

**Steep Slope Protection/ Wetland and Watercourse protection  
Region 5  
Michigan**

**Shoreline Bluffs Overlay District  
Emmet County**

*Summary*

The goal of this ordinance is to protect the integrity of steep slopes and bluffs, in addition to preventing excessive unnatural sedimentation into Lake Michigan. Provisions for a site plan require detailed information on the existing vegetation, hydrology, and built features on or near the proposed disturbed site. Site plans must be in compliance with a number of standards, including regulations on driveway design, runoff, and limits to native vegetation disturbance. The site plan must also include a shoreline greenbelt to function as natural erosion control during construction.

*Ordinance*

**ORDINANCE #10-220**

**EFFECTIVE DATE: 08/06/02**

AN ORDINANCE TO AMEND ORDINANCE NO. 10, THE EMMET COUNTY ZONING ORDINANCE, AS AMENDED, BY THE ADDITION OF ARTICLE XVI, "SHORELINE BLUFFS OVERLAY DISTRICT"

**THE COUNTY OF EMMET ORDAINS:**

**SECTION I:**

Ordinance No. 10, the Emmet County Zoning Ordinance, as amended, is hereby amended by adding Article XVI, "Shoreline Bluffs Overlay District," to read as follows:

**ARTICLE XVI - SHORELINE BLUFFS OVERLAY DISTRICT**

**INTENT**

The County of Emmet establishes the Shoreline Bluffs Overlay District along Lake Michigan with the following intent:

- To protect the natural environment and the integrity of steep slopes and bluffs which are a distinctive and valuable natural feature of Emmet County.
- To encourage safe driveway design relative to intersection configuration, grade, safety barriers, and surfaces.

- To recognize the potential for hazards to persons and property from bluff-side development relative to limited emergency vehicle access.
- To minimize bluff instability to avoid the erosion, undermining, slumping or collapse of steep slopes and protect the waters of Lake Michigan from unnatural sedimentation originating on the shoreline bluffs.
- To promote the recommendations of the Emmet County/City of Petoskey Comprehensive Plan relative to the constraints that should be considered in developments that impact hillside environments.
- To supplement other laws and regulations impacting the Coastal Zone encompassing areas under County Zoning within 1,000 feet of the Ordinary High Water Mark, as referenced in Section 2 of Act 245, P.A. 1970 as amended.

## **SECTION 1600. DEFINITIONS.**

For the purposes of this Article, the terms listed shall have the following meanings:

1. **Driveway** - means a driveway, lane, or any other way providing vehicular access to or from a private or public road.
2. **Grade** - means the number of feet of vertical rise of a slope per one hundred feet of horizontal run, expressed as a percentage.
3. **Native vegetation** - means original or indigenous plants of the vicinity including trees, shrubs, vines, wild flowers, aquatic plants, or ground cover.
4. **Retaining wall** - means any structure that projects four (4) feet or more above the natural or finished ground surface for the purpose of stabilizing slopes, bluffs, or banks, and/or for creating a base or platform on which to site a building, structure, driveway, parking area and/or walkway. A retaining wall may be constructed of stone, masonry, sheet steel, rock, timber or other composition of material that satisfies engineering/construction standards for the applied purpose. A building wall, or part thereof, may also serve as a retaining wall.
5. **Shoreline Bluff** - means a geologic land form consisting of a promontory, cliff, or palisade having a broad steep face. For purposes of this Ordinance Article, refers to bluffs paralleling more or less, the shoreline of Lake Michigan.
6. **Site, Disturbed** - means that area of a property intended to be disturbed by construction activity, including but not limited to tree removal, vegetation removal, grading, and the construction of buildings, foundations, footings, driveways, walkways, stairways, decks, retaining walls, terraces, underground and overhead utility systems, storm drainage systems and the like.

7. **Steep Bluff slope** - means any shoreline bluff that has a grade of 33% or steeper with a vertical extent of fifteen (15) feet or more.

## **SECTION 1601. ZONING PERMIT REQUIREMENT**

No new use of land or new use of any building, structure, or part thereof, shall occur in any Steep Slope in a Shoreline Bluff area without a Zoning Permit issued in accordance with the provisions of this Article and this Ordinance.

This Zoning Permit requirement shall not apply to (1) farm use buildings if not for human occupancy, or (2) open decks, stairways, trams, wells, landscaping, or other similar minor improvements, but shall apply to driveways and retaining walls.

The terms of the shoreline bluffs overlay do not exempt applicants from seeking permits related to soil erosion, stormwater management, endangered species, and other pertinent environmental regulations including the Critical Dune Act, or from any permits related to construction, sanitation, access, and the like.

## **SECTION 1602. SLOPE DEFINITION AND PERMIT REQUIREMENTS**

### **Shoreline bluff slopes shall be regulated as follows:**

Slopes with grades of 33% or greater. Applications for Zoning Permits for uses in shoreline bluff slopes lying within 1,000 feet of the Ordinary High Water Mark, and which disturb slopes of 33% or greater, shall include a site plan which complies with the requirements and standards set forth in Section 1603 of this Article.

The general indicator of steep coastline bluff slopes in Emmet County shall be those properties with soils classified as "F" slopes in the Soil Survey of Emmet County, Michigan, issued in December, 1973, by the United States Department of Agriculture Soil Conservation Service. More specific slope determinations or verifications may be made by the Zoning Administrator using other reliable sources including site specific slope mapping.

## **SECTION 1603. SITE PLAN REVIEW**

### **1. GRAPHIC REQUIREMENTS**

In addition to the graphic requirements for site plans set forth in Section 2405(2) of this Ordinance, site plans required under this Article shall contain the following information:

- (1) All lake shorelines, streams, wetlands, groundwater seeps, springs, soil types, soil strata, and groundwater table on the disturbed area of the site.

- (2) All existing roads, driveways, structures, culverts, and other pertinent features on the site or within 100' of the site area to be disturbed.
- (3) Existing ground contour lines and proposed ground contour lines at 2-foot intervals encompassing the area to be disturbed.
- (4) All proposed construction activities on the site.
- (5) An inventory of existing vegetation and individual trees measuring 3" or more in diameter (caliper) proposed to be disturbed by construction activities.
- (6) Slope stability analyses of existing slopes and of proposed excavations and embankments.
- (7) Construction staging and progress schedule.
- (8) Additional information if determined to be necessary or helpful by the Planning Commission in reaching a decision.

2. CERTIFICATION

All site plans required under this Article shall be signed and sealed by a Michigan Registered Professional Engineer.

In addition, upon the completion of construction, a Michigan Registered Professional Engineer shall certify that all work has been done in accordance with the approved site plan. Such certification shall be provided within 45 days of the completion of construction.

3. IMPACT STATEMENT

All site plans required under this Article shall meet the impact statement requirements for site plans set forth in Section 2405(3), Site Plan Review, of this Ordinance. In addition an environmental assessment that comports with Section 1705 (DOD Dune Overlay District) of this Ordinance and/or an environmental impact statement that comports with Section 1706 of this Ordinance may be required if determined to be necessary or helpful in reaching a decision.

4. PROCEDURE

The Emmet County Planning Commission shall review all site plans for projects disturbing bluff slopes of 33% or greater with due notice given to all owners of

record within 300 feet  
of the subject property  
and shall:

- (1) Determine whether or not the requirements of this Ordinance have been met.
- (2) Require an independent engineering review of the site plan, if determined to be necessary or helpful in reaching a decision.
- (3) Recommend alterations of the plan to minimize adverse effects on the natural environment and/or neighboring properties as a condition of approval.
- (4) Seek the assistance of the Natural Resource Conservation Service (NRCS) and/or Soil Erosion Officer relative to issues of soil erosion or stormwater runoff control, if determined to be necessary or helpful in reaching a decision.
- (5) Within forty (40) days of the filing of a complete application, render a decision to approve, reject or conditionally approve the plan; provided, however, that a decision may be postponed for up to an additional sixty (60) days to allow for an independent engineering review of a site plan, or with the consent of the applicant, agree to a different schedule, particularly where seasonal limitations may dictate a delay.
- (6) In approving a site plan under this Article, the Planning Commission may impose reasonable conditions to ensure compliance with the standards, requirements and intent of this Article and this Ordinance.

A site plan shall be approved if it contains the information required by this Ordinance and is in compliance with this Ordinance, and any conditions imposed under this Ordinance. An approved site plan shall become part of the record of approval, and subsequent actions relating to the activity permitted shall be consistent with the approved site plan unless a change conforming to this Ordinance receives the mutual agreement of the owner of the land affected and the Planning Commission.

5. FEES

In addition to any other fees required under this Ordinance, a supplemental fee shall be required from the applicant to cover the actual costs of any independent engineering review before, during and after construction.

6. PERFORMANCE GUARANTEES

An adequate performance guarantee in the form of a surety bond, cash, certified or cashier's check, certificate of deposit, or irrevocable bank letter of credit, as selected by the applicant, may be required by the Planning Commission to insure the faithful completion of improvements in accordance with the plan required under this Article. The amount of the guarantee shall be set by the Planning Commission based upon reliable

estimates of the costs of completing the work. Said guarantee shall be refunded upon satisfactory completion of the improvements, per engineer's certification as required in Section 1604-2, hereof.

7. STEEP BLUFF SLOPE STANDARDS

The Planning Commission shall reject any site plan that does not comply with the standards set forth in Section 2405(4), Site Plan Review, of this Ordinance and with the following standards:

- (1) All driveways intersecting public roads shall intersect at an angle between 70 and 110 degrees with the public road.
- (2) The maximum longitudinal driveway entrance shall be no steeper than a 4% grade for a minimum of 30' from the edge of the traveled lane of a public road.
- (3) The maximum longitudinal driveway grade shall be 12%.
- (4) The maximum grade across a switchback or cul-de-sac shall be 6%.
- (5) The minimum driveway width shall be 15' along tangents (straight sections).
- (6) The minimum driveway width shall be 24' in curves with deflection angles of 90 degrees and greater with a minimum outside radius of 45'.
- (7) Minimum 50-foot long tapers shall be constructed in driveway width transitions.
- (8) A vehicle safety barrier shall be installed along all driveway sections with parallel drop-off grades steeper than 33% and greater than a 10-foot vertical height to level ground.
- (9) Driveways shall be surfaced with bituminous concrete or Portland cement concrete. The pavement structure shall be designed and constructed according to the requirements in this Ordinance for private roads.
- (10) All stormwater runoff shall remain on non-erodible surfaces or in an enclosed drainage system.
- (11) The amount of disturbed area shall be minimized at any one time.
- (12) The impact to wildlife and native vegetation shall be the minimized by preserving the natural habitat to the extent possible.
- (13) Existing native vegetation shall be preserved to the maximum extent possible. Where feasible, the existing soil mat (topsoil, root structure, tree stumps, etc.) shall be maintained when trees and brush are removed. Vegetation shall be

restored in areas affected by construction activities, and where feasible, native vegetation shall be used in such restoration.

In evaluating site clearance activity relative to protecting Lake Michigan and limiting potential property damage, the Site Plan shall, as appropriate in each case, include a Shoreline Greenbelt (See Section 200, Definitions) to:

1. Act as a natural trap or barrier for soil/debris that slumps, falls, or erodes from the bordering bluff slope, and
2. Serves as a natural erosion control measure.

The extent of the Shoreline Greenbelt shall be based on Site Plan information as pertinent to each specific property.

The Planning Commission may waive or allow a modification of one or more of standards 1 through 13 herein, if supported by construction plans signed and sealed by a Michigan Registered Professional Engineer who shall take into account the concerns of affected road agencies, environmental protection agencies and public safety authorities.

#### **SECTION 1604. VARIANCES**

The Zoning Board of Appeals may grant a variance from one or more of the shoreline bluff standards in this Article as provided in Article XXV of this Ordinance. In addition to the meeting the applicable requirements of Article XXV, the applicant must show that there is no feasible and prudent alternative location or method to accomplish the benefits expected from the use. A lot of record shall not be created strictly for the purpose of avoiding consideration of alternative locations under this Section.

#### **SECTION II: Conflicting Regulations**

The requirements of Article XXVIII, Conflicting Regulations notwithstanding, the terms, conditions and standards of the Critical Dune Act (P.A. 451 of 1994, as amended) shall supercede the terms, requirements and conditions of the Shoreline Bluffs Overlay District.



\_\_, and that it is a true and correct copy thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand  
and affixed the Seal of the County of Emmet this \_\_\_\_\_  
day of \_\_\_\_\_ 2002 at Petoskey, Michigan.

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IRENE D. GRANGER, CLERK

ATTEST:

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NICHOLAS WHITE, CHAIRMAN  
EMMET COUNTY BOARD OF COMMISSIONERS,  
CHAIRMAN

R. THOMAS MARTIN, DIRECTOR  
OFFICE OF POLICY & LEGISLATIVE AFFAIRS  
DEPT. OF CONSUMER & INDUSTRY SERVICES  
DATED: