

ORDINANCE O-4732

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO FLOOD DAMAGE PREVENTION AND AMENDING CHAPTER 21.56 OF THE KIRKLAND MUNICIPAL CODE.

1 The City Council of the City of Kirkland do ordain as follows:
2

3 Section 1. Kirkland Municipal Code Section 21.56.010 is
4 amended to read as follows.
5

6 **21.56.010 Statement of purpose.**

7 It is the purpose of this chapter to meet the requirements of
8 the Federal Flood Administration for federal flood insurance
9 availability and to promote the public health, safety, and general
10 welfare, and to minimize public and private losses due to flood
11 conditions in specific areas by provisions designed:

12 (1) To protect human life and health;

13 (2) To minimize expenditure of public money and costly
14 flood-control projects;

15 (3) To minimize the need for rescue and relief efforts
16 associated with flooding and generally undertaken at the expense
17 of the general public;

18 (4) To minimize prolonged business interruptions;

19 (5) To minimize damage to public facilities and utilities such
20 as water and gas mains, electric, telephone and sewer lines,
21 streets, and bridges located in areas of special flood hazard;

22 (6) To help maintain a stable tax base by providing for the
23 sound use and development of areas of special flood hazard so as
24 to minimize future flood blight areas;

25 (7) To ensure that potential buyers are notified that property
26 is in an area of special flood hazard; and

27 (8) To ensure that those who occupy the areas of special
28 flood hazard assume responsibility for their actions.

29 (9) Participate in and maintain eligibility for flood insurance
30 and disaster relief.
31

32 Section 2. Kirkland Municipal Code Section 21.56.020 is
33 amended to read as follows.
34

35 **21.56.020 Definitions.**

36 Unless specifically defined below, words or phrases used in this
37 chapter shall be interpreted so as to give them the meaning they
38 have in common usage and to give this chapter its most
39 reasonable application.

40 (1) "Alteration of watercourse" means any action that will
41 change the location of the channel occupied by water within the
42 banks of any portion of a riverine waterbody.

43 (~~1~~2) "Appeal" means a request for a review of the building
44 official's interpretation of any provision of this chapter or a request
45 for a variance.

46 (23) "Area of shallow flooding" means a designated AO or
 47 AH zone on the flood insurance rate map (FIRM). ~~AO zones have~~
 48 ~~base flood depths that range from with a one percent or greater~~
 49 ~~annual chance of flooding to an average depth of one to three~~
 50 ~~feet above the natural ground; a clearly defined channel does not~~
 51 ~~exist; the path of flooding is unpredictable and indeterminate; and~~
 52 ~~velocity flow may be evident. AO is characterized as sheet flow.~~
 53 AH zones have ponding, as shown with standard base flood
 54 elevations. Also referred to as the sheet flow area.

55 (34) "Area of special flood hazard" means the land in the
 56 floodplain within a community subject to a one percent or greater
 57 chance of flooding in any given year. ~~Designation on maps always~~
 58 ~~includes the letters A or V. It is shown on the Flood Insurance~~
 59 ~~Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR "Special~~
 60 ~~flood hazard area" is synonymous in meaning with the phrase~~
 61 ~~"area of special flood hazard".~~

62 (5) "ASCE 24" means the most recently published version of
 63 ASCE 24, Flood Resistant Design and Construction, published by
 64 the American Society of Civil Engineers.

65 (4-6) "Base flood" means the flood having a one percent
 66 chance of being equaled or exceeded in any given year. Also
 67 referred to as the "one-hundred-year flood." Designated on FIRMs
 68 by the letters A or V.

69 (7) "Base Flood Elevation (BFE)" means the elevation to
 70 which floodwater is anticipated to rise during the base flood.

71 (58) "Basement" means any area of the building having its
 72 floor subgrade (below ground level) on all sides.

73 (69) "Breakaway wall" means a wall that is not part of the
 74 structural support of the building and is intended through its
 75 design and construction to collapse under specific lateral loading
 76 forces, without causing damage to the elevated portion of the
 77 building or supporting foundation systems.

78 (10) "Building" see "Structure."

79 (11) "Building Code" means the currently effective versions
 80 of the International Building Code and the International
 81 Residential Code adopted by the State of Washington Building
 82 Code Council.

83 (712) "Critical facility" means a facility for which even a
 84 slight chance of flooding might be too great. Critical facilities
 85 include but are not limited to schools, nursing homes, hospitals,
 86 police, fire and emergency response installations and installations
 87 which produce, use or store hazardous materials or hazardous
 88 waste.

89 (813) "Development" means any manmade change to
 90 improved or unimproved real estate, including but not limited to
 91 buildings or other structures, mining, dredging, filling, grading,
 92 paving, excavation or drilling operations or storage of equipment
 93 or material located within the area of special flood hazard.

94 (914) "Elevated building" means, for insurance purposes, a
 95 nonbasement building that has its lowest elevated floor raised
 96 above ground level by foundation walls, shear walls, post, piers,
 97 pilings, or columns.

98 (15) "Elevation Certificate" means an administrative tool of
 99 the National Flood Insurance Program (NFIP) that can be used to
 100 provide elevation information, to determine the proper insurance
 101 premium rate, and to support a request for a Letter of Map
 102 Amendment (LOMA) or Letter of Map Revision based on fill
 103 (LOMR-F).

104 (16) "Essential Facility" has the same meaning as "Essential
 105 Facility" defined in ASCE 24. Table 1-1 in ASCE 24-14 further
 106 identifies building occupancies that are essential facilities.

107 (17) "Existing manufactured home park or subdivision"
 108 means a manufactured home park or subdivision for which the
 109 construction of facilities for servicing the lots on which the
 110 manufactured homes are to be affixed (including, at a minimum,
 111 the installation of utilities, the construction of streets, and either
 112 final site grading or the pouring of concrete pads) is completed
 113 before the effective date of the adopted floodplain management
 114 regulations.

115 (18) "Expansion to an existing manufactured home park or
 116 subdivision" means the preparation of additional sites by the
 117 construction of facilities for servicing the lots on which the
 118 manufactured homes are to be affixed (including the installation
 119 of utilities, the construction of streets, and either final site grading
 120 or the pouring of concrete pads).

121 ~~(19)~~ "Flood" or "flooding" means:

122 1. A general and temporary condition of partial or complete
 123 inundation of normally dry land areas from:

124 (A) The overflow of inland or tidal waters; and/or

125 (B) The unusual and rapid accumulation of runoff of surface
 126 waters from any source.

127 (C) Mudslides (i.e., mudflows) which are proximately caused
 128 by flooding as defined in paragraph (1)(b) of this definition and
 129 are akin to a river of liquid and flowing mud on the surfaces of
 130 normally dry land areas, as when earth is carried by a current of
 131 water and deposited along the path of the current.

132 2. The collapse or subsidence of land along the shore of a lake
 133 or other body of water as a result of erosion or undermining
 134 caused by waves or currents of water exceeding anticipated
 135 cyclical levels or suddenly caused by an unusually high water level
 136 in a natural body of water, accompanied by a severe storm, or by
 137 an unanticipated force of nature, such as flash flood or an
 138 abnormal tidal surge, or by some similarly unusual and
 139 unforeseeable event which results in flooding as defined in
 140 paragraph (1)(a) of this definition.

141 (20) "Flood elevation study" means an examination,
 142 evaluation and determination of flood hazards and, if appropriate,
 143 corresponding water surface elevations, or an examination,
 144 evaluation and determination of mudslide (i.e., mudflow) and/or
 145 flood-related erosion hazards. Also known as a Flood Insurance
 146 Study (FIS).

147 ~~(21)~~ "Flood insurance rate map (FIRM)" means the official
 148 map on which the Federal Insurance Administration has
 149 delineated both the areas of special flood hazards and the risk

150 premium zones applicable to the community. A FIRM that has
151 been made available digitally is called a Digital Flood Insurance
152 Rate Map (DFIRM).

153 (22) "Floodplain or floodprone area" means any land area
154 susceptible to being inundated by water from any source. See
155 "flood" or "flooding."

156 (23) "Floodplain administrator" means the community official
157 designated by title to administer and enforce the floodplain
158 management regulations.

159 (24) "Floodplain management regulations" means the zoning
160 ordinances, subdivision regulations, building codes, health
161 regulations, special purpose ordinances (such as floodplain
162 ordinance, grading ordinance and erosion control ordinance) and
163 other application of police power. The term describes such state
164 or local regulations, in any combination thereof, which provide
165 standards for the purpose of flood damage prevention and
166 reduction.

167 (25) "Flood proofing" means any combination of structural
168 and nonstructural additions, changes, or adjustments to
169 structures which reduce or eliminate risk of flood damage to real
170 estate or improved real property, water and sanitary facilities,
171 structures, and their contents. Flood proofed structures are those
172 that have the structural integrity and design to be impervious to
173 floodwater below the Base Flood Elevation.

174 (1226) "Flood insurance study" means the official report
175 provided by the Federal Insurance Administration that includes
176 flood profiles, the FIRM, and the water surface elevation of the
177 base flood.

178 (1327) "Floodway" means the channel of a river or other
179 watercourse and the adjacent land areas that must be reserved in
180 order to discharge the base flood without cumulatively increasing
181 the water surface elevation more than ~~one foot~~, a designated
182 height. Also referred to as "Regulatory Floodway."

183 (28) "Functionally dependent use" means a use which cannot
184 perform its intended purpose unless it is located or carried out in
185 close proximity to water. The term includes only docking facilities,
186 port facilities that are necessary for the loading and unloading of
187 cargo or passengers, and ship building and ship repair facilities,
188 and does not include long-term storage or related manufacturing
189 facilities.

190 (29) "Highest adjacent grade" means the highest natural
191 elevation of the ground surface prior to construction next to the
192 proposed walls of a structure.

193 (30) "Historic structure" means any structure that is:

194 1. Listed individually in the National Register of Historic Places
195 (a listing maintained by the Department of Interior) or
196 preliminarily determined by the Secretary of the Interior as
197 meeting the requirements for individual listing on the National
198 Register;

199 2. Certified or preliminarily determined by the Secretary of the
200 Interior as contributing to the historical significance of a registered
201 historic district or a district preliminarily determined by the
202 Secretary to qualify as a registered historic district;

203 3. Individually listed on a state inventory of historic places in
 204 states with historic preservation programs which have been
 205 approved by the Secretary of Interior; or

206 4. Individually listed on a local inventory of historic places in
 207 communities with historic preservation programs that have been
 208 certified either:

209 (A) By an approved state program as determined by the
 210 Secretary of the Interior, or

211 (B) Directly by the Secretary of the Interior in states without
 212 approved programs.

213 ~~(1431)~~ "Lowest floor" means the lowest floor of the lowest
 214 enclosed area (including basement). An unfinished or flood-
 215 resistant enclosure, usable solely for parking of vehicles, building
 216 access, or storage in an area other than a basement area, is not
 217 considered a building's lowest floor; provided, that such enclosure
 218 is not built so as to render the structure in violation of the
 219 applicable nonelevation design requirements of this chapter found
 220 at Section 21.56.090(1)(B).

221 ~~(1532)~~ "Manufactured home" means a structure,
 222 transportable in one or more sections, which is built on a
 223 permanent chassis and is designed for use with or without a
 224 permanent foundation when connected to the required utilities.
 225 For floodplain management purposes, the term "manufactured
 226 home" also includes park trailers, travel trailers, and other similar
 227 vehicles placed on a site for greater than one hundred eighty
 228 consecutive days. For insurance purposes, the term
 229 "manufactured home" does not include park trailers, travel
 230 trailers, and other similar vehicles.

231 ~~(1633)~~ "Manufactured home park or subdivision" means a
 232 parcel (or contiguous parcels) of land divided into two or more
 233 manufactured home lots for rent or sale.

234 (34) "Mean Sea Level" means for purposes of the National
 235 Flood Insurance Program, the vertical datum to which Base Flood
 236 Elevations shown on a community's Flood Insurance Rate Map are
 237 referenced.

238
 239 ~~(1735)~~ "New construction" means structures for which the
 240 "start of construction" commenced on or after the effective date
 241 of the ordinance codified in this chapter. New construction: For
 242 the purposes of determining insurance rates, structures for which
 243 the "start of construction" commenced on or after the effective
 244 date of an initial Flood Insurance Rate Map or after December 31,
 245 1974, whichever is later, and includes any subsequent
 246 improvements to such structures. For floodplain management
 247 purposes, "new construction" means structures for which the
 248 "start of construction" commenced on or after the effective date
 249 of a floodplain management regulation adopted by a community
 250 and includes any subsequent improvements to such structures.

251 ~~(1836)~~ "New manufactured home park or subdivision"
 252 means a manufactured home park or subdivision for which the
 253 construction of facilities for servicing the lots on which the
 254 manufactured homes are to be affixed (including, at a minimum,
 255 the installation of utilities, the construction of streets, and either
 256 final site grading or the pouring of concrete pads) is completed on

257 or after the effective date of adopted floodplain management
258 regulations.

259
260 (37) "One-hundred-year flood or 100-year flood: See "Base
261 flood."

262
263 (38) "Reasonably Safe from Flooding" means development
264 that is designed and built to be safe from flooding based on
265 consideration of current flood elevation studies, historical data,
266 high water marks and other reliable data known to the
267 community. In unnumbered A zones where flood elevation
268 information is not available and cannot be obtained by practicable
269 means, reasonably safe from flooding means that the lowest floor
270 is at least two feet above the Highest Adjacent Grade.

271 ~~(1939)~~ "Recreational vehicle" means a vehicle:

272 (A) Built on a single chassis;

273 (B) Four hundred square feet or less when measured at the
274 largest horizontal projection;

275 (C) Designed to be self-propelled or permanently towable by
276 a light duty truck; and

277 (D) Designed primarily not for use as a permanent dwelling
278 but as temporary living quarters for recreational camping, travel
279 or seasonal use.

280 ~~(2040)~~ "Start of construction" includes substantial
281 improvement, and means the date the building permit was issued;
282 provided, the actual start of construction, repair, reconstruction,
283 rehabilitation, addition, placement or other improvement was
284 within one hundred eighty days of the permit date. The "actual
285 start" means either the first placement of permanent construction
286 of a structure on a site, such as the pouring of slab or footings,
287 the installation of piles, the construction of columns, or any work
288 beyond the stage of excavation; or the placement of a
289 manufactured home on a foundation. Permanent construction
290 does not include land preparation, such as clearing, grading and
291 filling; nor does it include the installation of streets and/or
292 walkways; nor does it include excavation for a basement, footings,
293 piers, or foundation or the erection of temporary forms; nor does
294 it include the installation on the property of accessory buildings,
295 such as garages or sheds not occupied as dwelling units or not
296 part of the main structure. For a substantial improvement, the
297 "actual start" of construction means the first alteration of any wall,
298 ceiling, floor, or other structural part of a building, whether or not
299 that alteration affects the external dimensions of the building.

300 ~~(2141)~~ "Structure" means for floodplain management
301 purposes, a walled and roofed building including a gas or liquid
302 storage tank that is primarily above ground, as well as a
303 manufactured home.

304 ~~(2242)~~ "Substantial damage" means damage of any origin
305 sustained by a structure whereby the cost of restoring the
306 structure to its before-damaged condition would equal or exceed
307 fifty percent of the market value of the structure before the
308 damage occurred.

309 ~~(2343)~~ "Substantial improvement" means any repair,
310 reconstruction, rehabilitation, addition or other improvement of a

311 structure, the cost of which equals or exceeds fifty percent of the
 312 market value of the structure before the "start of construction" of
 313 the improvement. This term includes structures which have
 314 incurred "substantial damage," regardless of the actual repair
 315 work performed. The term does not, however, include either:

316 (A) ~~Before the improvement or repair is started; or~~
 317 (B) ~~If the structure has been damaged and is being restored,~~
 318 ~~before the damage occurred. For the purposes of this definition,~~
 319 ~~"substantial improvement" is considered to occur when the first~~
 320 ~~alteration of any wall, ceiling, floor, or other structural part of the~~
 321 ~~building commences, whether or not that alteration affects the~~
 322 ~~external dimensions of the structure.~~

323 ~~The term excludes:~~

324 (iA) Any project for improvement of a structure to correct
 325 existing violations of state or local health, sanitary, or safety code
 326 specifications which have been previously identified by the local
 327 code enforcement official and which are the minimum necessary
 328 to assure safe living conditions; or

329 (iiB) Any alteration of a structure listed on the National
 330 Register of Historic Places or a State Inventory of Historic Places.

331 (2444) "Variance" means a grant of relief from the
 332 requirements of this chapter which permits construction in a
 333 manner that would otherwise be prohibited by this chapter.

334 (2545) "Water dependent" means a structure for commerce
 335 or industry which cannot exist in any other location and is
 336 dependent on the water by reason of the intrinsic nature of its
 337 operations.

338 (46) "Water surface elevation" means the height, in relation
 339 to the vertical datum utilized in the applicable flood insurance
 340 study of floods of various magnitudes and frequencies in the
 341 floodplains of coastal or riverine areas.

342
 343 Section 3. Kirkland Municipal Code Section 21.56.025 is
 344 amended to read as follows.

345
 346 **21.56.025 Lands to which this chapter applies.**

347 This chapter shall apply to all areas of special flood hazards within
 348 the jurisdiction of the city of Kirkland. All development within
 349 special flood hazard areas is subject to the terms of this chapter
 350 and other applicable regulations.

351
 352 Section 4. Kirkland Municipal Code Section 21.56.030 is
 353 amended to read as follows.

354
 355 **21.56.030 Basis for establishing the areas of special flood**
 356 **hazard.**

357 The areas of special flood hazard identified by the Federal
 358 Insurance Administration in a scientific and engineering report
 359 entitled "The Flood Insurance Study for King County, Washington
 360 and Incorporated Areas" dated ~~September 30, 1993, August 19,~~
 361 2020, having an effective date of May 16, 1995, and any revisions
 362 thereto with accompanying flood insurance maps Flood Insurance
 363 Rate Maps (FIRM) is adopted by reference and declared to be a

364 part of this chapter. The flood insurance study and the FIRM are
 365 on file at City Hall, 123 Fifth Avenue, Kirkland, WA 98033.

366
 367 Section 5. Kirkland Municipal Code Section 21.56.060 is
 368 amended to read as follows.

369
 370 **21.56.060 Application for development permit.**

371 Application for a development permit shall be made on forms
 372 furnished by the city and may include but not be limited to: plans
 373 in duplicate drawn to scale showing the nature, location,
 374 dimensions, and elevations of the areas in question; existing or
 375 proposed structures, fill, storage of materials, drainage facilities,
 376 and the location of the foregoing. Specifically, the following
 377 information is required:

- 378 (1) Elevation in relation to mean sea level of the lowest floor
 379 (including basement) of all structures;
 380 (2) Elevation in relation to mean sea level to which any structure
 381 has been floodproofed;
 382 (3) Certification by a registered professional engineer or
 383 architect that the floodproofing methods for any nonresidential
 384 structure meet the floodproofing criteria in Section 21.56.090(2);
 385 and
 386 (4) Description of the extent to which a watercourse will be
 387 altered or relocated as a result of the proposed development;-
 388 (5) Where development is proposed in a floodway, an
 389 engineering analysis indicating no rise of the Base Flood Elevation;
 390 and
 391 (6) Any other such information that may be reasonably required
 392 by the Floodplain Administrator in order to review the application.

393
 394 Section 6. Kirkland Municipal Code Section 21.56.070 is
 395 amended to read as follows.

396
 397 **21.56.070 Duties and responsibilities of the building**
 398 **official.**

399 Duties of the building official shall include, but not be limited to:

- 400 (1) Permit Review.
 401 (A) Review all development permits to determine that the
 402 permit requirements of this chapter have been satisfied;
 403 (B) Review all development permits to determine that all
 404 necessary permits have been obtained from those federal, state,
 405 or local governmental agencies from which prior approval is
 406 required;
 407 (C) Review all development permits to determine if the
 408 proposed development is located in the floodway. If located in the
 409 floodway, assure that the encroachment provisions of
 410 Section 21.56.095(1) are met.
 411 (D) Review all development permits to determine that the site
 412 is reasonably safe from flooding.
 413 (E) Notify FEMA when annexations occur in the special flood
 414 hazard area.
 415 (2) Use of Other Base Flood Data. When base flood elevation
 416 data has not been provided in accordance with Section 21.56.030,
 417 the building official shall obtain, review, and reasonably utilize any

418 base flood elevation and floodway data available from a federal,
419 state or other source, in order to administer
420 Sections 21.56.090 and 21.56.095.

421 (3) Information to Be Obtained and Maintained.

422 (A) Where base flood elevation data is provided through the
423 flood insurance study, FIRM, or required as in subsection (2) of
424 this section, obtain and record the actual elevation (in relation to
425 mean sea level) of the lowest floor (including basement) of all new
426 or substantially improved structures, and whether or not the
427 structure contains a basement;

428 (B) For all new or substantially improved floodproofed
429 nonresidential structures where base flood elevation data is
430 provided through the flood insurance study, FIRM, or as required
431 as in subsection (2) of this section:

432 (i) Obtain and record the elevation (in relation to mean sea
433 level) to which the structure was floodproofed; and

434 (ii) Maintain the floodproofing certifications required in
435 Section 21.56.060(3) and 21.56.095(i);

436 (C) Maintain records of all variance actions, including
437 justification for their issuance.

438 (D) Maintain improvement and damage calculations.

439 (CE) Maintain for public inspection all records pertaining to the
440 provisions of this chapter.

441 (4) Alteration of Watercourses.

442 (A) Notify adjacent communities and the Washington State
443 Department of Ecology prior to any alteration or relocation of a
444 watercourse, and submit evidence of such notification to the
445 Federal Insurance Administration;

446 (B) Require that maintenance is provided within the altered or
447 relocated portion of said watercourse so that the flood-carrying
448 capacity is not diminished.

449 (5) Interpretation of FIRM Boundaries. Make interpretations
450 where needed, as to exact location of the boundaries of the areas
451 of special flood hazards (for example, where there appears to be
452 a conflict between a mapped boundary and actual field
453 conditions). The person contesting the location of the boundary
454 shall be given a reasonable opportunity to appeal the
455 interpretation as provided in Section 21.56.075.

456 (6) Changes to the Special Flood Hazard Area.

457 (A) If a project will alter the BFE or boundaries of the SFHA,
458 then the project proponent shall provide the community with
459 engineering documentation and analysis regarding the proposed
460 change. If the change to the BFE or boundaries of the SFHA would
461 normally require a Letter of Map Change, then the project
462 proponent shall initiate, and receive approval of, a Conditional
463 Letter of Map Revision (CLOMR) prior to approval of the
464 development permit. The project shall be constructed in a manner
465 consistent with the approved CLOMR.

466 (B) If a CLOMR application is made, then the project proponent
467 shall also supply the full CLOMR documentation package to the
468 Floodplain Administrator to be attached to the floodplain
469 development permit, including all required property owner
470 notifications.

471

472 Section 7. Kirkland Municipal Code Section 21.56.090 is
473 amended to read as follows.

474 **21.56.090 Provisions for flood hazard reduction—Specific**
475 **standards.**

476 In all areas of special flood hazards where base flood elevation
477 data has been provided as set forth in
478 Section 21.56.030 or 21.56.070(2), the following provisions are
479 required:
480

481 (1) Residential Construction.

482 (A) New construction and substantial improvement of any
483 residential structure shall have the lowest floor, including
484 basement, elevated one foot or more above base flood elevation.
485 Mechanical equipment and utilities shall be waterproof or elevated
486 at least one foot above the base flood elevation.

487 (B) Fully enclosed areas below the lowest floor that are subject
488 to flooding are prohibited, or shall be designed to automatically
489 equalize hydrostatic flood forces on exterior walls by allowing for
490 the entry and exit of floodwaters. Designs for meeting this
491 requirement must either be certified by a registered professional
492 engineer or architect or must meet or exceed the following
493 minimum criteria:

494 (i) A minimum of two openings having a total net area of not
495 less than one square inch for every square foot of enclosed area
496 subject to flooding shall be provided.

497 (ii) The bottom of all openings shall be no higher than one foot
498 above grade.

499 (iii) Openings may be equipped with screens, louvers, or other
500 coverings or devices; provided, that they permit the automatic
501 entry and exit of floodwaters.

502 (iv) A garage attached to a residential structure, constructed
503 with the garage floor slab below the BFE, must be designed to
504 allow for the automatic entry and exit of flood waters.

505 (C) New construction and substantial improvement of any
506 residential structure in an AO zone shall meet the requirements in
507 Section 21.56.105.

508 (D) New construction and substantial improvement of any
509 residential structure in an Unnumbered A zone for which a BFE is
510 not available and cannot be reasonably obtained shall be
511 reasonably safe from flooding, but in all cases the lowest floor
512 shall be at least two feet above the Highest Adjacent Grade.

513 (2) Nonresidential Construction. Except in AO zones which are
514 regulated under Section 21.56.105, New construction and
515 substantial improvement of any commercial, industrial or other
516 nonresidential structure shall either have the lowest floor,
517 including basement, elevated one foot or more above the level of
518 the base flood elevation; or as required by ASCE 24, whichever is
519 greater, together with attendant utility and sanitary facilities,
520 shall:

521 (A) Be floodproofed so that below one foot above the base flood
522 level the structure is watertight with walls substantially
523 impermeable to the passage of water or dry floodproofed to the
524 elevation required by ASCE 24, whichever is greater;

- 525 (B) Have structural components capable of resisting hydrostatic
526 and hydrodynamic loads and effects of buoyancy;
- 527 (C) Be certified by a registered professional engineer or
528 architect that the design and methods of construction are in
529 accordance with accepted standards of practice for meeting
530 provisions of this subsection based on their development and/or
531 review of the structural designs, specifications and plans. Such
532 certification shall be provided to the official as set forth in
533 Section 21.56.070(3)(B);
- 534 (D) Nonresidential structures that are elevated, and not
535 floodproofed, must meet the same standards for space below the
536 lowest floor as described in subsection (1)(B) of this section;
- 537 (E) If located in an Unnumbered A zone for which a BFE is not available
538 and cannot be reasonably obtained,
539 the structure shall be reasonably safe from flooding, but in all
540 cases the lowest floor shall be at least two feet above the Highest
541 Adjacent Grade.
- 542 (EF) Applicants floodproofing nonresidential buildings shall be
543 notified that flood insurance premiums will be based on rates that
544 are one foot below the floodproofed level (e.g., a building
545 constructed to the base flood level will be rated as one foot
546 below).
- 547 (3) Critical Facility. Construction of new critical facilities shall be,
548 to the extent possible, located outside the limits of the special
549 flood hazard area (SFHA) (one-hundred-year floodplain).
550 Construction of new critical facilities shall be permissible within
551 the SFHA if no feasible alternative site is available. Critical facilities
552 constructed within the SFHA shall have the lowest floor elevated
553 three feet above the level of the base flood elevation at the site
554 or to the height of the five-hundred-year flood, whichever is
555 higher. Access to and from the critical facility should also be
556 protected to the height utilized above. Floodproofing and sealing
557 measures must be taken to ensure that toxic substances will not
558 be displaced by or released into floodwaters. Access routes
559 elevated to or above the level of the base flood elevation shall be
560 provided to all critical facilities to the extent possible.
- 561 (4) Manufactured Homes.
- 562 (A) All manufactured homes to be placed or substantially
563 improved within zones A1—30, AH, and AE shall be elevated on a
564 permanent foundation such that the lowest floor of the
565 manufactured home is one foot or more above the base flood
566 elevation; and be securely anchored to an adequately anchored
567 foundation system to resist flotation, collapse and lateral
568 movement in accordance with the provisions of
569 Section 21.56.085(1)(B). This applies to manufactured homes:
- 570 (i) Outside of a manufactured home park or subdivision;
571 (ii) In a new manufactured home park or subdivision;
572 (iii) In an expansion to an existing manufactured home park or
573 subdivision; or
574 (iv) In an existing manufactured home park or subdivision on a
575 site which a manufactured home has incurred "substantial
576 damage" as a result of a flood.

- 577 (B) Manufactured homes to be placed or substantially improved
 578 on sites in an existing manufactured home park or subdivision that
 579 are not subject to the above manufactured home provisions shall
 580 be elevated so that either:
- 581 (i) The lowest floor of the manufactured home is elevated one
 582 foot or more above the base flood elevation; or
- 583 (ii) The manufactured home chassis is supported by reinforced
 584 piers or other foundation elements of at least equivalent strength
 585 that are no less than thirty-six inches in height above grade and
 586 are securely anchored to an adequately anchored foundation
 587 system to resist flotation, collapse and lateral movement.
- 588 (5) Recreational vehicles placed on sites are required to either:
- 589 (A) Be on the site for fewer than one hundred eighty
 590 consecutive days; or
- 591 (B) Be fully licensed and ready for highway use, on wheels or
 592 jacking system, attached to the site only by quick disconnect type
 593 utilities and security devices, and have no permanently attached
 594 additions; or
- 595 (C) Meet the requirements of subsection (4) of this section.
- 596 (6) If buildings or manufactured homes are constructed or
 597 substantially improved with fully enclosed areas below the lowest
 598 floor, the areas shall be used solely for parking of vehicles,
 599 building access, or storage.
- 600 (7) Appurtenant Structures (Detached Garages & Small Storage
 601 Structures)
- 602 (A) Appurtenant structures used solely for parking of vehicles
 603 or limited storage may be constructed such that the floor is below
 604 the BFE, provided the structure is designed and constructed in
 605 accordance with the following requirements:
- 606 (i) Use of the appurtenant structure must be limited to parking
 607 of vehicles or limited storage;
- 608 (ii) The portions of the appurtenant structure located below the
 609 BFE must be built using flood resistant materials;
- 610 (iii) The appurtenant structure must be adequately anchored to
 611 prevent flotation, collapse, and lateral movement;
- 612 (iv) Any machinery or equipment servicing the appurtenant
 613 structure must be elevated or flood proofed to or above the BFE;
- 614 (v) The appurtenant structure must comply with floodway
 615 encroachment provisions in Section 5.4-1;
- 616 (vi) The appurtenant structure must be designed to allow for
 617 the automatic entry and exit of floodwaters in accordance with
 618 Section 5.2-1(5).
- 619 (vii) The structure shall have low damage potential, and
- 620 (viii) If the structure is converted to another use, it must be
 621 brought into full compliance with the standards governing such
 622 use.
- 623 (ix) The structure shall not be used for human habitation.
- 624 (B) Detached garages, storage structures, and other
 625 appurtenant structures not meeting the above standards must be
 626 constructed in accordance with all applicable standards in Section
 627 5.2-1.
- 628 (C) Upon completion of the structure, certification that the
 629 requirement of this section have been satisfied shall be provided
 630 to the Floodplain Administrator for verification.

631 (8) In areas with BFEs (when a regulatory floodway has not
632 been designated), no new construction, substantial
633 improvements, or other development (including fill) shall be
634 permitted within zones A1-30 and AE on the community's FIRM,
635 unless it is demonstrated that the cumulative effect of the
636 proposed development, when combined with all other existing and
637 anticipated development, will not increase the water surface
638 elevation of the base flood more than one foot at any point within
639 the community.

640
641 Section 8. If any provision of this ordinance or its
642 application to any person or circumstance is held invalid, the
643 remainder of the ordinance or the application of the provision to
644 other persons or circumstances is not affected.

645
646 Section 9. This ordinance shall be in force and effect five
647 days from and after its passage by the Kirkland City Council and
648 publication pursuant to Section 1.08.017, Kirkland Municipal Code
649 in the summary form attached to the original of this ordinance and
650 by this reference approved by the City Council.

651
652 Passed by majority vote of the Kirkland City Council in open
653 meeting this 4 day of August, 2020.

654
655 Signed in authentication thereof this 4 day of August, 2020.


Penny Sweet, Mayor

Attest:


Kathi Anderson, City Clerk

Approved as to Form:


Kevin Raymond, City Attorney

Publication Date: 08/10/2020

PUBLICATION SUMMARY
OF ORDINANCE NO. 4732

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO FLOOD DAMAGE PREVENTION AND AMENDING CHAPTER 21.56 OF THE KIRKLAND MUNICIPAL CODE.

SECTION 1. Amends Kirkland Municipal Code (KMC) Section 21.56.010 relating to the statement of purpose for flood damage prevention.

SECTION 2. Amends KMC Section 21.56.020 relating to flood damage prevention definitions.

SECTION 3. Amends KMC Section 21.56.025 relating to land areas to which the flood damage prevention chapter applies.

SECTION 4. Amends KMC Section 21.56.030 relating to the basis for establishing the areas of a special flood hazard.

SECTION 5. Amends KMC Section 21.56.060 relating to the application for a development permit.

SECTION 6. Amends KMC Section 21.56.070 relating to the duties and responsibilities of the building official.


SECTION 7. Amends KMC Section 21.56.090 relating to the specific standards for provisions for flood hazard reduction.

SECTION 8. Provides a severability clause for the ordinance.

SECTION 9. Authorizes publication of the ordinance by summary, which summary is approved by the City Council pursuant to Section 1.08.017 Kirkland Municipal Code and establishes the effective date as five days after publication of summary.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its meeting on the 4 day of August, 2020.

I certify that the foregoing is a summary of Ordinance 4732 approved by the Kirkland City Council for summary publication.



Kathi Anderson, City Clerk

