

Capital Programs Management Group (CPM)

CPM 316: Measurement of Building Areas

Effective: 10/1/1987

Revised: 7/1/2023

Purpose

To establish consistency in the calculation of gross area, assignable area, and non-assignable area in university buildings

Sources

2006 Postsecondary Education Facilities Inventory and Classification Manual, U.S. Department of Education, Institute of Education Sciences, NCES 2006–160

University policy

Applicability

Facilities owned or leased by the university

Policy

The gross area of the building, the assignable area by room, and the non-assignable areas in the facility must be calculated in accordance with the appropriate building data definitions and basis of measurement. Assignable area totals must be provided for the room use categories specified in the building program. These area calculations must be provided at the following stages of project development.

1. Reviews of schematic drawings: calculations for assignable area.
2. Reviews of working drawings: calculations for assignable area, non-assignable area, and gross area.
3. Submission of bid documents: calculations for assignable area, non-assignable area, and gross area.
4. Project closeout: calculation for assignable area, non-assignable area, and gross area.
5. Final Calculation: This stage is performed by University Facilities Records Management (UFRM), University Services, Arizona State University. These numbers are then populated to the data warehouse system for university community use.

Definitions

Assignable Area or Net Assignable Area (NASF)

Floor area in any facility, except separate parking structures, that:

1. can be used by the building occupants to carry out their function
2. is covered by a ceiling 6' 6" or higher
3. is enclosed on all sides by walls, partitions, doors, or a functional equivalent
4. is measured between the principal interior surfaces of the enclosing fixed walls, partitions, or doors at or near floor level (movable room dividers normally ignored)
5. is expressed in square feet to the nearest whole number

and

6. is exclusive of:

- a. columns or similar structural obstructions
- b. built-in or free-standing furniture and equivalent

and

- c. alcoves and similarly recessed areas.

Facility

A structure enclosed by walls on all sides, used for the permanent or temporary shelter of persons, animals, plants, or equipment, and;

1. is attached to the foundation;
2. is roofed;
3. is serviced by a utility, exclusive of lighting;

and

4. is a source of significant maintenance and repair activities.

Gross Area

The sum of the floor areas of the building included within the outside face of the exterior walls for all stories or areas that have floor surfaces. The following guidelines for measurement must be followed:

1. Gross area is computed by measuring within the outside face of exterior walls, including pilasters and other projections beyond the face of the wall. Every floor-level gross area is computed and included in the total.
2. Mezzanines, stacks, interior balconies, etc., are included in the total, but only for the floor area they represent.
3. Penthouses of headroom height (6' 6" or higher) are included.
4. Stairs, elevator, utility, core, and similar shafts are treated as floor area at each level.
5. A room extending through more than one story is counted only once at the level of the room's floor.
6. Exterior covered areas attached or related to the building are counted at full value. These areas are defined as exterior stairs, exterior corridors, exterior balconies, or exterior docks.
7. Full-height (6' 6" or higher) unfinished areas (i.e., excavated basement areas not developed, or unfinished floors) are counted at full value.
8. Exterior terraces, uncovered loading docks, courts, lightwells, roof decks, and covered walks (dependent on roof type) between buildings are not included.
9. Areas in basements that have not been fully excavated and undeveloped attic spaces are not included.
10. Areas where exceptional cases are involved should be indicated in footnotes.
11. For building additions that have a wall in common with an existing building, gross area shall be measured from the outside face of the existing building.

NOTE: Any deviation or unique circumstance contrary to the above must be reviewed/approved by the manager of UFRM.

Non-assignable Area

Floor area in any building or structure that is used for:

1. public corridors, lobbies, stairways, elevators (floor openings), and other general-circulation facilities

2. janitor closets and other specialized custodial facilities, including storage facilities that are used only for building maintenance
3. heating, ventilation, air conditioning, electrical, and other such utility rooms or spaces required for building operation
4. pipe shafts and duct chases
and
5. public toilets.

Non-assignable area is measured between the principal interior surfaces of the enclosing fixed walls, partitions, or doors at or near floor level (movable room dividers and toilet stalls normally ignored) and is expressed in square feet to the nearest whole number.

Actual dimensions should be used to calculate gross, assignable, and non-assignable areas.

Open-Air Stadium/Venue

1. Gross area is computed by measuring within the outside face of exterior walls, including pilasters and other projections beyond the face of the wall. Every floor-level gross area is computed and included in the total.
2. Assignable space within the level is calculated and entered per the assignable area definition above.
3. Open-air seating is calculated at full value.
4. No facility efficiency values are calculated per these structures.

Parking Structures

1. Gross area is computed by measuring within the outside face of exterior walls, including pilasters and other projections beyond the face of the wall. Every floor-level gross area is computed and included in the total.
2. The upper deck is calculated at full value.
3. Assignable space within the level is calculated and entered per the assignable area definition above.
4. No facility efficiency values are calculated per these structures.