

Issued to

Price- BDT. 20,000.00 or 240.00 USD

BANGLADESH WATER DEVELOPMENT BOARD



Tender Document For Procurement of Works (International) [One Stage Two Envelope Tendering Method] For Lot No: DWKH/Sirajganj-ICT-03.

Name of Project: Dredging/Re-Excavation of Bangali-Karotoa-Fuljor - Hurasagar River System with Bank Protection.

Name of Work: Dredging of Karotoa-Hurasagar river from km-190.00 to km 217.00 = total 27.00 km in connection with the project "Dredging/Re-excavation of Bangali-Karotoa-Fuljor-Hurasagar River System with Bank Protection" in district- Sirajganj under Sirajganj O&M Division, BWDB, Sirajganj during the financial year 2019-2020 to 2021-2022

**Volume 2 of 2.
(Bill of Quantities & Drawings)**

Invitation for Tender No: T-7/246; dt. 28-01-2020.

Issued to:

Issued on:

Tender Package No: DWKFH/Sirajganj-ICT

Tender Lot No: DWKH/Sirajganj-ICT-03.



Bill of Quantities

[ITT Clause 24]

Name of Works : Dredging of Karotoa-Hurasagor River from Km- 190.000 to Km. 217.000 = 27.000 Km. in connection with the project "Dredging /Re-excavation of Bangali-Karotoa-Fuljor-Hurasagor River System with Bank protection" in district-Sirajganj under Sirajganj O&M Division, BWDB, Sirajganj during the financial year 2019-2020 to 2021-2022.

IFT No. T-7/246; Date : 28-01-2020; Lot No.-DWKH/Sirajganj-ICT-03

Item no. & Item code	Description of Item	Unit	Quantity	Unit Rate (BDT)		Amount (BDT)
				In figures	In words	
1	2	3	4	5	6 = 5	7 = 4x5
Part-A (Dredging work) :						
1	Earth work by Amphibious Excavator in all kinds of soil in excavation/re-excavation of river/channel/canal/khal etc. Including disposal of spoil-soil upto 28m away from the point of excavation with rough dressing and levelling etc. complete as per direction of Engineer-in-Charge.					
2	Dredging work by operating dredger of different diameter with necessary arrangement by Tug boat/Work boat disposing dredged earth up to 1.5 km, positioning the cutter of dredger at designed level by maintaining bathymetric pre work and post work survey; constructing, dismantling and shifting from one line to another line of temporary/permanent Shore pipe line at ground level laying on the ground or on 50 kg gunny bag where necessary or on staging made by bullah of local wood (100 mm dia), lifting manually/by tripod stand with chain pulley, fitting/fixing shore pipe with nut-bolt & rubber gasket, levelling & dressing uneven ground below the shore pipe where necessary; lifting shore pipe sunk into the mud below the ground level using tripod stand & chain hoist and cleaning with water, including the cost of mobilization and demobilization of dredger with houseboat by Tug boat/Work boat, fitting/fixing & maintenance of all necessary equipment, supplying of necessary fuels & lubricants, shore pipes & floating pipes, ancillary dredging materials and charges etc. complete as per direction of Engineer in charge.	Cum	53795.28			
90-100-30	Dredging work by 18" dredger	cum	22989991.55			



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				In figures	In words	In figures	In words
1	2	3	4	5	6 = 5	7 = 4x5	
3 90-150	Extra Rate for booster pump beyond 1.5 km including mobilization & installation of booster station, constructing, dismantling and shifting, from one line to another line, of temporary/permanent Shore pipe line at ground level laying on the ground or on 50 kg gummy bag where necessary or on staging made by bullah of local wood (100 mm dia), lifting manually/ by tripod stand with chain pulley, fitting/fixing shore pipe with nut-bolt & rubber gasket, levelling & dressing uneven ground below the shore pipe where necessary; lifting shore pipe sunk into the mud below the ground level using tripod stand & chain hoist and cleaning with water, cost of fitting/fixing & maintenance of all necessary equipment, supplying of necessary fuels & lubricants, shore pipes & floating pipes, ancillary materials and charges etc. complete as per direction of Engineer in charge.						
90-150-30	Extra Rate for booster pump beyond 1.5 km: 18" Dredger.	Cum/ Km	5747497.89				
4 04-710	Temporary lease of land for 1 (one) year with necessary compensation for crops or this installation on land for site office, material yard, casting yard, staking yard etc. complete as per direction of Engineer in charge	Sqm	6858000.00				
5 16-230	Earth work by Mechanical Excavator (Long Boom) in constructing/resectioning of embankment/canal bank/road etc. with clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) within the initial lead of 30m, and all lifts including throwing the spoils to profiles in layers not exceeding 150mm in thickness, clod breaking upto a maximum size of 100mm, benching the side slopes, stripping/ ploughing the base of embankment and borrow pit area, dug bailing, cutting trees upto 200mm girth, with uprooting stumps, clearing jungles, rough dressing and 150mm cambering at the centre of the crest etc. complete as per specification and direction of Engineer in charge.						
16-230-10	Embankment by mechanical excavator, ht: 0 to 4 m	Cum	1109862.00				



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1	2	3	4	5	6 = 5	In figures In words 7 = 4x5
6 20-500	Polythene sheet: (1.0 Kg Per 16.00 sqm).	Sqm	401868.00			
7 90-270	Construction and dismantelling of outlet for dumping and disposal of water from disposal area by 3 Nos 12 m long shore pipe of same dia of dredger, placing on 125 kg sand-filled geobag at the outer end of pipe with polythene sheet, etc. complete including the cost of all materials as per direction of Engineer in charge.					
90-270-30	Construction and dismantelling of OUTLET for 18" dredger	Each	135			
8 10-140	River Morphological data collection/Bathymetric and River bank topography Survey for small river Section (Section width 251m to 350m). Including cost of all necessary equipment (Level Machine, Echo Sounder , Hand GPS, DGPS, Bathymetric Survey software with Survey laptop, vessel etc.) , necessary Personnel (River Morphology Expert for data consistency checking , Engineer/Survey Specialist for the data processing with survey software and prepare necessary Table, Graph and Morphological Parameter Calculations, Surveyor & Unskilled Labour for field data collection), Accommodation , Transportation form Headquarter to site and site movement and shaded boat for Bathymetric survey for field Survey Team including necessary fuels and lubricant, other necessary auxiliary Items such as survey flags, pegs with provision for submission of report in hard binded copies (at least 6 copies required), soft copies and raw survey data with provision of 10% random re-survey for data consistency checking as per direction of Engineer in charge.					
10-140-10	Section Interval : upto 20 m	Each	8100			



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				In figures	In words	In figures	In words
				5	6 = 5	7 = 4x5	
9 10-250	2 Level flying for survey work including cost of all necessary equipments(Level Machine, Hand GPS, DGPS etc), Necessary Personnel (River Morphology Expert for data consistency checking , Engineer/Survey Specialist for the data processing with survey software and prepare necessary Table, Graph and Morphological Parameter Calculations, Surveyor & Unskilled Labour for field data collection), Accommodation , Transportation form Headquarter to site and site movement and shaded boat for Bathmetric survey for field Survey Team including necessary fuels and lubricant, other necessary auxiliary Items such as survey flags, pegs with provision for submission of report in hard binded copies (at least 6 copies required), soft copies and raw survey data with provision of 10% random re-survey for data consistency checking as per direction of Engineer in charge.	3	4				
10 80-375	Supply of Unskilled labour as per direction of Engineer in charge (8 hours per day).	Km.	67.000				
11 M.R	Name plate/Km post for proposed project as per approved design & specification etc. complete as per direction of Engineer in charge.	Day	5840				
12 M.R	Parmanent project Signboard for proposed project as per approved design & specification etc. complete as per direction of Engineer in charge.	Each	54				
		Each	10				



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				In figures	In words	
1	2	3	4	5	6 = 5	7 = 4x5
13 M.R	Video & steel photo etc.	Item	1			
	Part-B (Site office):					
1 64-100	Lay-out of building works as per approved plan with 50mmx 50mmx 300mm wooden pegs, nails, nylon ropes, checking the dimensions, marking the excavation edges with chalk powder and maintaining the centre line pegs till completion of foundation works upto a safe level etc. complete including the cost of all materials as per direction of Engineer in charge.	sqm	116.590			
2 16-500	Earth work in excavation of foundation trenches in all kinds of soils including levelling, dressing, placing, removal of spoils to a safe distance with initial lead of 30m and lift of 1.5m as per direction of Engineer in charge.	cum	156.310			
3 20-100	Single brick flat soling including preparation of bed, sand filling (FM>=0.50), levelling, dressing and sand blinding in foundation or floor with supply of all materials etc. complete and as per direction of Engineer in charge.					
20-100-10	With 1st class bricks	sqm	163.700			
4 20-200	Brick work with 1st. class bricks in cement mortar (sand of FM>=1.50) in foundation and plinth, including soaking bricks in clean water for 6 hours, cleaning the bricks, raking out joints, staging, sorting, curing at least for 7 days, including supply of all materials etc. complete and as per direction of Engineer in charge.	cum	102.330			
20-200-10	Proportion: 1:4					
5 20-220	Extra rate for brick work in superstructure in different stories, over the rates of brick work in foundation and plinth:					
20-220-10	Ground floor superstructure	cum	26.087			



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1	2	3	4	5	6 = 5	7 = 4x5	
6 20-230	125 mm thick brick work with 1st. class bricks in cement mortar (sand of FM>=1.50) including soaking bricks in clean water for 6 hours, cleaning the bricks, raking out joints, staging, sorting, curing at least for 7 days, including supply of all materials etc. complete (in ground floor) and as per direction of Engineer in Proportion: 1:4						
20-230-20		sqm	120.110				
7 28-140	Reinforced Cement Concrete Work in leanest mix. 1:2:4, with 20mm down graded coarse aggregates and sand of FM>1.8 to FM<=2.5, to attain a minimum 28 days cylinder strength of 18.0 N/mm ² , including breaking, screening, grading, washing aggregates with clear water, mixing, laying in forms, consolidation to levels, curing, including supply of all materials, excluding the cost of M.S. work for reinforcement and formworks etc. complete as per direction of Engineer in charge.						
28-140-10	With picked jhama or 1st class brick chips.	cum	8.477				
8 76-120	M.S. Work for reinforcement with deformed M.S. bar, fy=400 N/mm ² , (made from billet) in RCC works, including local handling, cutting, forging, bending, cleaning and fabrication with supply of deformed M.S. bar in different sizes and binding with 22 to 18 gages G.I. wire etc. complete including the cost of all materials as per direction of Engineer in charge.						
76-120-10	8mm dia to 30mm dia	kg	1237.188				



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9 36-300	Form work for centering and water tight shuttering as per drawing with wooden planks of different thickness including supply of polythene sheet (1 kg covering 6.5 sqm) for making shuttering leakproof for all sorts of R.C.C. works in building construction including fitting, fixing by nails, tie rods, nuts and bolts to desired shape and size including levelling and removing the forms etc. after specified period including the cost of all materials as per direction of Engineer in charge.					
36-300-40	Tie beam, lintel etc. with 40mm thick wooden planks with 51-60mm dia barrack bamboo props.	sqm	72.813			
10 24-100	Minimum 20mm thick sand cement plaster, (sand of FM>=1.3) in ground floor, including scaffolding, raking out joints, making sharp edges and corners, cleaning the surface, curing for at least seven days etc. complete including the cost of all materials and as per direction of Engineer in charge.					
24-100-20	Proportion 1:6	sqm	449.127			
11 64-160	Supplying, fitting and fixing glazed tiles of approved size, colour, quality and design in floors/ walls upto required length, breadth and height, set in 20mm thick cement mortar (1:4), including cutting & edging the tiles where necessary filling the joints by white cement and matching colour including the cost of all materials etc. complete as per direction of Engineer in charge.					
64-160-10	Various size (in walls)	sqm	55.518			
64-160-20	Various size (on floors)	sqm	99.440			



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1	2	3	4	5	6=5	7=4x5
12 76-310	0.910m high M.S. railing with 25mmx6mm vertical F.I. bar, at the rate of 100mm c/c, welded to 25mmx6mm F.I. bar at top and bottom with 40mm dia G.I. pipe hand rail, including fitting and fixing in position with necessary clamps with a prime coat of redoxide where necessary including making holes in walls or floors where necessary and duly embedded in concrete (1:3:6) mending good the damages etc. complete as per drawing and direction of Engineer in charge.	sqm	37.040			
13 64-460	Supplying and fitting fixing 12mm thick plain partex board in ceiling with aluminium frame of section 25mmx25mmx1.0mm angles and Tees made with high strength extruded section of aluminium alloy with anodic oxide hard core coating of 10 microns on all exposed faces, at 600mmx600mm in grid, suspended from ceiling/ roof or beam by 12 SWG double ply G.I.Wire fixed to the ceiling by rowel plug, screws, hooks, nails etc maintaining straight lines and desired finish level at bottom face including cutting holes in slabs or beams by drill machine and mending good the damages including cost and carriages of all materials accessories, labour for installation, scaffolding etc. all complete including the cost of all materials, as per drawing and direction of Engineer in charge.	sqm	104.030			
14 64-480	Supplying fitting & fixing of standard uPVC (Plastic Door) Door of different sizes with 4 nos 3" hinges, 2nos 4" tower bolt, 2nos 6" handle and one no standard lock including all accessories complete as per direction of the Engineer-in-charge.	sqm	9.450			



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1	2	3	4	5	6 = 5	7 = 4x5
15 68-540	Wood work in door and window frames with best quality well seasoned wood, free from sap or knots, including painting 2 coats of paints to the face in contact with walls, finishing, cutting grooves for fitting the shutters etc. and fitting fixing with 6 nos of 225mmx38mmx5mm F.I. bar clamps, fitted with frames with screws, duly embedded in walls with cement concrete (1:3:6) etc. complete in all floors including the cost of all materials as per drawing and direction of Engineer in charge					
68-540-10	With Jam or Kathal wood	cum	0.208			
16 68-390	Supplying, fitting and fixing 40mm thick (finished) seasoned wood grooved panel flush door shutters, having top, bottom, lock rails and styles of section 100mmx40mm and vertical panels 100mmx40mm including keeping 6mmx12mm grooved lap to each panel, providing 4 nos 100mm long iron hinges, 2 nos 300mm and 225mm long iron socket and tower bolts, 2 nos heavy type nickel plated handles, hinged cleats and finished with necessary sand papering for all floors etc. complete including the cost of all materials as per direction of Engineer in charge.					
68-390-10	With Kathal or Chapalish wood.	sqm	7.581			
17 64-470	Supplying fitting and fixing of aluminium door, aluminium sliding/ hinged/ fixed windows and partition doors having high strength extruded section made of aluminium alloy having a minimum section thickness of 1.8mm unless otherwise shown in drawing, all the exposed surfaces shall be given a dark bronze anodic oxide hardcore coating of 10 microns in thickness and uniform colour tone conforming to the approved sample with all necessary locks, handles, 5mm thick glass panes and all other accessories for fitting fixing including neoprene weather strips and sealing joints between frames etc. complete including the cost of all materials as per drawing and direction of Engineer in charge.					
64-470-30	Sliding window with locking arrangement	sqm	17.210			



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64-470-50	Hinged window.					
18 72-100	Plastic emulsion* painting to walls and ceiling including sand papering the surface, scaffolding etc. complete, with all necessary lime cement putty to surface including the cost of all materials, as per direction of Engineer in charge.	sqm	1.080			
72-100-10	3 coats.	sqm	261.960			
19 72-260	Weather Coat of approved quality and colour (delivered from authorized local agent of the Manufacturer in a sealed container) on exterior surface applying as per manufacturer instructions including cleaning the surface with wire brush, provision of necessary scaffolding, cleaning doors & windows, ventilators by washing including cost of water, electricity & other charges etc. complete in all respect as per direction of Engineer in charge.					
72-260-20	3 coats.	sqm	123.810			
20 16-530	Earth filling in foundation trenches, plinth and back filling including consolidation in 150mm layer, watering etc. complete (building only) as per direction of Engineer in charge.					
21 16-560	Back filling in hydraulic structures including all leads and lifts with sand in 150mm layer including watering, ramming, compacting to 30% relative density etc. complete by compactor or any other suitable method as per direction of Engineer in charge.	cum	88.840			
16-560-10	Sand of FM>=0.50	cum	49.890			
22 64-110	Damp proof coarse (D.P.C) in proportion 1:2:4 with pudlo mixed @ 2.25kg per bag of cement over a hot bitumen coat with 12mm down graded picked jhama chips and coarse sand (FM>1.5); properly washed and screened including breaking chips, mixing, laying finishing, curing, including the cost of all materials etc. complete as per direction of Engineer in charge.					
64-110-20	Minimum 25mm thick.	sqm	24.140			



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1	2	3	4	5	6 = 5	7 = 4x5
23 76-170	M.S. Work in plates, angles, channels, flat bars, Tees etc. including fabricating, machining, cutting, bending, welding, forging, drilling, rebar, embedding anchor bars, staging and fitting, fixing, local handling etc. complete with energy consumption and supply of labours including the cost of materials as per design, specification and direction of Engineer in charge.	kg.	2271.950			
24 64-500	Supplying, fitting and fixing C.I. sheet roofing, with G.I. nuts, limped, washers, screws, bolts etc. and fittings, fixing with 76mm hooks with at least 2 pitch lapping etc. complete, including the cost of all materials as per direction of Engineer in charge.	sqm	139.400			
25 80-750	Supplying, fitting and fixing European type glazed porcelain commode 'P' or 'S' type 'BISF STANDARD' (580mmX345mmX410mm) with lowdown white vitreous china cistern including all internal fittings with ebomite (heavy type) plastic seat cover, 13mm dia approved quality C.P. stop cock, 13mm dia plastic connection pipe with brass coupling and preparing the base with cement concrete and with wire nets or rods, if necessary, in all floors including making necessary holes whereever required and mending good the damages and fitting fixing complete with all necessary fittings and connection as per direction of Engineer in charge	set	3			
80-750-20	Coloured					
26 80-620	Supplying and fitting fixing "BISF STANDARD" white glazed vitreous Wash Hand Basin (685mmX460mmX235mm, size) including fitting, fixing the same in position with heavy type C.I. Brackets, 30mm dia PVC waste water pipe with brass coupling, 13mm dia plastic connection pipe with brass coupling, 13mm dia brass Stop Cock, 13mm C.P. Pillar Cock, 30mm dia C.P. Basin Waste with chain plug including making holes in walls and floors and fitting with wooden blocks, screws and mending good the damages etc complete as per direction of Engineer in Charge.	each	3			
80-620-20	Coloured					



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1	2	3	4	5	6 = 5	7 = 4x5
27 80-650 80-650-10	Supplying, fitting and fixing of bath room mirror with C.P. screws and hard board backing complete, as per direction of Engineer in charge. 0.45m x 0.60m size, Bangladesh.	each	3			
28 80-660 80-660-10	Supplying, fitting and fixing of approved quality C.P. towel rail, with all necessary accessories etc. complete, as per direction of Engineer in charge. 0.75m long and 25mm square/round	each	3			
29 80-670 80-670-10	Supplying, fitting and fixing of the approved quality bath room fittings, with all necessary accessories etc. complete, as per direction of Engineer in charge. C.P. soap dish.	each	3			
80-670-20	C.P. coat hook	each	3			
80-670-30	C.P. tumbler holder	each	3			
80-670-40	C.P. toilet paper holder	each	3			
80-670-50	C.P. tooth brush holder.	each	3			
30 80-680	Supplying, fitting and fixing of C.P. shower set with 130mm dia, 125mm face C.P. shower, 13mm dia C.P. controlling valve, and 13mm dia C.P. bib cock etc. complete, as per direction of Engineer in charge.	each	3			



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				In figures	In words	
31 80-690	2 Supplying, fitting and fixing of the approved quality glass shelf, 6mm thick with C.P. bracket and guard rail, including all necessary accessories etc. complete, as per direction of Engineer in charge: 450mm x 130mm	3	4	5	6 = 5	In figures 7 = 4x5
80-690-20		each	3			
32 80-710	Supplying, fitting and fixing of the stainless steel kitchen sink of 1000mmx510mmx460mm size, with 13mm dia C.P.bib cock, 40mm dia C.P. waste & chain plug, 40mm dia PVC waste pipe (750mm length), heavy type C.P. brackets, including making holes in walls and floors and mending the damages etc. complete as per direction of Engineer in charge.	each	1			
33 80-880	Labour charge for fitting and fixing of the kitchen sink with all fittings including cutting holes in walls and mending good the damages etc. complete as per direction of Engineer in charge.	each	1			
34 80-205	Supplying and installation of plastic overhead water tank including carriage and all accessories except preparation of base and cost of overflow pipe, of different capacity and size with cover and ball valve including fitting fixing inlet and outlet etc. complete as per direction of Engineer-in-charge.	each	1			
80-205-20	Capacity: 500 ltr	each	1			
35 80-230	Supplying, laying, fitting and fixing of different dia G.I. pipes with all special fittings, such as bends, elbows, sockets, tees, unions, jammuts etc. including cutting foundation trenches upto required depth where necessary and filling the same with earth duly compacted, making holes in floors and walls and mending the damages, fixing in walls with holders and clips, including cutting threads, making necessary connection etc. all complete, and as per direction of Engineer in charge:					
80-230-30	25mm dia G.I. pipe line.	m	46.00			



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1	2	3	4				
80-230-40	40mm dia G.I. pipe line.	m	63.00				
36 80-110	Supplying and sinking 40mm dia PVC tubewell pipe (B.S. 3505) including test boring and hiring of all necessary equipments with all necessary fittings as required etc. complete including the cost of all materials as per direction of Engineer in charge.						
80-110-10	depth upto 60m.	m	30				
37 80-120	Supplying, fitting and fixing 40mm dia brass/PVC strainer, 1.80m long including hiring necessary equipments and supply of all necessary fittings etc. complete including the cost of all materials as per direction of Engineer in charge.						
80-120-20	PVC strainer.	each	2				
38 80-300	Supplying, fitting and fixing of C.P.Bib cock of approved quality as per direction of Engineer in charge.						
80-300-20	19mm dia.	each	6				
39 80-310	Supplying, fitting and fixing of C.P. pillar cock of approved quality.						
80-310-20	19mm dia.	each	4				
40 80-330	Supplying, fitting and fixing of check valves of approved quality						
80-330-30	25mm dia.	each	4				



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80-330-40	40mm dia.	each	2			
41 80-350	Supplying, fitting and fixing of controlling valve stop cock of approved quality as per direction of Engineer in charge.					
80-350-20	19mm dia brass	each	1			
42 80-810	Supplying, fitting and fixing 100mm dia C.I. traps (syphons) trap or P-trap) including making holes in walls and floors and mending good the damages etc. all complete as per direction of Engineer in charge.					
43 80-900	Construction of septic tanks of different sizes with brick work (6:1), as per approved plan over a brick flat soling and 150mm cement concrete flooring (4:2:1) and with 125mm thick brick walls in partition, 20mm thick cement plaster on both sides with neat cement finishing and 25mm thick patent stone flooring with neat cement finishing, including supplying, fitting and fixing of two R.C.C. tees and providing 2 numbers of C.I.M.H cover with 100mm R.C.C. slab (4:2:1) with minimum 1% reinforcement, shuttering, fabrication, casting and curing etc. complete upto any depth, including shoring, bailing out water and the cost of materials, and incidental charges etc. complete, as per design and direction of Engineer in charge (as per P.W.D drawings).	each	3			
80-900-10	for 50 users	each	1			



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1	2	3	4	5	6 = 5	In figures In words 7 = 4x5
44 80-910	Construction of soak well of different sizes, with 250mm solid brick work and 250mm honey comb brick work in cement mortar (6:1) as per design, over R.C.C. well curve (4:2:1), with 1.50 % reinforcement up to the desired depth, as per drawing with 100mm thick R.C.C. cover slab (4:2:1), with 1% reinforcement, including supplying, fitting and fixing of 460mm C.I. manhole cover, filling the well up to the required depth, with graded khoa and sand, including supplying and fabricating M.S. rod, with cost of all materials etc. complete, as per drawing, design and direction of Engineer in charge (as per P.W.D. drawings):					
80-910-10	for 50 users.	each	1			
45 80-890	Construction of masonry inspection pits, 0.60mx0.60m inside measurement, with 250mm thick brick work (4:1), 100mm thick R.C.C. top slab (4:2:1) with 1% reinforcement, 450mm dia water sealed C.I.M.H. cover, including necessary earth work, one brick flat soling and 75mm thick 1:3:6 base concrete for making invert channel, complete with 13mm thick 2:1 cement plaster and neat cement finishing etc. complete upto a depth of 0.75m, as per direction of Engineer in charge.	each	3			
Electric Work for site office:						
46 84-120	Concealed conduit distribution wiring for light and fan points in conformity with IEE regulations in buildings, with single core 1x1.5mm ² PVC insulated and sheathed wire with 16SWG ECC through PVC pipe of 26.5mm outer dia having wall thickness of minimum 1.5mm complete with inspection box, 5amps piano type switch, ceiling rose, 3mm thick perspex sheet cover in switch board etc complete as per sample approved and direction of Engineer in charge in looping system at the switch board including supply of all materials and necessary cutting of wall/ floor and subsequent mending good of the damages etc. complete.					
84-120-10	Light point (Eastern cable with 16SWG ECC wire type BYFYE)	point	32			



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1	2	3	4	5	6 = 5	7 = 4x5
84-120-20	Fan point (Eastern cable with 16SWG ECC wire, type BYFYE)	point	9			
84-120-30	2-pin 5 amps socket outlet with control switch on switch board (Eastern cable with 16SWG ECC wire, type BYFYE)	point	18			
47 84-300	Supplying, fitting, fixing and connecting of the iron clad main switch, fuse unit on the surface of the wall, with sealed and interlocked switch handle, on angle iron, as per specification	each	1			
48 84-510	main switch, 60 A, 250 V, SPN	each	1			
49 84-530	Supplying, fitting, fixing and connecting exhaust fan of approved quality with wall cover, providing erecting steel frame, louver shutter etc complete, as per sample approved and direction of Engineer in charge including supply of all materials.	each	1			
84-510-10	size: 300mm					
84-530-30	Supplying, fitting and connecting on prepared board single phase 250V grade miniature circuit breaker complete with thermal overcurrent and instantaneous electromagnetic short circuit release (made in UK/Germany/France/Switzerland/Sweden/Japan) of the following capacities as per direction of Engineer in charge.	each	7			
50 84-530	15 Amps, MCB					
84-530-60	Supplying, fitting and connecting on prepared board single phase 250V grade miniature circuit breaker complete with thermal overcurrent and instantaneous electromagnetic short circuit release (made in UK/Germany/France/Switzerland/Sweden/Japan) of the following capacities as per direction of Engineer in charge.	each	1			
	60 Amps, MCB					



Item no. & Item code	Description of Item	Unit	Quantity	Unit Rate (BDT)		Amount (BDT)
				In figures	In words	
1	2	3	4	5	6 = 5	7 = 4x5
51 84-730	Electrical grounding by 38mm dia G.I. pipe of 3.0 m length welded with 600mmx600mmx6mm M.S. plate including supplying and laying in position, 8 SWG copper wire as per drawing, concealed in 13mm dia PVC pipe digging pit of size 1.25mx1.25mx3.00m and back filling the same by 20kg salt and 12kg charcoal placed in suitably alternate layers and levelling the pit by locally available earth, watering, ramming etc. complete as per approved design, drawing and direction of Engineer in charge.	each	1			
52 84-500	Supplying, fitting and fixing of the 250 V, A.C. capacitor type ceiling fan, with regulator and other accessories etc. complete	each	9			
84-500-10	1400 mm sweep capacitor type : Millat/G.E.C./Singer or equivalent					
53 84-420	Supplying, fitting and fixing of the approved quality fluorescent tube light (2x40W), 1.20 m long, with superior quality choke, starter, holder etc with 18SWG sheet steel rust proof stove enamelled base with/ without perspex cover to be fitted on wall/ ceiling or suspended type with superior quality metal chain/ metal pipe including wiring with 2x1.5mm ² PVC insulated and sheathed wire complete, as per sample approved and direction of Engineer in charge.					
84-420-20	Double tube (2x40W), with perspex cover	set	34			



Item no. & Item code	Description of Item	Unit	Quantity	Unit Rate (BDT)		Amount (BDT)
				In figures	In words	
1	2	3	4	5	6 = 5	7 = 4x5
54 76-420	Manufacturing, supplying, fitting and fixing collapsible gate made of 20mmx6mmx3mm M.S. channel placed @ 110mm c/c vertically and connecting the same with each other with 20mmx3mm M.S. flat bar, scissors 525mm/600mm long provided in 3 rows including cutting the different M.S. members to required sizes, fabricating welding, riveting with required size rivets, providing required size wheels, pulling handles on both sides, suitable locking arrangement and finally placing the same in position in between 2 nos. 50mmx56mmx6mm M.S. Tee rail made by welding 2 nos. 50mmx6mm M.S. flat bar fitted and fixed at top and bottom with R.C.C. lintel/roof slab, floors and side wall with required nos. 150mm to 225mm long 40mmx6mm M.S. flat bar clamps one end welded with the gate member and the other end bifurcated and embedded in C.C. (1:2:4) including cutting holes, with a prime coat of redoxide where necessary etc. all complete as per drawing and direction of Engineer in charge.	sqm	3.150			
55 90-020	Office Furniture					
56 90-030	Stationaries, Consumables etc	L.S	1 item			
57 90-050	Provide and maintain 5 kVA stand-by Generator, theodolite/level machine, light, fan facilities	L.S	1 item			
58 90-060	Provide and maintain PC, Monitor, Laserjet printer, UPS etc. facilities	L.S	1			
		L.S	1			



Item no. & Item code	Description of Item	Unit	Quantity	Unit Rate (BDT)		Amount (BDT)
				In figures	In words	
59 90-070	2 Dismantelling site office	3	4	5	6 = 5 7 = 4x5	
				Total Tk =		
Total tender (Part-A + Part-B) price (in figures) :						
Total tender (Part-A + Part-B) price (in words) :						

Signature of the Tenderer :

Name of Contractor/Firm :

Registration No. :

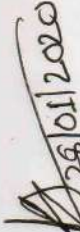
Full Address :

Bank Guarantee No. : Date

Amount : BDT or USD

Name of Bank:

Note : This Bill of Quantity containsnumber corrections or errors,
duly initialled and signed by the authorised person of the Tenderer

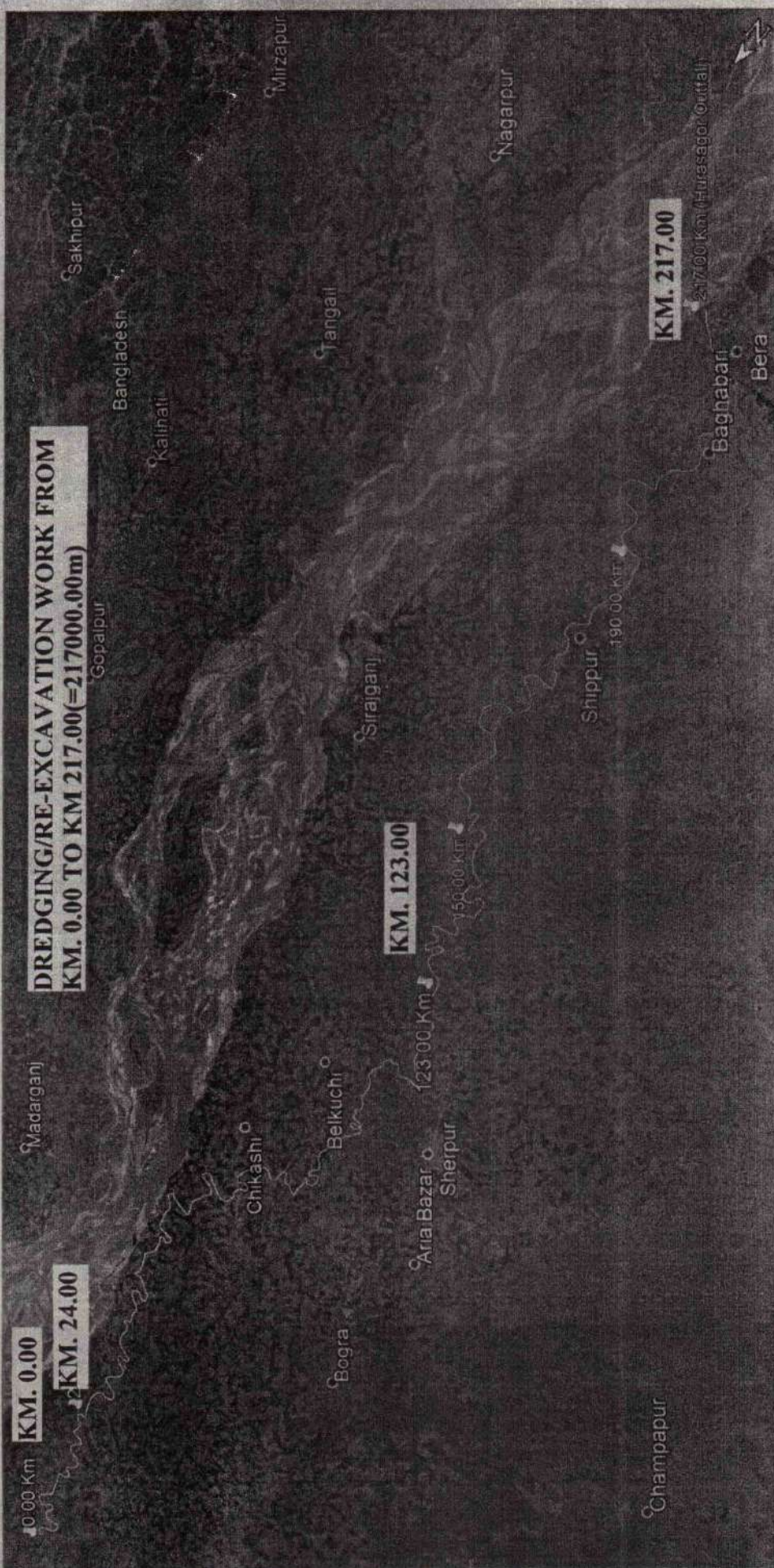

(Md. Shofekul Islam)
Executive Engineer
Sirajganj O & M Division,
BWDB, Sirajganj.



Section 9. Drawings

Drawing Nos.	Drawing Titles
Figure-1	Map showing location of work
Figure-2	Tentative Alignment of Dredging
Drawing No. BOG-DRDG-8629 (01 of 10) Dated- 15-12-2019	Drawing showing indicative pre-dredge Profile and designed section
Drawing No. BOG-DRDG-8629 (10 of 10) Dated- 15-12-2019	Indicative Drawing of dredged earth dumping area
Drawing No. SIRAJ-MISC-7140 (1 of 8) Dated- 31-12-2019	Indicative Drawing of Foundation Treatment of the existing bridges
Drawing No. TSO-TB-60/6 Dated- 02-05-2019	Indicative Drawing of side office





GOOGLE MAP

BANGLADESH WATER DEVELOPMENT BOARD
OFFICE OF THE SUPERINTENDING ENGINEER
DESIGN CIRCLE - 6

DESIGN FOR PROPOSED DREDGING/RE-EXCAVATION WORK OF
 BANGALI-KAROTYA-FULOR-HURASHAGOR RIVER SYSTEM IN GATABANDHA
 DISTRICT (FROM KM. 0.00 TO KM. 24.00-24000 m); IN BOGURA DISTRICT (FROM
 KM. 24.00 TO KM. 123.00-99000 m); IN SHRAIGANJ DISTRICT (FROM KM. 123.00
 TO KM. 217.00-94000m) UNDER GATABANDHA, BOGURA & SHRAIGANJ Q&M
 DIVISION, BWDB.

DESIGNED BY: *[Signature]*
 (MD. ROHMAN ALI PRAMANIK) S.E.
 15.12.19

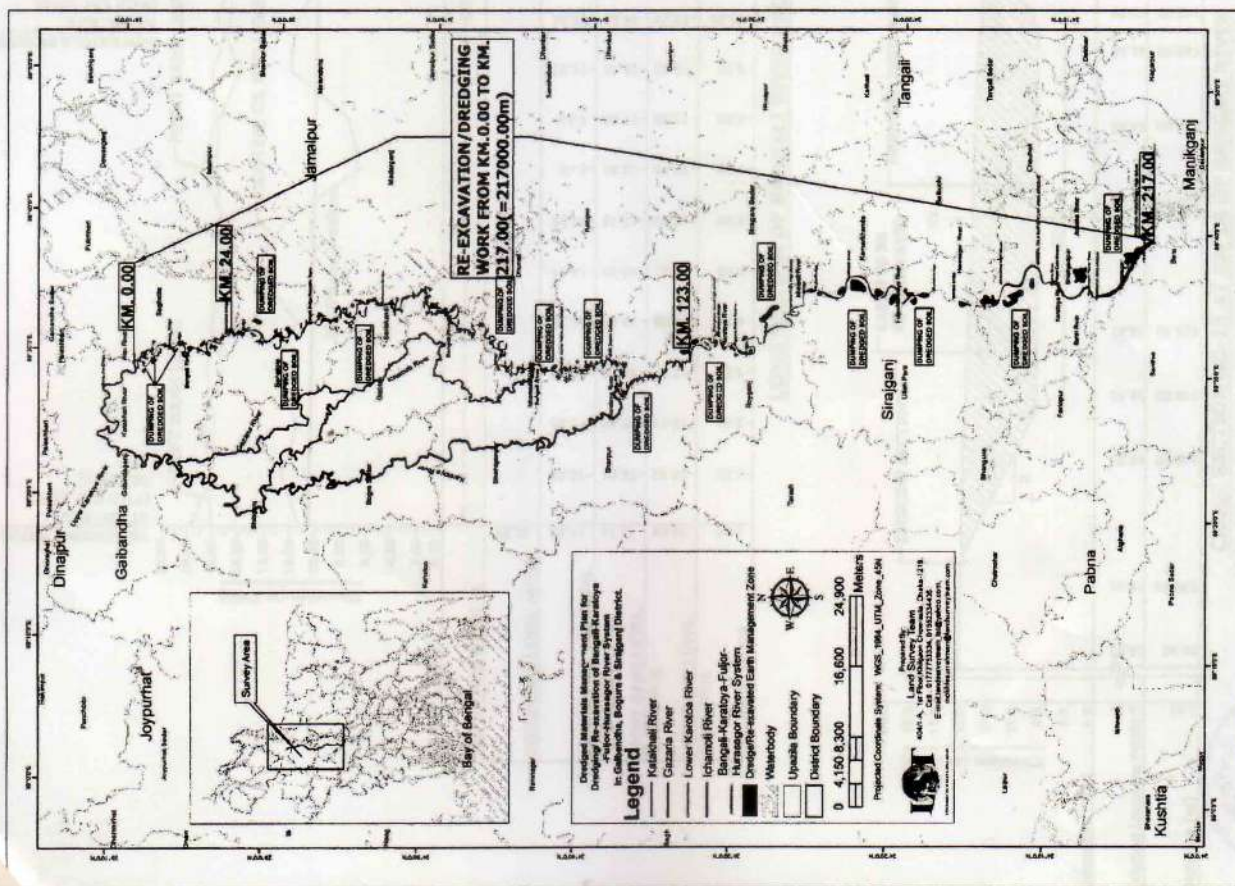
CHECKED BY: *[Signature]*
 (UMME FATIMA ROHMANA AFROO) E.E.
 15.12.19

RECOMMENDED BY: *[Signature]*
 (MD. ROHMAN ALI PRAMANIK) S.E.
 15.12.19

DATE: 15.12.2019 DWG. NO.: BOD-DRDG-8629(1 of 10)

NO.	DATE	MADE	CHECKED	RECOM.	APPRV.
1					
2					

1. THIS DRAWING IS REPLACED WITH PREVIOUS APPROVED DRAWING NO. BCG-DRN-1167(1 OF 17); DATE: 4.10.2018 AS PER DESIGN DATA SUBMITTED BY S.E. RANGPUR O & M CIRCLE-1, BWDB, RANGPUR, VIDE HIS MEMO NO:3M-4/J/2385, DATE: 21.11.2019; S.E. BOGURA O & M CIRCLE, BWDB, BOGURA, VIDE HIS MEMO NO:2D-7/532, DATE: 12.11.2019 & MEMO NO:2D-9/531, DATE: 18.11.2019.
2. THE ALIGNMENT, DESIGN BED LEVEL & BED WIDTH OF THE RE-EXCAVATION / DREDGING WORK HAS BEEN FIXED AS PER FIELD PROPOSAL.
3. RE-EXCAVATION/DREDGING WORK OF RIVER SHALL BE STARTED FROM D/S TOWARDS U/S.
4. THE LOCATION OF DUMPING OF EXCAVATED / DREDGED SOIL HAS BEEN FIXED BY THE FIELD OFFICE.
5. EXCAVATED / DREDGED EARTH SHALL BE DUMPED AT A SAFE DISTANCE (NOT LESS THAN 30m) FROM THE BANK LINE OF THE RIVER/CHANNEL SO THAT IT SHALL NOT RETURN BACK TO THE RIVER AGAIN (AS PER FIELD CONDITION).
6. SPOIL EARTH DISPOSED AREA SHOULD NOT BE IN THE RIVER FLOOD PLAIN.
7. THE RE-EXCAVATION / DREDGING WORK SHALL BE FOLLOWED AS SHOWN IN THE CROSS SECTIONS & LONG SECTIONS.
8. SMOOTH TRANSITION(1:100) SHALL BE MAINTAINED BETWEEN DIFFERENT SECTIONS (FOR CHANGE IN BED WIDTH AND LEVEL) & ALSO AT STARTING POINTS.
9. IF THE EXISTING BED LEVEL IS LOWER THAN DESIGN BED LEVEL, THEN IT SHALL BE LEFT UNDISTURBED.
10. RE-EXCAVATION / DREDGING WORK SHALL BE DONE BEFORE IMPLEMENTATION OF PROPOSED PROTECTIVE WORK WITHIN THE SAME CHAINAGE.
11. LAUNCHING APRON OF THE EXISTING PROTECTIVE WORK SHALL NOT BE DISTURBED DURING RE-EXCAVATION.
12. THE ALIGNMENT AND DEPTH OF RE-EXCAVATION/ DREDGING WORK SHALL BE ADJUSTED WITH THE LOCATION OF EXISTING BRIDGE ABUTMENTS/ FOUNDATION/ PILE CAP SO THAT THEY SHALL NOT BE EXPOSED. IF REQUIRED DESIGN OFFICE SHALL BE CONSULTED.
13. THE TREATMENT OF BRIDGE FOUNDATION IS REQUIRED WHERE IT IS NEEDED.
14. THIS WORK SHALL BE EXECUTED AFTER OBTAINING ADMINISTRATIVE AND FINANCIAL APPROVAL FROM THE COMPETENT AUTHORITY AND WITHIN BUDGET ALLOCATION.
15. ANY OMISSION/CORRECTION SHALL IMMEDIATELY BE INFORMED TO THE DESIGN OFFICE FOR NECESSARY ACTIONS.



NO SITE PLAN OF BANGKAL-KARATOYA-FULJOR-HURASHAGOR RIVER SYSTEM

ALL

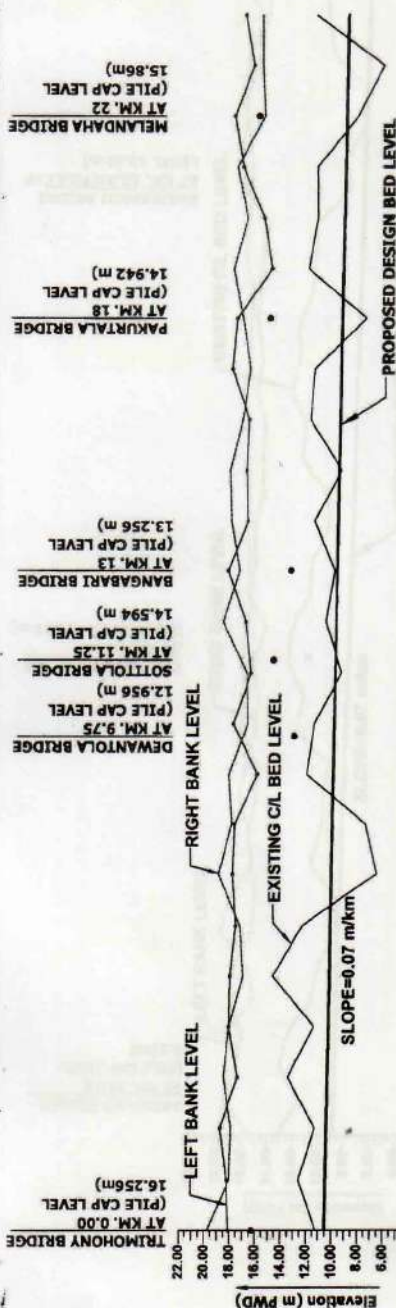
**OFFICE OF THE SUPERINTENDING ENGINEER
DESIGN**

DESIGN FOR PROPOSED DREDGING/RE-EXCAVATION WORK OF
GAIBANDHA-GANGALI-KARATOKA-FULJOR-HURASHAGOR RIVER SYSTEM IN GAIBANDHA
DISTRICT (FROM KM. 0.00 TO KM. 24.00 = 24000 m) ; IN BOGURA DISTRICT (FROM
KM. 24.00 TO KM. 123.00 = 99000 m) ;IN STRAUBANG DISTRICT (FROM KM. 123.00
TO KM. 217.00 = 94000m) UNDER GAIBANDHA, BOGURA & STRAUBANG O&M
DIVISION, DWDS.

DESIGNED BY :  (NISHI KURETA) A.E.	RECOMMENDED BY :  (M.D. ROMANI ALI PRAMANIK) S.E. 15.12.19
CHECKED BY :  (UMME FATIMA ROMANI AFRIDI) E.E.	APPROVED BY :  (MOTAHER HOSSAIN) C.E. 15.15.19
DATE : 15.12.2019	DWG. NO. : BOG-DRDG-B&G (7 of 10)

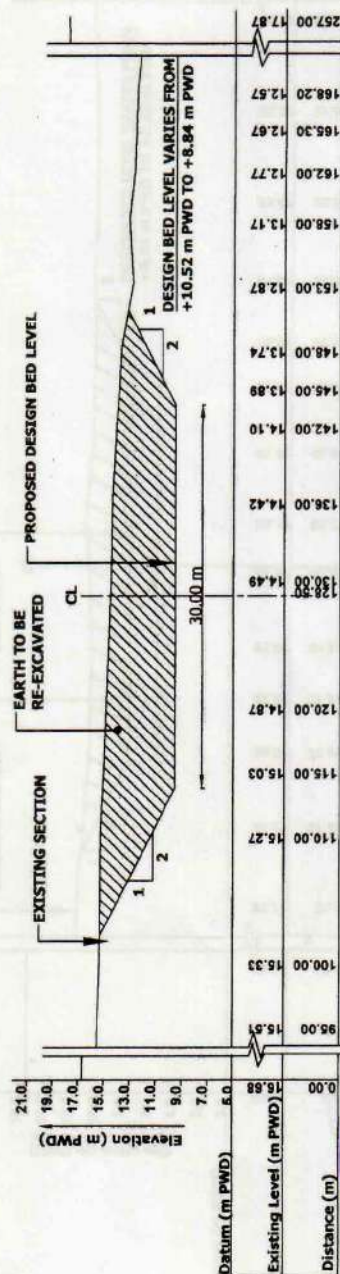
NO.	DATE	MADE	CHRD REVISION	RECOM	APPR
2					
1					

⑨ — POSITION OF PILE CAP TOP LEVEL (FROM FIELD DATA)



DATUM LEVEL	DESIGN BED WIDTH, m	DESIGN BED LEVEL mPWD	EXISTING C/L BED LEVEL, IN m (PWD)	RIGHT BANK LEVEL, IN m (PWD)	LEFT BANK LEVEL, IN m (PWD)	DISTANCE, IN KM
22.00	30.00	10.62	18.08	18.74	18.22	0.00
20.00			17.86	17.86	17.86	1.00
18.00			17.86	17.86	17.86	2.00
16.00			17.86	17.86	17.86	3.00
14.00			17.86	17.86	17.86	4.00
12.00			17.86	17.86	17.86	5.00
10.00			17.86	17.86	17.86	6.00
8.00			17.86	17.86	17.86	7.00
6.00			17.86	17.86	17.86	8.00
4.00			17.86	17.86	17.86	9.00
2.00			17.86	17.86	17.86	10.00
0.00			17.86	17.86	17.86	11.00
			17.86	17.86	17.86	12.00
			17.86	17.86	17.86	13.00
			17.86	17.86	17.86	14.00
			17.86	17.86	17.86	15.00
			17.86	17.86	17.86	16.00
			17.86	17.86	17.86	17.00
			17.86	17.86	17.86	18.00
			17.86	17.86	17.86	19.00
			17.86	17.86	17.86	20.00
			17.86	17.86	17.86	21.00
			17.86	17.86	17.86	22.00

LONG SECTION OF BANGALI RIVER FROM KM. 0.00 TO KM. 24.00 (= 24000 m)



CROSS SECTION NO-15 AT KM 14 OF BANGALI RIVER
(LIMIT OF WORK FROM KM 0.00 TO KM 24.00= 24000 m)

BANGLADESH WATER DEVELOPMENT BOARD
OFFICE OF THE SUPERINTENDING ENGINEER
DESIGN CIRCLE - 6

DESIGN FOR PROPOSED DREDGING/RE-EXCAVATION WORK OF BANGALI-KARATOLA-PULJOR-HURASHAGOR RIVER SYSTEM IN GAIBANDHA DISTRICT (FROM KM. 0.00 TO KM. 24.00=24000 m); IN BOGURA DISTRICT (FROM KM. 24.00 TO KM. 123.00 =99000 m); IN SIRAJGANJ DISTRICT (FROM KM. 123.00 TO KM. 217.00=94000m) UNDER GAIBANDHA, BOGURA & SIRAJGANJ O&M DIVISION, BWDB.

DESIGNED: *[Signature]*
C. CHIEF: *[Signature]*
RECOMMENDED: *[Signature]*
APPROVED: *[Signature]*
DATE: 15.12.2019
DWG NO: BOC-DRDG-8629 (3 OF 10)

NO	DATE	MADE	CHECKED	RECORD	APPROVED
1					

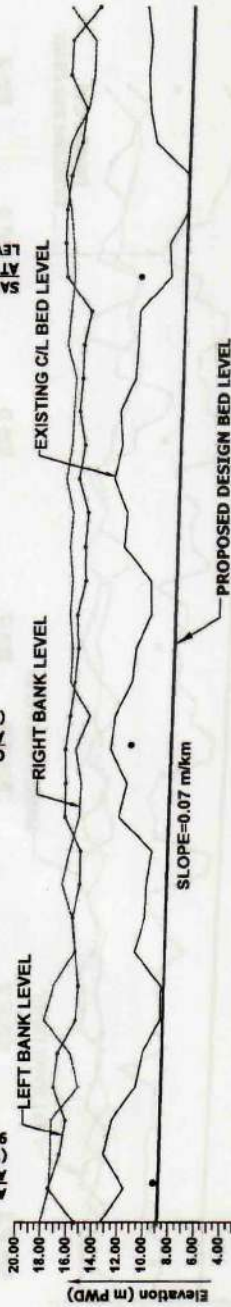


● --- POSITION OF PILE CAP TOP LEVEL (FROM FIELD DATA)

ARIAGHAT BRIDGE
AT KM. 25.15
(PILE CAP LEVEL 9.17m)

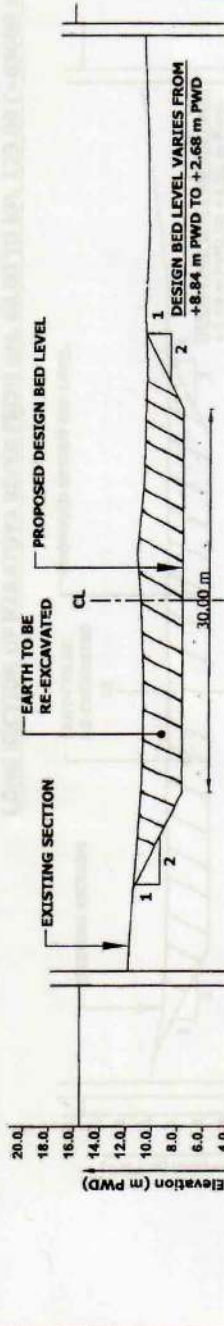
CHOA PARA BRIDGE
AT KM. 36.13
(PILE CAP LEVEL 11 m)

SARIKANDI BRIDGE
AT KM. 52.03 (PILE CAP
LEVEL 10.39 m)



DATUM LEVEL	DESIGN BED WIDTH m	DESIGN BED LEVEL m PWD	EXISTING CIL BED LEVEL IN m (PWD)	RIGHT BANK LEVEL IN m (PWD)	LEFT BANK LEVEL IN m (PWD)	DISTANCE IN KM
18.00	30.00	18.00	18.00	18.00	18.00	24.00
16.00	30.00	16.00	16.00	16.00	16.00	25.00
14.00	30.00	14.00	14.00	14.00	14.00	26.00
12.00	30.00	12.00	12.00	12.00	12.00	27.00
10.00	30.00	10.00	10.00	10.00	10.00	28.00
8.00	30.00	8.00	8.00	8.00	8.00	29.00
6.00	30.00	6.00	6.00	6.00	6.00	30.00
4.00	30.00	4.00	4.00	4.00	4.00	31.00
2.00	30.00	2.00	2.00	2.00	2.00	32.00
0.00	30.00	0.00	0.00	0.00	0.00	33.00
						34.00
						35.00
						36.00
						37.00
						38.00
						39.00
						40.00
						41.00
						42.00
						43.00
						44.00
						45.00
						46.00
						47.00
						48.00
						49.00
						50.00
						51.00
						52.00
						53.00
						54.00
						55.00
						56.00
						57.00
						58.00
						59.00
						60.00

LONG SECTION OF BANGALI RIVER FROM KM. 24.00 TO KM. 60.00 (= 36000 m)



BANGLADESH WATER DEVELOPMENT BOARD

OFFICE OF THE SUPERINTENDING ENGINEER

DESIGN FOR PROPOSED DREDGING/RE-EXCAVATION WORK OF BANGALI-KARATTA-FULLOR-HURASHAGOR RIVER SYSTEM IN GAIBANDHA DISTRICT (FROM KM. 0.00 TO KM. 24.00 = 24000 m); IN BOGURA DISTRICT (FROM KM. 24.00 TO KM. 123.00 = 99000 m); IN SIRAJGANJ DISTRICT (FROM KM. 123.00 TO KM. 217.00 = 94000m) UNDER GAIBANDHA, BOGURA & SIRAJGANJ O&M DIVISION, BWDB.

DESIGNED:	RECOMMENDED:
CHECKED:	APPROVED:
DATE:	DWG NO:

NO	DATE	MADE	CHECKED	RECORD	APPROVED
1					

CROSS SECTION NO-17 AT KM 40 OF BANGALI RIVER
(LIMIT OF WORK FROM KM 24.00 TO KM 112.00 = 88000 m)

