



Accounting and Administrative Manual

Section 100: Accounting and Finance

Componentization of Plant Assets
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General:

In fiscal year 2002, the university implemented Governmental Accounting Standards Board (GASB) Statements 34 *Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments* and GASB 35, *Basic Financial Statements and Management's Discussion and Analysis for Public Colleges and Universities*. Two key changes stemming from this implementation were the reporting of infrastructure assets as a separate class and depreciation. The university chose to componentize various elements of buildings and vessels in accordance with 2CFR220 (OMB Circular A-21) in order to calculate and record depreciation of their structural components, subsystems and equipment. This allows for better representation of depreciation for those components whose useful life is expected to be less than the useful life of the building or vessel as a whole. Following is a description of the methodology used in the componentization of research intensive buildings, fixed equipment and vessels and the calculation of related depreciation.

Purpose:

To establish a uniform standard for componentization and depreciation of buildings and vessels.

Guidelines:

For buildings and vessels that were constructed prior to July 1, 2001, depreciation by components is not required. However, the University of Alaska chooses to componentize research intensive buildings and vessels regardless of the construction year. For buildings and vessels with significant research activity the university uses a detailed componentization method that includes several components, which are listed below. For buildings and vessels not componentized, the university uses a 2-component method: "Original Construction/Addition" and "Renovation".

If the project total of a new building, vessel or structure, or a renovation or repair to an existing building, vessel or structure meets the threshold for capitalization and componentization criteria, the capital asset will be componentized. A component of a building or vessel that is replaced will be depreciated separately based on its individual useful life if the project cost is greater than the capitalization threshold or the expenditure increases either the useful life or value of the building or vessel.

If detailed project costs by building or vessel component are not available or unattainable, an estimate of component costs by percentage of the total construction cost is acceptable.

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Soft project costs such as design and management fees may be prorated to the building or vessel component categories based on the percentages of the hard project costs.

Definitions

1. **Building:** a structure that is permanently attached to the land, has a roof, is partially or completely enclosed by walls and is not intended to be transportable or movable. Buildings can be used for multiple purposes over their lifetime.
2. **Componentization:** separating a capital asset into its major elements of construction. Building components with useful life in parentheses are:
 - a. **Building Structure (50 years):** includes the Site Prep, Foundation, Steel Frame, Floor structure and Roof structure.
 - b. **Construction-Exterior and Walls-Exterior (25 years):** the exterior walls, excavation within the building footprint, storefronts, carports, covered structures, or covered walkways, glass partitions, and directories. The walls consist of the wall layers starting with the exterior building skin and ending at the inner thermal layer.
 - c. **Construction-Interior and Building Acquisition (25 years):** all walls, partitions, ceilings and millwork that are inside the building shell walls. This will include, but will not be limited to, all framework, interior doors, interior windows, hardware, wall systems, studs, drywall, trim work, handrails, sheet rock, paneling, paint and any other wall and ceiling coverings
 - d. **Roof Coverings (20 years):** include the covering material used to establish the water barrier on the building's roof deck. The roof covering starts with the first membrane above the roof decking material including the urethane layer, coating, shingles, films, metal panels, clay tiles and all material installed above the roof deck.
 - e. **Floor Coverings (10 years):** includes carpet, ceramic tile, quarry tile, stone, terrazzo, vinyl tile, wood, laminate and linoleum floor coverings, and other types of floor coverings and all padding and barrier sheeting installed above the concrete slab or wooden deck.

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- f. **Heating, ventilation and cooling system (HVAC) (25 years):** includes the chillers, condensers, exhaust fans and coil units, heating strips, chilled/heating water supply and return piping, air ducts, registers, climate control panels and all circuitry connected to the power supply panel.
 - g. **Electrical and lighting system (25 years):** includes lighting fixtures, ballasts, transformers, electrical conduit, wiring, cables, circuits, switches, switch gear, motors, emergency generators and controls within the perimeter of the building that provide power for lighting instruments and outlets.
 - h. **Fire protection system (25 years):** comprised of the piping, sprinkler heads, controls, signal systems, master panels, smoke detectors, inspections, maintenance, and repair or replacement of the entire systems.
 - i. **Plumbing system (25 years):** all piping, drains, fixtures, and associated equipment within the perimeter of the building used for moving domestic water, other fluid gases, compressed air or sewage.
 - j. **Elevator system (25 years):** comprised of the elevator and escalator conveyance systems including controls.
 - k. **Fixed equipment assets (20 years):** includes any equipment not listed as part of the HVAC system, electrical system, fire protection system, plumbing system or elevator system that is installed and permanently attached to some part of the building's structure. Examples include cabinets, drawers, desks, built-in lab equipment, benches, sinks, fume hoods, filtration systems, emergency showers, eyewash, food equipment, auditorium seats, controlled area metal doors, environmental rooms and autoclaves.
 - l. **IT & Network Infrastructure (10 years):** includes computer flooring, network systems, fiber optics, routers, controllers, hubs, modems, switch gear, structural wiring for computers, telephone systems and fixtures.
3. **Vessel:** a structure that is not permanently attached to the land, is partially or completely enclosed by a hull and is intended to be transportable or movable. Vessels can also be used for multiple purposes over their lifetime.

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4. Vessel Componentization:

- a. **Hull Structure (40 years):** includes structural bulkheads, decks, platforms, masts and foundations.
- b. **Propulsion Machinery (40 years):** includes propulsion units and thrusters. This also includes backup propulsion system stored in warehouse.
- c. **Electrical Plant (30 years):** includes electric motors and equipment, protective devices for electric circuits, electric cable, ship service and emergency power (generators, batteries), power distribution, lighting distribution and fixtures.
- d. **Command and Surveillance Equipment (15 years):** includes vessel control and maneuvering, navigation systems & integrated bridge system (control stations, lights, gyrocompasses), interior communications (telephone, announcing, alarms, safety, warning, recording and TV), exterior communications, network wiring system and shipboard LAN.
- e. **Auxiliary Systems (20 years):** include pumps, instruments and instrument boards, mechanical, general requirements for hull and machinery piping systems, overflows, vents, soundings, machinery piping designation and marking, insulation and lagging for piping, equipment and machinery, thermal insulation and acoustic treatment for ducts and trunks, climate control systems, seawater systems, fresh water systems, fuel & lube oil systems, compressed air & firefighting systems, combustion air and exhaust systems, vents, fills and sounds, anchor systems, boat handling and life rafts, pollution abatement systems and equipment.
- f. **Outfit and Furnishings (15 years):** includes hull designations and markings, locks, keys, and tags, hull fittings (handrails, rigging and lines), hull compartments and access (floorplates, gratings, ladders, stairways, doors, hatches, windows), hull protection and coatings, living spaces, service spaces (galley, hospital, laundry), work spaces, stowage.
- g. **Scientific Equipment (25 years):** includes science support equipment and outfitting, deck equipment (cranes, winches), acoustic systems (sonar systems, position system), climate



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control chambers, meteorological instrumentation mast,
oceanographic science equipment, noise control treatments.

5. **Depreciation:** allocation of the cost of the asset over its estimated useful life.