
Appendix G: Capital Costs Conceptual Estimate Summary

MAIN WORKSHEET - CONCEPTUAL ESTIMATE

Contract B-62040 / B-80143 - CM-0143 ENVIRONMENTAL AND ENGINEERING SERVICES FOR THE STATEN ISLAND NORTH SHORE

BUS RAPID TRANSIT SYSTEM

95% Draft

Today's Date **7/5/23**

Yr of Base Year \$ 2023

Yr of Revenue Ops 2035

	Quantity	Base Year Dollars w/o Contingency (2023)	Allocated Contingency	Base Year Dollars Allocated Contingency (2023)	Base Year Dollars TOTAL (2023)	Base Year Dollars Unit Cost (2023)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (2023)
10 GUIDEWAY & TRACK ELEMENTS (route miles)	5.40	138,586,000		18,668,000	157,254,000	\$ 29,133,373	21%	13%	157,254,000
10.01 Guideway: At-grade exclusive right-of-way	3.65	37,944,000	10%	3,863,000	41,807,000	\$ 11,467,063			41,807,000
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)				0	0				0
10.03 Guideway: At-grade in mixed traffic				0	0				0
10.04 Guideway: Aerial structure	1.59	100,025,000	15%	14,651,000	114,676,000	\$ 72,082,057			114,676,000
10.05 Guideway: Built-up fill				0	0				0
10.06 Guideway: Underground cut & cover				0	0				0
10.07 Guideway: Underground tunnel	0.16	617,000	25%	154,000	771,000	\$ 4,789,271			771,000
10.08 Guideway: Retained cut or fill				0	0				0
10.09 Track: Direct fixation				0	0				0
10.10 Track: Embedded				0	0				0
10.11 Track: Ballasted				0	0				0
10.12 Track: Special (switches, turnouts)				0	0				0
10.13 Track: Vibration and noise dampening				0	0				0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	0	28,377,000		2,838,000	31,215,000		4%	3%	31,215,000
20.01 At-grade station, stop, shelter, mall, terminal, platform		11,095,000	10%	1,110,000	12,205,000				12,205,000
20.02 Aerial station, stop, shelter, mall, terminal, platform		4,226,000	10%	422,000	4,648,000				4,648,000
20.03 Underground station, stop, shelter, mall, terminal, platform				0	0				0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.				0	0				0
20.05 Joint development				0	0				0
20.06 Automobile parking multi-story structure				0	0				0
20.07 Elevators, escalators		13,056,000	10%	1,306,000	14,362,000				14,362,000
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	5	1,524,000		152,000	1,676,000	\$ 310,501	0%	0%	1,676,000
30.01 Administration Building: Office, sales, storage, revenue counting		1,524,000	10%	152,000	1,676,000				1,676,000
30.02 Light Maintenance Facility				0	0				0
30.03 Heavy Maintenance Facility				0	0				0
30.04 Storage or Maintenance of Way Building				0	0				0
30.05 Yard and Yard Track				0	0				0
40 SITEWORK & SPECIAL CONDITIONS	5.40	503,309,000		42,633,000	545,942,000	\$ 101,142,939	74%	44%	545,942,000
40.01 Demolition, Clearing, Earthwork		32,886,000	13%	4,143,000	37,029,000				37,029,000
40.02 Site Utilities, Utility Relocation		35,895,000	16%	5,632,000	41,527,000				41,527,000
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		18,543,000	10%	1,854,000	20,397,000				20,397,000
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		0		0	0				0
40.05 Site structures including retaining walls, sound walls		181,207,000	12%	21,178,000	202,385,000				202,385,000
40.06 Pedestrian / bike access and accommodation, landscaping		49,691,000	10%	5,008,000	54,699,000				54,699,000
40.07 Automobile, bus, van accessways including roads, parking lots		15,960,000	12%	1,952,000	17,912,000				17,912,000
40.08 Temporary Facilities and other indirect costs during construction		169,127,000	2%	2,866,000	171,993,000				171,993,000
50 SYSTEMS	5.40	4,035,000		478,000	4,513,000	\$ 836,093	1%	0%	4,513,000
50.01 Train control and signals				0	0				0
50.02 Traffic signals and crossing protection		1,179,000	16%	192,000	1,371,000				1,371,000
50.03 Traction power supply: substations				0	0				0
50.04 Traction power distribution: catenary and third rail				0	0				0
50.05 Communications		2,380,000	10%	238,000	2,618,000				2,618,000
50.06 Fare collection system and equipment		476,000	10%	48,000	524,000				524,000
50.07 Central Control				0	0				0
Construction Subtotal (10 - 50)	5.40	675,831,000		64,769,000	740,600,000	\$ 137,205,895	100%	60%	740,600,000
60 ROW, LAND, EXISTING IMPROVEMENTS	5.40	0		0	0	\$ -		0%	0
60.01 Purchase or lease of real estate		0		0	0				0
60.02 Relocation of existing households and businesses		0		0	0				0
70 VEHICLES (number)	25	25,000,000		2,500,000	27,500,000	\$ 1,100,000		2%	27,500,000
70.01 Light Rail				0	0				0
70.02 Heavy Rail				0	0				0
70.03 Commuter Rail				0	0				0
70.04 Bus	25	25,000,000	10%	2,500,000	27,500,000	\$ 1,100,000			27,500,000
70.05 Other				0	0				0
70.06 Non-revenue vehicles				0	0				0
70.07 Spare parts				0	0				0
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	5.40	253,100,660		0	253,100,660	\$ 46,890,228	34%	20%	253,100,660
80.01 Preliminary Engineering		17,058,210		0	17,058,210				17,058,210
80.02 Final Design		54,088,210		0	54,088,210				54,088,210
80.03 Project Management for Design and Construction		39,802,490		0	39,802,490				39,802,490
80.04 Construction Administration & Management		56,860,700		0	56,860,700				56,860,700
80.05 Professional Liability and other Non-Construction Insurance		56,860,700		0	56,860,700				56,860,700
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		11,372,140		0	11,372,140				11,372,140
80.07 Surveys, Testing, Investigation, Inspection				0	0				0
80.08 Start up		17,058,210		0	17,058,210				17,058,210
Subtotal (10 - 80)	5.40	953,931,660		67,269,000	1,021,200,660	\$ 189,190,859		82%	1,021,200,660
90 UNALLOCATED CONTINGENCY					204,240,132			16%	204,240,132
Subtotal (10 - 90)	5.40				1,225,440,792	\$ 227,029,031		99%	1,225,440,792
100 FINANCE CHARGES					15,068,086			1%	15,068,086
Total Project Cost (10 - 100)	5.40				1,240,508,878	\$ 229,820,592		100%	1,240,508,878
Allocated Contingency as % of Base Yr Dollars w/o Contingency					7.05%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency					21.41%				
Total Contingency as % of Base Yr Dollars w/o Contingency					28.46%				
Unallocated Contingency as % of Subtotal (10 - 80)					20.00%				
YOE Construction Cost per Mile (2023)									\$137,205,895
YOE Total Project Cost per Mile Not Including Vehicles (2023)									\$224,725,855
YOE Total Project Cost per Mile (2023)									\$229,820,592