

Annexure 14.4.2

AFC Estimate (Excluding Taxes)			
		Figures in	thousand Rs.
S.No.	Item	Amount	
1	Mandatory equipment	336638.50	
2	Installation (15% of 1)	50495.78	
3	Spares (10% of 1)	33663.85	
4	Smart Cards/Tokens	62115.00	
5	Development and Customisation	62964.00	
6	Maintenance, Training, Mmanuals Cost	58198.31	
	TOTAL	604075.44	
	Add contingencies @3%	18122.26	
	TOTAL	622197.70	

Bangalore AFC requirement 2007										
S.N	Station	Station Type	Daily Passanger Traffic 2007	Gate arrangement				TOM	EFO	
				Entry Gate	Exit Gate	Disabled Gate	Total			
1	Mysore Road Terminal	ELE	8364	2	3	1	6	3	1	
2	Deepanjali Nagar	ELE	20001	2	2	1	5	2	1	
3	Vijaya Nagar	ELE	32505	2	2	1	5	2	1	
4	Hoshalli	ELE	62171	2	3	1	6	4	1	
5	Tollgate	ELE	24264	2	2	1	5	2	1	
6	Magadi Road	ELE	23721	2	2	1	5	2	1	
7	City Railway Station	UG	28000	4	4	1	9	4	2	
8	Mejestic	UG	30408	4	4	1	9	4	2	
9	Central college	UG	15864	4	4	1	9	4	2	
10	Vidhan Saudha	UG	17843	4	4	1	9	4	2	
11	Cricket Stadium	ELE	15000	2	2	1	5	2	1	
12	M G Road	ELE	25781	2	2	1	5	2	1	
13	Trinity Circle	ELE	12580	2	2	1	5	2	1	
14	Ulsoor	ELE	10902	2	2	1	5	2	1	
15	C M H Road	ELE	17000	2	2	1	5	2	1	
16	Indra Nagar	ELE	18083	2	2	1	5	2	1	
17	Old Madras Road	ELE	12995	2	2	1	5	2	1	
18	Baiyapanahalli	Surface	15949	2	3	1	6	3	1	
19	Yeshwanthpur	ELE	37691	2	3	1	6	3	1	
20	Mahalaxmi	ELE	16651	2	2	1	5	2	1	
21	Rajaji Nagar	ELE	23306	2	2	1	5	2	1	
22	Kuvempu	ELE	36285	2	2	1	5	2	1	
23	Malleswaram	ELE	44486	2	2	1	5	3	1	
24	Swastik	Surface	43982	2	2	1	5	3	1	
25	Majestic	UG	46542	4	4	1	9	4	2	
26	Chikpete	UG	22977	4	4	1	9	4	2	
27	City Market	UG	17683	4	4	1	9	4	2	
28	K R Road	ELE	9326	2	2	1	5	2	1	
29	Lal Bagh	ELE	19900	2	2	1	5	2	1	
30	South End Circle	ELE	12870	2	2	1	5	2	1	
31	Jayanagar	ELE	32805	2	2	1	5	2	1	
32	R V Road Terminal	ELE	64074	3	4	1	8	5	1	
	Training Centre			1	1		2	2	1	
	Total		820009	80	85	32	197	90	40	
	Spares(10%)			8	9	4	21	9	4	

	Total			88	94	36	218	99	44	
Asumptions:										
1.	Each elevated station has one access and underground station has two access. Each access has a									
2.	Minimum 2 Entry,2 Exit and 1 Disabled Gate at each station.									
3.	Minimum 2 TOM at each access.									
4.	One additional exit gate and one TOM taken at terminal stations.									
5.	Max throughput for Gate = 45 Passenger per minute (with passenger behaviour coefficient =									
6.	Max throughput for TOM = 10PPM. TOM attends to 50% of boarding passengers.									
7.	Spare equipments = 10%.									

AFC Estimate (Bangalore Metro)				
			Figures in thousand Rs.	
S.No.	Item	Quantity	Rate	Amount
	Mandatory equipment			
1	Entry Gate	80	839.5	67160
2	Exit Gate	85	932.5	79262.5
3	Reversible Gate	0	1026.1	0
4	Disabled Gate	32	1072.1	34307.2
5	Gate End cabinets	78	466.4	36379.2
6	Ticket Office Machine (TOM/EFO)	130	371.7	48321
7	Ticket Reader (TR)	80	172.2	13776
8	Portable Ticket decoder (PTD)	37	141.8	5246.6
9	Station Computer	33	400	13200
10	Token Counting Machine	3	106	318
11	Networking equipment at station	33	600	19800
12	Central Computer and Router at OCC	1	18868	18868
				336638.5
	Installation			
13	Laying of cables, Cable for LAN and labour charges including project management @15% of eqpt.cost		15%	50495.78
	Spares			
14	Spares, test equipments and maintenance tools		10%	33663.85
	Smart Cards/Tokens			
15	Smart Cards	205000	0.21	42845.0
16	Smart Tokens	205000	0.09	19270.0
				62115
	Development and Customisation			
17	Software charges including Simulation Software	LS	60420	60420
18	Simulation Hardware cost	LS	2544	2544
				62964
	Maintenance, Training, Mmanuals Cost			
19	AFC defects liability @2% per annum of eqpt. cost for 3 years	LS	6%	20198.31
20	Manuals	LS	5000	5000
21	Training	LS	3000	3000
22	Maintenance Support (100 manmonths)	LS	30000	30000
				58198.31

AFC Estimate (Bangalore Metro) -excluding CD and WCT				
			Figures in thousand Rs.	
S.No.	Item			Amount
1	Mandatory equipment			336638.5
2	Installation (15% of 1)			50495.78
3	Spares (10% of 1)			33663.85
4	Smart Cards/Tokens			62115
5	Development and Customisation			62964
6	Maintenance, Training, Mmanuals Cost			58198.31
	Total			604075.44
	Add contingencies @3%		3%	18122.26
	Total			622197.70
	Escalation during contract, 7.5%(average)			46664.83
	Grand Total			668862.53

AFC Estimate (SYS-4)

Figures in thousand Rs.

S.No.	Item	Quantity	Rate	Amount
Mandatory equipment				
1	Entry Gate	58	839.5	48691
2	Exit Gate	59	932.5	55017.5
3	Reversible Gate	72	1026.1	73879.2
4	Disabled Gate	28	1072.1	30018.8
5	Gate End cabinets	29	466.4	13525.6
6	Ticket Office Machine (TOM/EFO)	120	371.7	44604
7	Ticket Reader (TR)	57	172.2	9815.4
8	Portable Ticket decoder (PTD)	50	141.8	7090
9	UPS	30	1717.2	51516
10	Station Computer	30	400	12000
11	Token Counting Machine	3	106	318
12	Networking equipment at station	29	600	17400
13	Central Computer and Router at OCC	1	18868	18868
				382743.5
Installation				
14	Laying of cables, Cable for LAN and labour charges including project management @15% of eqpt.cost		15%	57411.53
Spares				
15	Spares, test equipments and maintenance tools		10%	38274.35
Smart Cards/Tokens				
16	Smart Cards	559317	0.21	116897.3
17	Smart Tokens	441458	0.09	41497.1
				158394
Development and Customisation				
18	Software charges including Simulation Software	LS	60420	60420
19	Simulation Hardware cost	LS	2544	2544
				62964
Maintenance, Training, Manuals Cost				
21	AFC defects liability @2% per annum of eqpt. cost for 3 years	LS	6%	22964.61
22	Manuals	LS	5000	5000
23	Training	LS	3000	3000
24	Maintenance Support (100 manmonths)	LS	30000	30000
				60964.61

	Total	760752.3
Add contingencies @3%	3%	22822.57
	Total	783574.86
Escalation during contract, 7.5%(average)		58768.11
Grand Total		842342.97

AFC Estimate (Bangalore Metro)

Figures in thousand Rs.

S.No.	Item	Amount
1	Mandatory equipment	382743.5
2	Installation (15% of 1)	57411.53
3	Spares (10% of 1)	38274.35
4	Smart Cards/Tokens	158394
5	Development and Customisation	62964
6	Maintenance, Training, Mmanuals Cost	60964.61
	Total	760752.29
	Add contingencies @3%	3% 22822.57
	Total	783574.86
	Escalation during contract, 7.5%(average)	58768.11
	Grand Total	842342.97

Bangalore AFC requirement 2021									
S.N	Station	Station Type	Daily Passanger Traffic 2021	Gate arrangement				TOM	EFO
				Entry Gate	Exit Gate	Disabled Gate	Total		
1	Mysore Road Terminal	ELE	14240	2	3	1	6	3	1
2	Deepanjali Nagar	ELE	34838	2	2	1	5	2	1
3	Vijaya Nagar	ELE	69050	3	3	1	7	4	1
4	Hoshalli	ELE	92010	4	4	1	9	5	1
5	Tollgate	ELE	44284	2	2	1	5	3	1
6	Magadi Road	ELE	62151	3	3	1	7	4	1
7	City Railway Station	UG	63979	4	4	1	9	4	2
8	Mejestic	UG	75938	4	4	1	9	4	2
9	Central college	UG	27533	4	4	1	9	4	2
10	Vidhan Saudha	UG	42820	4	4	1	9	4	2
11	Cricket Stadium	ELE	24000	2	2	1	5	2	1
12	M G Road	ELE	37531	2	2	1	5	2	1
13	Trinity Circle	ELE	22521	2	2	1	5	2	1
14	Ulsoor	ELE	21841	2	2	1	5	2	1
15	C M H Road	ELE	36990	2	2	1	5	2	1
16	Indra Nagar	ELE	27825	2	2	1	5	2	1
17	Old Madras Road	ELE	32129	2	2	1	5	2	1
18	Baiyapanahalli	Surface	45400	2	3	1	6	4	1
19	Yeshwanthpur	ELE	61500	3	4	1	8	4	1
20	Mahalaxmi	ELE	28800	2	2	1	5	2	1
21	Rajaji Nagar	ELE	65507	3	3	1	7	4	1
22	Kuvempu	ELE	68400	3	3	1	7	4	1
23	Malleswaram	ELE	75906	3	3	1	7	4	1
24	Swastik	Surface	74177	3	3	1	7	4	1
25	Majestic	UG	89799	4	6	1	11	5	2
26	Chikpete	UG	47200	4	4	1	9	4	2
27	City Market	UG	36054	4	4	1	9	4	2
28	K R Road	ELE	29682	2	2	1	5	2	1
29	Lal Bagh	ELE	35386	2	2	1	5	2	1
30	South End Circle	ELE	38325	2	2	1	5	2	1
31	Jayanagar	ELE	65468	3	3	1	7	4	1
32	R V Road Terminal	ELE	118698	4	5	1	10	7	1
	Training Centre			1	1		2	2	1
	Total		1609982	91	97	32	220	109	40