

**COMPREHENSIVE SCHEME  
OF  
COMPENSATORY AFFORESTATION  
FOR  
3.1346 HA., NAGARJUNASAGAR FOREST AREA DIVERTED  
FOR  
FOR NELLIKAL LIFT IRRIGATION SCHEME IN NALGONDA DISTRICT OF  
TELANGANA STATE  
COMPENSATORY AFFORESTATION TO BE RAISED  
IN  
NAGARJUNASAGAR DIVISION  
FROM 2017 – 18 TO 2025 – 26  
DISTRICT : NALGONDA, TELANGANA STATE**

**COMPREHENSIVE SCHEME FOR COMPENSATORY AFFORESTATION OF NALGONDA DIST – FOR DIVERSION OF FOREST LAND IN NAGARJUNASAGAR DIVISION FOR LAYING OF PIPELINE / JACKWELL / PUMP HOUSE ETC., FOR NELLIKAL LIFT IRRIGATION SCHEME IN NALGONDA DISTRICT OF TELANGANA STATE.**

**1) Introduction of the Scheme:-**

The TSIDC Corp. Ltd., Miryalaguda has submitted proposals for diversion of **3.1346 Ha** of forest land for laying of intake pipeline / Jack well / Pump house etc., for Nellikal Lift Irrigation Scheme in Nellikal RF of Nagarjunasagar Division.

As per the directions of the District Collector, Nalgonda vide letter No. F1/9455/2015, dated: 22-04-2016 the non-forest land to an extent of **3.50 Ha. (Acs. 8.66 gts.)** was identified in **Thirumalagiri Mandal of Nalgonda District**. The area of 3.50 Ha of non forest land has been taken over by the Forest Range Officer, Wildlife Management, Nagarjunasagar from Revenue Authorities vide Lr. No. IDC/EE/MLG/AE/Nellikal LIS/20017-18/148; Dt. 09.05.2017. The village wise survey number wise details are as follows.

Sl No	Mandal	Village	Survey No.	Extent of land Handed over for CA		Remarks
				Acres	In Ha	
1	Thirumalagiri	Nellikal	299/2	8.66	3.50	
<b>Total:</b>				<b>8.66</b>	<b>3.50</b>	

**2) Suitability of the Area:-**

The acquired CA area of 3.50 Ha are consist of hill rock and boulders intermittent with soil patches which are eroded and top soil is lost. This area is suitable for BHA planting / Gap planting including removal of boulders with species like non browsable like Accasia sundra, Annona squamosa, Azadirachta indica, Albizia amara, Cassia fistula, Delbarzia perculeta, Ficus, Holoptilia intigrifolia and other similar species available in the reference forests of the area duly supplementing with SMC works.

**3) Areas identified for Compensatory Afforestation and species.**

Keeping the suitability and management point in view, it is proposed to raise miscellaneous species like Ficus & Holoptelea integrifolia adopting Barren Hill Afforestation technique.

**4) Planting Technique:-**

The plantation under this scheme is proposed to be raised by adopting Barren Hill Afforestation – Advance works like clearance of planting points with digging of 1 meter pit and applying imported soil with vermi-compost for Miscellaneous species plantations will be taken up under Barren Hill Afforestation method.

Basal dressing with super phosphate will be done to boost up the root system, two weeding and two soil workings are provided. The plantation will be provided with a watcher up to 7<sup>th</sup> year maintenance of plantations and peripheral chain link fence will be taken up before the planting activity.

The entire area of C.A will be planted within one year i.e., during 2018-19.

**5) Scheme Implementation Agency:-**

The Forest Divisional Officer, Wildlife Management, Nagarjunasagar will be the project implementation and monitoring agency and works will be taken up through concerned Forest Range Officer.

Raising of successful C.A. Plantation requires frequent inspections and close monitoring by the Forest Range Officer and Senior Officers.

**6) Monitoring Mechanism :-**

The Forest Divisional Officer, Wildlife Management, Nagarjunasagar District Forest Officer, Nalgonda and Chief Conservator of Forests, Field Director/ Tiger Reserve Project, Amrabad will be closely monitoring the implementation of C.A. scheme by regular inspection and ensuing maintenance of connected records like plantation journals, Cash books, work register, Measurement books & Asset Register etc., Monthly Progress of planting and maintenance along with expenditure will be submitted to the Prl. Chief Conservator of Forests, T.S. Hyderabad. Other Senior officers of Forest Department of Telangana and Chief Conservator of Forests (Central), Chennai will also be monitoring the implementation of C.A. scheme.

**7) Period of the scheme :-**

Period of the scheme is for **(9) years** which includes 1<sup>st</sup> year of Advance works and 2<sup>nd</sup> year of raising of plantations and (7) years of maintenance commencing from 2017-18 to 2025-26

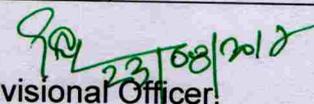
**8) Cost Structure:-**

The cost of the scheme is worked out adopting present F.S.R of 2017 – 18 and wage structure of Rs. 337.70/- per day (as approved by the District Collector, Nalgonda). The total year wise cost structure of the project to an extent of 3.50 Ha., is shown in Annexure – I. The details of requirement of funds and year wise action plan are shown in Annexure-II. Unit costs of different planting techniques are shown in Annexure – III to V. The Abstract of the scheme is as follows:

**DETAILED ABSTARCT OF CA SCHEME FOR 3.50 Ha**

**(Rs. in Lakhs)**

Sl. No	Item of Work	Total Outlay	
		Phy	Fin
1	Raising of Nursery	0.20	1.80
2	Maintenance of Nursery	0.20	1.233
3	Advance Operations (BHA)	3.50 Ha	5.892
4	Raising	3.50 Ha	2.653
5	1st Year Maintenance	3.50 Ha	1.116
6	2nd Year Maintenance	3.50 Ha	1.116
7	3rd Year Maintenance	3.50 Ha	0.426
8	4th Year Maintenance	3.50 Ha	0.468
9	5th Year Maintenance	3.50 Ha	0.515
10	6th Year Maintenance	3.50 Ha	0.567
11	7th Year Maintenance	3.50 Ha	0.623
12	Drilling of Bore wells	1 No.s	1.020
13	Installation of Solar Pump Sets	1 No.s	6.50
14	Construction of Watcher sheds	1 No.s	5.00
15	SMC Works (Mini PTs, CDs & RFDs etc.,)	3.50 Ha	28.350
16	Chain link mesh & RCC poles	1 Km	16.00
17	Construction of Gate (1 No. for 1 site)	1 No	1.280
18	Publicity & Awareness	Ls	5.00
19	Administrative Cost (10%) (Purchase of Computers, Stationery, Remuneration of DEOs, T.As etc.,)	LS	6.076
	<b>Grand Total:</b>	<b>3.50</b>	<b>85.636</b>

  
 Forest Divisional Officer,  
 Wildlife Management,  
 Nagarjunasagar

**COMPENSATORY AFFORESTATION SCHEME FOR RAISING OF 3.50 Ha (BHA) PLANTATIONS IN NON-FOREST AREAS IN WILDLIFE MANAGEMENT DIVISION NAGARJUNASAGAR**  
( in lieu of diversion of forest land in Miryalaguda covering an area of about 3.1436 Ha of Nalgonda Dist. in F/o. TSIDC, Miryalaguda.

Sl. No	Item of work	Unit Cost		2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25		2025-26		Total	
		Per	Rs in (Lakhs)	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
<b>I</b>	<b>Raising of plantations (BHA)</b>																						
1	Raising of Nursery	Plant	0.00009	0.2	1.800																		
2	Maint. of Nursery	Plant	0.00002			0.2	0.45	0.15	0.365	0.1	0.268	0.05	0.15	0									1.800
3	Advance Operations	Ha	1.6836	3.500	5.892	0.000	0.00	0.000	0.00	0.000	0.00	0.000	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3.500	5.892
4	Raising of plantations	Ha	0.7579	0	0.00	3.500	2.653	0.000	0.00	0.000	0.00	0.000	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3.500	2.653
	<b>Sub Total :</b>				<b>7.692</b>		<b>3.103</b>		<b>0.365</b>		<b>0.268</b>		<b>0.150</b>		<b>0.000</b>		<b>0.000</b>		<b>0.000</b>		<b>0.000</b>		<b>11.578</b>
<b>II</b>	<b>Maintenance of plantations</b>																						
1	1st Year	Ha	0.2899	0	0.00	0	0.00	3.500	1.12	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0	0.00	0	0.00	3.500	1.116
2	2nd Year	Ha	0.3189	0	0.00	0	0.00	0	0.000	3.500	1.116	0.000	0.000	0.000	0.000	0	0.000	0	0.00	0	0.00	3.500	1.116
3	3rd Year	Ha	0.1216	0	0.00	0	0.00	0	0.000	0	0.000	3.500	0.426	0.000	0.000	0.000	0.000	0	0.00	0	0.00	3.500	0.426
4	4th Year	Ha	0.1338	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	3.500	0.468	0.000	0.000	0	0.00	0	0.00	3.500	0.468
5	5th Year	Ha	0.1472	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	3.500	0.515	0	0.00	0	0.00	3.500	0.515
6	6th Year	Ha	0.1619	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	3.500	0.515	0	0.00	0	0.00	3.500	0.567
7	7th Year	Ha	0.1781	0	0.00	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	3.5	0.57	0	0.00	3.500	0.623
	<b>Sub Total :</b>				<b>0.000</b>		<b>0.000</b>		<b>1.116</b>		<b>1.116</b>		<b>0.426</b>		<b>0.468</b>		<b>0.515</b>		<b>0.567</b>		<b>0.623</b>		<b>4.832</b>
III	Drilling of Bore wells (incl. 180mm dia PVC 06Kgs/cm2 casing pipe, Geological survey charges etc.)	No.s	1.02	1	1.02	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.00	0	0.00	1	1.020
IV	Installation of Solar Pump sets incl. pipe line	No.s	6.50	1	6.50	0	0.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.00	0	0.00	1	6.500
V	Construction of Watcher Sheds	No.s	5.00			1	5.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.00	0	0.00	1	5.000
	<b>Sub Total :</b>				<b>7.52</b>		<b>5.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	<b>1</b>	<b>5.000</b>
VI	SMC works (Mini PTS, CDs & RFDs)	No.s	6.75	0	0	2	13.500	2	14.850		0.000		0.000		0.000		0.000	0	0.00	0	0.00	4.000	28.350
<b>VII</b>	<b>Forest Protection</b>																						
1	Chain Link mesh & RCC poles	Km	16.000		0.00		0.00	1.00	16.00	0	0.000	0	0.000	0	0.000	0	0.000	0	0.00	0	0.00	1.000	16.000
2	Construction of Gate (1No. For 1 site)	No.s	1.28	0	0.00	1.000	1.28	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.00	0	0.00	1.000	1.280
3	Publicity & Awareness	Ls	5.00		0.000		2.000		1.000		2.000		0.000		0.00		0.00	0	0.00	0	0.00	0.000	5.000
	<b>Sub Total :</b>				<b>0.00</b>		<b>3.28</b>		<b>17.00</b>		<b>2.00</b>		<b>0.00</b>	<b>2.00</b>	<b>22.28</b>								
	<b>Total :</b>				<b>15.212</b>		<b>24.883</b>		<b>33.331</b>		<b>3.384</b>		<b>0.576</b>		<b>0.468</b>		<b>0.515</b>		<b>0.567</b>		<b>0.623</b>	<b>2.00</b>	<b>79.560</b>
	<b>Admin Cost @ 10%</b>				<b>0.769</b>		<b>1.660</b>		<b>3.233</b>		<b>0.138</b>		<b>0.058</b>		<b>0.047</b>		<b>0.052</b>		<b>0.057</b>		<b>0.062</b>		<b>6.076</b>
	<b>Gr. Total :</b>				<b>15.982</b>		<b>26.543</b>		<b>36.564</b>		<b>3.523</b>		<b>0.633</b>		<b>0.515</b>		<b>0.567</b>		<b>0.623</b>		<b>0.686</b>		<b>85.636</b>

\* Adv. Operations, Raising of Plantations & Maintenance (1st Yr to 7th Yr) of plantations added 10% to unit cost to each year.

  
Forest Divisional Officer,  
Wildlife Management,  
Nagarjunasagar.

  
Field Director / Addl. Pr. Chief Conservator of Forest  
Amrabad Tiger Reserve  
Achampet

**Estimate for Raising of Nursery 4"x7" and Conversion to 6" X 12"**

Sl.No.	Description of the work	FSR/SSR 2017-18	Qty		Rate	Per	Amount
1	2	3	4		5	6	7
1	Site preparaton for New site - clearing of growth ,weeds grass etc.,	1.03.01	8.07	Beds	46.33	Bed	374
2	Cost and Transport of ingredients for Potting Mixture: (As per CSSR) Red Soil, tank-silt, FYM in 2:1:1 ratio. To this soil mixture, 220 gm of Indophyll M-45, 4.5 kg of single super phosphate (SSP) and 250 gm of phorate granules per 1 cum of potting mixture will be added. Cost of chemicals is as per actuals upto 5 Km.	01.03.05	21000	No's	174.06	1000 No's	3655
	<b>b) For every extra km beyond 5 km upto 25 km (20 Km)</b>						
	10 cm x 17.5 cm (4" x 7") = 0.56 cum vol. for 1000 bags	01.03.06	21000	No's	4.54	1000 No's	1430
4	Cost of polythene bags (4"x7") 200 gauge (15% Extra)	As per Lowest tender rate	36	Kg's	129	1 Kg	4599
5	Preparation of potting mixture Red Soil and Clayey Soil in 2:1 ratio by powdering various ingredients sieving and mixing then in the prescribed proportion, Opening the bags and filling with potting mixture and gently pressing the same with finger tips and arranging in beds.	01.03.07	21000	No's	534.68	1000 No's	11228
6	Cost of seed		21000	No's	As per actuals		2000
7	Picking out seedlings from primary beds and transplanting in bags	01.03.09	21000	No's	128.88	1000 No's	2706
8	Watering the plants twice a day for 10 m x 1 m size bed 2600 No's/per bed (4"x7") (February,2018 to March,2018) (2 Months)	01.03.11	8.07	Beds	250.1	Bed/ month	4037
9	Weeding only three times during raising year for 10 m x 1 m size bed 2600 No's/per bed (4"x7")	01.03.12	8.07	Beds	45.93	per bed /weeding	1112
10	Shifting and grading and rearranging in beds for 10 m x 1 m size bed 2600 No's/per bed (4"x7") (only once in Sept, 2016)	01.03.13	8.07	Beds	214.49	per bed /shifting	1731
11	Cost of Chemicals, insecticides, pesticides etc.,	01.03.15	21000	No's	As per actuals		1000
12	Weeding in the space between beds	01.03.17	8.07	Beds	31.3	Bed	253
<b>Conversion of Root Trainer Plants</b>							
13	Cost and Transport of ingredients for Potting Mixture: Red Soil, tank-silt, FYM in 2:1:1 ratio. To this soil mixture, 220 gm of Indophyll M-45, 4.5 kg of single super phosphate (SSP) and 250 gm of phorate granules per 1 cum of potting mixture will be added. Cost of chemicals is as per actuals distance up to 5 Km						
	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum)	01.03.23	21000	Nos	494.29	1000 Nos	10380
	iii) 4" x 7" to 6" x 12" polybags (2.15 - 0.56 = 1.59 cum) Beyond 5 kms (15 Kms)	01.03.24	21000	Nos	12.88	1000 Nos	4057
14	Preparation of potting mixture Red Soil and Clayey Soil in 2:1 ratio by powdering various ingredients sieving and mixing then in the prescribed proportion, Opening the bags and filling with potting mixture and gently pressing the same with finger tips and arranging in beds.	01.03.25	21000	No's	914.32	1000 No's	19201
15	Weeding the plants (1100 no. of 6"x12"bags; 800 no. of 8"x12" bags; and 400 no. of 10"x16" bags) from November - March: 2 weedings						
	1st weeding - December	01.03.29	19.09	Beds	45.93	Bed/ Weeding	877
	2nd weeding - February	01.03.29	19.09	Beds	45.93	Bed/ Weeding	877

16	Shifting, Grading and rearranging in secondary beds - One Grading in February	01.03.30	19.09	Beds	214.49	Bed/ Weeding	4095
17	Watering the plants manually twice a day (from Novemebr - March) with rose spray or finely perforated nozzle attached to a hose pipe.						
	a) Manually with rose spray or finely perforated nozzle attached to a hose pipe	01.03.31	19.09	Beds	250.10	Per bed/ Month	23872
18	Application prophylactic foliar spray of 0.2% of Carbendazim / Dithane M-45 and any organo-phosphate (Monocrotophos / Phosphamidon @ 3-4 ml in 1 lit of water) at regular interval (once in a month from Dec - March) alternatively. Similarly application of multiplex or NPK 19:19:19 (a teaspoon in 1 lit water) - once in a month - to start 1 month after conversion by back-packed power-sprayer (preferably in morning or evening and no watering for at least 12 hours after spray)	01.03.49				By Nursery Watcher	
19	Cost of foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides (from Dec - March)	01.03.50				As per actuals	500
20	Contingencies/Cost of pipes/nursery board/nursery implements/Electricity bill/Running and maintenance Charges of Oil Engine (Bills to be verified and Certified by the ACF/DFO) etc.,	01.03.51	21000	No's		As per actuals (Subject to maximum of 5% of estimate cost during raising year)	4900
21	Cost of protection during the year from 08/2017 to 03/2018 (8 months)	01.05.04	8	months	8017	month	64136
	<b>Total :-</b>						<b>167019</b>
	Rounding off						2981
	<b>Grand Total :-</b>						<b>170000</b>

  
 Forest Divisional Officer,  
 Wildlife Management,  
 Nagarjunasagar.

Estimate for Maintenance of Nursery

Sl.No.	Description of the work	FSR/SSR 2017-18	Qty		Rate	Per	Amount
1	2	3	4		5	6	7
1	Watering polybags secondary beds twice a day for 4 months a) Manually with rose cans or finely perforated nozzle attached to a hose pipe	01.04.01	8.07	Beds	250.10	Bed / month	2018
2	Weeding once during Maintenance Year	01.02.02	8.07	Beds	45.93	Bed / month	371
4	Shifting and grading and rearranging in beds for 10 m x 1 m size bed 2600 No's/per bed (4"x7") (One in April and another in June)	01.04.03	8.07	Beds	226.46	Bed / month	3655
5	Cost of Foliar nutrient formulations like multiplex or NPK-19:19:19; fungicides and insecticides (from April - August)	01.04.05	21000	No's	As per actuals		500
6	Application of Cow dung Slurry - once per month between April to June	01.04.06	By Nursery Watcher				
<b>Maintenance of Bag Nursery from September onwards till Disposal</b>							
13	Watering the plants for 10 m x 1 m size secondary bed	01.05.01	8.07	Beds	151.73	Bed / month	1224
20	Contingencies/Cost of pipes/nursery board/nursery implements/Electricity bill/Running and maintenance Charges of Oil Engine (Bills to be verified and Certified by the ACF/DFO) etc.,	01.03.51	21000	No's	As per actuals (Subject to maximum of 5% of estimate cost during raising year )		388
21	Cost of protection during the year from 04/2018 to 07/2019 (4 months)	01.05.04	8	months	8017	month	32068
	<b>Total :-</b>						<b>40224</b>
	Rounding off						1776
	<b>Grand Total :-</b>						<b>42000</b>

Added 10% extra for 2018-19      4200.05  
**TOTAL:      46200.54**

  
 Forest Divisional Officer,  
 Wildlife Management,  
 Nagarjunasagar.

**Advance Operations (BHA Model)**

7-18

**200 plants / Ha**

Sl. No	Item of Work	F.S.R. or SSR item (2015-16)	Quantity		Rate	Per		Amount
			4	5		7	8	
1	Survey with GPS (only staff to carry out)	02.19.01	1	Plantation	311.04	1	Plantation	311.00
2	Alignment & Stacking including laying of base line in 3x3 mtrs wspace ( 1111 No.Per ha of effective area suitable for planting )	02.19.03	200	Nos	74.20	100	No.s	148.00
3	Cost of Preparation of stakes (0.45 m length) including transportation to site	02.19.04	200	Nos	47.30	100	No.s	95.00
4	Digging of 0.90 m x 0.90 m x 0.90 m pits (0.729 Cum x 200 No.s = 145.80 Cum)	As per RSSR 2015-16 Annex to GOMs.No. 39 PR&RD(RD) Dept., dt:21.04.15 Sl.No. 7 Category-VI	145.8	Cum	173.21	1	Cum	25254.00
5	Importation of good quality red earth congenial for plant growth of light textured, crystalline, porous and friable, generally acidic or neutral but not alkaline, fertile, cost, transportation, loading, unloading etc complete 0.90x0.90x0.90x3/5x200 = 87.48 cum	HMDA FSR 2015-16 371 (9)	87.48	Cum	1084.00	1	Cum	94828.00
6	Cost & Conveyance of well decomposed Farm Yard Mannure to planting site.	HMDA FSR 2015-16 66. a	200	Nos	2070.00	100	No.s	4140.00
7	Application of red soil and Farm Yard Mannure incl. internal distribution	HMDA FSR 2015-16 65. a	200	Nos	713.00	100	No.s	1426.00
8	Application of Farm Yard Mannure incl. internal distribution in red soil areas	HMDA FSR 2015-16 65. b	200	Nos	143.00	100	No.s	286.00
<b>Sub Total :</b>								<b>126488.00</b>
<b>Add 10% extra for 2015-16</b>								<b>12649.00</b>
<b>Total :</b>								<b>139137.00</b>
<b>Add 10% extra for 2016-17</b>								<b>13913.70</b>
<b>Total :</b>								<b>153050.70</b>
<b>Add 10% extra for 2017-18</b>								<b>15305.07</b>
<b>Total :</b>								<b>168355.77</b>
1	Drilling of bore well		300	Rmt	285.00	1	Rmt	85500.00
i	180 mm dia PVC 06 Kgs/cm2 casing pipe including all taxes etc		20	Rmt	696.12	1	Rmt	13922.00
ii	Geological Survey charges		1	Nos	1000.00	1	each	1000.00
iii	Contingencies, L.S							750.00
<b>Sub-Total for Drilling of Bore well</b>								<b>101172.00</b>
2	Installation of Solar Pump set incl. pipe linc (As per Quotation)		1	No	650000.00	1	No	650000.00
3	Construction of Watcher Shed		1	No	500000.00	1	No	500000.00
<b>Total</b>								<b>1,150,000.0</b>

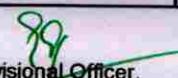
  
 Forest Divisional Officer,  
 Wildlife Management,  
 agarjunasagar.

**Raising of Plantation (BHA Model)**

2017-18

200 plants / Ha

Sl. No	Item of Work	F.S.R. or SSR item (2016-17)	Quantity		Rate	Per		Amount	
			4	5	6	7	8		
1	2	3	4	5	6	7	8	9	
1	Cost of plants ( 2 Mtrs Plants)	As per Actuals	200	Nos	250	1	No.s	50000.00	
2	Transport of Bag Plants/ Root trainer plants from nursery site to plantation site including loading and unloading upto 5 Km lead 20 X 30cm (8"X12") bag plants	02.02.03	200	Nos	173.49	100	No.s	347.00	
3	Transport of Bag Plants/ Root trainer plants from nursery site to plantation site including loading and unloading beyond 5 Km - extra for every each Km. extra 25 Km 20 X 30cm (8"X12") bag plants	02.02.06	200	Nos	6.75	100	No.s	338.00	
4	Internal transportation of bag plants / Root trainers to planting points on head loads 20 X 30cm (8"X12") bag plants	02.02.12	200	Nos	109.20	100	No.s	218.00	
5	Planting of bag plants in 0.45 mts cube pits	02.20.04	200	Nos	363.37	100	No.s	727.00	
6	Replacement of Casualties 20% during Raising & 25% in 1st year (In case of Eucalyptus 10% during raising and no casualty replacement for further maintenance)	02.21.03	40	No.s	1.82	1	No.s	73.00	
7	Transport of Bag Plants/ Root trainer plants from nursery site to plantation site including loading and unloading upto 5 Km lead 20 X 30cm (8"X12") bag plants	02.02.03	40	Nos	173.49	100	No.s	69.00	
8	Transport of Bag Plants/ Root trainer plants from nursery site to plantation site including loading and unloading beyond 5 Km - extra for every each Km. extra 25 Km 20 X 30cm (8"X12") bag plants	02.02.06	40	Nos	6.75	100	No.s	68.00	
9	Internal transportation of bag plants / Root trainers to planting points on head loads 20 X 30cm (8"X12") bag plants	02.02.12	40	Nos	109.20	100	No.s	44.00	
10	Planting of bag plants in 0.45 mts cube pits	02.20.04	40	Nos	363.37	100	No.s	145.00	
11	Cost of Chemicals / fertilizers	02.21.04	As per Actuals						400.00
12	Application of fertilizers	02.21.05	200	Nos	32.62	100	No.s	65.00	
13	Only one circular weeding	02.21.06	200	Nos	103.79	100	No.s	208.00	
14	Circular weeding cum deep soil working to a radius of 0.5 m and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in hard gravellary soils.	02.21.09	200	Nos	545.08	100	No.s	1090.00	
15	Creation of sector lines/ Inspection paths/ Fire lines 3m. Wide around the plantation during raising year	02.21.10	200	Rmt	508.00	100	Rmt	1016.00	
16	Cost of plantation board with iron anglers and fixing - 1.20 x 0.90 m	As per Actuals	1	Nos	5500.0	1	No.s	5500.00	
17	Cost of protection (Per 25 Ha One Watcher) for 9 months 9x5070 = 45630 / 25 Ha = 4563	02.21.14	1	months	1825.2	1	mnth	1825.00	
18	Contingencies, Journals, implements etc.,	As per Actuals	As per Actuals						500.00
Total :								<b>62,633.00</b>	
Added 10% extra for 2016-17								6,263.00	
Total :								<b>68,896.00</b>	
Added 10% extra for 2017-18								6,890.00	
Total :								<b>75,786.00</b>	
Added 10% extra for 2018-19								7,579.00	
Total :								<b>83,365.00</b>	
Added 10% extra for 2019-20								8,337.00	
Total :								<b>91,702.00</b>	
Added 10% extra for 2020-21								9,170.00	
Total :								<b>100,872.00</b>	

  
 Forest Divisional Officer,  
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Ist Yr Maintenance (BHA Model)

2 3-19

200 plants / Ha

Sl. No	Item of Work	F.S.R. or SSR item (2015-16)	Quantity		Rate	Per		Amount
			4	5		7	8	
1	2	3	4	5	6	7	8	9
1	Cost of plants ( 2 Mtrs Plants)	As per Actuals	50	Nos	250	1	No.s	12500.00
2	Re-opening of pits and casualty replacement in hill afforestation during raising year and 1st year maintenance	02.22.01	50	Nos	363.37	100	No.s	182.00
3	Only one circular weeding	02.22.02	200	Nos	103.79	100	No.s	208.00
4	Circular weeding cum deep soil working to a radius of 0.5 m and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in hard gravellary soils.	02.22.03	200	Nos	545.08	100	No.s	1090.00
5	Cost of protection (Per 25 Ha One Watcher) for 12 months 12x5070 = 60840 / 25 Ha = 2433	02.23.05	1	months	5070.0	1	mnth	5070.00
6	Maintenance of fire lines	02.21.10	50	Rmt	508.00	100	Rmt	254.00
7	Contingencies, Journals, implements etc.,	As per Actuals	As per Actuals					500.00
Total :								19,804.0
Added 10% extra for 2016-17								1,980.00
Total :								21,784.0
Added 10% extra for 2017-18								2,178.00
Total :								23,962.0
Added 10% extra for 2018-19								2,396.00
Total :								26,358.00
Added 10% extra for 2019-20								2,636.00
Total :								28,994.00
Added 10% extra for 2020-21								2,899.00
Total :								31,893.00
Added 10% extra for 2021-22								3,189.00
Total :								35,082.00

  
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2nd Yr Maintenance (BHA Model)

19-20

200 plants / Ha

Sl. No	Item of Work	F.S.R. or SSR item (2015-16)	Quantity		Rate	Per		Amount
1	2	3	4	5	6	7	8	9
1	Cost of plants ( 2 Mtrs Plants)	As per Actuals	50	Nos	250	1	No.s	12500.00
2	Re-opening of pits and casualty replacement in hill afforestation during raising year and 1st year maintenance	02.22.01	50	Nos	363.37	100	No.s	182.00
3	Only one circular weeding	02.22.02	200	Nos	103.79	100	No.s	208.00
4	Circular weeding cum deep soil working to a radius of 0.5 m and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand and formation of saucer in hard gravellary soils.	02.22.03	200	Nos	545.08	100	No.s	1090.00
5	Cost of protection (Per 25 Ha One Watcher) for 12 months 12x5070 = 60840 / 25 Ha = 5070	02.25.03	1	months	5070.0	1	mnth	5070.00
6	Maintenance of fire lines	02.21.10	50	Rmt	508.00	100	Rmt	254.00
7	Contingencies, Journals, implements etc.,							
As per Actuals								500.00
Total :								<b>19804.00</b>
Added 10% extra for 2016-17								1980.00
Total :								21784.00
Added 10% extra for 2017-18								2178.00
Total :								23962.00
Added 10% extra for 2018-19								2396.00
Total :								26358.00
Added 10% extra for 2019-20								2636.00
Gr. Total :								28994.00
Added 10% extra for 2020-21								2899.00
Gr. Total :								31893.00
Added 10% extra for 2021-22								3189.00
Gr. Total :								35082.00
Added 10% extra for 2022-23								3508.00
Gr. Total :								38590.00

  
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3rd Yr Maintenance (BHA Model)

2020-21

200 plants / Ha

Sl. No	Item of work	F.S.R. Item No	Quantity		Rate as per FSR 2014-15	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand	02.22.03	200	No.s	545.08	100	Each	1090.00
2	Pruning of lower foliage/ branches	02.23.03	200	No.s	103.2	100	Each	206.00
3	Cost of protection (Per 25 Ha One Watcher) for 12 months $12 \times 5070 = 60840 / 25 \text{ Ha} = 2433.60$	02.25.03	1	months	5070	1	mnth	5070.00
3	Contingencies, journals, implements etc 5%		1	Ha	As per actuals			500.00

<b>TOTAL</b>	<b>6866.00</b>
Add 10% extra for 2016-17 :	687.00
<b>TOTAL</b>	<b>7553.00</b>
Add 10% extra for 2017-18 :	755.00
<b>TOTAL</b>	<b>8308.00</b>
Add 10% extra for 2018-19 :	831.00
<b>TOTAL</b>	<b>9139.00</b>
Add 10% extra for 2019-20 :	914.00
<b>TOTAL :</b>	<b>10053.00</b>
Add 10% extra for 2020-21 :	1005.00
<b>TOTAL :</b>	<b>11058.00</b>
Add 10% extra for 2021-22 :	1105.8
<b>TOTAL :</b>	<b>12163.80</b>

  
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4th Yr Maintenance (BHA Model)

2021-22

200 plants / Ha

Sl. No	Item of work	F.S.R. Item No	Quantity		Rate as per FSR 2014-15	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand	02.22.03	200	No.s	545.08	100	Each	1090.00
2	Pruning of lower foliage/ branches	02.23.03	200	No.s	103.2	100	Each	206.00
3	Cost of protection (Per 25 Ha One Watcher) for 12 months $12 \times 5070 = 60840 / 25 \text{ Ha} = 2433$	02.25.03	1	months	5070	1	mnth	5070.00
3	Contingencies, journals, implements etc 5%		1	Ha	As per actuals			500.00

<b>TOTAL</b>	<b>6866.00</b>
Add 10% extra for 2016-17 :	687.00
<b>TOTAL</b>	<b>7553.00</b>
Add 10% extra for 2017-18 :	755.00
<b>TOTAL</b>	<b>8308.00</b>
Add 10% extra for 2018-19 :	831.00
<b>TOTAL</b>	<b>9139.00</b>
Add 10% extra for 2019-20 :	914.00
<b>TOTAL</b>	<b>10053.00</b>
Add 10% extra for 2020-21 :	1005.00
<b>TOTAL :</b>	<b>11058.00</b>
Add 10% extra for 2021-22 :	1106.00
<b>GRAND TOTAL :</b>	<b>12164.00</b>
Add 10% extra for 2022-23 :	1216.00
<b>GRAND TOTAL :</b>	<b>13380.00</b>

  
 Forest Divisional Officer,  
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 Nagarjunasagar.

5th Yr Maintenance (BHA Model)

2022-23

200 plants / Ha

Sl. No	Item of work	F.S.R. Item No	Quantity		Rate as per FSR 2014-15	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand	02.22.03	200	No.s	545.08	100	Each	1090.00
2	Pruning of lower foliage/ branches	02.23.03	200	No.s	103.2	100	Each	206.00
3	Cost of protection (Per 25 Ha One Watcher) for 12 months $12 \times 5070 = 60840 / 25 \text{ Ha} = 2433$	02.25.03	1	months	5070	1	mnth	5070.00
3	Contingencies, journals, implements etc 5%		1	Ha	As per actuals			500.00

<b>TOTAL</b>	<b>6866.00</b>
Add 10% extra for 2016-17 :	687.00
<b>TOTAL</b>	<b>7553.00</b>
Add 10% extra for 2017-18 :	755.00
<b>TOTAL</b>	<b>8308.00</b>
Add 10% extra for 2018-19 :	831.00
<b>TOTAL</b>	<b>9139.00</b>
Add 10% extra for 2019-20 :	914.00
<b>TOTAL</b>	<b>10053.00</b>
Add 10% extra for 2020-21 :	1005.00
<b>TOTAL</b>	<b>11058.00</b>
Add 10% extra for 2021-22 :	1106.00
<b>TOTAL</b>	<b>12164.00</b>
Add 10% extra for 2022-23 :	1216.00
<b>GRAND TOTAL</b>	<b>13380.00</b>
Add 10% extra for 2023-24 :	1338.00
<b>GRAND TOTAL</b>	<b>14718.00</b>

  
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6th Yr Maintenance (BHA Model)

2023-24

200 plants / Ha

Sl. No	Item of work	F.S.R. Item No	Quantity		Rate as per FSR 2014-15	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand	02.22.03	200	No.s	545.08	100	Each	1090.00
2	Pruning of lower foliage/ branches	02.23.03	200	No.s	103.2	100	Each	206.00
3	Cost of protection (Per 25 Ha One Watcher) for 12 months $12 \times 5070 = 60840 / 25 \text{ Ha} = 2433$	02.25.03	1	months	5070	1	mnth	5070.00
3	Contingencies, journals, implements etc 5%		1	Ha	As per actuals			500.00

<b>TOTAL</b>	<b>6866.00</b>
Add 10% extra for 2016-17 :	687.00
<b>TOTAL</b>	<b>7553.00</b>
Add 10% extra for 2017-18 :	755.00
<b>TOTAL</b>	<b>8308.00</b>
Add 10% extra for 2018-19 :	831.00
<b>TOTAL</b>	<b>9139.00</b>
Add 10% extra for 2019-20 :	914.00
<b>TOTAL</b>	<b>10053.00</b>
Add 10% extra for 2020-21 :	1005.00
<b>TOTAL</b>	<b>11058.00</b>
Add 10% extra for 2021-22 :	1106.00
<b>TOTAL</b>	<b>12164.00</b>
Add 10% extra for 2022-23 :	1216.00
<b>TOTAL</b>	<b>13380.00</b>
Add 10% extra for 2023-24 :	1338.00
<b>GRAND TOTAL</b>	<b>14718.00</b>
Add 10% extra for 2024-25 :	1472.00
<b>GRAND TOTAL</b>	<b>16190.00</b>

  
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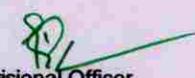
7th Yr Maintenance (BHA Model)

2024-25

200 plants / Ha

Sl. No	Item of work	F.S.R. Item No	Quantity		Rate as per FSR 2014-15	Per		Amount
1	2	3	4		5	6		7
1	Circular Weeding cum deep soil working to a radius of 0.5 m. and to a depth of 10 cm around the plant to be done with pick axes for the plants planted in pits without disturbing the soil around the plant to 10cm wide but weeding that part of area by hand	02.22.03	200	No.s	545.08	100	Each	1090.00
2	Pruning of lower foliage/ branches	02.23.03	200	No.s	103.2	100	Each	206.00
3	Cost of protection (Per 25 Ha One Watcher) for 12 months $12 \times 5070 = 60840 / 25 \text{ Ha} = 2433$	02.25.03	1	months	5070	1	mnth	5070.00
3	Contingencies, journals, implements etc 5%		1	Ha	As per actuals			500.00

<b>TOTAL</b>	<b>6866.00</b>
Add 10% extra for 2016-17 :	687.00
<b>TOTAL</b>	<b>7553.00</b>
Add 10% extra for 2017-18 :	755.00
<b>TOTAL</b>	<b>8308.00</b>
Add 10% extra for 2018-19 :	831.00
<b>TOTAL</b>	<b>9139.00</b>
Add 10% extra for 2019-20:	914.00
<b>TOTAL</b>	<b>10053.00</b>
Add 10% extra for 2020-21 :	1005.00
<b>TOTAL</b>	<b>11058.00</b>
Add 10% extra for 2021-22 :	1106.00
<b>TOTAL</b>	<b>12164.00</b>
Add 10% extra for 2022-23 :	1216.00
<b>TOTAL</b>	<b>13380.00</b>
Add 10% extra for 2023-24 :	1338.00
<b>TOTAL</b>	<b>14718.00</b>
Add 10% extra for 2024-25 :	1472.00
<b>GRAND TOTAL</b>	<b>16190.00</b>
Add 10% extra for 2025-26 :	1619.00
<b>GRAND TOTAL</b>	<b>17809.00</b>

  
 Forest Divisional Officer,  
 Wildlife Management,  
 Nagarjunasagar.

## Abstract Estimate for Errection of Gate

Sr. No.	Item Code	Description of Work	Quantity	Rate in Rs.	per	Amount (Rs.)	
1	BLD-CSTN-2.1	<b>Earth work excavation for foundations (Manual Means) for buildings in ordinary soils and depositing on bank for all lifts and with an initial lead of 10m and up to 3m depth</b> including all operational, incidental, labour charges such as shoring, sheeting, planking, strutting etc., and overheads & contractors profit complete for finished item of work excluding seigniorage and dewatering charges etc., complete as per SS 20 B (APSS 308)	13.25	CUM	197.47	CUM	2616.08
2	BLD-CSTN-37	<b>Plain Cement Concrete (1:5:10)</b> (cement: fine aggregate: Coarse aggregate) for foundations of panel walls and under flooring bed using coarse aggregate 40mm size hard , machine crushed granite from approved quarry including cost and conveyance of all materials like cement, sand, coarse aggregate, water etc. to site, excluding seigniorage charges but including sales & other taxes on all materials and including all charges for machine mixing, laying concrete in foundations , ramming, finishing top surface to the required level, curing etc., complete and overheads & contractors profit complete for finished item of work . (APSS No. 402)	1.29	CUM	3271.45	CUM	4210.36
3	BLD-CSTN-6.13	<b>Random Rubble stone masonry</b> in CM (1:8) prop: (Cement: Screened sand) using <b>hard granite stones</b> carted from approved quarry including cost and conveyance of all materials like cement, screened sand, water, stones etc., to site and excluding seigniorage charges but including sales & other taxes on all materials including labour for cutting stones to required size and shape, mixing of cement mortar, construction, curing etc., and overheads & contractors profit complete for finished item of work in <b>foundation and basement</b> . (APSS No. 601 & 615)	1.05	CUM	2822.50	CUM	2963.63
4	BLD-CSTN-314.A	<b>Supply and placing of the Design Mix Concrete M 20 grade</b> corresponding to IS 456 with <b>minimum cement content of 350 kgs per 1 cum of concrete</b> using WEIGH BATCHER / MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) ( consisting of nominal size metal 60% of 20mm , 15% of 13.20/12.50mm , 15% of 10mm and 10% of 6mm ) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and excluding Seigniorage charges but including sales & other taxes on all materials, <b>centering using Steel scaffolding pipes, jack Props, wallers, Foot plates, brackets, steel Centering Plates, etc.,</b> including all operational, incidental and labour charges such as weigh batching, machine mixing, laying concrete, curing etc., and overheads & contractors profit complete but excluding cost of steel and its fabrication charges for finished item of work (APSS No. 402)					
		<b>Footings</b>	2.56	CUM	7055.769	CUM	18062.77
		<b>Pedestrals</b>	1.94	CUM	7373.77	CUM	14334.61

Sl. No.	Item Code	Description of Work	Quantity		Rate in Rs.	per	Amount (Rs.)
5	BLD-CSTN-3 15.B	<b>Supply and placing of the Design Mix Concrete M 20 grade</b> corresponding to IS 456 with <b>minimum cement content of 350 kgs per 1 cum of concrete</b> using WEIGH BATCHER / MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) ( consisting of nominal size metal 60% of 20mm , 15% of 13.20/12.50mm , 15% of 10mm and 10% of 6mm ) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and excluding Seigniorage charges but including sales & other taxes on all materials, <b>centering using Steel scaffolding pipes, jack Props, wallers, Foot plates, brackets, steel Centering Plates, etc.,</b> including all operational, incidental and labour charges such as weigh batching, machine mixing, lifting concrete mechanically, laying concrete, curing , overheads & contractors profit etc., complete but excluding cost of steel and its fabrication charges for finished item of work upto un supported height up to 3.66 m (APSS No. 402)					
		<b>Columns</b>	1.66	CUM	6592.88	CUM	10917.81
6	BLD-CSTN-4 1	<b>Providing Thermo Mechanically Treated (TMT) (Fe 415 grade as per IS 1786-1979) of different diameters for RCC works</b> , including labour charges for straightening, cutting, bending to required sizes and shapes, placing in position with cover blocks of approved materials and size and tying and lap splicing with binding wire of 18 SWG, forming grills for reinforcement work as per approved designs and drawings, including cost and conveyance of steel bars, including all wastages such as overlaps, couplings, chairs, spacer bars including cost and conveyance of binding wire, cover blocks and all incidental, operational, labour charges such as cutting, bending, placing in position, tying including sales and other taxes on all materials etc. ,and overheads & contractors profit complete for finished item of work ( APSS No.126)	0.61	MT	41214.74	MT	25173.55
7	BLD-CSTN-8 10	<b>Plastering 12mm thick in two coats using screened sand with base coat of 8mm thick in CM (1:6) and top coat of 4mm thick in CM (1:4) with dubara sponge finishing</b> including cost and conveyance of all materials like cement, sand, water etc., to site, excluding seigniorage charges but including sales & other taxes on all materials, and all operational, incidental charges on materials and including cost of all labour charges for mixing mortar, finishing, scaffolding, lift charges, curing, including cutting grooves as directed by Engineer - in - charge etc., and overheads & contractors profit complete for finished item of work. (SS 901,903 & 904)	8.80	SQM	240.55	SQM	2116.84
8		<b>Cost of MS sheets 18 gauge including fabrication charges etc</b>	0.069	MT	37500.00	MT	2572.50
9		<b>cost and supply of 2 1/2" X 2 1/2"X 6 mm MS L-angles including fabrication charges etc completed.</b>	0.169	MT	39000.00	MT	6582.42
10	BLD-CSTN-12-12	<b>Painting to new iron works with 2 coats of synthetic enamel paint of approved brand</b> and shade over 1 coat of red oxide primer of approved brand to give an even shade after thoroughly cleaning and sand papering the surface to remove all dirt and remains , including cost and conveyance of all materials to work site including cost of primer coat and all operational, incidental, labour charges etc. complete etc., complete including cost of overheads & contractors profit (APSS No.1200, 1207 & 1211) in all floors.	13.30	SQM	112.84	SQM	1500.77

Sl. No.	Item Code	Description of Work	Quantity		Rate in Rs.	per	Amount (Rs.)
11	BLD-CSTN-11-5	Colour washing two coats with colour cement paint of approved quality to give an even shade after thoroughly brushing the surface to remove all dirt and remains of loose powdered materials including cost of all materials, labour charges and incidental such as scaffolding, lift charges etc., complete for finished item of work, but excluding conveyance charges of materials for:-White wash - Colour washing 2 coats with colour cement paint	8.80	SQM	34.50	SQM	303.60
					<b>Total</b>		<b>91,354.93</b>
12		P.S contingency unforeseen item preparation of Estimate etc. 5%					4,567.75
13		LS for other unforeseen items and roudning off					77.32
					<b>Total:-</b>		<b>96,000.00</b>
					Add 10 % extra for 2016-17		<b>9600.00</b>
					<b>Total:-</b>		<b>105,600.00</b>
					Add 10 % extra for 2017-18		<b>10560.00</b>
					<b>Total:-</b>		<b>116,160.00</b>
					Add 10 % extra for 2018-19		<b>11616.00</b>
					<b>Total:-</b>		<b>127,776.00</b>

  
 Forest Divisional Officer,  
 Wildlife Management,  
 Nagarjunasagar.

**DETAILED ESTIMATE**  
**NAME OF WORK: ESTIMATE FOR ERECTION OF GATE**

Sl.N	Description of item	Nos	Length	Breadth	Depth	Quantity	UNIT
1	2	3	4	5	6	7	8
1	Earth work excavation for foundations (Manual Means) for buildings in ordinary soils and depositing on bank for all lifts and with an initial lead of 10m and up to 3m depth including all operational, incidental, labour charges such as shoring, sheeting, planking, strutting etc., and overheads & contractors profit complete for finished item of work excluding seigniorage and dewatering charges etc., complete as per SS 20 B (APSS 308)						
	For Gate Columns	1 X 2	1.80	1.80	1.85	11.99	
	For RR masonry between columns	1 X 1	3.50	0.60	0.60	1.26	
						<b>13.25</b>	<b>Cum</b>
2	Plain Cement Concrete (1:5:10) (cement: fine aggregate: Coarse aggregate) for foundations and under flooring bed using coarse aggregate 40mm size hard, machine crushed granite from approved quarry including cost and conveyance of all materials like cement, sand, coarse aggregate, water etc. to site, excluding seigniorage charges but including sales & other taxes on all materials and including all charges for machine mixing, laying concrete in foundations, ramming, finishing top surface to the required level, curing etc., complete and overheads & contractors profit complete for finished item of work. (APSS No. 402)						
	For Gate Columns	1 X 2	1.80	1.80	0.15	0.97	
	For RR masonry between columns	1 X 1	3.50	0.60	0.15	0.32	
						<b>1.29</b>	<b>Cum</b>
3	Random Rubble stone masonry in CM (1:8) prop: (Cement: Screened sand) using hard granite stones carted from approved quarry including cost and conveyance of all materials like cement, screened sand, water, stones etc., to site and excluding seigniorage charges but including sales & other taxes on all materials including labour for cutting stones to required size and shape, mixing of cement mortar, construction, curing etc., and overheads & contractors profit complete for finished item of work in foundation and basement. (APSS No. 601 & 615)						
	For RR masonry between columns	1 X 1	3.50	0.60	0.50	1.05	
						<b>1.05</b>	<b>Cum</b>
4	Supply and placing of the Design Mix Concrete M 20 grade corresponding to IS 456 with minimum cement content of 350 kgs per 1 cum of concrete using WEIGH BATCHER / MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) (consisting of nominal size metal 60% of 20mm, 15% of 13.20/12.50mm, 15% of 10mm and 10% of 6mm) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and excluding Seigniorage charges but including sales & other taxes on all materials, centering using Steel scaffolding pipes, jack Props, wallers, Foot plates, brackets, steel Centering Plates, etc., including all operational, incidental and labour charges such as weigh batching, machine mixing, laying concrete, curing etc., and overheads & contractors profit complete but excluding cost of steel and its fabrication charges for finished item of work (APSS No. 402)						
	<b>Footings</b>						
	For Gate Columns	1 X 2	1.60	1.60	0.50	2.56	
						<b>2.560</b>	<b>cum</b>
	<b>Pedestals</b>						
	For Gate Columns	1 X 2	0.90	0.90	1.20	1.94	
						<b>1.94</b>	<b>cum</b>
5	Supply and placing of the Design Mix Concrete M 20 grade corresponding to IS 456 with minimum cement content of 350 kgs per 1 cum of concrete using WEIGH BATCHER / MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) (consisting of nominal size metal 60% of 20mm, 15% of 13.20/12.50mm, 15% of 10mm and 10% of 6mm) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and excluding Seigniorage charges but including sales & other taxes on all materials, centering using Steel scaffolding pipes, jack Props, wallers, Foot plates, brackets, steel Centering Plates, etc., including all operational, incidental and labour charges such as weigh batching, machine mixing, lifting concrete mechanically, laying concrete, curing, overheads & contractors profit etc., complete but excluding cost of steel and its fabrication charges for finished item of work upto an supported height up to 3.66 m (APSS No. 402)						
	Columns	1 X 2	0.60	0.60	2.30	1.66	
						<b>1.66</b>	<b>cum</b>

## Detailed Estimate

SI.N	Description of item	Nos	Length	Breadth	Depth	Quantity	UNIT
6	Supplying, fitting and placing HYSD (Fe 415/ tmt grade as per IS 1786-1985) bar reinforcement in foundation complete as per drawings and technical specifications for Bars below 36 mm dia including over laps and wastage, where they are not welded including cost and conveyance of bars from approved sources to site of work, binding wire, cover blocks and all incidental, operational, labour charges such as cutting, bending, placing in position, tying etc., and sales & other taxes, on cost of all materials complete for finished item of work						
	Footing bottom mat 12mm dia@ 100mm c/c	1 X 2	34.00	2.40	0.89	145.25	
	Pedestral 12mm dia verticles @ 100mm c/c	1 X 2	28.00	1.80	0.89	89.71	
	Pedestral 8mm dia rings @ 100mm c/c	1 X 2	15.00	3.50	0.39	40.95	
	Column 16mm dia verticle rods	1 X 2	16.00	4.50	1.58	227.52	
	Column rings 10mm dia rings @ 100mm c/c	1 X 2	40.00	2.20	0.61	107.36	
						<u>610.79</u> Kg	
							<b>0.611 MT</b>
7	Plastering 12mm thick in two coats using screened sand with base coat of 8mm thick in CM (1:6) and top coat of 4mm thick in CM (1:4) with dubara sponge finishing including cost and conveyance of all materials like cement, sand, water etc., to site, excluding seigniorage charges but including sales & other taxes on all materials, and all operational, incidental charges on materials and including cost of all labour charges for mixing mortar, finishing, scaffolding, lift charges, curing, including cutting grooves as directed by Engineer - in - charge etc., and overheads & contractors profit complete for finished item of work. (SS 901,903 & 904)						
	Columns	1 X 2	2.20	2.00		8.80	
						<u>8.80</u>	<b>8.80 sqm</b>
8	Cost of MS sheets 18 gauge including fabrication charges etc						
	For Gate	1 X 2	1.75	2.00		7.00	
						<u>7.00</u>	<b>7.00 sqm</b>
	weight per square meter 9.80 kg/sqmt						<b>68.60 kg</b>
							<b>0.069 MT</b>
9	cost and supply of 2 1/2" X 2 1/2" X 6 mm MS L-angles including fabrication charges etc completed.						
	For Gate supports	1 X 2	7.50			15.00	
		2 X 2	2.65			10.60	
		1 X 2	1.75			3.50	
						<u>29.10</u>	<b>29.10 Rmt</b>
	weight per Running meter 5.80 kg/rmt						<b>168.78 kg</b>
							<b>0.169 MT</b>
10	Painting to new iron works with 2 coats of synthetic enamel paint of approved brand and shade over 1 coat of red oxide primer of approved brand to give an even shade after thoroughly cleaning and sand papering the surface to remove all dirt and remains , including cost and conveyance of all materials to work site including cost of primer coat and all operational, incidental, labour charges etc. complete etc., complete including cost of overheads & contractors profit (APSS No.1200, 1207 & 1211) in all floors.						
	Gate					13.30	
						<u>13.30</u>	<b>13.30 sqm</b>
11	Colour washing two coats with colour cement paint of approved quality to give an even shade after thoroughly brushing the surface to remove all dirt and remains of loose powdered materials including cost of all materials, labour charges and incidental such as scaffolding, lift charges etc., complete for finished item of work, but excluding conveyance charges of materials for:-White wash - Colour washing 2 coats with colour cement paint						
	Columns	1 X 2	2.20	2.00		8.80	
						<u>8.80</u>	<b>8.80 sqm</b>

**Abstract cum Detailed estimate for construction of check dam**

Sl. No.	Description of Work	No	L	B	D	Qty	Rate	Per	Amount
1	2	3	4	5	6	7	8	9	10
1	<b>IRR CCDW 1.3</b> :Earth work Excavation in ordinary rock (including HDR) without blasting including boulders above 0.3 m up to 0.60 m dia for foundation of canal cross drainage works and other approved structures and placing the excavated struff neatly in specified dump area & disposing off the same as directed etc.,								
	a) Body wall	1	15.00	1.50	1.50	33.75			
	b) Wing wall U/s	2	2.50	1.20	1.50	9.00			
	c) Side wall D/s	2	3.00	1.20	1.50	10.80			
	d) Toe wall	1	15.00	0.60	0.80	7.20			
	e) Apron	1	12.60	3.00	0.30	11.34			
					<b>cum</b>	<b>72.09</b>	<b>288.50</b>	<b>Cum</b>	<b>20797.965</b>
2	<b>IRR CCDW 2-5</b> : Providing and laying insitu vibrated M-10 (28 days cube compressive strength not less than 10 N/Sqm) grade cement concrete using 40 mm down size approved, clean, hard, graded aggregates for foundation filling including cost of all aterials, machinery, labour, form work, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead of 50 mtrs and all lifts.								
	a) Body wall	1	15.00	1.30	1.50	29.25			
	b) Wing wall U/s	2	2.50	1.20	0.30	1.80			
	c) Side wall D/s	2	3.00	1.20	0.30	2.16			
	d) Toe wall	1	15.00	0.60	0.30	2.70			
	e) Apron	1	12.60	3.00	0.30	11.34			
					<b>cum</b>	<b>47.25</b>	<b>4375.00</b>	<b>Cum</b>	<b>206718.75</b>
3	<b>IRR CC DW - 2-10</b> : Providing and laying insitu vibrated M-15 (28 days cube compressive strength not less than 15 N/mm2 grade cement concrete using 20 mm down size approved clean, hard, graded aggregates for sub structures/super structure works including cost and conveyence of all materials machine, labour, form work, scaffolding, cleaning, batching, mixing, placing in position, levelling, vibrating, finishing, curing etc., complete with initial lead up to 50 m and all lifts.								
	b) Body wall super structure above ground (1.2+0.7)/2	1	15.00	0.95	1.50	21.38			
	Apron	1	12.60	3.00	0.10	3.78			
					<b>cum</b>	<b>25.16</b>	<b>5209.00</b>	<b>Cum</b>	<b>131058.00</b>
4	Filling foundation with R.R Masonary in cm (1:8) first sort including cost and conveyence of all charges etc., complete for finished of item work.								
	b) Wing wall U/s	2	2.50	1.20	1.20	7.20			
	c) Side wall D/s	2	3.00	1.20	1.20	8.64			
	d) Toe wall	1	15.00	0.60	0.50	4.50			
					<b>cum</b>	<b>20.34</b>	<b>2579.00</b>	<b>Cum</b>	<b>52456.86</b>
5	<b>BLD CSTN</b> : CRS Masonary in CM (1:6) Ist sort including cost and conveyence of all materials all labour charges all lead lifts etc., complete finished item of work.								
	b) Wing wall U/s (1+ 0.5/2)	2	2.50	0.75	1.90	7.13			
	c) Side wall D/s( 1.9 +1.00/2 =1.45 h)	2	3.00	0.75	1.45	6.53			
	<b>TOTAL :</b>				<b>Cum</b>	<b>13.65</b>	<b>2882.00</b>	<b>Cum</b>	<b>39339.30</b>

6	PRCCDW-4.10 : Providing 20 mm thick plastering in CM (1:4) proportion by volume including cost of all materials, machinery, labour scaffolding clearing joints smooth finishing curing etc complete with initial lead upto 50 mts and all lifts								
	a) Wing wall out side U/s	2	2.50	0.00	1.90	9.50			
	b) Wing wall in side U/s	2	2.50	0.00	1.90	9.50			
	c) Side wall out side D/s	2	3.00	0.00	1.45	8.70			
	d) Side wall in side D/s	2	3.00	0.00	1.45	8.70			
					<b>Sqm</b>	<b>36.40</b>	<b>394.00</b>	<b>Sqm</b>	<b>14341.60</b>
8	Unforeseen item of expenditure								<b>1288.00</b>
								<b>TOTAL :</b>	<b>466000.5</b>
								Add 10% extra for 2016-17	46600.048
								<b>TOTAL :</b>	<b>512600.52</b>
								Add 10% extra for 2017-18	51260.052
								<b>TOTAL :</b>	<b>563860.57</b>
								Add 10% extra for 2018-19	56386.057
								<b>TOTAL :</b>	<b>620246.63</b>

  
 Forest Divisional Officer,  
 Wildlife Management,  
 Nagarjunasagar.