

	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
	Standard Cost Categories for Capital Projects	
1	DEFINITIONS	
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 <i>80 Professional Services</i> .
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 <i>30 Support Facilities</i> below.
4	
5	
6	
7	Include foundation excavation; guideway structures including caissons, columns, bridges, viaducts, cross-overs, flyovers.
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 <i>10 Guideway & Track Elements</i> 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 <i>10 Guideway & Track Elements</i> 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 <i>40.08 Temporary Facilities</i> 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 conditions, 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).
49	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 design and construction of fixed infrastructure (Cats. 10 - 50) during the preliminary engineering, final design, and construction phases of the project. This includes environmental work, design, engineering and architectural services;
64	specialty services such as safety or security analyses; value engineering, risk assessment, cost estimating, scheduling;
65	Before and After studies, ridership modeling and analyses, auditing, legal services, administration and management,
66	etc. by agency staff or outside consultants.
67	
68	
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	Preliminary Engineering
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								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		20.09	1,126,982	281,746	1,408,728	\$ 70,108	49%	32%
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	19.75	988,466	247,116	1,235,582	\$ 62,561		
12	Guideway: Built-up fill				0			
13	Guideway: Underground cut & cover				0			
14	Guideway: Underground tunnel				0			
15	Guideway: Retained cut or fill	0.34	5,527	1,382	6,909	\$ 20,098		
16	Track: Direct fixation		123,329	30,832	154,162			
17	Track: Embedded				0			
18	Track: Ballasted				0			
19	Track: Special (switches, turnouts)		9,660	2,415	12,075			
20	Track: Vibration and noise dampening				0			
21		21	244,504	61,126	305,630	\$ 14,554	11%	7%
22	At-grade station, stop, shelter, mall, terminal, platform				0			
23	Aerial station, stop, shelter, mall, terminal, platform	21	186,269	46,567	232,836	\$ 11,087		
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		58,236	14,559	72,795			
29		20.09	97,280	24,320	121,600	\$ 6,052	4%	3%
30	Administration Building: Office, sales, storage, revenue counting		16,665	4,166	20,831			
31	Light Maintenance Facility				0			
32	Heavy Maintenance Facility		80,615	20,154	100,769			
33	Storage or Maintenance of Way Building				0			
34	Yard and Yard Track				0			
35		20.09	575,617	181,639	757,256	\$ 37,686	27%	17%
36	Demolition, Clearing, Earthwork		25,630	8,970	34,600			
37	Site Utilities, Utility Relocation		331,739	116,109	447,848			
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		10,139	3,549	13,687			
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		9,835	3,442	13,278			
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		198,275	49,569	247,843			
43	Temporary Facilities and other indirect costs during construction				0			
44		20.09	203,330	50,833	254,163	\$ 12,649	9%	6%
45	Train control and signals		34,610	8,652	43,262			
46	Traffic signals and crossing protection		24,225	6,056	30,281			
47	Traction power supply: substations		41,990	10,497	52,487			

	J	K
1	(Rev.11, May 2, 2008)	
2	01/06/10	
3	FY 2009	
4	FY 2019	
5		
	YOE Dollars Total (X000)	
6		
7	1,677,817	1.191015459
8	0	
9	0	
10	0	
11	1,471,598	
12	0	
13	0	
14	0	
15	8,228	
16	183,609	
17	0	
18	0	
19	14,382	
20	0	
21	389,152	1.27327642
22	0	
23	296,464	
24	0	
25	0	
26	0	
27	0	
28	92,688	
29	138,499	1.138976774
30	23,726	
31	0	
32	114,773	
33	0	
34	0	
35	895,470	1.182518469
36	40,915	
37	529,589	
38	16,186	
39	15,701	
40	0	
41	0	
42	293,079	
43	0	
44	311,215	1.224469921
45	52,974	
46	37,079	
47	64,269	

	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		68,478	17,119	85,597			
49	Communications		20,811	5,203	26,013			
50	Fare collection system and equipment		4,361	1,090	5,452			
51	Central Control		8,856	2,214	11,070			
52		20.09	2,247,714	599,663	2,847,377	\$ 141,705	100%	64%
53		20.09	85,634	42,817	128,452	\$ 6,393		3%
54	Purchase or lease of real estate		83,264	41,632	124,897			
55	Relocation of existing households and businesses		2,370	1,185	3,555			
56		76	275,239	66,058	341,297	\$ 4,491		8%
57	Light Rail				0			
58	Heavy Rail	76	245,675	58,963	304,638	\$ 4,008		
59	Commuter Rail				0			
60	Bus				0			
61	Other				0			
62	Non-revenue vehicles		4,996	1,199	6,195			
63	Spare parts		24,568	5,896	30,464			
64		20.09	589,972	157,398	747,370	\$ 37,194	26%	17%
65	Preliminary Engineering		17,752	4,736	22,488			
66	Final Design		99,334	26,501	125,836			
67	Project Management for Design and Construction		97,623	26,045	123,668			
68	Construction Administration & Management		220,743	58,892	279,635			
69	Professional Liability and other Non-Construction Insurance		33,111	8,834	41,945			
70	Legal; Permits; Review Fees by other agencies, cities, etc.		33,111	8,834	41,945			
71	Surveys, Testing, Investigation, Inspection		11,037	2,945	13,982			
72	Start up		77,260	20,612	97,872			
73		20.09	3,198,560	865,936	4,064,496	\$ 202,277		91%
74					153,620			3%
75		20.09			4,218,116	\$ 209,922		95%
76					244,434			5%
77		20.09			4,462,550	\$ 222,086		100%
78					27.07%			
79					4.80%			
80					31.88%			
81					3.78%			
82								
83								
84								

	J	K
48	104,811	
49	31,852	
50	6,676	
51	13,554	
52	3,412,153	
53	128,635	1.001427917
54	125,075	
55	3,560	
56	398,825	1.168557604
57	0	
58	355,987	
59	0	
60	0	
61	0	
62	7,239	
63	35,599	
64	933,589	1.249165411
65	28,091	
66	157,190	
67	154,481	
68	349,310	
69	52,397	
70	52,397	
71	17,466	
72	122,259	
73	4,873,201	
74	184,186	1.198968221
75	5,057,387	
76	290,294	1.18761832
77	5,347,681	1.198346536
78		
79		
80		
81		
82	\$169,812	
83	\$246,288	
84	\$266,137	

Cell: J3

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

Cell: J6

Comment: YOE Dollars automatically arrive from Inflation Worksheet.

Cell: D8

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

Cell: J8

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

Cell: I19

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: F76

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	Preliminary Engineering		
5			
6			
7	BASE YEAR DOLLARS (X\$000)		Base Yr Dollars
8	10 GUIDEWAY & TRACK ELEMENTS		1,408,728
9	20 STATIONS, STOPS, TERMINALS, INTERMODAL		305,630
10	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		121,600
11	40 SITEWORK & SPECIAL CONDITIONS		757,256
12	50 SYSTEMS		254,163
13	60 ROW, LAND, EXISTING IMPROVEMENTS		128,452
14	70 VEHICLES		341,297
15	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		747,370
16	90 UNALLOCATED CONTINGENCY		153,620
17	100 FINANCE CHARGES		244,434
18	Total Project Cost (10 - 100)		4,462,550
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		184,186
33	100 FINANCE CHARGES		290,294
34	Total Project Cost (10 - 100)		5,347,681
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	1/6/10					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	153,620	0	0	0	0	0	0	0	0	0
17	244,434	0	0	0	0	0	0	0	0	0
18	4,462,550	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	0	0
34		0	0	0	0	0	0	0	0	0
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										

	N	O	P	Q
1	(Rev.11, May 2, 2008)			
2	1/6/10			
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	6,372	16,435	23,366
17				505
18	0	174,965	451,266	642,097
19				
20	#DIV/0!	#DIV/0!	0.04253	0.04373
21	#DIV/0!	1.03087	1.07471	1.12171
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	6,569	17,663	26,211
33				535
34	0	180,366	484,981	720,244
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	34,371	29,235	20,382	10,796	6,096	4,527	2,040	0	0	0	0	0	0
17	5,642	22,974	39,688	46,029	45,498	45,632	38,467					0	0
18	949,405	825,720	599,327	342,454	212,885	169,936	94,494	0	0	0	0	0	0
19													
20	0.04852	0.02854	0.02928	0.04640	0.02956	0.03238	0.01833	0.02800	0.02800	0.02800	0.02800	0.02800	0.02800
21	1.17613	1.20970	1.24513	1.30290	1.34142	1.38485	1.41023	1.44972	1.49031	1.53204	1.57494	1.61903	1.66437
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	40,444	35,447	25,529	14,290	8,415	6,530	3,089	0	0	0	0	0	0
33	6,125	25,563	45,266	53,811	54,519	56,048	48,428					0	0
34	1,116,627	998,877	746,240	446,183	285,568	235,336	133,259	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										
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51										
52										
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56										
57										
58										
59										
60										

	N	O	P	Q
46		1.01500	1.02000	1.02300
47		1.03087	1.04253	1.04373
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	1.12171

	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	1.04852	1.02854	1.02928	1.04640	1.02956	1.03238	1.01833						
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	1.17613	1.20970	1.24513	1.30290	1.34142	1.38485	1.41023						

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	PROJECT DESCRIPTION - BUILD ALTERNATIVE	
2	City and County of Honolulu	
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport	
4	Preliminary Engineering	
5		
6	Describe the project elements to explain the unit costs shown on the Main Worksheet. Example: A 20-mile new light rail project has its own	
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
48		50.04
49		50.05
50		50.06

	B	C	D	E	F	G	H	I
1								
2								Today's Date
3								
4								
5								
6	deway entirely on grade except for a one-eighth mile bridge over a river. The bridge or aerial structure may have a relatively high unit cost because there is little economy of							
7								
8	Guideway: At-grade exclusive right-of-way							
9	Guideway: At-grade semi-exclusive (allows cross-traffic)							
10	Guideway: At-grade in mixed traffic							
11	Guideway: Aerial structure							
12	Guideway: Built-up fill							
13	Guideway: Underground cut & cover							
14	Guideway: Underground tunnel							
15	Guideway: Retained cut or fill							
16	Track: Direct fixation							
17	Track: Embedded							
18	Track: Ballasted							
19	Track: Special (switches, turnouts)							
20	Track: Vibration and noise dampening							
21								
22	At-grade station, stop, shelter, mall, terminal, platform							
23	Aerial station, stop, shelter, mall, terminal, platform							
24	Underground station, stop, shelter, mall, terminal, platform							
25	Other stations, landings, terminals: Intermodal, ferry, trolley, etc.							
26	Joint development							
27	Automobile parking multi-story structure							
28	Elevators, escalators							
29								
30	Administration Building: Office, sales, storage, revenue counting							
31	Light Maintenance Facility							
32	Heavy Maintenance Facility							
33	Storage or Maintenance of Way Building							
34	Yard and Yard Track							
35								
36	Demolition, Clearing, Earthwork							
37	Site Utilities, Utility Relocation							
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments							
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks							
40	Site structures including retaining walls, sound walls							
41	Pedestrian / bike access and accommodation, landscaping							
42	Automobile, bus, van accessways including roads, parking lots							
43	Temporary Facilities and other indirect costs during construction							
44								
45	Train control and signals							
46	Traffic signals and crossing protection							
47	Traction power supply: substations							
48	Traction power distribution: catenary and third rail							
49	Communications							
50	Fare collection system and equipment							

	J
1	(Rev.11, May 2, 2008)
2	1/6/10
3	
4	
5	
6	scale.
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	A	
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)	

	B	C	D	E	F	G	H	I
51	Central Control							
52								
53								
54	Purchase or lease of real estate							
55	Relocation of existing households and businesses							
56								
57	Light Rail							
58	Heavy Rail							
59	Commuter Rail							
60	Bus							
61	Other							
62	Non-revenue vehicles							
63	Spare parts							
64								
65	Preliminary Engineering							
66	Final Design							
67	Project Management for Design and Construction							
68	Construction Administration & Management							
69	Professional Liability and other Non-Construction Insurance							
70	Legal; Permits; Review Fees by other agencies, cities, etc.							
71	Surveys, Testing, Investigation, Inspection							
72	Start up							
73								
74								
75								
76								
77								

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Cell: C8

Comment: These rows can be expanded to fit your narrative. Delete lines that are not needed.

Cell: C27

Comment: For each garage, list station name, number of floors above and below grade, and number of spaces in each garage

Cell: C42

Comment: For each parking lot, list station name and number of spaces

	A	B	C	D
1	SCHEDULE			(Rev.11, May 2, 2008)
2	City and County of Honolulu		Today's Date	1/6/10
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport		Yr of Base Year \$	FY 2009
4	Preliminary Engineering		Yr of Revenue Ops	FY 2019
5				
6	Insert comments, notes, etc.		Start Date	End Date
7	Preliminary Engineering		10/16/09	08/10/10
8	Design of the Build and Baseline Alternatives			
9	Develop cost estimate, schedule, ridership forecast			
10	Conduct reviews			
11	Develop FEIS, receive Record of Decision			
12	Submit request / receive FTA approval to enter Final Design			
13	Final Design		08/10/10	03/01/15
14	Develop the contract documents for the Build Alternative			
15	Develop cost estimate, schedule			
16	Acquisition of real estate, relocation of households and businesses			
17	Conduct reviews			
18	Submit request / receive FTA approval for FFGA			
19	Issue requests for bids, make awards of construction contracts			
20	Construction		04/20/10	03/03/19
21	Construct fixed infrastructure		04/20/10	06/06/18
22	Finalize real estate acquisitions and relocations		12/12/09	09/22/11
23	Acquire and test vehicles		05/07/10	12/21/14
24	Revenue Ops / Closeout of Project		07/31/14	06/30/21
25	Revenue Operations			
26	Before and After Study: Two years post Rev Ops			
27	Fulfillment of the New Starts funding commitment			
28	Completion of project close-out, resolution of claims			
29				

	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT
1													
2													
3													
4													
5													
6		CY 2023			CY 2024			CY 2025					
7													
8													
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16													
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27													
28													
29													

Cell: C7

Comment: On this Schedule and on the Inflation Worksheet, indicate the start of PE with the date of FTA's letter approving the project into PE.

	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	Preliminary Engineering	
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		20.09	1,408,728	369,758	110,000	1,888,486	
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	19.75	1,235,582	324,311	110,000	1,669,894	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	0.34	6,909	1,813		8,722	125
16	Track: Direct fixation		154,162	40,464		194,625	30
17	Track: Embedded		0	0		0	20
18	Track: Ballasted		0	0		0	35
19	Track: Special (switches, turnouts)		12,075	3,169		15,245	30
20	Track: Vibration and noise dampening		0	0		0	30
21		21	305,630	80,221	21,000	406,851	
22	At-grade station, stop, shelter, mall, terminal, platform	0	0	0		0	70
23	Aerial station, stop, shelter, mall, terminal, platform	21	232,836	61,114	21,000	314,950	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		72,795	19,107		91,902	30
29			121,600	31,917	10,000	163,517	
30	Administration Building: Office, sales, storage, revenue counting		20,831	5,468		26,299	50
31	Light Maintenance Facility		0	0		0	50
32	Heavy Maintenance Facility		100,769	26,449	10,000	137,218	50
33	Storage or Maintenance of Way Building		0	0		0	50
34	Yard and Yard Track		0	0		0	80
35			757,256	198,762	12,620	968,639	
36	Demolition, Clearing, Earthwork		34,600	9,082		43,682	125
37	Site Utilities, Utility Relocation		447,848	117,550		565,398	125
38	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		13,687	3,593	6,620	23,900	125
39	Environmental mitigation, e.g. wetlands, historic/archeologic, parks		13,278	3,485	6,000	22,763	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		247,843	65,053		312,896	20
43	Temporary Facilities and other indirect costs during construction		0	0		0	100
44			254,163	66,712	0	320,875	
45	Train control and signals		43,262	11,355		54,618	30

	I	J
1		(Rev.11, May 2, 2008)
2	Today's Date	1/6/10
3	Yr of Base Year \$	FY 2009
4	Yr of Revenue Ops	FY 2019
5		
	Annualization Factor (based on 7% rate) [.07/1 - (1.07)^-no. yrs]	Annualized Cost (X000)
6		
7		134,940
8	0.0700	0
9	0.0806	0
10	0.0944	0
11	0.0703	117,416
12	0.0703	0
13	0.0700	0
14	0.0700	0
15	0.0700	611
16	0.0806	15,684
17	0.0944	0
18	0.0772	0
19	0.0806	1,229
20	0.0806	0
21		29,648
22	0.0706	0
23	0.0706	22,242
24	0.0700	0
25	0.0706	0
26	0.0706	0
27	0.0725	0
28	0.0806	7,406
29		11,848
30	0.0725	1,906
31	0.0725	0
32	0.0725	9,943
33	0.0725	0
34	0.0703	0
35		75,447
36	0.0700	3,058
37	0.0700	39,586
38	0.0700	1,673
39	0.0700	1,594
40	0.0703	0
41	0.0944	0
42	0.0944	29,535
43	0.0701	0
44		25,809
45	0.0806	4,401

	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		30,281	7,948		38,230	30
47	Traction power supply: substations		52,487	13,777		66,264	50
48	Traction power distribution: catenary and third rail		85,597	22,467		108,064	30
49	Communications		26,013	6,828		32,841	20
50	Fare collection system and equipment		5,452	1,431		6,883	25
51	Central Control		11,070	2,906		13,975	30
52			2,847,377	747,370	153,620	3,748,367	
53			128,452		0	128,452	
54	Purchase or lease of real estate		124,897			124,897	125
55	Relocation of existing households and businesses		3,555			3,555	125
56		673	788,860		0	788,860	
57	Light Rail	0	0			0	25
58	Heavy Rail	85	340,714			340,714	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	6,195			6,195	12
63	Spare parts	0	34,071			34,071	12
64			747,370				
65	Preliminary Engineering		22,488				
66	Final Design		125,836				
67	Project Management for Design and Construction		123,668				
68	Construction Administration & Management		279,635				
69	Professional Liability and other Non-Construction Insurance		41,945				
70	Legal; Permits; Review Fees by other agencies, cities, etc.		41,945				
71	Surveys, Testing, Investigation, Inspection		13,982				
72	Start up		97,872				
73			4,512,059				
74			153,620				
75			4,665,679	747,370	153,620	4,665,679	
76	Bus Maintenance Base		25,637		0	25,637	50
77	Transit Centers		10,300		0	10,300	70
78			4,701,616		153,620	4,701,616	

	I	J
46	0.0806	3,081
47	0.0725	4,801
48	0.0806	8,709
49	0.0944	3,100
50	0.0858	591
51	0.0806	1,126
52		277,692
53		8,994
54	0.0700	8,745
55	0.0700	249
56		85,659
57	0.0858	0
58	0.0858	29,237
59	0.0858	0
60	0.1259	51,353
61	0.1259	0
62	0.1259	780
63	0.1259	4,290
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		372,344
76	0.0725	1,858
77	0.0706	727
78		374,929

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	B	C	D
1	FUNDING SOURCES BY CATEGORY			
2	City and County of Honolulu			
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport			
4	Preliminary Engineering			
5				
6		Cost		Funding
7		YOE Cost (X000)	Double- check Total	Federal 5309 New Starts Funds
8				
9	10 GUIDEWAY & TRACK ELEMENTS (route miles)	1,677,817	1,677,817	486,307
10	20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	389,152	389,152	112,794
11	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	138,499	138,499	40,143
12	40 SITEWORK & SPECIAL CONDITIONS	895,470	895,470	259,548
13	50 SYSTEMS	311,215	311,215	90,204
14	60 ROW, LAND, EXISTING IMPROVEMENTS	128,635	128,635	37,284
15	70 VEHICLES (number)	398,825	398,825	115,598
16	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	933,589	933,589	270,596
17	90 UNALLOCATED CONTINGENCY	184,186	184,186	53,385
18	100 FINANCE CHARGES	290,294	290,294	84,140
19	Total Project Cost (10 - 100)	5,347,681	5,347,681	1,550,000
20	Percentage of Total Project Cost	100%		29.0%
21				29.0%
22				1

	E	F	G	H	I	J	K	L	M	N	O	P
1										(Rev.11, May 2, 2008)		
2										Today's Date	1/6/10	
3												
4												
5												
6	Funding Summary			29%	65%	6%						
7	Federal Other Funds	Local Funds		Federal 5309 New Starts	Local	Federal Other	Local	Federal Other	Local	Federal Other	Local	
8												
9	95,599	1,095,911		486,307	1,095,911	95,599						
10	22,173	254,185		112,794	254,185	22,173						
11	7,891	90,465		40,143	90,465	7,891						
12	51,022	584,900		259,548	584,900	51,022						
13	17,732	203,278		90,204	203,278	17,732						
14	7,329	84,021		37,284	84,021	7,329						
15	22,724	260,503		115,598	260,503	22,724						
16	53,194	609,799		270,596	609,799	53,194						
17	10,495	120,306		53,385	120,306	10,495						
18	16,540	189,613		84,140	189,613	16,540						
19	304,700	3,492,981		1,550,000	3,492,981	304,700	0	0	0	0	0	
20	5.7%	65.3%		29.0%	65.3%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
21	71.0%											
22	00.00%											

Cell: H6

Comment: Indicate pairs or groups of funds, percentage match etc.

Cell: O8

Comment: Insert additional columns as required.

	A	B	C	D	E	F
1	FUNDING SOURCES BY YEAR					
2	City and County of Honolulu					
3	Honolulu Rail Transit Project, East Kapolei to Ala Moana Center via Airport					
4	Preliminary Engineering					
5						
6					2000	2001
7		Total Project Cost In YOE Dollars	5,347,681	double check	0	0
8	Federal 5309 New Starts		1,550,000	1,550,000		
9	Local		3,492,981	3,492,881		
10	Federal Other		304,700	304,800		
11	Total Project Cost (10 - 100)		5,347,681	5,347,681	0	0

	G	H	I	J	K	L	M
1			(Rev.11, May 2, 2008)				
2	Today's Date		1/6/10				
3							
4							
5							
6	2002	2003	2004	2005	2006	2007	2008
7	0	0	0	0	0	0	0
8							
9							
10							
11	0	0	0	0	0	0	0

	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1														
2														
3														
4														
5														
6	2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	2020	2021	2022
7	0	180,366	484,981	720,244	1,116,627	998,877	746,240	446,183	285,568	235,336	133,259	0	0	0
8		35,000	80,000	200,000	250,000	250,000	200,000	200,000	200,000	135,000				
9		136,366	375,181	489,844	835,727	717,477	514,240	213,583	49,968	64,136	96,359			
10		9,000	29,800	30,400	30,900	31,400	32,000	32,600	35,600	36,200	36,900			
11	0	180,366	484,981	720,244	1,116,627	998,877	746,240	446,183	285,568	235,336	133,259	0	0	0

	AB	AC	AD
1			
2			
3			
4			
5			
6	2023	2024	2025
7	0	0	0
8			
9			
10			
11	0	0	0

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	Preliminary Engineering
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	1/6/10
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	
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15	
16	
17	
18	
19	
20	
21	
22	216/station
23	
24	
25	
26	
27	
28	
29	
30	
31	
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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	
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58	
59	
60	433 conventional or
61	703 articulated bus
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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.

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

	A	B	C	D
1	Table 2 - Inflated Cost to Year of Expenditure			
2			Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)
3	10 GUIDEWAY & TRACK ELEMENTS (route miles)		1,126,982	281,746
4	20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)		244,504	61,126
5	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		97,280	24,320
6	40 SITEWORK & SPECIAL CONDITIONS		575,617	181,639
7	50 SYSTEMS		203,330	50,833
8	60 ROW, LAND, EXISTING IMPROVEMENTS		85,634	42,817
9	70 VEHICLES (number)		275,239	66,058
10	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		589,972	157,398
11	90 UNALLOCATED CONTINGENCY			
12	100 FINANCE CHARGES			
13	Total Project Cost (10 - 100)			

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

	E	F	G
1			
	Base Year Dollars TOTAL (X000)	Inflation Factor	YOE Dollars Total (X000)
2			
3	1,408,728	1.1910	1,677,817
4	305,630	1.2733	389,152
5	121,600	1.1390	138,499
6	757,256	1.1825	895,470
7	254,163	1.2245	311,215
8	128,452	1.0014	128,635
9	341,297	1.1686	398,825
10	747,370	1.2492	933,589
11	153,620	1.1990	184,186
12	244,434	1.1876	290,294
13	4,462,550	1.1983	5,347,681

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

	A	B	C	D	E	F	G
1	Table 3 - BCE by Source of Funding						
2		Total Project Cost in YOE Dollars (X000)		Double Check Total (X000)	Federal 5309 New Starts	Federal Other	Local
3	10 GUIDEWAY & TRACK ELEMENTS	1,677,817		1,677,817	486,307	95,599	1,095,911
4	20 STATIONS, STOPS, TERMINALS, INTERMODAL	389,152		389,152	112,794	22,173	254,185
5	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	138,499		138,499	40,143	7,891	90,465
6	40 SITEWORK & SPECIAL CONDITIONS	895,470		895,470	259,548	51,022	584,900
7	50 SYSTEMS	311,215		311,215	90,204	17,732	203,278
8	60 ROW, LAND, EXISTING IMPROVEMENTS	128,635		128,635	37,284	7,329	84,021
9	70 VEHICLES	398,825		398,825	115,598	22,724	260,503
10	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	933,589		933,589	270,596	53,194	609,799
11	90 UNALLOCATED CONTINGENCY	184,186		184,186	53,385	10,495	120,306
12	100 FINANCE CHARGES	290,294		290,294	84,140	16,540	189,613
13	Total Project Cost (10 - 100)	5,347,681		5,347,681	1,550,000	304,700	3,492,981
14							
15							
16	Sources of Federal Funding and Matching Share Ratios						
17		Costs Attributed to Source of Funds (X000)		Federal/ Local Matching Ratio within Source	All Federal Funds (X000)	Local Funds (X000)	
18	Federal 5309 New Starts	4,967,806		30 / 70	1,550,000	3,417,806	
19	Federal Section 5307	379,875		80 / 20	304,700	75,175	
20	Total	5,347,681			1,854,700	3,492,981	
21	Overall Federal Share of Project				34.68%		
22	New Starts Share of Project				28.98%		

Attachment 3
Baseline Cost Estimate

Project Sponsor Name
Project Name

Cell: F2

Comment: Add columns as required to show all federal funding.

Cell: A19

Comment: Add rows are needed to show all federal funding.

Attachment 3A
Project Budget

Project Sponsor Name
Project Name

	A	B	C	D	E	F	G	H	
1	Scope and Activity Description								
2	Scope Code	ALI Code	Scope and Activity Line Item Descriptions	Qty		Federal 5309 New Starts			
3					Total Federal %	Federal	Local	Total	
4	14010	140110	GUIDEWAY & TRACK ELEMENTS	20.09	34.68%	486,307	1,072,011	1,558,318	
5	14020	140220	STATIONS, STOPS, TERMINALS, INTERMODAL	21	34.68%	112,794	248,642	361,436	
6	14030	140330	SUPPORT FACILITIES, YARDS, SHOPS, ADMIN. BLDGS.		34.68%	40,143	88,492	128,635	
7	14040	140440	SITWORK & SPECIAL CONDITIONS		34.68%	259,548	572,145	831,693	
8	14050	140550	SYSTEMS		34.68%	90,204	198,845	289,049	
9	14060	140660	ROW, LAND, EXISTING IMPROVEMENTS		34.68%	37,284	82,189	119,473	
10	14070		VEHICLES	76	34.68%	115,598	254,822	370,420	
11		13.13.21	Heavy Rail Cars	76					
12		13.____							
13	14080	140880	PROFESSIONAL SERVICES		34.68%	270,596	597,501	868,097	
14	14090	140990	UNALLOCATED CONTINGENCY		34.68%	53,386	117,682	171,068	
15	14100	141010	FINANCE CHARGES		34.68%	84,140	185,478	269,618	
16	Total Project Cost (10 - 100)					34.68%	1,550,000	3,417,806	4,967,806

Attachment 3A
Project Budget

Project Sponsor Name
Project Name

	I	J	K	L	M	N	O
1							
2	Federal Other			Project Totals			Total Project Cost in YOE Dollars (X000)
3	Federal	Local	Total	Federal	Local	Total	
4	95,599	23,900	119,499	581,906	1,095,911	1,677,817	121,801
5	22,173	5,543	27,716	134,967	254,185	389,152	132,476
6	7,891	1,973	9,864	48,034	90,465	138,499	13,423
7	51,022	12,756	63,778	310,570	584,900	895,470	25,121
8	17,733	4,433	22,166	107,937	203,278	311,215	32,487
9	7,329	1,832	9,161	44,613	84,021	128,634	22,840
10	22,724	5,681	28,405	138,322	260,503	398,825	36,689
11							
12							
13	53,194	12,299	65,493	323,790	609,799	933,589	87,292
14	10,495	2,624	13,119	63,881	120,306	184,187	23,783
15	16,540	4,135	20,675	100,680	189,613	290,293	500
16	304,700	75,175	379,875	1,854,700	3,492,981	5,347,681	496,411

Attachment 3A
Project Budget

Project Sponsor Name
Project Name

Cell: I2

Comment: Add more tri-columns as required to show all funding.

Attachment 4
Project Schedule

Project Sponsor Name
Project Name

	A	B	C
1	SCHEDULE	Start Date	End Date
2	10 GUIDEWAY & TRACK ELEMENTS (route miles)	04/20/10	07/06/16
3	20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	06/19/11	06/06/18
4	30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	05/20/10	10/01/13
5	40 SITEWORK & SPECIAL CONDITIONS	04/20/10	07/06/16
6	50 SYSTEMS	05/07/10	03/03/19
7	60 ROW, LAND, EXISTING IMPROVEMENTS	12/12/09	09/22/11
8	70 VEHICLES (number)	05/07/10	12/21/14
9	80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	10/16/09	02/19/20
10	90 UNALLOCATED CONTINGENCY	04/20/10	03/03/19
11	100 FINANCE CHARGES	01/01/12	06/30/23
12	Revenue Operations	07/31/14	
13	Before and After Study: Two years post Rev Ops	03/04/21	06/30/21
14	Fulfillment of the New Starts funding commitment		06/30/18
15	Completion of project close-out, resolution of claims		12/31/19

Attachment 4
Project Schedule

Project Sponsor Name
Project Name

	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS
1	CY 2023				CY 2024				CY 2025			
2												
3												
4												
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