12M length with couplings, cleaning and driving out air from the pores of porous tube, pouring clean saturated coarse sand around the porous tube, backfilling with cement sand grout (1cement : 4sand) around the PVC pipe, providing removable cover for the PVC pipe and casing, and fabricating and installing protective fence complete with the cost of brass bottom plug, brass adapter, cost of the portion of steel casing pipe to be left in the bore hole, including the cost of all labour, equipment, materials, transportation to site. All leads & lifts etc. complete as per specification, drawings and as directed by the Owner's Representative.	Nos	10.000		
32	Instrumentation: Providing and installing in position the surface settlement points of 1.0 meter depth at specified locations, including drilling holes and backfilling with 1:2:4 cement concrete and cost of all labour, equipment, materials, transportation to site all leads & lifts etc. complete as per specification drawing and as directed by the Owner's Representative.	Nos	10.000		
TOTAL VALUE IN INR (EXCLUDING GST)					
GST EXTRA AT ACTUALS, APPLICABLE % ALONG WITH SAC CODE TO BE INDICATED IN YOUR PRICE BID					