

**SAMPLE CRITICAL DUNE AREA OVERLAY DISTRICT
REGULATIONS: A MINIMUM APPROACH**

ARTICLE _____ DUNE OVERLAY ZONE

Section 1.000 PURPOSE

Section 1.010 In keeping with the findings of the Michigan Legislature and the authority granted to local government in Public Act 222 of 1976, as amended, the _____ (*Jurisdiction type*) of _____ (*name*) hereby declares that :

- (1) The critical dune areas of _____ (*jurisdiction name*) are a unique, irreplaceable, and fragile resource that provide significant recreational, economic, scientific, geological, scenic, botanical, educational, agricultural, and ecological benefits to the people of this community, to the state, to people from other states and countries who visit this resource.
- (2) The benefits derived from alteration, industrial, residential, commercial, agricultural, silvicultural, and the recreational use of critical dune areas shall occur only when the protection of the environment and the ecology of the critical dune areas for the benefit of the present and future generations is assured.
- (3) The following regulations embodied in this Dune Overlay Zone are adopted as the minimum measures necessary to achieve these ends.

Section 2.000 DEFINITIONS

Section 2.010 The following terms used in this Dune Overlay Zone shall have the meaning defined below:

- (1) "Contour change" includes any grading, filling, digging, or excavating that significantly alters the physical characteristic of a critical dune area, except that which is involved in sand dune mining.
- (2) "Crest" means the line at which the first lakeward facing slope of a critical dune ridge breaks to a slope of less than 18 for a distance of at least 20 feet, if the areal extent where this break occurs is greater than 1 /1 0 acre in size.
- (3) "Critical dune area" means that geographic area designated in the "atlas of critical dune areas" dated February 1989 that was prepared by the department and any other such locally designated sand dune areas included on the _____ (*name of jurisdiction*) Zoning Map.
- (4) "Department" means the department of natural resources.
- (5) "Foredune" means 1 or more low linear dune ridges that are parallel and adjacent to the shoreline of a Great Lake and are rarely greater than 20 feet in height. The lakeward face of a foredune is often gently sloping and may be vegetated with dune grasses and low shrub vegetation or may have an exposed sand face.

- (6) "Person" means an individual, partnership, firm, corporation, association, local unit of government, or other political subdivision of the state, or a state or state agency.
- (7) "Restabilization" means restoration of the natural contours of a critical dune to the extent practicable, and the restoration of the protective vegetative cover of a critical dune through the establishment of indigenous vegetation, and the placement of snow fencing or other temporary sand trapping measures for the purpose of preventing erosion, drifting, and slumping of sand.
- (8) "Sand dune area" means that area designated by the department which includes those geomorphic features composed primarily of sand, whether windblown or of other origin and which lies within 2 miles of the ordinary highwater mark on a Great Lake as defined, in section 2 of the Great Lakes submerged lands act, Act No. 247 of the Public Acts of 1955, as amended, being section 322.702 of the Michigan Compiled Laws, and includes critical dune areas.
- (9) "Sand dune mining" means the removal of sand from sand dune areas for commercial, or industrial purposes, or both.
- (10) "Special use project" means any of the following:
 - (a) A proposed use in a critical dune area for an industrial or commercial purpose regardless of the size of the site.
 - (b) A multifamily use of more than 3 acres.
 - (c) A multifamily use of 3 acres or less if the density of use is greater than 4 individual residences per acre.
 - (d) A proposed use in a critical dune area, regardless of size of the use, that the planning commission determines would damage or destroy features of archaeological or historical significance.
- (11) "Use" means a developmental, silvicultural, or recreational activity done or caused to be done by a person that significantly alters the physical characteristic of a critical dune area or a contour change done or caused to be done by a person, but does not include sand dune mining.

Section 3.000 AREA AFFECTED

Section 3.010 The provisions of this Dune Overlay Zone apply to all lands so depicted on the map entitled _____ (*name of jurisdiction*) Zoning Map which is a part of this Ordinance. These lands include the entire critical dune area as designated by the Michigan Department of Natural Resources pursuant to PA 222 of 1976, the Sand Dunes Protection and Management Act, and to such other lands as locally designated and depicted thereon. Locally designated sand dunes together with dunes designated under PA 222 shall be known as critical dune areas for the purpose of this ordinance. Lands that are within 250 feet of a critical dune area, that are determined by the Planning Commission to be essential to the hydrology, ecology, topography, or integrity of a critical dune area ;shall also receive all the protection afforded to critical dunes in this Overlay Zone, even if not so depicted on the _____ Zoning Map.

Section 3.020 This Overlay Zone establishes regulations which apply in addition to those of the underlying district. Lot size, density, and front and side setbacks shall be as established in the underlying district, except that lots created after the effective date of this Article shall all be at

least ____ feet in width (*245 feet is recommended*) and shall have a ratio of lot width to lot depth of not less than ____ (*1.5 is recommended*). Where the provisions of this Zone conflict with those of the underlying district, the provisions of the Dune Overlay Zone shall supersede.

Section 4.000 LOTS AFFECTED

Section 4.010 After the effective date of this Article:

- (1) No subdivision or condominium development shall occur within the Dune Overlay Zone except in compliance with the minimum standards of this Ordinance and after review and approval of a site plan and other documents as required herein;
- (2) No structure shall be constructed, reconstructed, altered, or relocated except in strict compliance with the requirements of this Ordinance;
- (3) No use which is in existence as of the effective date of this Article shall be expanded, except in strict compliance with the minimum standards of this Ordinance.
- (4) Prior to the creation and recording of any new lot, the property owner is encouraged to seek a zoning permit to insure the lot will be useable for a purpose permitted under this Ordinance.

Section 5.000 APPLICATION REQUIREMENTS

Section 5.010 All applications for permits for the use of a critical dune area shall include in writing a showing or evidence:

- (1) That the county enforcing agency designated pursuant to the soil erosion and sedimentation control act of 1972, Act No. 347 of the Public Acts of 1972, being sections 282.101 to 282.125 of the Michigan Compiled Laws, finds that the project is in compliance with Act No. 347 of the Public Acts of 1972 and any applicable soil erosion and sedimentation control ordinance that is in effect in _____ (*name of jurisdiction*).
- (2) That a proposed sewage treatment or disposal system on the site has been approved by the county health department or the department.
- (3) Assurances that the cutting and removing of trees and other vegetation will be performed according to the instructions or plans of the local soil conservation district. These instructions or plans may include all applicable silvicultural practices as described in the "voluntary forestry management guidelines for Michigan" prepared by the society of American foresters in 1987. The instructions or plans may include a program to provide mitigation for the removal of trees or vegetation by providing assurances that the applicant will plant on the site more trees and other vegetation on the site than were removed by the proposed use.
- (4) Except as otherwise provided in subdivision (5), a site plan that contains data required by this Section and Section _____ (*the site plan review section of the ordinance*) concerning the physical development of the site and extent of disruption of the site by the proposed development. The Planning Commission may consult with the soil conservation district in determining the required data.
- (5) An environmental assessment that comports with Section 5.020 for a special use project. An environmental impact statement containing the information in Section 5.030 may be required by the Planning Commission if the additional information is

considered necessary or helpful in reaching a decision on a permit application for a special use project.

- (6) If the Planning Commission is not certain of the degree of slope on a property for which a use permit is sought, the Planning Commission may require that the applicant supply contour maps of the site with 5-foot intervals (*2-foot intervals are recommended*) at or near any proposed structure or roadway or consult with the local soil conservation district regarding the degree of slope.
- (7) The payment of any required fees for processing and/or professional review of the submitted site plan.

Section 5.020 When an environmental assessment is required, it shall include the following information concerning the site of the proposed use:

- (1) The name and address of the applicant.
- (2) A description of the applicant's proprietary interest in the site.
- (3) The name, address, and professional qualifications of the person preparing the environmental assessment and his or her opinion as to whether the proposed development of the site is consistent with protecting features of environmental sensitivity and archaeological or historical significance that may be located on the site.
- (4) The description and purpose of the proposed use.
- (5) The location of existing utilities and drainage ways.
- (6) The general location and approximate dimensions of proposed structures.
- (7) Major proposed change of land forms such as new lakes, terracing, or excavating.
- (8) Sketches showing the scale, character, and relationship of structures, streets, or driveways, and open space.
- (9) Approximate location and type of proposed drainage, water, and sewage facilities.
- (10) Legal description of property.
- (11) A physical description of the site, including its dominant characteristics, its vegetative character, its present use, and other relevant information.
- (12) A natural hazards review consisting of a list of natural hazards such as periodic flooding, poor soil bearing conditions, and any other hazards peculiar to the site.
- (13) An erosion review showing how erosion control will be achieved, and illustrating plans or programs that may be required by any existing soil erosion and sedimentation ordinance.

Section 5.030 When an environmental impact statement is required, it shall include all of the following (*a community may delete or add to this list or require all elements only for certain land uses such as commercial or industrial land uses*):

- (1) The name and address of the applicant.
- (2) A description of the applicant's proprietary interest in the site of the proposed use.

- (3) The name, address, and professional qualifications of the proposed professional design team members, including the designation of the person responsible for the preparation of the environmental impact statement.
- (4) The description and purpose of the proposed use.
- (5) Six copies and 1 reproducible transparency of a schematic use plan of the proposed use showing the general location of the proposed use and major existing physical and natural features on the site, including, but not limited to, watercourses, rock outcropping, wetlands, and wooded areas.
- (6) The location of the existing utilities and drainage ways.
- (7) The location and notation of public streets, parks, and railroad and utility rights-of-way within or adjacent to the proposed use.
- (8) The general location and dimensions of proposed streets, driveways, sidewalks, pedestrian ways, trails, off-street parking, and loading areas.
- (9) The general location and approximate dimensions of proposed structures.
- (10) Major proposed change of land forms such as new lakes, terracing, or excavating.
- (11) Approximate existing and proposed contours and drainage patterns, showing at least 5-foot contour intervals.
- (12) Sketches showing the scale, character, and relationship of structures, streets, or driveways, and open space.
- (13) Approximate location and type of proposed drainage, water and sewage treatment and disposal facilities.
- (14) A legal description of the property.
- (15) An aerial photo and contour map showing the development site in relation to the surrounding area.
- (16) A description of the physical site, including its dominant characteristics, its vegetative character, its present use, and other relevant information.
- (17) A soil review giving a short descriptive summary of the soil types found on the site and whether the soil permits the use of septic tanks or requires central sewer. The review may be based on the "unified soil classification system" as adopted by the United States government corps of engineers and bureau of reclamation, dated January 1952, or the national cooperative soil survey classification system, and the standards for the development prospects that have been offered for each portion of the site.
- (18) A natural hazards review consisting of a list of natural hazards such as periodic flooding, poor soil bearing conditions, and any other hazards peculiar to the site.
- (19) A substrata review including a descriptive summary of the various geologic bedrock formations underlying the site, including the identification of known aquifers, the approximate depths of the aquifers and, if being tapped for use, the principal uses to

be made of these waters, including irrigation, domestic water supply, and industrial usage.

- (20) An erosion review showing how erosion control will be achieved, and illustrating plans or programs that may be required by any existing soil erosion and sedimentation ordinance.
- (21) At a minimum, plans for compliance with all of the following standards shall be required for construction and post-construction periods:
 - (a) Surface drainage designs and structures are erosion proof through control of the direction, volume, and velocities of drainage patterns. These patterns shall promote natural vegetation growth that are included in the design in order that drainage waters may be impeded in their flow and percolation encouraged.
 - (b) The design shall include trash collection devices when handling street and parking drainage to contain solid waste and trash.
 - (c) Watercourse designs, control volumes, and velocities of water to prevent bottom and bank erosion. In particular, changes of direction shall guard against undercutting of banks.
 - (d) If vegetation has been removed or has not been able to occur on surface areas such as infill zones, it shall be the duty of the developer to stabilize and control the impacted surface areas to prevent wind erosion and the blowing of surface material through the planting of grasses, and windbreaks and other similar barriers.

Section 6.000 PERMITTED & PROHIBITED USES

Section 6.010 The following uses are not permitted in a critical dune area:

- (1) The disposal of sewage on-site unless the standards of applicable sanitary codes are met or exceeded.
- (2) A use that does not comply with the minimum setback requirements required by rules that are promulgated under the shorelands protection and management act of 1970, Act No. 245 of the Public Acts of 1970, being sections 281.631 to 281.644 of the Michigan Compiled Laws.
- (3) A surface drilling operation that is utilized for the purpose of exploring for or producing hydrocarbons or natural brine or for the disposal of the waste or by-products of the operation; except that those that are lawfully in existence -at a site as of July 5, 1989 may be continued, completed, restored, or substituted upon approval of the director of the department of natural resources.
- (4) Production facilities regulated pursuant to the mineral well act, Act No. 315 of the Public Acts of 1969, being sections 319.21 1 to 319.236 of the Michigan Compiled Laws, and Act No. 61 of the Public Acts of 1939, being sections 319.1 to 319.27 of the Michigan Compiled Laws; except that those that are lawfully in existence at a site as of July 5, 1989 may be continued, completed, restored, or substituted upon approval of the director of the department of natural resources.

Section 6.020 Unless a variance is granted pursuant to Section 1 1.000, the following uses are not permitted in a critical dune area:

- (1) A structure on a slope within a critical dune area that is 18 to 25% unless the structure is in accordance with plans prepared for the site by a registered professional architect or a licensed professional engineer and the plans provide for the disposal of storm waters without serious soil erosion and without sedimentation of any stream or other body of water. Prior to approval of the plan, the Planning Commission shall consult with the local soil conservation district.
- (2) A use on a slope within a critical dune area that is greater than 25%.
- (3) A use that is a structure that is not in compliance with subsection (8).
- (4) A use involving a contour change that is likely to increase erosion, decrease stability, or is more extensive than required to implement a use for which a permit is requested.
- (5) Silvicultural practices, as described in the "voluntary forest management guidelines for Michigan", prepared by the society of American foresters in 1987, that are likely to increase erosion, decrease stability, or are more extensive than required to implement a use for which a permit is requested.
- (6) A use that involves a vegetation removal that is likely to increase erosion, decrease stability, or is more extensive than required to implement a use for which a permit is requested.
- (7) A use that is not in the public interest. In determining whether a proposed use is in the public interest, the Planning Commission shall consider both of the following:
 - (a) The availability of feasible and prudent alternative locations or methods, or both, to accomplish the benefits expected from the use. If a proposed use is 1 single family dwelling on a lot of record owned by the applicant, consideration of feasible and prudent alternative locations shall be limited to the lot of record on which the use is proposed. A lot of record shall not be created strictly for the purpose of avoiding consideration of alternative locations under this subparagraph.
 - (b) The impact that is expected to occur to the critical dune area, and the extent to which the impact may be minimized.
- (8) A use that is a structure shall be constructed behind the crest of the first landward ridge of a critical dune area that is not a foredune. However, if construction occurs within 100 feet measured landward from the crest of the first landward ridge that is not a foredune, the applicant shall demonstrate that the proposed use meets all of the following requirements:
 - (a) The use will not destabilize the critical dune area.
 - (b) Contour changes and vegetative removal are limited to that essential to siting the structure.
 - (c) Access to the structure is from the landward side of the dune.
 - (d) The dune is restabilized with indigenous vegetation.
 - (e) Construction techniques and methods are employed that mitigate the impact on the dune.
 - (f) The crest of the dune is not reduced in elevation.

Section 7.000 SITE PLAN REVIEW

Section 7.010 reviewing a site plan submitted along with all the application information required in Section. 5.000, the Planning Commission shall:

- (1) Insure that the requirements of the zoning ordinance have been met and that the plan is consistent with existing laws.
- (2) Determine whether the advice or assistance of the soil conservation district will be helpful in reviewing a site plan, and if so, to so seek it.
- (3) Recommend alterations of a proposed development to minimize adverse effects anticipated if the development is approved and to assure compliance with all applicable state and local requirements.

Section 8.000 USE STANDARDS

Section 8.010 Any lot or parcel which in whole or part, falls within the Dune Overlay Zone shall not be used except upon receipt of a zoning permit from the Zoning Administrator. No zoning permit shall be issued for use of lands within this Zone until a site plan meeting the requirements of this Section and those of Section _____ (*Site Plan Review*) have been met. The Planning Commission will make the final determination as to whether or not these standards have been met and shall exercise its lawful discretion in all cases in favor of protection of the critical dune area.

Section 8.020 No grading or clearing of a site shall be done prior to issuance of a zoning permit as required in this Ordinance.

Section 9.000 SPECIAL USE PROJECT REVIEW PROCEDURES

Section 9.010 Any proposed special use project shall be reviewed and a recommendation for approval, approval with conditions or denial made by the Planning Commission pursuant to the special land use procedures of Section _____ of this Ordinance. (*See Section 4a. of the City-Village Zoning Act, and Section 16b. of both the Township Rural Zoning Act, and the County Rural Zoning Enabling Act*)

Section 9.020 Prior to issuing a permit allowing a special use project within a critical dune area, the Planning Commission shall submit the special use project application and site plan and their proposed decision to the Department of Natural Resources, Land & Water Management Division. The department shall have 60 days to review the site plan and may affirm, modify, or reverse the proposed decision of the Planning Commission.

Section 10.000 NONCONFORMING USES

Section 10.010 The lawful use of land or a structure, as existing and lawful within a critical dune area at the time of the adoption of this overlay zone, may be continued although the use of that land or structure does not conform to the provisions of this overlay zone. The continuance, completion, restoration, reconstruction, extension, or substitution of existing nonconforming uses of land or a structure may continue consistent with the nonconforming use requirements of this Ordinance. See Section _____.

Section 10.020 A structure or use located in a critical dune area that is destroyed by fire, other than arson for which the owner is found to be responsible, or an act of nature, except for erosion, may be rebuilt or replaced if the structure or use was lawful at the time it was

constructed or commenced and the structure does not exceed in size or scope that which was destroyed and does not vary from its prior use.

Section 11.000 VARIANCES

Section 11.010 The board of appeals may grant a variance from the requirements of this overlay zone if an unreasonable hardship will occur to the owner of the property if the variance is not granted. The procedural requirements of Section *(the variance procedure section)* should be adhered to. A variance shall be subject to the following limitations:

- (1) A variance shall not be granted from a setback requirement of this Article unless the property for which the variance is requested is 1 of the following:
 - (a) A nonconforming lot of record that is recorded prior to July 5, 1989 and that becomes nonconforming due to the operation of PA 222 of 1976 or this zoning ordinance.
 - (b) A lot legally created after July 5, 1989 that later becomes nonconforming due to natural shoreline erosion.
 - (c) Property on which the base of the first landward critical dune of at least 20 feet in height, that is not a foredune, is located at least 500 feet inland from the first foredune crest or line of vegetation on the property. However, the setback shall be a minimum of 200 feet measured from the foredune crest or line of vegetation.
- (2) A variance shall not be granted that authorizes construction of a dwelling or other permanent building on the first lakeward facing slope of a critical dune area or a foredune. However, a variance may be granted if the proposed construction is near the base of the lakeward facing slope of the critical dune on a slope of less than 12% on a nonconforming lot of record that is recorded prior to July 5, 1989 that has borders that lie entirely on the first lakeward facing slope of the critical dune area that is not a foredune.

Section 12.000 PENALTIES

Section 12.010 In addition to the penalty provisions of this Ordinance, the provisions of MCL 281.672 shall apply in the event of any violation. Pursuant to subsection (4) of said Section, a court may impose on a person who violates any provision of this Dune Overlay Zone, or a provision of a permit issued hereunder, a civil fine of not more than \$5,000.00 for each day of violation, or order a violator to pay the full cost of restabilization of a critical dune area or other natural resource that is damaged or destroyed as a result of a violation, or both.

Optional Provisions

The following optional provisions could be inserted in the minimum ordinance language just presented. These provisions expand either the scope of the protection afforded by the Act, or are more restrictive than the minimum provisions.

Buildable Area

Adding the definition of "buildable area" (below) to section 2.010 and replacing subsection (4) of Section 4.010 (below) will require that all lots created in a critical dune area meet the lot width, depth and buildable area requirements of the ordinance.

Section 2.010 (Renumber All Other Definitions)

- (1) "Buildable area" means an area of a lot or parcel which is of sufficient size and character so as to support a principal structure and a reasonable use of the property without being in

violation of any local, state or federal environmental or other regulations adopted to protect the public health, safety or general welfare. Buildable area shall not include any wetland, 100-year floodplain, high risk erosion area, drainage way, lake or similar natural feature which poses an impediment or hazard to safe construction or use of property without sufficient upland property to meet ordinance requirements. Contour changes to create a buildable area are permissible only if not contrary to this ordinance, or any other state or federal statute.

4.010

- (4) No lot shall be created, split or otherwise permitted to be used without sufficient width, or depth or buildable area to accommodate a principal structure, as established by the minimum standards of this Ordinance.

Application Requirements

Subsection (5) of Section 5.010 could be supplemented with the following standard to clarify when an EIS was required:

It shall be required for any special use project with more than _____ dwelling units (24 is recommended) or more than _____ square feet of nonresidential development (10,000 square feet is recommended).

A new section 5.040 could be added to provide an optional preliminary approval process to avoid making an applicant get a soil erosion and sedimentation control permit and a septic permit prior to site plan review:

Section 5.040 At the discretion of a prospective applicant, a request for preliminary review of a proposed use in a critical dune area may be filed with the Zoning Administrator. Only the data requirements of Section 5.010 (4) for a site plan and the required fee must be submitted along with a completed request form. Following a meeting with the developer and the Planning Commission (*or whatever body or official is desired*) to review the preliminary site plan, the Planning Commission shall inform the prospective applicant of the changes to the site plan and any additional information that is needed in order to meet the Ordinance requirements. Thereafter, the prospective applicant may proceed with a formal application that meets all the requirements of Section 5.010 and have said application processed in the standard fashion.

Section 5.050 *The following new subsection 5.050 will facilitate on-site inspections of proposed site plan:*

The applicant shall stake the location of all proposed structures and uses prior to a site inspection to check the measurements on a proposed site plan.

Section 7.020 *A performance guarantee will help insure the permit is faithfully executed.*

An adequate performance guarantee in the form of a surety bond (*or cash, check or irrevocable bank letter of credit*) may be collected to insure that any earth change or construction activities carded out in violation of approved permits or an approved site plan can be corrected to the maximum extent. Said guarantee shall be refunded when the work for which it was collected has been satisfactorily completed.

Use Standards

A new subsection 8.030 would be added to cover a wide range of additional issues and considerations as follows:

Section 8.030 Additionally, the following requirements shall be met:

- (1) Each individual lot of a subdivision shall require a separate zoning permit as required in this Section unless the project is constructed by a single developer under a PUD approval; then one permit for each phase of construction may be issued. (*Doesn't apply if no PUD*)

- (2) Development shall not result in the clearance of natural vegetation in excess of that which is necessary for the structure, required access, and the required well, septic or sewage disposal system. Dead, diseased, or dying trees may be removed provided that where such removal of dead vegetation occurs, the open area thereby created shall be replanted within 90 days or by spring with more vegetation than was removed and with vegetation native to the area including: _____. (see pages 2-34 & 2-35 in *Michigan Great Lakes Shoreland Zone Boundary Definition, MSU, June 1975 reproduced in Appendix B*).

Selective cutting of trees to provide a better view of the lake is permitted provided the proposed selective cutting is done in conformance with the following standards:

- (a) No tree cutting is permitted on a foredune.
- (b) Vegetation lakeward of the principal structure setback may be selectively cut, provided each of the following standards is met:
1. an area equal to no more than 30% of the width of the lot as measured from the lot width at the shoreline setback line, may be selectively cut of vegetation or an area not more than 30 feet wide for each 100 feet of shoreline, whichever is less.
 2. selective cutting shall leave sufficient vegetation to screen cars, dwellings, and accessory structures as seen from the water, to preserve natural beauty and to control erosion.
 3. natural shrubbery and low vegetation shall be preserved as far as practicable, and where removed, it shall be replaced with other vegetation native to the area that is equally effective in retarding runoff, prevention erosion, and preserving natural beauty.
 4. where selective cutting would result in exposed sand and/or significantly increase the chance of serious wind or water erosion it shall not be permitted.
- (3) Development shall result in the least topographic modification of the site as is possible.
- (4) Filling and grading shall be permitted only according to an approved site plan and approved Soil Erosion and Sedimentation Control Permit. Sand and bluff stabilization shall be required during all phases of construction and post-construction as specified by standards set forth in the Soil Erosion and Sedimentation Control Act, PA 347 of 1972 and rules adopted thereunder. Such a revegetation program shall be designed to return open sand areas, both preexisting and newly created, to a stable condition, to be initiated as soon as possible following construction and include the measures to be taken for the maintenance of revegetated areas for at least two years after the time of planting. No fill shall be placed in an established floodplain or wetland. No fill shall cause surface water to collect or to run off onto adjoining lands contrary to existing natural drainage.
- (5) No soil, sand, gravel or other material shall be permitted to be removed from lands within this Zone except as may be authorized by a permit granted under PA 222 of 1976, the Sand Dune Protection and Management Act; or as may be incidental to the establishment of a permitted use approved by a site plan under the terms of this Article. Incidental soil, sand or gravel removal shall conform with the following standards:

- (a) Removal for the purpose of constructing a basement shall be permitted, but soil removed shall be retained on the site when doing so does not enlarge the risk of erosion, or create another threat to the development or the natural environment.
 - (b) No dune shall be cut down in elevation between the Lakeshore and the structure setback.
- (6) The total impervious surface area of the site, including the principal structure, accessory structures, paved drive and parking areas, patios and accessory uses shall not exceed _____ (*recommended 10%*) of the total area of the site; except on nonconforming lots of record in existence as of the effective date of this chapter, where it shall not exceed (*recommended 30%*) of the total lot area.
- (7) Narrower lots than specified in Section 3.020 may be permitted for use at the discretion of the Planning Commission provided that the following standards are met:
- (a) one access drive serves two (2) or more lots up to where it must split to serve individual dwellings; and it is demonstrated that one (1) access drive will have a less deleterious effect on the dune environment than multiple drives, or
 - (b) all homes will be set sufficiently farther back from the dune crest than is otherwise allowed to result in an access drive of much shorter length and hence lesser impact on the dune; and
 - (c) the number of additional lots created is not more than twenty five percent of what is allowed in Section 3.020; and
 - (d) where multiple lots are served by one drive, a maintenance agreement satisfactory to the Planning Commission is accepted (*or alternatively, agreement is reached on construction of a road conforming to adopted local or county standards and which is dedicated and accepted as a public road*); and
 - (e) not more than one access path to the beach for each two lots is established.

Alternatively, the community could fix the number of access drives as of the date of adoption of the Article at one per lot or parcel. Any subsequent land division would then have to incorporate that single access point in the lot design. The above standards would then be applied as pertinent.

- (8) The following access requirements apply to all development in the Dune Overlay Zone:
- (a) Wherever feasible, roads and pathways shall be located in areas where vegetation has stabilized the dunes and shall be constructed in a manner that minimizes disruption to the dune.
 - (b) Roads or driveways shall be located landward of the principal structure. Access roads or driveways shall respect the natural topography and may be run in a dry trough between dunes and/or through natural gaps within the dune system. The natural topography of dune crests shall not be altered unless no other means of access is feasible.
 - (c) Whenever feasible, shared access drives, and utility easements shall be provided.
 - (d) Roads or driveways shall have beach grass (*Ammophila breviligulata* Fernald) or other suitable material planted and maintained in a living condition on areas of

open sand to a distance of fifty (50) feet adjacent to each side of the road or driveway.

- (e) No vehicles shall have access shoreward of the shoreline setback except where public access has been provided, is approved and is lawful. No off-road vehicle use is permitted from the shoreline to the inland boundary of a critical dune area except in DNR designated areas, and on the access drive providing access to an approved structure.
 - (f) Parking shall be limited to space necessary to meet the needs of the permitted use and shall be sited and screened along with the principal use pursuant to the standards applied during the site plan review process.
 - (g) If a pathway or trail to the shore is to be used by more than two families, or would cause erosion or damage to non-vegetated or vegetated sand areas, raised boardwalks or stairs shall be erected. Such a structure shall not be designed so as to cause any weakening or damage to the bluff or dune.
 - (h) Stairways or lifts shall be designed so as to avoid placement on dune faces unless there is no other feasible alternative. Even then, approval may be conditioned on a design, color and materials that blends the structure into the dune environment, and the planting of obscuring vegetation where appropriate.
- (9) No livestock grazing or other farming is permitted lakeward of the crest of the first landward ridge of the critical dune.
- (10) Natural and earth tones shall be used on the exterior of all structures visible from the shoreline *(or The exterior of all structures visible from the shoreline shag be composed of materials that are of a design, texture and color so as not to detract from the natural appearance of the shoreline)*.
- (11) No accessory structures with a height, width, or length in excess of 10 feet except for stairways, flag poles or open decks, satellite dishes and signs no greater than 1'x2' shall be permitted lakeward of the setback for the principal structure.
- (12) All shore protection devices shall conform with state and federal permit requirements.
- (13) No use shall significantly alter the dune silhouette which is composed of the dune and the existing vegetation as seen from the shore.
- (14) Clustering of dwelling units is strongly encouraged provided it is done so as to minimize the impacts of uses on the dune. The requirements of Section ____ *(PUD provisions)* and including any density bonuses may be followed for any use in the Dune Overlay Zone, however, all setback and other requirements of this Article still apply.