
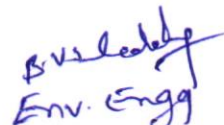


Name of the work : Establishment of 5.0 MLD CETP in APSEZ, De-notified area of Atchuthapuram Industrial Cluster (VCICDP T2-APIIC/10)

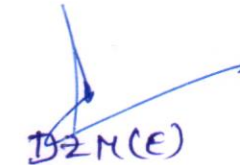
GENERAL ABSTRACT


SL.NO	COMPONENT	PRICE (INR)
1	Civil Works	₹ 1,348,231,925.15
2	Electro-Mechanical Works	₹ 1,138,428,552.00
3	Captive Power Plant - 6.0 MWPH	₹ 470,000,000.00
4	DG Set 1000 KVA x 3 Nos	₹ 30,000,000.00
5	Pipeline from Guard pond to existing Marine disposal pumping station	₹ 5,000,000.00
6	Transformer Yard	₹ 4,000,000.00
7	Street Lighting	₹ 3,000,000.00
8	Laboratory Equipment with Glassware	₹ 3,000,000.00
9	Fire Safety and Fire Hydrant System	₹ 5,000,000.00
10	Provision for APSPDCL towards SLC & SD charges and fee for Statutory bodies like APPCB	₹ 5,000,000.00
11	Greenbelt & Landscaping	₹ 2,500,000.00
12	Environmental Monitoring - Construction Phase	₹ 2,500,000.00
13	Online Monitoring system with CC Cameras	₹ 2,500,000.00
<b>A</b>	<b>Sub Total A Construction Cost</b>	<b>₹ 3,019,160,477.15</b>
<b>B</b>	<b>Other Provisions</b>	
1	Seigniorage Charges	₹ 10,450,536.25
2	PMC Consultant @2%	₹ 60,383,209.54
3	Contingency @1.5%	₹ 45,287,407.16
4	Quality Control @ 0.75%	₹ 22,643,703.58
5	Tender Premium @ 5%	₹ 150,958,023.86
6	NAC @ 0.1%	₹ 3,019,160.48
7	Unforeseen @ 2%	₹ 60,383,209.54
8	GST – 18% (Civil items)	₹ 246,902,843.05
9	GST – 18% (EM items)	₹ 297,527,139.36
	<b>Sub Total B</b>	<b>₹ 897,555,232.82</b>
	<b>Total Cost (A+B)</b>	<b>₹ 3,916,715,709.97</b>
	<b>Total Project Cost in Cr</b>	<b>₹ 391.67</b>

  
Sr. PE  
Anakapalli zone

  
Env. Engg  
Anakapalli zone


  
PE/Elec.

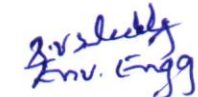
  
BZN(E)  
Anakapalli zone

  
ZM  
Anakapalli zone

ABSTRACT OF CIVIL STRUCTURES FOR 5 MLD CETP					
1	2	3	4	5	6
S.No.	Description of Item	Unit	Quantity	Unit Rate (in Rs.)	Total Amount (Rs.)
1	Earth work excavation for foundations and depositing on bank for all lifts and with an initial lead of 10m including all operational, incidental, labour charges such as shoring, sheeting, planking, strutting, etc. complete for finished item of work including seigniorage excluding dewatering charges etc as per SS-20 B (APSS 308). Ordinary soils - Mechanical Means - Upto 3m depth including all labour charges, all taxes, Hire & Operational charges of all T&P complete for Finished item of work as directed by the Engineer-	CuM.	59,274.85	₹ 123.22	₹73,03,634.54
2	Filling with useful available excavated earth (excluding rock) in trenches, sides of foundations and basement with initial lead in layers not exceeding 15cm thick, consolidating each deposited layer by watering and ramming including all operational, incidental labour	CuM.	23,317.82	₹ 330.85	₹77,14,627.43
4	Laying P.C.C (1:4:8) using 40mm machine crushed HBG metal, cement, sand for leveling course under foundations and flooring including cost and conveyance of all materials at site, seigniorage charges, machine mixing, placing, compacting, curing with all leads and	CuM.	11,381.06	₹ 5,973.14	₹6,79,80,702.80
5	Supply and placing of the Design Mix Concrete of M30 corresponding to IS 456 using WEIGH BATCHER/ MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and including Seigniorage charges, sales & other taxes on all materials including all operational, incidental and labour charges such as weigh batching, machine mixing, laying concrete, curing etc., complete but excluding cost of steel and its fabrication charges for finished item of work (APSS No. 402) with minimum cement content as per IS code from standard suppliers approved by the department including pumping, centering, shuttering, laying concrete, vibrating, curing etc. complete but excluding cost of steel and its fabrication charges for finished item of work and including all labour charges, hire charges of all T&P, all taxes etc., complete for the finished item of work as directed by the Engineer - In -	CuM.	17,771.12	₹ 9,688.37	₹17,21,73,308.72
6	Supply and placing of the Design Mix Concrete of M30 corresponding to IS 456 using WEIGH BATCHER/ MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and including Seigniorage charges, sales & other taxes on all materials including all operational, incidental and labour charges such as weigh batching, machine mixing, laying concrete, curing etc., complete but excluding cost of steel and its fabrication charges for finished item of work (APSS No. 402) with minimum cement content as per IS code from standard suppliers approved by the department including pumping, centering, shuttering, laying concrete, vibrating, curing etc. complete but excluding cost of steel and its fabrication	CuM.	19,492.30	₹ 10,286.33	₹20,05,04,283.06
7	Supply, Fitting and Placing TMT bar reinforcement (Fe500) including decoiling, bending, cracking and tying them after placing in position as directed by the Engineer-in-charge including cost and conveyance of steel and binding wire all taxes labour charges for all operations etc., complete for finished item of work as directed by the Engineer - In-	RMT	5,067.65	₹ 80,428.06	₹40,75,80,886.90


8	plates, wooden runners and steel plate form work as per the approved plan and other accessories as per the standard trade practice including material, labour cost and conveyance of all other consumable accessories, taxes etc complete for finished item of work for plain walls	SqM.	1,09,476.29	₹ 825.00	₹9,03,17,937.96
10	Plastering with CM(1:4), 12mm thick including all labour charges, hire charges of all T&P, all taxes etc complete for the finished item of work as directed by the Engineer -In-	SqM.	29,845.01	₹ 192.84	₹57,55,351.63
11	Providing Acid / Alkali Resistance Tiles as per the requirement including labour, material, conveyance of all items as per the direction of Engineer in charge .	SqM.	572.93	₹ 1,644.50	₹9,42,180.10
12	CC Flooring of 100mm thick, with M15 CM (1:2:4) / Vacuum Dewatered Flooring, m2	SqM.	31,773.17	₹ 825.00	₹2,62,12,863.01
13	Painting to new walls with 3 coats of white wash to give an even shade after thoroughly brushing the surface to remove all dirt and remains of loose powdered materials to work site and all operational, incidental, labour charges etc, complete for finished	SqM.	11,124.88	₹ 94.00	₹10,45,738.53
14	Provisions for Internal CC Roads as per the requirement	Rmt	2,795.95		₹9,10,69,373.97
15	Provision of Internal Drains along the Road	Rmt	2,795.95	₹ 2,951.00	₹75,00,000.00
16	Handrail Fabrication, erection with MS pipes and painting	LS			₹25,00,000.00
17	Provisions for Compound Wall with gate around the CETP Site as per the requirements	Rmt	1,499.11	₹ 7,150.00	₹1,07,18,636.50
18	Provision for other Structures	SqM.	18,857.00	₹ 13,200.00	₹24,89,12,400.00
	<b>Total</b>				<b>₹1,34,82,31,925.15</b>

  
Sr. Project Engineer  
Anakapalli Zone

  
Sr. Env. Engg  
Anakapalli Zone

  
Sr. PE/EE

  
Sr. M(CE)  
Anakapalli Zone

  
Sr. M  
Anakapalli Zone

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.5: Rate Analysis - Civil Components					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount (Rs)
1	Earth work excavation for foundations and depositing on bank for all lifts and with an initial lead of 10m including all operational, incidental, labour charges such as shoring, sheeting, planking, strutting, etc. complete for finished item of work including seigniorage excluding dewatering charges etc as per SS - 20 B (APSS 308). Ordinary soils - Mechanical Means - Upto 3m depth including all labour charges, all taxes, Hire & Operational charges of all T&P complete for Finished item of work as directed by the Engineer-				
	BLD - CSTN -2-2				
	Unit = 1 Cum				
	Taking output = 240 cum				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	8.32	560.00	4,659.20
	Add Area Allowance @ 20%		0%	4,659.20	-
	<b>b) Machinery</b>				
	Hydraulic Excavator 1 cum bucket capacity	hour	6.00	3,561.50	21,369.00
				Sub Total	<b>26,028.20</b>
	<b>D) Overheads &amp; Contractors Profit @ 13.62%</b>		13.62%	26,028.20	<b>3,543.74</b>
	Cost for 240CuM				29,571.94
	<b>Rate per 1 Cum</b>				<b>123.22</b>

2(a)	Plain Cement concrete (1:2:4) using 40 mm metal with Concrete mixture including all labour charges, hire charges of all T&P, all taxes etc complete for the finished item of work as directed by the Engineer-In-Charge All work upto plinth level.				
	BLD-CSTN-3-7				
	Unit=1cum				
	<b>A. MATERIALS</b>				
	Cement	kg	320	4.22	1,350.40
	Coarse aggregate 40 mm	cum	0.9	1,354.90	1,219.41
	Fine aggregate (Sand)	cum	0.45	2,564.90	1,154.21
	Water (including for curing)	kl	1.2	99.00	118.80
	<b>B. MACHINERY</b>				
	Concrete Mixer 10/ 7 cft (0.2/0.8 cum) capacity	hour	1.00	692.70	692.70
	<b>C. LABOUR</b>				
	Mason 1st class	day	0.1	670.00	67.00
	Mazdoor (Unskilled)	day	1.98	560.00	1,108.80
	Add Area Allowance @ 20%		0%	1,175.80	-
				Sub Total	<b>5,711.32</b>
	<b>D) Overheads &amp; Contractors Profit @13.615%</b>		13.615%	5,711.32	<b>777.60</b>

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.5: Rate Analysis - Civil Components					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount (Rs)
	<b>Rate per 1 Cum</b>				<b>6,488.91</b>

2(b)	Plain Cement concrete (1:4:8) using 40mm metal with concrete mixture All work upto plinth level. (BLD-CSTN-3-4)				
	<b>Unit=1cum</b>				
	<b>A.MATERIALS:</b>				
	Cement	kg	162	4.22	683.64
	Coarse aggregate 40 mm	cum	0.9	1,354.90	1,219.41
	Fine aggregate (Sand)	cum	0.45	2,564.90	1,154.21
	Water (including for curing)	kl	1.2	99.00	118.80
	<b>B.MACHINERY</b>				
	Concrete Mixer 10/7 cft (0.2/0.8 cum) capacity	hour	1	692.70	692.70
	<b>C.LABOUR:</b>				
	Mason 1st class	day	0.1	670.00	67.00
	Mazdoor (unskilled)	day	2.36	560.00	1,321.60
	Add Area Allowance @ 20%		0%	1,388.60	-
				<b>Sub Total</b>	<b>5,257.36</b>
	<b>D) Overheads &amp; Contractors Profit @ 13.62%</b>		13.615%	5,257.36	<b>715.79</b>
	<b>Rate for 1Cum</b>				<b>5,973.14</b>

3	Supply and placing of the Design Mix Concrete of M30 corresponding to IS 456 using WEIGH BATCHER /MIXER with 20mm size graded machine crushed hard granite metal (coarse aggregate) from approved quarry including cost and conveyance of all materials like cement, fine aggregate (sand) coarse aggregate, water etc., to site and including Seigniorage charges, sales & other taxes on all materials including all operational, incidental and labour charges such as weigh batching, machine mixing, laying concrete, curing etc., complete but excluding cost of steel and its fabrication charges for finished item of work (APSS No. 402) with minimum cement content as per IS code from standard suppliers approved by the department including pumping, centering, shuttering, laying concrete, vibrating, curing etc. complete but excluding cost of steel and its fabrication charges for finished item of work and including all labour charges, hire charges of all T&P, all taxes etc complete for the finished item of work as directed by the Engineer-In-Charge.				
	BLD-CSTN-3-14				
A	FOUNDATIONS, PLINTH, PEDESTALS (Below Plinth)				
	Unit: Cum				
	<b>A) Labour</b>				
	Mason 1st class	day	0.13	670.00	87.10
	Mason 2nd class	day	0.27	605.00	163.35

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.5: Rate Analysis - Civil Components					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount (Rs)
	Mazdoor unskilled (Man & Woman)	day	4.6	560.00	2,576.00
	Add Area Allowance @ 20%		0%	2,826.45	-
	<b>B) Machinery</b>				
	Concrete Mixer 10/7 cft (0.2/0.8 cum) capacity	hour	1.33	692.70	921.29
	Vibrator hire charges	hour	1.33	274.40	364.95
	Water (including for curing)	kl	1.2	99.00	118.80
	<b>C) Material</b>				
	20mm HBG graded metal	cum	0.8	1,977.40	1,581.92
	Sand	cum	0.4	2,564.90	1,025.96
	Cement	kg	400	4.22	1,688.00
				Sub Total	8,527.37
	<b>D) Overheads &amp; Contractors Profit @ 13.62%</b>		13.62%	8,527.37	1,161.00
	<b>Rate for 1Cum</b>				9,688.37

4	COLUMNS, LINTELS, WATERTANKS, RCC WALLS IN BUILDINGS				
	Unit: Cum				
	<b>A) Labour</b>				
	Mason 1st class	day	0.17	670.00	113.90
	Mason 2nd class	day	0.17	605.00	102.85
	Mazdoor unskilled (Man & Woman)	day	5.6	560.00	3,136.00
	Add Area Allowance @ 20%		0%	3,352.75	-
	<b>B) Machinery</b>				
	Concrete Mixer 10/7 cft (0.2/0.8 cum) capacity	hour	1.33	692.70	921.29
	Vibrator hire charges	hour	1.33	274.40	364.95
	Water (including for curing)	kl	1.2	99.00	118.80
	<b>C) Material</b>				
	20mm HBG graded metal	cum	0.8	1,977.40	1,581.92
	Sand	cum	0.4	2,564.90	1,025.96
	Cement	kg	400	4.22	1,688.00
				Sub Total	9,053.67
	<b>D) Overheads &amp; Contractors Profit @ 13.62%</b>		13.62%	9,053.67	1,232.66
	<b>Rate for 1Cum</b>				10,286.33

5	Supply, Fitting and Placing TMT bar reinforcement (Fe 500) including decoiling, bending, cracking and tying them after placing in position as directed by the Engineer-in-charge including cost and conveyance of steel and binding wire all taxes labour charges for all operations etc., complete for finished item of work as directed by the Engineer-In-Charge and as per Technical Specification 1100 & 1600 MORTH				
	Unit: 1 MT				

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.5: Rate Analysis - Civil Components					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount (Rs)
	<b>a) Labour</b>				
	Bar bender	Nos	3.00	800.00	2,400.00
	Heavy Mazdoor	Nos	7.00	560.00	3,920.00
	Add Area Allowance @ 20%		0%	6,320.00	-
	<b>b) Machinery</b>				
	Binding wire	Kg	6.00	70.00	420.00
	TMT/HYSD Bars Fe 500	MT	1.05	61,000.00	64,050.00
				Sub Total	70,790.00
	<b>D) Overheads &amp; Contractors Profit @ 13.62%</b>		13.615%	70,790.00	9,638.06
	<b>Rate for 1Cum</b>				80,428.06

6	Plastering with CM (1:4), 12 mm thick including all labour charges, hire charges of all T&P, all taxes etc complete for the finished item of work as directed by the Engineer-In-Charge.				
	<b>For Grading I Material</b>				
	<b>BLD-CSTN-8-2</b>				
	Unit=10sqm				
	<b>a) Labour</b>				
	Mason 1st class	day	0.6	670.00	402.00
	Mazdoor (Unskilled)	day	0.96	560.00	537.60
	Add Area Allowance @ 20%		0%	939.60	-
	<b>b) Machinery</b>				
	Nil	Hrs	0	-	-
	<b>c) Material</b>				
	Cement Mortar (1:4)	Cum	0.15	5,051.49	757.72
				Sub Total	1,697.32
	<b>D) Overheads &amp; Contractors Profit @ 13.62%</b>		13.615%	1,697.32	231.09
	Rate per 10 SqM				1,928.41
	<b>Rate per 1 SQM</b>				192.84

7	<b>Cement Mortar (1:4)</b>				
	<b>BLD-CSTN-1-5</b>				
	Unit:Cum				
	<b>A) Labour</b>				
	Mazdoor	day	0.20	560.00	112.00
	Add Area Allowance @ 20%		0%	112.00	-
	<b>(B) Machinery</b>				
	Nil	Hrs	0	-	-
	<b>(c) Material</b>				
	Cement	kg	360	4.22	1,519.20
	Sand (including 5% wastage)	Cum	1.05	2,680.90	2,814.95

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.5: Rate Analysis - Civil Components					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount (Rs)
				Sub Total	4,446.15
	D)Overheads & Contractors Profit @ 13.62%		13.615%	4,446.15	605.34
	<b>Rate for 1 CuM</b>				<b>5,051.49</b>

8	Filling with useful available excavated earth (excluding rock) in trenches, sides of foundations and basement with initial lead in layers not exceeding 15 cm thick, consolidating each deposited layer by watering and ramming including cost and conveyance of water to work site and all operational, incidental, labour charges, all taxes, hire and Operational charges of all T & P etc., complete for finished item of work and as directed by Engineer-In-Charge BLD-CSTN-2-8(17)				
	<b>Considering 6Cum output</b>				
	<b>a) Labour</b>				
	Mazdoor (Unskilled)	day	3.12	560.00	1,747.20
	Add Area Allowance @ 20%		0%	1,747.20	-
	D)Overheads & Contractors Profit @ 13.615%		13.615%	1,747.20	237.88
	<b>Total for 6Cum</b>				<b>1,985.08</b>
	<b>Rate for 1Cum</b>				<b>330.85</b>

9	Supplying, fabricating, erection and fixing in position all heavy steel works like trusses, stanchions, heavy beams including cost of welding rods, power charges, erecting in positions to the line & grade and fixing by using chain pulley blocks derek pole arrangements and cranes, etc complete including all incidental, hire & operational charges of tools & plants, cranes complete at all heights for finished item of work.				
	<b>A. Materials</b>				
	STRUCTURAL STEEL	MT	1.05	60,000.00	63,000.00
	Labour fabrication MAT-00702	Kg	1000	37.00	37,000.00
	labour fixing	Kg	1000	19.00	19,000.00
	Rate per 1MT				
				Sub Total	1,19,000.00
	D)Overheads & Contractors Profit @ 13.62%		13.62%	1,19,000.00	16,201.85
	<b>Rate for 1RM</b>				<b>1,35,201.85</b>

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.5: Rate Analysis - Civil Components					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount (Rs)
10	Roofing will be provided with 0.5mm thick galvanized /pre painted G.I. profiled sheets fixed to the purlins with 14 size self drilling screws with neoprene washer. Side laps are stitched with self tapping/ drillings crews. End laps are to be sealed with 25x3 mm Butyl tape. The sheets are provided with anti capillary groove. Cost including cost of the sheets, bolts nuts screws washers etc., and labour for fixing, scaffolding, all incidentals, cost and operational charges of T&P, all taxes complete for finished item of work.				
	As per SSR 2023-24 BMS-W.45	Sqm	1	836.00	836.00
	D)Overheads & Contractors Profit @ 13.62%		13.62%	836.00	113.82
	Rate for 1Cum				949.82

*J. Thyagaraj*  
 Sr. Project Engineer  
 Anakapalli Zone

*B.V.S. Suddipati*  
 Env. Engg  
 Anakapalli Zone

*P.H. Prasad*  
 DGM (E)  
 Anakapalli Zone

*[Signature]*  
 EM  
 Anakapalli Zone

## Annexure 1.6: Rate Analysis for Internal Roads

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.6: Rate Analysis - CETP Internal Roads					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount in (Rs)
1	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, sapling and trees girth upto 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm thickness by mechanical means in area of light jungle.				
	<b>Unit: 1.00 SqM</b>				
	<b>Taking Output=1 Hectare</b>				
	<b>Labour</b>				
	Mate	Day	0.16	607.00	97.12
	Mazdoor	Day	4.00	560.00	2,240.00
	<b>Machinery</b>				
	Dozer 80 HP with attachment for removal of trees &	Hr	10.00	3,050.60	30,506.00
	Tractor-Trolley(HIR-00077)	Hr	1.00	531.00	531.00
				Sub Total	<b>33,374.12</b>
	Overheads & Contractors Profit @ 13.62%		13.615%	33,374.12	<b>4,543.89</b>
	<b>Rate per 1000 SqM</b>				37,918.01
	<b>Rate per 1 SqM</b>				3.79
2	Excavation for roadwork in soil with hydraulic excavator including cutting, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, with all lifts and lead and depositing the excavated soil on the banks including all labour charges, hire charges of all T&P, all taxes etc complete for the finished item of work as directed by the Engineer-In-Charge as per Technical Specification Clause 302.3 MORD/301				
	Unit = 1 cum				
	Taking out put = 180 cum				
	<b>a) Labour</b>				
	Mate	day	0.08	607.00	48.56
	Mazdoor (Unskilled)	day	2.00	560.00	1,120.00
	Add Area Allowance @ 20%		0%	1,168.56	-
	<b>b) Machinery</b>				
	Dozer 80 HP	Hrs	6.00	3,050.60	18,303.60
				Sub Total	<b>19,472.16</b>
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		13.62%	19,472.16	<b>2,651.13</b>
	Cost for 180 cum ( a+b+c+d)				22,123.29
	Rate per 1 cum				122.91

## Annexure 1.6: Rate Analysis for Internal Roads

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.6: Rate Analysis - CETP Internal Roads					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount in (Rs)
3	Formation of Road Embankment with useful earth obtained from local sources spreading in layers along the road alignment at low laying area not more than 150 mm thick sectioning to required camber and gradient watering and compacting each layer top roctorsdesity with OMC compaction using 8 to 10 T capacity of vibray roller including cost of conveyance of all materials, water etc. to site hire and operational charges of smooth wheeled roller and other T & P all taxes etc complete dully maintenance required camber and gradient in the formation as directed by the engineer-in-charge				
	Considering 100 Cum out put				
	a) Labour				
	Mate	day	0.04	607.00	24.28
	Mazdoor (skilled)	day	1.00	560.00	560.00
	Add Area Allowance @ 20%		0%	584.28	-
	<b>Machinery</b>				
	Hydraulic excavator 1 cum	hr	1.67	3,561.50	5,947.71
	Dozer 50 HP	hr	0.50	1,907.00	953.50
	Mortargrader	hr	1.00	3,796.00	3,796.00
	Vibratory Roller 8-10 T	hr	1.00	3,499.60	3,499.60
	Water tanker 6 KL capacity	hr	4.00	822.00	3,288.00
	<b>Material</b>				
	Earth Cost	cum	100.00	239.40	23,940.00
	Water	kl	12.00	99.00	1,188.00
				Sub Total	<b>43,197.09</b>
	<b>Overheads &amp; Contractors Profit</b>		13.615%	43,197.09	<b>5,881.28</b>
	Rate per 100 Cum				49,078.37
	Rate per Cum				490.78

4	Compaction of original ground with maximum of six passes of vibratory power road roller including filling in depression occurring during rolling as per MOST specification No.305(3.4) and as directed by the Engineer -in-Charge				
	<b>Unit: 1 sqm</b>				
	OUT PUT: 600 sqm				
	<b>Labour</b>				
	Mazdoor	day	2.08	560.00	1,164.80
	Add Area Allowance @ 20%		0%	1,164.80	-
	<b>Machinery</b>				
	Tractor with Ripper	hour	9.00	543.00	4,887.00
	vibratory roller	hour	7.50	3,499.60	26,247.00
	Mortargrader	hour	6.00	3,796.00	22,776.00
	Water tanker 6KL capacity	hour	4.00	822.00	3,288.00
	<b>Material</b>				

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.6: Rate Analysis - CETP Internal Roads					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount in (Rs)
	Water	kl	24.00	99.00	2,376.00
				Sub Total	60,738.80
	Add overheads @ 13.615%		13.615%	60,738.80	8,269.59
	Rate per 600 Sqm				69,008.39
	Rate per 1 Cum				115.01
	Rate per 1 Sqm				17.27

5	Laying Plain Cement concrete (1:4:8) using minimum cement content of 162 kgs per cum, 40mm size HBG machine crushed stone aggregate confirming to table 1000-1 and fine aggregate conforming to table 1000-2 of MORT & H specification including cost, seigniorage conveyance of all materials (viz) cement, stone aggregate, sand, water etc., to site, labour charges for all operations, machine mixing, laying, finishing smooth to required level, curing, all taxes, all other incidental and operational charges etc, complete for finished item of work as per MORT & H specification 2100 (4th revision) and as directed by the Engineer-in-charge for open foundations.				
	Labour				
	Mason -Cl-I	day	0.10	670.00	67.00
	Mazdoor (Unskilled)	day	1.39	560.00	778.40
	Add Area Allowance @ 20%		0%	845.40	-
	<b>Machinery</b>				
	Concrete mixer 0.4/ 0.28 cum capacity	Hour	0.40	692.70	277.08
	<b>Material</b>				
	Cement	Ton	0.162	4,220.00	683.64
	Coarse aggregate (40mm Metal)	Cum	0.900	1,354.90	1,219.41
	Coarse sand	Cum	0.450	2,564.90	1,154.21
	Rate for 1Cum (I+II+III)			Sub Total	<b>4,179.74</b>
	Overhead charges & Contractors profit @ 13.615%		13.62%	4,179.74	<b>358.81</b>
	<b>Rate per 1Cum</b>				<b>4,538.55</b>

6	Construction of Cement Concrete Kerb with top and bottom width of 115 and 165mm respectively, 250mm high in M20 Grade PCC on M10 grade foundation 150mm Thick, foundation having 50mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete as per clause 408 Morth.				
	Unit = Running Metre				
	Taking Output = 360 Metre				
	Using Concrete Mixer				
	Cement Concrete				

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.6: Rate Analysis - CETP Internal Roads					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount in (Rs)
	Cement Concrete of grade M20 = 12.60 Cum				
	Cement Concrete of grade M10 for base = 11.61 Cum				
	Total Concrete = 24.21 Cum				
	<b>A) Labour</b>				
	Mason	Day	2.00	670.00	1,340.00
	Mazdoor	Day	16.72	560.00	9,363.20
	<b>B) Machinery</b>				
	Kerb Casting Machine @ 60 meters/Hour	Hour	6.00	611.00	3,666.00
	Concrete Mixer 0.48/0.28 Cum Capacity	Hour	12.00	692.70	8,312.40
	<b>C) Material</b>				
	Crushed stone aggregate 20mm nominal size 59%	Cum	21.79	1,977.40	43,087.55
	Coarse Sand 30 Percent	Cum	10.90	2,564.90	27,957.41
	Cement	Mt	5.70	4,220.00	24,054.00
				Sub Total	<b>1,17,780.56</b>
	Add OH & CP		13.615%	1,17,780.56	<b>16,035.82</b>
	Rate for 360 Meters				1,33,816.38
	Rate per 1 Meter				<b>371.71</b>

7	Construction of Granular surface coarse 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 compacting with Three wheel 80-100 KN Static roller /Vibratory roller capacity to achieve desired density complete for Finished Item of work including Hire and operational charges of all t&P, Labour charges, all taxes all seignoragaes charges complete for finished item of work as directed by the Engineer incharge.				
	Unit Cum				
	Output 300 Cum				
	<b>Labour</b>				
	Mate	Day	0.40	607.00	242.80
	Mazdoor Skilled	Day	2.00	605.00	1,210.00
	Mazdoor UnSkilled	Day	8.00	560.00	4,480.00
	Add Area Allowance @ 20%		0%	5,932.80	-
	<b>Machinery</b>				
	Motor grader 110HP @ 50cum per hour	Hr	6.00	3,796.00	22,776.00
	Vibratory Roller	Hr	6.00	3,499.60	20,997.60
	Water Tanker	Hr	3.00	822.00	2,466.00
	Tractor with Rotavator	Hr	12.00	543.00	6,516.00
	<b>Material</b>				
	Gravel	Cum	384.00	373.60	1,43,462.40
					<b>2,02,150.80</b>
	Add OH & CP		13.615%	2,02,150.80	<b>27,522.83</b>

ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED					
Development of Major Infrastructure and Utilities in APSEZ, Atchuthapuram					
Common Effluent Treatment Plant					
Annexure 1.6: Rate Analysis - CETP Internal Roads					
S.No	Description of Item	Unit	Quantity	Unit Rate (Rs)	Total Amount in (Rs)
	Total for 300 Cum				2,29,673.63
	Total for 1 Cum				765.58
8	Construction of granular sub-base by providing HBG material (66% of 9.50mm to 4.75mm HBG (IRC) Machine crushed metal and 34% of 2.36mm and below HBG(IRC) Machine crushed metal with CBR not less than 20 including spreading in uniform layers with motor grader or by approved means, on prepared surface mixing by mix in place method with rotavator approved means at OMC and compacting with vibratory roller to achieve the desired density etc., complete for finished item of work as directed by the Engineer-In-Charge : including the cost and conveyance of all materials ie stone dust, stone aggregates of specified sizes water etc to site labour charges for all operational hire etc and operational charges of power roller and other T & P all taxes etc complete. As per RBR - SBBS-I(iii) Chap-4 pg No: 158)				
	<b>RBR- SBBS-1Aiii</b>				
	Unit=cum				
	Taking output = 300 cum				
	<b>a) Labour</b>				
	Mate	Nos.	0.40	607.00	242.80
	Mazdoor (Skilled)	Nos.	2.00	605.00	1,210.00
	Mazdoor (Unskilled)	Nos.	8.00	560.00	4,480.00
	Add Area Allowance @ 20%		0%	5,932.80	-
	<b>b) Machinery</b>				
	Motor grader 110HP @ 50 cum per hour	hours	6.00	3,796.00	22,776.00
	Vibratory Roller 80-100 kN	hours	6.00	3,499.60	20,997.60
	Tractor with Rotavator 25 cum per hour	hours	12.00	543.00	6,516.00
	Water Tanker	hours	3.00	822.00	2,466.00
	<b>c) Material</b>				
	For well graded granular sub-base materials as per Table 400.1				
	<b>For Grading C Material</b>				
	26.5 mm to 4.75mm @ 80% (Av. rate of 25 - 27 mm, 19 - 22 mm, 12 to 14 mm, 9.5-11.2mm , 5-7mm & 2.36 - 5mm HBG M/C metal)		307.20	1,472.82	4,52,449.28
	2.36mm and below @20% (Rate of 2.36mm & below HBG metal)		76.80	944.90	72,568.32
					<b>5,83,706.00</b>
	Overheads & Contractors Profit		13.62%	5,83,706.00	<b>79,471.57</b>
	Cost for 300 cum = a+b+c+d+e (3 Wheel Roller)				
	<b>Rate per cum = (a+b+c+d+e) /300</b>				
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)				6,63,177.57
	<b>Rate per 1 cum</b>				<b>2,210.59</b>