

**Project Cost Estimate Based on 30% PE**

<b>MAIN WORKSHEET-BUILD ALTERNATIVE</b>								(Rev. 13, June 1, 2010)
Charlotte Area Transit System						Today's Date	<b>6/24/11</b>	
LYNX Blue Line Extension, Charlotte, NC						Yr of Base Year \$	2010	
Preliminary Engineering						Yr of Revenue Ops	2016	
	Quantity	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (X000)
<b>10 GUIDEWAY &amp; TRACK ELEMENTS (9.33 miles)</b>	<b>9.33</b>	<b>124,676</b>	<b>12,976</b>	<b>137,652</b>	<b>\$ 14,754</b>	<b>33%</b>	<b>17%</b>	<b>167,483</b>
10.01 Guideway: At-grade exclusive right-of-way	0.00	-	-	-				-
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	3.88	3,912	391	4,303	\$ 1,109			5,236
10.03 Guideway: At-grade in mixed traffic	0.00	-	-	-				-
10.04 Guideway: Aerial structure	0.79	44,756	4,800	49,556	\$ 62,729			60,295
10.05 Guideway: Built-up fill	1.30	4,825	562	5,387	\$ 4,144			6,554
10.06 Guideway: Underground cut & cover	0.00	-	-	-				-
10.07 Guideway: Underground tunnel	0.00	-	-	-				-
10.08 Guideway: Retained cut or fill	3.36	39,916	4,093	44,009	\$ 13,098			53,546
10.09 Track: Direct fixation		-	-	-				-
10.10 Track: Embedded		1,542	158	1,700				2,068
10.11 Track: Ballasted		25,741	2,574	28,315				34,451
10.12 Track: Special (switches, turnouts)		2,784	278	3,062				3,726
10.13 Track: Vibration and noise dampening		1,200	120	1,320				1,606
<b>20 STATIONS, STOPS, TERMINALS, INTERMODAL (11)</b>	<b>11</b>	<b>38,257</b>	<b>7,698</b>	<b>45,955</b>	<b>\$ 4,178</b>	<b>11%</b>	<b>6%</b>	<b>56,318</b>
20.01 At-grade station, stop, shelter, mall, terminal, platform	10	11,736	1,304	13,040	\$ 1,304			15,980
20.02 Aerial station, stop, shelter, mall, terminal, platform	1	217	22	239	\$ 239			293
20.03 Underground station, stop, shelter, mall, terminal, platform	0	-	-	-				-
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	0	-	-	-				-
20.05 Joint development		-	-	-				-
20.06 Automobile parking multi-story structure		24,948	6,237	31,185				38,217
20.07 Elevators, escalators		1,356	136	1,492				1,828
<b>30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS</b>	<b>9.33</b>	<b>6,388</b>	<b>2,119</b>	<b>8,507</b>	<b>\$ 912</b>	<b>2%</b>	<b>1%</b>	<b>10,370</b>
30.01 Administration Building: Office, sales, storage, revenue counting		1,184	296	1,480				1,804
30.02 Light Maintenance Facility		-	0	0				0
30.03 Heavy Maintenance Facility		1,044	783	1,827				2,227
30.04 Storage or Maintenance of Way Building		436	109	545				664
30.05 Yard and Yard Track		3,724	931	4,655				5,675

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<b>40 SITWORK &amp; SPECIAL CONDITIONS</b>	<b>9.33</b>	<b>93,248</b>	<b>14,629</b>	<b>107,877</b>	<b>\$ 11,562</b>	<b>26%</b>	<b>13%</b>	<b>129,721</b>
40.01 Demolition, Clearing, Earthwork		10,537	2,199	12,736				15,314
40.02 Site Utilities, Utility Relocation		21,429	4,332	25,761				30,977
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		4,843	977	5,820				6,998
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		2,479	496	2,975				3,577
40.05 Site structures including retaining walls, sound walls		9,726	1,015	10,741				12,916
40.06 Pedestrian / bike access and accommodation, landscaping		11,099	1,694	12,793				15,383
40.07 Automobile, bus, van accessways including roads, parking lots		24,668	3,055	27,723				33,337
40.08 Temporary Facilities and other indirect costs during construction		8,467	862	9,329				11,218
<b>50 SYSTEMS</b>	<b>9.33</b>	<b>97,952</b>	<b>15,134</b>	<b>113,086</b>	<b>\$ 12,121</b>	<b>27%</b>	<b>14%</b>	<b>138,406</b>
50.01 Train control and signals		16,495	2,474	18,970				23,217
50.02 Traffic signals and crossing protection		10,973	1,646	12,618				15,444
50.03 Traction power supply: substations		15,316	2,297	17,613				21,557
50.04 Traction power distribution: catenary and third rail		18,193	2,886	21,079				25,798
50.05 Communications		32,356	4,906	37,262				45,605
50.06 Fare collection system and equipment		4,620	924	5,544				6,785
50.07 Central Control		-	-	-				-
<b>Construction Subtotal (10 - 50)</b>	<b>9.33</b>	<b>360,521</b>	<b>52,556</b>	<b>413,078</b>	<b>\$ 44,274</b>	<b>100%</b>	<b>50%</b>	<b>502,298</b>
<b>60 ROW, LAND, EXISTING IMPROVEMENTS</b>	<b>9.33</b>	<b>84,942</b>	<b>21,554</b>	<b>106,495</b>	<b>\$ 11,414</b>		<b>13%</b>	<b>119,087</b>
60.01 Purchase or lease of real estate		81,195	20,430	101,625				113,641
60.02 Relocation of existing households and businesses		3,746	1,124	4,870				5,446
<b>70 VEHICLES (18)</b>	<b>28</b>	<b>79,109</b>	<b>7,911</b>	<b>87,020</b>	<b>\$ 3,108</b>		<b>10%</b>	<b>105,671</b>
70.01 Light Rail	18	71,690	7,169	78,859	\$ 4,381			95,761
70.02 Heavy Rail		-	-	-				-
70.03 Commuter Rail		-	-	-				-
70.04 Bus		-	-	-				-
70.05 Other		-	-	-				-
70.06 Non-revenue vehicles	10	250	25	275	\$ 28			334
70.07 Spare parts		7,169	717	7,886				9,576
<b>80 PROFESSIONAL SERVICES (applies to Cats. 10-50)</b>	<b>9.33</b>	<b>129,787</b>	<b>19,469</b>	<b>149,256</b>	<b>\$ 15,997</b>	<b>36%</b>	<b>18%</b>	<b>171,251</b>
80.01 Preliminary Engineering		30,644	4,597	35,241				40,434
80.02 Final Design		23,434	3,515	26,949				30,920
80.03 Project Management for Design and Construction		23,434	3,515	26,949				30,920
80.04 Construction Administration & Management		28,842	4,326	33,168				38,056
80.05 Professional Liability and other Non-Construction Insurance		5,408	811	6,219				7,135
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		7,210	1,082	8,292				9,514
80.07 Surveys, Testing, Investigation, Inspection		7,210	1,082	8,292				9,514
80.08 Start up		3,605	541	4,146				4,757

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<b>Subtotal (10 - 80)</b>	9.33	<b>654,359</b>	<b>101,490</b>	<b>755,849</b>	<b>\$ 81,013</b>		<b>91%</b>	<b>898,307</b>
<b>90 UNALLOCATED CONTINGENCY</b>			10%	<b>75,585</b>			<b>9%</b>	<b>90,807</b>
<b>Subtotal (10 - 90)</b>	9.33			<b>831,434</b>	<b>\$ 89,114</b>		<b>100%</b>	<b>989,114</b>
<b>100 FINANCE CHARGES</b>				<b>0</b>			<b>0%</b>	<b>80,544</b>
<b>Total Project Cost (10 - 100)</b>	9.33			<b>831,434</b>	<b>\$ 89,114</b>		<b>100%</b>	<b>1,069,658</b>
Allocated Contingency as % of Base Yr Dollars w/o Contingency				15.51%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency				11.55%				
Total Contingency as % of Base Yr Dollars w/o Contingency				27.06%				
Unallocated Contingency as % of Subtotal (10 - 80)				10.00%				
YOE Construction Cost per Mile (X000)								\$53,837
YOE Total Project Cost per Mile Not Including Vehicles (X000)								\$103,321
YOE Total Project Cost per Mile (X000)								\$114,647