

Name of Work: Development of NAGA Pond and Alignment of Natural Canal in NIT Rourkela						
Ref No	Sl no	Description of Item	Unit	Quantity	Rate	Amount
201/2.2	1	Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .				
		By Manual Means	hactre	2.26	9607.00	21711.82
CI NO: 304(I) MORT H	2	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material. complete as per direction of Engineer in charge				
	a	FOR ALL KIND OF SOIL Depth upto 3.0mtr By manual/Mechanical Means including Dewatering	Cum	45024.00	107.37	4834226.88
	b	FOR ALL KIND OF SOIL Depth from 3.0mtr to 6.0mtr By manual/Mechanical Means including Dewatering	Cum	7504.00	124.78	936349.12
MORTH CI NO: 304(II)	c	FOR ORDINARY ROCK Depth upto 3.0mtr By manual/Mechanical Means including Dewatering	Cum	22512.00	154.93	3487784.16
MORTH CI NO: 304(V)	d	FOR MARSHY SOIL Depth upto 3.0mtr By manual/Mechanical Means including Dewatering	Cum	60847.00	232.75	14162139.25
MORTH 202/2.4	3	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 metres	Cum	20.00	491.00	9820.00

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MORTH 301/3.6	4	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m Excavation in Soil using Hydraulic Excavator CK 90 and Tippers with Disposal upto 1000 metres.	Cum	15054.00	36.00	541944.00
MORTH 301/3.7	5	Excavation for roadway in ordinary rock with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, transporting to embankment site within all lifts and lead upto 1000 m, trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections. Excavation in Ordinary Rock using Hydraulic Excavator CK-90 and Tippers with Disposal upto 1000 metres.	Cum	10036.00	50.00	
MORTH 301/3.10	6	Excavation for roadway in marshy soil with hydraulic excavator 0.9 cum bucket capacity including cutting and loading in tippers and disposal with in all lifts and lead upto 1000 metres, trimming of bottom and side slopes in accordance with requirements of lines, grades and cross sections.	Cum	6094.00	42.00	255948.00
MORTH 301/3.11	7	Removal of unserviceable soil including excavation, loading and disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305.	Cum	28635.00	37.00	1059495.00
MORTH 305/3.16	8	Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2.	Cum	10036.00	135.00	1354860.00
MORTH 305/3.17	9	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2.	Cum	5018.00	79.00	396422.00
MORTH 305/3.18	10	Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2	Cum	10036.00	171.00	1716156.00

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MORTH 305.3.4 /3.19	11	Loosening of the ground upto a level of 500 mm below the sub-grade level, watered, graded and compacted in layers to meet requirement of table 300-2 for sub-grade construction.	Cum	19300.00	39.00	752700.00
MORTH 3.19	12	Loosening, leveling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as given in Table 300-2 for embankment construction.	Cum	23160.00	40.00	926400.00
MORTH 307/3.22	13	Furnishing and laying of the live sods of perennial turf forming grass on embankment slope, verges or other locations shown on the drawing or as directed by the engineer including preparation of ground, fetching of sods and watering.	Sq.M	23160.00	27.00	625320.00
MORTH 309/3.24	14	Construction of unlined surface drains of average cross sectional area 0.40 sqm in soil to specified lines, grades, levels and dimensions to the requirement of clause 301 and 309. Excavated material to be used in embankment within a lead of 50 metres (average lead 25 metres)	RM	1930.00	54.00	104220.00
MORTH 3.36	15	Embankment Construction with Flyash/Pond ash available from coal or lignite burning Thermal Plants as waste material.	Cum	1320.00	100.00	132000.00
MORTH	16	Construction of embankment with Flyash conforming to table 1 of IRC: SP: 58 - 2001 obtained from coal or lignite burning thermal power stations as waste material, spread and compacted in layer of 200mm thickness each at OMC, all as specified in IRC: SP: 58-2001 and as per approved plans.	Cum	1975.00	187.00	369325.00
		PIPE CULVERTS				
MORTH 408/9.1	17	Plain cement concrete 1:3:6 mix with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.	Cum	24.00	3588.00	86112.00
NIT566	18	Providing and laying non pressure NP2 class (light duty) R.C.C pipes with collars jointed with Stiff mixture of cement mortar in proportion of 1:2 (1 cement: 2 sand) including testing of joints etc complete				
NIT566e	a	600mm dia R.C.C pipe	RM	40.00	1483.41	59336.40
NIT 566f	b	1000 mm dia R.C.C pipe	RM	40.00	3036.04	121441.60

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MORTH 307/11.1	19	Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately)	Sq.M	7168.00	13.00	93184.00
MORTH 307/11.2	20	Grassing with 'Doobs' grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for moving including supplying good earth if needed	Sq.M	7168.00	28.00	200704.00
MORTH 15.1 2503	21	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 40 kg each complete as per drawing and Technical specification.	Cum	100.00	1889.00	188900.00
MORTH 15.4 2504	22	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications Boulder Laid Dry Without Wire Crates.	Cum	150.00	1889.00	283350.00
MORTH 13.1 1300, 2200	23	Brick masonry work in 1:3 in sub-structure complete excluding pointing and plastering, as per drawing and Technical Specifications	Cum	45.00	4118.00	185310.00
MORTH 13.3 1300, 2200	24	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	Sq.M	60.00	977.00	58620.00
MORTH 13.4 1400, 2200	25	Stone masonry work in cement mortar 1:3 for substructure complete as per drawing and Technical Specifications Random Rubble Masonry	Cum	232.00	4684.00	1086688.00
MORTH IRC78, 2200	26	Back filling behind the abutment , wing wall and return wall complete as per draawing and technical specifications				
	a	granular Materials (Moorum)	Cum	100.00	306.35	30635.00
	b	granular Materials (Sand)	Cum	100.00	436.99	43699.00

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MORTH 2706,2 200	27	Providing weep holes in brick masonry plain/ reinforced cement concrete abutment wing wall /return wall with 75mm dia PVC pipe extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and technical specifications and direction of Engineer in charge	Each	50.00	270.24	13512.00
MORTH '13.5 1500,17 00,2200	28	Providing and laying in position Reinforced / plain cement concrete of specified grade including the cost of centering and shuttering. Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications. All work included including required form work and shuttering and removal of the same complete by vibration including curing for 14 days as per direction of Engineer in charge Upto Ground level (Invert level to Embankment level)				
	a	PCC Grade M15	Cum	45.00	4997.00	224865.00
	b	RCC Grade M20 Height upto 5m	Cum	60.00	5383.00	322980.00
MORTH 1600,2 000	29	Supplying, Fitting and Placing un-coated HYSD/TMT bar Reinforcement in Foundation complete as per Drawing and Technical Specifications. Complete as per direction of Engineer in charge Upto Ground level (Invert level to Embankment level)	Kg	6000.00	66.78	400680.00
MORTH '13.5	30	Supplying and filling in plinth with local river Sand Filling in Foundation Trenches as per Drawing & Technical Specification. including, watering, raming consolidating and dressing complete.	Cum	150.00	334.96	50244.00
MORTH 15.2 2503	31	Providing and laying of boulder apron laid in wire crates made with 4mm dia GI wire conforming to IS: 280 & IS:4826 in 100mm x 100mm mesh (weaved diagonally) including 10 per cent extra for laps and joints laid with stone boulders weighing not less than 40 kg each. complete as per drawing and Technical specifications Boulder Laid Dry With Wire Crates.	Cum	150.00	2833.00	424950.00

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MORTH 11.5	32	Turfing Lawns with Fine Grassing including Ploughing, Dressing (Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm)	sqm	1600	36.00	57600.00
MORTH 11.9	33	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	each	150	653.00	97950.00
MORTH 11.14	34	Half Brick Circular Tree Guard, in 2nd class Brick, internal diametre 1.25 metres, and height 1.2 metres, above ground and 0.20 metre below ground (Half brick circular tree guard, in 2nd class brick, internal diametre 1.25 metres, and height 1.2 metres, above ground and 0.20 metre below ground, bottom two courses laid dry, and top three courses in cement mortar 1:6 (1 cement 6 sand) and the intermediate courses being in dry honey comb masonry, as per design complete)	each	150	1129.00	169350.00
MORTH 15.12	35	Gabian Structure for Retaining Earth (Providing and construction of a gabain structure for retaining earth with segments of wire crates of size 7 m x 3 m x 0.6 m each divided into 1.5 m compartments by cross netting, made from 4 mm galvanised steel wire @ 32 kg per 10 sqm having minimum tensile strength of 300 Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826, woven into mesh with double twist, mesh size not exceeding 100 x 100 mm, filled with boulders with least dimension of 200 mm, all loose ends to be tied with 4 mm galvanised steel wire)	cum	250	3016.00	754000.00
		TOTAL				36640932.23
					Say :	3,66,40,932.00