	A	B
1	**Standard Cost Categories for Capital Projects**	
2	(Rev.11, May 2, 2008)	
3	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**	
4	10.01	Guideway: At-grade exclusive right-of-way
5	10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)
6	10.03	Guideway: At-grade in mixed traffic
7	10.04	Guideway: Aerial structure
8	10.05	Guideway: Built-up fill
9	10.06	Guideway: Underground cut & cover
10	10.07	Guideway: Underground tunnel
11	10.08	Guideway: Retained cut or fill
12	10.09	Track: Direct fixation
13	10.10	Track: Embedded
14	10.11	Track: Ballasted
15	10.12	Track: Special (switches, turnouts)
16	10.13	Track: Vibration and noise dampening
17	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**	
18	20.01	At-grade station, stop, shelter, mall, terminal, platform
19	20.02	Aerial station, stop, shelter, mall, terminal, platform
20	20.03	Underground station, stop, shelter, mall, terminal, platform
21	20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.
22	20.05	Joint development
23	20.06	Automobile parking multi-story structure
24	20.07	Elevators, escalators
25	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**	
26	30.01	Administration Building: Office, sales, storage, revenue counting
27	30.02	Light Maintenance Facility
28	30.03	Heavy Maintenance Facility
29	30.04	Storage or Maintenance of Way Building
30	30.05	Yard and Yard Track
31	**40 SITEWORK & SPECIAL CONDITIONS**	
32	40.01	Demolition, Clearing, Earthwork
33	40.02	Site Utilities, Utility Relocation
34	40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
35	40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks
36	40.05	Site structures including retaining walls, sound walls
37	40.06	Pedestrian / bike access and accommodation, landscaping
38	40.07	Automobile, bus, van accessways including roads, parking lots
39	40.08	Temporary Facilities and other indirect costs during construction
40	**50 SYSTEMS**	
41	50.01	Train control and signals
42	50.02	Traffic signals and crossing protection
43	50.03	Traction power supply: substations
44	50.04	Traction power distribution: catenary and third rail
45	50.05	Communications
46	50.06	Fare collection system and equipment
47	50.07	Central Control

	A		B
48	**60 ROW, LAND, EXISTING IMPROVEMENTS**		
49		60.01	Purchase or lease of real estate
50		60.02	Relocation of existing households and businesses
51	**70 VEHICLES (number)**		
52		70.01	Light Rail
53		70.02	Heavy Rail
54		70.03	Commuter Rail
55		70.04	Bus
56		70.05	Other
57		70.06	Non-revenue vehicles
58		70.07	Spare parts
59	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**		
60		80.01	Preliminary Engineering
61		80.02	Final Design
62		80.03	Project Management for Design and Construction
63		80.04	Construction Administration & Management
64		80.05	Professional Liability and other Non-Construction Insurance
65		80.06	Legal; Permits; Review Fees by other agencies, cities, etc.
66		80.07	Surveys, Testing, Investigation, Inspection
67		80.08	Start up
68	**90 UNALLOCATED CONTINGENCY**		
69	**100 FINANCE CHARGES**		

	A	B
1	**Standard Cost Categories for Capital Projects** **D E F I N I T I O N S**	
2	(Rev.11, May 2, 2008)	
3	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**	
4	10.01	Guideway: At-grade exclusive right-of-way
5	10.02	Guideway: At-grade semi-exclusive (allows cross-traffic)
6	10.03	Guideway: At-grade in mixed traffic
7	10.04	Guideway: Aerial structure
8	10.05	Guideway: Built-up fill
9	10.06	Guideway: Underground cut & cover
10	10.07	Guideway: Underground tunnel
11	10.08	Guideway: Retained cut or fill
12	10.09	Track: Direct fixation
13	10.10	Track: Embedded
14	10.11	Track: Ballasted
15	10.12	Track: Special (switches, turnouts)
16	10.13	Track: Vibration and noise dampening
17	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**	
18		
19	20.01	At-grade station, stop, shelter, mall, terminal, platform
20	20.02	Aerial station, stop, shelter, mall, terminal, platform
21	20.03	Underground station, stop, shelter, mall, terminal, platform
22	20.04	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.
23	20.05	Joint development
24	20.06	Automobile parking multi-story structure
25	20.07	Elevators, escalators
26	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**	
27		
28		

	C
1	**NOTE:** The SCC cost breakdown is based on a traditional Design Bid Build model. If your project is Design Build, to the best of your ability, separate construction costs from design, administration, testing, etc. Put all construction costs in 10 through 50. Put design, administration, testing, etc. in *80 Professional Services*.
2	
3	Include guideway and track costs for all transit modes (Heavy rail, light rail, commuter rail, BRT, rapid bus, bus, monorail, cable car, etc.) The unit of measure is route miles of guideway, regardless of width. As associated with the guideway, include costs for rough grading, excavation, and concrete base for guideway where applicable. Include all construction materials and labor regardless of whom is performing the work. In your written description of the scope and in supporting graphic diagrams, indicate whether busway or rail track is single, double, triple, relocated, etc. Put guideway and track elements associated with yards in *30 Support Facilities* below.
4	
5	
6	
7	Include foundation excavation; guideway structures including caissons, columns, bridges, viaducts, cross-overs, fly-overs.
8	Include construction of earthen berms.
9	Include excavation, retaining walls, backfill, underground guideway structure and finishes.
10	Include tunneling by means of a tunnel boring machine, drill blasting, mining, and immersed tube tunneling; tunnel structure and finishes.
11	Include excavation, retaining walls, backfill, underground guideway structure and finishes.
12	Include rails, connectors.
13	Include rails, ties; ballast where applicable
14	Include rails, ties and ballast.
15	Include transitional curves.
16	Include upcharge for vib/noise dampening to any track condition above.
17	As associated with stations, include costs for rough grading, excavation, station structures, enclosures, finishes, equipment; mechanical and electrical components including HVAC, ventilation shafts and equipment, station power, lighting, public address/customer information system, safety systems such as fire detection and prevention, security surveillance, access control, life safety systems, etc. Include all construction materials and labor regardless of whom is performing the work.
18	Put guideway and track associated with stations in *10 Guideway & Track Elements* above.
19	
20	Include station structures including caissons, columns, platforms, superstructures, etc.
21	Include retaining walls, backfill, structure.
22	
23	Per FTA's Joint Development Guidance, "Joint development is any income-producing activity with a transit nexus related to a real estate asset in which FTA has an interest. . .Joint development projects are commercial, residential, industrial, or mixed-use developments that are induced by or enhance the effectiveness of transit projects. . ." See http://www.fta.dot.gov/17973_18027_ENG_HTML.htm
24	Include retaining walls, backfill, structure.
25	
26	As associated with support facilities, include costs for rough grading, excavation, support structures, enclosures, finishes, equipment; mechanical and electrical components including HVAC, ventilation shafts and equipment, facility power, lighting, public address system, safety systems such as fire detection and prevention, security surveillance, access control, life safety systems, etc. Include fueling stations. Include all construction materials and labor regardless of whom is performing the work.
27	Where a support facility shares the structure with a station, its cost may be included with station cost. Identify this with a note.
28	Except for guideway and track associated with a yard, include all guideway and track costs associated with support facilities in *10 Guideway & Track Elements* above.

	A	B
29	30.01	Administration Building: Office, sales, storage, revenue counting
30	30.02	Light Maintenance Facility
31	30.03	Heavy Maintenance Facility
32	30.04	Storage or Maintenance of Way Building
33	30.05	Yard and Yard Track

	C
29	
30	Include service, inspection, and storage facilities and equipment.
31	Include heavy maintenance and overhaul facilities and equipment.
32	
33	Include yard construction, guideway and track associated with yard.

	A	B
34	**40 SITEWORK & SPECIAL CONDITIONS**	
35	40.01	Demolition, Clearing, Earthwork
36	40.02	Site Utilities, Utility Relocation
37	40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments
38	40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks
39	40.05	Site structures including retaining walls, sound walls
40	40.06	Pedestrian / bike access and accommodation, landscaping
41	40.07	Automobile, bus, van accessways including roads, parking lots
42	40.08	Temporary Facilities and other indirect costs during construction
43	**50 SYSTEMS**	
44	50.01	Train control and signals
45	50.02	Traffic signals and crossing protection
46	50.03	Traction power supply: substations
47	50.04	Traction power distribution: catenary and third rail
48	50.05	Communications
49	50.06	Fare collection system and equipment
50	50.07	Central Control
51	**Construction Subtotal (10 - 50)**	

	C
34	Include all construction materials and labor regardless of whom is performing the work.
35	Include project-wide clearing, demolition and fine grading.
36	Include all site utilities - storm, sewer, water, gas, electric.
37	Include underground storage tanks, fuel tanks, other hazardous materials and treatments, etc.
38	Include other environmental mitigation not listed.
39	
40	Include sidewalks, paths, plazas, landscape, site and station furniture, site lighting, signage, public artwork, bike facilities, permanent fencing.
41	Include all on-grade paving.
42	As a general rule and to the extent possible, appropriately allocate indirect costs among the construction costs in Categories 10 through 50. Where that is not possible, include in *40.08 Temporary Facilities* costs for mobilization, demobilization, phasing; time and temporary construction associated with weather (heat, rain, freezing, etc.); temporary power and facilities; temporary construction, easements, and barriers for storm water pollution prevention, temporary access and to mitigate construction impacts; project and construction supervision; general conditiions, overhead, profit. **NOTE: Include contractor's general liability and other insurance related to construction such as builder's risk in Cats. 10 - 50, not in 80 Professional Services below.**
43	Include all construction materials and labor regardless of whom is performing the work.
44	
45	Include signal prioritization at intersections.
46	
47	
48	Include passenger information systems at stations and on vehicles (real time travel information; static maps and schedules). Include equipment to allow communications among vehicles and with central control.
49	Include fare sales and swipe machines, fare counting equipment.
50	
51	

	A	B
52	**60 ROW, LAND, EXISTING IMPROVEMENTS**	
53	60.01	Purchase or lease of real estate
54	60.02	Relocation of existing households and businesses
55	**70 VEHICLES (number)**	
56	70.01	Light Rail
57	70.02	Heavy Rail
58	70.03	Commuter Rail
59	70.04	Bus
60	70.05	Other
61	70.06	Non-revenue vehicles
62	70.07	Spare parts
63	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**	
64	80.01	Preliminary Engineering
65	80.02	Final Design
66	80.03	Project Management for Design and Construction
67	80.04	Construction Administration & Management
68	80.05	Professional Liability and other Non-Construction Insurance
69	80.06	Legal; Permits; Review Fees by other agencies, cities, etc.
70	80.07	Surveys, Testing, Investigation, Inspection
71	80.08	Start up
72	**Subtotal (10 - 80)**	
73	**90 UNALLOCATED CONTINGENCY**	
74	**Subtotal (10 - 90)**	
75	**100 FINANCE CHARGES**	
76	**Total Project Cost (10 - 100)**	
77		
78		

	C
52	**Include professional services associated with the real estate component of the project. These costs may include agency staff oversight and administration, real estate and relocation consultants, legal counsel, court expenses, insurance, etc.**
53	If the value of right-of-way, land, and existing improvements is to be used as local match to the Federal funding of the project, include the total cost on this line item. In backup documentation, separate cost for land from cost for improvements. Identify whether items are leased, purchased or acquired through payment or for free. Include the costs for permanent surface and subsurface easements, trackage rights, etc.
54	In compliance with Uniform Relocation Act.
55	**Include professional services associated with the vehicle component of the project. These costs may include agency staff oversight and administration, vehicle consultants, design and manufacturing contractors, legal counsel, warranty and insurance costs, etc.**
56	Include light rail and streetcar rail using electric, diesel or other power supply.
57	
58	Include locomotives (diesel, electric, or other), trailer cars, self-propelled multiple units (EMU electric or DMU diesel, or other power supply)
59	Includes "rubber-tired" buses and trolleys including new, used, historic replica, articulated, using electric, diesel, dual-power, or other power supply.
60	Include Vans, Sedan/Station Wagon, Cable Car, People Mover, Monorail, Car/Inclined Railway, Ferry Boat, Transferred Vehicle
61	
62	
63	Cat. 80 applies to Cats. 10-50. Cat. 80 includes all professional, technical and management services related to the
64	design and construction of fixed infrastructure (Cats. 10 - 50) during the preliminary engineering, final design, and
65	construction phases of the project. This includes environmental work, design, engineering and architectural services;
66	specialty services such as safety or security analyses; value engineering, risk assessment, cost estimating, scheduling,
67	Before and After studies, ridership modeling and analyses, auditing, legal services, administration and management,
68	etc. by agency staff or outside consultants.
69	
70	Include professional liability insurance and other non-construction insurance on 80.05 unless insurance for the agency
71	Include start up and training. Include in Cats. 10 - 50 above access and protection work by agency staff or outside contractors.
72	
73	Includes unallocated contingency, project reserves. Document allocated contingencies for individual line items on the Main worksheets.
74	
75	Include finance charges expected to be paid by the project sponsor/grantee prior to either the completion of the project or the fulfillment of the New Starts funding commitment, whichever occurs later in time. Finance charges incurred after this date should not be included in Total Project Cost. (See FFGA Circular FTA C5200.1A Chapter III for additional information.) Derive finance charges from the New Starts project's financial plan, based on an analysis of the sources and uses of funds. The amount and type of debt financing required and revenues available determine the finance charges. By year, compute finance charges in year-of-expenditure (YOE) dollars. On the Inflation Calculation to YOE worksheet enter the finance charges for the appropriate years.
76	
77	
78	

	A
1	**MAIN WORKSHEET-BUILD ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Airport Alignment Koapaka Option
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07
43	40.08
44	**50 SYSTEMS**
45	50.01
46	50.02
47	50.03

	B	C	D	E	F	G	H	I
1								
2								
3								Yr
4								Yr o
5								
6		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
7		**1.60**		105,435	26,359	**131,794**	**$ 82,371**	**62%**
8	Guideway: At-grade exclusive right-of-way					0		
9	Guideway: At-grade semi-exclusive (allows cross-traffic)					0		
10	Guideway: At-grade in mixed traffic					0		
11	Guideway: Aerial structure	1.60		95,328	23,832	119,160	$ 74,475	
12	Guideway: Built-up fill					0		
13	Guideway: Underground cut & cover					0		
14	Guideway: Underground tunnel					0		
15	Guideway: Retained cut or fill			0	0			
16	Track: Direct fixation			9,635	2,409	12,044		
17	Track: Embedded					0		
18	Track: Ballasted					0		
19	Track: Special (switches, turnouts)			472	118	590		
20	Track: Vibration and noise dampening					0		
21		**1**		14,043	3,511	**17,553**	**$ 17,553**	**8%**
22	At-grade station, stop, shelter, mall, terminal, platform					0		
23	Aerial station, stop, shelter, mall, terminal, platform	1		11,270	2,817	14,087	$ 14,087	
24	Underground station, stop, shelter, mall, terminal, platform					0		
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.					0		
26	Joint development					0		
27	Automobile parking multi-story structure					0		
28	Elevators, escalators			2,773	693	3,466		
29		1.60		0	0	**0**	**$ -**	**0%**
30	Administration Building: Office, sales, storage, revenue counting			0	0	0		
31	Light Maintenance Facility					0		
32	Heavy Maintenance Facility			0	0			
33	Storage or Maintenance of Way Building					0		
34	Yard and Yard Track					0		
35		1.60		36,887	12,911	**49,798**	**$ 31,124**	**24%**
36	Demolition, Clearing, Earthwork			2,002	701	2,703		
37	Site Utilities, Utility Relocation			33,325	11,664	44,988		
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments			792	277	1,069		
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks			768	269	1,037		
40	Site structures including retaining walls, sound walls					0		
41	Pedestrian / bike access and accommodation, landscaping					0		
42	Automobile, bus, van accessways including roads, parking lots			0	0	0		
43	Temporary Facilities and other indirect costs during construction					0		
44		1.60		9,680	2,420	**12,099**	**$ 7,562**	**6%**
45	Train control and signals			2,704	676	3,380		
46	Traffic signals and crossing protection			0	0	0		
47	Traction power supply: substations			0	0	0		

	J	K	L
1		(Rev.11, May 2, 2008)	
2	Today's Date	**01/15/10**	
3	of Base Year $	FY 2009	
4	f Revenue Ops	FY 2019	
5			
6	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (X000)	
7	**41%**	**0**	0
8		0	
9		0	
10		0	
11		0	
12		0	
13		0	
14		0	
15		0	
16		0	
17		0	
18		0	
19		0	
20		0	
21	**5%**	**0**	0
22		0	
23		0	
24		0	
25		0	
26		0	
27		0	
28		0	
29	**0%**	**0**	#DIV/0!
30		0	
31		0	
32		0	
33		0	
34		0	
35	**15%**	**0**	0
36		0	
37		0	
38		0	
39		0	
40		0	
41		0	
42		0	
43		0	
44	**4%**	**0**	0
45		0	
46		0	
47		0	

	A
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10-50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**
76	**100 FINANCE CHARGES**
77	**Total Project Cost (10 - 100)**
78	Allocated Contingency as % of Base Yr Dollars w/o Contingency
79	Unallocated Contingency as % of Base Yr Dollars w/o Contingency
80	Total Contingency as % of Base Yr Dollars w/o Contingency
81	Unallocated Contingency as % of Subtotal (10 - 80)
82	YOE Construction Cost per Mile (X000)
83	YOE Total Project Cost per Mile Not Including Vehicles (X000)
84	YOE Total Project Cost per Mile (X000)

	B	C	D	E	F	G	H	I
48	Traction power distribution: catenary and third rail			5,350	1,337	6,687		
49	Communications			1,626	406	2,032		
50	Fare collection system and equipment			0	0	0		
51	Central Control			0	0	0		
52		1.60		166,044	45,200	**211,244**	**$ 132,028**	**100%**
53		1.60		20,453	10,227	**30,680**	**$ 19,175**	
54	Purchase or lease of real estate			15,300	7,650	22,950		
55	Relocation of existing households and businesses			5,153	2,577	7,730		
56		**0**		0	0	**0**		
57	Light Rail					0		
58	Heavy Rail	0		0	0	0		
59	Commuter Rail					0		
60	Bus					0		
61	Other					0		
62	Non-revenue vehicles			0	0	0		
63	Spare parts			0	0	0		
64		1.60		49,813	13,560	**63,373**	**$ 39,608**	**30%**
65	Preliminary Engineering			4,981	1,356	6,337		
66	Final Design			7,472	2,034	9,506		
67	Project Management for Design and Construction			9,132	2,486	11,618		
68	Construction Administration & Management			16,604	4,520	21,124		
69	Professional Liability and other Non-Construction Insurance			2,491	678	3,169		
70	Legal; Permits; Review Fees by other agencies, cities, etc.			2,491	678	3,169		
71	Surveys, Testing, Investigation, Inspection			830	226	1,056		
72	Start up			5,812	1,582	7,394		
73		1.60		236,311	68,987	**305,298**	**$ 190,811**	
74						**18,318**		
75		1.60				**323,616**	**$ 202,260**	
76						**0**		
77		1.60				**323,616**	**$ 202,260**	
78						29.19%		
79						7.75%		
80						36.94%		
81						6.00%		
82								
83								
84								

	J	K	L
48		0	
49		0	
50		0	
51		0	
52	**65%**	**0**	
53	**9%**	**0**	0
54		0	
55		0	
56	**0%**	**0**	#DIV/0!
57		0	
58		0	
59		0	
60		0	
61		0	
62		0	
63		0	
64	**20%**	**0**	0
65		0	
66		0	
67		0	
68		0	
69		0	
70		0	
71		0	
72		0	
73	**94%**	**0**	
74	**6%**	**0**	0
75	**100%**	**0**	
76	**0%**	**0**	#DIV/0!
77	**100%**	**0**	0
78			
79			
80			
81			
82			
83			
84			

Cell: K3
Comment: Year of Base Year Dollars should match the year in "Today's Date."

Cell: K6
Comment: YOE Dollars automatically arrive from Inflation Worksheet.

Cell: E8
Comment: For all cells, round to the nearest 1,000 before inserting costs!

Cell: K8
Comment: YOE costs for individual line items within a Category are derived as a percentage of the YOE cost of the Category.

Cell: J19
Comment: Preparing for bid:

For each separate contract package generate a Main Worksheet and an Inflation Worksheet.

In the Special Conditions of the Contract, require the construction contractor to update these worksheets and submit them with the monthly pay application.

This should make it easy to track costs in the SCC format throughout construction, and make it easy to submit the final costs to FTA at contract closeout and at the two-year post-rev ops date required by the Before and After Study.

Cell: G76
Comment: Enter finance charges on Inflation Worksheet.

	A	B	C
1	**INFLATION WORKSHEET**		
2	City and County of Honolulu		
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport		
4	Airport Alignment Koapaka Option		
5			
6			
7	**BASE YEAR DOLLARS (X$000)**		Base Yr Dollars
8	10 GUIDEWAY & TRACK ELEMENTS		131,794
9	20 STATIONS, STOPS, TERMINALS, INTERMODAL		17,553
10	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		0
11	40 SITEWORK & SPECIAL CONDITIONS		49,798
12	50 SYSTEMS		12,099
13	60 ROW, LAND, EXISTING IMPROVEMENTS		30,680
14	70 VEHICLES		0
15	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		63,373
16	90 UNALLOCATED CONTINGENCY		18,318
17	100 FINANCE CHARGES		244,434
18	**Total Project Cost (10 - 100)**		568,049
19			
20	**Inflation Rate**		
21	**Compounded Inflation Factor**		
22			
23	**YEAR OF EXPENDITURE DOLLARS (X$000)**		YOE Dollars
24	10 GUIDEWAY & TRACK ELEMENTS		1,677,817
25	20 STATIONS, STOPS, TERMINALS, INTERMODAL		389,152
26	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		138,499
27	40 SITEWORK & SPECIAL CONDITIONS		895,470
28	50 SYSTEMS		311,215
29	60 ROW, LAND, EXISTING IMPROVEMENTS		128,635
30	70 VEHICLES		398,825
31	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		933,589
32	90 UNALLOCATED CONTINGENCY		21,963
33	100 FINANCE CHARGES		290,294
34	**Total Project Cost (10 - 100)**		5,185,458
35			
36	**Inflation Rate**		
37	10 GUIDEWAY & TRACK ELEMENTS		
38	20 STATIONS, STOPS, TERMINALS, INTERMODAL		
39	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		
40	40 SITEWORK & SPECIAL CONDITIONS		
41	50 SYSTEMS		
42	60 ROW, LAND, EXISTING IMPROVEMENTS		
43	70 VEHICLES		
44	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		
45	90 UNALLOCATED CONTINGENCY		

	D	E	F	G	H	I	J	K	L	M
1					(Rev.11, May 2, 2008)					
2				Today's Date	**1/15/10**				Today's Date	
3				Yr of Base Year $	FY 2009				Yr of Base Year $	
4				Yr of Revenue Ops	FY 2019				Yr of Revenue Ops	
5										
6										
7	Double-Check Total	2000	2001	2002	2003	2004	2005	2006	2007	2008
8	1,408,728	0	0	0	0	0	0	0	0	0
9	305,630	0	0	0	0	0	0	0	0	0
10	121,600	0	0	0	0	0	0	0	0	0
11	757,256	0	0	0	0	0	0	0	0	0
12	254,163	0	0	0	0	0	0	0	0	0
13	128,452	0	0	0	0	0	0	0	0	0
14	341,297	0	0	0	0	0	0	0	0	0
15	747,370	0	0	0	0	0	0	0	0	0
16	18,318	0	0	0	0	0	0	0	0	0
17	244,434	0	0	0	0	0	0	0	0	
18	4,327,248	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
19										
20		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	#DIV/0!
21		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22										
23		2000	2001	2002	2003	2004	2005	2006	2007	2008
24		0	0	0	0	0	0	0	0	0
25		0	0	0	0	0	0	0	0	0
26		0	0	0	0	0	0	0	0	0
27		0	0	0	0	0	0	0	0	0
28		0	0	0	0	0	0	0	0	0
29		0	0	0	0	0	0	0	0	0
30		0	0	0	0	0	0	0	0	0
31		0	0	0	0	0	0	0	0	0
32		0	0	0	0	0	0	0	0	0
33		0	0	0	0	0	0	0		
34		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
35										
36										
37	0.990812917									
38	0.997574465									
39	0.994604705									
40	0.995986183									
41	0.997302317									
42	0.95303723									
43	0.997563158									
44	0.998319714									
45										

	N	O	P	Q
1	(Rev.11, May 2, 2008)			
2	**1/15/10**			
3	FY 2009			
4	FY 2019			
5				
6				
7	2009	2010	2011	2012
8	0	25,573	139,316	209,371
9	0	0	1,429	27,241
10	0	6,404	29,589	29,670
11	0	9,701	55,125	190,572
12	0	0	28,651	29,373
13	0	50,367	44,528	33,556
14	0	0	14,839	4,946
15	0	76,548	121,354	93,497
16	0	760	1,960	2,786
17				505
18	**0**	**169,353**	**436,791**	**621,517**
19				
20	#DIV/0!	#DIV/0!	0.04253	0.04372
21	#DIV/0!	1.03087	1.07471	1.12170
22				
23	2009	2010	2011	2012
24	0	26,559	150,261	235,477
25	0	0	1,541	30,560
26	0	6,651	31,915	33,301
27	0	10,087	59,604	215,321
28	0	0	30,650	32,501
29	0	50,367	44,602	33,666
30	0	0	15,757	5,413
31	0	80,134	132,988	107,260
32	0	783	2,106	3,125
33				535
34	**0**	**174,581**	**469,424**	**697,158**
35				
36				
37		1.03854	1.03854	1.04276
38		1.03851	1.03851	1.04018
39		1.03855	1.03855	1.04060
40		1.03983	1.03983	1.04497
41		1.03431	1.03431	1.03431
42		1.00000	1.00164	1.00164
43		1.03048	1.03048	1.03048
44		1.04684	1.04684	1.04684
45		1.00832	1.03502	1.04834

	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
1													
2													
3													
4													
5													
6													
7	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
8	385,842	317,641	219,064	102,664	9,257	0	0	0	0	0	0	0	0
9	48,459	34,094	38,973	63,002	57,096	35,337	0	0	0	0	0	0	0
10	29,589	26,347	0	0	0	0	0	0	0	0	0	0	0
11	285,959	132,670	39,901	29,381	11,262	2,686	0	0	0	0	0	0	0
12	29,293	29,293	29,373	29,293	29,293	29,293	20,304	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0
14	29,678	148,390	143,444	0	0	0	0	0	0	0	0	0	0
15	100,572	85,078	68,503	61,290	54,383	52,461	33,683	0	0	0	0	0	0
16	4,098	3,486	2,430	1,287	727	540	243	0	0	0	0	0	0
17	5,642	22,974	39,688	46,029	45,498	45,632	38,467					0	0
18	**919,133**	**799,971**	**581,376**	**332,945**	**207,515**	**165,949**	**92,697**	**0**	**0**	**0**	**0**	**0**	**0**
19													
20	0.04851	0.02848	0.02917	0.04611	0.02926	0.03212	0.01789	0.02800	0.02800	0.02800	0.02800	0.02800	0.02800
21	1.17612	1.20961	1.24490	1.30231	1.34041	1.38347	1.40822	1.44765	1.48818	1.52985	1.57269	1.61672	1.66199
22													
23	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
24	453,058	387,351	277,436	135,031	12,644	0	0	0	0	0	0	0	0
25	56,615	41,366	49,108	82,441	77,591	49,930	0	0	0	0	0	0	0
26	34,619	32,013	0	0	0	0	0	0	0	0	0	0	0
27	337,963	163,042	50,989	39,041	15,560	3,863	0	0	0	0	0	0	0
28	33,557	34,708	35,997	37,131	38,405	39,760	28,506	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0
30	33,466	172,428	171,761	0	0	0	0	0	0	0	0	0	0
31	120,780	106,958	90,155	84,439	78,434	79,205	53,236	0	0	0	0	0	0
32	4,823	4,227	3,044	1,704	1,003	779	368	0	0	0	0	0	0
33	6,125	25,563	45,266	53,811	54,519	56,048	48,428					0	0
34	**1,081,006**	**967,657**	**723,755**	**433,597**	**278,157**	**229,585**	**130,538**	**0**	**0**	**0**	**0**	**0**	**0**
35													
36													
37	1.04403	1.03854	1.03854	1.03854	1.03854	1.03982	1.03854						
38	1.04143	1.03851	1.03851	1.03851	1.03851	1.03976	1.03851						
39	1.04241	1.03855	1.03855	1.03855	1.03855	1.04036	1.03855						
40	1.04602	1.03983	1.03983	1.03983	1.03983	1.04088	1.03983						
41	1.03530	1.03431	1.03431	1.03431	1.03431	1.03530	1.03431						
42	1.00164	1.00164	1.00164	1.00164	1.00164	1.00164	1.00164						
43	1.03048	1.03048	1.03048	1.03048	1.03048	1.03048	1.03048						
44	1.04684	1.04684	1.04684	1.04684	1.04684	1.04684	1.04684						
45	1.04880	1.03736	1.03716	1.03611	1.03093	1.02824	1.02380						

	A	B	C
46	100 FINANCE CHARGES		
47	**Total Project Cost (10 - 100)**		
48			
49	**Compounded Inflation Factor**		
50	10 GUIDEWAY & TRACK ELEMENTS		
51	20 STATIONS, STOPS, TERMINALS, INTERMODAL		
52	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		
53	40 SITEWORK & SPECIAL CONDITIONS		
54	50 SYSTEMS		
55	60 ROW, LAND, EXISTING IMPROVEMENTS		
56	70 VEHICLES		
57	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		
58	90 UNALLOCATED CONTINGENCY		
59	100 FINANCE CHARGES		
60	**Total Project Cost (10 - 100)**		

	D	E	F	G	H	I	J	K	L	M
46										
47										
48										
49										
50										
51										
52										
53										
54										
55										
56										
57										
58										
59										
60										

	N	O	P	Q
46		1.01500	1.02000	1.02300
47		1.03087	1.04253	1.04372
48				
49				
50		1.03854	1.07857	1.12469
51		1.03851	1.07850	1.12184
52		1.03855	1.07859	1.12238
53		1.03983	1.08124	1.12986
54		1.03431	1.06980	1.10651
55		1.00000	1.00164	1.00329
56		1.03048	1.06189	1.09426
57		1.04684	1.09587	1.14720
58		1.03087	1.07471	1.12175
59		1.01500	1.03530	1.05911
60		1.03087	1.07471	1.12170

	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
46	1.02500	1.02500	1.02500	1.02500	1.02500	1.02500	1.02500						
47	1.04851	1.02848	1.02917	1.04611	1.02926	1.03212	1.01789						
48													
49													
50	1.17421	1.21946	1.26646	1.31527	1.36596	1.42035	1.47509						
51	1.16832	1.21331	1.26003	1.30855	1.35895	1.41298	1.46739						
52	1.16998	1.21508	1.26192	1.31057	1.36109	1.41602	1.47061						
53	1.18186	1.22893	1.27788	1.32877	1.38170	1.43818	1.49546						
54	1.14557	1.18488	1.22553	1.26758	1.31108	1.35736	1.40393						
55	1.00493	1.00658	1.00824	1.00989	1.01155	1.01321	1.01488						
56	1.12762	1.16199	1.19741	1.23391	1.27153	1.31029	1.35023						
57	1.20093	1.25718	1.31606	1.37771	1.44223	1.50979	1.58050						
58	1.17667	1.21248	1.25255	1.32368	1.38033	1.44234	1.51409						
59	1.08559	1.11273	1.14055	1.16906	1.19829	1.22825	1.25895						
60	1.17612	1.20961	1.24490	1.30231	1.34041	1.38347	1.40822						

Cell: E20
Comment: In Line 20 for each year insert the rate of inflation that you believe to be correct. FTA reviews these rates for reasonableness.

Cell: E24
Comment: For past years, enter the actual dollars spent in each year. The dollars will inflate when converted to the current base year.

Cell: E33
Comment: Enter Finance Charges on this line.

	A
1	**ANNUALIZED COST-BUILD ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Application for P.E.
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07
43	40.08
44	**50 SYSTEMS**
45	50.01

	B	C	D	E	F	G	H
1							
2							
3							
4							
5							
6		Quantity	Total Base Year Dollars (X000)	Cat. 80 Prof. Svc. spread proportionally over Cats. 10 - 50 (X000)	Spread Cat. 90 Unalloc. Cont. according to perceived risks (X000)	Revised Total Base Year Dollars (X000)	Years of Useful Life
7		**1.60**	**131,794**	**39,538**	**110,000**	**281,332**	
8	Guideway: At-grade exclusive right-of-way	0.00	0	0		0	125
9	Guideway: At-grade semi-exclusive (allows cross-traffic)	0.00	0	0		0	30
10	Guideway: At-grade in mixed traffic	0.00	0	0		0	20
11	Guideway: Aerial structure	1.60	119,160	35,748	110,000	264,908	80
12	Guideway: Built-up fill	0.00	0	0		0	80
13	Guideway: Underground cut & cover	0.00	0	0		0	125
14	Guideway: Underground tunnel	0.00	0	0		0	125
15	Guideway: Retained cut or fill	0.00	0	0		0	125
16	Track: Direct fixation		12,044	3,613		15,657	30
17	Track: Embedded		0	0		0	20
18	Track: Ballasted		0	0		0	35
19	Track: Special (switches, turnouts)		590	177		767	30
20	Track: Vibration and noise dampening		0	0		0	30
21		**1**	**17,553**	**5,266**	**21,000**	**43,819**	
22	At-grade station, stop, shelter, mall, terminal, platform	0	0	0		0	70
23	Aerial station, stop, shelter, mall, terminal, platform	1	14,087	4,226	21,000	39,313	70
24	Underground station, stop, shelter, mall, terminal, platform	0	0	0		0	125
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	0	0	0		0	70
26	Joint development		0	0		0	70
27	Automobile parking multi-story structure		0	0		0	50
28	Elevators, escalators		3,466	1,040		4,506	30
29			**0**	**0**	**10,000**	**10,000**	
30	Administration Building: Office, sales, storage, revenue counting		0	0		0	50
31	Light Maintenance Facility		0	0		0	50
32	Heavy Maintenance Facility		0	0	10,000	10,000	50
33	Storage or Maintenance of Way Building		0	0		0	50
34	Yard and Yard Track		0	0		0	80
35			**49,798**	**14,939**	**12,620**	**77,357**	
36	Demolition, Clearing, Earthwork		2,703	811		3,514	125
37	Site Utilities, Utility Relocation		44,988	13,496		58,485	125
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		1,069	321	6,620	8,010	125
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		1,037	311	6,000	7,349	125
40	Site structures including retaining walls, sound walls		0	0		0	80
41	Pedestrian / bike access and accommodation, landscaping		0	0		0	20
42	Automobile, bus, van accessways including roads, parking lots		0	0		0	20
43	Temporary Facilities and other indirect costs during construction		0	0		0	100
44			**12,099**	**3,630**	**0**	**15,729**	
45	Train control and signals		3,380	1,014		4,394	30

	I	J
1		(Rev.11, May 2, 2008)
2	Today's Date	**1/15/10**
3	Yr of Base Year $	**FY 2009**
4	Yr of Revenue Ops	**FY 2019**
5		
6	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	**Annualized Cost (X000)**
7		**19,950**
8	0.0700	0
9	0.0806	0
10	0.0944	0
11	0.0703	18,627
12	0.0703	0
13	0.0700	0
14	0.0700	0
15	0.0700	0
16	0.0806	1,262
17	0.0944	0
18	0.0772	0
19	0.0806	62
20	0.0806	0
21		**3,139**
22	0.0706	0
23	0.0706	2,776
24	0.0700	0
25	0.0706	0
26	0.0706	0
27	0.0725	0
28	0.0806	363
29		**725**
30	0.0725	0
31	0.0725	0
32	0.0725	725
33	0.0725	0
34	0.0703	0
35		**5,416**
36	0.0700	246
37	0.0700	4,095
38	0.0700	561
39	0.0700	515
40	0.0703	0
41	0.0944	0
42	0.0944	0
43	0.0701	0
44		**1,304**
45	0.0806	354

	A
46	50.02
47	50.03
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10 - 50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**
76	
77	
78	**TOTAL**

	B	C	D	E	F	G	H
46	Traffic signals and crossing protection		0	0		0	30
47	Traction power supply: substations		0	0		0	50
48	Traction power distribution: catenary and third rail		6,687	2,006		8,693	30
49	Communications		2,032	610		2,642	20
50	Fare collection system and equipment		0	0		0	25
51	Central Control		0	0		0	30
52			**211,244**	**63,373**	**153,620**	**428,238**	
53			**30,680**		**0**	**30,680**	
54	Purchase or lease of real estate		22,950			22,950	125
55	Relocation of existing households and businesses		7,730			7,730	125
56		**588**	**407,880**		**0**	**407,880**	
57	Light Rail	0	0			0	25
58	Heavy Rail	0	0			0	25
59	Commuter Rail	0	0			0	25
60	Bus	588	407,880			407,880	12
61	Other	0	0			0	12
62	Non-revenue vehicles	0	0			0	12
63	Spare parts	0	0			0	12
64			**63,373**				
65	Preliminary Engineering		6,337				
66	Final Design		9,506				
67	Project Management for Design and Construction		11,618				
68	Construction Administration & Management		21,124				
69	Professional Liability and other Non-Construction Insurance		3,169				
70	Legal; Permits; Review Fees by other agencies, cities, etc.		3,169				
71	Surveys, Testing, Investigation, Inspection		1,056				
72	Start up		7,394				
73			**713,178**				
74			**18,318**				
75			**731,496**	63,373	153,620	**866,798**	
76	Bus Maintenance Base		25,637		0	25,637	50
77	Transit Centers		10,300		0	10,300	70
78			**767,432**		153,620	**902,734**	

	I	J
46	0.0806	0
47	0.0725	0
48	0.0806	701
49	0.0944	249
50	0.0858	0
51	0.0806	0
52		**30,534**
53		**2,148**
54	0.0700	1,607
55	0.0700	541
56		**51,353**
57	0.0858	0
58	0.0858	0
59	0.0858	0
60	0.1259	51,353
61	0.1259	0
62	0.1259	0
63	0.1259	0
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		**84,035**
76	0.0725	1,858
77	0.0706	727
78		**86,620**

Cell: H60
Comment: The range for buses is 12 to 18 years. Provide supporting documentation for an estimated useful life of more than 12 years.

Cell: E75
Comment: E75 and F75 are double-checks

Cell: B77
Comment: Additional project components may be required to be included in the Annualized Cost. Insert vehicle additions in Cat. 70. Insert any other item in Lines 76 and 77; insert useful life and annualization factor as well.

	A
1	**MAIN WORKSHEET-BASELINE ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Airport Alignment Koapaka Option
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07
43	40.08
44	**50 SYSTEMS**
45	50.01
46	50.02

	B	C	D	E	F	G	H	I
1								
2								Today's Date
3								Yr of Base Year $
4								Yr of Revenue Ops
5								
6		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
7		**0.00**	0	0	**0**		**0%**	**0%**
8	Guideway: At-grade exclusive right-of-way				0			
9	Guideway: At-grade semi-exclusive (allows cross-traffic)				0			
10	Guideway: At-grade in mixed traffic				0			
11	Guideway: Aerial structure				0			
12	Guideway: Built-up fill				0			
13	Guideway: Underground cut & cover				0			
14	Guideway: Underground tunnel				0			
15	Guideway: Retained cut or fill				0			
16	Track: Direct fixation				0			
17	Track: Embedded				0			
18	Track: Ballasted				0			
19	Track: Special (switches, turnouts)				0			
20	Track: Vibration and noise dampening				0			
21		**2**	0	0	**10,300**	**$ 5,150**	**15%**	**2%**
22	At-grade station, stop, shelter, mall, terminal, platform				0			
23	Aerial station, stop, shelter, mall, terminal, platform				0			
24	Underground station, stop, shelter, mall, terminal, platform				0			
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	2			10,300	$ 5,150		
26	Joint development				0			
27	Automobile parking multi-story structure				0			
28	Elevators, escalators				0			
29		0.00	0	0	**35,041**		**51%**	**6%**
30	Administration Building: Office, sales, storage, revenue counting				0			
31	Light Maintenance Facility				35,041			
32	Heavy Maintenance Facility				0			
33	Storage or Maintenance of Way Building				0			
34	Yard and Yard Track				0			
35		0.00	0	0	**22,795**		**33%**	**4%**
36	Demolition, Clearing, Earthwork				0			
37	Site Utilities, Utility Relocation				0			
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments				0			
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks				0			
40	Site structures including retaining walls, sound walls				0			
41	Pedestrian / bike access and accommodation, landscaping				0			
42	Automobile, bus, van accessways including roads, parking lots				22,795			
43	Temporary Facilities and other indirect costs during construction				0			
44		0.00	0	0	**0**		**0%**	**0%**
45	Train control and signals				0			
46	Traffic signals and crossing protection				0			

	J
1	(Rev.11, May 2, 2008)
2	**1/15/10**
3	**FY 2009**
4	**FY 2019**
5	
6	**Baseline** Alternative Cost Parameters (X000) see New Starts Reporting Instructions for additional info
7	
8	
9	1082/route mile
10	1082/route mile
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	216/station
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	5.4/on-grade space
43	
44	
45	
46	27/intersection

	A
47	50.03
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10 - 50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**
76	**100 FINANCE CHARGES**
77	**Total Project Cost (10 - 100)**
78	Total Base Year Cost per Mile Not Including Vehicles (X000)
79	Allocated Contingency as % of Base Yr Dollars w/o Cont.
80	Unallocated Contingency as % of Base Yr Dollars w/o Contingency
81	Total Contingency as % of Base Yr Dollars w/o Contingency
82	Unallocated Contingency as % of Subtotal (10 - 80)

	B	C	D	E	F	G	H	I
47	Traction power supply: substations				0			
48	Traction power distribution: catenary and third rail				0			
49	Communications				0			
50	Fare collection system and equipment				0			
51	Central Control				0			
52		0.00	0	0	**68,136**		**100%**	**12%**
53		0.00	0	0	**0**			**0%**
54	Purchase or lease of real estate				0			
55	Relocation of existing households and businesses				0			
56		**703**	0	0	**503,500**	**$ 716**		**88%**
57	Light Rail				0			
58	Heavy Rail				0			
59	Commuter Rail				0			
60	Bus	703			503,500	$ 716		
61	Other				0			
62	Non-revenue vehicles				0			
63	Spare parts				0			
64		0.00	0	0	**0**		**0%**	**0%**
65	Preliminary Engineering				0			
66	Final Design				0			
67	Project Management for Design and Construction				0			
68	Construction Administration & Management				0			
69	Professional Liability and other Non-Construction Insurance				0			
70	Legal; Permits; Review Fees by other agencies, cities, etc.				0			
71	Surveys, Testing, Investigation, Inspection				0			
72	Start up				0			
73		0.00	0	0	**571,636**			**100%**
74								**0%**
75		0.00			**571,636**			**100%**
76					NA			
77		0.00			**571,636**			**100%**
78								
79								
80								
81								
82								

	J
47	
48	
49	13/bus and 13/sign
50	10.8/bus
51	16.2-27 /bus
52	
53	
54	
55	
56	
57	
58	
59	
60	433 conventional or
61	703 articulated bus
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	

Cell: J9
Comment: April 25, 2008: Please note that these cost parameters have been increased by 4% from the 2007 costs. They include allocated contingency as before.

	A
1	**ANNUALIZED COST-BASELINE ALTERNATIVE**
2	City and County of Honolulu
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport
4	Airport Alignment Koapaka Option
5	
6	
7	**10 GUIDEWAY & TRACK ELEMENTS (route miles)**
8	10.01
9	10.02
10	10.03
11	10.04
12	10.05
13	10.06
14	10.07
15	10.08
16	10.09
17	10.10
18	10.11
19	10.12
20	10.13
21	**20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)**
22	20.01
23	20.02
24	20.03
25	20.04
26	20.05
27	20.06
28	20.07
29	**30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS**
30	30.01
31	30.02
32	30.03
33	30.04
34	30.05
35	**40 SITEWORK & SPECIAL CONDITIONS**
36	40.01
37	40.02
38	40.03
39	40.04
40	40.05
41	40.06
42	40.07

	B	C	D	E	F	G	H
1							
2							
3							
4							
5							
6		Quantity	Total Base Year Dollars (X000)	Cat. 80 Prof. Svc. spread proportionally over Cats. 10 - 50 (X000)	Spread Cat. 90 Unalloc. Cont. according to perceived risks (X000)	Revised Total Base Year Dollars (X000)	Years of Useful Life
7		**0.00**	**0**	**0**	**0**	**0**	
8	Guideway: At-grade exclusive right-of-way	0.00	0	0		0	125
9	Guideway: At-grade semi-exclusive (allows cross-traffic)	0.00	0	0		0	30
10	Guideway: At-grade in mixed traffic	0.00	0	0		0	20
11	Guideway: Aerial structure	0.00	0	0		0	80
12	Guideway: Built-up fill	0.00	0	0		0	80
13	Guideway: Underground cut & cover	0.00	0	0		0	125
14	Guideway: Underground tunnel	0.00	0	0		0	125
15	Guideway: Retained cut or fill	0.00	0	0		0	125
16	Track: Direct fixation		0	0		0	30
17	Track: Embedded		0	0		0	20
18	Track: Ballasted		0	0		0	35
19	Track: Special (switches, turnouts)		0	0		0	30
20	Track: Vibration and noise dampening		0	0		0	30
21		**2**	**10,300**	**0**	**0**	**10,300**	
22	At-grade station, stop, shelter, mall, terminal, platform	0	0	0		0	70
23	Aerial station, stop, shelter, mall, terminal, platform	0	0	0		0	70
24	Underground station, stop, shelter, mall, terminal, platform	0	0	0		0	125
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.	2	10,300	0		10,300	70
26	Joint development		0	0		0	70
27	Automobile parking multi-story structure		0	0		0	50
28	Elevators, escalators		0	0		0	30
29			**35,041**	**0**	**0**	**35,041**	
30	Administration Building: Office, sales, storage, revenue counting		0	0		0	50
31	Light Maintenance Facility		35,041	0		35,041	50
32	Heavy Maintenance Facility		0	0		0	50
33	Storage or Maintenance of Way Building		0	0		0	50
34	Yard and Yard Track		0	0		0	80
35			**22,131**	**0**	**0**	**22,131**	
36	Demolition, Clearing, Earthwork		0	0		0	125
37	Site Utilities, Utility Relocation		0	0		0	125
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		0	0		0	125
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		0	0		0	125
40	Site structures including retaining walls, sound walls		0	0		0	80
41	Pedestrian / bike access and accommodation, landscaping		0	0		0	20
42	Automobile, bus, van accessways including roads, parking lots		22,131	0		22,131	20

	I	J
1		(Rev.11, May 2, 2008)
2	Today's Date	**1/15/10**
3	Yr of Base Year $	FY 2009
4	Yr of Revenue Ops	FY 2019
5		
6	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	**Annualized Cost (X000)**
7		**0**
8	0.0700	0
9	0.0806	0
10	0.0944	0
11	0.0703	0
12	0.0703	0
13	0.0700	0
14	0.0700	0
15	0.0700	0
16	0.0806	0
17	0.0944	0
18	0.0772	0
19	0.0806	0
20	0.0806	0
21		**727**
22	0.0706	0
23	0.0706	0
24	0.0700	0
25	0.0706	727
26	0.0706	0
27	0.0725	0
28	0.0806	0
29		**2,539**
30	0.0725	0
31	0.0725	2,539
32	0.0725	0
33	0.0725	0
34	0.0703	0
35		**2,089**
36	0.0700	0
37	0.0700	0
38	0.0700	0
39	0.0700	0
40	0.0703	0
41	0.0944	0
42	0.0944	2,089

	A
43	40.08
44	**50 SYSTEMS**
45	50.01
46	50.02
47	50.03
48	50.04
49	50.05
50	50.06
51	50.07
52	**Construction Subtotal (10 - 50)**
53	**60 ROW, LAND, EXISTING IMPROVEMENTS**
54	60.01
55	60.02
56	**70 VEHICLES (number)**
57	70.01
58	70.02
59	70.03
60	70.04
61	70.05
62	70.06
63	70.07
64	**80 PROFESSIONAL SERVICES (applies to Cats. 10-50)**
65	80.01
66	80.02
67	80.03
68	80.04
69	80.05
70	80.06
71	80.07
72	80.08
73	**Subtotal (10 - 80)**
74	**90 UNALLOCATED CONTINGENCY**
75	**Subtotal (10 - 90)**

	B	C	D	E	F	G	H
43	Temporary Facilities and other indirect costs during construction		0	0		0	100
44			**0**	**0**	**0**	**0**	
45	Train control and signals		0	0		0	30
46	Traffic signals and crossing protection		0	0		0	30
47	Traction power supply: substations		0	0		0	50
48	Traction power distribution: catenary and third rail		0	0		0	30
49	Communications		0	0		0	20
50	Fare collection system and equipment		0	0		0	25
51	Central Control		0	0		0	30
52			**67,472**	**0**	**0**	**67,472**	
53			**0**		**0**	**0**	
54	Purchase or lease of real estate		0			0	125
55	Relocation of existing households and businesses		0			0	125
56		**703**	**503,500**		**0**	**503,500**	
57	Light Rail	0	0			0	25
58	Heavy Rail	0	0			0	25
59	Commuter Rail	0	0			0	25
60	Bus	703	503,500			503,500	12
61	Other	0	0			0	12
62	Non-revenue vehicles	0	0			0	12
63	Spare parts	0	0			0	12
64			**0**				
65	Preliminary Engineering		0				
66	Final Design		0				
67	Project Management for Design and Construction		0				
68	Construction Administration & Management		0				
69	Professional Liability and other Non-Construction Insurance		0				
70	Legal; Permits; Review Fees by other agencies, cities, etc.		0				
71	Surveys, Testing, Investigation, Inspection		0				
72	Start up		0				
73			**570,972**				
74			**0**				
75			**570,972**	0	0	**570,972**	

	I	J
43	0.0701	0
44		**0**
45	0.0806	0
46	0.0806	0
47	0.0725	0
48	0.0806	0
49	0.0944	0
50	0.0858	0
51	0.0806	0
52		**5,355**
53		**0**
54	0.0700	0
55	0.0700	0
56		**63,392**
57	0.0858	0
58	0.0858	0
59	0.0858	0
60	0.1259	63,392
61	0.1259	0
62	0.1259	0
63	0.1259	0
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		**68,747**

Cell: H60
Comment: The range for buses is 12 to 18 years. Provide supporting documentation for an estimated useful life of more than 12 years.

Cell: E75
Comment: E75 and F75 are double-checks.