1.0 MEASUREMENT STANDARDS

1.1 Definition Of A "Building." (1)

A "building" is defined as a roofed structure for permanent or temporary shelter of persons, animals, plants, materials, or equipment. The building inventory may encompass many different types of structures, including marine and space structures (whether staffed or not); research vessels; and trailers that are not on wheels and are used for offices, residences or storage. (See technical definitions, Section 1.3).

1.1.1 Buildings to be included.

The inventory will include all buildings on the campus bounded by Main St., Sunset Blvd., Rice Blvd., Greenbriar and University Blvd.

As guidelines, separate, minor structures should be included in the inventory if all of the following criteria are met:

1. They are attached to a foundation.
2. They are roofed.
3. They are serviced by a utility, exclusive of lighting.
4. They are a source of significant maintenance and repair activities.

Following these guidelines, an example of a minor structure to be included in a building inventory is a traffic control or information booth, roofed, attached to a concrete pad, with lights and at least one other utility service, and on a regular maintenance schedule. An example of a separate structure not meeting the above criteria is a bus shelter, which is roofed and attached to the concrete sidewalk, but which has only lights as a utility service.

1.1.2 Buildings to be excluded.

The following types of buildings should not be included in the inventory: uncovered swimming pools, athletic tracks, bleachers and playing fields.
1.2 Building Measurement Terms

**Assignable Area** = Sum of the area designated by the ten Major Room Use Categories (See table on pages 14 and 15)

**Nonassignable Area** = Sum of the area designated by the three Nonassignable Room Use Categories: Building Service + Circulation + Mechanical (See table on page 19)

**Net Usable Area** = Assignable Area + Nonassignable Area

**Void Area** = "Open to Below" Area

**Gross Area** = Sum of all floor areas - Void Area

**Structural Area** = Gross Area - Net Usable Area

1.3 Definitions Of Building Areas

1.3.1 Assignable Area

A. **Definition**: The sum of all areas on all floors of a building assigned to, or available for assignment to, an occupant or specific use.

B. **Basis for Measurement**: Assignable area is computed by physically measuring or scaling measurements from the inside faces of surfaces that form the boundaries of the designated areas. Exclude areas having less than a six-foot, six-inch clear ceiling height unless the criteria of a separate structure are met.

Measured in terms of assignable square feet (ASF),

**Assignable Area = Sum of Area Designated by the Ten Assignable Major Room Use Categories.**

C. **Description**: Included should be space subdivisions of the ten major room use categories for assignable space - classrooms, labs, offices, study facilities, special use, general use, support, health care, residential and unclassified - that are used to accomplish Rice's mission.

D. **Limitations**: Areas defined as building service, circulation, mechanical, structural and void areas should not be included.
1.3.2 Nonassignable Area

A. **Definition:** The sum of all areas on all floors of a building not available for assignment to an occupant or for specific use, but necessary for the general operation of a building.

B. **Basis for Measurement:** Nonassignable Area is computed by physically measuring or scaling measurements from the inside faces of surfaces that form the boundaries of the designated areas. Excludes areas having less than six-foot, six-inch clear ceiling height unless the criteria of a separate structure are met.

Measured in terms of area,
\[
\text{Nonassignable Area} = \text{Sum of the Area Designated by the Three Nonassignable Room Use Categories: Building Service + Circulation + Mechanical.}
\]

C. **Description:** Included should be space subdivisions of the three nonassignable room use categories - building service, circulation and mechanical - that are used to support the building's general operation.

D. **Limitations:** Areas defined as assignable should not be included.

1.3.2.1 Building Service Area

A. **Definition:** The sum of all areas on all floors of a building used for custodial supplies, sink rooms, janitorial closets and for public rest rooms. Building Service Area does not include assignable areas (e.g., areas classified as Central Storage and Central Supplies are not part of Building Service Area).

B. **Basis for Measurement:** Building service area is computed by physically measuring or scaling measurement from the inside faces of surfaces that form boundaries of the designated areas. Exclude areas having less than a six-foot, six-inch clear ceiling height unless the criteria of a separate structure are met.

C. **Description:** Included should be janitor closets or similarly small cleanup spaces, maintenance material storage areas, trashrooms exclusively devoted to the storage of nonhazardous waste created by the building occupants as a whole, and public toilets.
D. **Limitations:** Areas defined as central physical plant shop areas, or special purpose storage or maintenance rooms, such as linen closets and housekeeping rooms in residence halls, should not be included. Does not include private rest rooms.

### 1.3.2.2 Circulation Area

**A. Definition:** The sum of all areas on all floors of a building required for physical access to some subdivision of space, whether physically bounded by partitions or not.

**B. Basis for Measurement:** Circulation area is computed by physically measuring or scaling measurements from the inside faces of surfaces that form the boundaries of the designated areas. Exclude areas having less than a six-foot, six-inch clear ceiling height unless the criteria of a separate structure are met.

**C. Description:** Included should be, but is not limited to, public corridors, fire towers, elevator lobbies, tunnels, bridges, and each floor's footprint of elevator shafts, escalators and stairways. Receiving areas, such as loading docks, should be treated as circulation space. Any part of a loading dock that is not covered is to be excluded from both circulation area and the gross building area. Also included are corridors, whether walled or not, provided they are within the outside facelines of the buildings to the extent of the roof drip line.

**D. Limitations:** When determining corridor areas, only spaces required for public access should be included. Restricted access private circulation aisles used only for circulation within an organizational unit's suite of rooms, auditoria, or other working areas should not be included.

### 1.3.2.3 Mechanical Area

**A. Definition:** The sum of all areas on all floors of a building designed to house mechanical equipment, utility services, and shaft areas.

**B. Basis of Measurement:** Mechanical area is computed by physically measuring or scaling measurements from the inside faces of surfaces that form the boundaries of the designated areas. Exclude areas having less than six-foot, six-inch clear ceiling height unless the criteria of a separate structure are met.
C. Description: Included should be mechanical areas such as central utility plants, boiler rooms, mechanical and electrical equipment rooms, fuel rooms, meter and communications closets, and each floor's footprint of air ducts, pipe shafts, mechanical service shafts, service chutes and stacks.

D. Limitations: Areas designated as private toilets are not included.

1.3.3 Net Usable Area

A. Definition: The sum of all areas on all floors of a building either assigned to, or available for assignment to, an occupant or specific use, or necessary for the general operation of a building.

B. Basis for Measurement: Net usable area is computed by summing the assignable area and the nonassignable area.

Measured in terms of net usable square feet (NUSF),

Net Usable Area = Assignable Area + Nonassignable Area.

C. Description: Included should be space subdivisions of the ten assignable major room use categories and the three nonassignable space categories.

D. Limitations: Areas defined as structural should not be included. Areas which have 2+ story spaces should only be counted once. Void spaces should be excluded.

1.3.4 Void Area

A. Definition: That portion of an upper floor which is eliminated by a room that rises above the lower single-floor ceiling height. This upper floor area is designated as "Open To Below."

B. Basis for Measurement: Void area is computed by physically measuring or scaling measurements from the inside faces of surfaces that form the boundaries of the designated areas.
1.3.5 Gross Area

A. **Definition:** The sum of all areas on all floors of a building included within the outside faces of its exterior walls, to the extent of the roof drip line, including floor penetration areas, less any Void Area.

B. **Basis for Measurement:** Gross area is computed by physically measuring or scaling measurements from the outside faces of exterior walls. Exclude areas having less than a six-foot, six-inch clear ceiling height unless the criteria of a separate structure are met.

Measured in terms of gross square feet (GSF),
\[
\text{Gross Area} = \text{Net Usable Area} + \text{Structural Area} - \text{Void Area}
\]

C. **Description:** In addition to all the internal floored spaces obviously covered above, gross area should include the following: excavated basement areas; mezzanines, penthouses, and attics; garages; enclosed porches, inner or outer balconies whether walled or not, if they are utilized for operational functions; and corridors whether walled or not, provided they are within the outside face lines of the building, to the extent of the roof drip line. The footprints of stairways, elevator shafts, and ducts (examples of building infrastructure) are to be counted as gross area on each floor through which they pass.

D. **Limitations:** Exclude open areas such as parking lots, playing fields, courts, and light wells.

1.3.6 Structural Area

A. **Definition:** The sum of all areas on all floors of a building that cannot be occupied or put to use because of structural building features.

B. **Basis for Measurement:** It is determined by calculating the difference between the measured gross area and the measured net usable area.

C. **Description:** Examples of building features normally classified as structural areas include exterior walls, fire walls, permanent partitions, unusable areas in attics or basements, or comparable portions of a building with ceiling height restrictions, as well as unexcavated basement areas.