CHIKAMING TOWNSHIP

13535 Red Arrow Hwy., P0 Box 40, Harbert, MI 49115 Email: buildingdept@chikamingtownship.org

| Permit # SANDBA | G/GEOTUBE PE | RMIT APPLICATIO | N Date Issued: |
|--|--------------------------|---------------------------------|-----------------------------------|
| is unlawful to in any way commenywhere within Chikaming Towns ownship Ordinance No.147). | | | |
| Property owners Name | Address for Location | on of Proposed Installation | Property Code No. |
| · K · · · J | | • | 11-07- |
| Property Owner's MAILING Address | City | State | Zip Code |
| roperty Owners email: | | | |
| Applicant/Consultant: App | licant/Consultant email: | Phone: | Mobile: |
| Applicant/Consultant Address: | City: | State: | Zip Code: |
| ppitani Consultan Addiess. | City. | State. | Zip Code. |
| | | | |
| Explain how placement of sandbags | or Geotubes® would be | capable of slowing erosional or | flooding processes (add additiona |
| sheets if necessary): Sample consider | | | 81 |
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| I certify that the sand contained within the sandbags or Geotubes® is of sufficient quality that it can be released to the ground without presenting a public health or safety risk or causing ecological harm. The sand used in the sandbags shall be sand that reasonably matches quality, size, and texture as the existing sand such that it supplements the existing sand on the beach. | | | | |
|--|--|--|--|--|
| Initials | | | | |
| I certify that I have obtained or will obtain all necessary local, state, and federal permits in addition to this permit prior to placement of sandbags or Geotubes®. | | | | |
| Initials | | | | |
| As authorized agent, I hereby give Chikaming Township Officials and Board members, if applicable, permission to enter upon this property in performance of their official duties. I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent, and we agree to conform to all applicable laws of the State of Michigan and ordinances of Chikaming Township. The Property Owner, its successors and assigns, agrees to hold the Township of Chikaming harmless from any and all claims for damages to persons or property arising out of the installation, existence and maintenance of sandbags or Geotubes®, which the Township shall or may become legally obligated to pay (excluding claims, losses and expenses arising out of the adjudicated negligence of the Township or claims related to the lawfulness, validity, or constitutionality of this ordinance brought by the Property Owner against the Township). All information submitted on this application is accurate to the best of my knowledge, and I am the Property Owner or I have the authority to agree to the terms and conditions of this Application and Chikaming Township Ordinance #147 on behalf of the Property Owner. | | | | |
| Signature of Property Owner or Authorized Agent Date: | | | | |

DEFINITIONS: The following definitions from Ordinance #147 apply to a permit request or issued permit:

"Shoreline armoring" means armoring comprised of concrete, boulders, stone, gravel, steel, iron, timber, or other similar materials that are designed and intended, either as the principal purpose or an incidental purpose, to interrupt the natural cross-shore or longshore movement of sand, gravel, and other sediments within or along a shoreline or watercourse. Shoreline armoring includes, but is not limited to, the placement of seawalls, bulkheads, riprap, revetments, groins, and breakwaters. Shoreline armoring does not include sandbags, Geotubes®, and sand fences as defined below.

"Sandbag" is a fabric bag or container system (including sand-filled Hesco® bags or containers made by HESCO® or similar sand-filled container systems) filled with clean, uncontaminated sand from an upland source outside of a Critical Dune Area or within a Critical Dune Area from open dune areas on the property, but not sand from dredging the lake bottom without permission from the Department of Environment, Great Lakes, and Energy.

"Geotube®" is a container made of flexible, permeable material that is significantly longer than it is wide and filled with clean, uncontaminated sand from an upland source outside of a Critical Dune Area or within a Critical Dune Area from open dune areas on the property, but not sand from dredging the lake bottom without permission from the Department of Environment, Great Lakes, and Energy.

"Primary shoreland structure" includes, but is not limited to a home, cottage, office, or similar habitable structure on the property in question. The primary shoreline structure includes an attached garage; an attached deck; an attached gazebo; stairway(s); an inground swimming pool attached by decking, fencing or other material; an attached septic system; or other similar improvement that is attached to the primary residence such that the destruction or damage to the improvement will impair the integrity of the primary residence on the property. Unattached accessory structures such as a guest house, storage sheds, detached garage, detached gazebo, or pole barn are included as primary shoreland structures.

"Sand fence" is an artificial barrier of evenly spaced slats or fabric erected perpendicular to the prevailing wind and supported by posts.

DURATION: This permit for sandbags or Geotubes® shall be valid for a period of one year from the date of issuance. The permit will automatically renew each year for a total of five years unless the Township determines that

(a) Water levels have receded significantly enough that the primary shoreline structure is no longer in danger and the sandbags or Geotubes® may be removed without damage to the primary shoreline structure; or

(b) The Township determines that the sandbags or Geotubes® have been damaged so that they are no longer preventing erosion or are otherwise determined to be a nuisance, dangerous, or hazardous condition.

INSPECTION AND REMOVAL: The Township may, in its discretion, monitor the sandbags or Geotubes® to assess their integrity and any damage. If the Township determines that the permit should not automatically renew for another year and the sandbags or Geotubes® should be removed, it shall provide the permittee with at least 60 days to release the sand and remove the sandbags or Geotubes® at the property owner's expense. Upon expiration of the permit, the Property Owner shall release the sand and remove the sandbags or Geotubes® at the Property Owner's expense.

If the sandbags or Geotubes® cause substantial damage to the shoreline or bluff, the property owner or applicant shall be responsible for removing the sandbags and/or Geotubes®, restoring any damage they caused to the shoreline or bluff, and paying the cost of said removal and restoration.

| Approved | Date | |
|----------|------|--|

FEE MUST ACCOMPANY THIS APPLICATION:

Initial application - \$400.00

Annual inspection - \$300.00 + any review necessary over initial 2 hours billed at \$125/hr (billed post inspection)

Appendix A

Considerations to identify might include, for example:

- The size and foundation type of the structure(s)
- The location of the structure(s) relative to the shoreline and/or bluff line, and analysis of the movement of shoreline and/or bluff line over time, including assessment of the likely timeframe by which the structure(s) could be in danger of inundation, wave action, or beach/bluff failure
- The availability of areas landward of the current structure to which it might be moved
- The technical feasibility of moving the structure(s), given the two considerations above, along with any other relevant considerations
- The short and long-term costs of relocating the structure(s) relative to the short and long-term costs of installing and maintaining Geotubes® and sandbags, including the anticipated costs of ultimately removing the sandbags and Geotubes®

Appendix B

Considerations to identify might include, for example:

- Current location of the shoreline and/or bluff line and analysis of the movement of shoreline and/or bluff line over time
- Proposed location of the sandbags and/or Geotubes®, purpose of the proposed placement of the sandbags and/or Geotubes® (e.g., to slow shoreline recession, stabilize dunes and/or bluffs), and analysis of the likely effect of the proposed sandbags and/or Geotubes® on cross-shore and long-shore movement of beach sediments over time
- Other proposed or planned actions incorporated into the project that do not involve the placement of armoring or sandbags/Geotubes® (e.g., vegetative plantings on dunes and/or bluffs for enhanced stabilization, relocation of structures)
- To the extent practical and possible, analysis of the timeframe during which the placement of sandbags and/or Geotubes® will be needed to slow erosional processes until structures can be moved or lake levels are likely to fall, given lake fluctuation trends, and assessment of the likelihood that the sandbags and/or Geotubes® will sufficiently slow erosional processes until either of those events occur.