



Memorandum

To: Planning Commission
From: Niall Connolly, Principal Planner
Date: Jun 27, 2025
Re: Parking in the Special Flood Hazard Area - Revisions

Background

At the June 4th work meeting, the Planning Commission continued the discussion on parking spaces in the floodplain. The Commission directed staff to make the following changes to the draft ordinance revision:

- Clarify in the ordinance language that parking spaces include garages.
- Add flexibility to potentially allow more parking spaces in circumstances where an overlay zone has been approved, which may give rise to a greater parking requirement than three spaces.
- Make revisions to chapter 10-13A to remove the allowance for parking spaces in enclosures below the base flood elevation.

Updated language is appended to this report for the Planning Commission's review. Some additional analysis and background information is provided below.

Parking Spaces in Enclosures Below the Base Flood Elevation

As directed by the Planning Commission, staff has drafted amendments to chapter 10-13A to prevent parking spaces from being allowed in enclosures below the base flood elevation. While doing so, staff would like to draw the commission's attention to some points relating to this:

- The original purpose of this ordinance revision was to remove the restriction on parking spaces within the Special Flood Hazard Area. Unless artificially elevated, parking spaces in the Special Flood Hazard Area are all, by definition, below the base flood elevation.
- As well as open air parking spaces, the draft language also allows for garages with finished floor elevations below the base flood elevation. Introducing a separate restriction on parking spaces in enclosures beneath a home may potentially lead to some confusion/ inconsistency, as they are both essentially the same thing. The only difference is that one has habitable accommodation above it, and one does not.
- Homes designed with habitable accommodation over an enclosure for parking or storage is a well established flood risk management practice. It can be a useful option for low lying properties where the base flood elevation may be several feet above ground level, and elevating the ground floor of a home to the required level may otherwise require significant fill to build up the land.



Figure 1. Example of a house with an enclosure (garage) below the habitable level

Staff recommends that the Planning Commission considers these points, in the context of introducing restrictions on parking spaces in enclosures beneath habitable spaces.

Planning Commission Action

The Commission should discuss the proposed ordinance revisions and provide staff with direction on next steps.

10-13A-8: PROVISIONS FOR FLOOD HAZARD REDUCTION:

A. *General standards:* In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

1. All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
2. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
3. All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
4. All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and
7. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
8. In areas where base flood elevation has not been established, the applicant will use all available flood hazard and hydrologic data to calculate an estimated base flood elevation. All new residential construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot above the estimated base flood elevation. **Enclosed areas below the lowest floor, designed for parking of vehicles, are not permitted if the cars would be parked below the estimated base flood elevation.** All new nonresidential construction and substantial improvements of nonresidential structures shall have the lowest floor, including basement, elevated to or above the estimated base flood elevation. Alternatively, nonresidential construction and substantial improvements of nonresidential structures shall be designed so that below the estimated base flood elevation the structure is watertight with walls substantially impermeable to the passage of water.
9. Additional development restrictions and regulations for areas prone to debris flow are found in other sections of this article.

B. *Specific standards:* In all areas of special flood hazards where base flood elevation data has been provided the following provisions are required:

1. *Residential construction:* New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to a minimum of one foot above the base flood elevation. A Registered Professional Engineer, Architect, or Land Surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in subsection 10-13A-7.C.1. of this article, is satisfied. **Enclosed areas below the lowest floor, designed for parking of vehicles, are not permitted if the cars would be parked below the base flood elevation.**
2. *Nonresidential construction:* New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement)

elevated to or above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A Registered Professional Engineer or Architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.

3. *Enclosures:* New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for ~~parking of vehicles~~, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

- a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottom of all openings shall be no higher than one foot above grade.
- c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

4. *Manufactured homes:*

- a. Require that all manufactured homes to be placed within zone A on a community's FHB or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over the top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.
- b. Require that manufactured homes that are placed or substantially improved within zones A1-30, AH, and AE on the community's FIRM on sites: 1) outside of a manufactured home park or subdivision, 2) in a new manufactured home park or subdivision, 3) in an expansion to an existing manufactured home park or subdivision, or 4) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to a minimum of one foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- c. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of subsection B.4.b. of this section be elevated so that either:
 - (1) The lowest floor of the manufactured home is elevated to a minimum of one foot above the base flood elevation, or
 - (2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above

grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

5. *Recreational vehicles:* Require that recreational vehicles placed on sites within zones A1-30, AH, and AE on the community's FIRM either:

- a. Be on the site for fewer than 180 consecutive days,
- b. Be fully licensed and ready for highway use, or
- c. Meet the permit requirements of subsection 10-13A-7.C.1. of this article, and the elevation and anchoring requirements for "manufactured homes" in subsection B.4.b. of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

C. *Standards for subdivision proposals:*

1. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall be consistent with the purpose and requirements of this article.
2. All proposals for the development of subdivisions, including the placement of manufactured home parks and subdivisions, shall meet development permit requirements, and the provisions of this section.
3. Base flood elevation data shall be generated for subdivision proposals and other proposed development, including the placement of manufactured home parks and subdivisions, which is greater than five lots or five acres, whichever is lesser, if not already provided.
4. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have adequate drainage provided to reduce exposure to flood hazards.
5. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

D. *Standards for areas of shallow flooding (AO/AH zones):* Located within the areas of special flood hazard established in section 10-13A-5 of this article, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

1. All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated a minimum of one foot above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
2. All new construction and substantial improvements of nonresidential structures:
 - a. Have the lowest floor (including basement) elevated a minimum of one foot above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or
 - b. Together with attendant utility and sanitary facilities be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.

- 3. A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this section are satisfied.
- 4. Require within zone AH or AO adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.
- E. *Floodways:* Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:
 - 1. Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
 - 2. If subsection D.1. of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section.
 - 3. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.

(Ord. No. 2023-01, § 1, 2-8-2023)

10-23-7: PARKING DESIGN STANDARDS:

All off street parking facilities shall be built in conformance with the following standards of design:

- A. *Dimensions:* All parking spaces shall have minimum dimensions of 8½ feet × 18 feet. Each parking space must be clearly delineated with striping, wheel stops, or other means.
- B. *Handicapped parking facilities:* Handicapped parking facilities shall conform to state standards.
- C. *Garages and Carports:* A garage or carport must have inside dimensions of not less than 8½ feet × 18 feet per space.
- D. *Backing space:* Backing space must be provided for parking areas which are composed of four or more spaces, and for all parking areas, public, private or residential, which are accessed from SR-9, so that vehicles need not back into a public street or alley. Public sidewalks shall not be permitted to be used as part of the required backing area.
- E. *Acute angle parking:* Acute angle parking, one degree to 89 degrees, shall be designed for one-way traffic only.
- F. *Access requirements:* Adequate ingress and egress to and from all uses shall be provided as follows (minimum widths of drives within parking lots are provided in section 10-23-9, "Design And Construction Standards", of this chapter).
 - 1. When providing access to a garage, carport or parking area having five or less parking spaces, a driveway shall be a minimum of 12 feet in width.
 - 2. When used for access to a garage, carport or parking area having six or more parking spaces, a driveway shall be a minimum of 20 feet in width for one- and two-way traffic.
 - 3. No driveway, including those designed for single- or two-family residential use, shall be closer to a side property line than five feet.

- 4. Separate exits shall be provided for acute angle and one-way parallel parking of four or more spaces so that cars need not exit by backing onto a street or alley.
- 5. Not more than two driveways shall be used for each 100 feet, or fraction thereof, of frontage on any street.
- 6. No two of said driveways shall be closer to each other than ten feet.
- 7. Each driveway shall not be more than 36 feet wide, measured at right angles to the centerline of the driveway, except as increased by permissible curb return radii. The entire flare of any return radius shall fall within the right-of-way.
- 8. No driveway shall be closer than 20 feet of any street intersection at any corner as measured along the property line.

G. *Location:* Parking areas shall not be located within any required front or side setback, unless otherwise allowed by this title.

H. *Setback from floodplain:* No parking lot, area or space shall be constructed or maintained or allowed within ~~ten feet of any area of the Special Flood Hazard Area~~, as defined and located by chapter 13, article A of this title, *except parking spaces in residential zones. In the case of parking spaces in residential zones, a maximum of three spaces per parcel (including parking spaces within garages) are allowed to be constructed within the Special Flood Hazard Area. In situations where the Moderate Income Housing Development Overlay Zone or the Workforce Housing Overlay Zone has been applied to a parcel, additional parking spaces may be permitted in the Special Flood Hazard Area, subject to approval by the Planning Commission.* ■

- I. *Maximum grade:* Parking lot grades shall be in accordance with specifications which shall be made available by the Town Engineer.
- J. *Additional design standards:* Off street parking areas shall be in conformance with the applicable design standards in section 10-23-9 of this chapter. Unmarked parking areas, whether paved or finished with a graveled all weather surface, shall meet the specifications of 90 degree angle parking.
- K. *Parking location:* In general, all on site parking should be located to the rear or side of buildings. In the central commercial zone, parking location must conform to the following standards:
 - 1. Parking areas (including parking spaces and backing space) must be set back a minimum of 30 feet from the SR-9 right-of-way.
 - 2. Within 100 feet of the SR-9 right-of-way no on site parking may be placed between the front of any building and the SR-9 right-of-way.

10-23-9: DESIGN AND CONSTRUCTION STANDARDS:

- A. *Standards:* Parking area design and construction must adhere to all the standards of the Town's Construction Design Details and Standards Manual.
- B. *Surfacing:* Parking areas, including parking access lanes, must be surfaced to minimum all-weather standards. Each parking area surface shall be designed to minimize stormwater runoff and reduce "heat island" effects. If asphalt or concrete are used as a surface material, the parking area must include features to reduce heat island impacts, including but not limited to shaded areas (provided by either landscape or structures), cool pavement applications, breaking up large pavement areas with landscape planter areas, or minimizing the amount of asphalt or concrete used.

- 1. Acceptable parking area surfaces include:
 - a. Asphalt pavement.

- b. Concrete (colored to meet Town standards).
- c. Stone or brick pavers.
- d. Permeable paver, permeable grid, or other engineered permeable surface specifically designed and engineered for parking uses.
- e. Crushed stone or gravel, if the parking area contains 25 or fewer parking spaces. An owner of a crushed stone or gravel parking lot must take measures to prevent crushed stone or gravel from being tracked out to adjacent roadways. The crushed stone or gravel material used as the parking lot surface must be three-fourths inch in diameter or larger, a minimum of two inches deep, and placed on a subgrade of at least four inches of compacted road base.

2. Prohibited parking area surfaces include:

- a. Dirt.
- b. Road base.

C. *Maintenance:* Parking areas must be kept in a state of good repair. Cracks, potholes, and other uneven surfaces must be repaired in a timely manner. Parking areas must be kept weed-free. Garbage and debris must be picked up and removed from parking areas in a timely manner. Landscaping required for buffering or screening must be kept viable and in good health.

D. *Low Impact Design:* The use of Low Impact Design (LID) stormwater management is encouraged in all parking areas. Parking spaces which are developed within or partially within the Special Flood Hazard Area must incorporate low impact design measures, in order to minimize stormwater runoff and improve its water quality. Developers of parking spaces completely or partially within a Special Flood Hazard Area must implement at least two LID strategies from the list below. The combination of more than two of these design features to form a nature-based stormwater treatment train is encouraged.

- a. Permeable paving
- b. Vegetated swales and filter strips
- c. Bioswales
- d. Bioretention
- e. Tree pits
- f. Natural vegetation retention ponds
- g. Stormwater bump-outs
- h. Stormwater wetland
- i. Vegetated buffers.