

Name of the work : Up-gradation and strengthening of Existing Oil Jetty No. 3

Schedule B

Item No	Description	Qty.	Unit	Rate	Amount
1	Removal, Providing & Fixing three cell fender : Removal of existing fender carried by mechanically making the hoisting arrangement, lifting with suitable mechanical equipment and stacking at a distance of 5Km away from site & stacking in position, removal shall be carried out along with all attachments from its position by opening or cutting all the chains and separating frontal frame and detaching all the three cell fenders from its position by opening or cutting S.S. nuts bolts and cutting of all stud links chains complete.-Providing and fixing new Fender system consisting of Three cell fendering system (1000H) rubber fender or equivalent with absorption equal to or more than berthing energy of 858 KNM reaction force equal to or more than 1959 KNM, and hull pressure equal to or less than 400 KN/m2 and 1 No. of fabricated steel frontal frame of size 1.5 m x 0.20 m x 7.5m with rubbing surface (low friction UHMW synthetic resin rubbing pad) 30mm thick including necessary high tensile galvanized wrought iron chains, shackles, anchor bolts, U hook and other fixtures fixing with resin fastener RE 500V4 or equivalent and painting etc, with all labour and material complete.	1.00	Nos		
2	Removal, Providing and fixing of fender: Removing the existing wooden fender along with all attachments from its position by opening or cutting all the existing fixture arrangements and separating frontal frame and detaching all fenders from its position by opening or cutting S.S. nuts bolts etc. to preparing good for fixing. including Providing and Fixing of New Square Fender of size DSQ-C 300x300x7500 L with UHMW PE Facia Pad, with necessarily nuts, bolts & clamps fixing with resin fastener RE 500V4 or equivalent of required size and specification as specified by manufacturers specification & drawing etc. complete as directed by EIC.	6.00	Nos		
3	Removal, Providing & Fixing Galvanised M.S. ladder : Removal of existing Ladder by mechanically making the hoisting arrangement, lifting with suitable mechanical equipment and stacking at a distance of 5Km away from site & stacking in position and after dismantling the surrounding concrete, opening/cutting of Hex horizontal nut bolts and detaching the headed nuts and other portion from plate, disposal of dismantled concrete. Providing & Fixing of New Galvanised M.S. ladder of 150 micron comprising stringers rung fixing angles, nuts, washers , firm holds at top etc. including making holes (25 mm dia @ 250 mm depth), Anchor Rods HAS-U 8.8, M27 x 340 mm Long Stainless Steel (SS 316 Grade) nuts, Bolts, and washers, firm holds at top etc., fixing & grouting with epoxy bonding resin fastener RE 500V4 or equivalent. Complete as per drawing and as directed by Engineer-in Charge.	4500.00	Kg		
4	Removal of existing wearing coat chipping and removing of existing wearing course of slab by suitable mechanical equipment & taking away to a distance of 5Km away from site & stacking in position as directed by EIC.	855.00	m2		
5	Surface preparation : Chipping and removal of dilapidated concrete from RCC structural members carefully by suitable means upto sound concrete using electrically operated low impact concrete chipper (where use of electrical chipper is not feasible chisel & hammer may be permitted with great care and under supervision). including cutting/Removal of liner, cutting the excessively corroded reinforcement wherever directed, cleaning the chipped surface with wire brush, providing and applying rust covering primer. complete as specified & as directed including necessary scaffolding. Removing/disposing or stacking the salvages etc. Complete as specified & as directed by EIC.	10078.00	m2		
6	Providing and fixing shear connectors supplying, fabricating and fixing HYSD TMT minimum Fe 500D grade rods of 12 mm dia of min 250 mm long to be placed in position in 14 mm dia in 150 mm depth of hole, as shear connectors / anchor rods, including supplying, mixing, drilling and filling the gap around the rods with anchor resin RE100 or equivalent. Complete as specified & as directed by EIC.	5133.00	Nos		
7	Providing and fixing Galvanised mesh size 50 X 50 mm minimum 3mm of thick/or as directed for concreting work, including cutting, tying, fixing of 5 nos nailing per Sq.m in position with GX 3 fastening tool, labour, tools, plants, machinery, scaffolding etc. Complete as directed by the Engineer-In-Charge.	10078.00	m2		
8	Providing & placing in position of Galvashield XPI or equivalent Sacrificial Anode with connection to rebar and fixing of self regulating at the required locations during the time of execution and completion as directed by EIC.	532.00	Nos		
9	Providing and applying Epoxy Bonding Agent before pouring the Micro concrete, the base and the hardener of the epoxy jointing compound Nitobond EP or equivalent shall be mixed mechanically using a slow speed heavy duty drilling machine. The same shall be applied over the prepared surface using good quality brush. Cost of materials, tools and other hire charges all machineries and all labour charges etc. are included., as specified and completion as directed by EIC.	1540.00	m2		
10	Providing and laying cement based pre packed non shrink free flowing Micro concrete Renderoc RGS or equivalent with ratio of 1:1 (Cement and 12mm chip) including water tight shuttering etc., complete. As specified and as directed by EIC (Manufactured by M/S FOSROC, M/S BASF, M/S PIDILITE or any equivalent supplier).	875.00	m3		
11	Polymer Modified Mortar: Supply and apply of Polymer modified fibre reinforced cementitious repair mortar (such as Renderoc SP40 or equivalent) with distemper paint to the spalled and eroded concrete surface upto 12 mm thick. As specified and as directed by Engineer-In-Charge.	1638.00	m2		

Item No	Description	Qty.	Unit	Rate	Amount
12	The Acrylic emulsion cement modified and water based concrete Curing Membrane (such as Concure AB or equivalent) and Applying immediately after the concrete gets finished, the membrane shall be sprayed over the concrete finished area without any gap or pinhole. The cost of all materials, tools and all labour charges etc. are included., completion as specified and as directed by the Engineer-In-Charge.	11197.00	m2		
13	M40 grade concrete - Providing & laying in position machine batched & machine mixed design mix M-40 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site, cost of cantering, shuttering, finishing, including admixtures in recommended proportion as per IS: 9103 to retarding superplasticizer admixture (such as Auramix 300 or equivalent) for water reducing, improve workability as per directed by EIC.	142.00	cum		
14	Supplying reinforcement of grade Fe500D, cutting, bending, fabrication of steel reinforcement as per requirement at site and fixing the reinforcement, the rate shall include cost of cutting, bending, shifting and fixing the steel bars including equipment's, plants, cost of materials, instrumentation, hiring of boat, catamaran, Pontoon, labour and transport, fuel, etc. complete. Supply, fabrication of new steel reinforcement all and requirement at site and fixing the reinforcement steel as per drawing. Complete as directed by EIC.	167805.00	Kg		
15	Anti corrosive coat : Supply and apply of Anticorrosive Zinc primer coating such as Nitozinc Primer STD or equivalent to the new and existing reinforcement after removing the rust and scales by mechanically to prevent the rebars from corrosion activity as specified and completion as directed by EIC.	2517.00	Kg		
16	Supplying and applying one coat of bonding slurry coat of styrene butadiene co-polymer latex liquid called Nitobond SBR or its equivalent by mixing with water and cement at the rate of water one parts, and cement one and half part and applying by brush on the old chipped, prepared concrete surface including all cost of labour & materials, tools scaffoldings, etc.complete as directed by Engineer-in -charge.	8957.00	m2		
17	Guniting to the old chipped and prepared suface of underneath jetty members using sulphate resistant cement and sand by 1:3 volume as per IS 9012-1978 to required thickness and layers not more than 25 mm thick on bonding slurry coat with adding Sprayset HBP (Add one healing scoopful per bag of cement) and finishing the gunnited surface lightly with trowels to make the surface fairly smooth, including all cost of labours,materials, tools, scaffoldings, machinaries, water tank hose pipe etc. complete as directed by Engineer-in-charge. {Applying in two layer each layer thickness is 25 mm (Total thickness of Guniting surface =50 mm)}	8957.00	m2		
18	Steel work in galvanized M S steel sections having 150 microns for Pipe, Angle, Connecting strip, Connecting Flat & Chequered plate 8 mm thick including cutting, hoisting, fixing in position by welds or bolts & applying Resistance Coating paint with Surface Preparation, one coat of 1040 stangard Epoxy mastic, over the curing surface applying one coat of 718 stangard EGF(NV) & finally two coat of 727 stangard HP PLPU SHP to the entire galvanized steel work complete as directed/instructed by the Engineer-In-Charge.	52598.00	Kg		
19	Providing and applying protective coating Dekguard S- Aliphatic Acrylic protective and waterproof coating after proper surface preparation, cleaning of dust, dirt etc. System should be application of Dekguard Primer- Water based acrylic primer on prepared surface and application of 2 coats of Dekguard S or equivalent at suitable brush or roller, completion as specified and as directed by the Engineer-In-Charge.	11197.00	m2		
20	Supply and place in position to lines and levels cast-in-situ design mix cement concrete of grade M-40 using cement, 20mm MSA for wearing coat of average thickness of 100 mm including providing of preparation of surface, form work, applying chemical adhesive layer, weigh batching machine mixing, placing in panels, forming slopes, placing of Nitoflor Hardtop non metallic floor hardener (7 kg/m ²) & finishing with floater machine compacting curing etc. complete with all labour and materials. C C Wearing coat 100 mm thick.	2611.00	sqm		
21	Drilling Hole and fixing HYSD TMT minimum Fe 500D grade rods of 20 mm dia in 25 mm dia @ 250 mm depth of hole as anchor rods/rebaring, including drilling and filling the gap around the rods with anchor resin RE100 or equivalent. Complete as specified & as directed by EIC.	3377.00	Nos		
22	Providing & applying of a 4 component, steamless, solvent-free polyurethane concrete flooring system Ucrete MF to have a smooth, even matt finish matching to be applied at a thickness of 3 mm over a 1 mm scratch and also providing & applying of a 2 component polyurethane sealant at construction joints (of size 7 mm x 5 mm) of same colour as the floor matching as per the manufacturer's application guidelines or Complete as specified & as directed by EIC.	250.00	m2		
23	Supply and fix in position mooring hook assembly (each assembly consisting of 2 hooks each capacity 100 tonnes) as per manufacturing drawings...				
23A	Supply and fix in position mooring hook assembly (each assembly consisting of 2 hooks each capacity 100 tonnes) including Hook Body-Capstan-Motor-Reducer-Rop Keeper-Control Box-Foot Switch-Insulation Parts-Local Remote release Box- Open/Close Monitor-Fasteners fixing with RE 500V4 resin fasteners or equivalent as per manufactured drawing by as approved company.	6.00	Nos		
23B	Central Monitoring System	1.00	Nos		

Contractor

Supdt. Engineer (P)
Deendayal Port Authority