| | 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.<br><br>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).<br>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.)<br><br>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 Ualena 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** | | 102,235 | 25,559 | **127,794** | **$ 79,871** | **63%** |
| 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 | | 92,128 | 23,032 | 115,160 | $ 71,975 | |
| 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** | **9%** |
| 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 | | 34,665 | 12,133 | **46,798** | **$ 29,249** | **23%** |
| 36 | Demolition, Clearing, Earthwork | | | 2,002 | 701 | 2,703 | | |
| 37 | Site Utilities, Utility Relocation | | | 31,102 | 10,886 | 41,988 | | |
| 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 | **40%** | **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 | | 160,622 | 43,622 | **204,244** | **$ 127,653** | **100%** |
| 53 | | 1.60 | | 23,807 | 11,903 | **35,710** | **$ 22,319** | |
| 54 | Purchase or lease of real estate | | | 16,607 | 8,303 | 24,910 | | |
| 55 | Relocation of existing households and businesses | | | 7,200 | 3,600 | 10,800 | | |
| 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 | | 48,187 | 13,087 | **61,273** | **$ 38,296** | **30%** |
| 65 | Preliminary Engineering | | | 4,819 | 1,309 | 6,127 | | |
| 66 | Final Design | | | 7,228 | 1,963 | 9,191 | | |
| 67 | Project Management for Design and Construction | | | 8,834 | 2,399 | 11,233 | | |
| 68 | Construction Administration & Management | | | 16,062 | 4,362 | 20,424 | | |
| 69 | Professional Liability and other Non-Construction Insurance | | | 2,409 | 654 | 3,064 | | |
| 70 | Legal; Permits; Review Fees by other agencies, cities, etc. | | | 2,409 | 654 | 3,064 | | |
| 71 | Surveys, Testing, Investigation, Inspection | | | 803 | 218 | 1,021 | | |
| 72 | Start up | | | 5,622 | 1,527 | 7,149 | | |
| 73 | | 1.60 | | 232,616 | 68,612 | **301,228** | **$ 188,267** | |
| 74 | | | | | | **18,074** | | |
| 75 | | 1.60 | | | | **319,301** | **$ 199,563** | |
| 76 | | | | | | | | |
| 77 | | 1.60 | | | | **319,301** | **$ 199,563** | |
| 78 | | | | | | 29.50% | | |
| 79 | | | | | | 7.77% | | |
| 80 | | | | | | 37.27% | | |
| 81 | | | | | | 6.00% | | |
| 82 | | | | | | | | |
| 83 | | | | | | | | |
| 84 | | | | | | | | |

| | J | K | L |
|---|---|---|---|
| 48 | | 0 | |
| 49 | | 0 | |
| 50 | | 0 | |
| 51 | | 0 | |
| 52 | **64%** | **0** | |
| 53 | **11%** | **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 | **19%** | **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 Ualena Option | | |
| 5 | | | |
| 6 | | | |
| 7 | **BASE YEAR DOLLARS (X$000)** | | Base Yr Dollars |
| 8 | 10 GUIDEWAY & TRACK ELEMENTS | | 127,794 |
| 9 | 20 STATIONS, STOPS, TERMINALS, INTERMODAL | | 17,553 |
| 10 | 30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS | | 0 |
| 11 | 40 SITEWORK & SPECIAL CONDITIONS | | 46,798 |
| 12 | 50 SYSTEMS | | 12,099 |
| 13 | 60 ROW, LAND, EXISTING IMPROVEMENTS | | 35,710 |
| 14 | 70 VEHICLES | | 0 |
| 15 | 80 PROFESSIONAL SERVICES (applies to Cats. 10-50) | | 61,273 |
| 16 | 90 UNALLOCATED CONTINGENCY | | 18,074 |
| 17 | 100 FINANCE CHARGES | | 244,434 |
| 18 | **Total Project Cost (10 - 100)** | | 563,735 |
| 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 | | 21,670 |
| 33 | 100 FINANCE CHARGES | | 290,294 |
| 34 | **Total Project Cost (10 - 100)** | | 5,185,165 |
| 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 | 18,074 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 244,434 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 18 | 4,327,003 | **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 | 750 | 1,934 | 2,749 |
| 17 | | | | 505 |
| 18 | **0** | **169,343** | **436,764** | **621,480** |
| 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 | 773 | 2,078 | 3,084 |
| 33 | | | | 535 |
| 34 | **0** | **174,570** | **469,396** | **697,117** |
| 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 | 4,044 | 3,440 | 2,398 | 1,270 | 717 | 533 | 240 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | 5,642 | 22,974 | 39,688 | 46,029 | 45,498 | 45,632 | 38,467 | | | | | 0 | 0 |
| 18 | **919,078** | **799,925** | **581,344** | **332,928** | **207,506** | **165,941** | **92,694** | **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 | 1.40821 | 1.44764 | 1.48818 | 1.52985 | 1.57268 | 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 | 4,758 | 4,170 | 3,004 | 1,681 | 990 | 768 | 363 | 0 | 0 | 0 | 0 | 0 | 0 |
| 33 | 6,125 | 25,563 | 45,266 | 53,811 | 54,519 | 56,048 | 48,428 | | | | | 0 | 0 |
| 34 | **1,080,942** | **967,600** | **723,714** | **433,575** | **278,143** | **229,575** | **130,533** | **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 | 1.40821 | | | | | | |

**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** | **127,794** | **38,338** | **110,000** | **276,132** | |
| 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 | 115,160 | 34,548 | 110,000 | 259,708 | 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 | | | **46,798** | **14,039** | **12,620** | **73,457** | |
| 36 | Demolition, Clearing, Earthwork | | 2,703 | 811 | | 3,514 | 125 |
| 37 | Site Utilities, Utility Relocation | | 41,988 | 12,596 | | 54,585 | 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 | | **19,585** |
| 8 | 0.0700 | 0 |
| 9 | 0.0806 | 0 |
| 10 | 0.0944 | 0 |
| 11 | 0.0703 | 18,261 |
| 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 | | **5,143** |
| 36 | 0.0700 | 246 |
| 37 | 0.0700 | 3,822 |
| 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 | | | **204,244** | **61,273** | **153,620** | **419,138** | |
| 53 | | | **35,710** | | **0** | **35,710** | |
| 54 | Purchase or lease of real estate | | 24,910 | | | 24,910 | 125 |
| 55 | Relocation of existing households and businesses | | 10,800 | | | 10,800 | 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 | | | **61,273** | | | | |
| 65 | Preliminary Engineering | | 6,127 | | | | |
| 66 | Final Design | | 9,191 | | | | |
| 67 | Project Management for Design and Construction | | 11,233 | | | | |
| 68 | Construction Administration & Management | | 20,424 | | | | |
| 69 | Professional Liability and other Non-Construction Insurance | | 3,064 | | | | |
| 70 | Legal; Permits; Review Fees by other agencies, cities, etc. | | 3,064 | | | | |
| 71 | Surveys, Testing, Investigation, Inspection | | 1,021 | | | | |
| 72 | Start up | | 7,149 | | | | |
| 73 | | | **709,108** | | | | |
| 74 | | | **18,074** | | | | |
| 75 | | | **727,181** | 61,273 | 153,620 | **862,728** | |
| 76 | Bus Maintenance Base | | 25,637 | | 0 | 25,637 | 50 |
| 77 | Transit Centers | | 10,300 | | 0 | 10,300 | 70 |
| 78 | | | **763,118** | | 153,620 | **898,664** | |

| | 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 | | **29,896** |
| 53 | | **2,500** |
| 54 | 0.0700 | 1,744 |
| 55 | 0.0700 | 756 |
| 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 | | **83,749** |
| 76 | 0.0725 | 1,858 |
| 77 | 0.0706 | 727 |
| 78 | | **86,334** |

**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 Ualena 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 Ualena 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.