U.S. Department
of Veterans Affairs

Room & Floor Renumbering

- **Floor Level Numbering**
- **Room Renumbering**

This page is intentionally left blank.

Introduction

This section of the Sign and Graphic Design Guide covers two basic fundamental foundations to an effective sign and wayfinding program: proper floor level identification and logical, clear and consistent room numbers.

The foundation of wayfinding starts with floors functioning as the basic delineation of the physical layout of the building. Once a patient or visitor enters the building, the first question to be resolved is, "What floor level am I on and what floor level is my destination?" The next question is "What is the room number or location of my destination?" Following that question, the next question is, "How do I get there?"

An effective wayfinding system needs to answer these questions and provide other information that people need to function in a building.

It is important to establish a clear and consistent identity for all floor levels as one of the basic components of the building's wayfinding system.

Initially, it is important to establish a clear and consistent identity for all floor levels in a building. This is the basic foundation of a building's wayfinding system.

Floor Level Identification

The first floor of a building is the level where patients and visitors enter the building, from grade, to the main lobby. It is people's natural instinct to expect that when they walk in the main lobby of a building, that is the building's first level.

When labeling floor levels, designate the first level as Floor 1. Next, work down through the lower floors, identifying all parking and basement levels. After labeling the lower levels, work up the building, identifying all mezzanine, interstitial, and upper floors.

The established floor level identity should always be displayed at elevator lobbies, elevator control buttons, directories and stairs. Buildings that have secondary and service exterior entries on more than one level should display entry/exiting information along with the level identity. This assists people entering a building to understand they are not entering the building's main level thus avoiding confusion and disorientation.

Site Considerations

Clear and consistent level identification is essential for buildings located on sloped sites with portions of the levels partially above and below grade.

Adjacent or multiple buildings on a sloped site that have floors that do not align should have clear level identification along with effective directional information. Keep in mind the "front door to the medical center main lobby" defines the first floor level.

On a sloped site condition, where buildings are connected with an enclosed walkway or corridor, and the building floor levels do not align, an evaluation must be made regarding coordination of floor level identification. For example, a patient enters the facility at the medical center main lobby and wants to go to a clinic that is located in another building, which is physically connected to the hospital.

If the transition in walking from one building to the next is VISUALLY VERY CLEAR, then the buildings can retain their individual floor level numbers. However, at the entry points to each building, HIGHLY VISIBLE floor level identification must be displayed at the building entry points.

If the transition from one building to the next is NOT CLEAR and a person is not aware they have entered another building, then the buildings floor level numbers need to be coordinated and matched. This may mean renumbering the floors in the secondary building in a nonconforming way.

Assigning Floor Level Identification

FIRST FLOOR

The level patients and visitors enter the building.
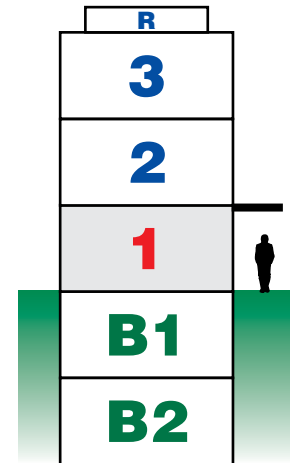
Label this floor as "1".
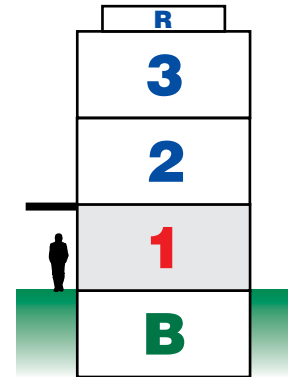
UPPER LEVELS

The building levels above the First Floor.

Upper building level identification should be identified by the number ascending from the first floor. The second floor is numbered "2", the third floor is numbered "3" and so on.

BASEMENT

The building levels below the First Floor.

Building level identification should be identified by the letter "B". Buildings with multiple basement levels should label descending basement levels B1, B2, B3, etc., in the order of descent.

MEZZANINE LEVELS

Mezzanine level is the level that is between the first and second floors. Most buildings do not have a mezzanine.
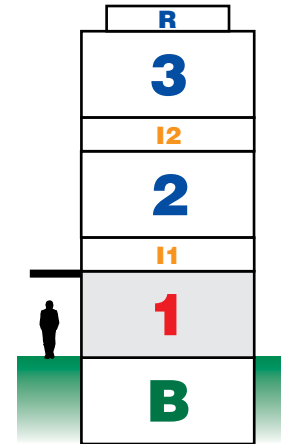
Label this floor level "M".
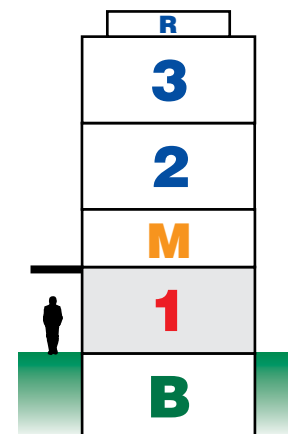
INTERSTITIAL LEVELS

Interstitial level is floor level that is not accessible to the public. Generally these types of levels have building support equipment. Most buildings do not have interstitial levels.

Label this floor level "I".

When a building is on a sloping site, the first floor is the level which patient and visitors enter the building, as a main entrance, and enter into a main lobby reception area.

The lower level is then designated a basement, even though it is at grade.

Older buildings which were constructed with a staircase leading up a flight or partial flight of stairs to the main level, typically had this level designated as the first floor and the level below labeled as the ground floor or basement.

If Ground Floor is used as a designation, change it to Basement.
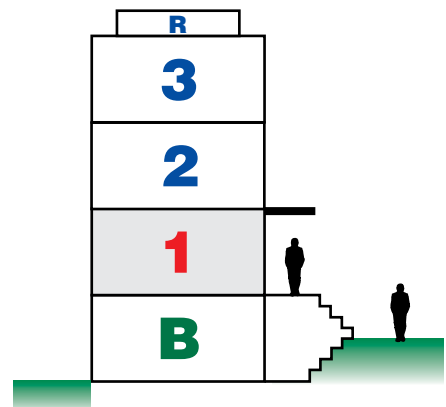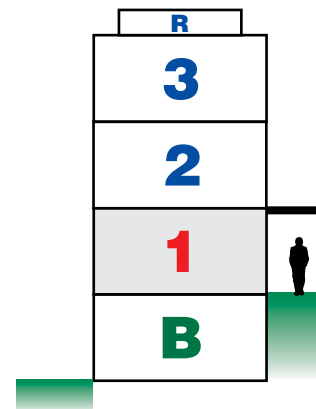
Older buildings which were constructed with a staircase leading up a full flight of stairs to the main level, typically had this level designated as the first floor and the level below labeled as the ground floor or basement.

If ground level has level access from grade, the designation of that level should be 1.
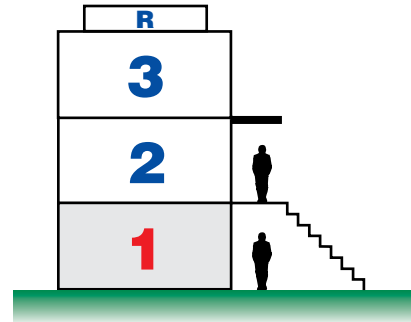
Sloped site condition, where buildings are connected with an enclosed walkway or corridor, and the building floor levels do not align, and the transition from one building to the next is NOT CLEAR and a person is not aware they have entered another building, then the buildings floor level numbers need to be coordinated and matched based upon the level that serves as the main entrance.
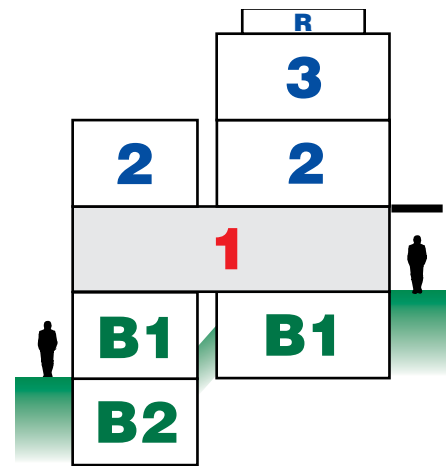
Sloped site condition, where buildings are connected with an enclosed walkway or corridor, and the building floor levels do not align, but the transition in walking from one building to the next is VISUALLY VERY CLEAR, then the buildings can retain their individual floor level numbers.
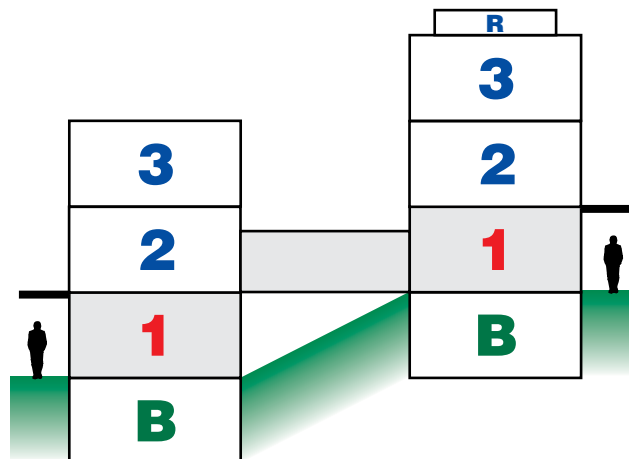
Implementation of Floor Number/Level Changes

PROCESS

- Conduct a survey of existing floor level identification and conditions.

- Develop revised floor level designations.

- Determine what needs to be changed in the sign program: elevator cars, elevator lobbies, stairwell signs, directories, automatic alarm annunciators, building automation systems, etc.

- Coordinate with facility manager, engineering, dietary, information management, safety, and nursing.

- Advise the on-site, and/or local Fire and Police Departments of this change in the facility.

- Develop documentation necessary to implement the change. This will involve changes to both the elevators and the sign program at the same time.

- Arrange for implementation through typical procedures.

- Alert all staff, prior to the conversion, via email and notifications posted throughout the facility. Include actual conversion dates along with contact information for either the department or individual(s) responsible for addressing relevant inquiries.

WHEN

- Preferable during the completion of a renovation or remodeling project or as part of the completion of a new construction project.

- Schedule the installation and change over during a weekend or holiday period.

CONSIDERATIONS

- Install the entire program at one time to avoid confusion.

- Create a translation sheet which indicates "old" and "new" level names. Widely distribute this information, along with the date of change, to staff with plenty of time before the change.

- After converting to the new level designations, in the elevator lobbies, display a paper copy of the old vs. new floor levels for several weeks as staff and patients adjust to the change.

The room numbering system functions as one of the basic pieces of information in the building's wayfinding system.

The wayfinding system can be compared to the process people use when traveling through a town or city to reach their destination. First they go to the right part of town, next they find the right street, and finally they look for the right address. In a building, they use a similar process by first going to the right floor level, next they find the right corridor, and finally they look for the right room number. That room number serves as the "address".

Room Numbering as a Wayfinding Tool

Room number systems identify each room in a building using a consistent recognizable pattern. In addition to identifying the room, the room numbering system also assists in orienting visitors, patients and employees and serves as a sequential guide to help them navigate through sometimes complex building floor plans.

Room Numbering Effects on Operations

Room numbering systems in a medical center play a primary role in the function and operations of a facility. A room numbering system that is confusing, or unlike typical addressing systems, will effect the ability of visitors, patients and employees to quickly find their destinations. For example, a confusing numbering system will effect planning and maintenance staff, dietary staff and others who are responsible for pick up and deliveries within a building.

Importance of a Clear Room Numbering System

The assignment of a "beneficial" room number provides an opportunity for the patient to create an immediate mental image of the actual space location in the building. By knowing a beneficial room number, a person can enter the building and ascertain what floor, wing, and location on that wing the target space is, without additional wayfinding tools such as directories, lines on floors, or directional signs.

Fixing "Broken" Room Numbering as a Wayfinding Tool

Most often room numbering systems that are "broken" are a result of new construction being added to existing facilities with the room numbers not being coordinated between the buildings. The other possibility is extensive or repeated remodeling has been done when the existing numbering system was not flexible enough to accommodate change.

When embarking on a project to correct a "broken" room numbering system, several things need to be taken into account. Many departments will be effected in a medical center and all departments need to participate in the development of the numbering system to facilitate a smooth and orderly transition.

Typical departments that are effected by room number changes are Facility Management, Engineering, Environmental Management, Pharmacy, Medical Administration, Nutrition and Food Service, Police Services, and Information Resource Management.

Planning for a change will take time and should involve communication to as many staff as possible long before the change is implemented.

Method to Implement New Room Numbers While Retaining Old Numbers

A new room numbering system can be implemented and the old number system retained.

The new room number system is put in place on the wall at the side of the door as a part of a new sign program. The old room number can be put on a small sign (i.e. 1" X 4") mounted on the top of the door frame on the hinge side. With this approach, when a new corrected room numbering scheme is put in place, the old room number designation is not effected. The old room number on the plaque that is attached to the door frame retains the old number for as long as necessary. The new room number is then in place for the public and the wayfinding system.

While this approach may address the concerns of those who do not want to change numbers, it does introduce two systems into a building. Typically the new system will get adapted by people in a matter of just a couple of weeks. Then a decision will need to be made regarding what departments will stay using the old system.

Although engineering may want to remain with the old system, it is not recommended. There are ways for engineering to make room number revisions while maintaining the integrity of their databases. For example, Computer Aided Facility Management (CAFM) systems can include programs for old room numbers and new room numbers that will electronically solve such concerns. The effort to incorporate the revisions in CAFM can also be included in the replacement signage contract.

Criteria for Room Numbering

The following is a guide for a door/room numbering system and a proposed method to implement the system. They are intended for a starting point for developing an effective system.

General Wayfinding Considerations

Building layout and shape play a significant role in the development of a room number system that functions correctly.

Review a site plan identifying the building entrances and access usage. Evaluate the building floor plan and identify main features, primary entrance, exits, hallways, elevators and determine major paths of travel. When determining the paths of travel, also identify where these paths of travel originate.

Identify major and secondary corridors, waiting rooms, office suites, service and activity rooms, open office areas, and mechanical/utility rooms and spaces.

Determine major, secondary and tertiary destinations such as clinics, reception areas, offices, nursing stations, pharmacy, rest rooms, and the like. Note locations of vertical circulation elements (elevators, stairs).

Survey and make note of the building's structural "grid", beams, columns, windows, and shear walls. Note corridor alignments and other architectural elements like atriums, courtyards, and patios.

Note patterning in building construction: Do walls tend to follow a pattern of placement? Do walls follow a pattern from floor to floor? Are corridors in the same location from floor to floor? Are certain rooms in the same location on each floor? Also, identify where existing room numbers function well and may not require any revisions.

Room numbers are a label of identification. They can convey identification of the floor level, building area as well as the specific number of the room.

Room numbers would typically be formatted with the first digit(s) designating the floor, the second digit (or letter) designating the building area, and depending on the size of the building area, the next 2 or 3 digits are identifying the actual room.

Smaller buildings or building configurations that permit the use of 4 digits is a preferred system. The use of 4 digits for a room number tends to be easier for people remember
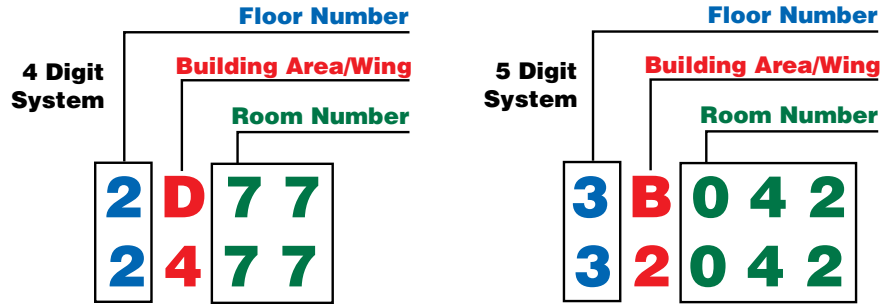

It is recommended that individual room numbers not exceed 5 numerals/characters. Room numbers composed of more than 5 numerals/characters tend to be more difficult to remember. If a building is over 9 stories, exceeding the 5 character guide is a natural progression of accommodation. Adding an additional digit designation for a room within a room is also a natural progression. Inserting a hyphen between the building area designation and room number is also acceptable.

Building Area Designation

Depending on the configuration of the building floor plan, there are several methods to use in order to designate areas or features to support a clear and coherent room numbering system.

AREAS

Based on the floor plan, generate a key plan delineating blocks of rooms and access corridors. Establish area symbols (A, B, C or 1, 2, 3, etc.) on a key plan. The area identifier is then used as part of room number and corridor number. Use of cardinal directions (N, S, E, W) are not beneficial in area designations as users lose directional perspective once inside a building.
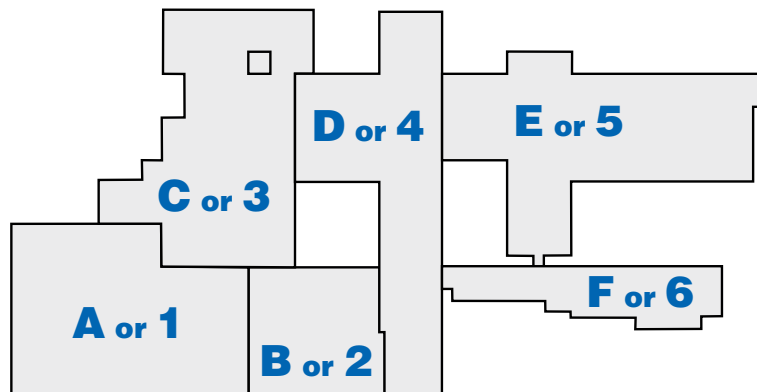
Building Area Designation

(continued)

LOBBY AND WAITING AREA

Lobby identification should follow the numbering sequence of rooms. Assign a number in sequence to the room adjacent too or nearest to the lobby entry.

CORRIDORS

Corridor identification can also follow the numbering sequence of rooms.

ZONES

Establishing zones is a method of assigning a "room number" to constantly changing space such as workstation areas located in open floor plans.

Create a reference grid based on an architectural feature such as column lines. Use letters on one axis and numbers on the other axis to identify each location within the grid.

Room Numbering Scenarios

When applying a room numbering scheme to a facility, it is helpful to think of the process as being similar to traveling to a new place in town. You move from the general to the specific. You have to get to the right part of town, find the right street, and finally the right address.

Depending on the architectural configuration of a building, certain room numbering scenarios may prove to work better than others. The key is to provide a logical consistent pattern that people can follow.

Many times, when renumbering a building, there might be several different ways of patterning of numbers that might work. Chose a scheme that will have the ability to adapt to future building additions with no disruption to what has been applied. Often, the simplest system is the most practical.

In the following pages we will discuss two numbering systems. One numbering scenario is based upon a grid applied to the building floor plan. The other scenario is based upon sequential numbering.

Numbering off a grid allows for room numbers to be added and deleted without effecting the numbering system. It does mean that numbers appear to jump when going down a hallway where there are no doors.

Numbering in a sequential fashion has numbers following the sequence of the doors along a corridor. Following this approach requires introducing numbers with a "sub-set" designation when new rooms are created within an existing numbered space.

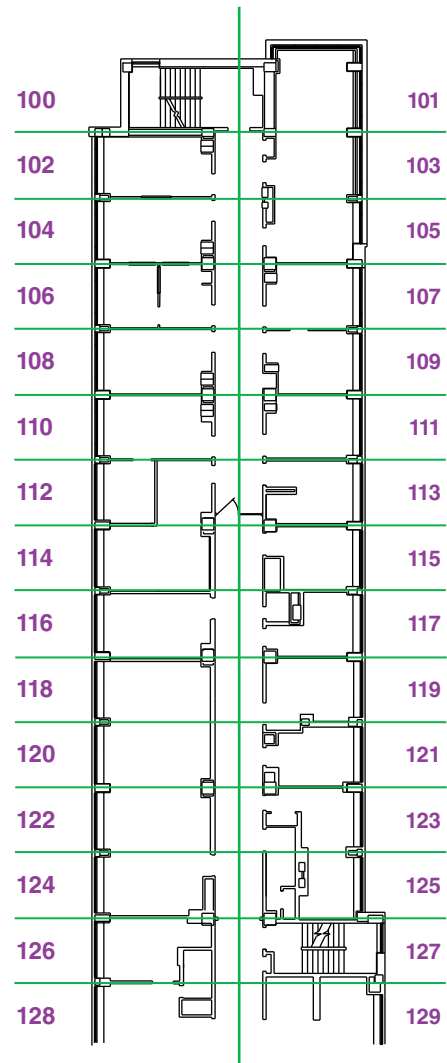**Odd / Even Grid Room Numbering Scenario**

With the odd/even grid scheme, analyze the floor plan and develop a grid based on consistent architectural building elements such as columns, window patterns etc.

After developing a grid, assign odd room numbers to one side of the corridor grid and even room numbers to the opposite side of the corridor. This patterning follows the common addressing pattern used in cities and towns.

FLOOR PLAN EXAMPLE
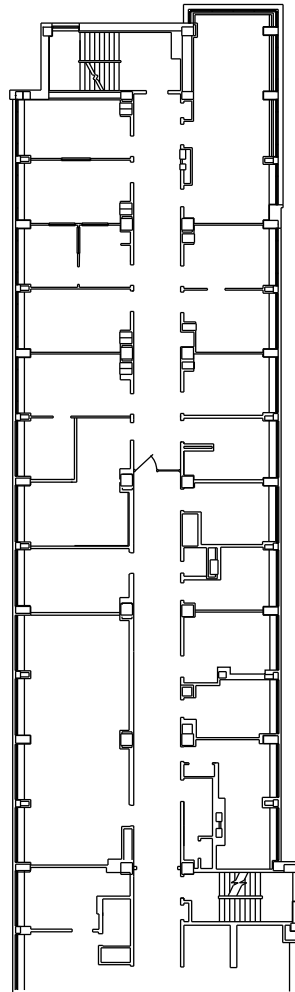
## FLOOR PLAN EXAMPLE WITH GRID NUMBERS APPLIED

Odd / Even Grid Room Numbering Scenario

(continued)

After applying the grid, assign room numbers based upon which grid area contains the room door opening. The grid numbering always stays constant and if there are no door openings in a grid area, then that grid number is not used.

A grid number system assigns a number to an area of the building and allows remodeling to occur with rooms being added or deleted without changes to the number system.
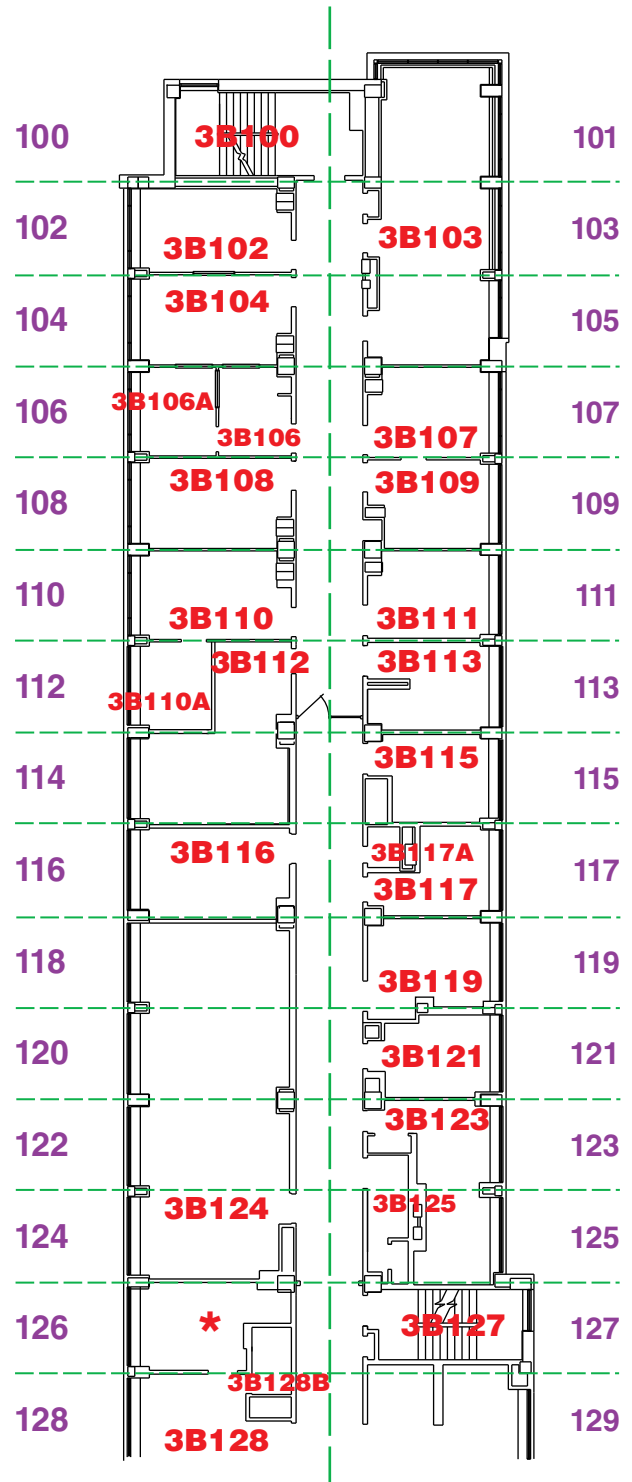
* This room could be numbered 3B126 because it could be easily remodelled to have access off the hall. Or, it could be numbered 3B128B because it is accessed off room 3B128.

Odd / Even Grid Room Numbering Scenario

(continued)

After applying room numbers, based upon the room door opening on to the corridor, within the grid area, address the numbering for rooms that are located within rooms.

Typically these interior rooms are given a sub-set designation. This designation can be in the form of a letter or number. Using a letter tends to be easier for people to remember and use.

4B123 - Room with a corridor door in the assigned grid area

4B123A or **4B123a** or **4B123.1** - Designation for a room accessed through the room that is accessed from the corridor.

The preceding illustration shows several examples of how to address rooms within rooms, rooms extending over several grid zones and two rooms opening in the same grid zone.
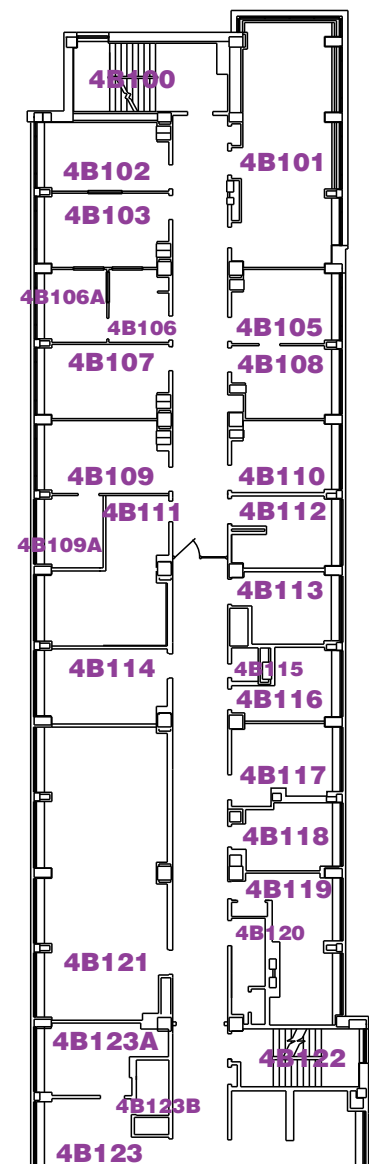
Sequential Room Numbering Scenario

With the sequential scheme, take the floor plan and apply room numbers down the corridor.

At logical breaks in the corridor, like at stairs or elevators, some numbers can be skipped. This will allow some flexibility within the sequential system in case of future room re-configurations and remodels.

The same as the odd/even scenario, interior rooms, off rooms, are given a sub-set designation.

This designation can be in the form of a letter or number. Using a letter tends to be easier for people to remember and use.

NOTE: While the adjacent illustration is showing the use of a number and letter designation system (i.e., 4B109), a five number designation works equally as well (i.e., 42109).

Every building has conditions that may require deviation from the room numbering scenario being applied, but these deviations should be kept to a minimum. If there are too many, then there is a problem with the scenario being applied.

Sometimes there are buildings, or floors, where it is virtually impossible to implement a logical numbering system. There may be to many disconnected corridors, rooms within rooms within rooms or simply no defining pattern to the rooms in the building or space.

Adding and Deleting Room Numbers

A numbering system for existing rooms/spaces should allow for future additions or subtractions to the original system.

Large rooms that have been sub-divided and remodeled to serve other functions can be identified by adding a sequential sub-set letter or number to the original room/space number.

> Original Room/Space Number - 1A013 (Retain for 1 room/space)
> Added Rooms/Space Number - 1A013A, 1A013B
>
> Original Room/Space Number - 1A014 (Retain for 1 room/space)
> Added Rooms/Space Number - 1A014.1, 1A014.2, 1A014.3

Groups of small rooms/spaces remodeled into larger rooms/spaces by removing walls/partitions should retain one of the original room/space numbers that follows in sequence to the numbers patterned off the entrance from the corridor.

A number that has not been used in the Existing Plan may be assigned within renovated area/space or new area/space if it falls within the sequencing.

An available room number may be re-assigned to another room after plan change.

A room number should not change if the function or use of a room changes.

In the case where a room/space is served by more than one door, the room number should follow a number designation based upon the access to the room from corridor, anteroom, or lobby in sequence.

Rooms/spaces that could be accessed by a multiple door conditions are usually office suites, alcoves, secretarial area, closets, air/mechanical shafts, stairs, elevators, and mechanical/electrical rooms.
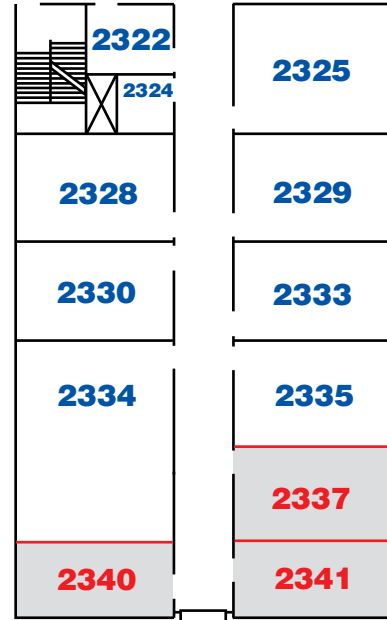
When deleting old room numbers keep existing numbers in place unless the deleted numbers create confusion.
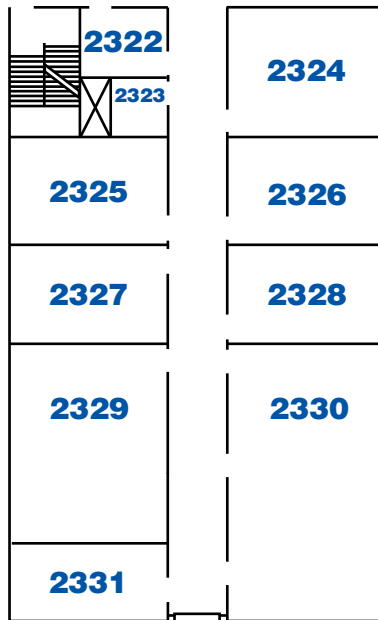
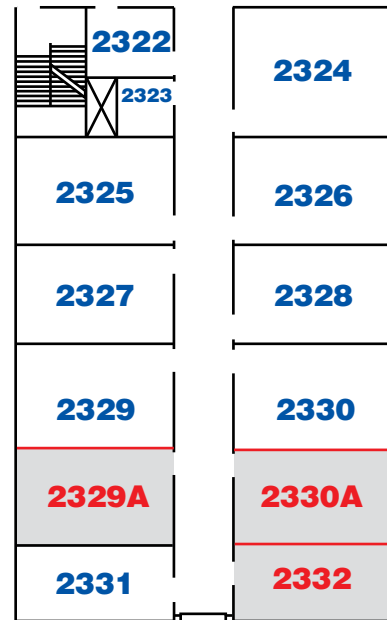**Adding and Deleting Room Numbers**

(continued)
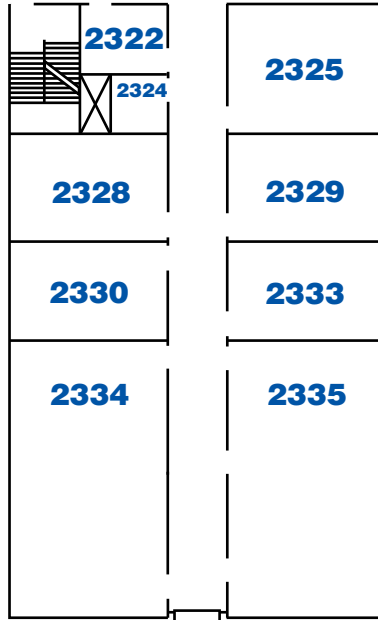
ORIGINAL
Grid System

ADDED ROOMS
Grid System

ORIGINAL
Sequential System

ADDED ROOMS
Sequential System
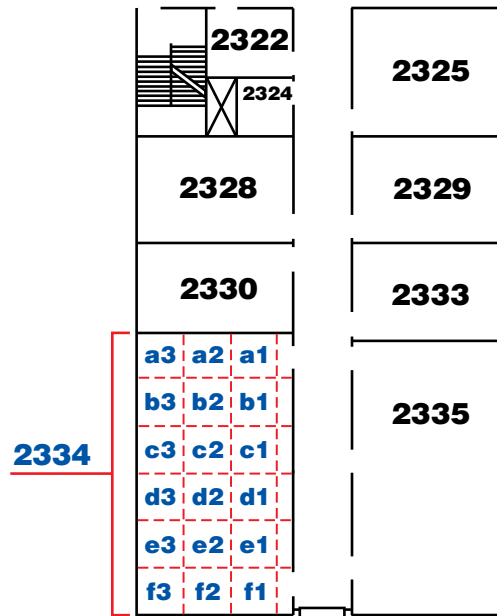
**Open Office Plan
Zone Numbers**

(continued)

Large rooms that have been sub-divided with open office systems can identify zones within the room by adding a sequential sub-set letter or number to the room/space number.

> Room Number - 1A013
> Open Office Zone/Space Number - 1A013a1, 1A013a2
>
> Room Number - 2334
> Open Office Zone/Space Number - 2334b1, 2334b2

**Implementation of
Room Number
Changes**

PROCESS

- Conduct survey of existing room locations, floor plans and conditions.

- Develop proposed room number scenarios

- Determine what requires change in the sign program.

- Develop preliminary sign location plans and message schedules for new signs.

- Coordinate with all department managers, facility management, engineering, dietary, information management, safety, nursing, pharmacy, and fiscal.

- Develop final documentation necessary to implement the change. This will involve implementing the changes to both the room identification signs and the directional sign program at the same time.

- Arrange for implementation through typical procedures.

Implementation of Room Number Changes

(continued)

WHEN

- Preferable during the completion of a renovation or remodeling project or as part of the completion of a new construction project.

- Schedule the change over during a weekend or holiday period.

- Schedule the change at an accounting milestone (end of the month, end of fiscal year, or other well defined milestone).

CONSIDERATIONS

- Install the entire program at one time to avoid confusion.

- Create a translation sheet that has "old" and "new" room numbers. Widely distribute this information, and the date of change, to staff with plenty of time before the change.

- Install entire new room renumbering program at one time to avoid confusion.

- A recommendation is to install all the signs with the new numbers and then cover them up with paper signs showing the old number. On the day and time of the change, remove all the paper signs. This way the entire building gets changed out at once.

- Code requirements may require updating some sign types and/or locations.

- Directories and directional signs will need to be updated with the new room numbers.

- New room signs will probably require existing wall surfaces to be cleaned and freshened up or even painted prior to installation.

- Prior to converting to new room numbers, plan for impacting system changes, such as alarm annunciators, building automation systems, telephones, fire alarm systems, code blue, and other room number dependent information systems.

Corridor Numbering

Revising or developing a corridor number system is a task that is directly influenced by the architectural configuration of the corridors within a building. Particularly in relation to the shape and form of the building as well as the location of building entrances and circulation hubs like elevators, stairs and atriums. It is difficult to define a simple method of identification that can be universally applicable.

Corridor numbers are very rarely used in wayfinding except in situations where the architecture of a building, and it's circulation, allow corridors to define a distinct pattern of clear wayfinding. In this case, the corridors are given names, rather than numbers, as the method of identification.

There are, however, a few general guidelines for corridor numbers:

- Corridor numbers and the number system need to be distinctly different from room numbers and room number system. Yet, they need to have a relationship to the room numbering system on the corridor.

- Corridor numbers need to include a digit that designates the floor level.

- Corridors do not need to be signed for wayfinding purposes.

Stairwell Numbering

Stairwell numbering needs to be coordinated with a facility life safety plan. The identification needs to be consistent throughout a building and from building to building.

Each stairwell designation needs to be unique and specific to each stairwell and the designation not repeated within a building or even on a campus.

Stairwell numbers can have a digit that designates a building and a digit that designates it as an emergency exit or and inner-level circulation path.

Stairwells that have outside exits should have a sign on the outside, adjacent to or on the door, identifying that this is a stairwell and its specific number. This allows emergency personnel to be directed to a specific stairwell without confusion.

Elevator Numbering

Elevator numbering is typically done for services purposes only.

However, if elevators are given a number, or a letter, and are referred to in the way-finding system, then the numbers need to have a correlation to the circulation within a building. For example, Elevator 4 needs to be down the hall, or around the corner from Elevator 3; Elevator A needs to be the main elevator.

If two buildings are connect together, the elevator designations should not repeat. Each elevator should have a distinct number as the people using the building may have no reference that they have changed buildings.