Cleveland Clinic
Drawing Standards

Version 2.2
SECTION 1

LIFE SAFETY DRAWINGS

1.1 Layers

Layers are required on all drawings to categorize components that create a drawing. Layers are to be strictly followed using the format of the table below, see Fig. 1. The width for all polylines shall be 8”. The Smoke Barrier (green line) shall remain continuously in the center of the wall assembly, which depicts the perimeter boundary of a smoke compartment as referenced below, see Fig. 2.

<table>
<thead>
<tr>
<th>GRAPHIC DISPLAY</th>
<th>LEGEND NAME</th>
<th>LAYER NAME</th>
<th>LAYER COLOR</th>
<th>UNETYPE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-HR. FIRE BARRIER</td>
<td>LS-3HRWALL</td>
<td>190</td>
<td>PHANTOM3</td>
<td>CENTER OF RATED WALL (WHEN GREEN LINE IS NOT PRESENT)</td>
</tr>
<tr>
<td></td>
<td>2-HR. FIRE BARRIER</td>
<td>LS-2HRWALL</td>
<td>140</td>
<td>PHANTOM2</td>
<td>CENTER OF RATED WALL (WHEN GREEN LINE IS NOT PRESENT)</td>
</tr>
<tr>
<td></td>
<td>1-HR. FIRE BARRIER</td>
<td>LS-1HRWALL</td>
<td>15</td>
<td>CENTER2</td>
<td>CENTER OF RATED WALL (WHEN GREEN LINE IS NOT PRESENT)</td>
</tr>
<tr>
<td></td>
<td>SMOKE BARRIER</td>
<td>LS-1HRFIRESMOKE</td>
<td>GREEN</td>
<td>DIVIDE</td>
<td>CENTER OF RATED WALL (ALWAYS)</td>
</tr>
<tr>
<td></td>
<td>SMOKE PARTITION</td>
<td>LS-SMOKEPARTITION</td>
<td>MAGENTA</td>
<td>SMOKE</td>
<td>CENTER OF RATED WALL (WHEN GREEN LINE IS NOT PRESENT)</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>LS-SUITE</td>
<td>30</td>
<td>HIDDEN</td>
<td>8’ FROM INSIDE FACE OF WALL SEE GRAPHIC DISPLAY BELOW, FIG. 2</td>
</tr>
<tr>
<td></td>
<td>SUITE AREA</td>
<td>LS-SUITE-HATCH</td>
<td>41</td>
<td>CONTINUOUS</td>
<td>SHADED SUITE AREA</td>
</tr>
<tr>
<td></td>
<td>HAZARDOUS AREA</td>
<td>LS-HAZARD-AREA</td>
<td>54</td>
<td>DASHDOT</td>
<td>8’ FROM INSIDE FACE OF WALL SEE GRAPHIC DISPLAY BELOW, FIG. 3</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>LS-HAZARD-AREA-HATCH</td>
<td>51</td>
<td>CONTINUOUS</td>
<td>SHADED SUITE AREA</td>
</tr>
<tr>
<td></td>
<td>PATH OF EGRESS</td>
<td>LS-EGRESS PATH</td>
<td>140,140,140</td>
<td>HIDDEN2</td>
<td>ALONG PATH OF EGRESS</td>
</tr>
<tr>
<td></td>
<td>EXIT</td>
<td>LS-EGRESS PATH</td>
<td>140,140,140</td>
<td>HIDDEN2</td>
<td>AT EXIT</td>
</tr>
</tbody>
</table>

(Fig. 1)

(Fig. 2)
1.2 Example Drawing

An example ACAD drawing will be available to download on the Office of Construction’s website ccf.org/ocm. All suites and hazardous areas will be shaded with their respective color.

I. Suites will have a numeral that will be reflected in the legend. The legend will indicate the area, noting the square footage and whether it’s a sleeping or non-sleeping suite, see Fig.3.

II. Hazardous areas will have alpha character that will be reflected in the legend. The legend will indicate the area, see Fig.3.

III. Smoke compartments will have a numeral that will be reflected in the legend. The legend will indicate area as applicable for new and existing compartments.
1.3 Example Legends

Below are legends to be used on the life safety drawings, see Fig. 4. These will be included in the example ACAD drawing on the Office of Construction’s website ccf.org/ocm. All applicable legend items shall be graphically represented on the fire and life safety drawings.

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**HAZARDOUS AREA LEGEND**

<table>
<thead>
<tr>
<th>ID</th>
<th>AREA</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>190sf</td>
<td>EXISTING / NEW?</td>
</tr>
</tbody>
</table>

**SMOKE COMPARTMENT LEGEND**

<table>
<thead>
<tr>
<th>ID</th>
<th>AREA</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4,055sf</td>
<td>EXISTING</td>
</tr>
<tr>
<td>2</td>
<td>20,238sf</td>
<td>NEW</td>
</tr>
</tbody>
</table>

**SUITE LEGEND**

<table>
<thead>
<tr>
<th>NO.</th>
<th>SUITE ID</th>
<th>TYPE</th>
<th>AREA</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SUITE 02-1</td>
<td>NON-SLEEPING</td>
<td>5.515 S.F.</td>
<td></td>
</tr>
</tbody>
</table>

**LIFE SAFETY LEGEND**

*Use of smoke partition line type is not required for E-SOC life safety drawings*
1.4 Wall Type Definitions

I. Fire Wall – A fire-resistance-rated wall having protected openings, which restricts the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.

II. Fire resistance rating – The time, in minutes or hours, that materials or assemblies have withstood a fire exposure as established in accordance with the test procedures of NFPA 251, Standard Method of Tests of Fire Endurance of Building Construction and Materials.
   a. 3-HR. FIRE BARRIER – Wall or floor assembly that has an established fire resistance rating of 3 hours.
   b. 2-HR. FIRE BARRIER – Wall or floor assembly that has an established fire resistance rating of 2 hours.
   c. 1-HR FIRE BARRIER - Wall or floor assembly that has an established fire resistance rating of 1 hour. Existing corridor wall in a non-sprinklered building will be no less than 30 min fire rating.

III. SMOKE BARRIER – (from NFPA 101 2000 ed.) denotes a continuous membrane, or a membrane with discontinuities created by protected openings, where such membrane is designed and constructed to restrict the movement of smoke. This required smoke barrier shall be constructed in accordance with Section 8.3 and have a fire resistance rating of not less than one hour in new healthcare as noted in chapter 18 (also OBC 2011) and no less than 30 min. in existing healthcare as noted in chapter 19.

IV. SMOKE PARTITION – A continuous membrane that limits the transfer of smoke, shall extend from the top of the foundation or floor below to the underside of the floor or roof sheathing, deck or slab above or to the underside of the ceiling above where the ceiling membrane is constructed to limit the transfer of smoke – not required to have a fire resistance rating. In general, must be a two-sided partition.

V. HAZARDOUS AREA – Based on date constructed (NEW= post 2003)
   a. NEW – Is a 1-HR FIRE BARRIER (see definition above) surrounding this area in accordance with NFPA 101 2000 ed. and OBC 2011.
   b. EXISTING – Is a SMOKE PARTITION (see definition above) surrounding this area in accordance with NFPA 101 2000 ed. and OBC 2011.

VI. SUITE AREA – Is a SMOKE PARTITION (see definition above) surrounding this area in accordance with NFPA 101 2000 ed. and OBC 2011.
1.5 **Barrier Asset Labels**

The Architect shall assign all barriers a unique (non-repeating) number, unless the barrier jog is less than 18”, then the barrier will be considered one continuous fire barrier, *see Fig.5*. These numbers shall be represented in the ACAD drawings. Numbers shall be assigned in a clockwise motion starting with the Northwest section of the building and ascending. Asset labels that are associated with walls that are removed physically during renovations shall NOT be reassigned. The obsolete numbers shall be retired, along with the asset history associated with said label. All asset numbers shall be reviewed and approved by CC Fire and Life Safety (FLS) team.

I. Wall Barrier Assignment

Barriers shall be assigned an asset label starting with the building ID, floor number, barrier ID, and unique (non-repeating) number, *see example below*.

a. Building ID’s can be found on the Office of Construction website. [ccf.org/ocm](http://ccf.org/ocm)
b. Barrier ID’s, *see Fig.6*
c. Unique (non-repeating) number shall be reviewed and approved by CC Fire and Life Safety (FLS) team.

**Example:**

![Example Diagram](Fig.5)

A9-FB2-25

(Fig.5)

<table>
<thead>
<tr>
<th>BARRIER ID's</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB3</td>
</tr>
<tr>
<td>FB2</td>
</tr>
<tr>
<td>FB1</td>
</tr>
<tr>
<td>SB</td>
</tr>
</tbody>
</table>

(Fig.6)
SECTION 2

ROOM NUMBERING CONVENTION

2.1 General

1. Typical room designations shall consist of (3) specific parts
   a. Building Code (ID)
   b. Floor (level)
   c. Three Digit Room Number

   **Example: J5-001**
   J=Building Code (ID) for the Miller Pavilion
   5=5th floor of the Miller Pavilion
   001=Three digit room number

2. Large building floor plates shall be broken-up into logical zones (100’s, 200’s, 300’s…etc.) and keep numbering consistent within that zone, see *Fig.1*.

3. Numbers shall start at main entry point or main elevator bank, flow in a clockwise motion, and be in sequential order, see *Fig.2*.

4. There should be a break (i.e. 10 numbers) where large areas are present to allow for additional rooms to be built in the future.

(Fig.1)  (Fig.2)
2.2 **Hospital Units**

1. Hospital Units are numbered with building; unit number (which indicates the floor) and room number.

   **Example:** J5-3-001  
   J=Building Code (ID) for the Miller Pavilion  
   5=5th floor of the Miller Pavilion  
   3=Unit number  
   001=Three digit room number

2. Start numbering the patient rooms first; starting at main entry point or main elevator bank, flow in a clockwise motion, and be in sequential order, see Fig.3.

   ![Diagram of Hospital Units](Fig.3)

   **Note:**  
   All patient room numbering shall be first discussed with the nurse manager of the respective department.
2.3 Rooms (within another room)/ Cubicles

1. Numbers for a room within another room shall use the same number with an alpha character at the end, see Fig. 4.

**Example:**
J5-3-001 = Patient Room 1  
J5-3-001A = Toilet Room within Patient Room 1

2. Cubicles shall also be numbered, both in corridors and inside rooms, using the same convention as above, see Fig. 5.

(Fig. 4)

2.4 Stairs/ Elevators

1. Stairs and elevators shall be numbered as well, starting with an acronym indicating whether the space is a stair or elevator, then building ID, and finally the number. Numbering shall start from North to South.

**Stair Example:** ST J01  
ST = Indicating space is a stair  
J = Miller Pavilion ID  
01 = Stair Number

**Elevator Example:** EL J01  
EL = Indicating space is an elevator  
J = Miller Pavilion ID  
01 = Elevator Number

(Fig. 5)