

<b>OC STREETCAR PROJECT -MAIN WORKSHEET-BUILD ALTERNATIVE</b> (Rev.19, June, 2017)								
OCTA				Today's Date		7/3/18		
OC Streetcar Project				Yr of Base Year \$		2018		
				Yr of Revenue Ops		2021		
	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 (route miles)</b>	<b>4.14</b>	38,711	2,168	<b>40,879</b>	<b>\$9,874</b>	<b>17%</b>	<b>10%</b>	<b>42,510</b>
10.01 Guideway: At-grade exclusive right-of-way	1.36			0	\$0			0
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)	0.05			0	\$0			0
10.03 Guideway: At-grade in mixed traffic	2.24			0	\$0			0
10.04 Guideway: Aerial structure	0.11	10,713	600	11,313	\$102,842			11,764
10.05 Guideway: Built-up fill				0				0
10.06 Guideway: Underground cut & cover				0				0
10.07 Guideway: Underground tunnel				0				0
10.08 Guideway: Retained cut or fill	0.38			0	\$0			0
10.09 Track: Direct fixation		2,157	121	2,278				2,369
10.10 Track: Embedded		14,737	825	15,562				16,183
10.11 Track: Ballasted		5,373	301	5,674				5,901
10.12 Track: Special (switches, turnouts)		5,731	321	6,052				6,294
10.13 Track: Vibration and noise dampening				0				0
<b>20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)</b>	<b>10</b>	8,368	423	<b>8,792</b>	<b>\$879</b>	<b>4%</b>	<b>2%</b>	<b>9,350</b>
20.01 At-grade station, stop, shelter, mall, terminal, platform	10	8,368	423	8,792	\$879			9,350
20.02 Aerial station, stop, shelter, mall, terminal, platform				0				0
20.03 Underground station, stop, shelter, mall, terminal, platform				0				0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.				0				0
20.05 Joint development				0				0
20.06 Automobile parking multi-story structure				0				0
20.07 Elevators, escalators				0				0
<b>30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS</b>	<b>4.14</b>	38,085	2,958	<b>41,043</b>	<b>\$9,914</b>	<b>17%</b>	<b>10%</b>	<b>43,107</b>
30.01 Administration Building: Office, sales, storage, revenue counting				0				0
30.02 Light Maintenance Facility		33,087	2,570	35,657				37,449
30.03 Heavy Maintenance Facility				0				0
30.04 Storage or Maintenance of Way Building				0				0
30.05 Yard and Yard Track		4,999	388	5,387				5,658
<b>40 SITEWORK &amp; SPECIAL CONDITIONS</b>	<b>4.14</b>	81,902	5,120	<b>87,022</b>	<b>\$21,020</b>	<b>37%</b>	<b>22%</b>	<b>90,626</b>
40.01 Demolition, Clearing, Earthwork		5,835	457	6,292				6,553
40.02 Site Utilities, Utility Relocation		28,702	1,592	30,294				31,548
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		285	22	307				320
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks				0				0
40.05 Site structures including retaining walls, sound walls		5,679	445	6,124				6,378
40.06 Pedestrian / bike access and accommodation, landscaping		1,901	149	2,050				2,135
40.07 Automobile, bus, van accessways including roads, parking lots		9,424	738	10,161				10,582
40.08 Temporary Facilities and other indirect costs during construction		30,075	1,718	31,794				33,110
<b>50 SYSTEMS</b>	<b>4.14</b>	56,769	3,648	<b>60,417</b>	<b>\$14,593</b>	<b>25%</b>	<b>15%</b>	<b>63,699</b>
50.01 Train control and signals		6,734	433	7,167				7,556
50.02 Traffic signals and crossing protection		8,536	549	9,085				9,578
50.03 Traction power supply: substations		9,769	628	10,397				10,962
50.04 Traction power distribution: catenary and third rail		18,021	1,158	19,179				20,221
50.05 Communications		12,567	808	13,375				14,101
50.06 Fare collection system and equipment		1,141	73	1,214				1,280
50.07 Central Control				0				0
<b>Construction Subtotal (10 - 50)</b>	<b>4.14</b>	223,835	14,318	<b>238,153</b>	<b>\$57,525</b>	<b>100%</b>	<b>61%</b>	<b>249,292</b>
<b>60 ROW, LAND, EXISTING IMPROVEMENTS</b>	<b>4.14</b>	8,215	386	<b>8,601</b>	<b>\$2,078</b>		<b>2%</b>	<b>8,602</b>
60.01 Purchase or lease of real estate		7,888	382	8,270				8,270
60.02 Relocation of existing households and businesses		327	5	331				331
<b>70 VEHICLES (number)</b>	<b>8</b>	54,799	2,496	<b>57,295</b>	<b>\$7,162</b>		<b>15%</b>	<b>57,694</b>
70.01 Light Rail	8	50,240	2,131	52,371	\$6,546			52,735
70.02 Heavy Rail				0				0
70.03 Commuter Rail				0				0
70.04 Bus				0				0
70.05 Other				0				0
70.06 Non-revenue vehicles		787	63	850				856
70.07 Spare parts		3,772	302	4,074				4,102
<b>80 PROFESSIONAL SERVICES (applies to Cats. 10-50)</b>	<b>4.14</b>	69,587	2,139	<b>71,725</b>	<b>\$17,325</b>	<b>30%</b>	<b>18%</b>	<b>74,401</b>
80.01 Project Development		16,524	0	16,524				17,140
80.02 Engineering		9,246	55	9,302				9,649
80.03 Project Management for Design and Construction		18,957	1,439	20,396				21,157
80.04 Construction Administration & Management		19,945	458	20,403				21,164
80.05 Professional Liability and other Non-Construction Insurance				0				0
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		1,298	14	1,312				1,361
80.07 Surveys, Testing, Investigation, Inspection		1,421	134	1,555				1,613
80.08 Start up		2,196	38	2,235				2,318
<b>Subtotal (10 - 80)</b>	<b>4.14</b>	356,436	19,339	<b>375,775</b>	<b>\$90,767</b>		<b>96%</b>	<b>389,989</b>
<b>90 UNALLOCATED CONTINGENCY</b>				<b>16,966</b>			<b>4%</b>	<b>17,771</b>
<b>Subtotal (10 - 90)</b>	<b>4.14</b>			<b>392,741</b>	<b>\$94,865</b>		<b>100%</b>	<b>407,760</b>
<b>100 FINANCE CHARGES</b>							<b>0%</b>	<b>0</b>
<b>Total Project Cost (10 - 100)</b>	<b>4.14</b>			<b>392,741</b>	<b>\$94,865</b>		<b>100%</b>	<b>407,760</b>
Allocated Contingency as % of Base Yr Dollars w/o Contingency				5.43%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency				4.76%				
Total Contingency as % of Base Yr Dollars w/o Contingency				10.19%				
Unallocated Contingency as % of Subtotal (10 - 80)				4.51%				
YOE Construction Cost per Mile (X000)								\$60,216
YOE Total Project Cost per Mile Not Including Vehicles (X000)								\$84,557
YOE Total Project Cost per Mile (X000)								\$98,493