



Clark County Department of Building & Fire Prevention

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Permit Type: 105.6.34
Control Number: A.0
Effective Date: 1/6/14

TITLE: EXHIBITS AND TRADE SHOWS
Temporary Permit

SCOPE:

Clark County Fire Prevention requirements for the submittal and approval requirements for Exhibits and Trade Shows with occupant loads of more than 300.

PURPOSE:

To communicate Fire Prevention requirements for efficient processing of Exhibits and Trade Show Assembly Permits.

DEFINITIONS:

See Appendix A.

PERMIT FEES:

Permit fees shall apply according to the Permit Fee Schedule as adopted in the Clark County Fire Code. Plans can be expedited for an additional fee.

SPECIFICATIONS AND REQUIREMENTS:

Complete an Application for each submittal. Three sets of plans are needed so that an Approved Copy can be returned to the Applicant. The other two are for the Fire Prevention Inspector for use at your event and Fire Prevention records. Please ensure that submittals are legible.

The permit is valid for the duration the Applicant requests, but no more than 180 calendar days. Advanced notice of at least four weeks prior to the event will avoid additional charges for Expedited plans.

Fire Prevention will need three (3) sets of plans drawn to scale. Due to the large floor space needed for typical exhibits and trade shows, all plans should be on minimum 11-inch X 17-inch paper. Smaller paper and faxed submittals are usually not legible and therefore, Fire Prevention cannot accept these formats.

Note that separate permits are required for other operational permits contained within the assembly. Typical operations that require separate permits that are present in assembly spaces include:

- Candles and Open flames (including gelled alcohol, Sterno, etc)
- Flame effects
- Open flame devices – e.g. candles and gelled alcohol warmers
- Fireworks/pyrotechnics
- Compressed gases
- Cryogenic fluids
- Hot Work Operations
- Liquid or gas-fueled vehicles or equipment for display in assembly occupancies
- Fire systems for covered booths exceeding 1,000 square feet that will be erected for more than seven (7) show days or contain vehicles, open flame, or hot works.

The following are the specifications and requirements for exhibits and trade show plans:

General Information for Exhibit and Trade Show Plans:

General information to be included on plans includes:

- Name and Address of the Property
- Name of the Room or Location, (e.g. pool deck, banquet room name, venue name)
- Point of Contact with phone number and email address
- Move-In and Move-Out dates (e.g. May 5 to May 7, 2013)
- Type of Event (e.g. trade show, general session, political rally, rock concert)
- Display Items (e.g. trade show booths, vehicles, equipment, pyrotechnics)

See Appendix B for diagrams of acceptable exhibit and trade show furniture and booth arrangements.

Means of Egress:

The following items should be shown on the plans to facilitate review to show that persons can effectively exit from the building during an emergency (Means of Egress):

- Rooms, adjoining rooms and hallways in relation to the building they occupy.
- Overall dimensions of the usable square footage to be occupied and the total square footage of the room as well as the net (usable) square footage.
- Locations and dimensions of all available exits.
- Width of all aisles, access ways for egress & cross aisles around all tables.

Building and Fire Codes require a balance between the number of persons in a building and the widths of the exits. This determines if the building has a safe means of egress (exiting). The code requirements are designed to avoid “jams” at the exit doors or stairs, excessively long foot traffic paths and situations that could impede quick evacuation of a building. The following applies:

1. Exits and their capacity are to be in accordance with master egress plans approved by Clark County Building Department.
2. The exit capacity is calculated by the following formulas:
 - Exit capacity of exit access paths, ramps and doors: An exit is credited with exit width of 1 foot for each 80 occupants.
 - Exit capacity of stairs: An exit width of 1 foot for each 60 occupants.

When more lenient, exit capacity factors in accordance with master egress plans approved by the CCBD supersede calculations using the above factors.

3. When a room has more than 49 occupants, two exits are required.

When two or more exits are required in assembly occupancy, they must be separated by a minimum distance equal to or greater than one third (1/3) the diagonal dimension of the room. This is to lessen the likelihood of an exits being disabled by an emergency in front of a door.

4. To avoid bottlenecks, converging “exit access” paths are not to be less than the combined required capacity. Width of access ways need not be greater than the required width of the exit doors to which they lead. Example: Two paths, each required to be 36 inches wide, should lead to a 72-inch path.

5. There shall be no dead-end aisles greater than 20 feet long.

Occupant Loads:

Occupant Loads are controlled in exhibitions and trade shows by the operators. Since FP is charged with guarding against over-crowding, exhibit and trade show permits could be revoked if the actual occupant load greatly exceeds the occupant load that could be safely handled by the exits.

The maximum occupant load is calculated by dividing the net square footage of the room by a factor of 15 square foot per person for an event utilizing tables and chairs or booths for a convention; dividing by a factor of 7 square foot per person for an event utilizing fixed seating. Clark County Building Department approved Master Egress Plans supersede calculations by this method. Provide documentation when Building Department figures are used, i.e., permit numbers and / or copies of approved plans.

FUNCTION OF SPACE	OCCUPANT LOAD PER FLOOR AREA
Fixed or ticketed seating	Actual seat count
Exhibition Floors	15 net *
Unconcentrated tables and chairs	15 net *
Concentrated chairs unticketed only	7 net*
Standing space	5 net *
Stages and Platforms	15 net*
Back Stage	200 gross**
Kitchens	200 gross**
Pre-function	Non-simultaneous use or per master egress plan
Registration	Non-simultaneous use or per master egress plan
Business Centers	100 gross**

*Net = remaining area excluding non-usable circulation space (e.g. space taken by décor, displays, props and the like)

** Gross = all area including non-usable circulation space (e.g. equipment, pillars, stock items, and the like)

The available “exit capacity” must be greater than or equal to the proposed occupant load for the temporary event.

Tables and Chairs:

1. Aisles at round or rectangular tables with chairs on both sides shall be a minimum of 6 feet from table edge to table edge. Aisles around convention booths shall be a minimum 8 feet wide or shall have sufficient clear width to conform to the capacity requirements of CCFC Section 1005.1.
2. For banquet style seating, aisles around round or rectangular tables with chairs on both sides shall be a minimum of 6 feet from table edge to table edge. Spacing to a wall shall not be less than 4 feet, 6 inches, measured from the table edge to the wall.
3. For high tops (tall cocktail tables without chairs): aisles around high top tables without chairs shall be a minimum of 3 feet wide. The spacing shall be a minimum of 6 feet wide if the tables are supplied with chairs. Spacing to a wall shall not be less than 3 feet.
4. Temporary seats for theater or general session style seating shall have an aisle measuring not less than 12 inches as measured from the back of the chair to the nearest projection of the chair behind. If the number of chairs per row exceeds 14, the width shall be increased by 0.3 inch for each additional chair, but not required to exceed 22-inches.

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5. The minimum allowable distance between backs of chairs and table edges is 12 inches. An 18-inch chair depth is assumed. See Figure 1.5 of Appendix B.
 6. When tables are placed in the aisles of exhibit floors, the net width of the aisles shall be maintained at 8-feet.
 7. Master Egress Plans approved by CCBD shall supersede all of the above.

Exhibit Booths:

Booths that obstruct exits will have to be relocated.

If covered booths exceed 1,000 square feet, they need interior automatic sprinkler protection if they will be in place for more than seven show days or if they contain vehicles, open flame, or hot works. Provide a separate sprinkler installation permit application for covered that require fire sprinklers.

The upper level of multi-level exhibit booths exceeding 300 square feet shall have not less than two remote means of egress.

Booth construction is to be made of materials complying with the Clark County Fire Code as follows:

- Noncombustible materials
- Wood exceeding ¼ inch nominal thickness
- Wood that is pressure-treated, fire-retardant wood meeting the requirements of NFPA 703, *Standard for Fire-Retardant Coatings for Building Materials*
- Flame-retardant material complying with NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*
- Textile wall coverings, such as carpeting and similar products used in wall or ceiling finishes complying with Section 803.5.2 of the IFC
- Plastics limited to a Class A flame spread index
- Foamed plastics and materials containing foamed plastics complying with Section 807.4.2.1 of the IFC
- Cardboard, honeycombed paper, and other combustible materials having a heat release rate for any single fuel package that does not exceed 150 kW where tested in accordance with UL 1975, *Standard for the fire Tests for Foamed Plastics Used of Decorative Purposes*

Fire Suppression Features:

1. Fire extinguishers originally placed by the building owner as required and approved by FP at the time of original certificate of occupancy are acceptable.
2. Additional fire extinguishers may be required if the travel distance to a fire extinguisher exceeds 75-feet or if there are Special Hazards. Cooking and hot-works like welding are examples of Special Hazards.

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3. Fire extinguishers and fire hose cabinets shall not be obstructed. Keep them clear of displays, booths, drape, signs, decorations and the like.

Cooking:

Temporary exhibition and display cooking poses a significant hazard and therefore is only permitted with limitation. Production cooking should only be in permanent commercial cooking facilities with permanent cooking ventilation.

Temporary cooking operations are permitted with the following limitations:

- Only use appliances that are listed by a nationally recognized testing agency i.e., Underwriters Laboratories, Inc., Canadian Standards Association (formerly American Gas Association).
- Use them according to the manufactures instructions. Equipment designed for outdoor use should not be used indoors.
- Using solid fuels like charcoal and woods, (i.e., hickory, mesquites) are prohibited within exhibit halls.
- LP-gas or butane used for displays and demonstrations is limited to cylinders or canisters not exceeding the nominal 5-pound size (12 lbs water capacity), maximum 2 per booth. Additional cylinders or canisters must be located 20 feet apart.
- You need a permit for using any amount of LP-gas or butane in Assembly occupancy.

For cooking producing grease laden vapors and deep fat frying:

1. All multiple-well cooking equipment using combustible oils or solids and cooking surfaces i.e., grills that exceed 288 square inches that produce grease laden vapors shall be provided with a fire extinguishing system installed according to NFPA17A and an exhaust duct system complying with the currently adopted Mechanical Code.
2. All single-well cooking equipment (deep fat fryers) operations using combustible oils or solids must meet all of the following criteria:
 - a. Metal lids sized to cover the horizontal cooking surface are to be provided.
 - b. The cooking surface is limited to 288 square inches (2 square feet).
 - c. The equipment shall be placed on a noncombustible or limited combustible surface. Examples include concrete floors and Fire Retardant Treated (FRT) plywood. The noncombustible surface must extend three (3) feet in front of the fryer.
 - d. The fryer is to be separated from all other equipment by a distance not less than 24 inches.

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- e. These cooking displays must be separated from all other combustibles by a distance not less than 10 feet.
 - f. The volume of cooking oil per appliance is not to exceed three (3) gallons.
 - g. The volume of cooking oil per booth is not to exceed six (6) gallons.
 - h. Deep fat fryers shall be electrically powered and have a shut-off switch.

Other appliances for exhibition cooking are limited to 288 square inches in area. Examples are induction cook tops, ranges, electric warmer, single burner ranges, multiple burner ranges.

A minimum of one (1) Class-K fire extinguisher is to be provided within 30-feet of each deep-fat fryer and each grill or other appliance producing grease laden vapors.

A minimum of one (1) Class 2A-10BC fire extinguisher is to be located within each booth with additional or other display cooking such as baking, sauté, braising, stir fry, convection cooking, warming of food, and all other like applications.

Food Warming:

Food warming is limited to maintaining the temperature of pre-cooked food or beverages at or below 200° F. Flame devices used for food warming are permitted separately as open flame devices. They are intended for stationary use in a manner to prevent the flame from contacting combustible materials.

Chemical-heat (Sterno) is allowed in occupied rooms or halls during the permitted hours of the event. It should be used in accordance with the manufacturer's instructions. Mobile warming carts using chemical heat may be used in accordance with the manufacturer's instructions. Chemical heat may not be used in warming carts that are not made for chemical heat devices.

Decorative Materials:

All decorative materials including (draperies, artificial plants, etc.) used for construction or decoration shall be flame retardant and flame certificates shall be provided.

1. The amount of curtains, draperies and textiles hung is not limited in sprinklered buildings. Also, table cloths are not regulated.
2. Artificial vegetation is regulated according to Section 806.2 of the Clark County Fire Code. It shall meet the flame performance criteria of NFPA 701.
3. The preferred proof of flame resistance is tag affixed to each curtain, drape or textile.

Alternately provide:

- A manufacturer's flame certificate stating compliance with NFPA 701.

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- Certification from a fireproofing applicator.
 - Field testing per NFPA 705.
4. Curtains, drapes and textiles shall not obstruct exit signs, means of egress components, sprinklers, fire alarm strobes, horn-strobes, standpipe outlets, fire hose cabinets, fire extinguishers or any other fire protection equipment.
 5. Ceiling suspended curtains, drapes and textiles in exhibition spaces are to have a minimum of 18 inches of clear space between the top of the material and the sprinkler deflector. There is an exception for materials hung within six inches of a wall.
 6. Foam plastics, other than poster boards, shall not be permitted. Fire Prevention will consider foam plastics complying with the currently adopted Building Code. A separate Fire Protection Report demonstrating compliance with the Building Code is required for foam plastics.
 7. Fire resistant foam board signage, not greater than 1/2-inch in thickness, is acceptable.

Hot Works:

A separate submittal for Hot Works Operational Permit is required for exhibition welding, demonstration oxy-acetylene welding, soldering, brazing, glass-blowing and the like. Electric spot welding, arc, TIG and MIG welding etc. may be allowed according to an issued permit. Small scale, jewelry welding may be allowed when permits are issued. Full scale oxy-acetylene welding will not be permitted in an exhibition assembly.

A blanket permit covering all operators is acceptable for a single exhibition space. All exhibitors and their hot works equipment and description of their demonstration must be submitted.

The hot-works permit submittal shall include a description of the operations and fire safety precautions. Fire Prevention will determine if the operations and precautions are acceptable and either issue or deny the permit.

PERMIT REVISIONS AND RESUBMITTALS:

Revisions to approved plans are required to be submitted and approved. Revisions will be assessed additional plan review fees. A copy of the previously approved plan shall accompany the revised submittal to facilitate the review. Clearly indicate all changes to the revised plans by clouding the change with a delta number to signify the date of plan change. When several changes have been made a detailed list of changes is required.

Re-submittals to address a Letter of Correction will require a full submittal. These plans require a copy of the red lined plan from the previous submittal to facilitate the review. Clearly indicate all changes by clouding the change with the delta number to signify the date of plan change.

PLANS CHECK STATUS INSTRUCTIONS:

The status of the review can be checked by logging on to:

INSPECTIONS SCHEDULING INSTRUCTIONS:

After the plans are approved, an inspection will need to be scheduled. To schedule an inspection, go to:

www.clarkcountynv.gov/building/fire-prevention/Pages/InspectionServices.aspx.

A fire inspector will review your site in accordance with the approved plans and this guideline and, if compliant, will issue the permit.

The Clark County Building Department's Fire Prevention (FP) may perform testing, acceptance, and maintenance of fire & life safety systems as required by and within the scope and authority of the Clark County Fire Code. This Guideline does not take the place of the Fire Code and does not take precedence over any Fire Code requirement or position taken by the Building Official. When a conflict exists between the requirements of this Guideline and the Fire Code or the opinion of the Building Official, the Fire Code or opinion of the Building Official prevails.

Technical Assistance, when required by the Building Official, will require a Technical Opinion and Report prepared by a State of Nevada licensed: qualified engineer, design professional, specialist, laboratory, or fire safety specialty organization acceptable to the Building Official and the owner. The Building Official is authorized to require design submittals to bear the Wet Stamp and Signature of a professional engineer.

Acceptance of Alternative Materials and Methods requires a Technical Opinion and Report prepared by a State of Nevada licensed: qualified engineer, specialist, laboratory, or fire safety specialty organization acceptable to the Building Official and the owner. The Building Official is authorized to require design submittals to bear the Wet Stamp and Signature of a professional engineer or architect.

APPENDIX A

DEFINITIONS

The following are special definitions within the context of this Guideline:

Assembly: For the purposes of this guideline, a gathering of 300 or more persons for a specific event.

Booths, single and multi-level: Assembled display structures for displaying sales literature and product demonstrations. Multi-level booths are characterized as having human occupancy above the floor or ground.

Class A Fire Extinguisher: Fire extinguisher used for ordinary combustibles (i.e., wood and paper); the fire extinguisher is also assigned a rating number.

Class K Fire Extinguisher: Fire extinguisher that has been subjected to special tests on cooking appliances using combustible cooking media.

Compressed Gas: Gas within pressure vessels i.e. argon, nitrogen and helium as further defined in Section 3002.1 of the Clark County Fire Code.

Cooking: Heating food products to over 200°F by baking, boiling, deep fat frying, sautéing, etc.

Cryogenic Fluid: Typically fluids that are a hazard due to their ability to freeze tissue, further defined by the Clark County Fire Code as a fluid with a boiling point lower than -130 °F at standard temperature and pressure.

Exit: Persons traveling through an exit are considered safely away from a hazard such as a fire. Therefore “exit” has a special definition in the context of building and fire codes as follows:

That portion of a means of egress system which is separated from other interior spaces of a building or structure by fire-resistance rated construction and opening protection as required to provide a protected path of egress travel between the exit access and exit discharge. Exits include exterior exit doors at ground level, exit enclosures, exit passageways, exterior stairs, exterior exit ramps and horizontal exits.

Exit Access Travel Distance: Distance from any point within a building to an exit.

Grease Laden Vapors: Significant cooking vapors that can collect on adjacent and over-head surfaces from deep fat frying, grilling of fatty meats and the like. A grease, fat or oil accumulation to a depth of 1/4-inch is usually an indication that grease laden vapors can evolve.

Hot Works: Working metal, glass, jewelry, or other materials by brazing, soldering, flames, grinding, producing sparks or welding.

LP-gas: Compressed liquid petroleum gas consisting mainly of propane with a lesser amount of butane and pentane.

Master Egress Plan: The plan approved by Clark County Development Services (the Building Department) that established the egress systems for buildings and venues. The Master Egress Plan establishes a base egress system and typically will not include all temporary use conditions.

Means of Egress: System used to exit from a building including the exit access, exit and exit discharge.

National Fire Protection Association (NFPA): Major U.S. fire standards promulgating organization.

Non-Simultaneous Use: Recognition that more than one building area may be available to occupants, but not counted as occupied. For example, restrooms are not included in an occupant load calculation since occupants are not usually occupying the building solely for use of the restroom.

NFPA 701: Fire test standard for fabrics used to determine if hanging textiles and fabrics are acceptable for use in assembly occupancies. The full title is *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.

Occupant Load: The number of persons for which the means of egress of a building or portion thereof is designed.

Operator: Organization or entity responsible for sponsoring the event.

Permit and Service Fee Schedule: Schedule of fees associated with obtaining required operational permits associated with the assembly event.

Pyrotechnics: Controlled exothermic chemical reactions that are timed to create the effects of heat, gas, sound, dispersion of aerosols, emission of visible electromagnetic radiation, or a combination of these effects to provide the maximum effect from the least volume.

Sterno: Trade name for a formulation of gelled denatured alcohol fuel commonly used to warm food and beverages.

Vehicle Display: Display of normally functional motor vehicles, modified for display during assembly occupancy.

Warming (food): Use of cooking media at temperatures of 200°F or less.

APPENDIX B EXPLANATORY FIGURES

Table and Chair Configurations

Figures 1.0 - 1.5

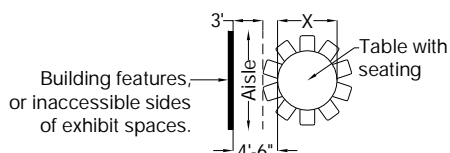


Figure 1.0 - Seating At Tables

Banquet Style Configuration:

Minimum allowable distance from table edges to building features or inaccessible sides of exhibit spaces for tables with seating, regardless of table size or shape. An 18-inch chair depth is assumed.

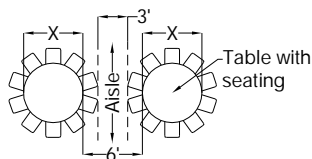


Figure 1.1 - Seating At Tables

Banquet Style Configuration:

Minimum allowable distance between table edges for tables with seating on both sides of an aisle, regardless of table size or shape. An 18-inch chair depth is assumed.

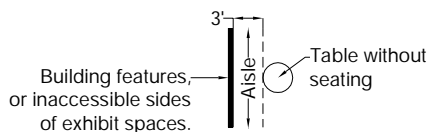


Figure 1.2: Tables Without Seating

Minimum allowable distance from table edges to building features or inaccessible sides of exhibit spaces for tables without seating, regardless of table size or shape.

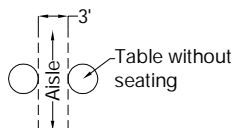


Figure 1.3: Tables Without Seating

Minimum allowable distance between table edges for tables without seating, regardless of table size or shape.

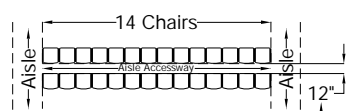


Figure 1.4 - Seating

Theater Style Configuration:

Minimum allowable distance between rows of chairs measured from chair fronts to chair backs. An 18-inch chair depth is assumed.

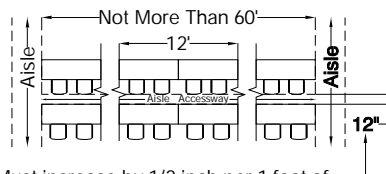


Figure 1.5 - Seating At Tables

Classroom Style Configuration:

Minimum allowable distance between chair backs and table edges is 12 inches. An 18-inch chair depth is assumed. Maximum allowable travel distance from any seat to the nearest aisle along an aisle accessway is 30 feet.

Exhibition Configurations

Figures 2.0-2.2

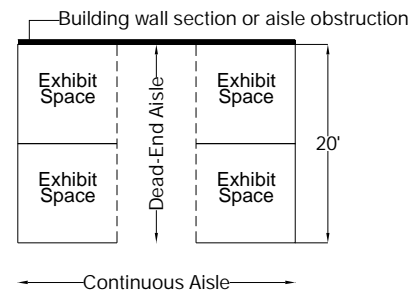


Figure 2.0: Exhibition Aisles

Dead-End Aisles:

Maximum allowable length of a dead-end aisle.

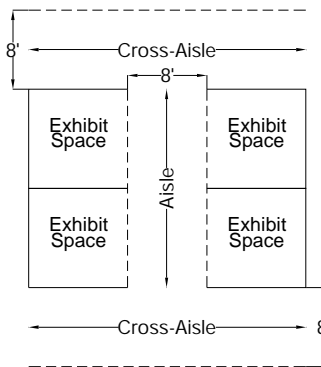


Figure 2.1: Exhibition Aisles

Minimum allowable aisle widths for cross-aisles and where the interiors of the exhibit spaces are accessible from the aisle.

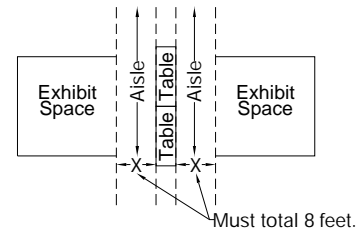


Figure 2.2: Exhibition Aisles

Tables and other items may be placed within exhibition aisles provided that 8 feet of net width is maintained between exhibit spaces. However, no portion of the aisle may be less than 3 feet wide.

Fire Equipment Clearance

Figures 3.0 - 3.1

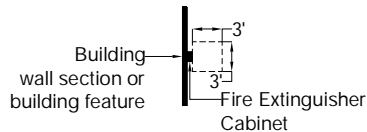


Figure 3.0 - Fire Extinguisher Cabinet Clearance

Minimum required clearance for access to fire extinguisher cabinets.

Mixed Configurations

Figures 4.0 - 4.1

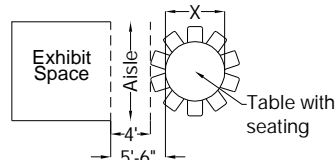


Figure 4.0: Exhibit Spaces Adjacent To Seating At Tables.

Minimum allowable aisle width between exhibit spaces and seating at tables. An 18-inch chair depth is assumed.

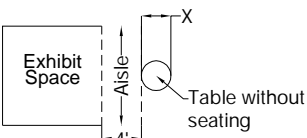


Figure 4.1: Exhibit Spaces Adjacent To Tables Without Seating.

Minimum allowable aisle width between exhibit spaces and tables without seating.

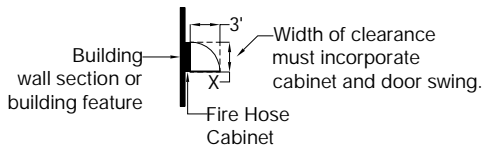


Figure 3.1 - Fire Hose Cabinet Clearance

Minimum required clearance for access to fire hose cabinets.