

ORDINANCE NO. 231

ORDINANCE REPUBLISHED DUE TO INCORRECT VERSION PUBLISHED DECEMBER 28, 2016

AN ORDINANCE AMENDING THE 2013 OKOBOJI ZONING ORDINANCE BY AMENDING SECTION 7.6. LANDSCAPING OF LAKESHORE PROPERTY.

WHEREAS, the 2013 Okoboji Zoning Ordinance on file in the office of the City Clerk designates certain standards as provided by Chapter 414, Iowa Code, and

WHEREAS, it is deemed advisable and recommended by the Planning and Zoning Commission to amend Section 7.6. Landscaping of Lakeshore Property by removing this section from Article VII Lakeshore Residential District (R-3) and creating a new Section 11.22 titled Lakeshore Landscaping and Development Regulations.

NOW THEREFORE IT BE ORDAINED, by the City Council of Okoboji, Iowa;

Section 1. REPEAL ZONING TEXT. The Okoboji Zoning Ordinance is hereby amended by repealing the existing **Section 7.6 Landscaping of Lakeshore Property**.

Section 2. ADD NEW ZONING TEXT. The Okoboji Zoning Ordinance is hereby amended by creating a new Section 6.9. Lakeshore Landscaping and Development Regulations.

Section 6.9. LAKESHORE LANDSCAPING AND DEVELOPMENT REGULATIONS.

Those properties located within the (R-2) Multiple Family Residential District which have any portion of the property touching a littoral shoreline shall be subject to the regulations stated in Section 11.22 of this ordinance.

Section 3. ADD NEW ZONING TEXT. The Okoboji Zoning Ordinance is hereby amended by creating a new Section 7.6. Lakeshore Landscaping and Development Regulations.

Section 7.6. LAKESHORE LANDSCAPING AND DEVELOPMENT REGULATIONS.

Those properties located within the (R-3) Lakeshore Residential District which have any portion of the property touching a littoral shoreline shall be subject to the regulations stated in Section 11.22 of this ordinance.

Section 4. ADD NEW ZONING TEXT. The Okoboji Zoning Ordinance is hereby amended by creating a new Section 8.10. Lakeshore Landscaping and Development Regulations.

Section 8.10. LAKESHORE LANDSCAPING AND DEVELOPMENT REGULATIONS.

Those properties located within the (C-1) General Commercial District which have any portion of the property touching a littoral shoreline shall be subject to the regulations stated in Section 11.22 of this ordinance.

Section 5. ADD NEW ZONING TEXT. The Okoboji Zoning Ordinance is hereby amended by creating a new **Section 11.22 Lakeshore Landscaping and Development Regulations**.

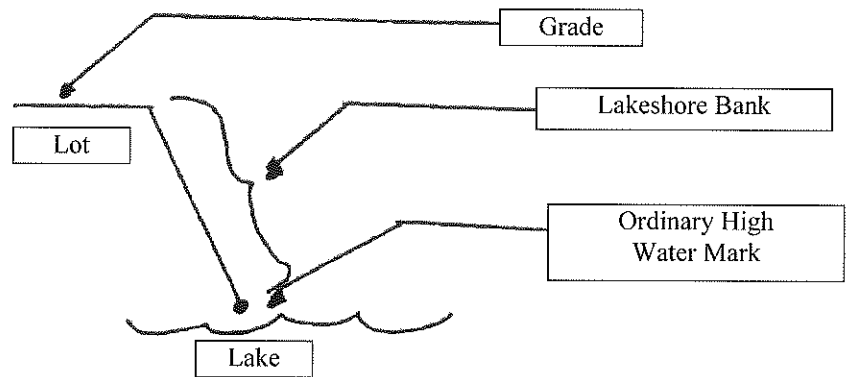
1. *Purpose.* This ordinance is adopted for the following purposes within the City of Okoboji:
 - The prevention of erosion and siltation and preventing soil and chemicals from entering or flowing into the public lakes.
 - The protection and conservation of the natural terrain of the shoreline of the public lakes including protection of native vegetation and plant cover.
 - The protection of the water quality of the public lakes strengthening and preserving the City's unique environmental heritage.
 - To provide flexibility in accomplishing these purposes as required by persons responsible for lakeshore bank maintenance.
 - To preserve the natural terrain, landscape and beauty of the shorelines in Okoboji.

2. *Definitions.*
 - 2.1. Adjoiners. Adjoining lands touching the subject land that have a direct result on the subject land and the proposed project.
 - 2.2. Bank Ground Cover. Any natural herbaceous (non-woody) vegetation existing or added so as to provide protection from erosion and to promote a green face.
 - 2.3. Bank Toe/Base For the purpose of this ordinance, the bank toe/base shall be that area of the bank at the ordinary high water mark line.
 - 2.4. Benching. When backfilling, necessary excavation to assist in the placement of backfill materials in level lifts for uniform compaction.
 - 2.5. Bluff. A lakeshore bank rise of at least 25 feet from the High Water Mark with slope that is greater or equal to a 2:1 slope.
 - 2.6. Concrete Retaining Wall. Earth retention system constructed with concrete and rebar to provide support where slope stability is a concern. The retention design must consider movement control, stability during construction, and wall drainage.
 - 2.7. Cribbing. A frame of wood, timber or other structural materials used to retain a bank of earth.
 - 2.8. Erosion. Process by which the surface of the earth is worn away by the action of water, wind or waves.
 - 2.9. Green Face. Bank ground cover used to provide vegetation cover of exposed earth.
 - 2.10. Ground Water Drainage. Water beneath the surface of the ground which either flows or moves through the subsurface strata under the proposed project area.
 - 2.11. Lake. "Lake" when used in this ordinance shall mean all publicly owned lakes, or the portion thereof, including all harbors, marinas, and other navigable waters, located within the City of Okoboji, IA
 - 2.12. Landscaping. Landscaping shall mean that comprehensive array of activities pursuant to which rock or soil is cut into, dug, filled, quarried, uncovered, displaced or relocated and which includes removal of viable plant life, rock or soil deposited by persons in the past or by natural means and replaced by any manner or terracing by

rock, timbers, retaining walls or other means. Landscaping shall not mean the act of excavating real property for construction of a foundation or otherwise preparing the same for construction or erection of a dwelling or other building.

- 2.13. Liners. Fabric such as filter blanket for use under rip rap, around subdrain pipe, behind walls, etc. for protection of earth slopes against erosion from surface drainage, ground water drainage, stream flow and wave action.
- 2.14. Lot. "Lot," as used in this section, shall mean a parcel of land under common ownership which is adjacent to a lake.
- 2.15. Major Bank Failure. A compromised lakeshore bank caused by a catastrophic event which displaces 10 cubic yards or more of sediment or soil to the base of the lakeshore bank or into the lake.
- 2.16. Native Field Stone. Boulders, cobbles or pebbles left by glacial melting in the Okoboji region deposited during the Wisconsin glacial period.
- 2.17. Native vegetation. Plant species that are original to Iowa Great Lakes prior to settlement.
- 2.18. Natural Terrain. The natural physical features and characteristics of the land.
- 2.19. NRCS. Natural Resources Conservation Service.
- 2.20. Ordinary High Water Mark. As used in this section, the term ordinary high water mark means the boundary line between the bank and the lake as determined by the Iowa Department of Natural Resources.
- 2.21. Person. The term "person" shall mean any individual, person, corporation or other entity.
- 2.22. Pilings. Structural materials excavated, bored or driven to a deeper soil stratum having a high bearing capacity to provide required bearing capacity to support loads from above.
- 2.23. Rip Rap. A layer of native rock or stone for protection of earth slopes against erosion from stream flow or wave action (preferably nominal 12" average diameter in combination with larger diameter).

2.24. Shoreline Bank. The shoreline bank of the lake, for the purpose of this ordinance, shall include all real property adjacent to a lake which lies between the ordinary high water mark and the top of lakeshore bank. See diagram.



2.25. Sheeting. Structural steel material used to structurally support embankments for protection against erosion from stream flow and wave action and to support embankment to prevent earth shear.

2.26. Slope. Determination of lakeshore bank slope is a comparison of “run over rise” or the horizontal measurement divided by the vertical measurement.

2.27. Strip. The permanent removal of viable native vegetation or other viable plant life without immediately replacing the same with other vegetation that is equally or more effective in retarding erosion and preserving the natural appearance of the shoreline bank. This provision shall not be construed to prohibit the pruning or trimming of existing vegetation nor the removal of harmful, poisonous, dead or noxious plant life from the shore bank.

2.28. SUDAS. Statewide Urban Design and Specifications

2.29. Surface Drainage. Water derived from rains and melting snow that is diffused over the surface of the ground and flows toward the lake through the proposed project area.

2.30. Terracing. Cutting and shaping of the earth to create various levels having one or more vertical or sloping sides and one or more level planes.

2.31. Tieback. Horizontal wire or rod or helical anchor used to reinforce retaining walls for stability.

2.32. Woody Vegetation. Perennial plant species that is a woody plant that produces wood as its structural tissue.

3. Prohibited Acts.

- a. No person shall landscape, strip, burn or chemically defoliate a shoreline bank, in any manner, without first obtaining a permit from the City, as required by this ordinance.
- b. No person shall landscape, strip, burn or chemically defoliate a shoreline bank, in any manner, which is not in conformity with the permit application and permit issued pursuant to this ordinance.

- c. No person shall dispose of or bury any yard waste, debris, or construction waste on a shoreline bank.

4. *Application for Landscaping Permit.*

- a. A Pre-Application On-Site meeting is required between the zoning administrator, city engineer, property owner or the owner's authorized representative, and the professional engineer and/or landscape architect working on the project to review regulations for lakeshore landscaping projects as described in Part 6. Administrative Checklist. If a general contractor and/or landscape contractor has been selected, they should also attend the meeting.
- b. An application for a landscaping permit shall be submitted as a Conditional Use Permit to the City by the property owner with a plan certified by a professional structural or civil engineer, geotechnical engineer, landscape architect, or a qualified representative of the Dickinson County Soil and Water Conservation District. The application shall be made on forms provided by the City and shall include the following:
 - 1. The owner or owners of the property
 - 2. The legal description, physical address and mailing addresses of the property, email and phone number.
 - 3. The site plan must demonstrate the necessity for bank reconstruction:
 - i. Erosion of lakeshore bank as a result of surface water drainage from subject property and adjacent property and/or
 - ii. Erosion of the lakeshore bank occurs as a result of the wave action of the lake against the lakeshore, and landscaping the lakeshore will prevent further erosion from occurring.
 - iii. Erosion of lakeshore bank as a result of subsurface water drainage.
 - 4. A site plan which shall include:
 - i. the size and dimensions of the lot at a scale of 1" = 40' or less,
 - ii. the location of all improvements,
 - iii. the nature and location of all existing drainage facilities
 - iv. the specific identification and populations of current vegetation including percentages of herbaceous vs woody vegetation
 - v. the configuration and approximate grade or slope of the existing shoreline bank in relation to the high water line,
 - vi. a detailed plan and elevation view to scale of all proposed landscaping modifications including proposed drainage facilities and runoff control,
 - vii. bank stabilization,
 - viii. ground water interception,
 - ix. green face promotion,
 - x. plantings and all other related landscaping modifications.
 - 5. Permit requirements are defined below in Part 5. Permit Requirements for Lakeshore Landscaping.

6. Applicant must submit detailed construction schedule with completion date not to exceed the current construction season within the year the permit is issued. No permit will be allowed to be carried over the winter months to be completed in a following calendar year or new construction season.
 7. The application must be signed by the property owner and professional structural or civil engineer, geotechnical engineer, landscape architect, or a qualified representative of the Dickinson County Soil and Water Conservation District as identified and specified above in Part 4b. An application for a landscaping permit. Prior to construction, the general contractor, landscape contractor, and all subcontractors must also sign the application to become co-permittees.
- c. Fees. The application shall be accompanied by a non-refundable Conditional Use Permit fee for Lakeshore Landscape projects as established by resolution of the Okoboji City Council.
 - d. Administration Evaluation. Applicant shall file for Conditional Use Permit as described in ARTICLE XVIII of this ordinance. In addition to the requirements stated in ARTICLE XVIII, evaluation shall also use criteria stated in Part 5. Permit Requirements for Lakeshore Landscaping.
 - e. Permit time of Validity. Each permit issued for Lakeshore Landscaping projects will be issued and be valid for a period of no longer than the current construction season within the year the permit is issued. No permit will be allowed to be carried over the winter months to be completed in a following calendar year or new construction season. All construction, planting and landscaping work shall be completed by the end of the permit period. At the time of application, if the owner, contractor, professional engineer or landscape architect and a representative from the City of Okoboji or representing the City agree that a time period of longer than the current construction season is warranted for the project based on the scope of work, type of work or other mitigating circumstances, a longer period of time to allow for completion may be written into the permit as part of the conditional use process.

5. *Permit Requirements for Lakeshore Landscaping.*

The permit for the proposed landscaping activities will be issued only if the Board of Adjustment determine the following criteria are satisfied:

- a. Surface Drainage. Adequate provisions or improvements are provided to intercept surface water drainage that causes erosion or siltation. Permit must reduce the potential for erosion or siltation and minimize the surface water drainage that existed prior to the landscaping activities. Best management practices for Low Impact Development (LID) should be used e.g. Rain gardens, French drains and bioswales.
- b. Groundwater Drainage. Adequate facilities and provisions shall be provided to intercept drainage of groundwater; thus reducing the potential for bank failure, erosion or siltation.

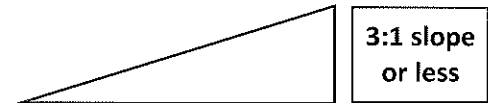
- c. **Bank Stabilization.** The preferred method of bank stabilization shall be native vegetation, supplemented and enhanced as necessary by natural field stone rip rap. Vegetation and rock may be supplemented as necessary with liners, sheeting, pilings or other construction materials, or by terracing, benching or cribbing. Such supplemental bank stabilization modifications shall be incorporated in landscaping activities only when vegetation and rock provide inadequate bank stabilization. Such supplemental bank stabilization features shall be constructed to be covered with vegetation and native field stone.
- d. **Determining Factors.** The following factors define landscaping activities.

1. **Bank slope of 3:1**

Only vegetative ground cover is allowed.

Please see Section 5., Part d., Subpart 3(ix) for resources on recommended plantings. Trees

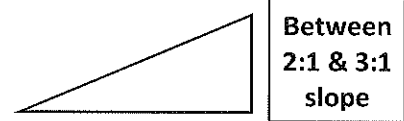
with diameter of at least 6" may not be removed without permission by the City of Okoboji under review and concurrence from a certified professional in vegetation management and erosion control.



2. **Bank slope between 2:1 and 3:1**

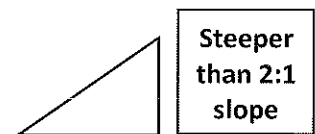
Vegetative ground cover with minimal use of native field stone is allowed. No terracing is permitted.

Trees with diameter of at least 6" may not be removed without permission by the City of Okoboji under review and concurrence from a certified professional in vegetation management and erosion control.



3. **Bank slope steeper than 2:1**

i. Terracing can only occur if the lakeshore bank is steeper than 2:1 and has less than 70% of ground cover by herbaceous plant species which develop extensive root systems e.g. native prairie plant species. Trees with a diameter of at least 6" may not be removed without permission by the City of Okoboji under review and concurrence from a certified professional in vegetation management and erosion control.



ii. Grading and filling of more than 10 cubic yards of material or an area exceeding 250 square feet with the shore impact zone shall only be permitted provided a plan for erosion control, storm water management and shoreline buffer restoration is approved by a licensed engineer or licensed landscape architect.

iii. Any sheet, rill, or gully erosion from work on the lakeshore or bank is prohibited from getting into the lake.

iv. Terracing must be through the use of native field stone boulders.

- v. If reinforcement must be used to correct an established erosion problem that cannot be controlled through vegetation, slope stabilization using mulch, biomat or similar bioengineered means such that steel sheet piling, cribbing, or concrete and rebar is required, then it must be faced with native field stone. *(Note: when a project uses concrete block or poured concrete for reinforced walls or terracing, the term “faced with native field stone” refers to grouting and securing cut natural field stone or cultured field stone as a “facing” on concrete walls.)*
- vi. Maximum height of any retaining wall will not exceed 4 feet.
- vii. Vegetation must be planted within 14 days of substantial completion of the lakeshore activities. Refer to SUDAS manual for required planting periods as specified in the current edition of Statewide Urban Design and Specifications (SUDAS). If permanent native vegetation can’t be planted according to the recommended seeding dates, a temporary erosion control mixture must be planted until permanent vegetation can be established.
- viii. Areas with existing or expected high rates of soil erosion by wind or water shall follow NRCS Critical Area Planting Conservation Practice Standards using Native species in which a minimum of 80% ground cover shall be considered successful establishment.
- ix. Native vegetation should include plant species and seeding rates which are approved species for shoreline landscaping by the Dickinson County Soil and Water Conservation District, Natural Resources Conservation Service (NRCS), SUDAS, and City of Okoboji. It is recommended that NRCS seed calculator be used to determine the seed mix appropriate to soil type, moisture conditions, and slope orientation.
- e. Decorative, Access and Use Additions to a Shoreline Bank. Platforms, decks, porches, steps, landings and walkways shall not be utilized for bank stabilization. However if a building or structure on the shoreline bank exists before landscaping activities begin, such building or structure may be replaced with a similar building or structure of the exact same size, height and location if the new structure will not hinder bank stabilization. The new structure cannot expand surface area or change in height.

6. *Administrative Checklist.* The following Administrative Checklist shall be the basis for City staff and the Board of Adjustment to review and judge compliance with the requirements stated in Part 5. Permit Requirements for Lakeshore Landscaping.

Administrative (Zoning Administrator’s) Checklist:

	Complies	Not applicable	Does Not Comply
a. <u>Surface water is intercepted</u> above the shoreline bank to an acceptable outlet:	Go to B	XXXXXXXX	Go to A1
1. The plan promotes natural drainage away from the lake bank into a settling basin,			

natural slough, or low impact development (LID) practice.

2. Plan includes intakes, catch basins and piping from subject property to an acceptable outlet.
3. Plan includes intercepting runoff from adjoining property to acceptable outlet where applicable.
4. Plan includes intercepting roof downspouts from subject property where applicable.
5. Plan includes intercepting adjoiner's roof downspouts where necessary.

Note: Where possible promote natural drainage away from the lake bank into a settling basin, natural slough, storm sewer intake, or culvert through LID practices. Any storm sewer pipe or culvert shall outlet at or near the ordinary high water mark.

b. Bank Toe/Base Stabilization:

- | | | | |
|--|---------|---------|----------|
| 1. Existing Bank Toe/Base requiring no further improvements | Go to C | XXXXXXX | Go to B2 |
| 2. If noncomplying above, indicate which of the following methods proposed for compliance: | | | |
| i. Large native field stone riprap (12" avg. diameter) | | | |
| ii. Engineering Fabric underliner | | | |
| iii. Steel sheet piling behind native field stone face | | | |
| iv. Plastic sheet piling behind native field stone face | | | |
| v. Planting vegetation (trees, shrubs, grasses, forbs, etc. | | | |
| vi. DNR permit obtained where applicable | | | |
| vii. Other approved materials (Please list materials) | | | |

c. Interception of Groundwater/Bank Seepage:

- | | | | |
|--|---------|---------|----------|
| 1. No visible or historical evidence of groundwater or bank seepage requiring no further improvement | Go to D | xxxxxxx | Go to C2 |
| 2. If noncomplying above, indicate which of the following methods are proposed for compliance: | | | |
| i. Perforated drain pipe with porous backfill encasement intercepting groundwater. | | | |
| ii. French drains with porous backfill and weep holes through walls. | | | |
| iii. Engineering fabric behind native field stone | | | |

iv. Prior approved alternative methods (requires detailed submittals)

d. Promotes Green Face:

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|---|---------|---------|----------|
| 1. Natural, no existing vegetation disturbed and no walls proposed requiring additional plantings | Go to E | xxxxxxx | Go to D2 |
| 2. If noncomplying above, indicate which of the following methods proposed for compliance: | | | |
| i. Sodding lake bank of 3:1 or flatter Slope | | | |
| ii. Seeding native grasses and forbs | | | |
| • Tree and bush plantings of 6" or greater diameter (List number, size, type and spacing) | | | |
| • A combination of vegetative covers noted above (List number, size type and spacing) | | | |

e. Terracing/Benching and Related Construction:

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|--|---------|---------|----------|
| 1. No new terracing/benching proposed | Go to F | xxxxxxx | Go to E2 |
| 2. If noncomplying above, indicate which of the following type of terracing/benching is proposed for compliance: | | | |
| i. Terracing, Number _____
Type of materials _____
Max slope: Rise _____ Run _____
Height of wall (Max. 4') _____ | | | |
| ii. Benching, No. of benches _____
Max. Slope: Rise _____ Run _____
Height/Bench (Max 4') _____ | | | |
| iii. Cribbing, Type _____
Details Provided _____ | | | |
| iv. Anchors -
Type/Materials _____
Spacing _____
Number _____ | | | |
| v. Tiebacks -
Type/Materials _____
Spacing _____
Number _____ | | | |
| vi. Backfill –
Type/Materials _____
Compacted to minimum 95% of standard proctor density _____
Lift Heights-Max 12" loose lifts _____ | | | |
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vii. Wall drainage

Pipe _____ Weep holes _____
Type _____ Size _____

f. Accompanying Submittals:

- a. Detailed construction cost estimate by contractor
Total Project Cost \$ _____
- b. Legal description of property included
- c. Scale plan included at: 1" = 40'
- d. Elevation views included
- e. Improvements proposed details included
- f. Provisions for silt screen included as required by City of Okoboji, Dickinson County Soil and Water Conservation District or DNR. Silt fence shall be constructed to meet SUDAS specifications.

7. *Procedure for Completing a Project.*

Prior to completing a lakeshore landscaping project, the following actions shall be completed and documented in order to close out the project.

- a. Weekly stormwater inspections shall be provided from commencement of construction activities until the project is completed and vegetation is established to a minimum of 70 percent. Such inspection reports are the responsibility of the owner and/or contractor and shall be submitted weekly to city staff while the project is under construction.
- b. The city engineer will complete a walk-through of the completed project to review construction activities specified in the permit application.
- c. The completed project is reviewed by city staff, the zoning administrator, and others as deemed appropriate to ensure compliance with this lakeshore landscape ordinance.
- d. A project completion certificate must be signed by a professional structural engineer, landscape architect, geotechnical engineer, landscape architect, or a qualified representative of the Dickinson County Soil and Water Conservation District, in addition to the owner or the owner's authorized representative certifying that the construction activities in the lakeshore landscaping permit were completed as specified in the permit application. The completion certificate shall be made on forms provided by the City.

8. *Exceptions to Lakeshore Landscaping Regulations.*

- a. Emergency. Limited activity as reasonable and immediately necessary to prevent loss of life, serious personal injury, significant property damage or serious threat to public health and welfare may be accomplished without first making application for a permit. As soon as reasonably possible after the undertaking of emergency action, the City shall be notified and an application pursuant to this ordinance shall be made.

b. Repairs or Replacement. Buildings or structures lawfully constructed and existing prior to the adoption of this ordinance may be repaired or restored to original condition notwithstanding other provisions of this ordinance. Additionally, existing platforms, decks, porches, steps, landings, and walkways may be replaced with a building or structure of the exact same size, height and location if the new structure will not hinder bank stabilization. Such new buildings or structures shall have similar construction methods to the replaced building or structure. The new structure cannot expand surface area or change in height. However, no such repair or restoration shall be accomplished until an application for zoning permit is filed with and approved by the City.

9. *Violations and Penalties.*

Failure to complete lakeshore bank landscaping in accordance with the plans and specifications submitted with the permit or if there is any variance with the provisions authorized by the permit shall be deemed a violation of this ordinance and subject to a municipal infraction and the fines and penalties in accordance with the provisions stated in Article XVI of the Okoboji Zoning Ordinance.

Furthermore, failure to complete construction of the permitted lakeshore landscaping and construction within the allotted permitting time from issuance of the permit shall constitute non-compliance with the permit issued and will nullify the permit. Any additional lakeshore landscaping work will need to have an extension approved by the Board of Adjustment prior to expiration of the permitted timeframe due to unforeseen or mitigating circumstances or a new lakeshore landscaping permit will need to be submitted, reviewed, and considered by the Board of Adjustment along with payment of new permit fees for additional work.

Section 6. REPEALER. All ordinances or parts of the previously adopted 2013 Okoboji Zoning Ordinance in conflict with the provisions of this zoning amendment are hereby repealed.

Section 7. SEVERABILITY CLAUSE. If any section, provision or any part of this zoning amendment is determined to be invalid or unconstitutional, such adjudication shall not affect the validity of the previously adopted Okoboji Zoning Ordinance in its entirety.

Section 8. EFFECTIVE DATE. This zoning amendment shall be in full force and effect from after passage and publication in a newspaper of general circulation in the City of Okoboji.

Passed and approved of the first consideration on December 13, 2016

Passed and approved of the second consideration on December 13, 2016

Passed and approved of the third and final consideration on December 13, 2016

Adopted on December 13, 2016

Incorrect Ordinance version published on December 28, 2016

Passed Ordinance version published on April 19, 2017



Mayor, City of Okoboji

Attest:



Okoboji City Clerk