

**Syama Prasad Mookerjee Port, Kolkata**  
**CIVIL ENGINEERING DEPARTMENT**

**BILL OF QUANTITIES**

कार्य का नाम-6 एनएसडी बर्थ की ड्राइंग के अनुसार 20 टन सीआई स्टेग हॉर्न बोलाड और 60 टन सीआई बोलाड की उपलब्ध कराना, फिटिंग और ठीक करने के लिए ई-निविदा।

**Name of Work** – Supply, fitting and fixing of 20 Ton CI Stag Horn Bollard and 60 Ton CI Bollard as per drawing of 6 NSD Berth.

**NIT No** : SMPK/KDS/CIV/T/2825/07

**Date** 12.03.2024

Item No.	Description Of Item	Quantity	Unit	Rate Rs. P.	Amount Rs. P.
1	Dismantling R.C. floor, roof, beams etc. including cutting rods and removing rubbish as directed within a lead of 75 m. including stacking of steel bars.a) In ground floor including roof.	10.00	CuM	1,956.00	19,560.00
2	Dismantling all types of plain cement concrete works, stacking serviceable materials at site and removing rubbish as directed within a lead of 75m. In ground floor including roof. (a) upto 150 mm. thick	10.00	CuM	939.00	9,390.00
3	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. a) Depth of excavation not exceeding 1,500 mm.	10.00	% CuM	11,927.00	1,192.70
4	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) (a) With earth obtained from excavation of foundation.	5.00	% CuM	7,754.00	387.70
5	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	10.00	Sqm	361.00	3,610.00
6	Dismantling hand stone by deploying mechanical plants along with quay line of dock for marking foundation space size 0.95 x 0.80 x 0.50 mt at the existing damaged bollard position without disturbing the adjacent quay line/ stone blocks & other stone structure viz crane track & subway preciously chiselling & cutting the sides of the foundation	8.00	Each	12,586.83	100,694.64
7	Applying epoxy based reactive joining agent for joining the old concrete with fresh concrete to be applied within manufacturer's specified time as per manufacturers specification. (0.4 Kg/m <sup>2</sup> of concrete surface).	30.00	Sqm	309.00	9,270.00
8	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. (i) Pakur Variety	15.00	CuM	7,611.00	114,165.00

Item No.	Description Of Item	Quantity	Unit	Rate Rs. P.	Amount Rs. P.
9	Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction. SAIL/TATA/RINI	0.80	MT	60,580.00	48,464.00
10	Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) (c) Steel shuttering or 9 to 12 mm thick approved quality ply board shuttering in any concrete work	30.00	Sqm	369.00	11,070.00
11	M.S. structural works in columns, beams etc. with simple rolled structural members (e.g. joists, angle, channel sections conforming to IS: 226, IS: 808 & SP (6)-1964 connected to one another with bracket, gussets, cleats as per design, direction of Engineer-incharge complete including cutting to requisite shape and length, fabrication with necessary bolting, metal arc welding conforming to IS: 816-1969 & IS: 1995 using electrodes of approved make and brand conforming to IS:814- 2004, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumables such as electrodes, gas and hire charge of all tools and plants and labour required for the work including all incidental chages such as Telectricity charges labour insurance charges etc. Payment to be made on the basis of calculated weight of structural members only in finished work as per IS specified weight. Payment for gusset, bracket, cleat, rivets, bolts and nuts may be make by adding the actual weight of such items with the weight of finished structural members or 7% of weight for finished structural members weighing not less than 22.5 Kg./m. or 15 % of weight for finished structal members weighing less than 22.5 Kg./m. may be increased allow for bracket, cleat, rivet, bolts and nuts etc. and no seperate payment being made for these items, as per direction of Engineer In Charge. The rates are considered for a height of erection 8m. / 2nd floor level from the ground. Add 1.5% extra over the rate for each additional floor or 4m. beyond initiial 8m. or part thereof. II) For Structural Works in Roof Trusses etc. using joists, channels and angles of specified section weighing less than 22.5 kg/m	0.50	MT	73,761.00	36,880.50
12	Supply & Fix position C.I. Stag Horn Bollard including all fitting & fixing accessories i.e. nut, bolts, base plate etc. including painting all complete as per specification & standard drawing of 20 Ton.	4.00	Each	147,741.00	590,964.00
13	Supply & Fix in position bollard including all fittings & fixing accessories i.e. nut, bolts, base plate etc. in alll complete as per specification & drawing twin C.I. bollard 60 Ton Capacity	3.00	Each	590,440.00	1,771,320.00
14	Welding in M.S. structural work with gas or electric: (a) Tack weld	1000.00	Per point	9.00	9,000.00

Item No.	Description Of Item	Quantity	Unit	Rate Rs. P.	Amount Rs. P.
15	Hire Charges of Earth movers/ Excavator-Cum- Loader for 8 hours including one no. operator, fuel etc. The rate inclusive of all expenses etc. complete but excluding G.S.T.	2.00	Day	11,057.92	22,115.84
<b>TOTAL</b>					2,748,084.38

TOTAL- Rs 27,48,084.38  
(Rupees Twenty seven lakhs forty eight thousand eighty four and paisa thirty eight only)