

TS Register No: 1557/2021-2022

AS Register No:1600/2021-2022

ASE- Reformation of Damaged Sunken Sea wall Using Tetrapods in between CP stone 976 and 1052 for 10 km stretches along Chellanam Coast- Phase I for a length of 7.350 Km between CP 986 and CP 1026.

Detailed Estimate

(Dsr year: **2018**, Cost Index Applied for this estimate is **35.59%**)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
1 Reformation of damaged sunken sea wall								
1	od113685/2021_2022 Dismantling stones in the sea wall to construct the Groyne portion and Dumping in position suitably to form the armour course of sea wall as per approved design(dumping with a lead upto 50m)using rail track or pneumatic type equipment with crane or winches or by any other method							
	As per survey and calculations sheet	1	14225.000				14225.000	
							Total Quantity	14225.000 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	14225.000 cum
							Say 14225.000 cum @ Rs 816.73 / cum	Rs 11617984.25
2	2.33.1 Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyond 30 cm girth up to and including 60 cm girth							
		500					500.000	
							Total Quantity	500.000 each
							Total Deducted Quantity	0.000 each
							Net Total Quantity	500.000 each
							Say 500.000 each @ Rs 447.99 / each	Rs 223995.00
3	od113686/2021_2022 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means /with Dozer including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead 50 metres), including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections. All kinds of soil All kinds of soil							

	Seawall	1	2000.000	15.000	0.300		9000.000	Excavated earth will be used for forming the bund on the rear side of seawall	
	Drain	1	7350.000	3.200	1.000		23520.000		
	Total Quantity						32520.000 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						32520.000 cum		
	Say 32520.000 cum @ Rs 155.31 / cum						Rs 5050681.20		
4	<p>od171342/2021_2022</p> <p>Supply and Installation of Geo Mat for sea wall- The geo mat must be of a non woven composite material. The composite must be of a laid geogrid made of stretch monolithic polypropylene (PP) flat bars with welded junctions and mechanical bonded filter geotextile welded within the geogrid structure. Joins of geomats must have an overlap of not less than 1.5 metres. The Contractor must submit details of the fixing and joining arrangements of the geomats to be approved by the Engineer. Outer edges of the geomats must be hemmed using high strength nylon. Temporary fixing of the geomat is required and the Contractor must submit details of this for approval by the Engineer.</p>								
	1	7350.000	10.000				73500.000		
	Total Quantity						73500.000 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						73500.000 sqm		
	Say 73500.000 sqm @ Rs 79.66 / sqm						Rs 5855010.00		
5	<p>od111515/2021_2022</p> <p>ASE- Chellanam- Supplying and laying Core layer using 10 kg to 50 kg blasted granite stones of specific gravity not less than 2.65 as per approved design including supply of stones, sorting at quarry, loading from quarry , conveying to site in tipper/lorry , weighing on Weigh Bridge established at site by the contractor(Certified by Legal Metrology), Installation of PC loaded with Software approved by the Departmental officers for measurement , unloading , dumping at site to lines and levels, rehandling stones for forming the section with the help of tippers and suitable crane/hydraulic excavator/manually and packing of stones including hire and operational charges of all tools and plants and all sundry expenses , providing and maintaining the runway for movement of vehicles, crane using spalls gravel or sand etc. complete as per the direction of departmental officers at site.(Specifications as per 60.59.3)</p>								
	As per survey and calculations sheet	1	207593.000				207593.000		
	Total Quantity						207593.000 tonne		
	Total Deducted Quantity						0.000 tonne		

	Net Total Quantity						207593.000 tonne	
	Say 207593.000 tonne @ Rs 757.74 / tonne						Rs 157301519.82	
6	od111518/2021_2022 ASE- Chellanam- Supplying and laying Toe layer using 200 kg to 400 kg blasted granite stones of specific gravity not less than 2.65 as per approved design including supply of stones, sorting of stones at quarry, loading from quarry , conveying to site in tipper/lorry, weighing on Weigh Bridge established at site by the contractor(Certified by Legal Metrology), Installation of PC loaded with software approved by the Departmental officers for measurement , unloading , dumping at site to lines and levels, rehandling stones for forming the section with the help of tippers and suitable crane/hydraulic excavator/manually and packing of stones including hire and operational charges of all tools and plants and all sundry expenses , providing and maintaining the runway for movement of vehicles, crane using spalls gravel or sand etc. complete as per the direction of departmental officers at site.(Specifications as per 60.59.3)							
	-1.00m section	1	3100.000	7.280	2.65*0.70		41863.640	
	Total Quantity						41863.640 tonne	
	Total Deducted Quantity						0.000 tonne	
	Net Total Quantity						41863.640 tonne	
	Say 41863.640 tonne @ Rs 817.93 / tonne						Rs 34241527.07	
7	od111516/2021_2022 ASE- Chellanam- Supplying and laying Under layer using 150 kg to 200 kg blasted granite stones of specific gravity not less than 2.65 as per approved design including supply of stones, sorting of stones at quarry , loading from quarry , conveying to site in tipper/lorry, weighing on Weigh Bridge established at site by the contractor(Certified by Legal Metrology), Installation of PC loaded with software approved by the Departmental officers for measurement , unloading , dumping at site to lines and levels, rehandling stones for forming the section with the help of tippers and suitable crane/hydraulic excavator/manually and packing of stones including hire and operational charges of all tools and plants and all sundry expenses , providing and maintaining the runway for movement of vehicles, crane using spalls gravel or sand etc. complete as per the direction of departmental officers at site.(Specifications as per 60.59.3)							
	-1.00m section	1	3100.000	18.060	2.65*0.70		103854.030	
	Total Quantity						103854.030 tonne	
	Total Deducted Quantity						0.000 tonne	
	Net Total Quantity						103854.030 tonne	
	Say 103854.030 tonne @ Rs 757.74 / tonne						Rs 78694352.69	
8	od169945/2021_2022 ASE- Chellanam- Supplying and laying Toe layer using 250 kg to 350 kg blasted granite stones of specific gravity not less than 2.65 as per approved design including supply of stones, sorting at quarry, loading from quarry, conveying to site in tipper , weighing on Weigh Bridge established at site by the contractor(Certified by Legal Metrology), Installation of PC loaded with software approved by the Departmental officers for measurement , unloading , dumping at site to lines and levels, rehandling stones for forming the section with the help of tippers and suitable crane and packing of stones including							

	hire and operational charges of all tools and plants and all sundry expenses , providing and maintaining the runway for movement of vehicles, crane using spalls gravel or sand etc. complete as per the direction of departmental officers at site.(Specifications as per 60.59.3)						
	-2.00m section						
	Core layer	1	4250.000	20.675	2.65*0.70		162996.53 2
	Total Quantity						162996.532 tonne
	Total Deducted Quantity						0.000 tonne
	Net Total Quantity						162996.532 tonne
	Say 162996.532 tonne @ Rs 817.93 / tonne						Rs 133319753.42
9	od169946/2021_2022 ASE- Chellanam- Supplying and laying Toe layer using 350 kg to 700 kg blasted granite stones of specific gravity not less than 2.65 as per approved design including supply of stones , sorting at quarry, loading from quarry , conveying to site in tipper , weighing on Weigh Bridge established at site by the contractor(Certified by Legal Metrology), Installation of PC loaded with software approved by the Departmental officers for measurement , unloading , dumping at site to lines and levels, rehandling stones for forming the section with the help of tippers and suitable crane and packing of stones including hire and operational charges of all tools and plants and all sundry expenses , providing and maintaining the runway for movement of vehicles, crane using spalls gravel or sand etc. complete as per the direction of departmental officers at site.(Specifications as per 60.59.3)						
	-2.00m section	1	4250.000	7.280	2.65*0.70		57393.700
	Total Quantity						57393.700 tonne
	Total Deducted Quantity						0.000 tonne
	Net Total Quantity						57393.700 tonne
	Say 57393.700 tonne @ Rs 920.20 / tonne						Rs 52813682.74
10	od111535/2021_2022 Chellanam- Moulding and supplying 0.8 cum(2T) tetrapod with graded aggregate of 40% 75mm to 40mm, 30% 40mm to 20mm and 30% 20mm to 6mm using 380kg cement/ m3 of concrete designed for M30 grade concrete (specific gravity of fine aggregate and coarse aggregate should not be less than 2.73 and 2.5 respectively) and the cement shall be 43 grade or higher) minimum cube strength requirement (i) @ 7 day - 20 N/mm ² (ii) @ 28 day - 30 N/mm ² and minimum density of concrete 2.5 g/cc including hire and operational charges of tools and plants, mould, curing, rehandling and stacking charges etc., complete as per the instruction of departmental officers at site .						
	Armour layer	1	3100.000	30.340	2.5*(0.5/2)		58783.750
	Total Quantity						58783.750 each
	Total Deducted Quantity						0.000 each
	Net Total Quantity						58783.750 each
	Say 58783.750 each @ Rs 7794.48 / each						Rs 458188763.70

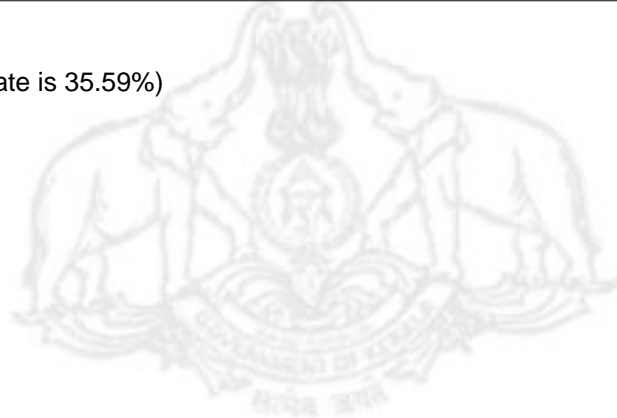
11	65.104 Conveying 0.8cum (2T) tetrapod from stacking yard and placing in position in two layers according to specification and forming the armour layer of breakwater to lines and levels over the secondary armour layer including hire and operational charges of tools and plants etc., complete as per the direction of the departmental officers at site								
	Armour layer	1	3100.000	30.340	2.5*(0.5/2)		58783.750		
	Total Quantity						58783.750	each	
	Total Deducted Quantity						0.000	each	
	Net Total Quantity						58783.750	each	
	Say 58783.750 each @ Rs 912.92 / each						Rs 53664861.05		
12	od169949/2021_2022 Chellanam - Moulding and supplying 1.2 cum(3T) tetrapod with graded aggregate of 40% 75mm to 40mm, 30% 40mm to 20mm and 30% 20mm to 6mm using 380kg cement/ m3 of concrete designed for M30 grade concrete (specific gravity of fine aggregate and coarse aggregate should not be less than 2.73 and 2.5 respectively) and the cement shall be 43 grade or higher) minimum cube strength requirement (i) @7 day - 20 N/mm2 (ii) @ 28 day - 30 N/mm2 and minimum density of concrete 2.5 g/cc including hire and operational charges of tools and plants, mould, curing, rehandling and stacking charges etc., complete as per the instruction of departmental officers at site .								
	Armour layer	1	4250.000	43.590	2.5*(0.5/3)		77190.625		
	Total Quantity						77190.625	each	
	Total Deducted Quantity						0.000	each	
	Net Total Quantity						77190.625	each	
	Say 77190.625 each @ Rs 11186.13 / each						Rs 863464366.03		
13	od169950/2021_2022 Conveying 1.2 cum (3T) tetrapod from stacking yard and placing in position in two layers according to specification and forming the armour layer of breakwater to lines and levels over the secondary armour layer including hire and operational charges of tools and plants etc., complete as per the direction of the departmental officers at site								
	Armour layer	1	4250.000	43.590	2.5*(0.5/3)		77190.625		
	Total Quantity						77190.625	each	
	Total Deducted Quantity						0.000	each	
	Net Total Quantity						77190.625	each	
	Say 77190.625 each @ Rs 1312.02 / each						Rs 101275643.81		
14	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)								
	Levelling course	1	7350.000	3.000	0.150		3307.500		

						Total Quantity	3307.500 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	3307.500 cum
						Say 3307.500 cum @ Rs 6814.89 / cum	Rs 22540248.68
15	5.37.1	<p>Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately.All work upto plinth level</p>					
	Walkway	1	7350.000	4.300	0.300		9481.500
	Vertical wall -2.00m section	1	4250.000	0.300	1.600		2040.000
	-1.00m section	1	3100.000	0.300	1.300		1209.000
	Steps	100	1.000	0.500	0.500		25.000
						Total Quantity	12755.500 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	12755.500 cum
						Say 12755.500 cum @ Rs 9886.00 / cum	Rs 126100873.00
16	5.34.1	<p>Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).</p>					
	Walkway	1	7350.000	4.300	0.300		9481.500
	Vertical wall	1	4250.000	0.300	1.600		2040.000
		1	3100.000	0.300	1.300		1209.000
	Steps	100	1.000	0.500	0.500		25.000
						Total Quantity	12755.500 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	12755.500 cum
						Say 12755.500 cum @ Rs 82.10 / cum	Rs 1047226.55
17	5.9.2	<p>Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including</p>					

	attached pilasters, butteresesses, plinth and string courses etc.						
	For retaining wall	2	4250.000		1.60+0.30		16150.001
		2	3100.000		1.30+0.30		9920.000
	Total Quantity						26070.001 sqm
	Total Deducted Quantity						0.000 sqm
	Net Total Quantity						26070.001 sqm
	Say 26070.001 sqm @ Rs 717.20 / sqm						Rs 18697404.72
18	od172887/2021_2022 Using high corrossion resistant steel (HCR) for RCC work including straightening ,cutting,bending ,placing in position and binding all complete .Thermo-Mechanically treated bars of grade Fe 500d or more						
	Concrete @50kg/cum	12755.5				50.0	637775.000
	Total Quantity						637775.000 kg
	Total Deducted Quantity						0.000 kg
	Net Total Quantity						637775.000 kg
	Say 637775.000 kg @ Rs 125.87 / kg						Rs 80276739.25
19	60.7.1 DRY RUBBLE MASONRY _ Dry rubble without concrete levelling course masonry with good quality blasted rubble including packing to compactness to lines and levels cost and conveyance of all materials labour charges etc. complete as per direction of Departmental officers at site						
		1	7350.000	3.200	0.450		10584.000
		2	7350.000	(0.60+0.50)/2	0.550		4446.751
	Total Quantity						15030.751 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						15030.751 cum
	Say 15030.751 cum @ Rs 3491.49 / cum						Rs 52479716.81
20	51.2.3 Filling with Quarry Muck Filling up low lying and water logged areas with local material/ quarry muck, spreading in layers, leveling the top at site and consolidation by ramming, etc complete for improving the CBR value of subgrade						
	For drain	1	7350.000	5.000	0.300		11025.000
	Total Quantity						11025.000 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						11025.000 cum
	Say 11025.000 cum @ Rs 902.34 / cum						Rs 9948298.50

SI No	Description	No	L	B	D	CF	Quantity	Remark
2 Utility shifting and contingencies								
Lump-Sum Total							Rs 2840209.00	
Provision for GST payments (in %) @							12.0%	
Amount reserved for GST payments							272357142.87	
Total							2541999999.87	
Lumpsum for round off							0.00	
							TOTAL Rs 2541999999.87	
							Rounded Total Rs 2,54,20,00,000	
							Rupees Two Hundred Fifty Four Crore Twenty Lakh Only	

(Cost Index Applied for this estimate is 35.59%)



Other Engineering Organisations

PRICE