

**BOQ BASED ON S.O.R. FOR BRIDGE WORK**  
**ISSUED BY ENGINEER IN- CHIEF C.G.P.W.D. RAIPUR**  
**INFORCE FROM 01.01.2015@90% and CGRRDA SSOR 22.02.2018**

**CONSTRUCTION OF SUBMERSIBLE BRIDGE ACROSS KAMARGUNDA NALA FROM POLAMPALLI TO**  
**ATULPARA RD 2000M BLOCK KONTA , DIST. SUKMA (C.G.)**

**3 SPAN @15.00 M = 45 M.**

**ABSTRACT**

Sr. no.	SOR Item No.	BOQ Description	Quantity	Unit	RATE	Amount
	<b>PART-A</b>	<b>DIVERSION</b>				
1	3.4 (ii)	Construction of embankment with approved material obtained from borrow pits, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 (Beyond 250m)with all leads as per Technical Specification Clause 301.5(Having CBR more than 5)	405.0	cum	246.00	99,630
2	4.1 A	Granular Sub-base with Well Graded Material (Table 400.1) Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.	30.4	cum	910.00	27,641
3	4.8	Wet Mix Macadam Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406.	18.8	cum	2069.00	38,794
4	7.4	Laying Reinforced Cement Concrete Pipe NP3 as per drawing and technical specification Clause 1402.6 Providing and laying reinforced cement concrete pipe NP3 for culverts on first Class bedding in single row including fixing with cement mortar 1:2 but excluding excavation, bedding protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1106.				
	B	1000 mm Dia	22.500	m	6485.00	1,45,913
		<b>FOUNDATION</b>				
5	2.1 (I)	Excavation for Structures (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.) as per section 304. Ordinary soil (i) Upto 3 m depth	1121.223	cum	131.40	1,47,329
		(ii) 3m to 6m depth	471.535	cum	150.30	70,872
	II	Ordinary Rock (iii) Above 6m depth	0.000	cum	221.40	-
6	2.1 I	Add extra in rates of dewatering of above items if dewatering is resorted. Ordinary Soil (I) upto 3m depth	555.290	cum	26.28	14,593
		(ii) 3m to 6m depth	471.535	cum	30.06	14,174
	II	Ordinary Rock (iii) Above 6m depth	0.000	cum	44.28	-
7	2.1 I	The cost of shoring and shuttering, when needed, be added at 1 percent on cost of excavation for open foundation. Ordinary Soil (I) upto 3m depth	1121.223	cum	1.31	1,473
		(ii) 3m to 6m depth	471.535	cum	1.50	709
	II	Ordinary Rock (iii) Above 6m depth	0.000	cum	2.21	-

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SR Item No.	BOQ Description	Quantity	Unit	RATE	Amount
8	2.2 Filling annular space around footing in rock ( lean cement concrete 1:3:6 nominal mix	385.40	m	4151.70	16,00,044
9	2.6 A Plain / Reinforced cement concrete in open foundation (complete as per drawing and specification as per section 1500, 1700 & 2100. Using Concrete mixer.				
	(i) PCC Grade M-15	56.63	cum	4151.70	2,35,090
10	2.6 A Plain / Reinforced cement concrete in open foundation (complete as per drawing and specification as per section 1500, 1700 & 2100. Using Concrete mixer.				
	(vii) RCC Grade M-30	345.42	cum	5392.80	18,62,786
11	L.S. SAFE BEARING CAPACITY TEST	0.00	Nos	3000.00	-
12	2.24 Supplying, fitting and placing HSD (High Strength Deformed Steel) bar reinforcement in foundation complete as per drawing and technical specifications as per section 1600. (Fe -550)	38.00	MT	61823.70	23,49,072
13	2.25 B Taking trial boring 100 mm dia .For detailed investigation with daimond drill double tube in all sort of soil like sand ,soft soil , moorum ,Gravels, boulder and soft rock including all materials such as casing pipe, accessories , grease and other such materials and or as required including conveying the loose sample and core sample seerially numbered at the site of work and conveying the same to the head quarter of concerned office as directed and submission of detailed bore log sheet as per IRC 78-2014 and section 2400 including testing of sample as per specification.	16.70	RM	4369.50	72,971
14	2.25 A Taking trial bores 100 mm dia for detailed investigation with diamond drill double tube in all type of hard rock including all materials such as casing pipes , accessories,grease and other such materials and or as required including conveying such materials and machinery to site of work preserving the loose sample and core samples seerially numberd at the site of work and conveying the same to the head quarters of concernd office as directed and submission of detailed bore log sheet as per IRC 78. 2014 and section 2400 including testing and preserving rock core samples in core boxes as per specifications	26.00	RM	2096.10	54,499
	SUB STRUCTURE				
15	3.6 Providing and laying Plain/Reinforced cement concrete in sub-structure complete as per drawing and technical specifications section 1500, 1700 and 2200				
	E(a)(iii) Height 5m to 10 m (RCC Grade M30)	441.02	cum	5894.10	25,99,418
16	3.7 Supplying, fitting and placing HYSD bar reinforcement in sub-structure complete as per drawing and technical specifications section 1600 and 2200 (Fe 550)	57.33	MT	62101.80	35,60,460
17	3.8 Providing weepholes in Brick masonry / Plain/ Reinforced concrete abutment, wing wall/ return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V : 20H towards drawing face . Complete as per drawing and technical specification and as per clause 2706 and 2200	54.80	meter	288.90	15,832
18	3.9 Back filling behind abutment, wing wall and return wall complete as per drawing and Technical specification 710.1.4 of I.R.C. 78 and 2200 (i) Granular material	430.15	cum	814.50	3,50,358

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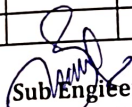
SR Item No.	BOQ Description	Quantity	Unit	RATE	Amount
19	3.10 Providing & laying of filter media with granular materials /stone crushed aggregates satisfying the requirements laid down in clause 2504.2.2 of MORTH specification to a thickness of not less than 600 mm with smaller towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and technical specifications 700.1.4 of I.R.C. 78 and 2200	201.26	cum	1733.40	3,48,866
20	3.14 Supplying, fitting and fixing in position true to line and level elastomeric bearing conforming to IRC: 83 (Part-II) section IX and clause 2005 of MoRTH specifications complete including all accessories as per drawing and Technical Specifications section 2000 and 2200 towards the soil and bigger size towards the wall and	111600.0	cubcm	0.90	1,00,440
<b>SUPER STRUCURE</b>					
21	4.1 (i) a Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification sections 1500, 1600 and 1700 B. RCC Grade M 30 (i) SUPER - STRUCTURE II For Solid slab (a) Using Concrete mixer.				
	(ii) Height 5m to 10m	313.74	cum	6536.70	20,50,824
22	4.2 Supplying, fitting and placing HSD (High Strength Deformed Steel) bar reinforcement in super-structure complete as per drawing and technical specifications 1600 (Fe 550)	47.06	MT	63090.90	29,69,121
23	4.4 Providing and laying Cement concrete wearing coat M-35 grade including reinforcement of 8 mm diameter @ 150 mm c/c spacing in both ways for each 75 mm thickness of concrete complete as per drawing and Technical Specifications as per section 2700	29.25	cum	10662.30	3,11,872
24	4.5 Construction of precast RCC railing of M30 Grade, aggregate size not exceeding 12 mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete as per approved drawings and technical specifications as per relevant clauses of section 1500, 1600, 1700 and 2703 (vide drawing No. SD/202, SD/304).	104.00	meter	1686.60	1,75,406
25	4.9 Drainage Spouts complete as per drawing and Technical specifications of section 2705	20.00	each	1806.30	36,126
26	4.10 PCC M15 Grade leveling course below approach slab complete as per drawing and Technical specification and as per relevant section 2700	9.58	cum	3993.30	38,240
27	4.11 Providing and laying M-30 grade Reinforced cement concrete approach slab including reinforcement and formwork complete as per drawing and Technical specification and as per relevant sections 1500, 1600, 1700 and 2704	17.64	cum	8520.30	1,50,298
28	4.18 Strip Seal Expansion Joint (Providing and laying of a strip seal expansion joint catering to maximum horizontal movement upto 70 mm, complete as per approved drawings and standard specifications to be installed by the manufacturer/supplier or their authorized representative ensuring compliance to the manufacturer's instructions for installation.)	33.60	meter	10011.60	3,36,390
29	4.21 Painting on concrete surface of R.C.C. Railing (Providing and applying 2 coats of water based cement paint to unplastered concrete surface after cleaning the surface of dirt, dust, oil, grease, efflorescence and applying paint @ of 1 litre for 2 Sq.m.)	124.80	sqm	135.90	16,960


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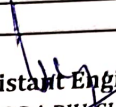
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Item No.	BOQ Description	Quantity	Unit	RATE	Amount
4.23	Providing and Fixing of Av. 20mm thick Granite plate including cutting and polishing and inscribed details as per approved drawing i/c engraving the matter as desired.	4.00	Each	5940.00	23,760
4.24	Testing of span of bridge for deflection due to live load with platform for loading arrangements, apparatus for measurement etc. complete as per drawing and specifications (As per I.R.C.S.P.51)	100.00	tonne	765.00	76,500
<b>Total</b>					<b>19896462</b>
<b>Add GST 18 %</b>					<b>3581363</b>
<b>Grand Total</b>					<b>23477825</b>
<b>Say Rs (In Lakhs)</b>					<b>234.78</b>

  
**Sub Engineer**  
 CGRRDA, PIU-SUKMA  
 Distt. -SUKMA ( C.G.)

  
**Executive Engineer**  
 CGRRDA, PIU-SUKMA  
 Distt. -SUKMA ( C.G.)

  
**Assistant Engineer**  
 CGRRDA, PIU-SUKMA  
 Distt. -SUKMA ( C.G.)