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## City of Henderson Development Services Center 240 Water Street, P.O. Box 95050, Henderson, Nevada 89009-5050 702-267-3600 Fax 702-267-3601

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High Piled Storage Supplemental Sheet

## Use this sheet for all High Pile Storage permits; it allows your permit fees to be determined. IS A RACKING SYSTEM BEING INSTALLED? WHAT IS THE STORAGE AREA, IN SQUARE FEET? WHAT IS THE HEIGHT OF THE STORAGE RACKS? \_\_\_\_\_ WHAT IS THE LINEAL FOOTAGE OF THE STORAGE? Class Area Parameters-(Check only one appropriate box. For mixed commodities, select the most restrictive.) Parameters-UNDER 12,000 SQUARE FEET HIGH PILED/RACK/SHELF CLASS I, II, or III OVER 12,000 SQUARE FEET HIGH PILED/RACK/SHELF П UNDER 12,000 SQUARE FEET HIGH PILED/RACK/SHELF **CLASS IV** П OVER 12,000 SQUARE FEET HIGH PILED/RACK/SHELF П UNDER 2.500 SQUARE FEET HIGH PILED/RACK/SHELF **HIGH HAZARD** П OVER 2.500 SQUARE FEET HIGH PILED/RACK/SHELF TENANT Name & Address: (Failure to provide contact information will result in delayed processing). Business Name: Street: \_\_\_\_\_\_ Suite / Unit: \_\_\_\_\_ City, State, Zip:

A FIRE PERMIT FOR HIGH-PILED STORAGE is required to use any building or portion thereof as a high-piled storage area (an area within a building which is designated, intended, proposed or actually used for high piled, shelf, or rack combustible storage) exceeding 500 square feet. HIGH-PILED COMBUSTIBLE STORAGE is defined as storage of combustible materials in closely packed piles or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet in height. High-piled combustible storage also includes certain high hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet in height. SEE PAGE 2 AND THE FLOW CHART FOR ADDITIONAL INFORMATION.

## Classification of Commodities (See International Fire Code Chapter 32 for detailed information):

Class I: Class I commodities are essentially noncombustible products on wooden or non-expanded polyethylene solid deck pallets, in ordinary corrugated cartons with or without single-thickness dividers, or in ordinary paper wrappings with or without pallets. Examples of Class I commodities: Appliances; cement in bags; frozen foods; noncombustible metal products.

**Class II:** Class II commodities are Class I products in slatted wooden crates, solid wooden boxes, multiple-thickness paperboard carton or equivalent combustible packaging material with or without pallets. Examples of Class II commodities: Foods in combustible containers; incandescent or fluorescent light bulbs in cartons; thinly coated fine wire on reels or in cartons.

**Class III:** Class III commodities are commodities of wood, paper, natural fiber cloth, or Group C plastics or products thereof, with or without pallets. Products are allowed to contain limited amounts of Group A or B plastics, such as metal bicycles with plastic handles, pedals, seats and tires. Examples of Class III commodities: Aerosol, Level 1; food in plastic containers, paper, pillows.

Class IV: Class IV commodities are Class I, II or III products containing Group A plastic in ordinary corrugated cartons and Classes I, II and III products, with Group A plastic packaging with or without pallets. Group B plastics and free-flowing Group A plastic are also included in this class. Examples of Class IV commodities: Aerosol, Level 2; combustible metal products; furniture, plastic upholstered; furniture, wood or metal with plastic covering and padding; pharmaceutical; paints in combustible containers.

**High Hazard:** High hazard commodities are high-hazard products presenting special fire hazards beyond those of Class I, II, III or IV. Examples of high-hazard commodities: rubber tires, Group A plastics, flammable liquids, idle pallets, where the top of storage is greater than 6 feet in height; Aerosol, Level 3; commodities of any class in plastic containers; mattresses.

**2018 International Fire Code 3201.3 Construction documents.** At the time of building permit application for new structures designed to accommodate high-piled storage or for requesting a change of occupancy/use, and at the time of application for a storage permit, plans and specifications shall be submitted for review and approval. In addition to the information required by the International Building Code, the storage permit submittal shall include the information specified in this section. Following approval of the plans, a copy of the approved plans shall be maintained on the premises in an approved location. The plans shall include the following:

- 1. Floor plan of the building showing locations and dimensions of high-piled storage areas.
- 2. Usable storage height for each storage area
- 3. Number of tiers within each rack, if applicable.
- 4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
- Aisle dimensions between storage array.
- 6. Maximum pile volume for each storage array.
- 7. Location and classification of commodities in accordance with Section 3203.
- 8. Location of commodities which are banded or encapsulated.
- 9. Location of required fire department access doors.
- 10. Type of fire suppression and fire detection systems.
  - a. For density/area fire sprinklers protecting the high-piled storage area, indicate the sprinkler identification number (SIN), the sprinkler k factor, square footage of the remote area, and the system design density. If the SIN is not available, a copy of the manufacturer specification sheet for the sprinkler head is required.
  - b. For specific application sprinklers, such as large-drop and ESFR sprinklers, protecting the high-piled storage area, indicate the sprinkler identification number (SIN), the sprinkler k factor, the number of sprinkler heads in the remote area, and the minimum residual pressure provided at the most hydraulically demanding sprinkler head. If the SIN is not available, a copy of the manufacturer specification sheet for the sprinkler head is required.
- 11. Location of valves controlling the water supply of ceiling and in-rack sprinklers.
- 12. Type, location, and specifications of smoke removal and curtain board systems.
- 13. Dimension and location of transverse and longitudinal flue spaces.
- 14. Additional information regarding design features, storage arrangement and fire protection features within the high-piled storage area shall be provided at the time of permit, when required by the fire code official.
- 15. Provide a detailed list of commodities stored within the high pile storage area, break down by classification type.
- 16. Type of shelving material used, whether it is solid, slatted, or wire mesh.
- 17. Type of pallets used whether wood, plastic, or reinforced plastic.
- 18. Indicate the path of travel to the exits with dimensions.

## Additional submittal requirements:

- 1. Site plan showing building in relation to the adjacent fire lanes, indicate the location of the suite within the building.
- 2. Floor plans showing locations and dimensions of high-piled storage areas.
- 3. Provide the required information above on the floor plans.
- 4. Structural calculations stamped and signed.
- 5. Manufacturer's designs.
- 6. Completed fire / building application with supplemental sheet.
- 7. Path of travel indicated on storage plan.
- 8. Location of exit signs.

Revised: 07-02-2020