



MEMORANDUM VILLAGE OF WINNETKA

COMMUNITY DEVELOPMENT DEPARTMENT

TO: ROBERT BAHAN, VILLAGE MANAGER
FROM: DAVID SCHOON, COMMUNITY DEVELOPMENT DIRECTOR
DATE: JANUARY 8, 2023
SUBJECT: LAKEFRONT PROPERTIES - ZONING & DEVELOPMENT REGULATIONS

INTRODUCTION

Village Council has requested information regarding Village development regulations that specifically apply to properties within the Village that abut the lakefront of Lake Michigan ("lakefront properties"). In particular, the Council is interested in considering additional regulations regarding what can be constructed adjacent and within the bluff along Lake Michigan as well as structures that can be built from these properties into the waters of Lake Michigan. The purpose of this memo is to summarize what is currently allowed under the Village's current zoning regulations on these lakefront properties and what other North Shore communities may allow on lakefront properties that contains bluffs.

EXISTING VILLAGE ZONING REGULATIONS

All lakefront properties within the Village are currently zoned the R-2 Single Family Residential District (**Figure 1**). This zoning district also applies to other properties along Sheridan Road as illustrated in Figure 1 as well as other to properties in other areas of the community.

The R-2 District allows single family detached dwellings and accessory structures by right and the following uses by special use permit approval: churches, public and private schools, libraries, park district uses, and essential Village services (e.g., water plant, power plant, etc.). The special use process includes review and recommendations by the Plan Commission and Zoning Board of Appeals with final approval granted by the Village Council. Also, exterior changes to the buildings, structures and landscaping of those special uses require review and approval of a certificate of appropriateness by the Design Review Board.

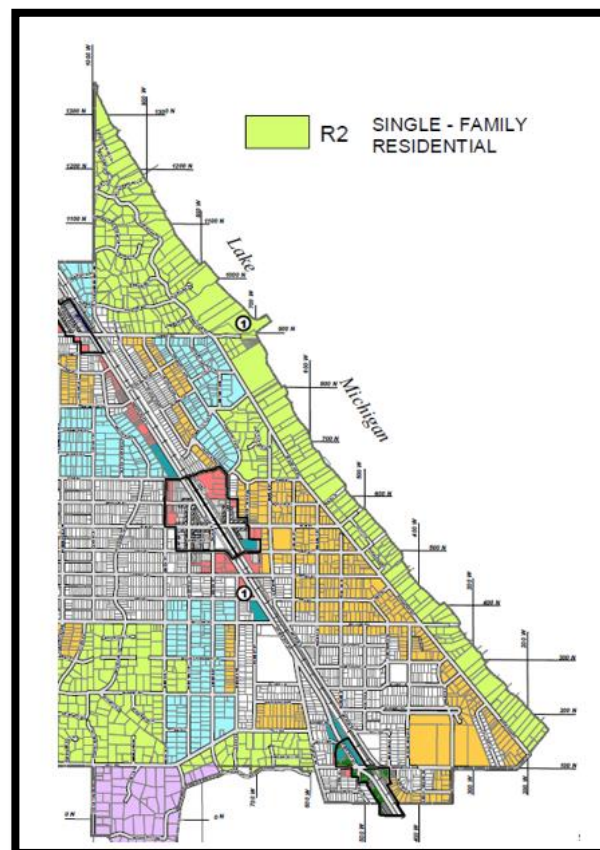


Figure 1

Table 1 compares the R-2 District with the other single family residential zoning districts in the Village. The R-2 District calls for larger lot sizes that the Zoning Ordinance describes as “small estate character.”

Table 1 Residential Zoning Hierarchy	R-1 ("estate" character)	R-2 ("small estate" character)	R-3 ("moderately intense" suburban character)	R-4 ("relatively intense" suburban character)	R-5 ("relatively intense" suburban character)
Minimum Lot Area	48,000 s.f.	24,000 s.f.	16,000 s.f.	12,600 s.f.	8,400 s.f.
Minimum Lot Width	150 ft.	100 ft.	75 ft.	60 ft.	60 ft.
Minimum Front Setback	50 ft.	50 ft.	40 ft.	30 ft.	30 ft.
Minimum Rear Setback	50 ft.	25 ft.	25 ft.	25 ft.	25 ft.

Table 1 – Residential Zoning Hierarchy

For zoning purposes, a *“lot or zoning lot shall not include any part of a platted lot that lies beyond the water's edge of Lake Michigan or with the boundaries of any other river, lake or stream that is under the ownership and control of the state of Illinois (See Figure 2). The Code also states that “lot area shall not include any part of a platted lot that lies beyond the water's edge of Lake Michigan.”*

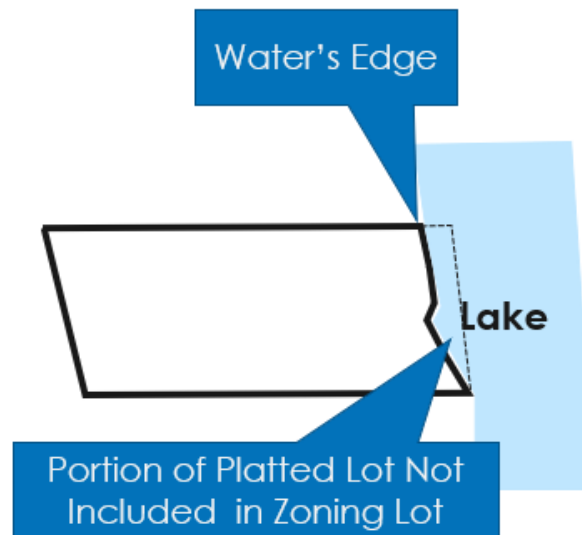


Figure 2

For zoning purposes, the Zoning Ordinance also states that *“for lots abutting Lake Michigan, the water's edge of the lake shall be deemed a front lot line.”* The setback is *“the minimum required horizontal distance between any lot line and a line drawn parallel to that lot line at a distance equal to the minimum required yard.”* In the R-2 District the minimum required front yard setback is 50 feet. See Figure 3.

The Zoning Ordinance includes definitions for “Street Line” and “Public Street”. The Ordinance states that “The water’s edge of Lake Michigan” shall be deemed the outermost limits of that public street” and that “For the purposes of the Zoning Ordinance, Lake Michigan shall be considered a ‘public street.’” These definitions only apply to the use of these terms in the Zoning Ordinance; the definitions do not apply to other provisions of the Municipal Code, such as the Nuisance Code.

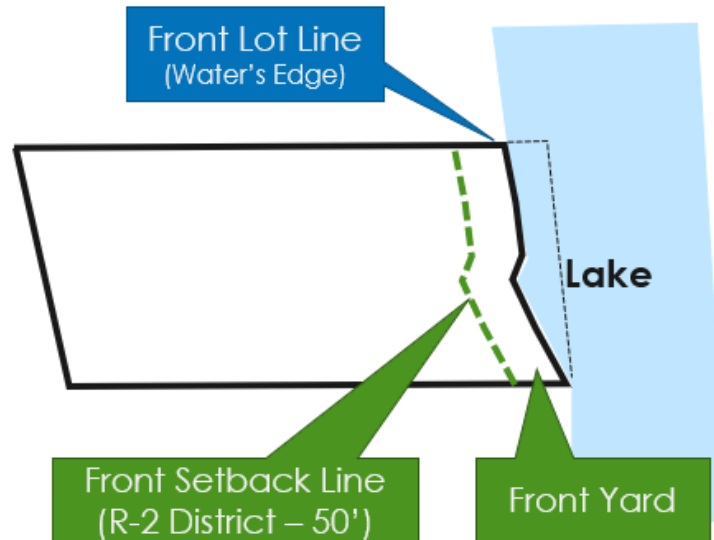


Figure 3

It should be noted that the Village does allow certain accessory structures within the minimum required front yard setback. Such structures included such items as:

- Certain building elements with specific limitations (e.g., eaves, bay windows, chimneys, etc.),
- Fences & walls no more than 6.5’ tall
- Walkways and stairs
- Open patios, open terraces, and front porches
- Docks
- Boat launches without boat houses

Given the Village’s definition of the front lot line along the lake and the fact that the lake level varies overtime, certain measurements for zoning purposes also change with the change in lake level. Those zoning measurements include:

- Lot Area
- Front Lot Line
- Lot Depth
- Average Lot Width (which is Lot Area divided by Lot Depth)

In addition to those zoning measurements changing with the lake level, the following zoning standards for a lot also change with the lake level.

- Minimum Required Front Yard Setback (In the R-2 District, it is 50' from the Front Lot Line)
- Minimum Sum of Setbacks (often also referred to as Minimum Required Total Side Yard)

<u>Average Lot Width</u>	<u>Minimum Sum of Setbacks</u>
Less than 100 feet	25% of <i>average lot width</i> or 14 feet, whichever is greater
100 feet or more	30% of <i>average lot width</i>
- Gross Floor Area (Calculation based upon Lot Area)
- Roofed Lot Coverage (Calculation based upon Lot Area)
- Impermeable Lot Coverage (Calculation based upon Lot Area)

To help visualize and understand how these zoning measurements and zoning standards are impacted by the changing lake water levels, the image and table on the following pages illustrate this for one property along Lake Michigan.

The image of property below is from two different time periods. The image to the left is when the lake level was lower in 2005, and the image on the right for when the lake level was higher in 2020. The 50' setback in the images below starts at the water's edge and is measured inward. (Note: The grade of this slope from approximately the top of the bluff to the toe of the bluff appears to be approximately 47%)

Lower Lake Level - 2005

Higher Lake Level - 2020

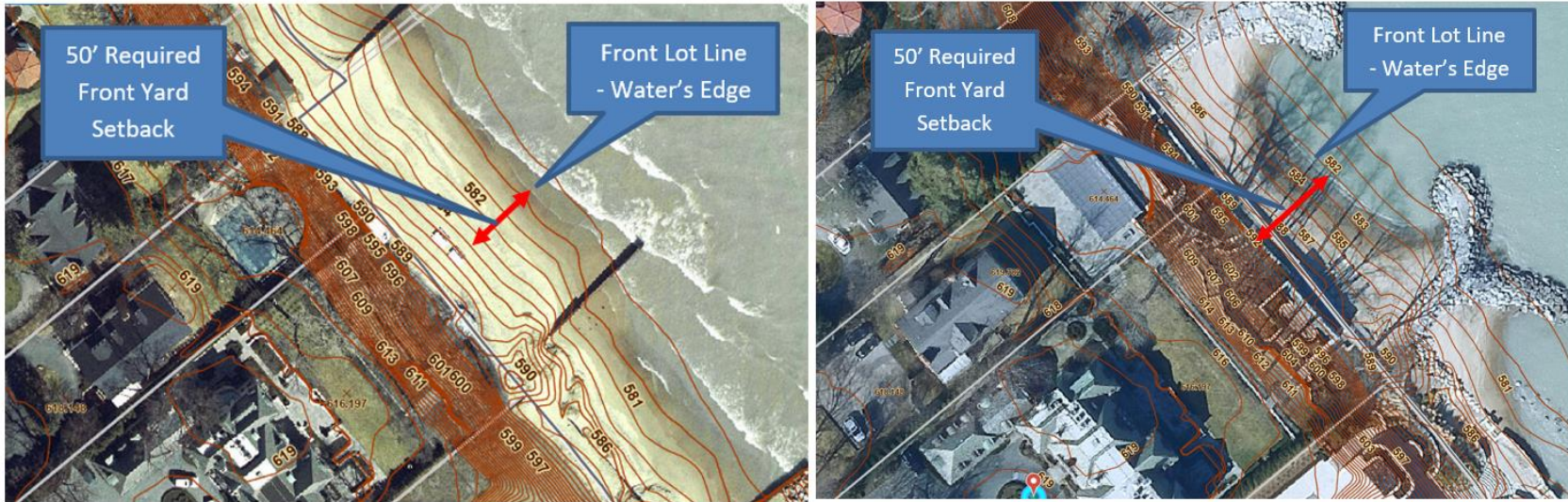


Figure 4

Though not for the same years, the property owner for this property submitted building permits to complete work on the property in 2002, a lower lake level time period, and again in 2019, a higher lake level time period. **Table 2** illustrates that given the change with the location of the front lot line due to the change in the water’s edge, how the other zoning measurements and standards are impacted by that change in lake level.

Lower Lake Level (Date: Jan. 29, 2002)	Zoning Measurement & Standards	Higher Lake Level (Date: Dec. 3, 2019)
75,675 sf	Lot Area	64,716 sf
507 ft	Lot Depth	442 ft
149 ft	Average Lot Width	146 ft
19,220 sf	Max Gross Floor Area	16,699 sf
18,918 sf	Max Roofed Lot Coverage	16,179 sf
37,837 sf	Max Impermeable Lot Coverage	32,358 sf
50 ft	Min Front Yard Setback (from water’s edge)	50 ft
12 ft	Min Side Yard Setback	12 ft
44.78 ft	Min Total Side Yard Setback	43.8 ft

Table 2

As illustrated above, improvements that were approved and constructed in one year (2002) may become zoning nonconforming in another (2019) due to the changes in the lake level (e.g., if 18,000 square feet of house and accessory buildings were constructed in 2002, they would have become nonconforming in 2019).

The Village does review site improvements in terms of their compliance with zoning requirements, except the Village’s practice for at approximately twenty years or more has not been to review any lakefront work that requires a permit from the Illinois Department of Natural Resources (IDNR) & U.S. Army Corp of Engineers (USACE) for zoning compliance. Given that IDNR and USACE have been responsible for reviewing elements associated with revetments, breakwaters and docks which can extend landward of the water's edge, Village staff has not reviewed these elements.

OTHER NORTH SHORE COMMUNITIES ZONING & DEVELOPMENT REGULATIONS

Staff has reviewed zoning and development regulations for the following North Shore communities with lakefront properties, asked these communities to respond to a brief questionnaire, and have spoken with the appropriate staff:

- Evanston
- Glencoe
- Highland Park
- Kenilworth
- Lake Forest
- Lake Bluff
- Wilmette

In communicating with the communities, others indicated that they have had to often make interpretations regarding the location of the lot line along the lake for zoning purposes as their codes do not clearly define what that lot line is. Glencoe interprets the lakefront lot line to be what is shown on the plat of subdivision (not plat of survey) for the property. It could be what was on a plat recorded in the late 19th century or early 20th century. Lake Forest interprets the Ordinary High-Water Mark as that lakefront property line. Wilmette's Zoning Code defines that lakefront property line to be the mean lake level, which can sometimes be on dry land and at other times be submerged. Highland Park, Kenilworth, and Lake Bluff all noted that they follow what is provided on the plat of survey submitted with a building permit application.

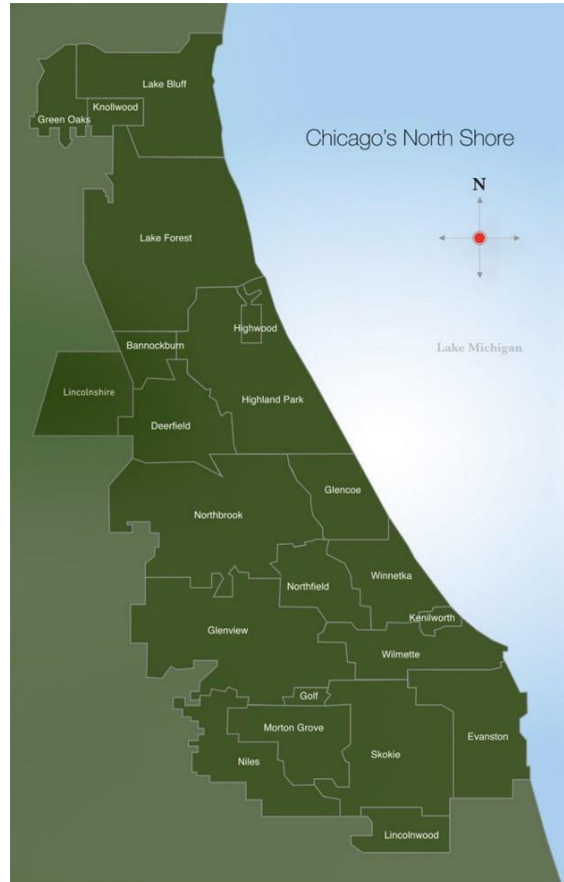


Figure 5

Determining the location of a lakefront property line for zoning purposes is important as it is used to determine compliance with such zoning standards as maximum gross floor area, maximum impermeable lot coverage, and maximum roofed lot coverage. Only two communities noted that their zoning ordinances determines the lot area for zoning purposes differently for lots along the lake than for lots not along the lake. Most communities use a lot line along the lake that was shown on a plat of survey prepared by a survey. Lake Forest and Kenilworth do not. Kenilworth uses the toe of the bluff as the eastern lot line for calculating lot area. For the area of any non-table land, that is land with a slope of 10% or greater, Lake Forest only counts 50% of that land area as lot area for calculating the allowable building square footage.

In addition to zoning standards by Zoning District, five of the communities (Glencoe, Highland Park, Kenilworth, Lake Forest, and Lake Bluff) have additional steep slope/bluff regulations for properties that specifically have such physical characteristics (Figure 6). The other two communities, Evanston and Wilmette do not have such additional regulations. It should be noted that these steep slope regulations often apply to both bluffs and ravines, but for the purpose of this staff report we focus on the bluff regulations.

Communities without Steep Slope Regulations – Evanston & Wilmette

Evanston and Wilmette do not have steep slope regulations, so their standard zoning regulations guide the location of buildings, structures, and pavement surfaces for lakefront property. In speaking with Wilmette staff, given the limited lakefront with significant bluff areas, Wilmette has yet to find the need to established steep slope regulations.

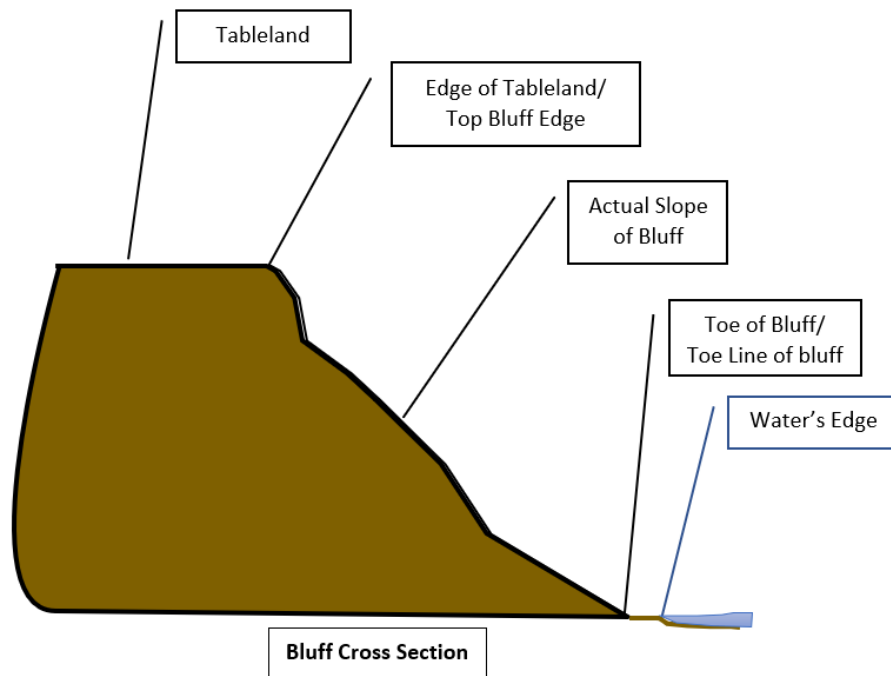


Figure 6

The following is a summary of Wilmette's zoning regulations in terms of how they apply to single family lakefront lots. The Wilmette Zoning Code defines the lot line along the lake as the rear lot line and is by definition the mean lake elevation level of 579 feet. The lot area is determined by the location of this measurement and from which other applicable zoning standards are measured and calculated (e.g., maximum gross floor area, maximum impermeable lot area, and maximum roofed lot coverage, and sometimes minimum required rear yard setback.) The mean lake elevation level of 579 feet is based upon the U.S. Army Corp of Engineers Long Term Average Annual of the monthly mean lake level since 1918, which is a stable measurement over time even with the fluctuation in the lake level.

The minimum required rear yard setback for a principal structure and for certain accessory structures is 20% of the lot depth, but no less than 40' and no more than 50'; **however, the setback cannot be less than the base flood elevation for a property.** The images below are from a 2020 Wilmette staff presentation regarding lakefront zoning regulations to its Village Council. The images show the actual lake level for a particular property for two periods of time (2012 and 2019) and where the actual lake levels fall in relationship to the mean lake level (579') and the base flood elevation for this property (585').

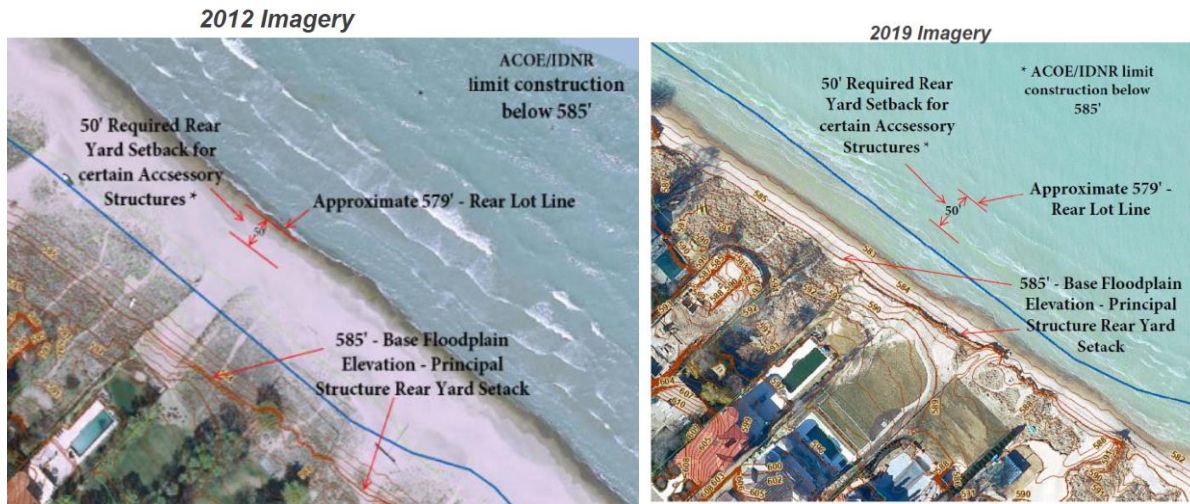


Figure 7

In terms of allowed accessory structures within the required setback, Wilmette allows beach houses, boat houses, fences up to 6.5', walkways, etc., but the allowance is dependent upon IDNR & USACE would allow.

The table in **Attachment A** includes a summary of Wilmette's and Evanston's zoning district regulations for properties along their lakefronts.

Communities with Steep Slope Regulations – Glencoe, Highland Park, Kenilworth, Lake Bluff, & Lake Forest

In addition to the standard zoning regulations for lakefront properties, the North Shore communities of Glencoe, Highland Park, Kenilworth, Lake Bluff, & Lake Forest have steep slope/bluff regulations for lake front properties. The standard zoning district requirements apply to a property unless the property contains a steep slope/bluff. **Attachment A** contains a table summarizing the standard zoning regulations as well as steep slope/bluff regulations. **Attachment B** includes copies of the steep slope/bluff regulations for these communities.

For communities that have steep slope regulations for the lakefront bluffs, a slope becomes regulated when an area has grades steeper than 10%. The exception appears to be Lake Bluff which uses 20%. (The slope of a line is generally represented as rise/run or vertical:horizontal (V:H). In some local ordinances the slope of a line is represented as horizontal:vertical (H:V).)

The communities then define the steep slope zone/bluff areas, which generally includes some point at the tableland down to some point along near the beach/water. Table 3 summarizes how each community defines steep slope zone/bluff areas.

Table 3 - Steep Slope Zone/Bluff Area

Glencoe

- **Slope Impact Area** – That portion of a lot lying between *the toe line of a bluff* and the line representing *the intersection of the table land* of such with a 22-degree slope (2.5H:1V ratio) extending upward from toe of the bluff. (Steep Slope Zone + Slope Transition Area)
- Steep Slope Line is a line representing the *intersection of the tableland* with a 27-degree slope that is 2H:1V extended upward from *toe of the bluff* (27 degrees).
- **Steep Slope Zone** – That portion of the Slope Impact Area of a lot that lies between the Steep Slope Line and the toe line.
- **Slope Transition Area** – That portion of the Slope Impact Area of a lot lying outside the Steep Slope Zone.
- Toe or Toe Line of Bluff - Is that point in the bluff where the slope is less than a 5.7-degree slope (10H:1V)
- Table Land - Is the land at top of a bluff where the slope is less than a 5.7-degree slope (10H:1V)

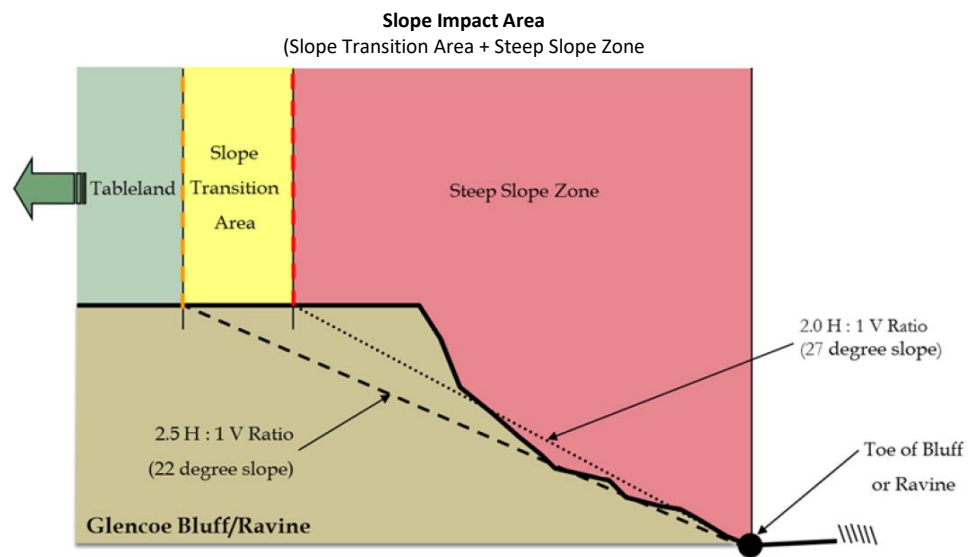


Figure 8

Table 3 - Steep Slope Zone/Bluff Area

Highland Park

- **Steep Slope** – Land comprising or adjacent to a lake bluff where the slope in ascent or descent exceeds ten (10) percent from the horizontal (1V:10H)

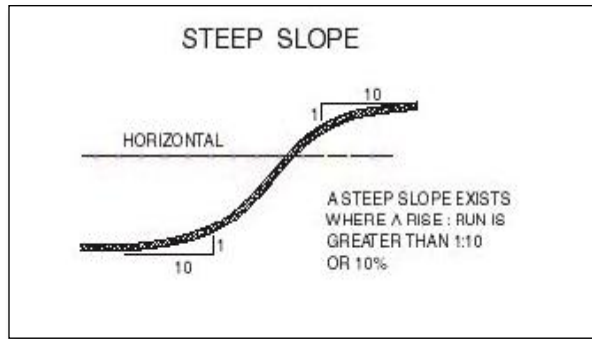


Figure 9

- **Steep Slope Zone** - All land which lies between the **bottom of a bluff steep slope** (not defined) and a line being farthest from the bottom of a bluff steep slope and forty (40) feet from the **top edge of a bluff steep slope**.
- **Top Edge (or Ridge) of Steep Slope** – A line connecting the points at which the **tableland** and steep slope intersect.
- **Tableland** – Land where cross slope in any direction does not exceed 10% (1V:10H).

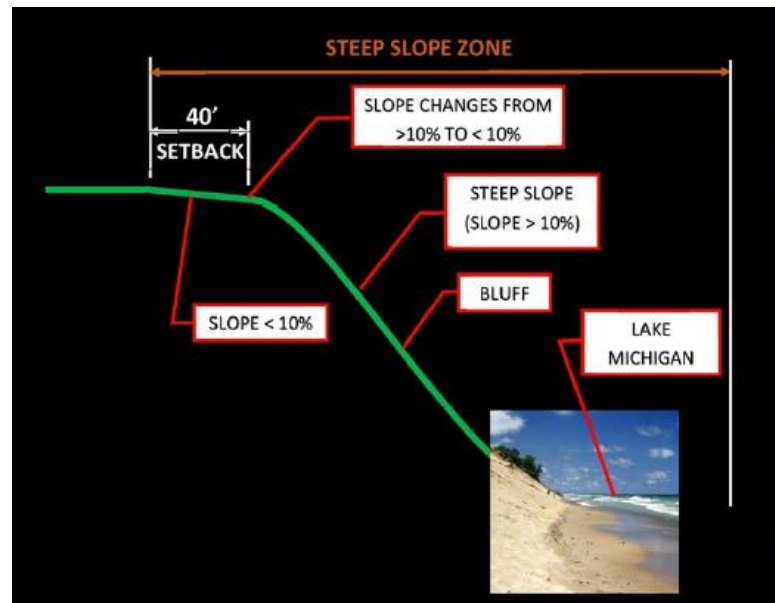
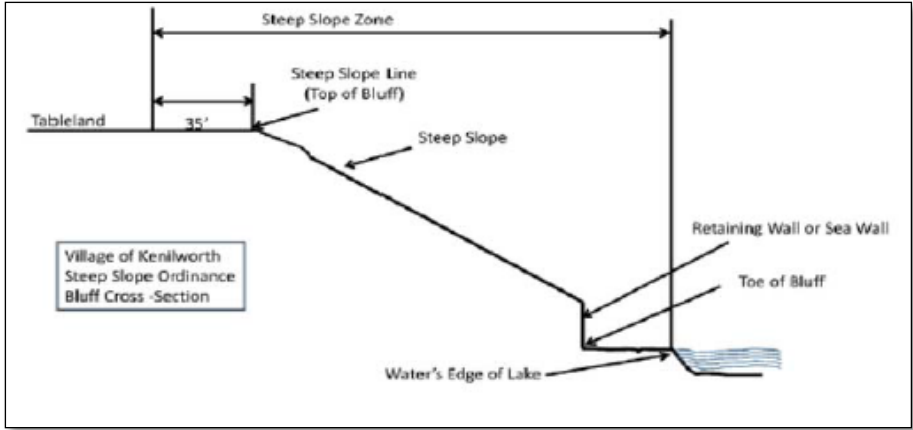


Figure 10

Table 3 - Steep Slope Zone/Bluff Area	
Kenilworth	<ul style="list-style-type: none"> • Steep Slope - Land comprising or adjacent to a lake bluff where the slope in ascent or descent exceeds 10% from the horizontal (1V:10H). • Steep Slope Line. A line representing the intersection of the tableland and the steep slope. This line is commonly indicated on plats of survey or other documents as the top of bluff. • Steep Slope Zone. That portion of a lot that includes the steep slope and lies between the water's edge (not defined) of Lake Michigan and a line drawn 35 feet behind the steep slope line at the top edge of the bluff (not defined) and away from the bottom of the bluff. The steep slope zone shall include all retaining walls located between Lake Michigan and the steep slope line • Tableland- Land at the top of a bluff or ravine where the cross slope in any direction does not exceed 10%. <div style="text-align: center;">  <p style="text-align: center;">Figure 11</p> </div>
Lake Bluff	<ul style="list-style-type: none"> • Bluff - Any natural land area that drops in elevation from top bluff edge equal to or greater than 2'V for every 10'H, and that is located between the high-water mark (not defined*) at the edge of Lake Michigan and the top bluff edge. • Bluff Protection Area - The area of a bluff plus the area of that portion of the bluff property that lies between the top bluff edge and the required setback established pursuant to Chapter 12 Bluffs and Ravines (40' for principal buildings and structures). • Top Bluff Edge is the curvilinear line connecting the pots of a bluff where the previously unimproved and undisturbed land surface first begins to drop at a rate equal to or greater than 2'V for every 10'H.
Lake Forest	<ul style="list-style-type: none"> • Bluff Area - Includes all property within or adjacent to a bluff beginning at point of intersection of a line with the tableland, said line extending from toe of slope upward at a vertical angle of 2.5H:1V (22 degrees). • Bluff Edge – The point on the lake side of the table land where the slope of the land first exceeds 10%. • Table land is the land where the slope in any direction does not exceed 10%. • The toe of the slope is that point in the bluff where the slope is less than 2.5H:1V (22 degrees) or where the slope reverses direction.

*High water mark, or more technically called the Ordinary High-Water Mark, is generally understood to be the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other items that consider the characteristics of the surrounding areas.

Based upon the identification of these steep slope zones/bluff areas, the community identifies **how close to the bluff that buildings, structures, and other improvements can be constructed.**

Table 4 – Minimum Setback from Top of Steep Slope/Bluff Area	
Glencoe	<ul style="list-style-type: none"> • Allows buildings and structures to be constructed on the tableland as well as within the Slope Transition Area, but only within that area if the improvements meet applicable zoning requirements and meet the steep slope development standards.
Highland Park	<ul style="list-style-type: none"> • Allows construction of improvements on the table land up to 40' from the top edge of a bluff steep slope. (Swimming pools can be up to 10' from bluff steep slope.)
Kenilworth	<ul style="list-style-type: none"> • Allows construction of improvements on the table land up to 35' from top edge of bluff.
Lake Bluff	<ul style="list-style-type: none"> • Allows construction of improvements on the table land as follows: <ul style="list-style-type: none"> ○ Setback for principal structure from top bluff edge is 40'. ○ Setback for accessory structure or building that is equal to or less 440 sf in area - 10' from top bluff edge. ○ Setback for accessory structure or building greater than 440 sf in area – no closer to top bluff edge than 10' plus an additional 0.053 feet for every 1' that the accessory structure or building exceeds 440 sf in area. ○ Setback for swimming pool – no closer than 40' from any top bluff edge.
Lake Forest	<p>Allows construction of improvements on the table land as follows:</p> <ul style="list-style-type: none"> • In no case shall any structure or building foundation be located closer than 75 feet <u>to the bluff area</u> (see definition of bluff area in Table 3). <ul style="list-style-type: none"> ○ Exception, village engineer may approve encroachments into setback area for construction of landscape features, auxiliary buildings (slab foundations), bridges, wood decks or other similar facilities, if found the construction is appropriate only for requested location, will have no significant impact on bluff area, and is of relatively low value. ○ Zoning Board of Appeals may consider variation for construction of habitable facilities such as room additions or new residences, and construction of significant auxiliary building. They consider the standard findings of fact as well as additional one for such situation. • All construction activity. i.e., grading, excavating, filling, terracing, tree removal, stockpiling of excavated material, is prohibited within 50' of bluff edge, except as necessary to provide site drainage.

Communities also identify what can and cannot occur within the steep slope zone/bluff area.

Table 5 – Construction Activity Allowed within Steep Slope/Bluff Area	
Glencoe	<ul style="list-style-type: none"> • Following accessory items can be built within the Steep Slope Zone: Retaining walls for stabilization (not for increasing tableland or to create a shelf); Structures on exact foundation of previously existing structures; Cantilevered balconies projecting no more than 4'; Lifts, bridges, decks, walkways, steps & fences; Decks no larger than 50 sf; Boat houses. • Includes a set of development standards.
Highland Park	<ul style="list-style-type: none"> • Following accessory items can be constructed within the Steep Slope Zone: Retaining walls and other structures necessary for slope stabilization; Non-conforming structures may be remodeled or rebuilt in certain situations; Lifts, bridges, walkways, steps, and or fences that do not obstruct the flow of light and water; Utility service lines; Immediate action to remediate unstable slopes; Normal landscape maintenance; Decks & patios not exceeding 150 SF and located between the top edge and the 40' Steep Slope Zone setback. • Variations may be requested for accessory structures within Steep Slope Zone. • Also includes a set of development standards.
Kenilworth	<ul style="list-style-type: none"> • Following accessory items can be constructed within the Steep Slope Zone: Retaining walls and other structures necessary for slope stabilization; Non-conforming structures may be remodeled or rebuilt in certain situations; Cantilevering of structures over Steep Slope Line (top of bluff) is prohibited; Lifts, bridges, walkways, steps (with certain limitations), and/or fences that do not obstruct the flow of light and water; Utility service lines; Decks no larger than 100 SF on conditions exceptional engineering provided; One accessory building no larger than 150 SF and no taller than 11' in height subject to the structure not adversely impacting stability of property or adjacent property and top of roof not visible from adjacent tableland. • Also includes a set of development standards.
Lake Bluff	<ul style="list-style-type: none"> • Following items can be constructed in bluff protection area: Erosion control and bluff stabilization; Public utilities and public improvements; Drainage improvement to prevent erosion; General maintenance & landscaping; Action to remediate unstable slopes that pose imminent danger; Electric lift system. • Minimal grading and clearing of existing vegetation, and installation of landscaping may be allowed within bluff area; however, no such activity allowed within 50' of bluff edge. • Includes minimal development standards.
Lake Forest	<ul style="list-style-type: none"> • Minimal grading and clearing of existing vegetation as well as landscaping may be allowed within bluff area; however, no such activity allowed within 50' of bluff edge. • Bluff channel, toe, or slope stabilization. • Includes minimal development standards

In summary, the communities with such limitations nearly outright prohibit development on the bluff and within so many feet of the top of the bluff or severely limit what can be constructed on or near the bluff. We did not find that any of the other communities required construction on lakefront property to go before any board or commission, except if the property owner was requesting zoning variation from the Zoning Board of Appeals.

Development Regulations for Activity within Lake Michigan

The Highland Park Zoning Ordinance also contains Special Regulations for the LFOZ Lakefront Density and Character Overlay Zone, which includes a Lake Michigan Protection Zone, which regulates activities in Lake Michigan and the private property located between the lake and the termination of the lake side of the Steep Slope Zone.

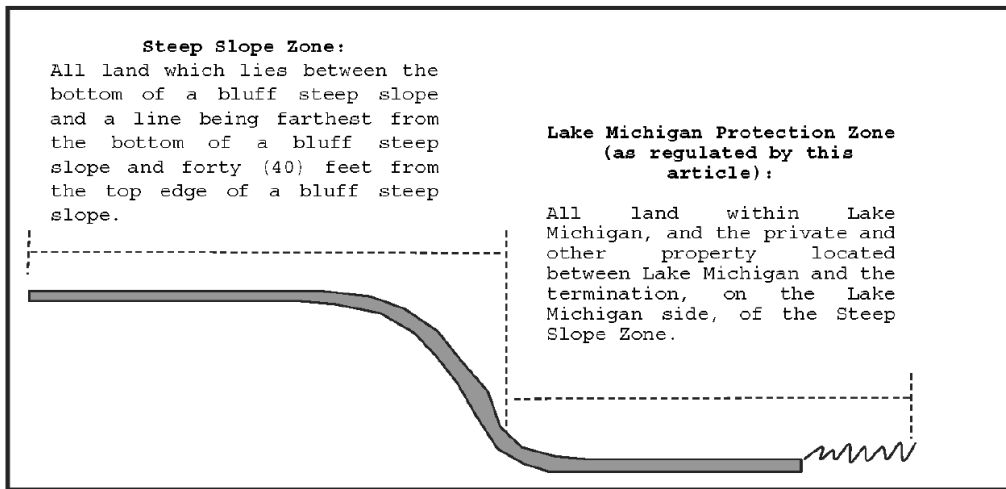


Figure 12

Regulated activity includes (1) the construction, alteration, modification, demolition, or removal of any new or existing Structure, or (2) the adding, dumping, dredging, or removing of sand, rocks, or any refuse, garbage, or other discarded materials. A copy of these regulations is included in **Attachment B**, and further details regarding these requirements are included in Engineering Department staff report.

SUMMARY AND NEXT STEPS

Village Council members have expressed an interest with considering amendments to the Village's zoning and development regulations for lakefront properties. This staff report summarized what is allowed under the Village's current zoning regulations on lakefront properties and what other North Shore communities allow on lakefront properties that contains bluffs. As the Council continues to consider this issue, the Council may wish to consider the following questions:

1. Do the Village's current zoning regulations allow a type of development the community prefers to see along the lakefront? If not, what changes could be made to the zoning regulations that would only allow the type of development the community would like to see?
2. Do the Villages' current zoning and development regulations adequately protect the steep slopes/bluffs on properties along the lakefront? If not, what changes could be made to better protect these areas?

ATTACHMENTS

Attachment A: Table Summarizing Winnetka and Other North Shore Communities Standard Zoning Regulations as well as Steep Slope/Bluff Regulations.

Attachment B: Steep Slope/Bluff Regulations for Glencoe, Highland Park, Kenilworth, Lake Bluff, & Lake Forest

ATTACHMENT A

	Lot Line Along Lake	Lakefront Residential, Institutional, Open Space Zoning Districts	Min Required Setback from Lake for Principal Structures	Allowed Accessory Structures w/in Required Setback from Lake	Other Components of Regulations for Lakefront Properties
Winnetka (No Steep Slope Ordinance)	Front Lot Line By code, it's the water's edge	<ul style="list-style-type: none"> R2 - Single Family Residential 	R2 District - 50 ft	Certain building elements with limitations (e.g., eaves, bay windows, chimneys, etc.); Fences & walls no more than 6.5'; Walkways & stairs; Open patios, open terraces, and front porches; Docks, Boat launches without buildings, and others.	None
Evanston (No Steep Slope Ordinance)	Rear Lot Line Code does not specifically define, they have interpreted that it is the water's edge as shown on a plat of survey.	<ul style="list-style-type: none"> R1 – Single Family Residential OS – Open Space U3 University Lakefront Campus 	R1 District – 30 ft	R1 District – Parking – 5 feet; Accessory Structures – 3 ft Dependent upon what IDNR & USACE would allow	None
Glencoe (Has Steep Slope Ordinance)	Rear Lot line (could also be a side lot line) Code doesn't define, they typically use lot line shown on plat of subdivision, if available.	<ul style="list-style-type: none"> RA Single Family Residential 	<p>20% of lot depth</p> <p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> Ordinance applies to areas with grades steeper than 10%. Principle structure cannot be constructed within the Steep Slope Zone. This is often more restrictive than the minimum setback requirements (20% of lot depth). Steep Slope Zone – portion of lot that between the Steep Slope Line and the toe line. Steep Slope Line is a line representing the intersection of the tableland with a slope that is 2 horizontal to 1 vertical extended (2H:1V) upward from the toe of the bluff (27 degree). Allows buildings and structures to be constructed on tableland as well as within Slope Transition Area, but only within that area if improvements meet applicable zoning requirements and meet steep slope development standards. 	<p>Zoning Code has no restrictions on type of accessory structures; Accessory structure setback is 5' from rear lot line.</p> <p>Steep slope ordinance is often more restrictive than the zoning code in this area.</p> <p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> Following accessory items can be built within the Steep Slope Zone: Retaining walls for stabilization (not for increasing tableland or to create a shelf); Structures on exact foundation of previously existing structures; Cantilevered balconies projecting no more than 4'; Lifts, bridges, decks, walkways, steps & fences; Decks no larger than 50 sf; Boat houses. 	STEEP SLOPE ORDINANCE Contains a set of development standards for construction within the Slope Impact Area.

	Lot Line Along Lake	Lakefront Residential, Institutional, Open Space Zoning Districts	Min Required Setback from Lake for Principal Structures	Allowed Accessory Structures w/in Required Setback from Lake	Other Components of Regulations for Lakefront Properties
Highland Park (Has Steep Slope Ordinance)	Rear Lot Line No special definition for lakefront properties. They follow the plat of survey, signed and sealed by the surveyor.	<ul style="list-style-type: none"> R4 Low to Moderate Density Single Family Residential District R6 Medium Density Single Family Residential District 	<p>R-4 District - 35 ft, or 20% of lot depth R-6 District – 25 ft, or 20 of lot depth</p> <p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> Ordinance applies to areas with grades steeper than 10%. Steep Slope Zone (SSZ) - All land which lies between the bottom of a bluff steep slope and a line being farthest from the bottom of a bluff steep slope and forty (40) feet from the top edge of a bluff steep slope. Allows construction of improvements on the table land up to 40' from the top edge of a bluff steep slope. (Swimming pools can be up to 10' from bluff steep slope.) 	<p>Detached accessory structures are allowed within a required rear yard, but as a matter of practice Steep Slope Zone will become the de facto setback.</p> <p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> Following accessory items can be constructed within Steep Slope Zone: Retaining walls and other structures necessary for slope stabilization; Non-conforming structures may be remodeled or rebuilt in certain situations; Lifts, bridges, walkways, stairs (not wider than 5'); landings (no more than 50 sf), steps, and or fences that do not obstruct the flow of light and water; Utility service lines; Immediate action to remediate unstable slopes; Normal landscape maintenance; Decks & patios not exceeding 150 SF and located between the top edge and the 40' Steep Slope Zone setback. Only erosion or protection structures, like revetments, are allowed within the Lake Michigan Protection Zone. Variations may be requested for accessory structures within Steep Slope Zone. 	<p>STEEP SLOPE ORDINANCE</p> <p>Contains a set of development standards for construction within the Slope Impact Area.</p> <p>The Highland Park Zoning Ordinance also contains Special Regulations for the LFOZ Lakefront Density and Character Overlay Zone, which includes a Lake Michigan Protection Zone, which regulates activities in Lake Michigan and the private property located between the lake the termination on the lake side of the Steep Slope Zone. Regulated activity includes (1) the construction, alteration, modification, demolition, or removal of any new or existing Structure, or (2) the adding, dumping, dredging, or removing of sand, rocks, or any refuse, garbage, or other discarded materials.</p>
Kenilworth (Has Steep Slope Ordinance)	Rear Lot Line Plat of surveys typically indicate location of this lot line.	<ul style="list-style-type: none"> R-1 Single Family Residential M-2 Municipal Land M-1 Mahoney Park 	<p>R1 - A minimum depth equal to the larger of 25 feet or 20% of the depth of the lot.</p> <p>(3) <i>Rear building lines on lots abutting Lake Michigan.</i> No principal building, or structural alteration to an existing principal building, on a lot abutting Lake Michigan may be located further from the front lot line of the lot than the average of the rear building lines for the lots located on either side of the lot on which the new principal building or structural alteration is proposed; provided, however, there are exceptions for homes constructed prior to November 1, 2016.</p> <p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> Ordinance applies to areas with grades steeper than 10%. Steep Slope Zone. That portion of a lot that includes the steep slope and lies between the water's edge of Lake Michigan and a line drawn 35 feet behind the steep slope line at the top edge of the bluff and away from bottom of the bluff. The steep slope zone shall include all retaining walls located between Lake Michigan and the steep slope line Allows construction of improvements on the table land up to 35' from top edge of bluff. 	<p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> Following accessory items can be constructed within the Steep Slope Zone: Retaining walls and other structures necessary for slope stabilization; Non-conforming structures may be remodeled or rebuilt on the exact same foundation and not extend beyond the existing envelope; Cantilevering of structures over Steep Slope Line (top of bluff) is prohibited; Lifts, bridges, walkways, steps (with certain limitations), and/or fences that do not obstruct the flow of light and water; Utility service lines; Decks no larger than 100 SF on conditions exceptional engineering provided; One accessory building no larger than 150 SF and no taller than 11' in height subject to the structure not adversely impacting stability of property or adjacent property and top of roof not visible from adjacent tableland. 	<p>Per Zoning Ordinance definition for lot area, lot area only goes to toe of the bluff.</p> <p>STEEP SLOPE ORDINANCE</p> <p>Contains a set of development standards for construction within the Slope Impact Area.</p>

	Lot Line Along Lake	Lakefront Residential, Institutional, Open Space Zoning Districts	Min Required Setback from Lake for Principal Structures	Allowed Accessory Structures w/in Required Setback from Lake	Other Components of Regulations for Lakefront Properties
<p>Lake Bluff (Has Steep Slope - Bluff & Ravines - Ordinance)</p>	<p>Rear Lot Line (generally) No special definition for lakefront properties. They follow the plat of survey.</p>	<ul style="list-style-type: none"> • C-E Country Estate Residence & E-1 Estate Residence (mostly) • RIO Recreational, Institutional, & Open Space • R-1 Residence & R-2 Residence (small sections) 	<p>C-E District – 100’ setback from Lake Michigan line(s) All other districts, typically 30’</p> <p>BLUFF PROTECTION ORDINANCE</p> <ul style="list-style-type: none"> • Ordinance applies to bluff areas with grades steeper than 20%. (2V:10H) • Bluff - Any natural land area that drops in elevation from top bluff edge equal to or greater than 2’V for every 10’H, and that is located between the high-water mark (not defined*) at the edge of Lake Michigan and the top bluff edge. • Bluff Protection Area - The area of a bluff plus the area of that portion of the bluff property that lies between the top bluff edge and the required setback established pursuant to Chapter 12 Bluffs and Ravines. • Setback for principal structure from top bluff edge is 40’. 	<p>Accessory structures less than 1,000 square feet in area can generally be built at a 5’ setback. At-grade improvements such as walkways, patios, etc. have no setback.</p> <p>BLUFF PROTECTION ORDINANCE</p> <ul style="list-style-type: none"> • Setback for accessory structure or building that is equal to or less 440 sf in area - 10’ from any top bluff edge. • Setback for accessory structure or building greater than 440 sf in area – no closer to any top bluff edge than 10’ plus an additional 0.053 feet for every 1’ that the accessory structure or building exceeds 440 sf in area. • Setback for swimming pool – no closer than 40’ from any top bluff edge. • Following items can be constructed in bluff protection area: Erosion control and bluff stabilization; Public utilities and public improvements; Drainage improvement to prevent erosion; General maintenance & landscaping; Action to remediate unstable slopes that pose imminent danger; Electric lift system. • Minimal grading and clearing of existing vegetation, and installation of landscaping may be allowed within bluff area; however, no such activity allowed within 50’ of bluff edge. 	<p>STEEP SLOPE ORDINANCE</p> <ul style="list-style-type: none"> • Contains minimal development standards for construction within the Slope Impact Area. •

	Lot Line Along Lake	Lakefront Residential, Institutional, Open Space Zoning Districts	Min Required Setback from Lake for Principal Structures	Allowed Accessory Structures w/in Required Setback from Lake	Other Components of Regulations for Lakefront Properties
Lake Forest (Has Steep Slope Ordinance)	Rear property line Code doesn't define, the standard interpretation is to use ordinary high-water mark.	<ul style="list-style-type: none"> R-3 Single Family Residence R-4 Single Family Residence OA Open Area 	R-4 – 50 feet R-3 – 40 feet STEEP SLOPE REQUIREMENTS <ul style="list-style-type: none"> Ordinance applies to bluff areas with grades steeper than 10%. (1V:10H) Bluff area includes all property within or adjacent to a bluff beginning at point of intersection of a line with the tableland, said line extending from toe of slope upward at a vertical angle of 22 degrees (which is 2.5 horizontal:1 vertical). In no case shall any structure or building foundation be located closer than 75 feet to the bluff area, as defined above. <ul style="list-style-type: none"> Exception, village engineer may approve encroachments into setback area for construction of landscape features, auxiliary buildings (slab foundations), bridges, wood decks or other similar facilities, if found the construction is appropriate only for requested location, will have no significant impact on bluff area, and is of relatively low value. Zoning Board of Appeals may consider variation for construction of habitable facilities such as room additions or new residences, and construction of significant auxiliary building. They consider the standard findings of fact as well as additional one for such situation. All construction activity. i.e., grading, excavating, filling, terracing, tree removal, stockpiling of excavated material, is prohibited within 50' of bluff edge, except as necessary to provide site drainage. 	Fences, patios, decks, terraces, pool houses, sheds, garages – all must meet accessory structure setbacks unless they are no more than eight inches above existing grade. (Side yard – R-4 = 20', R-3 = 15') (Rear yard – R-4 = 10', R-3 = 10') Pools and tennis courts must be 20' from all property lines. STEEP SLOPE REQUIREMENTS <ul style="list-style-type: none"> Minimal grading and clearing of existing vegetation as well as landscaping may be allowed within bluff area; however, no such activity allowed within 50' of bluff edge. Bluff channel, toe, or slope stabilization. 	The area of any non-table land, that is land with a slope of 10% or greater, is counted only at 50% when calculating the allowable building square footage. STEEP SLOPE REQUIREMENTS <ul style="list-style-type: none"> Contains minimal development standards for construction within the Slope Impact Area.
Wilmette (No Steep Slope Ordinance)	Rear Lot Line – Mean lake elevation of 579' (This sometimes on dry land and sometimes submerged.)	<ul style="list-style-type: none"> R Single-Family Detached Residence R1-H - Residential Sub-District R-4 Multi-Family Residence 	R District – 20% of lot depth, min 40' & max 50', but setback cannot be less than base flood elevation for property. Other Districts - 25' to 40'	Beach house, boat house, fence up to 6.5', walkways, etc. Dependent upon what IDNR & USACE would allow	The required rear yard setback cannot be less than FEMA's base floodplain elevation for the property.

ATTACHMENT B

GLENCOE - ARTICLE XV. STEEP SLOPE REGULATIONS

§ 9-110 INTRODUCTION.

(a) The topography of the Village of Glencoe is characterized by an abundance of ravines and bluffs. These are valuable land resources that should be protected. Bluffs and ravines play a central role in the management of storm water throughout the village; they are also ecologically fragile and inherently unstable. Their proper care and maintenance are important to avoid degradation that could adversely affect the entire community.

(b) Steep slope areas may contain sediment, rock, and soils (1) that are natural features subject to erosion, surface and subsurface movement of water, and other destabilizing forces, and (2) whose stability is affected by the quality and root structure of natural ground cover. Regulating proposed development according to the natural characteristics of steep slope terrain, such as degree of sloping, significant vegetation, soil stability, and existing drainage patterns will allow for development on top of steep slope areas, including bluffs and ravines, while minimizing the physical impact of such development. The public interest will be served by protecting people and property from the potentially hazardous geological and hydrological conditions characteristic of ravine and bluff areas.

(Ord. No. 2013-13-3343)

§ 9-111 STATEMENT OF PURPOSE; APPLICABILITY.

(a) The purpose of this article is to regulate development along or near steep slope areas to protect slope stability and overall drainage and water management in the village. The purpose of this article is not to regulate for aesthetic or habitat preservation purposes; rather, the purpose is to prevent erosion of ravines and bluffs by regulating and managing steep slopes for purposes of protecting the public health, safety, and welfare. This article protects people and property from the potentially hazardous geological and hydrological conditions characteristic of ravine and bluff areas and further recognizes that maintenance of stable ecological relationships minimizes environmental degradation of the land and Lake Michigan. Due to improper and unnecessary development within these sensitive areas, conditions are created that jeopardize life, property, and the natural ecosystem. It is the intent of this Article to establish appropriate controls. All land use and development on, within, and adjacent to the steep slope is controlled by this article. While this article provides for the reasonable use of steep slope areas and related lands, it does so while protecting the public health, safety, and welfare by:

- (1) Discouraging development that threatens the stability of steeply sloped terrain.
- (2) Encouraging appropriate engineering technology to result in stable slopes during and subsequent to development;
- (3) Encouraging building techniques that increase slope stability;

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(4) Reducing uncontrolled storm water runoff, soil erosion, and mud slides by minimizing grading, encouraging the preservation of trees and other vegetation, and, where necessary, requiring revegetation;

(5) Permitting development that is compatible with the natural characteristics of steep slope terrain, such as degree of sloping, soil suitability, and existing natural and man-made drainage patterns;

(6) Preserving the ravine and bluff environment through the retention of dominant steep slopes and ridges in their natural state; and

(7) Reducing the physical impact on steep slopes by encouraging innovative site and architectural design, minimizing grading, and requiring restoration of graded areas.

(b) Applicability: this article only applies to properties that include or are adjacent to a bluff along Lake Michigan or a ravine.

(Ord. No. 2013-13-3343)

§ 9-112 DEFINITIONS.

When used in this article, the following terms shall have the meanings herein ascribed to them, unless the context clearly requires otherwise:

BLUFF. An elevated segment of the Lake Michigan shoreline above the beach which normally has a precipitous front inclining steeply on the lakeward side.

CANTILEVER. Any portion of a principal structure that extends laterally beyond the foundation that supports it.

DIRECTOR OF PUBLIC WORKS OR DIRECTOR. The Village of Glencoe's Director of Public Works or his/her appointed designee.

DEVELOPMENT. Any man-made change (other than maintenance of existing structures, paved areas, or utilities) to improved or unimproved real estate, including without limitation the construction or installation of new, or enlargement or demolition of existing, structures, paved areas, or utilities; dredging, filling, drilling, mining, grading, paving, or excavation operations; and open storage of equipment or materials.

RAVINE. A deep gully or gorge worn by the flow of water to Lake Michigan.

SLOPE IMPACT AREA. For a lot that includes or is adjacent to a bluff or ravine, that portion of the lot lying between:

(1) The toe line of such bluff or ravine, and

(2) The line representing the intersection of the table land (or if no such intersection, the table land extended) of such lot with a 22 degree slope (2.5H:1V ratio) extending upward from the toe of bluff or ravine. For any lot that lacks table land, for the purpose

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identifying the slope impact area, the Director shall utilize the horizontal projection of the street line of the lot as the table land. In addition, the slope impact area also includes the area of the lot where the slope of the lot is steeper than 5.7 degrees (10H:1V ratio).

SLOPE TRANSITION AREA. That portion of the slope impact area of a lot lying outside the steep slope zone.

STEEP SLOPE LINE. A line representing the intersection of the table land (or if no such intersection exists, the table land extended) with a 27 degree slope (2H: 1V) extended upward from the toe of a bluff or ravine. For any lot that lacks table land, for the purpose identifying the steep slope line, the Director shall utilize the horizontal projection of the street line of the lot as the table land.

STEEP SLOPE ZONE. That portion of the slope impact area of a lot that lies between the steep slope line and the toe line.

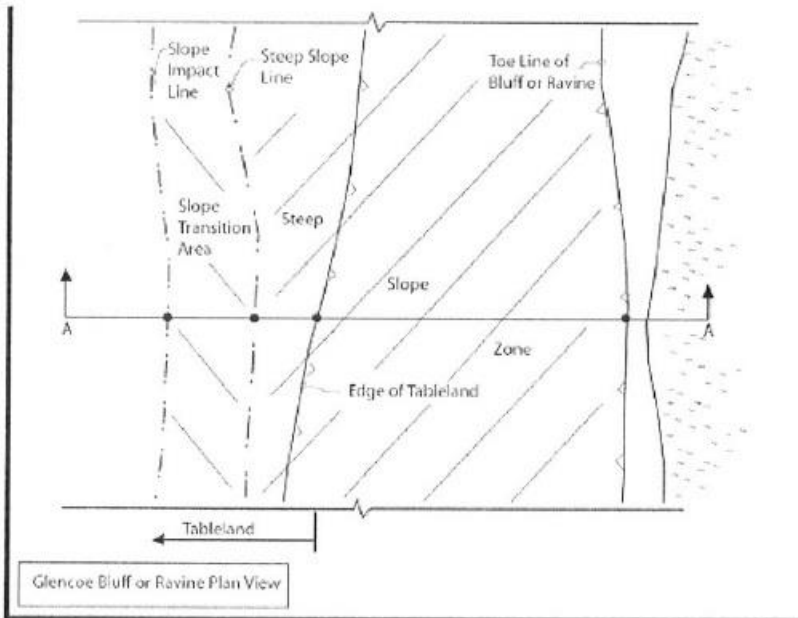
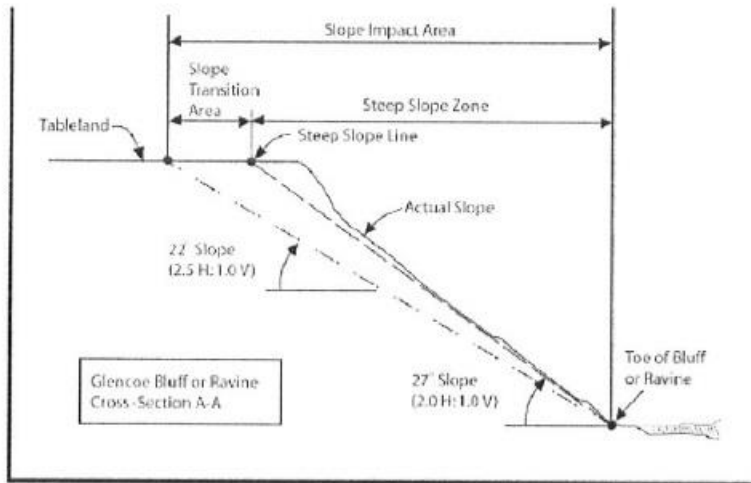
STREET LINE. The street line as defined in the zoning code.

TABLE LAND. Land at the top of a bluff or ravine where the slope is less than a 5.7 degree slope (10H:1V ratio)

TOE OR TOE LINE OF BLUFF AND RAVINE. The toe of the ravine or bluff slope is that point in the ravine or bluff where the slope is less than a 5.7 degree slope (10H:1V) or where the slope reverses direction. On compound slopes where there may be more than one possible toe location, the controlling point shall be whichever toe that provides the greatest slope impact area. In plan view, the toe of bluff or ravine is depicted as continuous line, and is referred to as the toe line.

(Ord. No. 2013-13-3343)

GLENCOE - ARTICLE XV. STEEP SLOPE REGULATIONS



§ 9-113 DEVELOPMENT IN SLOPE TRANSITION AREA.

(a) Any development that is otherwise authorized under the codes, ordinances, and regulations of the village may occur in the slope transition area, but only upon the Director's review and approval of an application therefor pursuant to this article. In addition, any structure or addition that meets all applicable zoning requirements may be built in the Slope Transition Area upon obtaining the necessary permits pursuant to Section

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9-116 and provided that the structure and construction techniques adhere to the Development Standards in Section 9-115.

(b) In addition, retaining walls and other structures which are necessary for slope stabilization may be constructed in the slope transition area in the manner approved by the Director of Public Works and in accordance with the following additional standards:

(1) Retaining walls shall not be used to increase table land.

(2) Retaining walls shall not be used to create a shelf or other table area within the slope transition area.

(c) Backfilling of a retaining wall is allowed only as necessary for slope stabilization.

(Ord. No. 2013-13-3343)

§ 9-114 DEVELOPMENT IN THE STEEP SLOPE ZONE.

Any development that is otherwise authorized under the codes, ordinances, and regulations of the village may occur in the steep slope zone, but only upon the Director's review and approval of an application therefor pursuant to this article; provided, however, that within the steep slope zone, only the following structures may be constructed:

(a) Retaining walls and other structures that are necessary for slope stabilization may be constructed in the steep slope zone in the manner approved by the Director and in accordance with the following additional standards:

(1) Retaining walls shall not be used to increase table land.

(2) Retaining walls shall not be used to create a shelf or other table area within the steep slope zone.

(3) Backfilling of a retaining wall is allowed only as necessary for slope stabilization.

(b) Structures on the exact foundation of a previously existing structure may be rebuilt, provided that the rebuilt or remodeled structure (i) does not extend beyond the previous foundation within the steep slope zone, and (ii) is undertaken pursuant to sealed plans of an architect or structural engineer certifying that the existing foundation (with appropriate engineering modifications, if any) will support the rebuilt or remodeled structure without material adverse impact on the steep slope zone.

(c) Cantilevering of structures over the steep slope zone. Cantilevering accessory building elements (such as second floor balconies) not exceeding four feet horizontal over a steep slope zone is permitted unless otherwise limited by code. In addition, such cantilevering cannot block natural sunlight or alter natural stormwater drainage in such a way to jeopardize slope stability.

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(d) Mechanical or electrical lifts, bridges, decks, walkways, steps, and/or fences which do not obstruct the flow of light and water, and utility service lines, provided that:

(1) Such structures conform to the provisions of this article; and

(2) Stairs constructed in the steep slope zone shall be no greater than five feet in width. Stair landings constructed in the steep slope zone shall be no larger than 50 square feet. Stair landings for the purpose of this article are defined as an intermediate platform on a flight of stairs, greater than 10 square feet, constructed for the purpose of allowing a change in stair direction down the steep slope zone and/or to break up ten or more stair steps.

(e) Decks can be no larger than 50 square feet unless applicant provides exceptional engineering, including stormwater management and vegetation, so that such deck will not jeopardize slope stability.

(f) Fences, provided that all fences must comply with all applicable village codes, ordinances, and regulations, including without limitation Chapter 9, Article 11 of the Village Code.

(g) Boat houses, provided that the Director has determined that the boat house structure as proposed will not adversely impact the stability of the property or adjacent property.

(Ord. No. 2013-13-3343)

§ 9-115 DEVELOPMENT STANDARDS.

(a) Any application for development in the slope impact area shall be reviewed by the Director, who will consider such application in light of the standards of this section relating to landscape planning, soil mechanics engineering, hydrology, geology, environmental design, and architecture. It is recognized, however, that each slope impact area has unique characteristics and encounters different dynamics affecting its stability and preservation. As a result, the Director may determine for any application that certain of the following standards may not apply in whole or in part to such application so long as the Director determines that the application for development in its totality satisfies the purposes of this article to a substantial degree without creating an economic hardship as provided in § 9-119 of this article.

(b) The standards applicable to development in a slope impact area are as follows:

(1) Safety control of steep slopes.

A. The development will not jeopardize slope stability on the subject site or neighboring properties.

B. Except as necessary for an approved development, no filling, grading, and earth moving shall be occur in a slope impact area.

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C. Whenever there is construction upon any property that includes or is adjacent to a steep slope zone, a fence will be erected temporarily along the top edge of the steep slope zone, during any construction and/or demolition activity upon such property.

(2) Construction techniques. All proposed structures shall have foundations designed in a manner consistent with sound engineering and geological principles. In addition, the following techniques shall be employed to enhance stabilization of the ravine or bluff:

A. Planning the development to recognize and fit the natural topography, soils, geology, hydrology, and other existing conditions on the proposed sites;

B. Orienting development so that filling, grading, and earth moving, landscaping and other site preparation is kept to an absolute minimum;

C. Preserving and enhancing the landscape through minimized disruption of natural terrain and existing vegetation;

D. Minimizing disruption or alteration of natural drainage ways;

E. Minimizing the time during which areas are bare and exposed;

F. Designing and properly locating structures so that structure's weight does not negatively impact slope stability; and

G. Considering the effect of undercutting at the base of a slope impact area caused by wave action, storm water flow, erosion, and/or channel changes.

(3) Hydrological controls.

A. Natural channels. Natural drainage ways shall be preserved to the maximum extent possible.

B. Controlled runoff. Concentrated runoff from impervious surfaces shall be collected and transported in a pipe or other approved manner to a municipal storm sewer system, if available.

C. Water discharge into steep slope. Whenever stormwater is transported across a property for discharge into a steep slope zone, the conveyance pipes shall be of non-segmented (continuous sections of minimum 100 ft.) pipe material, which shall be installed below ground by directional boring where possible.

D. Trenching. No pipe shall be installed within a steep slope zone by excavating a trench unless such trench is approved by the Director of Public Works.

E. Pipe materials. Flexible corrugated pipes shall not be used within a slope impact area unless directional boring is found to be infeasible in the sole determination of the Director.

F. Interceptor ditches. When required by the Director pursuant to sound professional engineering principles, interceptor ditches shall be established above steep slopes in order

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that soil shall not become saturated and the intercepted water shall be conveyed in a pipe or other approved manner to a municipal storm sewer system, if available, or to the bottom of ravine or bluff slopes in a manner designed to prevent erosion.

G. Discharge point stabilization. Natural drainage ways shall be stabilized by landscape integration and rip-rap or other means consistent with sound professional engineering practice, to a distance below drainage and culvert discharge points sufficient to convey the discharge without channel erosion and in such a manner as to dissipate the energy of the discharge as approved by the Director of Public Works.

H. Energy dissipater. All outflow from a stormwater conveyance pipe must discharge into an energy dissipater.

I. Early completion. The overall drainage system shall be completed and made operational at the earliest possible time during construction, the schedule of which shall be approved by the Director of Public Works.

J. Impact on adjacent property. The natural or usual flow of surface or subsurface water shall not be altered or obstructed in any way by grade changes that may adversely affect the property of another by contributing either to pooling or collection of waters or to the concentration or intensification of surface water discharge. However, development which might otherwise be prohibited hereinabove may be allowed if such waters are properly drained by a pipe or other approved manner to a municipal storm sewer system, if available, or to the bottom of ravine or bluff slopes. All grade changes shall comply with Chapter 9, Article XIII of the Village Code.

(4) Vegetation and revegetation.

A. Natural vegetation. Every effort shall be made to maintain natural vegetation in the slope impact area.

B. Smallest area. At all times, the smallest practical area of raw soil shall be exposed for as short a duration of time as practical. When required by the Director pursuant to sound professional engineering principles, temporary vegetation or other acceptable cover shall be used to protect areas of raw soil exposed during development and to prevent airborne or waterborne transportation of soil.

C. Revegetation. A mixed planting of perennial and woody species is recommended for use in the slope impact areas disturbed by development.

D. Erosion control mat. Temporary erosion control matting properly staked and trenched shall be provided over raw soil areas until new vegetation is established.

(5) Filling, grading, and earth moving.

A. Minimum alterations. Filling, grading, and earth moving shall be limited to the minimum required for building foundations, driveways, drainage control structures, and immediate yard areas. With the exception of restoration efforts, substantial filling, grading, and earth moving shall not be permitted and is prohibited.

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B. Erosion control. All filling, grading, and earth moving shall be accomplished in a manner that will create the lowest possible potential for airborne or waterborne transportation of soil.

C. Soil fill in steep slope zone. All fill in steep slope zone is prohibited, other than back-fill which is determined by the Director of Public Works to be necessary for slope stabilization.

D. Soil fill on table land. In conformance with generally accepted engineering standards, all fill on table land shall be stabilized to at least 90% of maximum dry density as determined in ASTM procedure D-1557 or equivalent.

E. Prompt completion. All filling, grading, and earth moving shall be accomplished in the shortest practical period of time, the schedule of which shall be approved by the Director of Public Works. All excavated material shall be removed from the slope impact area and no temporary or permanent material storage shall be permitted within the slope impact area. No existing natural vegetation shall be destroyed, removed or disturbed prior to the initiation of development activities.

(Ord. No. 2013-13-3343)

§ 9-116 REQUIRED PLANS AND PERMITS.

(a) Required plans. Any development or other activity in the slope impact area requiring a permit pursuant to the Village Code and applicable regulations shall be accompanied by the following plans and reports which must be submitted to and approved by the Director of Public Works prior to issuance of any permit or commencement of the proposed development.

(1) Means and methods of construction. Because work to be performed in the slope impact area may have adverse impacts on steep slopes, all permit applications shall contain a written description of the proposed means and methods of accomplishing such work (including without limitation the sequencing and timing of work, the equipment to be used, interim protective measures, and activities to monitor potential adverse impacts on the slope impact area), which means and methods shall be designed to minimize slope damage. Upon approval of the permit by the Director, such approved written description shall be the enforceable means and method of the authorized development activities.

(2) Professional engineering. All structures within slope impact areas shall be designed by a licensed structural engineer or geotechnical engineer and must bear the engineers license seal on submitted drawings and specifications satisfying good engineering practices and the standards of this article, unless the Director otherwise waives in writing this requirement.

(3) Subsoil investigation. Every application for a development permit in the slope impact area shall be accompanied by a report, prepared by a licensed professional civil

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engineer or structural engineer trained and experienced in the practice of geotechnical engineering, which report shall include the following:

A. Soil types and subsurface materials. A description (the result of a thorough subsurface investigation using techniques such as borings, test pits, site tests, laboratory tests, or other procedures performed to a depth sufficient to determine foundation conditions for the proposed construction) of the soil and subsurface materials found on the subject site (with particular emphasis on the area to be impacted by the proposed development) to a depth extending below any proposed excavation as well as the engineering properties of the subsurface soil materials.

B. Observations. A description of existing observable slide areas, scarps, tension cracks, eroded areas, leaning trees, etc.

C. History. A historical review of bluff or ravine stability considering owner photographs, previous reports and topographic surveys; air photos, Corps of Engineers' studies, Village of Glencoe information, etc.

D. Drainage. A description of surface patterns of water flow and seeps as well as indication of the presence or absence of permeable zones in underlying soils.

E. Stability. A geotechnical stability analysis of the slope and structure with factors of safety calculated for the existing and proposed conditions by a method that satisfies both force and moment equilibrium for long-term and short-term soil strength parameters.

F. External influences. A description of any existing or anticipated problems from undercutting at the base of a slope impact area caused by wave action, ravine flows, erosion, or channel changes.

G. Absence of special hazards. An opinion that the soil types, soil stability, subsurface hydrology, and external influences affecting the site will not cause any significant hazards for the proposed use; or if they may cause such hazards, an opinion that such hazards can be overcome, together with a reasonably detailed description of how it is proposed to overcome them.

(4) Grading plan. In addition to any other permit requirements, each application for a permit involving development under this article shall be accompanied by a grading plan, which plan shall include the following:

A. A topographic survey, showing property contours at one foot intervals for tableland and five foot intervals for steep slopes, including special notes and details of the existing terrain;

B. Proposed filling, grading, and earth moving details, including the dimensions, elevations, and contours of any proposed filling, grading, and earth moving;

C. A schedule of when each stage of the project will be completed, including the estimated starting and completion dates; and

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D. A provision requiring the placement of a temporary fence on the table land at the top edge of steep slope zone until construction is completed.

(5) Hydrological control plan. Applications for any development permits shall include a plan for intercepting and containing drainage at the site and from the structure.

(6) Vegetation plan. A vegetation plan, subject to the tree removal provisions of this Code (and particularly Article III of Chapter 34), shall be submitted with each application for a development permit, which plan shall include the following:

A. A description of proposed revegetation of disturbed areas, specifying the materials to be used;

B. A written description detailing methods of slope stabilization and revegetation, together with the rationale for selecting the plant materials and planting techniques proposed to be used; and

C. A timetable and sequencing program for implementing the vegetative plan.

(7) Additional submittals; waivers. The Director of Public Works may require additional plans as needed for review. The Director of Public Works may release an applicant from any element of the aforementioned plan submittals to the extent that the Director determines that such element(s) will not materially assist in the evaluation of the proposed action's impact on slope stability.

(b) Permit issuance; terms. Each permit application for development shall be made in compliance with the building code, the zoning ordinance, other applicable codes, ordinances, or regulations, including this article. The seal of an Illinois licensed structural or geotechnical engineer shall appear on all plans and specifications included as part of a permit application. Upon the Director determining that an application satisfies the requirements of this article, the Director shall cause a permit to be issued for development within the Slope Impact Area. The following provisions are to be imprinted upon each permit issued for any development activities authorized by the administration of this article and (whether so imprinted or not) shall be incorporated into and made a part of any such permit:

(1) Limited obligation. Compliance with the procedures of this article and the issuance of any related permits shall not be construed to impose any legal or other obligation upon the Village of Glencoe or its elected or appointed officials, employees, agents, attorneys, or representatives. Any permit issued pursuant to this article is for the benefit of the public and not for the benefit of any individual.

(2) Civil claims. Compliance with the procedures of this article and the issuance of related permits shall not relieve the permittee and the property owner from civil liability claims.

(3) Endorsement. Compliance with the procedures of this article and the issuance of related permits do not imply approval of the need for, or the benefit or efficacy of, the

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proposed development; nor does it constitute any assertion that the proposed development will not result in damage to the property in question or to adjoining property.

(4) Closing report. A licensed professional structural engineer or geotechnical engineer must inspect all work in the steep slope zone while in progress and, upon completion of the work, deliver to the director a written report bearing the engineer's license seal, stating that all development is in accordance with the approved plan and specifications for the project. Such a report must be delivered prior to the village's final inspection, acceptance, and closing of the project.

(c) Special terms. In connection with the issuance of a permit pursuant to this article, the Director may impose special conditions as deemed necessary to ensure the effectiveness of plans for development on a property, and to protect the long-term stability of a bluff or ravine, or otherwise to notify future owners of the bluff or ravine conditions of such property.

(Ord. No. 2013-13-3343)

§ 9-117 STABILITY OF THE STEEP SLOPES.

(a) General.

(1) In order to provide for long-term slope stability and to prevent failure of slope stability that may adversely impact neighboring properties, all property owners whose property includes or is adjacent to a slope impact area are required to comply with the provisions of this article.

(2) Any development within the slope impact area must meet all plan submittal requirements in accordance with this article.

(3) Private storm drainage lines conveying storm water runoff either to a public storm sewer or to the ravine channel or the toe of the bluff shall be maintained by the owner thereof. Private drainage lines which leak water onto the surface of a steep slope must be repaired within 30 days of notification by the village.

(4) Intentional depositing of lawn waste or other natural or man-made debris which may damage underlying vegetation or impede the free flow of water through channels within a slope impact area shall be prohibited.

(5) Any tree removal within the slope impact area shall be in accordance with the Article III of Chapter 34 (Tree Preservation) of this Code and the provisions of this article.

(6) No swimming pool discharge (emptying) shall be directed toward or directly discharged into a slope impact area.

(b) Maintenance and upkeep.

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(1) Any authorized structure in the slope impact area may be repaired, maintained, or altered but only in compliance with the Village Code and Zoning Code.

(2) Landscape maintenance or routine arboreal activities may be undertaken in the slope impact area.

(c) Restoration. All governmental entities, private property owners, and all other private entities having authorized access to ravine or bluff steep slopes and engaged in the maintenance, repair, or construction of utilities or other structures within a slope impact area, or engaged in any modifications to a steep slope, shall adhere to the applicable provisions of the Village Code, including this article, utilizing best management practices.

(d) Emergency activities. Nothing in this article shall prevent the village from permitting development activities on an emergency basis when deemed necessary by the Director to remediate an unstable or insecure slope that presents an immediate threat to health, safety, and welfare, or stability of an authorized building.

(1) Emergency development activity (including installation or construction of structures) shall only be permitted provided that the remedial action involves the least possible disruption of the natural features of the site as possible and is in conformance with the standards and policies of this article.

(2) Emergency development activity (including installation or construction of structures) shall only be permitted to provide remedial action that is the most reasonable action to address the emergency situation under the circumstances.

(Ord. No. 2013-13-3343)

§ 9-118 TREE REMOVAL IN THE SLOPE IMPACT AREA.

(a) All trees removed in the slope impact area shall comply with Chapter 34 of the Village Code.

(b) There may be cases when removal of a tree or tree stump may jeopardize slope stability. The Village Arborist shall review each tree permit in the slope impact area to determine whether the proposed removal of the tree will jeopardize slope stability and whether the proposed removal of the tree is consistent with good forestry practices.

(c) Tree replacement requirements shall be as set forth in Section 34-26 of the Village Code.

(Ord. No. 2013-13-3343)

§ 9-119 APPEALS OF DIRECTOR'S DECISIONS.

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(a) Any determination of the Director of Public Works under this article may be appealed to the Village Manager by filing a request for review in writing within 35 days after the Director issues his or her determination. Any decision of the Village Manager may be further appealed to the Board of Trustees of the village by filing a request for review in writing within 35 days after the Manager issues his or her decision. The decision of the Board of Trustees will be final.

(b) In reviewing the determination of the Director, the Village Manager or the Board of Trustees (as the case may be) will consider only whether the determination of the Director in applying the regulations of this article imposes an unreasonable and undue economic hardship that materially limits the property owner from making reasonable use of such owner's property or otherwise imposes requirements which are unreasonably burdensome to the property owner given the benefits thereof to the village. After receiving written submittals from the property owner and the Director (and after a hearing if the Manager or Board of Trustees determines that such a hearing will be instructive), a decision on such appeal must be issued in writing no more than 60 days after the delivery of the final submittal by the owner or Director or after the close of the hearing, whichever is later.

(c) In considering an appeal under this section, the Village Manager or Board of Trustees may reverse, affirm, or modify the determination of the Director, or remand the determination back to the Director for further consideration, with or without instructions.

(d) The Village Manager or Board of Trustees may issue further procedural rules governing appeals under this section.

(Ord. No. 2013-13-3343)

§ 9-120 ZONING VARIATIONS.

Nothing in this article is intended to limit the ability of an owner from seeking a variation from the otherwise applicable zoning regulations affecting such owner's property. To the extent that the regulations of this article materially restrict the ability of a property to be developed or materially increase the cost of such development, the Zoning Board of Appeals may determine that the effects of this article can, in appropriate circumstances, constitute a practical difficulty or unreasonable hardship.

(Ord. No. 2013-13-3343)

§ 9-121 ENFORCEMENT AND PENALTIES.

(a) For any property affected by the provisions of this article, the property owner, any developer, and their agents, employees, contractors, subcontractors, licensees, and invitees are each jointly and severally responsible for compliance with the terms of this article.

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(b) In the event any violation of any provision of this article occurs, the property owner shall be responsible for the violation, its correction, and for otherwise bringing the property into compliance with the terms of this article. Such compliance may require restoration of the site as closely as possible to its original undisturbed condition, topography, and/or vegetation in order to eliminate the violation.

(c) Whoever violates any provision of this article, or who shall interfere with the enforcement of the same, shall be fined in an amount of not less than \$50 nor more than \$750 per each violation of any section of this article. Every day that a violation continues shall be deemed a separate punishable violation.

(d) The village shall have the right to issue a stop work order for any work that is performed in the slope impact area either (i) without all permits that are required to this article or (ii) in violation of the permits so issued.

(Ord. No. 2013-13-3343)

§ 9-122 CORRECTIVE MEASURES.

In addition to the monetary penalties provided for herein, the village may apply to a court of competent jurisdiction for an order against the parties responsible to re-establish or restore the grade, slope, stability, vegetation, and/or drainage systems of a slope impact area in order to eliminate and/or prevent an adverse impact upon any adjacent or subservient property, and for such other and further relief as may be appropriate in the circumstances.

(Ord. No. 2013-13-3343)

§ 9-123 ADMINISTRATION; FEES; CONFLICTING REGULATIONS.

(a) Except as otherwise provided, the Director is hereby authorized and directed to prepare any necessary or desirable forms, practices, and procedures in order to implement the provisions of this article.

(b) As part of any application, and as a condition of any permit, an applicant shall be required to pay all fees and charges due under this article. The Village Board may from time-to-time establish and publish application, permit, and inspection fees in furtherance of the administration of this article. To the extent that the village incurs third-party expenses in connection with the administration of this article with respect to a particular application, such third-party expenses shall be additional fees chargeable to such application.

(c) To the extent that there are conflicting regulations in the village's building code or elsewhere in the Village Code, the provisions of this article shall control.

(Ord. No. 2013-13-3343)

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§ 9-124 EFFECTIVE DATE.

Nothing in this article shall be applied to prevent the completion, in accordance with previously issued permits or approvals, of any development that has received all required permits and approvals prior to April 18, 2013, provided that such development is completed in compliance with all such permits, approvals, and other requirements of law.

(Ord. No. 2013-13-3343)

HIGHLAND PARK - TITLE XV - LAND USAGE - Chapter 150 ZONING CODE
EXCERPTS

Chapter 150 ZONING CODE

ARTICLE II. INTERPRETATION AND DEFINITIONS - EXCERPTS

Sec. 150.201. Rules of Construction.

The language in the text of this Chapter shall be interpreted in accordance with the following rules of construction:

- (A) The singular number includes the plural number, and the plural the singular;
- (B) The word "shall" is mandatory; the word "may" is permissive; and
- (C) The masculine gender includes the feminine and neuter.

Sec. 150.202. Definitions.

Whenever in this Chapter the following words and phrases are used, they shall, for the purposes of this Chapter, have the meanings respectively ascribed to them in this Section, except when the context otherwise clearly indicates. Whenever in this Chapter other words are used, those other words shall have the meanings normally ascribed to them.

Bluff: An elevated segment of the Lake Michigan shoreline above the beach which normally has a precipitous front inclining steeply on the lakeward side.

Bottom, or Toe, Ravine Slope or Toe of Bluff Slope: The lowest elevation of soil grade adjacent to the base of a ravine or a bluff slope, as the case may be.

grass waterways). Additionally, development does not include fence installation, pole placement, drilling or other minor auxiliary construction activity which does not affect stormwater runoff rates or volumes as long as the development activity is not located in a Regulatory Floodplain, wetland or channel.

Environmentally Sensitive Area: An area with one or more of the following characteristics: (1) surface waters, including lakes, ponds, and streams; (2) steep slopes; (3) regulatory floodplain; (4) regulatory floodway; (5) hydric soils; (6) soils classified as subject to erosion; (7) stream corridors; (8) mature stands of native vegetation; (9) high quality aquatic resources; (10) habitats of endangered species and (11) Medium and High Priority Open Space Parcels identified in the North Branch of the Chicago River Open Space Plan.

IDNR/OWR: Illinois Department of Water Resources, Office of Water Resources, previously known as IDOT/DWR.

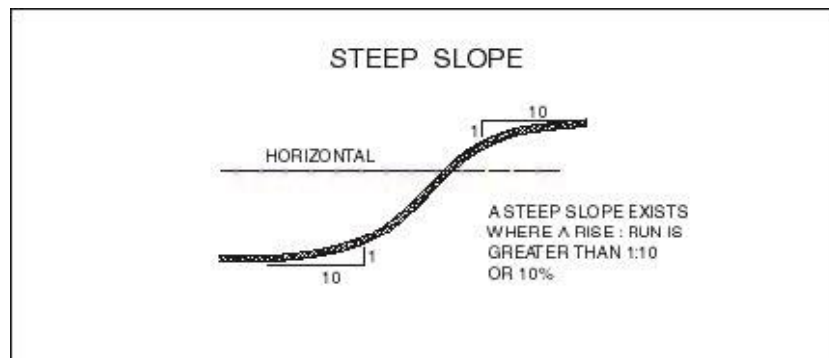
Ravine: A deep gully or gorge worn by the flow of water to Lake Michigan and designated by the City's Ravine Topography Map, dated October 19, 2005, as may be amended.

Regulatory Floodplain: Regulatory Floodplains may be either riverine or non-riverine depressional areas. Floodplain boundaries shall be delineated by projecting the base flood elevation onto the best available topography. A flood prone area is a Regulatory Floodplain if it meets any on the following descriptions:

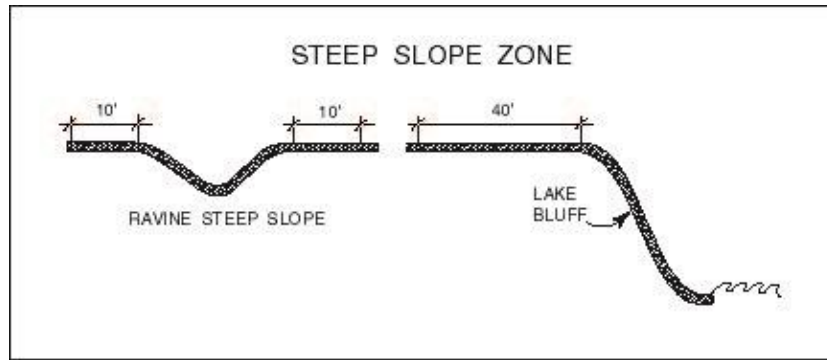
- a. Any riverine area inundated by the base flood where there is at least 640 acres of tributary drainage area;
- b. Any non-riverine area with a storage volume of 0.75 acre-foot or more when inundated by the base flood; or
- c. Any area indicated as a Special Flood Hazard Area on the FEMA Flood Insurance Rate Map and located with the best available topography to be inundated by the base flood.

Special Setback: The minimum distance between swimming pools and the nearest line of the steep slope zone.

Steep Slope: Land comprising or adjacent to a ravine or lake bluff where the slope in ascent or descent exceeds ten (10) percent from the horizontal.



Steep Slope Zone: All land which lies between the bottom of a ravine steep slope and a line being farthest from the bottom of a ravine steep slope and ten (10) feet from the top edge of a ravine steep slope; and all land which lies between the bottom of a bluff steep slope and a line being farthest from the bottom of a bluff steep slope and forty (40) feet from the top edge of a bluff steep slope.



Tableland: Land where the cross slope in any direction does not exceed ten (10) percent.

Top Edge (or Ridge) of Steep Slope: A line connecting the points at which tableland and a steep slope intersect.

Tree Removal Permit: That permit required by this Chapter to be issued in order to Remove:

1. Any Protected Tree within the corporate limits of the City; or
2. Any Tree in the Steep Slope Zone within the corporate limits of the City.

Waters of the United States: Those areas that are under the U.S. Army Corps of Engineers' jurisdiction.

Sec. 150.703.1. Special Regulations for the LFOZ Lakefront Density and Character Overlay Zone.

- (A) *Purpose.* The LFOZ Lakefront Density and Character Overlay Zone is intended to preserve the density and character of lots in the R4 Low-To-Moderate Density Residential District located along the lakefront. Lake Michigan and the parcels located along the lakefront are important elements in defining the City's character. Many of the parcels along the lakefront have lot areas that are substantially larger than the minimum lot area requirements of the R4 District. The LFOZ Overlay Zone is intended to preserve the spacious character and existing density of the area. The preservation and appropriate development of the lakefront area requires, with certain exceptions, the establishment of special lot width and lot area regulations for newly subdivided lots in the LFOZ Overlay Zone. These new restrictions recognize the existing conditions of many of the lakefront lots and require new development in the LFOZ Overlay Zone to be consistent with these existing conditions. The LFOZ Overlay Zone is intended to address, among other things, a recent development trend in the City to subdivide larger lots along the lakefront. These new lots are, in many cases, inconsistent with the existing conditions along the lakefront. In addition to protecting the character and density of the area, the LFOZ Overlay Zone is intended to protect and preserve the ravines, lake bluffs, and beaches in the area, as well as Lake Michigan itself, and to prevent unnecessary erosion of properties in the LFOZ Overlay Zone, that may be affected or caused by increased development, whether on lots in the LFOZ Overlay Zone or within the abutting portions of Lake Michigan. This Section is specifically intended to permit property owners within the LFOZ Overlay Zone to develop their properties and to construct structures on the beach and in Lake Michigan, as further set forth in this Section and in the most environmentally and ecologically sensitive manner possible. The LFOZ Overlay Zone is consistent with the goals of the Lakefront District Neighborhood Strategic Plan, an element of the Master Plan, which plan was adopted by the City Council after numerous neighborhood planning meetings at which lakefront property owners and other City residents participated. The LFOZ Overlay Zone has been created and shall be mapped on the Zoning Map in furtherance of these public purposes.
- (B) *Overlay Zone.* The LFOZ Overlay Zone appears on the Zoning Map as an "overlay zone" imposed on top of certain properties located along the lakefront in the R4 District. Development of property in the LFOZ Overlay Zone must comply with the regulations of the LFOZ Overlay Zone and with the R4 District regulations. Except as required by Subsection (C) of this Section, the R4 District regulations shall apply to all lots in the LFOZ Overlay Zone. Where there is any conflict between the LFOZ Overlay Zone and the R4 District, the provisions of the LFOZ Overlay Zone shall apply.
- (C) *Zoning Relief.* Nothing in this Section 150.703.1 shall be interpreted to deny the right of any property owner to seek a variation or other applicable zoning relief from the provisions of this Section, pursuant to the applicable procedures set forth in this Code.
- (D) *Special Bulk Regulations.*
- (1) *Minimum Area for Single-Family Residence.* Except only as provided in Paragraph (4) of this Subsection, no subdivision of any lot in the LFOZ Overlay Zone shall create any new lot that has a minimum area for a single-family residence of less than 40,000 square feet.
 - (2) *Average Width.* Except only as provided in Paragraph (4) of this Subsection, no subdivision of any lot in the LFOZ Overlay Zone shall create any new lot that has an average width of less than 100 feet.
 - (3) *Minimum Lot Area Per Dwelling Unit, Single-Family.* Except only as provided in Paragraph (4) of this Subsection, no subdivision of any lot in the LFOZ Overlay Zone shall create any new lot that has a minimum lot area per single-family dwelling unit of less than 40,000 square feet.

- (4) *Effective Date.* The special bulk regulations set forth in this Subsection (D) shall only apply to subdivisions for which a complete application is filed with the City after December 11, 2000, being the effective date of the LFOZ Overlay Zone and regulations (the "Effective Date")
- (5) *Exceptions.* The special bulk regulations set forth in this Subsection (D) shall not apply to any subdivision (i) that consists of a lot or lots the boundaries of which were described as property boundaries in a deed recorded prior to the Effective Date, or (ii) that results in the increase in size of any lot in the LFOZ Overlay Zone that, as of the Effective Date, was less than 40,000 square feet in size ("Existing Small Lot") and that does not result in the decrease in size of any other Existing Small Lot.

(E) *Lake Michigan Protection Regulations.*

- (1) *Definitions.* Wherever the following words or phrases are used, they shall, for the purposes of this Subsection 170.703.1(E), have the meanings respectively ascribed to them in this Subsection 170.703.1(E), except when the context otherwise indicates:

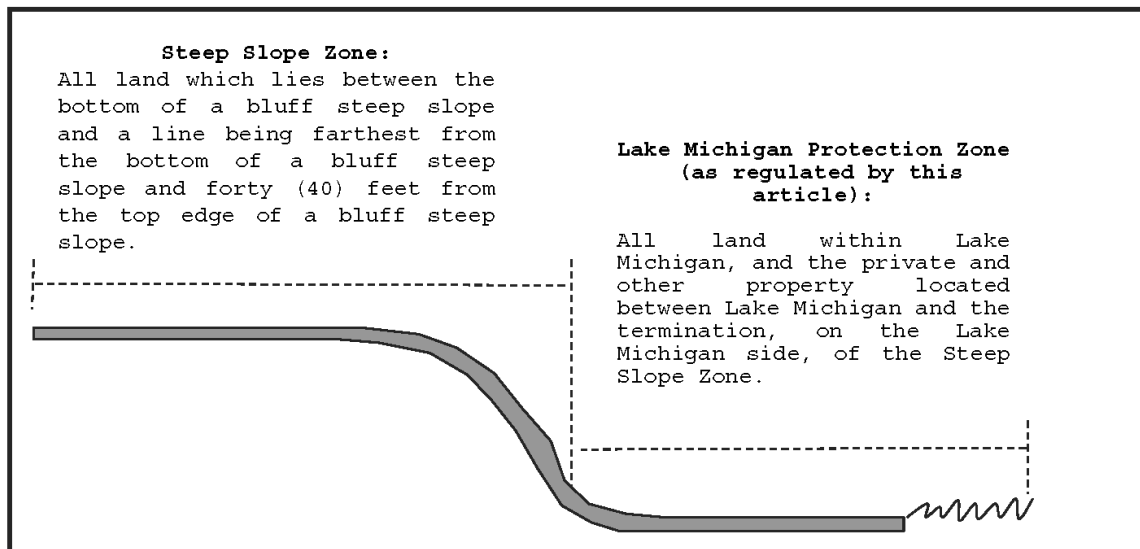
Adjacent Properties shall mean and include, whether or not located within the corporate limits of the City, (a) the first three properties located upwater from the subject property, and (b) the first ten properties located downwater from the subject property.

Applicant shall mean the record owner of the Subject Property.

Commission shall mean the Natural Resources Commission.

Lake Michigan shall mean that portion of Lake Michigan that borders the City of Highland Park, to the extent of three miles beyond the corporate limits, but not beyond the limits of the State.

Lake Michigan Protection Zone shall mean (a) Lake Michigan, and (b) the private and other property located between Lake Michigan and the termination, on the Lake Michigan side, of the Steep Slope Zone, as depicted below.



Permit Application shall mean the application for a building permit to conduct a regulated activity in the Lake Michigan Protection Zone, as required by Chapter 170 of this Code.

Regulated Activity shall mean any act or process within the Lake Michigan Protection Zone involving (1) the construction, alteration, modification, demolition, or removal of any new or existing Structure, or (2) the adding, dumping, dredging, or removing of sand, rocks, or any refuse, garbage, or other discarded materials.

Steep Slope Zone shall have the meaning ascribed to it by Section 150.202 of this Zoning Ordinance.

Structure shall mean any improvement or structure in the Lake Michigan Protection Zone, including, without limitation, any revetment or groin.

Subject Property shall mean the property within or abutting that portion of the Lake Michigan Protection Zone on which the proposed Regulated Activity is to take place.

- (2) *Review Prior to Building Permit Issuance.* Except as provided in subsections (E)(9) and (E)(11) of this Section, whenever an applicant submits a permit application to perform a regulated activity in the Lake Michigan Protection Zone, the procedures and requirements set forth in subsections (E)(4), (E)(5), (E)(6) and (E)(7) of this Section and the standards set forth in subsection (E)(3) of this Section apply in addition to the procedures and requirements of Chapter 170 of this Code.
- (3) *Standards.* In addition to the standards and requirements set forth in Chapter 170 of this Code, no building permit for a regulated activity in the Lake Michigan Protection Zone shall be approved unless all of the following standards have been met or satisfied, to the satisfaction of both the city's Building Official and the applicant's duly registered professional geologist, structural engineer or professional engineer, who must certify that the standards have been satisfied with his or her signature, date, and seal:
 - (a) The proposed regulated activity and/or structure shall not unreasonably impede access to or pedestrian movement along the beach or to Lake Michigan;
 - (b) The proposed regulated activity and/or structure shall not create new nor amplify existing erosion problems on the subject property and on adjacent properties;
 - (c) The proposed regulated activity and/or structure shall be for the purposes of erosion control, water gathering, and/or public access only;
 - (d) There will not be an unnecessary adverse environmental or ecological impact on the subject property or on any of the adjacent properties as a result of the proposed structure and/or the regulated activity; and
 - (e) The applicant has properly obtained any and all permits required by the federal, state, and county governments for the regulated activity and/or the structure.
- (4) *Additional Permit.* Application requirements for regulated activities.
 - (a) As part of a permit application for a regulated activity in the Lake Michigan Protection Zone, and in addition to any documents and information required by Chapter 170 of this Code, the applicant shall file the following documents and information with the Department of Community Development:
 - (i) A statement of the purpose and planning objectives to be achieved by the proposed Regulated Activity;
 - (ii) A plat of survey of the Subject Property;
 - (iii) A conceptual plan showing the Subject Property and the Adjacent Properties, including any and all existing Structures in the portion of the Lake Michigan Protection Zone abutting those properties;
 - (iv) Development and site plans showing the proposed Structure, if applicable;
 - (v) A demolition plan, if applicable;
 - (vi) An elevation plan, which shall include sectional views of the proposed Structure, if applicable;

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- (vii) Copies of any and all permits required by the federal, state, and county governments for the Regulated Activity and/or the Structure;
 - (viii) Engineering details of the proposed Structure and/or the Regulated Activity, which shall include, if applicable:
 - (A) The height, length, and width of the proposed Structure;
 - (B) The spacing between the proposed Structure and other Structures in the Lake Michigan Protection Zone abutting any of the Adjacent Properties; and
 - (C) The materials of which the proposed Structure will be composed;
 - (ix) A geo-technical investigation report of the site;
 - (x) A statement outlining structure success in various water levels;
 - (xi) A statement describing the long-term maintenance requirements and plan for the proposed Structure;
 - (xii) A written description of the proposed means and methods of undertaking the Regulated Activity;
 - (xiii) An explanation, in narrative form, of the following:
 - (A) Any and all erosion problems on the Subject Property for which the Structure and/or Regulated Activity is designed to correct or remedy;
 - (B) The environmental and ecological impact on the Property and the Adjacent Properties that are expected to result from the Structure and/or Regulated Activity;
 - (C) How the proposed Structure and/or Regulated Activity is the least environmentally and ecologically intrusive means of achieving the stated purpose; and
 - (D) The nature and composition of existing protections, including existing Structures, of the shoreline in that portion of the Lake Michigan Protection Zone abutting either the Subject Property or the Adjacent Properties, and the impact and effectiveness of those protections on the shoreline, the lakebed, and on erosion of the Subject Property and Adjacent Properties; and
 - (xiv) A non-refundable application fee, in the amount set forth in the City's Annual Fee Resolution.
- (b) All plans, specifications, and design analyses or calculations must be signed and sealed by a duly registered Professional Geologist, Structural Engineer or Professional Engineer experienced in the design and construction of shore and/or coastal facilities.
- (5) *Notice.*
- (a) Prior to the commencement of any regulated activity in the Lake Michigan Protection Zone:
 - (i) The applicant shall provide written notice of his or her filing of an application for a building permit to the owners of: (a) all lots or parcels of land within 100 feet of the subject property; (b) all adjacent properties; (c) all additional properties for which notice must be sent in connection with the issuance of a shore protection project permit by the Illinois Department of Natural Resources; and (d) all homeowners associations of which at least one owner of an adjacent property is a member and which have registered with the City as desiring notice pursuant to this subparagraph 150.703.1(5)(a)(i). The notice shall be in a

form approved by the City and shall be given by regular first class U.S. Mail. For purposes of this subsection, a notice addressed to the name and address on the most recent Lake County tax record shall be deemed sufficient. Further, for purposes of this subsection, a lot or parcel of land shall be deemed to "abut" the subject property if the lot or parcel of land shares a common boundary or point with the subject property, or is separated from the subject property by only a public or private right-of-way.

- (ii) The applicant shall file with the City, within 14 days after the filing of the permit application, written certification that the notice required by subsection 150.703.1(E)(5)(a)(i) has been properly mailed, in a form provided by the City. The City shall not process, and shall return to the applicant, any permit application for which such notice was not given or for which such certification was not filed as provided in this subparagraph 150.703.1(E)(5)(a). Nothing in this subparagraph shall be deemed as prohibiting the Director of Community Development from providing notice of a contemplated regulated activity that is not specifically covered or required by this subparagraph.
- (b) If, after a building permit is issued for a regulated activity, the applicant desires to make any significant changes to the permitted regulated activity, which changes are necessitated by on-site conditions not reasonably anticipated when the final engineering plan was submitted for review and approval by the Director of Community Development, the applicant must provide written notice in the same manner as, and in accordance with all requirements of, subparagraph 150.703.1(E)(5)(a).
- (6) *Public Safety Emergency Permits.* A permit for the removal or demolition of an existing Structure may be granted by the City Director of Public Works upon his or her determination that the structure poses an immediate threat to the public health, safety, or welfare. If the Director of Public Works makes such a determination, the provisions of subsections (E)(4), (E)(5), (E)(6), and (E)(7) of this Section shall not apply.
- (7) *Recordation.* The applicant shall cause to be recorded against the subject property, in the office of the Lake County Recorder, a restrictive covenant, requiring the applicant, and all of the applicant's transferees, heirs, assigns, and successors in interest to the subject property, to perform, at the applicant's sole cost and expense, all regular maintenance and upkeep of the structure.
- (8) *Partial Exemption for Structures Also Regulated Within The Steep Slope Zone.* The review and permitting processes set forth in Section 150.703.1(E) of these Lake Michigan Protection Zone regulations shall not be necessary if the proposed structure meets all of the following criteria:
 - (a) The proposed structure is of a type, other than fences, to which Section 150.1906(C) of the Steep Slope Zone regulations of this Zoning Code applies;
 - (b) The proposed structure is located in part in the Lake Michigan Protection Zone and in part in the Steep Slope Zone;
 - (c) The portion of the proposed structure that is located within the Lake Michigan Protection Zone is necessary to the structural or functional integrity of the structure as a whole;
 - (d) The proposed structure protrudes no further than 15 feet into the Lake Michigan Protection Zone; and
 - (e) The portion of the proposed structure that is located within the Lake Michigan Protection Zone is no larger than 75 square feet.

(Ord. 33-01, passed 5/29/01; Ord. 21-06, J. 32, p. 57-68, passed 3/13/06; Ord. 28-10, J. 36, p. 105-109, passed 3/22/10; Ord. 23-11, J. 37, p. 117-120, passed 2/28/11; Ord. O30-2020 , § 2, passed 2/24/20)

ARTICLE XIX. STEEP SLOPE ZONE¹

Sec. 150.1901. Introduction

The topography of the City of Highland Park is occupied by an abundance of ravines and bluffs. These areas exhibit steep slopes which may contain unstable sediment, rock and soils. Development on potentially unstable soils or other rock can be hazardous to life and property. Development in these areas should utilize construction methods which minimize the impact upon or removal of vegetation, including Trees, and ensure slope stabilization and minimize erosion.

The City's ravines and bluffs are valuable scenic resources which should be preserved and the steep slopes associated with these areas should be protected in order to preserve the City's unique visual setting, promote its economic well-being, and encourage architectural splendor.

Regulating the intensity of development according to the natural characteristics of steep slope terrain, such as degree of sloping, significant vegetation, and soil stability and existing drainage patterns, will allow for suitable development while minimizing the physical impact of such development on sensitive ravine and bluff steep slope areas.

(Ord. 38-01, J. 27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

Sec. 150.1902. Statement of Purpose.

- (A) The ravine and coastal steep slopes are an inherent natural resource which imparts a unique and substantial character to the City of Highland Park. This unique character has a direct relationship to property values, not only for Lots containing or adjacent to ravine and bluff steep slopes, but for Lots throughout the City. It is vital to understand that these steep sloped areas are interdependent throughout their reaches. Erosion, slope failures, and loss of vegetation along one portion of a slope can have an adverse impact upon adjacent sloped areas. Because these areas may be abused (intentionally or unintentionally) so as to create conditions which jeopardize property values and the natural ecosystem, appropriate controls are necessary. Thus, it is the intent of this Article to ensure that all land use and development controlled by this Article:
- (1) Protects people and property from the potentially hazardous geological and hydrological conditions characteristic of ravine and bluff areas;
 - (2) Recognizes and furthers maintenance of stable ecological relationships and minimizes environmental degradation of the land and Lake Michigan;
 - (3) Recognizes that construction should not contribute to erosion or slope destabilization; and
 - (4) Utilizes building techniques that adhere to the criteria stipulated in this Article.
- (B) The regulations set forth in this Article provide for the reasonable use of steep slope areas and related lands while protecting the public health, safety, and welfare by:

¹Editor's note(s)—Article XIX amended in toto by Ord. 38-01, J. 27, p. 146-167, passed 6/25/01.

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- (1) Requiring analysis to determine whether certain types of soil conditions exist (such as loose or easily eroded or rocky soils) and ensuring the utilization of appropriate engineering technology to result in stable slopes during and subsequent to development;
 - (2) Reducing storm water runoff, soil erosion, and mud slides by minimizing grading, encouraging the preservation of Trees and other vegetation and, where necessary, requiring revegetation ;
 - (3) Permitting intensity of development compatible with the natural characteristics of steep slope terrain, such as degree of sloping, soil suitability and existing natural and man-made drainage patterns;
 - (4) Preserving the scenic quality of the ravine and bluff environment through the retention of dominant steep slopes and ridges in their natural state;
 - (5) Reducing the physical impact of top of slope and bluff development by encouraging innovative site and architectural design, minimizing grading and requiring restoration of graded areas; and
 - (6) Discouraging development in steeply sloped terrain.

(Ord. 38-01, J. 27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

Sec. 150.1903. Aesthetic and Safety Control of Steep Slopes

As set forth above, this Article has as its purpose protection of public health and safety by attempting to prevent erosion and protecting the aesthetics of ravines and bluffs through the regulation and management of the Steep Slope Zone. It is not the intent of this Article to remove areas of use nor is it the purpose of this Article to increase development costs.

- (A) Earth Moving and Construction in the Steep Slope Zone. Except as set forth in this Article, no earth moving shall occur in a Steep Slope Zone, including earth moving associated with permitted construction outside of the Steep Slope Zone, and no structures shall be constructed in a Steep Slope Zone. In addition, whenever there is construction upon property abutting a Steep Slope Zone, a fence must be erected temporarily along the edge of the Steep Slope Zone, during any construction and/or demolition activity upon such property.
- (B) Geotechnical Characteristics. All proposed structures shall be designed in a manner consistent with sound engineering and geological principles. In the design of the stability of all proposed structures, consideration shall be given to the effect of undercutting at the base of steep slopes or bluffs caused by wave action, storm water flow, erosion and/or channel changes. The design of all proposed structures shall comply with the applicable provisions of this Code, including, without limitation, Chapter 170 of this Code.
- (C) Basic Technical Standards. All land use and development controlled by this Article shall be judged by the application of the following basic standards of landscape planning, soil mechanics engineering, hydrology, geology, environmental design and architecture. These standards are supplemented elsewhere in this Article.
 - (1) Planning development to recognize and fit the natural topography, soils, geology, hydrology and other existing conditions on the proposed sites.
 - (2) Orienting development so that earth moving, landscaping and other site preparation is kept to an absolute minimum.
 - (3) Preserving and enhancing the landscape through minimized disruption of natural terrain and existing vegetation.
 - (4) Minimizing disruption or alteration of natural drainage ways.

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- (5) Minimizing the time in which areas are bare and exposed.
 - (6) Minimizing the amount of impervious surface to be placed on the tableland adjacent to steep slopes.
 - (7) Designing and properly locating structures so that structure weight does not jeopardize slope stability.

(Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

Sec. 150.1904. Special Setbacks.

Swimming pools are prohibited within ten (10) feet of the Steep Slope Zone. However, at or above grade pool decks and patios may extend into this special setback; but in no case shall these structures encroach upon or extend into the Steep Slope Zone, except to the extent permitted under the terms of Section 150.1906 of this Article.

Sec. 150.1905. Maintenance of the Steep Slope Zone.

(A) *General.*

- (1) Owners of ravine or bluff steep slope real estate shall have and properly maintain storm drainage lines conveying storm water runoff either to a public storm sewer or to the ravine channel. Owners of steep slope real estate shall, within 30 days after receipt of notice from the City, repair private drainage lines which leak water onto the surface of a steep slope. Owners of steep slope real estate shall also remove dumped lawn waste or other natural or man-made debris which may damage underlying vegetation or impede the free flow of water through channels. However, naturally fallen Trees which are not impeding the free flow of water need not be removed.
- (2) No Tree, Shrub, Herbaceous Plant or Tree Stump shall be Removed from within the Steep Slope Zone except in accordance with Section 150.1909 of this Article.
- (3) Swimming pool discharge (emptying) shall be in compliance with the provisions of Chapter 171 of this Code.

(B) *Restoration.* All governmental entities, private property owners, and all other private entities having authorized access to ravine or bluff steep slopes and engaged in the maintenance, repair, or construction of utilities or other structures within a Steep Slope Zone, or engaged in any modifications to a steep slope, shall adhere to the applicable provisions of this Chapter, including, without limitation, this Article.

(C) *Protection.* Prior to the recordation of a plat of subdivision, the City Council may require covenants placed upon such plat as may be necessary to ensure the long-term maintenance of the above-described slope control measures.

(Ord. 43-98, J. 24, passed 6/9/98; Ord. 38-01, J. 27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 75-14, J. 40, p. 212-219, passed 07/28/14)

Sec. 150.1906. Exemptions.

Within the Steep Slope Zone, the following structures may be constructed and rebuilt and the following activities are permitted:

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- (A) Provided a building permit has been issued by the Director in accord with the terms of this Article, retaining walls and other structures which are necessary for slope stabilization may be constructed in the Steep Slope Zone in the manner approved by the Director, and in accordance with the following:
- (1) Structures that exceed 60 inches in height shall be constructed of concrete block, reinforced concrete, or steel pilings.
 - (2) The design of all retaining walls and structures shall be certified by a licensed professional civil or structural engineer.
- (B) Legal non-conforming structures may be remodeled or rebuilt in the Steep Slope Zone if (i) the rebuilt or remodeled structure does not extend beyond the previously-existing footprint of the structure within the Steep Slope Zone, (ii) the applicant can provide proof satisfactory to the Director of the location of the previous legal non-conforming structure, and (iii) the applicant has been issued a building permit within one year after the date on which the structure was damaged or demolished. All such remodeling or rebuilding shall comply with the following:
- (1) Any retaining wall must be constructed of concrete block, reinforced concrete or steel pilings if it (a) is located in the Steep Slope Zone, (b) is greater than 60 inches in height, and (c) has 30 percent or more of its face area replaced as a result of routine maintenance or incidental repair; and
 - (2) The design of all rebuilt or remodeled structures shall be certified by a licensed professional civil or structural engineer.
- (C) The installation of mechanical or electrical lifts, bridges, walkways, steps, and/or fences which do not obstruct the flow of light and water, and utility service lines, in the manner approved by the Director and subject to conformance with the standards and policies of this Chapter. Stairs constructed in the Steep Slope Zone shall be no greater than five feet in width. Landings constructed in the Steep Slope Zone shall be no wider than five feet and of a total area no greater than 50 square feet. No fence shall be constructed across the channel of a ravine and, when constructed within a ravine, such fence shall be set back at least 10 feet from the bottom or toe of the ravine slope.
- (1) The height and profile of such structures shall be minimized to the maximum extent possible.
 - (2) A landing, for purposes of this Article, is defined as an intermediate platform on a flight of stairs, greater than 10 square feet, constructed for the purpose of allowing a change in stair direction down the Steep Slope Zone and/or to break up a sequence of 10 or more stair steps.
- (D) Immediate action may be taken to remediate an unstable or insecure slope that poses an imminent menace to an authorized structure or to the health, safety, or welfare of the public or nearby property if, in the opinion of the Director, an emergency situation exists and the Director has issued a permit to remedy the emergency situation. Any remedial action undertaken pursuant to this Section 150.1906(D) shall involve the least possible disruption of the natural features of the site and shall be in conformance with the standards and policies of this Chapter, including this Article, to the maximum extent possible.
- (E) Normal landscape maintenance or routine arboreal activities, including small scale planting of ornamental flowers or shrubs, and/or the removal of diseased, dead or damaged Trees, provided such activities shall be carried out in conformance with the standards of vegetation or revegetation set forth in this Article, including, without limitation, the processes set forth in Section 150.1909 of this Article.
- (F) Upon the issuance of all permits required pursuant to this Code, decks and patios having a total ground cover area not exceeding 150 square feet may be located within the Steep Slope Zone between the top edge and the ten foot Steep Slope Zone setback line for ravines and between the top edge and the forty foot Steep Slope Zone setback for bluffs. In no event shall the total area of such decks and patios

in the Steep Slope Zone upon any Lot of Record exceed 300 square feet. Accessory structures other than decks and patios may not be located in the Steep Slope Zone except upon the granting of a variation therefor, in accordance with and pursuant to Article XII and Section 150.1912 of this Chapter

(Ord 94-99, adopted 11/8/99; Ord. 11-03, J. 29, p. 38-40, passed 1/27/03; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

Sec. 150.1907. Required Plans - Review Required.

Every application for a building permit or for a variation from the provisions of this Article shall be accompanied by the following plans and reports which must be submitted to and approved by the Director prior to issuance of any permit for construction, demolition, or earth moving within the Steep Slope Zone and/or within ten (10) feet of the Steep Slope Zone.

- (A) *Means and Methods of Construction.* Because work to be performed in the Steep Slope Zone may have adverse impacts on steep slopes, all permit applications shall contain a written description of the proposed means and methods of accomplishing such work, which means and methods shall be carefully selected to minimize slope damage. Upon approval of the building permit by the Director, such written description shall be the enforceable means and method of construction.
- (B) *Report and Subsoil Investigation.* Every application for a building permit for construction or earth moving in the Steep Slope Zone and/or within ten (10) feet of the Steep Slope Zone shall be accompanied by a report, prepared by a licensed professional civil engineer or structural engineer, trained and experienced in the practice of geotechnical engineering, which report shall include the following:
 - (1) *Soil Types and Subsurface Materials.* A description (the result of a thorough subsurface investigation using techniques such as borings, test pits, in situ tests, laboratory tests or other procedures performed to a depth sufficient to determine foundation conditions for the proposed construction) of the soil and subsurface materials found on the subject site to a depth extending below any proposed excavation, as well as the engineering properties of the subsurface soil materials.
 - (2) *Stability.* A description of the stability of surface patterns of water flow, as well as indication of the presence or absence of permeable zones in underlying soils.
 - (3) *External Influences.* A description of any existing or anticipated problems from undercutting at the base of steep slopes caused by wave action, ravine flows, erosion or channel changes.
 - (4) *Absence of Special Hazards.* An opinion that the soil types, soil stability, subsurface hydrology, and external influences affecting the site will not cause any significant hazards for the proposed use; or if they may cause such hazards, an opinion that such hazards can be overcome, together with a reasonably detailed description of the method proposed to overcome such hazards.
- (C) *Earth Moving Plan.* In addition to the requirements for an earth moving permit as set forth in this Code, each application for a building permit pursuant to this Article shall be accompanied by an earth moving plan, which plan shall include the following:
 - (1) A topographic survey, showing property contours at one foot intervals for tableland and five (5) foot intervals for steep slopes, including special notes and details of the existing terrain;
 - (2) Proposed earth moving details, including the dimensions, elevations, and contours of any proposed earth moving;

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- (3) A description of the methods to be employed in disposing of soil and other material removed, including the location of the disposal site;
 - (4) A time-table of when each stage of the project will be completed, including the estimated starting and completion dates; and
 - (5) A provision requiring the placement of a temporary snow fence on the tableland at the top edge of the Steep Slope Zone until construction is completed.
- (D) *Hydrological Control Plan.* Construction documents shall include a plan for intercepting and containing drainage at the site and from the structure.
- (E) *Vegetation Plan.* A vegetation plan, subject to the provisions of Section 150.1909 of this Article, prepared or approved in writing by a landscape professional trained and experienced in both the characteristics of plant material and proper procedures for installation, shall be submitted with each application for a building permit, which plan shall be consistent with all rules and regulations promulgated pursuant to Section 150.1909(G) of this Chapter, and shall include the following:
- (1) An inventory describing the existing floral and Tree cover of the site, including identification of Undesirable Species and Protected Trees, as these terms are defined in Article II of this Chapter, showing those areas where the vegetation will be removed as part of the proposed development;
 - (2) A description of proposed revegetation of disturbed areas, specifying the materials to be used;
 - (3) A written description detailing methods of slope stabilization and revegetation, together with the rationale for selecting the plant materials and planting techniques proposed to be used; and
 - (4) A maintenance guideline, instructing steep slope owners of necessary actions to be taken following construction and/or earth moving in order to maintain plantings in good and serviceable health.

(Ord. 38-01, J. 27, p. 146-167, passed 6/25/01; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 75-14, J. 40, p. 212-219, passed 07/28/14)

Sec. 150.1908. Development Standards.

During construction and/or earth moving within the Steep Slope Zone, the permittee shall adhere to the following standards:

- (A) *Hydrological Controls.*
- (1) *Natural Channels.* Natural drainage ways shall be preserved to the maximum extent possible.
 - (2) *Controlled Run-Off.* Whenever stormwater is transported across a property for discharge into a Steep Slope Zone, the conveyance pipes shall be of a non-segmented (continuous), smooth walled material, to be installed below ground by directional boring whenever possible.
 - (a) No pipe shall be installed within a Steep Slope Zone by excavating a trench unless approved by the City Engineer or Director.
 - (b) Flexible corrugated pipes shall not be used in the Steep Slope Zone unless directional boring is found to be infeasible in the sole determination of the Director, in which case an alternate method must be approved by the Director.
 - (3) *Interceptor Ditches.* When sound professional engineering practice dictates and when required by the Director, interceptor ditches shall be established above steep slopes in order that soil shall not become saturated and the intercepted water shall be conveyed in a pipe or other approved

manner to a municipal storm sewer system, if available, or to the bottom of ravine or bluff slopes in a manner designed to prevent erosion.

- (4) *Discharge Point Stabilization.* Natural drainage ways shall be stabilized by landscape integration and rip-rap or other means consistent with sound professional engineering practice, to a distance below drainage and culvert discharge points sufficient to convey the discharge without channel erosion and in such a manner as to dissipate the energy of the discharge. Discharge must be into an energy dispersion device as approved by the Director.
 - (5) *Early Completion.* The overall drainage system shall be completed and made operational at the earliest possible time during construction.
 - (6) *Impact on Adjacent Property.* The natural or usual flow of surface or subsurface water shall not be altered or obstructed in any way by grade changes that may adversely affect the property of another by either contributing to pooling or collection of waters or to the concentration or intensification of surface water discharge. However, construction which might otherwise be prohibited pursuant to this Section 150.1908(A)(6) may be allowed if such waters are properly drained by a pipe or other approved manner to a municipal storm sewer system, if available, or to the bottom of ravine or bluff slopes.
- (B) *Vegetation and Revegetation.*
- (1) *Native Vegetation.* Every effort shall be made to maintain native vegetation in the Steep Slope Zone.
 - (2) *Smallest Area.* At all times, the smallest practical area of raw soil shall be exposed for as short a duration of time as practical. When sound professional engineering practice dictates and when required by the Director, temporary vegetation, or other acceptable cover shall be used to protect areas of raw soil exposed during development and to prevent airborne or waterborne transportation of soil.
 - (3) *Revegetation.* A mixed planting of native perennial grasses and woody species with deep root systems shall be used to landscape steep slope areas disturbed by construction, demolition, and/or earth moving.
- (C) *Earth Moving.*
- (1) *Minimum Alterations.* Earth moving shall be limited to the minimum required for building foundations, driveways, drainage control structures, and immediate yard areas. With the exception of conservation or restoration efforts, substantial earth moving shall not be permitted and is prohibited.
 - (2) *Erosion Control.* All earth moving shall be accomplished in a manner which will create the lowest possible potential for airborne or waterborne transportation of soil.
 - (3) *Soil Fill on Steep Sloped Land.* All fill on steep sloped land is prohibited, other than back-fill which is determined by the Director to be necessary for slope stabilization.
 - (4) *Soil Fill on Tableland.* In conformance with generally accepted engineering standards, all fill on tableland shall be stabilized to at least ninety (90) percent of maximum density as determined in ASTM procedure D-1557 or equivalent.
 - (5) *Prompt Completion.* All earth moving shall be accomplished in the shortest practical period of time. All excavated material shall be removed from the Steep Slope Zone and no temporary or permanent material storage shall be permitted within the Zone. No existing natural vegetation shall be destroyed, removed or disturbed prior to the initiation of construction, demolition, or earth moving activities.

Sec. 150.1909. Removal or Damage of Trees in the Steep Slope Zone

- (A) *General.* It shall be unlawful to Remove or perform any act that results in the death, likely death, loss in value, loss in aesthetic value or substantial destruction of any Tree, Shrub, Herbaceous Plant, or Tree Stump in the Steep Slope Zone, including, without limitation, any actions that may cause a Tree to become diseased or hazardous to persons or property, as determined by the City Forester or his or her designee, without first obtaining a Removal Permit issued by the City Forester.
- (B) *Application for a Removal Permit.* Except as provided in Section 150.1909(F) of this Chapter, any person wanting to Remove any Tree, Shrub, Herbaceous Plant, or Tree Stump from the Steep Slope Zone shall prepare and submit an application for a Removal Permit with the City Forester. All applications for a Removal Permit shall comply with the following;
- (1) *Trees, Shrubs and Herbaceous Plants.* An application for the removal of any Tree, Shrub, or Herbaceous Plant shall include the applicable Removal Permit fee, as set forth in Section 150.1909(B)(3) of this Chapter, and a vegetation plan prepared in accordance with Section 150.1907 of this Article. The City Forester shall issue a Tree Removal Permit upon a determination that:
 - (a) Sufficient proof has been provided by a certified arborist or a landscape professional trained and experienced in steep slope vegetation management that the existing canopy in the Steep Slope Zone is too dense to permit the growth of understory vegetation on the slope;
 - (b) The proposed removal of the Tree, Shrub, or Herbaceous Plant, and the vegetation plan, are consistent with good forestry practices, including means and methods intended to improve the stability of steep slope terrain and remove invasive species, provided removal does not reduce the tree crown cover on the slope to less than 40 percent; and
 - (c) The proposed removal is, in the sole determination of the City Forester, consistent with; (i) the rules and regulations promulgated pursuant to Section 150.1909(G) of this Chapter; and (ii) the purpose and standards of this Article.
 - (2) *Tree Stumps.* An application for the removal of a Tree Stump shall include a description of procedures that will be used to prevent soil erosion in the area from which the Tree Stump is to be removed. Such procedures shall include replacement of soil and replanting of plant species that will secure the soil and prevent soil erosion. The City Forester shall issue the Removal Permit if he determines that the procedures to be used will adequately prevent soil erosion in the area where the Tree Stump is to be removed.
 - (3) *Permit Fees.* The fee for a Removal Permit issued pursuant to this Section 150.1909(B) shall be as follows:
 - (a) For non-Invasive Trees: The fee shall be in the amount set according to Chapter 94 of this Code.
 - (b) For non-Invasive Shrubs and Herbaceous Plants:
the fee shall be in the amount set forth in the Annual Fee Resolution.
 - (c) For Tree Stumps and for Invasive species and plant materials; there shall be no fee.
- (C) *Replacement of Trees Removed with a Permit.*
- (1) Except as provided in Section 150.1909(C)(2) of this Chapter, each Tree authorized to be Removed, pursuant to this Article, shall be replaced with replacement Trees, the species of which shall be included in the vegetation plan previously approved by the City Forester, having a combined six (6) inch caliper and no individual replacement Tree being less than one and one-half inches (1-½") caliper. All

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- such replacement Trees shall be planted on the same Lot from which the Tree has been Removed in accordance with the vegetation plan. Such replacement shall be made within six (6) months of the date of issuance of the Removal Permit. An extension of time may be granted by the City Council upon request, provided, however that no such extension shall exceed twelve (12) months from the date of issuance of the Removal Permit.
- (2) The tree replacement requirement set forth in Section 150.1909(C)(1) of this Chapter shall not apply in the following circumstances:
- (a) If the City Forester determines that the required replacement of Trees would result in unreasonable crowding of Trees upon the Lot, affecting the growth and survivability of existing understory vegetation, the permittee shall pay the City a fee in lieu of making such replacement, as set forth in Section 94.403(C)(6) of the City Code.
 - (b) Removal of Trees performed in conjunction with the implementation of a Vegetation Plan prepared in compliance with Section 150.1907(E) of this Chapter and approved by the City Forester.
 - (c) Removal of Invasive Trees.
- (D) *Removal of any Tree, Shrub, Herbaceous Plant, or Tree Stump Without a Removal Permit.*
- (1) Any person found to have Removed any Tree, Shrub, Herbaceous Plant, or Tree Stump without a Removal Permit issued by the City Forester shall be required to:
- (a) Prepare and implement a vegetation plan, in accordance with Section 150.1907 of this Article; and
 - (b) Pay a fee at the rate set forth in the Annual Fee Resolution for the review and approval of such Vegetation Plan.
- (2) Where a person has Removed a Tree without a Removal Permit, in addition to complying with Section 150.1909(D) (1) of this Article, such person shall be required to replace each Tree so Removed with replacement Trees having a combined six (6) inch caliper and no individual replacement Tree being less than one and one-half inches (1-½") caliper. In addition, the following requirements shall apply:
- (a) Replacement Trees shall be planted in the Steep Slope Zone of the same Lot from which Trees have been Removed.
 - (b) If the City Forester determines that the required replacement of Trees would result in unreasonable crowding of Trees upon the Steep Slope Zone of the Lot, affecting the growth and survivability of existing understory vegetation, then either: (i) such replacement Trees shall be planted elsewhere on the Lot from which the Tree has been Removed; or (ii) Shrubs and/or Herbaceous Plants shall be planted on the Lot, upon prior written approval of the City Forester.
 - (c) No fee in lieu of replacement shall be allowed for Trees Removed from the Steep Slope Zone without a Tree Removal Permit.
- (E) *Tree and Tree Stump Removal, Replacement and Restoration.*
- (1) Any damage done to the Steep Slope Zone during Tree, Shrub, Herbaceous Plant, or Tree Stump Removal and replacement must be restored in accordance with the vegetation plan and the provisions of this Article.
- (2) No machinery that cannot otherwise be carried by a person shall be used in the Steep Slope Zone for the removal or planting of any Trees, or in associated restoration activities.
- (F) *Exempt Activities.* This Section 150.1909 shall not be deemed or construed as prohibiting or limiting any of the following activities:

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- (1) Seasonal collection of leaves;
 - (2) Prescribed burning of plant materials, upon prior written approval of the City Fire Department;
 - (3) Pruning of Shrubs;
 - (4) Pruning of Trees, if performed in accordance with the standards set by the International Society of Arboriculture;
 - (5) Control or removal of Herbaceous Plants identified as "invasive" in the rules and regulations promulgated pursuant to Section 150.1909(G) of this Chapter;
 - (6) Removal of fallen dead woody debris;
 - (7) Removal of buckthorn with Stump treatment (but not including Tree Stump removal); and
 - (8) Planting of vegetation.
- (G) *Promulgation of Rules.* The City Manager is hereby authorized and directed to promulgate such rules and regulations, in consultation with the City Forester, as may be necessary for the implementation of this Section 150.1909. The rules and regulations promulgated pursuant to this Section 150.1909(G) shall include, without limitation, the following: (1) classification of plant materials according to whether such materials are native to the City, whether they are threats to the viability of native species, and similar considerations; (2) guidelines for review and approval of Removal Permits, in accordance with the classification of plant materials; and (3) recommendations for responsible Steep Slope Zone land management.
- (H) *Definitions.* For purposes of this Section 150.1909 only, the following terms have the following meanings, except when the context clearly indicates otherwise:
- (1) *Herbaceous Plant* shall mean an annual, perennial or biennial plant without a woody stem that seasonally dies down to the soil level.
 - (2) *Invasive* means a species or plant material identified as "invasive" in the rules and regulations promulgated pursuant to Section 150.1909(G) of this Chapter.

(Ord. 38-01, J. 27, p. 146-167, passed 6/25/01; Ord. 35-03, J. 29, p. 134, passed 05/27/03; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 28-10, J. 36, p. 105-109, passed 3/2/10; Ord. 75-14, J. 40, p. 212-219, passed 07/28/14)

Sec. 150.1910. Permits.

- (A) Each application for a building permit (which includes demolition and earth moving) shall be made in compliance with this Chapter, including this Article, and Chapter 170 of this Code. The seal of an Illinois licensed professional civil or structural engineer shall appear on all plans and specifications pursuant to which any building permit is issued for construction within the Steep Slope Zone and/or within ten (10) feet of such Steep Slope Zone. In addition, the following provisions shall be imprinted upon any building permit issued for any construction, demolition, or any earth moving activities authorized by the administration of this Article:
- (1) *Limited Obligation.* Compliance with the procedures of this Article and the issuance of any related permits shall not be construed to impose any legal or moral obligation upon the City of Highland Park or its elected or appointed officials.
 - (2) *Civil Claims.* Compliance with the procedures of this Article and the issuance of related permits shall not relieve the permittee and the property owner from civil liability claims by other property owners.
 - (3) *Endorsement.* Compliance with the procedures of this Article and the issuance of related permits do not imply approval of the need for or the benefit or efficacy of the proposed construction; nor does it

constitute any assertion that the proposed construction will not result in damage to the property in question or to adjoining property.

- (B) *Closing Certification and Report.* A licensed professional civil or structural engineer must inspect all work in the Steep Slope Zone while in progress, and provide certification and a written report stating that all construction is in accordance with the approved plan and specifications for the project prior to the City's final inspection, acceptance and closing of the project.

(Ord. 26-08, J. 34, p. 050-068, passed 4/14/08)

Sec. 150.1911. Appeals.

Any decision or ruling of the Zoning Administrator that is made in interpreting, applying, and/or enforcing the regulations contained in this Article may be appealed in accordance with and pursuant to Article XIII of this Chapter. The Zoning Board of Appeals, upon receipt of a notice of such an appeal, and prior to deciding the appeal, shall refer the matter to the Natural Resources Commission for its review and report to the Zoning Board of Appeals.

(Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 23-11, J. 37, p. 117-120, passed 2/28/11)

Sec. 150.1912. Reserved.

Editor's note(s)—Ord. O29-2020, § 2, passed Feb. 24, 2020, repealed § 150.1912 which pertained to variations and derived from Ord. 94-99, passed Nov. 8, 1999; Ord. 26-08, J. 34, p. 050-068, passed April 14, 2008; and Ord. 23-11, J. 37, p. 117-120, passed Feb. 28, 2011.

Sec. 150.1913. Enforcement and Penalties.

- (A) Both the developer and the property owner, their agents, employees, contractors, subcontractors, licensees, and invitees are responsible for compliance with the terms of this Article.
- (B) In the event any violation of any provision of this Article occurs, the property owner shall be responsible for correcting the violation and bringing the property into compliance with the terms of this Article. Such compliance may require restoration of the site as closely as possible to its original undisturbed condition, topography, and/or vegetation in order to eliminate the violation.
- (C) The City shall have the right, but not the obligation, to issue a stop work order, in accordance with Chapter 170 of this Code, for any work that is performed in the Steep Slope Zone without all permits that are required pursuant to this Article.
- (D) Whoever violates any provision of this Article, other than Section 150.1909, or who shall interfere with the enforcement of the same, shall be fined in accordance with Section 150.112 of this Code. Every day on which such violation occurs, or on which the enforcement of any provision of this Article other than Section 150.1909 is interfered with, until a work plan is approved and a permit is issued, shall be considered a separate and distinct offense.
- (E) Whoever violates any provision of Section 150.1909, or who shall interfere with the enforcement of the same, shall be fined in the amount set forth in the Annual Fee Resolution for each such violation. A separate and distinct violation shall be deemed to have occurred for: (1) each Tree, Shrub, Herbaceous Plant, or Tree Stump Removal from the Steep Slope Zone without a Removal Permit issued by the City Forester; and (2) each day that such violation exists, or on which the enforcement of Section 150.1909 is interfered with, until a work plan is approved and a permit is issued.

(Ord. 38-01, J. 27, p. 146-167, passed 6/25/01, Ord. 11-03, J. 29, p. 38-40, passed 1/27/03; Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 33-14, J. 40, p. 99-102; Ord. 75-14, J. 40, p. 212-219, passed 07/28/14)

Sec. 150.1914. Corrective Measures.

In addition to the monetary penalties provided for herein, the City may apply to a court of competent jurisdiction for an order upon the parties responsible to re-establish or restore the grade, slope, stability, vegetation, and/or drainage systems of a steep slope property in order to eliminate and/or prevent an adverse impact upon any adjacent or subservient property, and for such other and further relief as may be appropriate in the circumstances.

Sec. 150.1915. Amendments to Article XIX.

Notwithstanding any other provision of this Code, including specifically, but without limitation, the provisions governing amendments to the Zoning Code set forth in Article XV of this Chapter, the City Council may consider and approve the amendment of any provision of Article XIX without a prior public hearing, consideration or recommendation by the Plan and Design Commission. Before exercising its powers under this Section, the City Council shall set, notice and conduct public hearing. No other procedure shall be required. Any amendment to this Article XIX shall be evidenced by an ordinance duly adopted. The concurrence of four members of the City Council shall be sufficient to approve any ordinance adopted pursuant to the authority and power granted by this Section.

(Ord. 26-08, J. 34, p. 050-068, passed 4/14/08; Ord. 59-15, passed 6/8/15)

VILLAGE OF KENILWORTH

CHAPTER 154: STEEP SLOPE REGULATIONS

Section

- 154.01 Findings
- 154.02 Statement of purpose; applicability
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- 154.04 Development in the Steep Slope Zone
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- 154.07 Stability of the steep slopes
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§ 154.01 FINDINGS.

(A) The topography of the Village of Kenilworth includes bluffs and other steep slope areas. These are valuable land resources that should be protected. Bluffs and other steep slope areas play a central role in the management of storm water throughout the village; they are also ecologically fragile and inherently unstable. Their proper care and maintenance are important to avoid degradation that could adversely affect the entire community.

(B) Steep slope areas may contain sediment, rock, and soils (i) that are natural features subject to erosion, surface and subsurface movement of water, and other destabilizing forces, and (ii) whose stability is affected by the quality and root structure of natural ground cover. Regulating proposed development according to the natural characteristics of steep slope terrain, such as degree of sloping, significant vegetation, soil stability, and existing drainage patterns will allow for development on top of steep slope areas, including bluffs, while minimizing the physical impact of such development. The public interest will be served by protecting people and property from the potentially hazardous geological and hydrological conditions characteristic of ravine and other steep slope areas.

(Ord. 1163, passed 12-14-2015)

§ 154.02 STATEMENT OF PURPOSE; APPLICABILITY.

(A) *Purpose.*

(1) The purpose of this chapter is to regulate development along or near steep slope areas to protect slope stability and overall drainage and water management in the village. The purpose of this chapter is not to regulate for aesthetic or habitat preservation purposes; rather, the purpose is to

prevent erosion of ravines and bluffs by regulating and managing steep slopes for purposes of protecting the public health, safety, and welfare. This chapter protects people and property from the potentially hazardous geological and hydrological conditions characteristic of ravine and bluff areas and further recognizes that maintenance of stable ecological relationships minimizes environmental degradation of the land and Lake Michigan. Due to improper and unnecessary development within these sensitive areas, conditions are created that jeopardize life, property, and the natural ecosystem. It is the intent of this chapter to establish appropriate controls. All land use and development on, within, and adjacent to the steep slope is controlled by this chapter.

(2) While this chapter provides for the reasonable use of steep slope zones and related lands, it does so while protecting the public health, safety, and welfare by:

- (a) Discouraging development that threatens the stability of steeply sloped terrain;
- (b) Encouraging appropriate engineering technology to result in stable slopes during and subsequent to development;
- (c) Encouraging building techniques that increase slope stability;
- (d) Reducing uncontrolled storm water runoff, soil erosion, and mud slides by minimizing grading, encouraging the preservation of trees and other vegetation, and, where necessary, requiring revegetation;
- (e) Permitting development that is compatible with the natural characteristics of steep slope terrain, such as degree of sloping, soil suitability, and existing natural and man-made drainage patterns;
- (f) Preserving the ravine and bluff environment through the retention of dominant steep slopes and ridges in their natural state; and
- (g) Reducing the physical impact on steep slopes and related areas by encouraging innovative site and architectural design, minimizing grading, and requiring restoration of graded areas.

(B) *Applicability.* This chapter only applies to properties that include or are adjacent to a bluff along Lake Michigan or that portion of the Skokie Ditch located east of Sheridan Road and north of Kenilworth Avenue.

(Ord. 1163, passed 12-15-2015)

§ 154.03 DEFINITIONS.

When used in this chapter, the following terms shall have the meanings herein ascribed to them, unless the context clearly requires otherwise. In the case of any difference of meaning between the text of this chapter and any caption or illustration, the text shall control.

ACCESSORY BUILDING. A detached, one-story, covered structure designed to provide enclosed storage or a screened or unscreened sitting area in the Steep Slope Zone.

BLUFF. An elevated segment of the Lake Michigan shoreline above the beach which normally has a precipitous front inclining steeply on the lakeward side.

CANTILEVER. Any portion of a principal structure that extends laterally beyond the foundation that supports it.

CODE OFFICIAL. The code official shall be the Building Commissioner.

DEVELOPMENT. Any man-made change (other than minor common maintenance of existing structures, paved areas, or utilities) to improved or unimproved real estate, including without limitation the construction or installation of new, or enlargement or demolition of existing, structures, paved

areas, or utilities; dredging, filling, drilling, mining, grading, paving, or excavation operations; and open storage of equipment or materials.

RAVINE. A deep gully or gorge worn by the flow of water to Lake Michigan. In this chapter, all references to ravine shall refer that portion of the Skokie Ditch located east of Sheridan Road and north of Kenilworth Avenue.

STEEP SLOPE. Land comprising or adjacent to a lake bluff or ravine where the slope in ascent or descent exceeds 10% from the horizontal.

STEEP SLOPE LINE. A line representing the intersection of the tableland and the steep slope. This line is commonly indicated on plats of survey or other documents as the **TOP OF BLUFF**.

STEEP SLOPE ZONE.

(1) In the case of a ravine, that portion of a lot that includes the steep slope of the ravine and lies between the bottom of the ravine and a line drawn ten feet behind the steep slope line at the top edge of the ravine and away from the bottom of the ravine. For the purposes of this chapter, the **RAVINE** means the Skokie Ditch east of Sheridan Road. The **STEEP SLOPE ZONE** shall include all retaining walls located between the bottom of the ravine and the steep slope line.

(2) In the case of a bluff, that portion of a lot that includes the steep slope and lies between the water's edge of Lake Michigan and a line drawn 35 feet behind the steep slope line at the top edge of the bluff and away from the bottom of the bluff. The **STEEP SLOPE ZONE** shall include all retaining walls located between Lake Michigan and the steep slope line.

TABLELAND. Land at the top of a bluff or ravine where the cross slope in any direction does not exceed 10%.

(Ord. 1163, passed 1214-2015)

Figure 154 - 1. Illustration of defined terms for Ravine

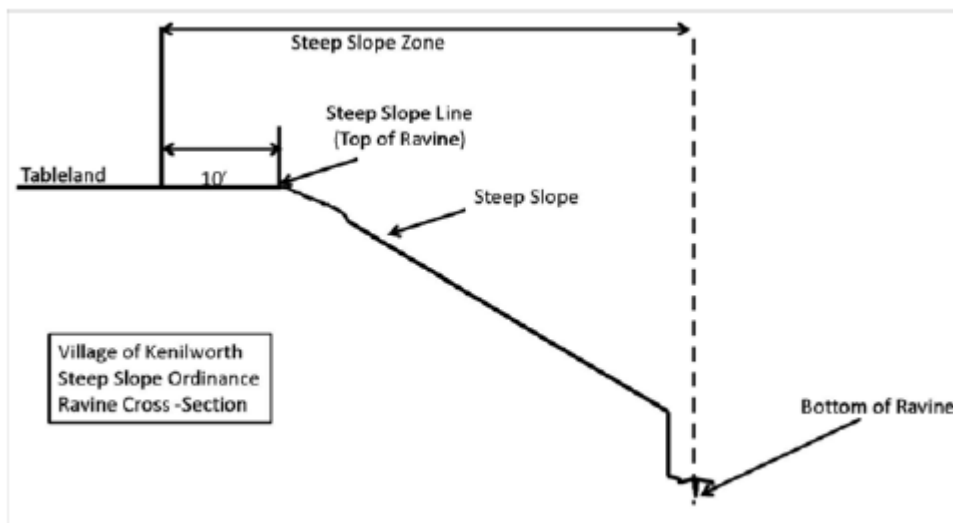
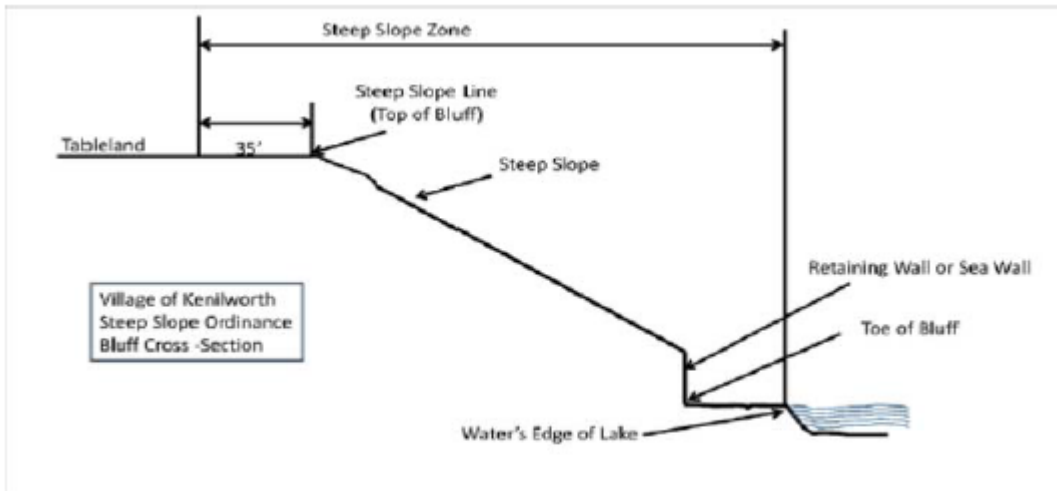


Figure 154— 2 Illustration of defined terms for Bluff Steep Slope Zone



(Ord. 1163, passed 12-14-2015)

§ 154.04 DEVELOPMENT IN THE STEEP SLOPE ZONE.

Any development that is otherwise authorized under the codes, ordinances, and regulations of the village may occur in the Steep Slope Zone, but only upon the code official's review and approval of an application therefor pursuant to this chapter; provided, however, that only the following structures may be constructed:

(A) *In Steep Slope Zones that are bluffs or ravines.*

(1) Retaining walls and other structures that are necessary or beneficial for safe continued use of property and slope stabilization may be constructed in the Steep Slope Zone in the manner approved by the code official and in accordance with the following additional standards:

- (a) Retaining walls shall not be used to increase table land.
- (b) Retaining walls shall not be used to create a shelf or other table area within the Steep Slope Zone.
- (c) Backfilling of a retaining wall is allowed only as necessary for slope stabilization.

(2) Structures on the exact foundation of a previously existing structure may be rebuilt, provided that the rebuilt or remodeled structure (i) does not extend beyond the previous foundation within the Steep Slope Zone, (ii) does not extend above the previous height of the structure within the Steep Slope Zone, and (iii) is undertaken pursuant to sealed plans of an architect or structural engineer certifying that the existing foundation (with appropriate engineering modifications, if any) will support the rebuilt or remodeled structure without material adverse impact on the Steep Slope Zone.

(3) Cantilevering of structures over the steep slope line shall not be permitted.

(B) *In Steep Slope Zones that are bluffs.*

(1) Mechanical or electrical lifts, bridges, decks, walkways, steps, and/or fences which do not obstruct unnecessarily the flow of light and water, and utility service lines, provided that:

- (a) Such structures conform to the provisions of this chapter; and
- (b) Stairs constructed in the Steep Slope Zone shall be no greater than five feet in width. Stair landings constructed in the Steep Slope Zone shall be no larger than 50 square feet. Stair landings for the purpose of this chapter are defined as an intermediate platform on a flight of stairs, greater than

ten square feet, constructed for the purpose of allowing a change in stair direction down the Steep Slope Zone and/or to break up ten or more stair steps.

(2) Decks can be no larger than 100 square feet unless applicant provides exceptional engineering, including stormwater management and vegetation, so that such deck will not jeopardize slope stability.

(3) Fences, provided that all fences must comply with all applicable village codes, ordinances, and regulations, including without limitation Chapter 153 of this code.

(4) One accessory building no larger than 150 square feet in area and no more than 11 feet in height; provided, further, that the code official has determined that (a) the accessory building as proposed will not adversely impact the stability of the property or adjacent property and (b) the top of roof is not visible from adjacent tableland.

(Ord. 1163, passed 12-14-2015)

§ 154.05 DEVELOPMENT STANDARDS.

(A) *Review of application.* Any application for development in the Steep Slope Zone shall be reviewed by the code official, who will consider such application in light of the standards of this section relating to landscape planning, soil mechanics engineering, hydrology, geology, environmental design, and architecture. It is recognized, however, that each Steep Slope Zone has unique characteristics and encounters different dynamics affecting its stability and preservation. As a result, the code official may determine for any application that certain of the following standards may not apply in whole or in part to such application so long as the code official determines that the application for development in its totality satisfies the purposes of this chapter.

(B) *Standards.* The standards applicable to development in a Steep Slope Zone are as follows:

(1) *Filling, grading, and earth moving.*

(a) *Minimum alterations.* Filling, grading, and earth moving shall be limited to the minimum required for removal and replacement of foundations, driveways, drainage control structures, and immediate yard areas. Substantial filling, grading, and earth moving shall not be permitted and is prohibited.

(b) *Erosion control.* All filling, grading, and earth moving shall be accomplished in a manner that will create the lowest possible potential for airborne or waterborne transportation of soil. Temporary erosion control matting shall be properly staked and trenched nightly where large areas of soil are exposed.

(c) *Soil fill in Steep Slope Zone.* All fill in the Steep Slope Zone is prohibited, other than back-fill which is determined by the code official to be necessary for slope stabilization.

(d) *Soil fill on table land.* In conformance with generally accepted engineering standards, all fill on table land shall be stabilized to at least 90% of maximum dry density as determined in ASTM procedure D-1557 or equivalent.

(e) *Prompt completion.* Any earth moving shall be accomplished in the shortest practical period of time, the schedule of which shall be approved by the code official. All excavated material shall be removed from the Steep Slope Zone and no temporary or permanent material storage shall be permitted within the Steep Slope Zone. No existing natural vegetation shall be destroyed, removed or disturbed prior to the initiation of development activities.

(2) *Safety control of steep slopes.*

(a) The development will not jeopardize slope stability on the subject site or neighboring properties.

(b) Except as can be shown to be essential or beneficial for an approved development, no filling, grading, and earth moving shall occur in a Steep Slope Zone.

(c) Whenever there is construction upon any property that includes or is adjacent to a Steep Slope Zone, a fence will be erected temporarily along the top edge of the Steep Slope Zone, during any construction and/or demolition activity upon such property.

(3) *Construction techniques.* All proposed structures shall have foundations designed in a manner consistent with sound engineering and geological principles. In addition, the following techniques shall be employed to enhance stabilization of the ravine or bluff:

(a) Planning the development to recognize and fit the natural topography, soils, geology, hydrology, and other existing conditions on the proposed sites;

(b) Orienting development so that filling, grading, and earth moving, landscaping and other site preparation is kept to an absolute minimum;

(c) Preserving the landscape through minimized disruption of natural terrain and existing vegetation;

(d) Minimizing disruption or alteration of natural drainage ways;

(e) Minimizing the time during which areas are bare and exposed;

(f) Designing and properly locating structures so that structure's weight does not negatively impact slope stability; and

(g) Considering the effect of undercutting at the base of a Steep Slope Zone caused by wave action, storm water flow, erosion, and/or channel changes.

(h) Providing for management of silt runoff during the construction period.

(4) *Vegetation and revegetation.*

(a) *Natural vegetation.* Unless being revegetated as part of the development, every effort shall be made to maintain natural vegetation in the Steep Slope Zone.

(b) *Smallest area.* At all times, the smallest practical area of raw soil shall be exposed for as short a duration of time as practical. When required by the code official pursuant to sound professional engineering principles, temporary vegetation or other acceptable cover shall be used to protect areas of raw soil exposed during development and to prevent airborne or waterborne transportation of soil.

(c) *Revegetation.* A mixed planting of perennial and woody species is recommended for use in the Steep Slope Zone disturbed by development.

(d) *Erosion control mat.* Temporary erosion control matting properly staked and trenched shall be provided over raw soil areas until new vegetation is established.

(5) *Hydrological controls.*

(a) *Natural channels.* Natural drainage ways shall be preserved to the maximum extent possible.

(b) *Controlled runoff.* Concentrated runoff from impervious surfaces shall be collected and transported in a pipe or other approved manner to a municipal storm sewer system, if available. In no instance shall runoff be transported to, directed toward, or be allowed to collect in any pipe or conveyance that is part of the combined storm/sanitary sewer system of the village.

(c) *Water discharge into steep slope.* Whenever stormwater is transported across a property for discharge into a Steep Slope Zone, the conveyance pipes shall be of non-segmented (continuous

sections of minimum 100 feet) pipe material, which shall be installed below ground by directional boring where possible.

(d) *Trenching*. No pipe shall be installed within a Steep Slope Zone by excavating a trench unless such trench is approved by the code official.

(e) *Pipe materials*. Flexible corrugated pipes shall not be used within a Steep Slope Zone unless directional boring is found to be infeasible in the sole determination of the code official.

(f) *Interceptor ditches*. When required by the code official pursuant to sound professional engineering principles, interceptor ditches shall be established above steep slopes in order that soil shall not become saturated and the intercepted water shall be conveyed in a pipe or other approved manner to a municipal storm sewer system, if available, or to the bottom of ravine or bluff slopes in a manner designed to prevent erosion. In no instance shall runoff be transported to, directed toward, or be allowed to collect in any pipe or conveyance that is part of the combined storm/sanitary sewer system of the village.

(g) *Discharge point stabilization*. Natural drainage ways shall be stabilized by landscape integration and rip-rap or other means consistent with sound professional engineering practice, to a distance below drainage and culvert discharge points sufficient to convey the discharge without channel erosion and in such a manner as to dissipate the energy of the discharge as approved by the code official.

(h) *Energy dissipater*. All outflow from a stormwater conveyance pipe must discharge into an energy dissipater designed to slow fast moving stormwater and prevent soil erosion.

(i) *Early completion*. The overall drainage system shall be completed and made operational at the earliest possible time during construction, the schedule of which shall be approved by the code official.

(j) *Impact on adjacent property*. The natural or usual flow of surface or subsurface water shall not be altered or obstructed in any way by grade changes that may adversely affect the property of another by contributing either to pooling or collection of waters or to the concentration or intensification of surface water discharge.

(Ord. 1163, passed 12-14-2015)

§ 154.06 REQUIRED PLANS AND PERMITS.

(A) *Required plans*. Any development or other activity in the Steep Slope Zone requiring a permit pursuant to this code and applicable regulations shall be accompanied by the following plans and reports which must be submitted to and approved by the code official prior to issuance of any permit or commencement of the proposed development.

(1) *Means and methods of construction*. Because work to be performed in the Steep Slope Zone may have adverse impacts on steep slopes, all permit applications shall contain a written description of the proposed means and methods of accomplishing such work (including without limitation the sequencing and timing of work, the equipment to be used, interim protective measures, and activities to monitor potential adverse impacts on the Steep Slope Zone), which means and methods shall be designed to minimize slope damage. Upon approval of the permit by the code official, such approved written description shall be the enforceable means and method of the authorized development activities.

(2) *Professional engineering*. All development within Steep Slope Zone shall be designed by a licensed structural engineer or geotechnical engineer and must bear the engineers license seal on submitted drawings and specifications satisfying good engineering practices and the standards of this chapter, unless the code official otherwise waives in writing this requirement.

(3) *Subsoil investigation.* Every application for a development permit in the Steep Slope Zone shall be accompanied by a report, prepared by a licensed professional civil engineer or structural engineer trained and experienced in the practice of geotechnical engineering, which report shall include the following:

(a) *Soil types and subsurface materials.* A description (the result of a thorough subsurface investigation using techniques such as borings, test pits, site tests, laboratory tests, or other procedures performed to a depth sufficient to determine foundation conditions for the proposed construction) of the soil and subsurface materials found on the subject site (with particular emphasis on the area to be impacted by the proposed development) to a depth extending below any proposed excavation as well as the engineering properties of the subsurface soil materials.

(b) *Observations.* A description of existing observable slide areas, scarps, tension cracks, eroded areas, leaning trees, and the like.

(c) *History.* As available, a historical review of bluff or ravine stability considering owner photographs, previous reports and topographic surveys; air photos, Corps of Engineers' studies, Village of Kenilworth information, and the like.

(d) *Drainage.* A description of surface patterns of water flow and seeps as well as indication of the presence or absence of permeable zones in underlying soils.

(e) *Stability.* A geotechnical stability analysis of the slope and structure with factors of safety calculated for the existing and proposed conditions by a method that satisfies both force and moment equilibrium for long-term and short-term soil strength parameters.

(f) *External influences.* A description of any existing or anticipated problems from undercutting at the base of a Steep Slope Zone caused by wave action, ravine flows, erosion, or channel changes.

(g) *Absence of special hazards.* An opinion that the soil types, soil stability, subsurface hydrology, and external influences affecting the site will not cause any significant hazards for the proposed use; or if they may cause such hazards, an opinion that such hazards can be overcome, together with a reasonably detailed description of how it is proposed to overcome them.

(4) *Grading plan.* In addition to any other permit requirements, each application for a permit involving development under this chapter shall be accompanied by a grading plan, which plan shall include the following:

(a) A topographic survey, showing the Steep Slope Line (top of bluff) as well as property contours at one foot intervals for tableland and five foot intervals for steep slopes, including special notes and details of the existing terrain;

(b) Proposed filling, grading, and earth moving details, including the dimensions, elevations, and contours of any proposed filling, grading, and earth moving;

(c) A schedule of when each stage of the project will be completed, including the estimated starting and completion dates; and

(d) A provision requiring the placement of a temporary fence on the table land at the top edge of Steep Slope Zone until construction is completed.

(5) *Hydrological control plan.* Applications for any development permits shall include a plan for intercepting and containing drainage at the site and from the structure.

(6) *Vegetation plan.* A vegetation plan, subject to the tree preservation provisions of Chapter 150 of this code, shall be submitted with each application for a development permit, which plan shall include the following:

(a) A description of proposed revegetation of disturbed areas, specifying the materials to be used;

(b) A written description detailing methods of slope stabilization and revegetation, together with the rationale for selecting the plant materials and planting techniques proposed to be used; and

(c) A timetable and sequencing program for implementing the vegetative plan.

(7) *Additional submittals; waivers.* The code official may require additional plans as needed for review. The code official may release an applicant from any element of the aforementioned plan submittals to the extent that the code official determines that such element(s) will not materially assist in the evaluation of the proposed action's impact on slope stability.

(B) *Permit issuance; terms.* Each permit application for development shall be made in compliance with Chapter 150 of this code and other applicable codes, ordinances, or regulations, including this chapter. The seal of an Illinois licensed structural or geotechnical engineer shall appear on all plans and specifications included as part of a permit application. Upon the code official determining that an application satisfies the requirements of this chapter, the code official shall cause a permit to be issued for development within the Steep Slope Zone. The following provisions are to be imprinted upon each permit issued for any development activities authorized by the administration of this chapter and (whether so imprinted or not) shall be incorporated into and made a part of any such permit:

(1) *Limited obligation.* Compliance with the procedures of this chapter and the issuance of any related permits shall not be construed to impose any legal or other obligation upon the village or its elected or appointed officials, employees, agents, attorneys, or representatives. Any permit issued pursuant to this chapter is for the benefit of the public and not for the benefit of any individual.

(2) *Civil claims.* Compliance with the procedures of this chapter and the issuance of related permits shall not relieve the permittee and the property owner from civil liability claims.

(3) *Endorsement.* Compliance with the procedures of this chapter and the issuance of related permits do not imply approval of the need for, or the benefit or efficacy of, the proposed development; nor does it constitute any assertion that the proposed development will not result in damage to the property in question or to adjoining property.

(4) *Closing report.* A licensed professional structural engineer or geotechnical engineer must inspect all work in the Steep Slope Zone while in progress and, upon completion of the work, deliver to the code official a written report bearing the engineer's license seal, stating that all development is in accordance with the approved plan and specifications for the project. Such a report must be delivered prior to the village's final inspection, acceptance, and closing of the project.

(C) *Special terms.* In connection with the issuance of a permit pursuant to this chapter, the code official may impose special conditions as deemed necessary to ensure the effectiveness of plans for development on a property, and to protect the long-term stability of a bluff or ravine, or otherwise to notify future owners of the bluff or ravine conditions of such property.

(Ord. 1163, passed 12-14-2015)

§ 154.07 STABILITY OF THE STEEP SLOPES.

(A) *General.*

(1) In order to provide for long-term slope stability and to prevent failure of slope stability that may adversely impact neighboring properties, all property owners whose property includes or is adjacent to a Steep Slope Zone are required to comply with the provisions of this chapter.

(2) Any development within the Steep Slope Zone must meet all plan submittal requirements in accordance with this chapter.

(3) Private storm drainage lines conveying storm water runoff either to a public storm sewer or to the ravine channel or the toe of the bluff shall be maintained by the owner thereof. Private drainage lines which leak water onto the surface of a steep slope must be repaired within 30 days of notification by the village.

(4) Intentional depositing of lawn waste or other natural or man-made debris which may damage underlying vegetation or impede the free flow of water through channels within a Steep Slope Zone shall be prohibited.

(5) Any tree removal within the Steep Slope Zone shall be in accordance with the tree preservation standards of Chapter 150 of this code and the provisions of this chapter.

(6) No swimming pool discharge (emptying) shall be directed toward or directly discharged into a Steep Slope Zone.

(B) *Maintenance and upkeep.*

(1) Any authorized structure in the Steep Slope Zone may be repaired, maintained, or altered but only in compliance with this code, including this title.

(2) Landscape maintenance or routine arboreal activities may be undertaken in the Steep Slope Zone.

(C) *Restoration.* All governmental entities, private property owners, and all other private entities having authorized access to ravine or bluff steep slopes and engaged in the maintenance, repair, or construction of utilities or other structures within a Steep Slope Zone, or engaged in any modifications to a steep slope, shall adhere to the applicable provisions of the this code, including this chapter, utilizing best management practices.

(D) *Emergency activities.* Nothing in this chapter shall prevent the village from permitting development activities on an emergency basis when deemed necessary by the code official to remediate or restore an unstable or insecure slope, or a slope that has sloughed, that presents an immediate threat to health, safety, and welfare, or stability of an authorized building.

(1) Emergency development activity (including installation or construction of structures) shall only be permitted provided that the remedial action involves the least possible disruption of the natural features of the site as possible and is in conformance with the standards and policies of this chapter.

(2) Emergency development activity (including installation or construction of structures) shall only be permitted to provide remedial action that is the most reasonable action to address the emergency situation under the circumstances.

(Ord. 1163, passed 12-14-2015)

§ 154.08 TREE REMOVAL AND REPLACEMENT IN THE STEEP SLOPE ZONE.

(A) *General.* The village's tree preservation requirements in Chapter 150 of this code shall apply to all proposed tree removals and tree replacements in the Steep Slope Zone.

(B) *Additional standards.* In addition to the requirements of Chapter 150 of this code, there may be cases when removal of a tree or tree stump may jeopardize slope stability and for all proposed tree removals in the Steep Slope Zone, the following shall apply:

(1) The code official shall review each tree removal in the Steep Slope Zone to determine whether the proposed removal of the tree will jeopardize slope stability.

(2) Any applicant seeking to remove a tree in the Steep Slope Zone shall provide the village with a report from a certified arborist as to whether the proposed removal of the tree is consistent with good forestry practices and certification from a geotechnical engineer as to the stability of the slope.

(Ord. 1163, passed 12-14-2015)

§ 154.09 APPEALS OF CODE OFFICIAL'S DECISIONS.

(A) Any determination of the code official under this chapter may be appealed to the Board of Trustees by filing a request for review in writing within 35 days after the code official issues his or her determination. The Board of Trustees may designate a committee of the Board to hear the request for review and make a written recommendation to the Board of Trustees. The decision of the Board of Trustees will be final.

(B) In reviewing the determination of the code official, the Board of Trustees will consider only whether the determination of the code official in applying the regulations of this chapter imposes an unreasonable and undue economic hardship that materially limits the property owner from making reasonable use of such owner's property or otherwise imposes requirements which are unreasonably burdensome to the property owner given the benefits thereof to the village. After receiving written submittals from the property owner and the code official (and after a hearing if the Board of Trustees determines that such a hearing will be instructive), a decision on such appeal must be issued in writing no more than 60 days after the delivery of the final submittal by the owner or code official or after the close of the hearing, whichever is later.

(C) In considering an appeal under this section, the Board of Trustees may reverse, affirm, or modify the determination of the code official, or remand the determination back to the code official for further consideration, with or without instructions.

(D) The Board of Trustees may issue further procedural rules governing appeals under this section.

(Ord. 1163, passed 12-14-2015)

§ 154.10 ZONING VARIATIONS.

Nothing in this chapter is intended to limit the ability of an owner to seek a variation from the otherwise applicable zoning regulations affecting such owner's property. To the extent that the regulations of this chapter materially restrict the ability of a property to be developed the Zoning Board of Appeals may determine that the effects of this chapter can, in appropriate circumstances, constitute a practical difficulty or unreasonable hardship.

(Ord. 1163, passed 12-14-2015)

§ 154.11 ADMINISTRATION; FEES; CONFLICTING REGULATIONS.

(A) Except as otherwise provided, the code official is hereby authorized and directed to prepare any necessary or desirable forms, practices, and procedures in order to implement the provisions of this chapter.

(B) As part of any application, and as a condition of any permit, an applicant shall be required to pay all fees and charges established in the annual fee ordinance. To the extent that the village incurs third-party expenses in connection with the administration of this chapter with respect to a particular application, such third-party expenses shall be additional fees chargeable to such application.

(C) To the extent that there are conflicting regulations in the village's building regulations or elsewhere in this code, the provisions of this chapter shall control.

(Ord. 1163, passed 12-14-2015)

§§ 154.12 THROUGH 15.98 RESERVED.

§ 154.99 ENFORCEMENT AND PENALTIES.

(A) *Generally.* Any person violating any provision of this chapter shall be subject to the penalty provisions of § 10.99 of this code, except where another specific penalty is provided.

(B) *Joint responsibility.* For any property affected by the provisions of this chapter, the property owner, any developer, and their agents, employees, contractors, subcontractors, licensees, and invitees are each jointly and severally responsible for compliance with the terms of this chapter.

(C) *Correction and restoration.* In the event any violation of any provision of this chapter occurs, the property owner shall be responsible for the violation, its correction, and for otherwise bringing the property into compliance with the terms of this chapter. Such compliance may require restoration of the site as closely as possible to its original undisturbed condition, topography, and/or vegetation in order to eliminate the violation.

(D) *Stop work.* The village shall have the right to issue a stop work order for any work that is performed in the Steep Slope Zone either (i) without all permits that are required to this chapter or (ii) in violation of the permits so issued.

(E) *Corrective measures.* In addition to the monetary penalties provided for herein, the village may apply to a court of competent jurisdiction for an order against the parties responsible to re-establish or restore the grade, slope, stability, vegetation, and/or drainage systems of a Steep Slope Zone in order to eliminate and/or prevent an adverse impact upon any adjacent or subservient property, and for such other and further relief as may be appropriate in the circumstances.

(Ord. 1163, passed 12-14-2015)

VILLAGE OF LAKE BLUFF - TITLE 10 ZONING REGULATIONS

CHAPTER 1

INTERPRETATION AND DEFINITIONS - **EXCERPTS**

SECTION:

10-1-1: Interpretation, Purpose And Conflict

10-1-2: Definitions

10-1-1: INTERPRETATION, PURPOSE AND CONFLICT:

The regulations contained in this title shall be held to be the minimum requirements necessary for the promotion of the public safety, health, convenience, comfort, morals, prosperity and general welfare. They shall not nullify the more restrictive provisions of covenants, agreements, resolutions, other ordinances or laws, but shall prevail, notwithstanding such provisions which are less restrictive. (Ord. 87-38, 12-14-1987)

10-1-2: DEFINITIONS:

For the purposes of this title, the following terms, phrases, and words shall have the meanings given herein:

BLUFF:

Any natural land area that has a drop in elevation from the top bluff edge equal to or greater than two feet (2') vertical for every ten feet (10') horizontal, and that is located between the high water mark at the edge of Lake Michigan and the top bluff edge.

BLUFF PROTECTION AREA:

The area of a bluff plus the area of that portion of the bluff/ravine property that lies between the top bluff edge and the required setback established pursuant to subsection 10-12-3B1 of this title.

BLUFF/RAVINE PROPERTY:

Any lot that contains a bluff, a ravine, or both.

TOP BLUFF EDGE:

The curvilinear line connecting the points of a bluff where the previously unimproved and undisturbed land surface first begins to drop in elevation at a rate equal to or greater than two feet (2') vertical for every ten feet (10') horizontal. Improvements or fill located in the area that would be considered the "top bluff edge" pursuant to this definition, as of March 9, 1999, being the effective date of this definition and chapter 12 of this title, shall not be considered in determining the "top bluff edge".

VILLAGE OF LAKE BLUFF - TITLE 10 ZONING REGULATIONS

CHAPTER 12 BLUFFS AND RAVINES

SECTION:

10-12-1: Purpose And Intent

10-12-2: Application Of Provisions

10-12-3: Setback Requirements

10-12-4: Buildings And Structures

10-12-5: Construction Activity In Bluff And Ravine Protection Areas

10-12-6: Construction Activity On Bluff And Ravine Property

10-12-7: Protection And Maintenance Of Bluff And Ravine Property

10-12-8: Walkout Basements

10-12-9: Nonconformities

10-12-1: PURPOSE AND INTENT:

The village ravine and bluff areas provide a unique natural resource to the village and to its residents that must be preserved and protected. Bluffs and ravines are inherently fragile and subject to erosion due to glacially formed soils containing unstable sediment, rock, and silt. Development and construction activity in and around bluffs and ravines could be hazardous to people and property and could accelerate the erosion process. The purpose and intent of this chapter is to accomplish the following goals through the establishment of reasonable regulations to protect and maintain bluffs and ravines in the village:

- A. Protect people and property against damage or destruction caused by accelerated erosion resulting from development and construction activities in or around bluffs and ravines.
- B. Protect bluffs and ravines against unnecessary damage or destruction caused by certain development and construction activities.
- C. Maintain proper water runoff in order to decrease the effects of erosion on bluffs and ravines.
- D. Minimize the disruption or alteration of natural drainage occurring in or around bluffs and ravines.
- E. Protect the property values of properties on which bluffs and ravines are located.

VILLAGE OF LAKE BLUFF - TITLE 10 ZONING REGULATIONS

F. Preserve and enhance the physical and aesthetic qualities of bluffs and ravines by, among other things, minimizing the disruption or damage to existing vegetation. (Ord. 99-9, 3-8-1999)

10-12-2: APPLICATION OF PROVISIONS:

The provisions of this chapter shall apply generally and uniformly to all areas and zoning districts within village. The provisions of this chapter shall also apply cumulatively and simultaneously with the other provisions of this title and the village subdivision regulations and building codes, and no approvals or permits issued pursuant to such regulations or codes shall be deemed to authorize any activity that does not also comply with the applicable provisions of this chapter. Furthermore, if ever a provision of this chapter and another provision in this title or the village subdivision regulations or building codes are inconsistent, provisions resulting in the maximum protection and preservation of bluffs and ravines shall govern, except where limited by law. (Ord. 99-9, 3-8-1999)

10-12-3: SETBACK REQUIREMENTS:

A. Ravines: Except as otherwise expressly provided in subsection C of this section, no principal structure or building, no accessory structure or building that requires the issuance of a building permit pursuant to this code, and no driveway shall be erected or altered on any lot so as to place any portion of any such building, structure, or driveway within ten feet (10') from any top ravine edge.

B. Bluffs:

1. Principal Structures And Buildings: Except as otherwise expressly provided in subsection C of this section, no principal structure or building or driveway shall be erected or altered on any lot so as to place any portion of any such building, structure, or driveway within forty feet (40') from any top bluff edge.

2. Small Accessory Structures And Buildings: Except as otherwise expressly provided in subsection C of this section, no accessory structure or building that is equal to or less than four hundred forty (440) square feet in area and that requires the issuance of a building permit pursuant to this code shall be erected or altered on any lot so as to place any portion of any such building or structure within ten feet (10') from any top bluff edge.

3. Large Accessory Structures And Buildings: Except as otherwise expressly provided in subsection C of this section, no accessory structure or building that is greater than four hundred forty (440) square feet in area and that requires the issuance of a building permit pursuant to this code shall be erected or altered on any lot so as to place any portion of any such building or structure closer to any top bluff edge than ten feet (10'), plus an additional 0.053 feet for every one foot (1') that the accessory structure or building exceeds four hundred forty (440) square feet in area.

VILLAGE OF LAKE BLUFF - TITLE 10 ZONING REGULATIONS

C. Exceptions:

1. Nonimpervious And Other Improvements: Notwithstanding the setback requirements in subsections A and B of this section, any nonimpervious improvement including, without limitation, a paver patio, and any other improvement that does not require the issuance of a building permit pursuant to this code, including, without limitation, a swing set or similar apparatus, may be located up to but no further than the top ravine edge of a ravine or the top bluff edge of a bluff, as the case may be; provided, however, that such improvement does not, as determined in advance by the village engineer, adversely affect stormwater drainage or unnecessarily accelerate erosion of the bluff or ravine or otherwise create a hazardous condition or public nuisance.

2. Swimming Pools: Notwithstanding the setback requirements in subsections A and B of this section:

a. No swimming pool shall be located within twenty feet (20') from any top ravine edge; and

b. No swimming pool shall be located within forty feet (40') from any top bluff edge. (Ord. 99-9, 3-8-1999; amd. Ord. 99-15, 5-24-1999)

10-12-4: BUILDINGS AND STRUCTURES:

A. General Prohibition: Except as expressly permitted pursuant to subsection B of this section, no principal or accessory building or structure, no permanent fence, and no other at grade improvement of any kind shall be constructed, placed, or maintained in any bluff or ravine.

B. Permitted Structures: Notwithstanding the general prohibition set forth in subsection A of this section, the following improvements may be permitted in a bluff or ravine in accordance with the regulations of this subsection and the other applicable regulations of this chapter, provided such improvement would not, as determined in advance by the village engineer, adversely affect stormwater drainage, or unnecessarily accelerate erosion of the bluff or ravine, or otherwise create a hazardous condition or public nuisance:

1. Paths And Steps At Grade: Paths and steps at grade of no greater than six feet (6') in width shall be allowed in any bluff or in any ravine.

2. Decks:

a. Ravines: Decks and other similarly elevated structures shall be allowed to extend over the top ravine edge of a ravine; provided, however, that no pier foundations or supports shall be placed or maintained on or beyond the top ravine edge.

b. Bluffs: Decks and other similarly elevated structures shall be allowed to extend over the top bluff edge of a bluff and to be located in a bluff.

3. Benches: Benches shall be allowed to be located or maintained within a bluff or ravine.

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4. Stairs: Stairs and associated landings shall be permitted in any ravine or bluff that is located on bluff/ravine property that is at least one and one-half (1.5) acres.
5. Electric Lift Systems: An electric lift system, and associated equipment and appurtenances thereto, shall be permitted on a bluff upon the issuance of a special use permit pursuant to subsection 10-4-2E of this title; provided, however, that: a) only one electric lift system may be permitted on a property; and b) as a condition of issuance of the special use permit, the owner agrees in writing to permit the village to inspect the electric lift system at least once a year to confirm that the electric lift system complies with all applicable provisions of this code and the special use permit. (Ord. 2016-17, 6-27-2016)

10-12-5: CONSTRUCTION ACTIVITY IN BLUFF AND RAVINE PROTECTION AREAS:

A. General Prohibition: Except as expressly permitted pursuant to subsection B of this section, no construction activities, including, without limitation, grading, excavating, filling, terracing, or stockpiling or dumping of excavated material, shall be permitted in any bluff or ravine protection area.

B. Permitted Construction Activities: Notwithstanding the general prohibition set forth in subsection A of this section, the following construction activities shall be permitted in a bluff or ravine protection area, with the prior approval of the village engineer and in accordance with the following regulations and other applicable regulations of this chapter:

1. Erosion control and slope stabilization activities.
2. Public utility and other public improvement projects.
3. Drainage improvements that are necessary to prevent or mitigate erosion.
4. General maintenance and landscaping, including the removal of diseased, dead, or damaged trees.
5. Action necessary to remediate an unstable or unsecure slope that poses an imminent danger to persons or property.
6. The construction of an electric lift system on a bluff in accordance with section 10-12-4 of this chapter.

C. Protection Standards: All construction activities permitted pursuant to this subsection shall be performed in a manner: 1) to cause the least possible disruption of the natural features of a bluff or ravine protection area; and 2) to be consistent with the purposes and intent of this chapter as expressed in section 10-12-1 of this chapter. Specifically, during any such permitted construction activities, natural drainage shall be maintained to the maximum extent possible. Runoff from impervious surfaces shall be conveyed to existing storm sewers, wherever possible, or, if approved by the village engineer, channeled into the bluff or ravine in a manner to minimize the impact or damage to the bluff or ravine protection area. (Ord. 99-9, 3-8-1999; amd. Ord. 2016-17, 6-27-2016)

VILLAGE OF LAKE BLUFF - TITLE 10 ZONING REGULATIONS

10-12-6: CONSTRUCTION ACTIVITY ON BLUFF AND RAVINE PROPERTY:

The following restrictions and requirements shall apply to all construction activities on bluff/ravine property:

A. Plat Of Survey Required: Unless otherwise waived by the village engineer, any application for a building permit for any construction activity on any bluff/ravine property shall include a plat of survey prepared within one year of the date of application for the subject permit. The plat shall be sealed by a licensed surveyor and shall include, at a minimum, the following elements and information:

1. The lot lines of the bluff/ravine property;
2. The curvilinear line defining the top ravine edge or top bluff edge, or both, as the case may be (see section 10-13-1, illustrations 15A and 15B of this title);
3. The total square footage of the bluff/ravine property along with supporting calculations;
4. The location of all existing improvements on the bluff/ravine property in relation to the top ravine edge or the top bluff edge, or both, as the case may be;
5. The location of all proposed new improvements in relation to the top ravine edge or the top bluff edge, or both, as the case may be, clearly distinguished from existing improvements (see section 10-13-1, illustrations 15A and 15B of this title);
6. The existing and proposed grades;
7. The existing and proposed top of foundation elevations, using the same elevation data as used for site grades;
8. Bench mark with elevation and location clearly defined;
9. The location of all existing and proposed utility lines, including storm drainage facilities; and
10. A demonstration of the ways in which the applicant will ensure that all construction activities are in compliance with this chapter and that all such activities will be performed in a manner: a) to cause the least possible disruption of the natural features of a bluff or ravine protection area; and b) to be consistent with the purpose and intent of this chapter as expressed in section 10-12-1 of this chapter.

B. Fencing: A temporary fence shall be erected along a line that is ten feet (10') from the top ravine edge or top bluff edge, or both, as the case may be, during any development or construction activity on bluff/ravine property. For any construction activity that is permitted pursuant to this chapter to be within said ten foot (10') area, such fencing as the village engineer shall determine is necessary to prevent adverse impacts on the ravine or

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bluff, or both, as the case may be, shall be required. Any such fence shall be removed upon completion of the development or construction activity.

C. Grading And Restoration: Upon completion of any development or construction activity on bluff/ravine property, appropriate grading and restoration work shall be performed, as required by the village engineer, in order to ensure protection of the bluff and ravine protection areas. (Ord. 99-9, 3-8-1999)

10-12-7: PROTECTION AND MAINTENANCE OF BLUFF AND RAVINE PROPERTY:

A. Filling And Dumping Prohibited: No garbage, construction debris, or landscaping materials shall be dumped or filled in any bluff or ravine protection area.

B. Drainage: Measures shall be required to control stormwater runoff from structures and other improved surfaces on bluff/ravine properties. Wherever feasible, such runoff shall be collected and carried to municipal storm drainage facilities located away from ravines and bluffs. If discharge directly into municipal storm drainage facilities is not feasible, drainage shall be collected and discharged directly into the base of the ravine or bluff channel via continuous, nonperforated drain lines designed to collect stormwater runoff prior to the runoff reaching the ravine or bluff area. Such drainage lines shall be buried on the slopes of the ravine or bluff, and required excavations shall be located to minimize damage to trees and the slope of the ravine or bluff. In no event shall the point source discharge of water be allowed on or near any side of any ravine or bluff. A complete site drainage plan shall be required as part of the site plan submittal required pursuant to subsection 10-12-6A of this chapter.

C. Vegetation: Native vegetation shall be maintained to the greatest extent possible within all bluff and ravine protection areas. Section 10-13-1 of this title, illustration 16, provides a nonexclusive list of native vegetation that bluff/ravine property owners are encouraged to utilize within all bluff and ravine protection areas. (Ord. 99-9, 3-8-1999)

10-12-8: WALKOUT BASEMENTS:

Notwithstanding the otherwise applicable provisions of subsection 10-5-6B1 of this title, for any principal structure on bluff/ravine property that has a walkout basement with a rear wall located in a ravine or within a ravine protection area, a percentage of the floor area of the walkout basement shall be included in the gross floor area of the bluff/ravine property. The total additional square footage to be included in the gross floor area calculation for any such walkout basement shall be forty percent (40%) of the total area, in square feet, of all portions of the finished floor that are enclosed by lines extending perpendicular from the basement wall facing the ravine to the opposite basement wall across the full width of the exposed portion of the basement wall at a height of two feet (2') above grade. The resulting square footage shall be included in the gross floor area of the bluff/ravine property. See section 10-13-1 of this title, illustration 17. (Ord. 99-9, 3-8-1999)

VILLAGE OF LAKE BLUFF - TITLE 10 ZONING REGULATIONS

10-12-9: NONCONFORMITIES:

A. Damage Or Destruction:

1. If all or any part of any structure, building, or any other type of at grade improvement that is, as of March 9, 1999, nonconforming with regard to the provisions of this chapter, is damaged, destroyed, or torn down by any means, whether or not within the control of the owner thereof, then the particular type of structure, building, or improvement may be repaired, restored, rehabilitated, or rebuilt; provided, however, that no such repair, restoration, rehabilitation, or rebuilding shall be made that would create any new nonconformity or that would increase the degree of any nonconformity existing prior to such damage, destruction, or tear down, as provided in subsection B of this section.

2. Notwithstanding subsection A1 of this section, all such repairs, restorations, rehabilitations, and rebuilding shall be in strict conformity with the applicable zoning district regulations and with the regulations of this chapter unless a building permit is obtained and restoration is actually begun within one year after the date of such damage, destruction, or tear down and is diligently pursued to completion.

B. Horizontal Extension; Change In Type Of Structure: For purposes of this section, the horizontal extension of a nonconforming structure, or the change in the type of structure, shall be construed to increase the degree of the existing nonconformity of the structure unless such horizontal extension or such change in the type of structure conforms to all applicable zoning regulations including the regulations set forth in this chapter. (Ord. 99-15, 5-24-1999)

CITY OF LAKE FOREST - CHAPTER 159: ZONING

§ 159.002 RULES AND DEFINITIONS. - EXCERPTS

BLUFF AREA. Includes all property within or adjacent to a bluff beginning at the point of intersection of a line with the table land, said line extending from the toe of the slope upward at a vertical angle of 22 degrees. (See Appendix A.)

BLUFF EDGE. The point on the lake side of the table land where the slope of the land first exceeds 10%. (See Appendix A.)

TABLE LAND. Land where the slope in any direction does not exceed 10%.

TOE OF SLOPE. The toe of the ravine or bluff slope is that point in the ravine or bluff where the slope is less than 22 degrees or where the slope reverses direction. On compound slopes where there may be more than one possible toe location, the controlling point shall be whichever toe location provides the greater ravine or bluff area.

§ 159.015 STEEP SLOPES.

(A) Purpose. The provisions contained herein are adopted to protect public and private property from damage or destruction resulting from the natural erosion processes occurring within the ravines and bluffs along the shore of Lake Michigan, or abnormal or accelerated ravine and bluff erosion resulting from land development and construction activities occurring on adjacent or nearby properties, and to protect the fragile ravine and bluff ecosystem from unwarranted damage or destruction caused by land development and construction activities.

(B) Applicability. The provisions contained herein shall apply to all land development construction activities on all properties abutting ravines and bluffs as delineated by hashed lines on Appendix F.

(C) Requirements and restrictions.

(1) Building setbacks.

(a) From ravines. All building construction shall be on table land, but in no case shall any structure or building foundation be located closer than 20 feet to the ravine area.

(b) From bluffs. All building construction shall be on table land, but in no case shall any structure or building foundation be located closer than 75 feet to the bluff area.

(2) Construction activity.

(a) Adjacent to ravines. All construction activity; i.e., grading, excavating, filling, terracing, tree removal, stockpiling of excavated material, is prohibited within 20 feet of the ravine area, except as may be necessary to provide site drainage improvements, as may be approved and/or required by the City Engineer.

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(b) Adjacent to bluffs. All construction activity, i.e., grading, excavating, filling, terracing, tree removal, stockpiling of excavated material, is prohibited within 50 feet of the bluff edge, except as may be necessary to provide site drainage improvements, as may be approved and/or required by the City Engineer.

(3) Site landscaping. Upon completion of construction activities, minimal grading and clearing of existing vegetation may be allowed within the bluff or ravine area in order to install new vegetation and lawn landscaping. However, no such grading, clearing or landscaping will be permitted within 20 feet of the ravine edge or within 50 feet of the bluff edge.

(4) Site drainage. A site grading permit, approved by the City Engineer, shall be required before any site grading work may take place. Measures shall be required to control stormwater runoff from impervious areas, lawns and footing drains. Wherever feasible, such runoff shall be collected and carried to established storm drainage facilities located away from the ravine or bluff area as the case may be. If discharge into an established storm drainage structure is not feasible, drainage shall be collected and discharged into the ravine channel or from the top of the bluff to its base in a manner which minimizes disruption of the ravine or bluff slope and potential erosion of the bluff slope and potential erosion of the bluff toe or the ravine toe and channel, subject to the specific approval of the City Engineer.

(5) Channel modification. Where the City Engineer finds that an unstable ravine or bluff slope or toe exists or is likely, or where the configuration of the ravine channel has resulted in erosion or suggests the probability of future erosion, channel, toe or slope stabilization measures may be required by the City Engineer.

(6) Required information. Prior to submission to the city of a request for tentative approval of a plat of subdivision or review of an application for a building permit, the owner or agent of the owner of property, subject to this section, shall submit to the City Engineer all applicable site information, including, but not limited to, topography, existing trees and vegetation, ravine and/or bluff conditions (including establishment of the limits of the ravine or bluff area), geological and soil conditions, proposed plans for landscaping and lawn installation, and such other information as may be deemed necessary by the City Engineer in order to implement the policy and requirements of this section.

(D) Review guidelines and approval procedures.

(1) The City Surveyor and Engineer may approve encroachments into the bluff or ravine setback area for the construction of landscape features, auxiliary buildings (slab foundation), bridges, wood decks or other similar facilities, if the City Surveyor and Engineer finds that:

(a) The proposed construction is appropriate only for the requested location;

(b) The proposed construction will have no significant impact on the ravine or bluff area; and

CITY OF LAKE FOREST - CHAPTER 159: ZONING

(c) The proposed construction is of relatively low value, except for items related to ravines such as vehicular bridges.

(2) The Zoning Board of Appeals may consider variations from the requirements of this section for construction of habitable facilities such as room additions or new residences, and construction of significant auxiliary buildings. In considering such variations, the following guidelines, in addition to the four findings of fact as set forth in § 159.042(F)(4)(b) shall be considered:

(a) Construction in the 20 foot setback for the 22 degree slope intersect could be recommended if there exists adequate toe of slope improvements;

(b) Construction in the 22 degree slope angle could be recommended if there exists adequate slope or other improvements that effectively increase the stable slope angle;

(c) Variation from building on land that exceeds 10% slope but is outside of the 20 foot setback from the 22 degree slope angle could be recommended if entire slope shows no indication of instability; and

(d) Variation from any restriction could be recommended if the requested construction is less nonconforming than the existing residence and the ravine or bluff slope does not show any indication of instability; or if the applicant submits evidence based on current geotechnical engineering practices such as the Simplified Bishop Method of stability analysis whereby variables of soil shear strength, ground water level, unit weight of soil and slope angles are considered which result in the determination that the particular slope is stable at an angle greater than 22 degrees.

(Prior Code, § 46-15) (Ord. eff. 1-15-1972; Ord. 91-1(A), passed 1-7-1991)

APPENDIX A: EXAMPLE OF LOT TYPES

(Prior Code, Ch. 46, App. A., Exh. 1) (Ord. eff. 1-15-1972; Ord. 91-1(A), passed 1-7-1991)

APPENDIX B: LOT WIDTH AND LOT DEPTH EXPLAINED

(Prior Code, Ch. 46, App. A., Exh. 2) (Ord. eff. 1-15-1972; Ord. 91-1(A), passed 1-7-1991)

APPENDIX C: REQUIRED YARDS

(Prior Code, Ch. 46, App. A., Exh. 3) (Ord. eff. 1-15-1972; Ord. 91-1(A), passed 1-7-1991)

