












SUB HEAD : 20.0
PILE WORK

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










PILE WORK

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
20.1	Providing, driving and installing driven cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap).				
20.1.1	400 mm dia piles. Details of cost for 20 metre length of pile. MATERIAL:				
	Concrete - $3.14/4 \times 0.40^2 \times 20 = 2.51$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH: Reinforced cement concrete work	cum	2.51	5013.23	12583.21 A
9999	Sundries	L.S.	521.08	2.12	1104.69
7181	C.I. pile shoe @ 80 kg per pile	kilogram	80	48.00	3840.00
7182	M.S. clamps for pile shoe @ 35 kg per pile	kilogram	35	43.00	1505.00
	MACHINERY:				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.36	35000.00	12600.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				
0L71	Mistry	day	0.08	388.00	31.04
0114	Beldar	day	2	306.00	612.00
	TOTAL				32485.94 W
	Add Water Charges @ 1% except on A i.e on W-A				199.03
	TOTAL				32684.96 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2824.30
	TOTAL				35509.26 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				3438.91
	Cost of 20 metre				38948.17
	Cost of 1 metre				1947.41
	labour cess @1%				19.47
	Say				1966.90
20.1.2	450 mm dia piles. Details of cost for 20 m length of pile. MATERIAL:				
	Concrete - $3.14/4 \times 0.45^2 \times 20 = 3.18$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH: Reinforced cement concrete work	cum	3.18	5013.23	15942.07 A
9999	Sundries	L.S.	392.7	2.12	832.52
7181	C.I. pile shoe @ 80 kg per pile	kilogram	80	48.00	3840.00
7182	M.S. clamps for pile shoe @ 35 kg per pile	kilogram	35	43.00	1505.00
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.48	35000.00	16800.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				






Code	Description	Unit	Quantity	Rate ₹	Amount ₹
0L71	Work supervisor				
114	Mistry	day	0.08	388.00	31.04
	Beldar	day	2	306.00	612.00
	TOTAL				39772.63
	Add Water Charges @ 1% except on A i.e on				238.31
	TOTAL				40010.94 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				3381.68
	TOTAL				43392.62 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				4117.58
	Cost of 20 metre				47510.20
	Cost of 1 metre				2375.51
	labour cess @1%				23.76
	Say				2399.30
20.1.3	500 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x0.50 ² x20 = 3.925 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	3.925	5013.23	19676.93 A
	Reinforced cement concrete work				
9999	Sundries	L.S.	530	2.12	1123.60
7181	C.I. pile shoe	kilogram	80	48	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35	43	1505.00
	@ 35 kg per pile				
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.6	35000.00	21000.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				
0L71	Work supervisor				
114	Mistry	day	0.08	388.00	31.04
	Beldar	day	2	306.00	612.00
	TOTAL				47998.57
	Add Water Charges @ 1% except on A i.e on				283.22
	TOTAL				48281.78 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4018.98
	TOTAL				52300.76 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				4893.58
	Cost of 20 metre				57194.34
	Cost of 1 metre				2859.72
	labour cess @1%				28.60
	Say				2888.30
20.1.4	550 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x0.55 ² x20 = 4.75 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	4.75	5013.23	23812.84 A
	Reinforced cement concrete work				
9999	Sundries	L.S.	371.88	2.12	788.39
7181	C.I. pile shoe	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.60	35000.00	21000.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.08	388.00	31.04
114	Beldar	day	2.00	306.00	612.00
	TOTAL				51799.27
	Add Water Charges @ 1% except on A i.e on				279.86
	TOTAL				52079.13 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				3971.41
	TOTAL				56050.54 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				4835.66
	Cost of 20 metre				60886.20
	Cost of 1 metre				3044.31
	labour cess @1%				30.44
	Say				3074.80
20.1.5	750 mm dia piles.				
	Details of cost for 15m length of pile.				
	MATERIAL:				
	Concrete $3.14/4 \times 0.75^2 \times 20 = 6.62$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	6.62	5013.23	33187.58 A
	Reinforced cement concrete work				
9999	Sundries	L.S.	573.57	2.12	1215.97
7181	C.I. pile shoe	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.70	35000.00	24500.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.14	388.00	54.32
114	Beldar	day	3.50	306.00	1071.00
	TOTAL				65583.87
	Add Water Charges @ 1% except on A i.e on				323.96
	TOTAL				65907.83 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4597.20
	TOTAL				70505.02 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5597.62
	Cost of 15 metre				76102.64
	Cost of 1 metre				5073.51
	labour cess @1%				50.74
	Say				5124.20
20.1.6	1000 mm dia piles.				
	Details of cost for 10m length of pile.				
	MATERIAL:				
	Concrete $3.14/4 \times 1.00^2 \times 10 = 7.85$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	7.85	5013.23	39353.85 A
	Reinforced cement concrete work				
9999	Sundries	L.S.	897.89	2.12	1903.53
7181	C.I. pile shoe	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY:				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.68	35000.00	23800.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.16	388.00	62.08
114	Beldar	day	4.00	306.00	1224.00
	TOTAL				71898.46
	Add Water Charges @ 1% except on A i.e on				325.45
	TOTAL				72223.90 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4618.24
	TOTAL				76842.15 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5623.24
	Cost of 10 metre				82465.39
	Cost of 1 metre				8246.54
	labour cess @1%				82.47
	Say				8329.00
20.1.7	1200 mm dia piles.				
	Details of cost for 9 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x1.2 ² x9 =10.17cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	10.17	5013.23	50984.54 A
	Reinforced cement concrete work				
9999	Sundries	L.S.	733.37	2.12	1554.74
7181	C.I. pile shoe	kilogram	80	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.67	35000.00	23450.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.18	388.00	69.84
0114	Beldar	day	4.5	306.00	1377.00
	TOTAL				82991.13
	Add Water Charges @ 1% except on A i.e on				320.07
	TOTAL				83311.19 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4541.89
	TOTAL				87853.09 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5530.28
	Cost of 9 metre				93383.37
	Cost of 1 metre				10375.93
	labour cess @1%				103.76
	Say				10479.70
20.1.8	1500 mm dia piles.				
	Details of cost for 9 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x1.5 ² x9 =15.90 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	15.90	5013.23	79710.35 A
	Reinforced cement concrete work				
9999	Sundries	L.S.	1113.48	2.12	2360.58
7181	C.I. pile shoe	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7182	M.S. clamps for pile shoe @ 35 kg per pile	kilogram	35.00	43.00	1505.00
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.77	35000.00	26950.00
25	Hire and running charges of light crane	day	0.10	3500.00	350.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.20	388.00	77.60
0114	Beldar	day	5.00	306.00	1530.00
	TOTAL				116323.52
	Add Water Charges @ 1% except on A i.e on				366.13
	TOTAL				116689.66 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				5195.59
	TOTAL				121885.25 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				6326.24
	Cost of 9 metre				128211.48
	Cost of 1 metre				14245.72
	labour cess @1%				142.46
	Say				14388.20
20.2	Boring, providing and installing bored cast-in-situ reinforced of grade M-25 of specified diameter and length below the pile cap, to carry a safe cement concrete piles working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc.(By percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).				
20.2.1	300 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $3.14 \times 0.30^2 \times 20 = 1.41$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	1.41	5013.23	7068.65 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.16	2800.00	448.00
9999	Sundries	L.S.	289.85	2.12	614.48
	MACHINERY:				
0015	Hire and running charges of tripod and mechanical Winch machine complete with power unit and accessories	day	0.72	3000.00	2160.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.12	388.00	46.56
114	Beldar	day	2.00	306.00	612.00
	TOTAL				15224.70
	Add Water Charges @ 1% except on A i.e on				81.56
	TOTAL				15306.26 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				1157.38
	TOTAL				16463.64 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				1409.25
	Cost of 20 metre				17872.89

662

BCD/SOR_11th Edition_2022

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Cost of 1 metre				893.64
	labour cess @1%				8.94
	Say				902.60
20.2.2	400 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $3.14/4 \times 0.40^2 \times 20 = 2.51$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	2.51	5013.23	12583.21 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.23	2800.00	630.00
9999	Sundries	L.S.	79.06	2.12	167.61
	MACHINERY:				
0015	Hire and running charges of tripod and mechanical				
	Winch machine complete with power unit and				
	accessories	day	0.72	3000.00	2160.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.12	388.00	46.56
114	Beldar	day	2.00	306.00	612.00
	TOTAL				20474.37
	Add Water Charges @ 1% except on A i.e on				78.91
	TOTAL				20553.28 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				1119.80
	TOTAL				21673.08 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				1363.48
	Cost of 20 metre				23036.56
	Cost of 1 metre				1151.83
	labour cess @1%				11.52
	Say				1163.30
20.2.3	450 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $3.14/4 \times 0.45^2 \times 20 = 3.18$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	3.18	5013.23	15942.07 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.25	2800.00	700.00
9999	Sundries	L.S.	230.69	2.12	489.06
	MACHINERY:				
0015	Hire and running charges of tripod and mechanical				
	Winch machine complete with power unit and				
	accessories	day	0.94	3000.00	2820.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.12	388.00	46.56
0114	Beldar	day	2.50	306.00	765.00
	TOTAL				25037.69
	Add Water Charges @ 1% except on A i.e on				90.96
	TOTAL				25128.65 (X)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				1290.71
	TOTAL				26419.36 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				1571.59
	Cost of 20 metre				27990.96
	Cost of 1 metre				1399.55
	labour cess @1%				14.00
	Say				1413.50
20.2.4	500 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $3.14 \times 0.50^2 = 3.925$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	3.93	5013.23	19676.93 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.28	2800.00	784.00
9999	Sundries	L.S.	87.95	2.12	186.45
	MACHINERY:				
0015	Hire and running charges of tripod and mechanical				
	Winch machine complete with power unit and				
	accessories	day	1.20	3000.00	3600.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.12	388.00	46.56
114	Beldar	day	2.50	306.00	765.00
	TOTAL				29333.94
	Add Water Charges @ 1% except on A i.e on				96.57
	TOTAL				29430.51 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				1370.38
	TOTAL				30800.89 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				1668.59
	Cost of 20 metre				32469.48
	Cost of 1 metre				1623.47
	labour cess @1%				16.23
	Say				1639.70
20.2.5	600 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $3.14 \times 0.60^2 \times 20 = 5.65$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	5.65	5013.23	28324.75 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.33	2800.00	924.00
9999	Sundries	L.S.	317.43	2.12	672.95
	MACHINERY:				
0015	Hire and running charges of tripod and mechanical				
	Winch machine complete with power unit and				
	accessories	day	1.50	3000.00	4500.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.12	388.00	46.56
0114	Beldar	day	3.00	306.00	918.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				39661.26
	Add Water Charges @ 1% except on A i.e on				113.37
	TOTAL				39774.62 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				1608.71
	TOTAL				41383.33 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				1958.79
	Cost of 20 metre				43342.12
	Cost of 1 metre				2167.11
	labour cess @1%				21.67
	Say				2188.80
20.2.6	750 mm dia piles.				
	Details of cost for 15 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x0.75 ² x15 = 6.62 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	6.62	5013.23	33187.58 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.30	2800.00	840.00
9999	Sundries	L.S.	131.58	2.12	278.95
	<u>MACHINERY:</u>				
0015	Hire and running charges of tripod and mechanical				
	Winch machine complete with power unit and				
	accessories	day	1.40	3000.00	4200.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.75	3000.00	2250.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
	<u>LABOUR:</u>				
	Work supervisor				
0L71	Mistry	day	0.14	388.00	54.32
0114	Beldar	day	3.50	306.00	1071.00
	TOTAL				45016.85
	Add Water Charges @ 1% except on A i.e on				118.29
	TOTAL				45135.14 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				1678.63
	TOTAL				46813.77 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				2043.93
	Cost of 15 metre				48857.70
	Cost of 1 metre				3257.18
	labour cess @1%				32.57
	Say				3289.80
20.2A	Boring, providing and installing bored cast-in-situ reinforced of grade M-25 of specified diameter and length below the pile cap, to carry a safe cement concrete piles working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc.(By Crawler mounted, telescopic boom hydraulic pilling Rig all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).				
20.2A.1	600 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x0.60 ² x20= 5.65 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	5.65	5013.23	28324.75 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.33	2800.00	924.00
9999	Sundries	L.S.	317.43	2.12	672.95

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
MACHINERY:					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.75	35000.00	26250.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.38	3000.00	1140.00
0018	Hire and running charges of loader	day	0.30	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.30	3750.00	1125.00
LABOUR:					
	Work supervisor				
0L71	Mistry	day	0.12	388.00	46.56
0114	Beldar	day	3.00	306.00	918.00
	TOTAL				61411.26
	Add Water Charges @ 1% except on A i.e on				330.87
	TOTAL				61742.12 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4695.14
	TOTAL				66437.26 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5716.88
	Cost of 20 metre				72154.14
	Cost of 1 metre				3607.71
	labour cess @1%				36.08
	Say				3643.80
20.2A.2	750 mm dia piles.				
	Details of cost for 15 m length of pile.				
	MATERIAL:				
	Concrete $3.14 \times 0.75^2 \times 15 = 6.62$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	6.62	5013.23	33187.58 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.3	2800	840.00
9999	Sundries	L.S.	131.58	2.12	278.95
MACHINERY:					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.7	35000.00	24500.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.75	3000.00	2250.00
0018	Hire and running charges of loader	day	0.3	6000.00	1800.00
0017	Hire and running charges of tipper	day	0.3	3750.00	1125.00
LABOUR:					
	Work supervisor				
0L71	Mistry	day	0.14	388.00	54.32
0114	Beldar	day	3.50	306.00	1071.00
	TOTAL				65316.85
	Add Water Charges @ 1% except on A i.e on				321.29
	TOTAL				65638.14 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4559.30
	TOTAL				70197.44 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5551.48
	Cost of 15 metre				75748.92
	Cost of 1 metre				5049.93
	labour cess @1%				50.50
	Say				5100.40
20.2A.3	1000 mm dia piles.				
	Details of cost for 10 m length of pile.				
	MATERIAL:				
	Concrete $3.14 \times 1.00^2 \times 10 = 7.85$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	7.85	5013.23	39353.85 A
	Reinforced cement concrete work				









666

















BCD/SOR_11th Edition_2022

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7183	Bentonite	tonne	0.35	2800.00	980.00
9999	Sundries	L.S.	175.89	2.12	372.89
	MACHINERY:				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.69	35000.00	24150.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.75	3000.00	2250.00
0018	Hire and running charges of loader	day	0.4	6000.00	2400.00
0017	Hire and running charges of tipper	day	0.4	3750.00	1500.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.16	388	62.08
114	Beldar	day	4	306	1224.00
	TOTAL				72502.82
	Add Water Charges @ 1% except on A i.e on				331.489668
	TOTAL				72834.31 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4704.00
	TOTAL				77538.31 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5727.67
	Cost of 10 metre				83265.98
	Cost of 1 metre				8326.60
	labour cess @1%				83.27
	Say				8409.90
20.2A.4	1200 mm dia piles.				
	Details of cost for 9 m length of pile.				
	MATERIAL:				
	Concrete 3.14/4x1.20 ² x9 =10.17 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	10.17	5013.23	50984.54 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.385	2800.00	1078.00
9999	Sundries	L.S.	290.79	2.12	616.47
	MACHINERY:				
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.67	35000.00	23450.00
0025	Hire and running charges of light crane	day	0.06	3500.00	210.00
0026	Hire and running charges of bentonite pump	day	0.75	3000.00	2250.00
0018	Hire and running charges of loader	day	0.5	6000.00	3000.00
0017	Hire and running charges of tipper	day	0.5	3750.00	1875.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.18	388	69.84
114	Beldar	day	4.5	306	1377.00
	TOTAL				84910.86
	Add Water Charges @ 1% except on A i.e on				339.263148
	TOTAL				85250.12 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				4814.31
	TOTAL				90064.43 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				5861.98
	Cost of 9 metre				95926.42
	Cost of 1 metre				10658.4909
	labour cess @1%				106.58
	Say				10765.10
20.2A.5	1500 mm dia piles.				
	Details of cost for 9 m length of pile.				
	MATERIAL:				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹	
5.33.1	Concrete $3.14/4 \times 1.50^2 \times 9 = 15.90$ cum					
	Rate as per Item Number 5.33.1 of SH:	cum	15.90	5013.23	79710.35	A
	Reinforced cement concrete work					
7183	Bentonite	tonne	0.45	2800.00	1260.00	
9999	Sundries	L.S.	593.48	2.12	1258.18	
	MACHINERY:					
0024	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.77	35000.00	26950.00	
0025	Hire and running charges of light crane	day	0.10	3500.00	350.00	
0026	Hire and running charges of bentonite pump	day	0.96	3000.00	2880.00	
0018	Hire and running charges of loader	day	0.75	6000.00	4500.00	
0017	Hire and running charges of tipper	day	0.75	3750.00	2812.50	
	LABOUR:					
	Work supervisor					
0L71	Mistry	day	0.25	388.00	97.00	
114	Beldar	day	5.00	306.00	1530.00	
	TOTAL				121348.02	
	Add Water Charges @ 1% except on A i.e on				416.38	
	TOTAL				121764.40	(X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				5908.59	
	TOTAL				127673.00	(Y)
	Add CPOH @ 15% on "Y" except on A i.e on				7194.40	
	Cost of 9 metre				134867.39	
	Cost of 1 metre				14985.27	
	labour cess @ 1%				149.85	
	Say				15135.10	
20.3	Boring,with hydraulic piling rigs with power units, Providing and installing cast in situ single under reamed piles of specified diameter and length below pile cap in M-25 cement concrete, to carry a safe working load not less than specified,excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and the length of the pile to be embedded in pile cap etc. all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :					
20.3.1	300 mm dia piles.					
	Details of cost for 10 metres.					
	MATERIAL:					
	R.C.C					
	Stem $-3.14/4 \times (0.30)^2 \times 9.625 = 0.680$ cum					
	Bulb $-3.14/4 \times (0.75)^2 \times 0.075 = 0.033$ cum					
	$2 \times 3.14/4 \times (0.525)^2 \times 0.150 = 0.065$ cum					
	$= 0.778$ cum					
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	0.78	5013.23	3900.29	A
	Reinforced cement concrete work					
7183	Bentonite	tonne	0.08	2800.00	224.00	
9999	Sundries	L.S.	410.90	2.12	871.11	
	MACHINERY:					
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.36	35000.00	12600.00	
25	Hire and running charges of light crane	day	0.03	3500.00	105.00	
26	Hire and running charges of bentonite pump	day	0.02	3000.00	60.00	
	LABOUR:					
	Work supervisor					
0L71	Mistry	day	0.08	388.00	31.04	
114	Beldar	day	2.00	306.00	612.00	
	TOTAL				18403.44	

668

BCD/SOR_11th Edition_2022

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add Water Charges @ 1% except on A i.e on				145.03
	TOTAL				18548.47 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2058.07
	TOTAL				20606.54 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				2505.94
	Cost of 10 metre				23112.48
	Cost of 1 metre				2311.25
	labour cess @1%				23.11
	Say				2334.40
20.3.2	400 mm dia piles.				
	Details of cost for 10 metres.				
	MATERIAL:				
	R.C.C				
	Stem $-3.14/4 \times (0.40)^2 \times 9.30 = 1.169$ cum				
	Bulb $-3.14/4 \times (1.00)^2 \times 0.1 = 0.079$ cum				
	$2 \times 3.14/4 \times (0.7)^2 \times 0.30 = 0.23$ cum				
	$= 1.478$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	1.48	5013.23	7409.55 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.15	2800.00	420.00
9999	Sundries	L.S.	276.82	2.12	586.86
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.36	35000.00	12600.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
26	Hire and running charges of bentonite pump	day	0.02	3000.00	60.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.08	388.00	31.04
114	Beldar	day	2.00	306.00	612.00
	TOTAL				21929.45
	Add Water Charges @ 1% except on A i.e on				145.20
	TOTAL				22074.65 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2060.45
	TOTAL				24135.10 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				2508.83
	Cost of 10 metre				26643.93
	Cost of 1 metre				2664.39
	labour cess @1%				26.64
	Say				2691.00
20.3.3	450 mm dia piles.				
	Details of cost for 10 metres.				
	MATERIAL:				
	R.C.C				
	Stem $-3.14/4 \times (0.45)^2 \times 9.212 = 1.465$ cum				
	Bulb $-3.14/4 \times (1.125)^2 \times 0.113 = 0.112$ cum				
	$2 \times 3.14/4 \times (0.788)^2 \times 0.337 = 0.329$ cum				
	$= 1.906$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	1.91	5013.23	9555.22 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.19	2800.00	532.00
9999	Sundries	L.S.	194.81	2.12	413.00
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.36	35000.00	12600.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
26	Hire and running charges of bentonite pump	day	0.02	3000.00	60.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.08	388.00	31.04
114	Beldar	day	2.00	306.00	612.00
	TOTAL				24013.25
	Add Water Charges @ 1% except on A i.e on				144.58
	TOTAL				24157.83 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2051.67
	TOTAL				26209.50 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				2498.14
	Cost of 10 metre				28707.64
	Cost of 1 metre				2870.76
	labour cess @1%				28.71
	Say				2899.50
20.3.4	550 mm dia piles.				
	Details of cost for 10 metres.				
	MATERIAL:				
	R.C.C				
	Stem $-3.14/4 \times (0.50)^2 \times 9.125 = 1.792$ cum				
	Bulb $-3.14/4 \times (1.25)^2 \times 0.125 = 0.153$ cum				
	$2 \times 3.14/4 \times (0.875)^2 \times 0.375 = 0.451$ cum				
	$= 2.396$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	2.40	5013.23	12031.75 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.20	2800.00	560.00
9999	Sundries	L.S.	208.15	2.12	441.28
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.36	35000.00	12600.00
25	Hire and running charges of light crane	day	0.06	3500.00	210.00
26	Hire and running charges of bentonite pump	day	0.02	3000.00	60.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.08	388.00	31.04
114	Beldar	day	2.00	306.00	612.00
	TOTAL				26546.07
	Add Water Charges @ 1% except on A i.e on				145.14
	TOTAL				26691.21 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2059.65
	TOTAL				28750.87 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				2507.87
	Cost of 10 metre				31258.73
	Cost of 1 metre				3125.87
	labour cess @1%				31.26
	Say				3157.10

20.3A.1 Making 25 cm (10") dia bore up to 4 mtr depth below ground with hand auger of approved quality in ordinary soil (vide classification of soil item A) true to plumb and without eccentricity in any stage of operation and disposal of the excavated earth up to 50 mtr, Lead in eluding all lifts, all complete as per approved design and direction of E/I Details of cost for 4 piles of 4 m= 16 mtrs depth)

Materials:

(0L71) (i) Skilled labour for queding auger

per day

1

388.00

388.00

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670

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BCD/SOR_11th Edition_2022






Code	Description	Unit	Quantity	Rate ₹	Amount ₹
(101)	(ii)Semi skilled labour for cutting barish by hand auger	per day	4	332.00	1328.00
(0L01)	(iii)Unskilled labour for carrying water	per day	1.00	306.00	306.00
(9999)	Hire charge and sundries L.S.	1 time	52.00	2.12	110.24
	Total				2132.24
	Add Water Charges @ 1%				21.3224
	TOTAL				2153.56 (X)
	Add GST 12% on "X" (multiplying factor 0.1405)				302.58
	TOTAL				2456.14 (Y)
	Add for contractors profit and over-heads @ 15%				368.42
	Cost of 16 meter				2824.56
	Cost of 1 meter				176.53
	Add labour cess @ 1%				1.77
	Rate including labour cess				178.30
	Say			178.300	per meter
20.3A.2	63 CM (25) UNDER -REAM Making 63 cm (25) dia under ream at required with hand auger of approved quality in ordinary soil (vide classification of soil ifem - A) true to plumb and without eccentricity in my stage of operation and disposal of the excavated earth up to 50 mts lead in eluding all lifts , all complete as per approved design and direction of (E/I)				
	Details of cost for: Assuming 15 Nos reams				
	Materials:				
(0L71)	(i)Skilled labour for queding auger	per day	1.00	388.00	388.00
(101)	(ii)Semi skilled labour for cutting barth by hand auger	per day	4.00	332.00	1328.00
(0L01)	(iii)Unskilled labour for carrying water	per day	1.00	306.00	306.00
(9999)	Hire charge and sundries L.S.	1 time	52.00	2.12	110.24
	Total				2132.24
	Add Water Charges @ 1%				21.3224
	TOTAL				2153.56 (X)
	Add GST 12% on "X" (multiplying factor 0.1405)				302.58
	TOTAL				2456.14 (Y)
	Add for contractors profit and over-heads @ 15%				368.42
	Cost of 15 each				2824.56
	Cost of 1 each				188.30
	Add labour cess @ 1%				1.88
	Rate including labour cess				190.19
	Say			190.200	each
20.4	Extra for providing additional bulb in under reamed piles, under specified dia meter (Only the quantity of extra bulbs are to be paid).				
20.4.1	300 mm dia piles.				
	Details of cost for 1 bulb.				
	MATERIAL:				
	Bulb - 0.033 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	0.033	5013.23	165.44 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.003	2800.00	8.40
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.02	35000.00	700.00
25	Hire and running charges of light crane	day	0.01	3500.00	35.00
26	Hire and running charges of bentonite pump	day	0.01	3000.00	30.00
	LABOUR:				
	Work supervisor				
0L71	Mistry	day	0.02	388.00	7.76
114	Beldar	day	1	306.00	306.00
	TOTAL				1252.60
	Add Water Charges @ 1% except on A i.e on				10.87

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				1263.47 (X)
	Add GST 12% on "X" except on A (multiplying factor				154.27
	TOTAL				1417.74 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				187.85
	Cost of each				1605.59
	labour cess @1%				16.06
	Say				1621.60
20.4.2	400 mm dia piles.				
	Details of cost for 1 bulb.				
	MATERIAL:				
	Bulb - 0.063 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	0.06	5013.23	315.83 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.01	2800.00	16.80
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.02	35000.00	700.00
25	Hire and running charges of light crane	day	0.01	3500.00	35.00
26	Hire and running charges of bentonite pump	day	0.01	3000.00	30.00
	LABOUR:				
	Work supervisor				
130	Mistry	day	0.02	388.00	7.76
114	Beldar	day	1.00	306.00	306.00
	TOTAL				1411.39
	Add Water Charges @ 1% except on A i.e on				10.96
	TOTAL				1422.35 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				155.47
	TOTAL				1577.81 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				189.30
	Cost of each				1767.11
	labour cess @1%				17.67
	Say				1784.80
20.4.3	450 mm dia piles.				
	Details of cost for 1 bulb.				
	MATERIAL:				
	Bulb-0.081 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	0.08	5013.23	406.07 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.01	2800.00	22.40
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.02	35000.00	700.00
25	Hire and running charges of light crane	day	0.01	3500.00	35.00
26	Hire and running charges of bentonite pump	day	0.01	3000.00	30.00
	LABOUR:				
	Work supervisor				
130	Mistry	day	0.02	388.00	7.76
114	Beldar	day	1.00	306.00	306.00
	TOTAL				1507.23
	Add Water Charges @ 1% except on A i.e on				11.01
	TOTAL				1518.24 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				156.26
	TOTAL				1674.50 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				190.26
	Cost of each				1864.77
	labour cess @1%				18.65
	Say				1883.40




672



Code	Description	Unit	Quantity	Rate ₹	Amount ₹
20.4.4	550 mm dia piles.				
	Details of cost for 1 bulb.				
	MATERIAL:				
	Bulb-0.102 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	0.10	5013.23	511.35 A
	Reinforced cement concrete work				
7183	Bentonite	tonne	0.01	2800.00	28.00
	MACHINERY:				
24	Hire and running charges of hydraulic piling rig with power unit etc. including complete accessories and shifting at site	day	0.02	35000.00	700.00
25	Hire and running charges of light crane	day	0.01	3500.00	35.00
26	Hire and running charges of bentonite pump	day	0.02	3000.00	60.00
	LABOUR:				
	Work supervisor				
130	Mistry	day	0.02	388.00	7.76
114	Beldar	day	1.00	306.00	306.00
	TOTAL				1648.11
	Add Water Charges @ 1% except on A i.e on				11.37
	TOTAL				1659.48 (X)
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				161.31
	TOTAL				1820.79 (Y)
	Add CPOH @ 15% on "Y" except on A i.e on				196.42
	Cost of each				2017.20
	labour cess @1%				20.17
	Say				2037.40
20.5	Providing, driving (with vibrating pile driving hammer complete with power units & accessories) and installing driven Pre-cast reinforced cement concrete piles of specified diameter and length below the pile cap in M-25 cement concrete to carry safe working load not less than specified with a central through preformed hole with M.S. black pipe of dia, 40 mm for grouting with cement sand grouting of mix 1:2 (1cement : 2 coarse sand) under sufficient positive pressure to ensure complete filling including centring, shuttering, driving and removing the steel casing pipe and lifting casing etc. complete but excluding the cost of steel reinforcement. (Length of pile for payment shall be measured from top of the shoe to the bottom of pile cap).				
20.5.1	400 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete -3.14/4x(0.40) ² x20 = 2.51 cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	2.51	5013.23	12583.21 A
	Reinforced cement concrete work				
	Add				
5.19	Rate as per Item Number 5.19 of SH:	cum	2.51	8571.91	21515.49 A
	Reinforced cement concrete work				
	Deduct				
5.1.3	Rate as per Item Number 5.1.3 of SH:	cum	-2.51	4190.53	-10518.22 A
	Reinforced concrete work				
	Cement mortar 1:2 for grout				
2111	Rate as per Item Number 3.7 of SH: Mortars	cum	0.03	3601.99	90.05
9999	Sundries	L.S.	442.00	2.12	937.04
7181	C.I. pile shoe	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35.00	43.00	1505.00
	@35 kg per pile				
	MACHINERY:				
27	Hire and running charges of vibrating pile	day	0.38	30000.00	11400.00

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	driving hammer complete with power unit and accessories				
28	Hire and running charges of crane 20 tonne capacity	day	0.06	7000.00	420.00
	LABOUR:				
130	Work supervisor	day	0.12	388.00	46.56
114	Mistry	day	3.00	306.00	918.00
	Beldar	day			
	TOTAL "A"				23580.48
	TOTAL				42737.13
	Add Water Charges @ 1% except on A i.e on				191.57
	TOTAL				42928.70
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2718.42
	TOTAL				45647.12 (Y)
	Add CPOH @ 15% except on A i.e on				3310.00
	Cost of 20 metre				48957.12
	Cost of 1 metre				2447.86
	labour cess @1%				24.48
	Say				2472.30
20.5.2	450 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $-3.14/4 \times (0.45)^2 \times 20 = 3.18$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	3.18	5013.23	15942.07 A
	Reinforced cement concrete work				
	Add				
5.19	Rate as per Item Number 5.19 of SH:	cum	3.18	8571.91	27258.67 A
	Reinforced cement concrete work				
	Deduct				
5.1.3	Rate as per Item Number 5.1.3 of SH:	cum	-3.18	4190.53	-13325.87 A
	Reinforced cement concrete work				
	Cement mortar 1:2 for grout				
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.03	3601.99	90.05
9999	Wooden block @ 1 block per two piles	L.S.	442.00	2.12	937.04
7181	C.I. pile shoe	kilogram	80.00	48.00	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35.00	43.00	1505.00
	@ 35 kg per pile				
	MACHINERY:				
27	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	30000.00	11400.00
28	Hire and running charges of crane 20 tonne capacity	day	0.06	7000.00	420.00
	LABOUR:				
130	Work supervisor	day	1.08	388.00	419.04
114	Mistry	day	10.78	306.00	3298.68
	Beldar	day			
	TOTAL "A"				29874.87
	TOTAL				51784.68
	Add Water Charges @ 1% except on A i.e on				219.10
	TOTAL				52003.78
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				3109.11
	TOTAL				55112.89 (Y)
	Add CPOH @ 15% except on A i.e on				3785.70
	Cost of 20 metre				58898.59
	Cost of 1 metre				2944.93
	labour cess @1%				29.45
	Say				2974.40




674



Code	Description	Unit	Quantity	Rate ₹	Amount ₹
20.5.3	500 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $-3.14/4 \times (0.50)^2 \times 20 = 3.925$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	3.925	5013.23	19676.93 A
	Reinforced cement concrete work				
	Add				
5.19	Rate as per Item Number 5.19 of SH:	cum	3.925	8571.909	33644.74 A
	Reinforced cement concrete work				
	Deduct				
5.1.3	Rate as per Item Number 5.1.3 of SH:	cum	-3.925	4190.53	-16447.81 A
	Reinforced cement concrete work				
	Cement mortar 1:2 for grout				
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	3601.99	90.05
9999	Wooden block @ 1 block per two piles	L.S.	442	2.12	937.04
7181	C.I. pile shoe	kilogram	80	48	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35	43	1505.00
	@ 35 kg per pile				
	MACHINERY:				
27	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	30000.00	11400.00
28	Hire and running charges of crane 20 tonne capacity	day	0.06	7000.00	420.00
	LABOUR:				
	Work supervisor				
130	Mistry	day	0.12	388	46.56
114	Beldar	day	3	306	918.00
	TOTAL "A"				36873.86
	TOTAL				56030.51
	Add Water Charges @ 1% except on A i.e on				191.57
	TOTAL				56222.07
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2718.42
	TOTAL				58940.50 (Y)
	Add CPOH @ 15% except on A i.e on				3310.00
	Cost of 20 metre				62250.49
	Cost of 1 metre				3112.52
	labour cess @1%				31.13
	Say				3143.60
20.5.4	550 mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete $-3.14/4 \times (0.55)^2 \times 20 = 4.75$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	4.75	5013.23	23812.84 A
	Reinforced cement concrete work				
	Add				
5.19	Rate as per Item Number 5.19 of SH:	cum	4.75	8571.91	40716.57 A
	Reinforced cement concrete work				
	Deduct				
5.1.3	Rate as per Item Number 5.1.3 of SH:	cum	-4.75	4190.53	-19904.99 A
	Reinforced cement concrete work				
	Cement mortar 1:2 for grout				
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	3601.99	90.05
9999	Wooden block @ 1 block per two piles	L.S.	442	2.12	937.04
7181	C.I. pile shoe	kilogram	80	48.00	3840.00
	@ 80 kg per pile				

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
7182	M.S. clamps for pile shoe @ 35 kg per pile	kilogram	35	43.00	1505.00
	MACHINERY:				
27	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	30000.00	11400.00
28	Hire and running charges of crane 20 tonne capacity	day	0.06	7000.00	420.00
	LABOUR:				
	Work supervisor				
130	Mistry	day	0.12	388	46.56
114	Beldar	day	3	306	918.00
	TOTAL "A"				44624.41
	TOTAL				63781.06
	Add Water Charges @ 1% except on A i.e on				191.57
	TOTAL				63972.63
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2718.42
	TOTAL				66691.05 (Y)
	Add CPOH @ 15% except on A i.e on				3310.00
	Cost of 20 metre				70001.05
	Cost of 1 metre				3500.05
	labour cess @1%				35.00
	Say				3535.10

20.5.5 750 mm dia piles.

Details of cost for 20 m length of pile.

MATERIAL:

Concrete $-3.14/4 \times (0.75)^2 \times 20 = 10.88$ cum

5.33.1	Rate as per Item Number 5.33.1 of SH: Reinforced cement concrete work	cum	10.88	5013.23	54543.94 A
	Add				

5.19	Rate as per Item Number 5.19 of SH: Reinforced cement concrete work	cum	10.88	8571.909	93262.37 A
	Deduct				

5.1.3	Rate as per Item Number 5.1.3 of SH: Reinforced cement concrete work	cum	-10.88	4190.53	-45592.91 A
	Cement mortar 1:2 for grout				

3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	3601.99	90.05
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9999	Wooden block @ 1 block per two piles	L.S.	442	2.12	937.04
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7181	C.I. pile shoe	kilogram	80	48	3840.00
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	@ 80 kg per pile				
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7182	M.S. clamps for pile shoe	kilogram	35	43	1505.00
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	@ 35 kg per pile				
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	MACHINERY:				
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27	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	30000.00	11400.00
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28	Hire and running charges of crane 20 tonne capacity	day	0.06	7000.00	420.00
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	LABOUR:				
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	Work supervisor				
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130	Mistry	day	0.12	388	46.56
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114	Beldar	day	3	306	918.00
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TOTAL "A"



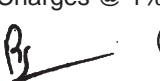
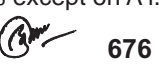


102213.39

TOTAL

121370.04

Add Water Charges @ 1% except on A i.e on

191.57




















676

BCD/SOR_11th Edition_2022





Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				121561.61
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2718.42
	TOTAL				124280.03 (Y)
	Add CPOH @ 15% except on A i.e on				3310.00
	Cost of 20 metre				127590.03
	Cost of 1 metre				6379.50
	labour cess @1%				63.80
	Say				6443.30
20.5.6	1000mm dia piles.				
	Details of cost for 20 m length of pile.				
	MATERIAL:				
	Concrete - $3.14/4 \times (1.00)^2 \times 20 = 15.70$ cum				
5.33.1	Rate as per Item Number 5.33.1 of SH:	cum	15.7	5013.23	78707.70 A
	Reinforced cement concrete work				
	Add				
5.19	Rate as per Item Number 5.19 of SH:	cum	15.7	8571.909	134578.97 A
	Reinforced cement concrete work				
	Deduct				
5.1.3	Rate as per Item Number 5.1.3 of SH:	cum	-15.7	4190.53	-65791.24 A
	Reinforced cement concrete work				
3.7	Rate as per Item Number 3.7 of SH: Mortars	cum	0.025	3601.99	90.05
9999	Wooden block @ 1 block per two piles	L.S.	442	2.12	937.04
7181	C.I. pile shoe	kilogram	80	48	3840.00
	@ 80 kg per pile				
7182	M.S. clamps for pile shoe	kilogram	35	43	1505.00
	@ 35 kg per pile				
	MACHINERY:				
27	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories	day	0.38	30000.00	11400.00
28	Hire and running charges of crane 20 tonne capacity	day	0.06	7000.00	420.00
	LABOUR:				
	Work supervisor				
130	Mistry	day	0.12	388	46.56
114	Beldar	day	3	306	918.00
	TOTAL "A"				147495.43
	TOTAL				166652.08
	Add Water Charges @ 1% except on A i.e on				191.57
	TOTAL				166843.64
	Add GST 12% on "X" except on A (multiplying factor 0.1405)				2718.42
	TOTAL				169562.07 (Y)
	Add CPOH @ 15% except on A i.e on				3310.00
	Cost of 20 metre				172872.06
	Cost of 1 metre				8643.60
	labour cess @1%				86.44
	Say				8730.00
20.6	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.				
20.6.1	Single pile upto 50 tonne capacity.				
20.6.1.1	Initial test.				
	Details of cost for 1 test				
7246	Vertical load testing (initial) of piles in accordance with IS : 2911 (Part-IV)	per test	1	38500.00	38500

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification and up to 50 tonne capacity pile				
	TOTAL				38500
	Add Water Charges @ 1%				385.00
	TOTAL				38885.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				5463.34
	TOTAL				44348.34 (Y)
	Add CPOH @ 15% on "Y"				6652.25
	Cost per test				51000.59
	labour cess @1%				510.01
	Say				51510.60
20.6.1.2	Routine test.				
	Details of cost for 1 test.				
7249	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part-IV) including preparation of pile head etc. for Single pile up to 50 tonne capacity	per test	1	13800.00	13800
	TOTAL				13800
	Add Water Charges @ 1%				138
	TOTAL				13938.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				1958.29
	TOTAL				15896.29 (Y)
	Add CPOH @ 15% on "Y"				2384.44
	Cost per test				18280.73
	labour cess @1%				182.81
	Say				18463.50
20.6.2	Single pile above 50 tonne and upto 100 tonne capacity.				
20.6.2.1	Initial test.				
	Details of cost for 1 test.				
7247	Vertical load testing (initial) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & above 50 tonne and up to 100 tonne	per test	1	43000.00	43000
	TOTAL				43000
	Add Water Charges @ 1%				430
	TOTAL				43430.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				6101.92
	TOTAL				49531.92 (Y)
	Add CPOH @ 15% on "Y"				7429.79
	Cost per test				56961.70
	labour cess @1%				569.62
	Say				57531.30
20.6.2.2	Routine test.				
	Details of cost for 1 test.				
7250	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part- IV) including preparation of pile head etc. for Single pile above 50 tonne capacity pile and up to 100 tonne capacity pile	per test	1	22800.00	22800

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	TOTAL				22800
	Add Water Charges @ 1%				228
	TOTAL				23028.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				3235.43
	TOTAL				26263.43 (Y)
	Add CPOH @ 15% on "Y"				3939.52
	Cost per test				30202.95
	labour cess @1%				302.03
	Say				30505.00
20.6.3	Group of two or more piles upto 50 tonne capacity.				
20.6.3.1	Initial test.				
	Details of cost for 1 test.				
7248	Vertical load testing (initial) of piles in accordance with IS : 2911 (Part-IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & group of two or more up to 50 tonne	per test	1	49500.00	49500
	TOTAL				49500
	Add Water Charges @ 1%				495
	TOTAL				49995.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				7024.30
	TOTAL				57019.30 (Y)
	Add CPOH @ 15% on "Y"				8552.89
	Cost per test				65572.19
	labour cess @1%				655.72
	Say				66227.90
20.6.3.2	Routine test.				
	Details of cost for 1 test.				
7251	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part- IV) including preparation of pile head etc. for Group of two piles up to 50 tonne capacity each	per test	1	28500.00	28500
	TOTAL				28500
	Add Water Charges @ 1%				285
	TOTAL				28785.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				4044.29
	TOTAL				32829.29 (Y)
	Add CPOH @ 15% on "Y"				4924.39
	Cost per test				37753.69
	labour cess @1%				377.54
	Say				38131.20
20.7	Cyclic vertical load testing of pile in accordance with IS Code of practice IS:2911 (part IV) including preparation of pile head etc for.				
20.7.1	Single pile.				
20.7.1.1	Upto 50 tonne capacity pile.				
	Details of cost for 1 test.				
7249	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part-IV) including preparation of pile head etc. for Single pile up to 50 tonne capacity	per test	1	13800.00	13800
	TOTAL				13800
	Add Water Charges @ 1%				138.00
	TOTAL				13938.00 (X)

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
	Add GST 12% on "X"(multiplying factor 0.1405)				1958.29
	TOTAL				15896.29 (Y)
	Add CPOH @ 15% on "Y"				2384.44
	Cost per test				18280.73
	labour cess @1%				182.81
	Say				18463.50
20.7.1.2	Above 50 tonne and upto 100 tonne capacity pile.				
	Details of cost for 1 test.				
7250	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part- IV) including preparation of pile head etc. for Single pile above 50 tonne capacity pile and up to 100 tonne capacity pile	per test	1	22800.00	22800
	TOTAL				22800
	Add Water Charges @ 1%				228
	TOTAL				23028.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				3235.43
	TOTAL				26263.43 (Y)
	Add CPOH @ 15% on "Y"				3939.52
	Cost per test				30202.95
	labour cess @1%				302.03
	Say				30505.00
20.7.2	Group of two piles.				
20.7.2.1	Upto 50 tonne capacity each.				
	Details of cost for 1 test.				
7251	Cyclic vertical load testing of piles in accordance with IS : 2911 (Part- IV) including preparation of pile head etc. for Group of two piles up to 50 tonne capacity each	per test	1	28500.00	28500
	TOTAL				28500
	Add Water Charges @ 1%				285.00
	TOTAL				28785.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				4044.29
	TOTAL				32829.29 (Y)
	Add CPOH @ 15% on "Y"				4924.39
	Cost per test				37753.69
	labour cess @1%				377.54
	Say				38131.20
20.8	Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile.				
20.8.1	Upto 50 tonne capacity pile.				
	Details of cost for 1 test				
7252	Lateral load testing of single pile in accordance with IS : 2911 part -IV for determining safe allowable lateral load on pile up to 50 tonne capacity	per test	1	13800.00	13800
	TOTAL				13800
	Add Water Charges @ 1%				138
	TOTAL				13938.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				1958.29
	TOTAL				15896.29 (Y)
	Add CPOH @ 15% on "Y"				2384.44
	Cost per test				18280.73
	labour cess @1%				182.81
	Say				18463.50

Code	Description	Unit	Quantity	Rate ₹	Amount ₹
20.8.2	Above 50 tonne and upto 100 tonne capacity pile.				
	Details of cost for 1 test.				
7253	Lateral load testing of single pile in accordance with IS : 2911 part -IV for determining safe allowable lateral load on pile above 50 tonne capacity	per test	1	23100.00	23100
	TOTAL				23100.00
	Add Water Charges @ 1%				231.00
	TOTAL				23331.00 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				3278.01
	TOTAL				26609.01 (Y)
	Add CPOH @ 15% on "Y"				3991.35
	Cost per test				30600.36
	labour cess @1%				306.00
	Say				30906.40
20.9	Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo method in accordance with IS 14893 including surface preparation of pile top by Test removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge.				
	Note:- The inclusion of the above item in the schedule of work shall be judiciously decided by the technical sanctioning authority, keeping in view the quality control, type of soil strata & importance of the project.				
	Details of cost for one pit test (Ten pits in one day).				
	MATERIAL				
0081	Pile Integrity testing equipment	day	0.10	3000.00	300.00
	LABOUR				
0160	Technician	day	0.10	531.00	53.10
0161	Helper (Technician)	day	0.10	306.00	30.60
	miscellaneous				
9999	Reporting charges	L.S.	100.67	2.12	213.42
9999	Transportation and consumables etc.	L.S.	33.56	2.12	71.15
	TOTAL				668.27
	Add Water Charges @ 1%				6.68
	TOTAL				674.95 (X)
	Add GST 12% on "X"(multiplying factor 0.1405)				94.83
	TOTAL				769.78 (Y)
	Add CPOH @ 15% on "Y"				115.47
	Cost per test				885.25
	labour cess @1%				8.85
	Say				894.10