

## **LAKE OF THE OZARKS PERMIT REQUIREMENTS**

### **A Reference Guide for Property Owners and Builders/Contractors**

Lake of the Ozarks is one of the world's largest reservoirs and a thriving tourist spot. Nearly 1,150 miles of resort area shoreline - created by building Bagnell Dam on the Osage River - provide access to water sports for increasing numbers of visitors, residents, and second home owners.

AmerenUE, formerly known as Union Electric Company, owns the shoreline (project lands) and owns/operates Bagnell Dam. As the owner, AmerenUE is required by Article 41 (Land Use Article) of its license from the Federal Energy Regulatory Commission (FERC) to conduct certain shoreline management activities, which include regulating docks, bank stabilization construction, and other structures on the lake. The license also authorizes AmerenUE to collect permit fees to cover the cost of these shoreline management activities.

In recent years, development around the shoreline has grown rapidly, and the number of permit applications processed each year has grown from 900 in 1990 to more than 3,000 annually. Both the cost and the complexity of permit processing and shoreline management continue to increase. In the spring of 2003, AmerenUE moved its shoreline management office to Lake of the Ozarks to increase its effectiveness in managing the shoreline and its permitting process.

AmerenUE created its permit requirements and fee schedules to ensure AmerenUE's compliance with its Federal license and to offset shoreline management costs. The requirements were developed after several months of proposals and revisions that incorporated suggestions from a wide range of organizations and individuals. The permit program helps ensure that docks, bank stabilization construction, and other structures meet standards to prevent them from becoming hazards to navigation, causing pollution of the lake, or interfering with the safe and reliable operation of Bagnell Dam and the Osage Power Plant.

This guideline booklet addresses the requirements for AmerenUE permits for installation, modification, or transfer of boat docks, bank stabilization construction (i.e., vegetation, riprap, and seawalls), decks, breakwaters, boat ramps, and any other structures including excavation and fill within the FERC project boundary for the Osage Project.

## PERMITS

### APPLICATION

**Prior to any ground disturbing activity or the installation or construction of any structure on or affecting project lands, a permit application must be approved by and a permit issued from AmerenUE.** Any activity (except installation or construction of boat docks) located lakeward of elevation 658.5 feet, affecting a wetland or a rare, threatened, or endangered species, or specific activities as defined below also requires approval from the Corps of Engineers and possible review from additional resource agencies if deemed necessary by AmerenUE.

A completed application packet must contain the following information. Forms are included at the back of this guideline booklet.

**If the application is incomplete or the appropriate drawings are not included, the packet will be returned to the applicant for more information.**

1. Application for an AmerenUE Permit - Include name, address, and a detailed description of the proposed project, its location, **county parcel number** , and other required information.
2. Specification Sheet(s) (**Complete for Docks and Bank Stabilization**)
3. Drawings to scale on max.11”x17” paper. Larger drawings may be submitted as supporting information. Drawings must show the following information:

#### **ALL ACTIVITIES:**

1. General vicinity map showing the property in relation to the nearest lake mile.
2. Location of the activity within the applicant’s property lines extended lakeward.

#### **DOCK (See Example Drawing 1-1):**

1. Drawing showing the location of the dock in relation to docks on either side and across the cove or channel from the applicant's dock.
2. Distance from the dock to the applicant’s property lines extended lakeward.
3. Distance from the end of the dock to the center of the channel or cove and the distance across the channel or cove.
4. Distance to the nearest dock on each side of applicant’s dock.
5. Dimensions and square footage of the proposed dock.

**The dock location drawing must be drawn to scale.**

#### **BANK STABILIZATION (Drawing 1-2, Specification Sheet and Construction Drawing):**

1. Vegetation/Riprap – Height of the eroded bank and elevation (in feet) at the toe of the bank.
2. Seawall – Height of the eroded bank, elevation at top of footing, elevation of lake bottom (lakeside of wall), distance from toe of bank to wall (maximum 3 feet), wall and footing dimensions.

## **WASTEWATER TREATMENT FACILITIES**

Individual wastewater systems are not permitted within the AmerenUE project boundary unless specifically approved by AmerenUE after written recommendation from the County Health Department and/or the Missouri Department of Natural Resources (MDNR). AmerenUE may also seek FERC approval for any systems for which it deems such approval is necessary. City/County Health Departments and the MDNR must approve all other marina effluent removal systems facilities within the project boundary. Unauthorized systems within the project boundary shall be removed at the offending party's expense.

## **RARE, THREATENED, AND ENDANGERED SPECIES**

Limitations may be imposed upon shoreline development in the vicinity of known locations of rare, threatened, and endangered species. In all such proposals, the applicant and/or AmerenUE shall solicit input and recommendation from the Missouri Department of Conservation prior to development.

## **MISCELLANEOUS**

**Public Access:** To the greatest extent possible, shoreline property owners must strive not to prohibit public access to shoreline areas. Fences upon or within the project boundary are prohibited. Docks are private property and the presence on a dock or mooring without the permission of the owner constitutes trespass.

**Fish Attractors:** AmerenUE allows the placing of fish attractors made of natural woody debris (brush, natural evergreen trees, etc.) that are securely tied together and properly anchored so as to remain at sufficient depth and not cause a hazard to navigation. No materials that are environmentally unacceptable, as determined by the Missouri Department of Conservation (MDC) may be used in the placing of such attractors.

**Heat Exchange Coils for Heat Pumps:** AmerenUE permits heat exchange coils for heat pumps provided they are located as to not cause a navigational or similar public hazard. The coils must be anchored 5 feet below the maximum drawdown (Elevation 650 feet) within the lake area immediately adjacent to the applicant's property. Corps of Engineers approval is required in conjunction with a permit application and review by AmerenUE.

**Waterway Protection:** Care shall be taken to keep machinery out of the lake and waterways leading to the lake. Fuel, oil, other petroleum products, equipment and any solid waste shall not be stored lakeward of the ordinary high water mark (658.5). . All precautions shall be taken to avoid the release of wastes, fuel or any toxic or harmful material to streams and other adjacent water bodies as a result of this operation. Petroleum products spilled into any water body or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly. Spill or petroleum must be reported as soon as possible to the Missouri Department of Natural Resources' 24-Hour Environmental Emergency Response number at (573) 634-2436 and in accordance with federal and state laws and rules regarding petroleum products.

## **Vegetative Cover Policy**

Vegetation is important to the aesthetic qualities and environmental health of the Lake of the Ozarks. In addition to enhancing the natural beauty of the lake, terrestrial and aquatic vegetation helps prevent water pollution and provide habitat for birds, mammals, and fish. These policies are intended to provide property owners with the opportunity to use AmerenUE property appropriately, while protecting the environmental characteristics of the shoreline.

Although AmerenUE's use of the Lake of the Ozarks is for electric power generation, the lake is also heavily used as a national tourist and second home destination. In light of this, it is very important to preserve the natural beauty and habitats of the shoreline. AmerenUE requires that a vegetative buffer zone be maintained adjacent to the shoreline to maintain the visual aesthetics of the shoreline and provide protection from erosion and runoff pollution. State and federal resource agencies support the buffer zone concept for the purpose of protecting wildlife habitat. These regulations require a vegetative buffer zone, which extends from the shoreline up to the maximum elevation owned by AmerenUE.

Vegetation within the project boundary must be preserved if present. Ground-disturbing activities in this area must be minimal to maintain the function of the vegetative buffer. A property owner may modify the existing vegetative cover by removing vegetation to:

1. provide for reasonable view of the water,
2. construct access paths to the shoreline and/or dock,
3. construct erosion control measures along the shoreline, or
4. perform general maintenance to the vegetated area.

### **The following policies regarding vegetation and land disturbance apply to all shoreline property owners adjacent to the Lake of the Ozarks:**

1. AmerenUE requires that all ground-disturbing activities that involve the removal of trees larger than 6 inches in diameter and native flowering trees (dogwood, redbud and serviceberry) be replaced with native trees of a minimum of 1.5 inches or larger. Replacement trees shall be planted within 25 feet of the shoreline and within the disturbed area.
2. AmerenUE requires that at least 50 percent of the disturbed area be restored to the pre-construction condition or landscaped in open green space along with the 5 trees per 100 feet.
3. AmerenUE reserves the right to plant or require the planting of vegetative materials within the project boundary. AmerenUE may require, at the property owner's expense, the removal of any unauthorized improvements and restoration of AmerenUE land to a natural state.
4. Where the pre-existing conditions of the shoreline are unknown, the adjacent owner must replant the shoreline with 5 trees per 100 feet, and the trees must be a minimum of 1.5 inches in diameter.
5. AmerenUE prohibits the removal of existing submerged woody debris from the lake, unless such debris constitutes a navigational or public safety hazard.

AmerenUE must approve removal of such woody debris from the lake. Woody debris that falls into the lake as a result of storms or natural occurrence should be left in place unless such debris constitutes a navigational or public safety hazard. Woody debris that has broken loose from submerged trunks and is floating in such a manner that constitutes a navigational or safety hazard may be removed from the lake. In the placement and construction of new docks, these facilities should be placed to minimize removal of woody debris. Property owners may be required by AmerenUE and/or resource agencies to mitigate at a 2:1 ratio for removal of woody debris from the lake in nearby areas, depending upon the type and age of submerged woody debris. Such mitigation may include, but is not limited to, the design and construction of fish habitat.

6. AmerenUE encourages landscaping with native species for all plantings adjacent to the Lake of the Ozarks. The use of non-native, invasive species for planting is prohibited. Appropriate trees include persimmon, mulberry, redbud, dogwood, serviceberry, and green ash.
7. Removal and/or replacement of vegetative cover within IMZs shall only occur after agency review and approval of an impact minimization plan

Any unauthorized clearing of trees or vegetation or failure to restore trees and/or vegetation as outlined above may result in the immediate cancellation of the individual's dock permit as well as possible legal action to require the re-vegetation of the affected area.

### **Yard Waste Disposal Policy**

**Missouri Clean Water Law specifies that it is a violation for commercial or industrial businesses to dispose of leaves by placing them into waters of the state.**

**AmerenUE discourages shoreline residents from disposing of leaves and other organic material into the lake. The following is a summary of findings based on existing policy, scientific opinion, and resource agency direction that supports AmerenUE's policy.**

- The MDNR does not approve residential dumping of leaves into waters of the state. Section 644.051.1(1) of the Missouri Clean Water Law states that it is unlawful for any person to cause pollution of any waters of the state or to place or cause or permit to be placed any water contaminate in a location where it is reasonably certain to cause pollution of any waters of the state. Leaves, however, naturally drop into waters of the state and, under normal conditions, do not pose a threat of pollution.
- Nutrient cycling is a dynamic process whereby inputs of organic material into lakes and streams occur naturally, and the system enters a balance between nutrient inputs and uptake (Schueler and Holland, 2000).
- Missouri Department of Conservation sampling results indicate that the Lake of the Ozarks is a mildly eutrophic lake as measured by chlorophyll and nitrogen levels (personal communication with D. Obrecht, Missouri Extension Service, University of Missouri, on October 2, 2003).
- Nutrient movement from lawns to streams has been documented in the book *The Practice of Watershed Protection* (Schueler and Holland, 2000). Authors conclude that grass clippings mowed during the course of a year can contain a large amount of nutrients. Meyer (1995) states that clippings can have up to 235 pounds of nitrogen

and 77 pounds of phosphorus per acre. Thus, the disposal of grass clippings in the lake has no benefit to the lake as it already has plenty of nutrients.

- The *Lake Pocket Book* (Phillips et al., 2000) is a guide book with helpful hints for lakefront homeowners that directs people to “Rake and dispose of leaves away from the lake,” and “Do not burn leaves near the shoreline; nutrients concentrate in the ash and are easily washed into the lake.”

**The Lake of the Ozarks already has sufficient nutrients and organic matter. A large amount of organic matter, such as leaves that fall each autumn, makes its way into the lake naturally, and any benefits (habitat or otherwise) to having leaf litter in the lake are achieved through natural processes. Any additional leaf litter may be unnecessary and even negative. Additionally, the disposal of yard waste into lake waters can compromise the aesthetic and recreation experiences of downstream residences.**

### **CERTIFIED DOCK BUILDER REQUIREMENT**

**As of January 1, 2004, all new docks and modifications to docks, including breakwater structures, must be completed by a Certified Dock Builder or individual property owners desiring to construct their own docks. Certified Dock Builders are subject to qualification standards and inspections outlined below in the boat dock specifications and fee schedule. Individual property owners also must meet minimum specifications and pass a dock inspection.**

**For details, please see “Boat Dock Specifications” below.**

## **FEES**

### **PROCESSING FEES**

A non-refundable processing fee must be submitted along with the completed application packet. The fee schedule is below.

### **USE FEES**

In addition to the processing fees charged for new permits or modifications to existing permits, all docks are subject to a **use fee**. Owners of docks that occupy more than 3,000 square feet of water space will be charged an **annual use fee** based on total square footage described below. Owners of docks smaller than 3,000 square feet are not subject to an annual fee, but they will be charged a **lump sum use fee** when a new dock is installed or an existing dock is modified.

The square footage used to determine the use fee includes the total surface area of the dock (including the area within boat slips), lifts or other structures attached to the dock, ramps, and breakwater structures. If the property has more than one dock, the total area of the individual docks will be added together to determine the fee. The area occupied and the annual use fee will be determined by AmerenUE as shown in the fee schedule.

Dock owners subject to the lump sum use fee must include the fee along with the processing fee when they submit their permit application. If the dock permit is denied, the use fee will be refunded. For docks that are subject to the annual use fee, only the processing fee should be submitted with the permit application.

**Permit processing and use fees do not apply to construction activities by public agencies for public use.**

If a deck or pier is approved to cantilever over a seawall or extend over the lake, the deck will be assessed a use fee at the same rate as a boat dock.

### **ENFORCEMENT FEES**

Property owners who fail to obtain a permit or whose facilities do not comply with the conditions of their permit may be charged an enforcement fee, as shown in the fee schedule.

The payment of the enforcement fee does not waive any applicable processing or use fees.

Future permits will not be issued for a property until all fees are paid.

All fees collected by AmerenUE will be applied to AmerenUE's shoreline management costs at Lake of the Ozarks.

## FEE SCHEDULE

### Processing Fees (Non-refundable)

Boat Dock Permits:

• New Permit for one-slip dock	\$150 plus \$25 for each additional slip
• Permit Modification (includes addition of one slip)	\$75 plus \$25 for each additional slip
Docks over 10 Slips	\$500 plus \$25 for each slip over 10
• Float or Foam Replacement	Notice only, no charge
• Certified Dock Builder Application	\$300
• Certified Dock Builder Annual	\$100
• Certified Dock Builder Reinstatement	\$300

Bank Stabilization Permits:

• Seawall	\$300 for the first 100 feet plus \$1/foot over 100 feet
• Vegetation or Riprap (vegetation planting or rock placement to prevent bank erosion)	\$100
Excavation Permit	\$300
Boat Launching Ramp Permit	\$300
Deck Permit	\$100
Permit Extension	\$25
Permit Transfers (All <b>permitted facilities</b> may be transferred with one application and fee)	\$25
Other Permits (i.e., water intakes, utility facilities)	\$50
Patio	\$100
Gazebo	\$100
Stand-alone Breakwater	\$500 for first 100 feet plus \$5/foot over 100 feet
Concrete Walkway	\$100
Pier	\$100

**Use Fees**

**Annual:**

Docks that use and occupy over 3,000 square feet will pay an annual use fee of \$0.06/square foot of area of water space occupied as determined by AmerenUE.

**Lump Sum:**

New docks and modifications to existing docks:

• That use and occupy between 1,800 and 3,000 square feet of water space	\$400
• That use and occupy less than 1,800 square feet of water space	\$250
• Patios, decks, gazebos, or piers less than 3,000 square feet that cantilever over the seawall or are lakeward of the 658.5 elevation.	\$250

Any subsequent modifications to existing docks will require the payment of use fee.

**For example:** Applicant proposes to construct a new, two-well dock that covers 1,300 square feet of water space and install a 100 feet seawall in front of their property.

**Processing Fee:**

Dock .....\$175 (\$150 + \$25 for additional slip)  
 Seawall .....\$300

**Use Fee:** .....\$250 (less than 1,800 sq. ft. )

**Total Fees: .....\$725**

**Enforcement Fees**

- Failure to obtain a permit ..... up to \$2,000
- Failure to comply with permit conditions ..... up to \$2,000

**Any dock or property owner who fails to obtain a permit, fails to comply with the terms of a permit issued, or fails to comply with AmerenUE policies or directives at Lake of the Ozarks shall be liable for all costs – including attorney’s fees and interest – incurred in the enforcement of AmerenUE’s permit provision.**

The application will be reviewed to make sure it contains all the necessary information. The application will be evaluated based on the location and elevation of the project. For boat docks, the location of the proposed dock and property boundaries in relation to existing docks and impact on navigation will be considered.

The review of the application may require approval or comments from federal, state, or local agencies. Applicants must comply with the requirements of all other applicable regulations, restrictions, covenants, and ordinances.

**Since every possible situation cannot be anticipated, AmerenUE reserves the absolute right and discretion to make appropriate exceptions or modifications to AmerenUE's requirements, to make special rulings, and impose additional requirements, including the requirement that the applicant provide a survey to verify the facility was installed in conformance with the permitted location.**

Once the review process is complete, the application will be approved, approved with conditions, or denied. If the application is denied and resubmitted at a later date, a new processing fee is required.

**Failure to provide any of the required information may result in denial of the application or delay the processing of the application.**

**Construction may not proceed until a permit has been issued. AmerenUE has the right to direct the removal of docks or other structures and evoke enforcement fees if construction begins without a permit.**

**Permits will not be issued for houses or other habitable structures; dumping leaves, or disposing of other debris into the lake.**

## **TRANSFER OF OWNERSHIP**

If the ownership of the property, dock, or other permitted facilities changes, AmerenUE must be notified. If the property is transferred to a new owner, the **existing permits** are required to be transferred to the new owner. Fees to transfer permits are shown on the fee schedule above. A permit can be transferred by completing the permit transfer application below. If a dock is sold and moved to a different property, a new permit is required for the new location unless the new location already has a dock permit. If the location is home to an existing dock, a permit modification is required for the replacement. **The existing permit number stays with the property. It does not move with the dock.**

## **EXPIRATION OF PERMITS**

Construction of docks and breakwaters or approved modifications to docks or breakwaters under 10 slips must be completed within one year from the date the permit or modification approval is issued. If the work is not complete within one year, the permittee may apply for one, 6-month extension to complete the work. The extension will be granted provided there have not been any changes in the information that was submitted with the original application and the dock complies with current guidelines for issuing permits. All other activities (bank stabilization construction, decks, excavation, etc.) must be completed within two years from the date the permit is issued. Docks and breakwater proposals exceeding 10 slips must be completed within 4 years from the date the permit is issued. **If the permit expires, the permit is null and void. Prior to any construction, a new application must be submitted and new permit issued.**

## **PERMIT NUMBER POSTING REQUIREMENT**

As soon as a dock is completed or moved to a permitted location, the owner, occupant, or person in charge of the dock shall affix the correct AmerenUE permit number to the structure. The number shall be affixed on the lake side of the dock in a location most visible from the channel or cove. The permit number shall be posted in a manner so it is legible and distinguishable with numerals painted or applied of a contrasting color to the background, of not

less than three (3) inches in height. Script lettering or similar unconventional type styles are not recommended.

## **BOAT DOCK PLACEMENT**

1. The applicant must own or have rights to the shoreline property landward of the area where the proposed dock is to be located. Documentary proof of such ownership or permission must be provided with application submittals (e.g., warranty deed, permission letter).

- Applicants who do not own shoreline property must provide written permission from the shoreline property owner for the placement of the dock landward of their property.
- Docks cannot be located adjacent to subdivision easements, common ground, or docking areas without a written agreement from the current subdivision trustees or other governing body that controls the easement area. In the absence of subdivision trustees or other governing body, the applicant must obtain approval from all of the current property owners who have rights to the easement.

2. Boat docks (including anchoring systems) must be placed within the applicant's side property lines extended lakeward. For purposes of this provision, "side property line" shall include the lakeward projections of such line on the same bearing it had at its intersection with the shoreline. In areas this is not possible, AmerenUE may determine if the water space is being used equitably.

- Docks can extend over the extended property line with a written agreement from the adjoining property owner.
- Subdivisions of property to alter property lines for the purpose of installing a dock, which could have an adverse effect on other property, will not be recognized.

3. Boat docks (and any boats moored to the dock) must be set back at least 5 feet from the side property line extended lakeward. Docks with slips that are placed parallel with the shoreline must be set back a minimum distance of 1½ times the length of the slip, from the extended property line (**See Drawing 3-1**).

4. In coves up to 500 feet wide, boat docks and breakwaters may not extend more than one-third the distance to the opposite shoreline or 25 feet to the center of the cove, **whichever is more limiting**, up to a maximum of 100 feet. In coves wider than 500 feet, docks and breakwaters may not extend more than 20% the distance to the opposite shoreline, up to a maximum of 350 feet. Within the main channels of the lake (i.e. Osage, Gravois, Grand Glaize, Niangua and Little Niangua) docks and breakwaters may not extend more than 25% the distance to the opposite shoreline, up to a maximum of 350 feet. **All docks and breakwaters that extend over 200 feet from the shoreline will be reviewed on a case-by-case basis and will be subject to review by the Missouri State Water Patrol and other agencies as appropriate.** AmerenUE retains discretion, with agency review, to allow docks where channel configuration, existing development, public benefit, water depth, comprehensive ownership, etc. support proposals that do not meet the guideline. (**See Drawing 3-2**).

5. Docks may not be configured so that they enclose or fence-in the water for private use.

6. Dock builders who have docks under construction or completed docks to be sold do not require individual permits for those docks if they are moved from the property within 6 months. The location of all docks must still meet all of the dock placement requirements.

## **MARINAS AND 10 SLIP DOCKS**

Residential Docks 10 slips and larger must be reviewed by the Missouri Department of Natural Resources, Missouri Department of Conservation, Missouri State Water Patrol and any other appropriate agency deemed necessary by AmerenUE to ensure that such docks are compatible with the developed and natural environment of the area. Commercial Docks and Marinas 10 slips and larger must be located at least one-half mile (measured over project waters) from any other public or private Marina. They must also be reviewed by the agencies and approved by the Federal Energy Regulatory Commission.

## **BREAKWATERS**

If a breakwater is proposed, it should be included as part of the dock design. Breakwaters also require Corps of Engineers and Missouri State Water Patrol approval. Breakwaters that are not attached to the dock or are more than one slip width from the dock will be reviewed on a case-by-case basis. **All breakwater structure drawings must be sealed by a Registered Professional Engineer.**

## **BOAT DOCK SPECIFICATIONS**

### **General**

All docks must be constructed so they meet or exceed the following specifications. This section also may be used as a minimum structural standard for breakwaters; however, all breakwater designs must include engineering certification as to structure durability and effectiveness for the lake location. Alternate structure designs that meet or exceed the following specifications will be considered if the plans are sealed by a Registered Professional Engineer.

### **Certified Dock Builders**

All docks and breakwaters, including additions, modifications, and refoaming activities must be completed by a Certified Dock Builder or the owner of the property where the structure is located. AmerenUE will maintain and periodically update a Certified Dock Builder list. Certified Dock Builders must meet the following minimum standards:

1. Possess a valid AmerenUE permit prior to commencing construction on any structure on Lake of the Ozarks
2. Provide proof of commercial liability insurance of not less than \$1,000,000 with AmerenUE listed as additionally insured.
3. Proof of worker's compensation insurance and employer's liability insurance with limits no less than \$500,000, and as provided by state law.
4. Provide an affidavit or proof of proper disposal of waste foam and materials.
5. Pass an initial certification inspection and random inspections thereafter.

### **Specific Provisions**

1. No habitable structures will be permitted on boat docks.
2. Docks may not contain toilets, showers or any other type of device which could cause any liquid or solid waste to be discharged into the lake.

3. All construction or modifications of small docks (4 slips or less) shall have the plans, applications and drawings submitted by a Certified Dock Builder or individual experienced in floating dock design or construction. All construction shall conform to the specifications outlined below.
4. All construction or modifications of large docks (more than 4 slips) and all breakwater structures must have the plans, specifications, and required calculations submitted and signed by a Registered Professional Engineer experienced in floating dock design for commercial docks or marinas with boat size, wind conditions, and anchorage design equal to or greater than the design being submitted.
5. The Americans with Disabilities Act (ADA) or any related standard is not addressed in these specifications. The accessibility requirements provided in these specifications are not intended to comply with ADA or any related standards. The dock owner shall bear full responsibility for any ADA requirements.
6. American Society of Civil Engineers (ASCE) Manuals and Reports on Engineering Practice No. 50, Planning and Design Guidelines for Small Craft Harbors, is a recognized standard and may be used along with the requirements herein. The requirements provided in this specification shall govern over the ASCE No. 50 standard.

In extreme situations, emergency temporary repairs may be completed to ensure the safety of private property and persons. Such temporary repairs must meet all federal, state, and local requirements and be reported to AmerenUE's Shoreline Management office within 48 hours of the repair.

### **Flotation**

1. Only AmerenUE approved encapsulated flotation may be installed at Lake of the Ozarks. AmerenUE will maintain, and periodically update, a list of approved flotation manufacturers for distribution to Certified Dock Builders and interested property owners.
2. A "Float Replacement Notice" to Ameren will be required for any flotation replacement. Proof of appropriate waste foam and/or debris disposal is required.
3. Flotation shall be made up of a flotation material and an encasement around the flotation material. The use of new or recycled plastic or metal drums for encasement or floats is prohibited.
4. Flotation material shall be extruded polystyrene, expanded polystyrene, or a copolymer of polyethylene and polystyrene. Flotation material shall have a minimum density of 0.8 lbs./cu. ft., be of consistent quality throughout the float, beads shall be firmly fused together, and there shall be no voids inside the encasement.
5. Flotation material shall have a water absorption of less than 3.0 lbs./cu. ft. at 7 days when tested by "The Hunt Absorption Test." The float being used must be certified to meet this test either by a statement in the float manufacturer's literature or by a letter signed by the president of the float manufacturing company. Certification must also contain a statement which guarantees the minimum thickness of the encasement.

6. The encasement shall be solid polyethylene or a polyurethane type coating, both of which shall be watertight and have a minimum thickness of 0.125 inches. All floats shall be warranted for a minimum of eight years against sinking, becoming waterlogged, cracking, peeling, fragmenting, and losing beads and shall not be subject to damage by animals. A copy of the manufacturer's warranty shall be included with the certification of water absorption and encasement thickness. Existing floats that become inadequate to carry the existing design loads shall be replaced with totally encapsulated floats meeting these new requirements and outlined on the AmerenUE approved flotation list. If floats furnished under this new specification become punctured exposing the foam to erosion or deterioration, they shall be replaced immediately.
7. AmerenUE reserves the right to field-test any float to assure compliance with these float requirements. All flotation manufacturers are subject to annual and random testing. Floats will be tested by an independent testing source at the manufacturer's cost.
8. A float manufacturer that believes it has floats which are equal to or superior to floats meeting AmerenUE's specifications may submit sample floats and documentation and reasoning for waiving AmerenUE's specification. AmerenUE may require the float to be tested by an independent testing company at the manufacturer's cost.

#### **Flotation Attachments:**

1. Flotation shall be positively attached by the dock builder with 3/8 inch minimum diameter plated bolts, 0.120 inch minimum thickness fender washers and lock nut, to prevent the flotation from coming loose, and yet be attached in such a manner the flotation can be easily replaced if necessary. Puncturing of the encasement for attaching is unacceptable without specific approval from AmerenUE.
2. Outside J bolts are prohibited
3. All floats must be attached in accordance with the manufacturer's recommendation.

#### **Dead Load**

1. Dead load is defined as the weight of the entire dock structure including all permanent attachments such as bumpers, dock boxes, winch stands, roof structures, etc.
2. Under dead load, the distance from the top of the water to the bottom of the structural frame shall be a minimum of 7 inches. Any additions or modifications, where the pre-existing structure has less than 7 inches of freeboard, will not be permitted unless the noncompliant structure is brought up to the 7 inch minimum or the modification/addition meets or exceeds the 7 inch minimum.
3. Outer ends of finger or slip walkways shall be level or within 3 inches of the center walkway or dock to which it is attached.
4. Actual dead load freeboard shall be within plus or minus 2 inches of the dead load freeboard shown on the drawings.
5. At the outer ends of finger piers, there shall be less than 3/8 inch difference in freeboard between the outer corners per 3 feet of width.

## **Vertical Live Load**

1. Deck live loading for flotation calculations on uncovered docks shall be 20 pounds per square foot (psf). Decks shall also be designed to carry a minimum 400-pound concentrated load on any 1 square foot (sq. ft.). These two loads need not occur simultaneously.
2. Roof live load for flotation and structural calculations on covered docks shall be a minimum of 11.5 psf unreduced. Flotation shall carry the full dead load of docks and roof and the roof live load.
3. The outer ends of fingers shall not lose more than 4 inches of freeboard under a concentrated load of 400 pounds placed 2 feet from the end of the finger.

## **Horizontal Live Load**

1. Docks shall be able to withstand a minimum of one-foot high wave action. The specific site may warrant a larger wave loading as specified by a Registered Professional Engineer or AmerenUE.
2. Docks, roofs, anchorage, and connections shall be designed to resist the loading from a wind with 77 miles per hour (mph) design basic wind speed (using the projected area method, this wind loading is approximately 15 psf in any direction).
3. In lieu of more precise analysis, the projected area for wind loads shall be defined by the product of the distance between the extreme outer corners of the dock system and the average boat height for the entire dock system. The exposed area shall carry 100% of the projected load and an additional 15% for each hidden boat.
4. Finger piers shall be designed to withstand an impact from the average boat expected to use the slip striking the end of the finger at 10 degrees off center line moving at a speed of 2 mph (approximately 3 feet per second).

## **Access Structures (Dock Bridges/Ramps)**

- Access structures shall be designed to carry dead and live loads. Minimum live loads shall be 30 psf on deck.

## **Materials**

All docks and breakwaters shall be constructed with environmentally safe materials as defined below.

### **• Steel or Aluminum:**

1. All steel shall be powder coated, galvanized, or painted with a primer and painted with a minimum thickness of 3.5 mils. All dock primary substructure metal and angle iron shall be a minimum of 1½ x 1½ inches x 3/16 inch or 2 x 2 inches x 1/8 inch. Round rod shall be a minimum ½ inch. Smaller thickness, nonessential frame metal and angle iron may be used when approved by a Registered Professional Engineer and shall be no less than 1 inch x 1 inch x 1/8 inch.
2. All holes, cuts, or wells on steel members shall be made prior to hot dip galvanizing or painting.

3. After assembly of new docks, repairs or modifications, etc., all welds must be touched up in the field with the appropriate coating (i.e., cold galvanizing or paint).
4. Connectors shall be plated steel or stainless steel.
5. All structural steel welding shall conform to American Welding Society Standard (AWS) D1.1, latest edition. All structural steel welding electrodes shall conform to AWS A5.1 or A5.5 E-70XX. All exposed welded connections shall be free of excessive burs and sharp edges.

- **Cold Formed Steel:**

1. Cee shapes, zee shapes, and other cold rolled shapes shall be designed in accordance with the Light Gauge Structural Steel Design Handbook.
2. Cold-formed steel joists, purlins, beams, etc., shall be galvanized with a G-60 coating meeting ASTM standards or equivalent.
3. Metal panels shall be plated, galvanized, powder coated, or painted to provide adequate corrosion resistance.
4. Cold-formed structural steel and roof panels shall have gauge and strength required to resist dead loads, live loads, and construction loads.
5. Roof systems shall be designed to support the appropriate loads.
6. Roof panel design and structural load carrying capacity shall be as recommended by the panel manufacturer.

- **Wood**

1. Wood frame substructures are prohibited unless specifically approved by AmerenUE and engineered to meet the wave loading of the site.
2. Wood used for deck boards and banding trim must be pressure treated and be consistent with the latest Environmental Protection Agency (EPA) regulations.

- **Miscellaneous:**

Structural framing members shall provide corrosion resistance and strength as required by a Registered Professional Engineer.

- **Anchorage**

1. Cables or chains shall be designed with a minimum working load safety factor of 3.0 for cables and 2.0 for chains.
2. All cables or chains shall be galvanized or stainless steel.
3. Anchor design shall be completed with sound engineering practice and the soil properties assumed (if soil testing was not completed) shall be shown on the plan documents. Submerged anchors must be positioned to accommodate low water levels, as not to present a navigational hazard.

## HABITABLE STRUCTURES AND ENCLOSURES

Temporary or permanent living, entertainment, gathering or similar walled and roofed enclosures are not permitted on docks. Walled and/or Roofed enclosures on docks shall not exceed 80 Square feet and shall be limited to storage and accessory uses only. Enclosed fishing docks not exceeding 200 square feet are permitted provided the dock is used primarily for enclosed fishing and fish attractors and habitat are placed under the dock. Commercial ship stores, gas docks and similar uses associated with marinas shall also be limited to 200 square feet.

## ELECTRIC POWER

Electric power extensions to boat docks are the responsibility of the applicant. All extensions of such power should be performed by a qualified electrician in conformance with local, state, and national electrical standards. In all cases power sources on boat docks or other structures near water must utilize protective measures such as Ground Fault Interrupters (GFI) or low voltage systems. Any other City or County building regulations and/or fire codes must be adhered to.

## BANK STABILIZATION GUIDELINES

Bank stabilization must be contained within the applicant's property lines extended lakeward and not to exceed 3 feet from the eroded bank following the contour of the shoreline. Bank stabilization must be constructed as close to the eroded shoreline as possible and must be constructed for erosion control only. Proposed seawalls, which are not deemed necessary for bank stabilization purposes, will not be permitted within the project boundary. The placement of riprap is the preferred method for bank stabilization. In 2004, AmerenUE implemented a waiver that allows riprap to be placed below the waterline between March 15 and June 15 as long as no excavation is involved. Riprap must be clean limestone or native rock that is 8 to 12 inches in diameter or larger. Riprap stacked stone (ledge rock) may also be used to stabilize the shoreline. See Riprap Stacked Stone Detail drawing for correct installation.

**Seawalls cannot be constructed to gain or reclaim usable property.** Seawalls will not be allowed below elevation 658.5 feet, except for cases of extreme erosion. Applications for seawalls below 658.5 feet will require additional documentation or studies and require approval from the Corps of Engineers.

Seawalls constructed of concrete or rock can be used if they are environmentally and aesthetically acceptable.

Guidelines for the replacement of existing seawalls are as follows:

1. Existing walls shall be stabilized with riprap or a new concrete footing, whenever possible.
2. If the wall cannot be stabilized and is located above elevation 658.5 feet, a new wall can be constructed against the existing wall, if the new wall is not below elevation 658.5 feet.
3. If the existing wall cannot be stabilized and is located below elevation 658.5 feet, **the existing wall must be removed and either installed at the same elevation or brought back to a higher elevation, as specified by AmerenUE.**

Construction of seawalls cannot occur from March 15 to June 15, if construction requires excavation below the waterline at the time of construction, to minimize the disruption of fish spawning activities.

## **DECK/PIER GUIDELINES**

All decks or piers must be located within the applicant's property lines extended lakeward. Decks or piers must have minimum setback of 5 feet from the extended side property line and must be constructed with environmentally safe materials (i.e., wood, vinyl or plastic decking, metal or similar materials). Wood treated with creosote or penta is prohibited. Decks or piers may have a roof but cannot be enclosed.

Decks may cantilever over a seawall or extend lakeward (658.5 feet elevation) a maximum of 3 feet. If the deck is approved to extend beyond the seawall, a use fee will be assessed at the same rate as a boat dock, as provided for in the fee schedule above.

Piers must be 6 feet or less in width, and must not extend more than 30 feet lakeward of elevation 658.5. The bottom surface of the structure must be constructed above elevation 660.0.

Construction of decks or piers cannot occur from March 15 to June 15, if construction requires excavation below the waterline at the time of construction, to minimize the disruption of fish spawning activities.

## **EXCAVATION/FILL GUIDELINES**

**AmerenUE will consider dredging or excavations only when all other options have been exhausted. The numbers below correspond to Drawing 3-3**

The following excavation or filling activities are **prohibited**:

1. Excavation or filling of wetlands.
2. Excavation or filling of stream channels or the mouths of streams.
3. Excavation from areas above elevation 655.5 feet Union Electric Datum (UED).
4. Excavation from areas below elevation 652.0 feet UED, except immediately under an existing boat lift. Excavations to elevation 650.0 feet UED will be authorized only to accommodate an existing boat lift.\*

Excavations may be necessary to access existing shallow water mooring facilities and private properties. Limited excavations, when allowed, must meet the following standards:

5. Excavation must be located a minimum of 25 feet lakeward of the ordinary high water mark (OHWM) elevation 658.5 feet UED.\*
6. Excavation to accommodate an existing boat dock must have bottom excavation dimensions equal to the outside dimensions of the existing dock.
7. Excavation to accommodate a proposed boat dock must not have a bottom excavation dimension greater than 900 square feet, except where community docks are proposed. Excavation under community docks will be permitted only where significant areas of shoreline and/or shoreline habitat can be preserved by installing the community dock.

8. Excavation must have a 1 vertical on 3 horizontal slope between the bottom of the excavated area and the natural lake bottom at the boundary of the excavation.\*
9. Boat lanes must not be wider than 15 feet at the bottom, and side slopes must be no steeper than 1 vertical on 2 horizontal or shallower than 1 vertical on 3 horizontal.\*
10. Excavated material must be disposed of in a non-wetland site above elevation 665 feet UED, and stabilized so as to not re-enter the lake. Applicants must designate the disposal location and may be required to provide a stabilization plan.

All proposed excavation shall require review and approval from all appropriate resource agencies and a permit from AmerenUE and the Corp of Engineers.

Excavation of lakebed sediments for non-commercial use by private individuals for landscaping purposes or backfill for seawalls is prohibited.

Excavation cannot take place between March 15 and June 15 of any year to prevent disruption of fish spawning activity.

Excavation that involves the removal of more than 500 cubic yards of material also requires approval from the Federal Energy Regulatory Commission.

Excavation beneath boat docks should be conducted as a last resort. Before resorting to excavation, property owners should attempt to relocate the dock to frontage containing deeper water or extend the dock over deeper water by installing a walkway of sufficient length so as to eliminate the need for excavation, provided the location of the dock meets all other permitting guidelines.

Fill will not be allowed on project property without permission.

Sample drawings are shown in Drawing 3-4.

\*These limits may be imposed as conditions on issued permits or varied slightly, if appropriate, when the excavation application otherwise satisfies the criteria for minor excavation under normal size docks.

## **IMPACT MINIMIZATION ZONE DEVELOPMENT GUIDELINES**

**Certain areas along the shoreline are worthy of an additional level of protection that is not afforded to all of the lands covered within these permit requirements. These areas are identified along undeveloped shoreline with any of the following resources present: wetlands, heads of coves, aesthetics/bluff areas, cultural sites, woody debris; and islands. The Impact Minimization Zone (IMZ) designation identifies these areas of special concern to resource agencies and AmerenUE. An IMZ designation offers an increased level of protection to these areas as development may occur in these areas but the resources must be afforded protection. Within the individual areas, there may be certain aquatic or terrestrial resources or habitat characteristics that need complete protection to avoid adverse impacts. Development within an IMZ will be carefully reviewed by AmerenUE and resource agencies to ensure resource protection.**

**The Shoreline Management Plan (SMP) identifies the IMZs in the Lake of the Ozarks project area. Shoreline classification maps, including IMZ overlays are a part of the SMP**

and also made available at the AmerenUE lake office in Osage Beach. Applicants who wish to develop within the shoreline should consult the classification maps prior to submitting a permit application in order to adequately fulfill the permit application requirements. In the event an application is deficient with respect to IMZ application criteria, AmerenUE will notify permit applicants if their property is located within an identified IMZ and be available for consultation. The following sections outline guidelines for development within IMZs. Challenges to the IMZ maps can be made following the procedures outlined in Appendix F of the SMP.

**Disturbance, including shoreline clearing and modification, bank stabilization, the removal of submerged woody debris, installation of docks, etc., in areas within an IMZ requires the approval of AmerenUE. Any proposed disturbance must include an impact minimization plan that contains measures to avoid, minimize, or mitigate impacts on important environmental features within the area. There may be special considerations in an area that is contained in an IMZ that would preclude disturbance of any type. Approval of the proposed activities and the plan to minimize the impacts will be decided on a case by case basis. Activities in an IMZ are subject to the following restrictions:**

1. Disturbance of an area within an IMZ may be prohibited.
2. Construction activities are not allowed, except with the express written permission of AmerenUE, and must be completed by a specified date.
3. Dredging is not allowed.
4. Seawalls, (boat) ramps, and similar improvements requiring excavation are prohibited.
5. High densities of boat docks are not desirable.
6. Facilities are subject to size restrictions based on the type of IMZ (see below).
7. Only shoreline stabilization through the use of native plant species, riprap, or other habitat enhancing methods is permitted.
8. Facilities with toilets, showers, or any other type of device that could cause any liquid or solid waste to be discharged into the lake are prohibited.
9. Boat fueling facilities are prohibited.
10. All structures including, but not limited to, boat docks, breakwaters, buoys, swimming platforms, etc.) will be reviewed on a case by case basis.
11. Vegetative Removal ( See *Vegetative Cover Policies*)

In addition, the following guidelines apply to all IMZs:

1. When structures are permitted, they must incorporate additional structural complexity and/or include natural or artificial habitat enhancements (i.e., crappie beds).
2. Walkways and/or any other public access must be 3 feet above the normal full pool elevation and no more than 5 feet wide to minimize disturbance to existing

vegetation. The total length of walkways within IMZs will be reviewed on a case-by-case basis.

In addition to the above policies, there are additional restrictions on certain IMZ classifications relating to wetlands, cultural resources, heads of coves, aesthetic resources/bluff areas, woody debris, and undeveloped islands.

## **Wetlands**

The USACE strictly controls wetlands in accordance with the rules and regulations established in Section 404(B) of the Clean Water Act of 1977. In addition to other local, county, state and federal permit certifications, any development that impacts wetland areas is subject to the terms of the Clean Water Act and requires a 404 permit approved by the USACE and 401 Water Quality Certification as approved by the MDNR.

Should applicants pursue a permit from AmerenUE for property designated as an IMZ because of wetlands, applicants must also meet these restrictions:

1. All facilities must comply with all applicable local, state, and federal regulations. All necessary governmental permits or approvals and written authorization must be obtained by the applicant prior to beginning any activity/construction within the project boundary.
2. All land disturbing and construction activities must not occur during the months of March, April, May, and June to protect aquatic and terrestrial resources related to fish spawning habitat.
3. Structures are discouraged above wetlands to minimize sedimentation and erosion of the shoreline into the wetlands.
4. Applications for boat docks will only be considered where installation will not impact the wetlands. Walkways to docks shall be attached to the shoreline well above or away from the wetlands, and the docks shall be positioned lakeward of the vegetated shoreline.
5. Boat dock proposals within a wetland IMZ will be approved only after favorable recommendation from applicable local, state, and federal resource agencies.
6. Subject to the square footage limitations outlined below, boat docks may only be placed within an IMZ in accordance with AmerenUE's current size and setback guidelines.
7. The maximum surface area of a dock within wetland shoreline areas is 900 square feet. AmerenUE will consider increasing this maximum square footage requirement for group/community docks when employed to preserve significant shoreline areas located inside and outside an IMZ.
8. Any proposed docks must be separated by at least 150 feet of open water, as measured by the shortest distance to the nearest dock.

## **Cultural**

1. Each application will be reviewed to determine if the proposed development is located within a Cultural IMZ. If it is determined that the proposed development is located within a Cultural IMZ, AmerenUE will notify the owner that the area has been designated as a high potential area for archaeological remains, or contains a previously recorded site. Further, if cultural remains, i.e. artifacts or human remains are encountered during dredging, the owner must notify the Missouri SHPO of these discoveries.
2. If human remains are discovered, all construction must cease and the owner must contact the local law enforcement agency and the Missouri SHPO in accordance with RSMO-Section 194.400-410 Missouri Revised Statutes.

## **Heads of Coves**

1. Construction of boathouses on land or water and docks will not be allowed in the shallow upper ends of coves or lake arms where water depths are considered un-navigable under normal operating ranges of the reservoir. Group/community docks located outside these areas are preferred.
2. Structures adjacent to the shoreline or AmerenUE property should set back a minimum of 50 feet from the ordinary high water mark (658.5 UED).
3. Boat dock proposals within a heads of coves IMZ will be approved only after favorable recommendation from applicable local, state, and federal resource agencies.
4. Subject to the square footage limitations outlined below, boat docks may only be placed within an IMZ in accordance with AmerenUE's current size and setback guidelines. AmerenUE may disallow all facilities if the cove is less than 45 feet wide.
5. The maximum surface area of a dock within head of cove areas is 900 square feet.
6. Any proposed docks must be separated by at least 150 feet of open water, as measured by the shortest distance to the nearest dock.

## **Aesthetic Resources/Bluff Areas**

1. To maintain the integrity of the aesthetic resource, covered structures are prohibited in these areas. Uncovered boat docks may be permitted on a case-by-case basis as follows:
2. Building materials should be constructed or painted using natural (e.g., brown, green) colors to reduce the contrast between the structure and the aesthetic beauty of the natural landscape.
3. Boat dock proposals within an IMZ will be approved only after favorable recommendation from applicable local, state, and federal resource agencies.
4. Subject to the square footage limitations outlined below, boat docks may only be placed within an aesthetic resources/bluff area IMZ in accordance with AmerenUE's current size and setback guidelines.

5. The maximum surface area of a dock within an aesthetic/bluff area is 900 square feet. AmerenUE will consider increasing this maximum square footage requirement for group/community docks when employed to preserve significant shoreline areas located inside and outside an IMZ.
6. Any proposed docks must be separated by at least 150 feet of open water, as measured by the shortest distance to the nearest dock.

### **Woody Debris**

1. Removal of woody debris will not be allowed without the express written permission of AmerenUE. Submerged woody debris contributes to high quality fish habitat. Removal of woody debris may require mitigation by the landowner, unless the debris constitutes a navigational or safety hazard.
2. Construction of new docks in these areas are permitted provided fish habitat around the dock is enhanced (i.e., through the use of crappie beds).

### **Islands**

The maximum surface area of a dock on an island not accessible by bridge or ferry (publicly accessible island) is 900 square feet. AmerenUE will consider increasing this maximum square footage requirement for group/community docks when employed to preserve significant shoreline areas located inside and outside an IMZ.

Any proposed docks must be separated by at least 150 feet of open water, as measured by the shortest distance to an adjacent dock.

### **Impact Minimization Plans Must Include the following:**

1. A description of the existing shoreline and characterization of the resources within the IMZ classification (if you are unsure of the resource present you must contact AmerenUE prior to drafting a mitigation plan);
2. The amount of shoreline and total area potentially affected by the proposed development;
3. A characterization of how the resources may potentially be affected by the proposed development;
4. Measures to protect, avoid, minimize, or mitigate impacts to the protected resources;
5. Documentation of concurrence by the appropriate resource agency with regulatory authority;

## **WATER WITHDRAWALS AND PRIVATE IRRIGATION SYSTEMS**

Installations of private irrigation systems require a permit. AmerenUE may grant permission for facilities that do not exceed 1 million gallons per day (MGD). Supporting documentation in addition to an AmerenUE permit application must be submitted as follows:

1. A property map showing the location of the irrigation system including the intake pipe and pump, as well as, the location of the area to be served by the irrigation system.
2. A design drawing and installation schedule for the irrigation system showing pump sizes, lines, electrical service, and other improvements associated with the system. Design drawings of the intake pipe should include specific information about its proposed height from the lake bottom and grating or screening to protect lake wildlife and fish.
3. An estimate of the amount of daily, weekly, and monthly flow from the lake through the irrigation system and the maximum capacity of the pumping system.

Applications for such systems must clearly show that safety and environmental impacts have been addressed. Intakes should be screened in such a way as to prevent the removal of young/larval fish from the lake. To protect fry, the National Marine Fisheries Service specifies the following: approach velocity less than or equal to 0.4 foot per second and screen the opening less than or equal to 3/32 of an inch. AmerenUE may require removal of un-approved, non-conforming, or environmentally insensitive existing systems.

During times of low water or drought conditions, AmerenUE may request that operation of all private irrigation systems cease. Failure to comply with such a request may result in permanent termination of the permit and removal of the system at the property owner's expense.

## **LAKE FLUCTUATION POLICY**

AmerenUE operates Bagnell Dam under an operating License granted by the Federal Energy Regulatory Commission. At present, the provisions of the operating License permit lake fluctuations down to 650 feet under normal conditions and to 645 feet under emergency conditions.

AmerenUE suggests that the lake fluctuations mentioned above be factored into the design characteristics of docks. Designing a dock to withstand lake drawdown to 650 feet will prevent most damage due to drawdown. Designing it to withstand drawdowns to 645 feet will ensure a minimum amount of problems due to drawdowns.

Drawdowns of such magnitude are not typical. It is significant to note, however, that the lake usually reaches its lowest point during the winter-early spring period. If you are not a year-round resident, arrange to have someone take care of your dock during winter absences.

AmerenUE uses the Osage Power Plant at Bagnell Dam to optimize system power generation. High customer demand, downstream navigation, weather, upstream releases, and equipment malfunction are all factors in determining plant usage. These variables account for year-to-year, as well as day-to-day, fluctuations in the lake level. Such fluctuations should be expected. Also, these same variables make any forecasts concerning lake levels questionable except for very short periods.

AmerenUE hopes the foregoing information is of value. Please be assured that AmerenUE will work hard to cooperate with lake area residents.

For further information, please call AmerenUE's lake level information line at 573.365.9205.

**Checklist****Does your application packet include?:**

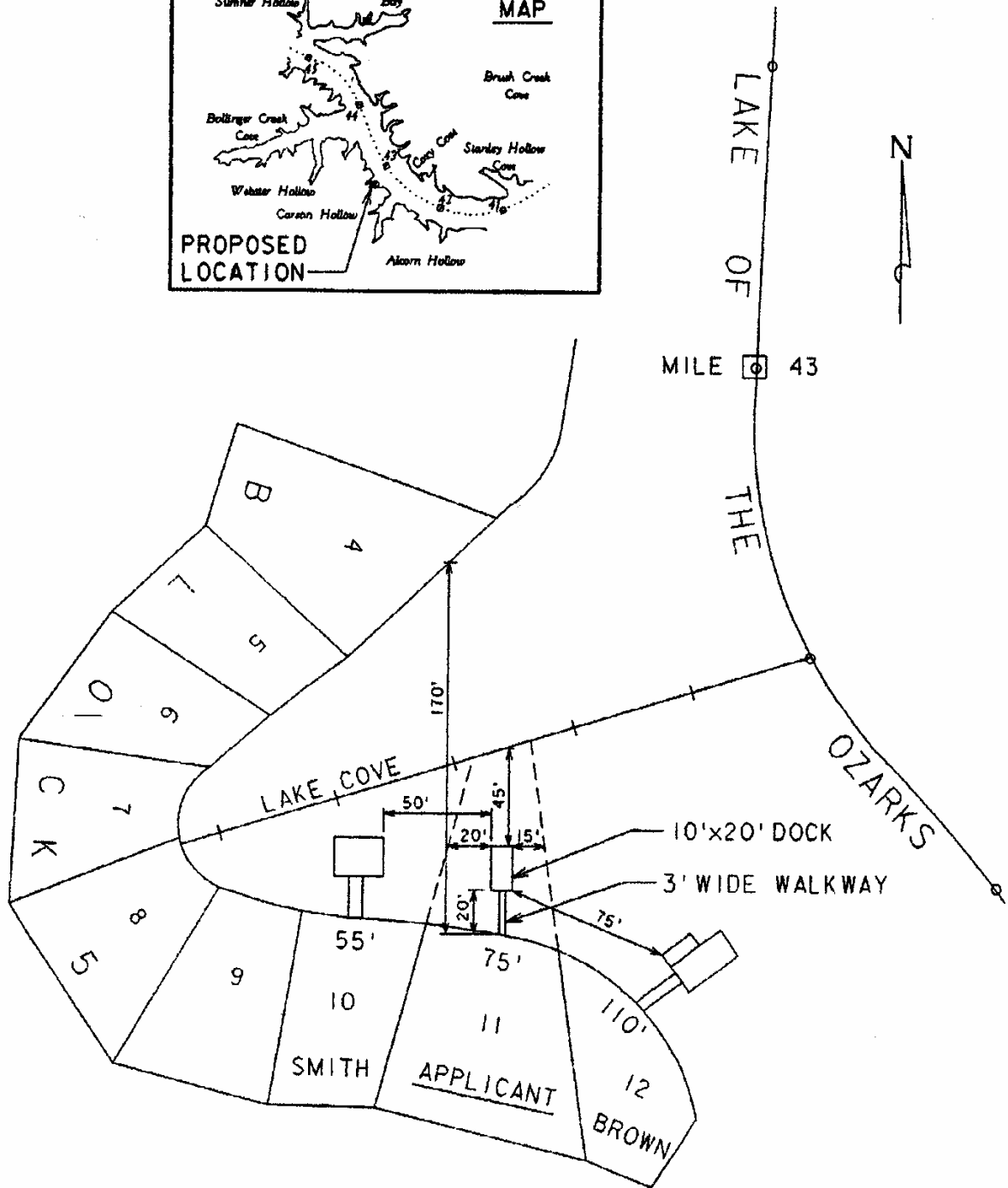
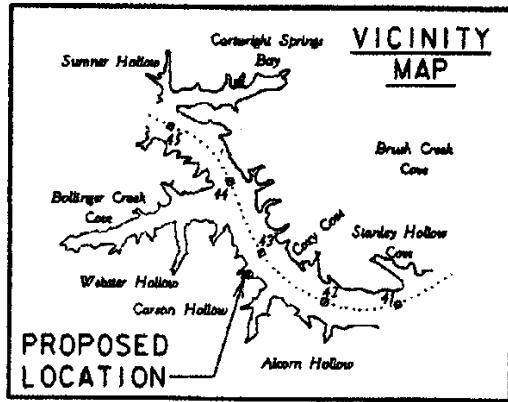
- Application for AmerenUE permit
- Specification sheet(s) (for docks and bank stabilization)
- Drawings to scale (on max. 11"x 17" paper) showing all measurements and elevations as specified
- Processing Fee (according to the Fee Schedule)
- Use Fee (If the structures are subject to an annual use fee, do not send use fee with the application.)

**Mail your application packet to:**

AmerenUE  
P.O. Box 993  
Lake Ozark, MO 65049

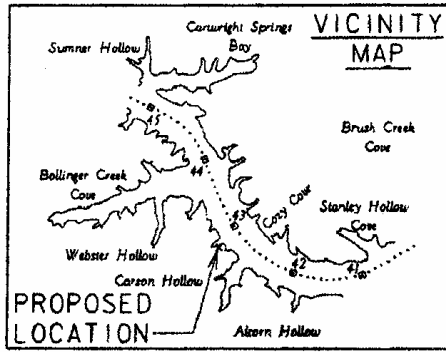
**After your application packet is received, AmerenUE will:**

1. Review the application.
2. Request any necessary approvals from federal, state, or local agencies.
3. Approve the application as submitted, approve the application with conditions, or deny the application.

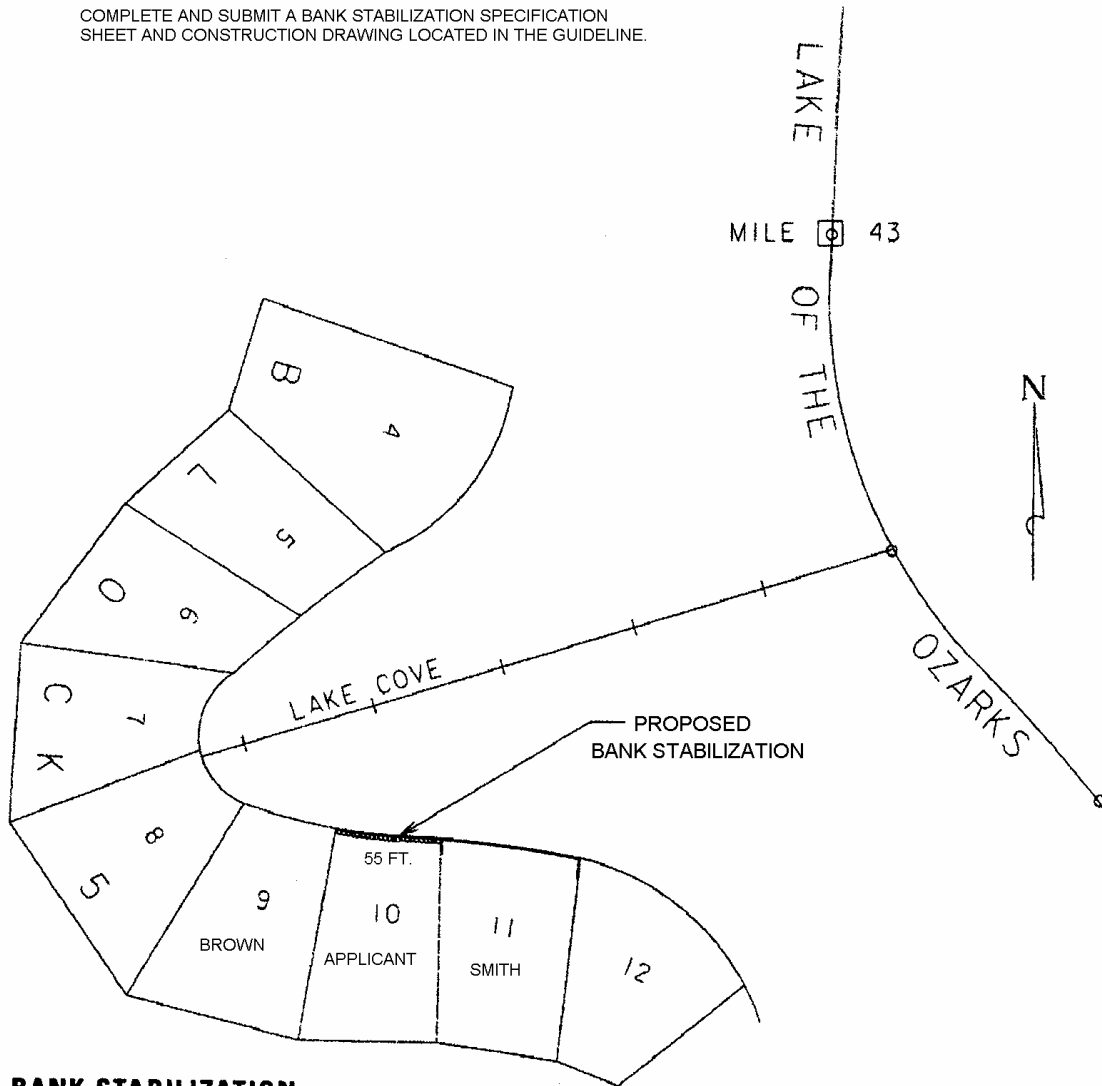


**DOCK LOCATION DRAWING**

**Drawing 1-1**

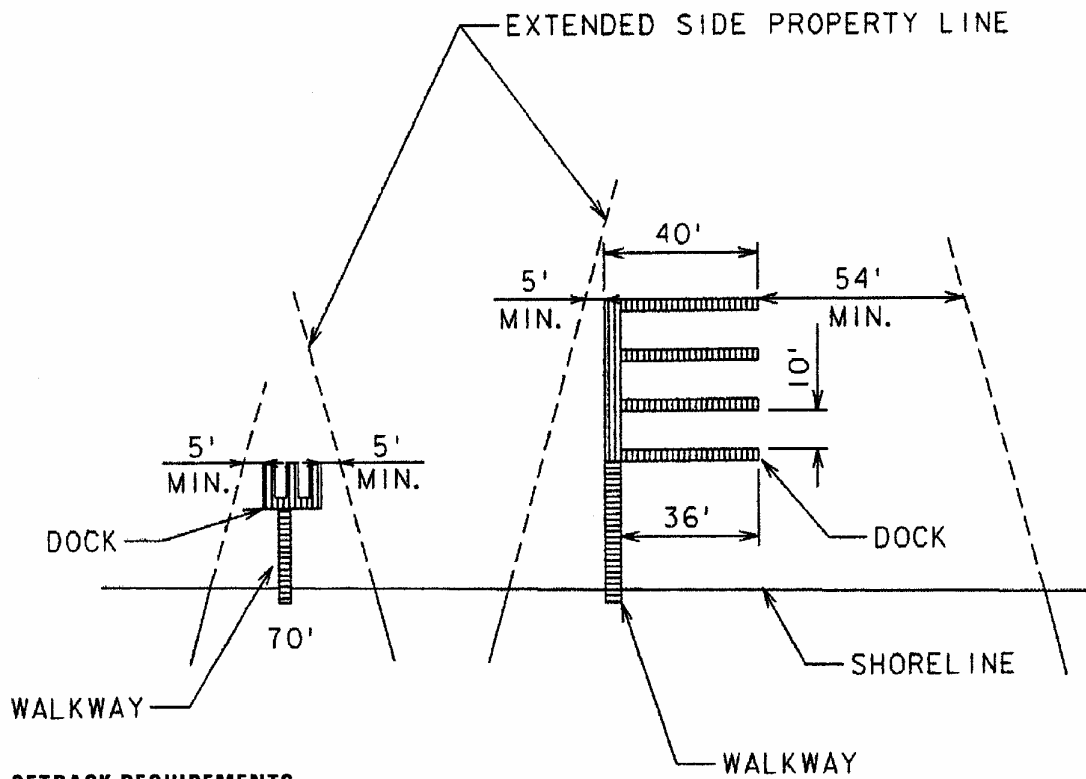


COMPLETE AND SUBMIT A BANK STABILIZATION SPECIFICATION SHEET AND CONSTRUCTION DRAWING LOCATED IN THE GUIDELINE.



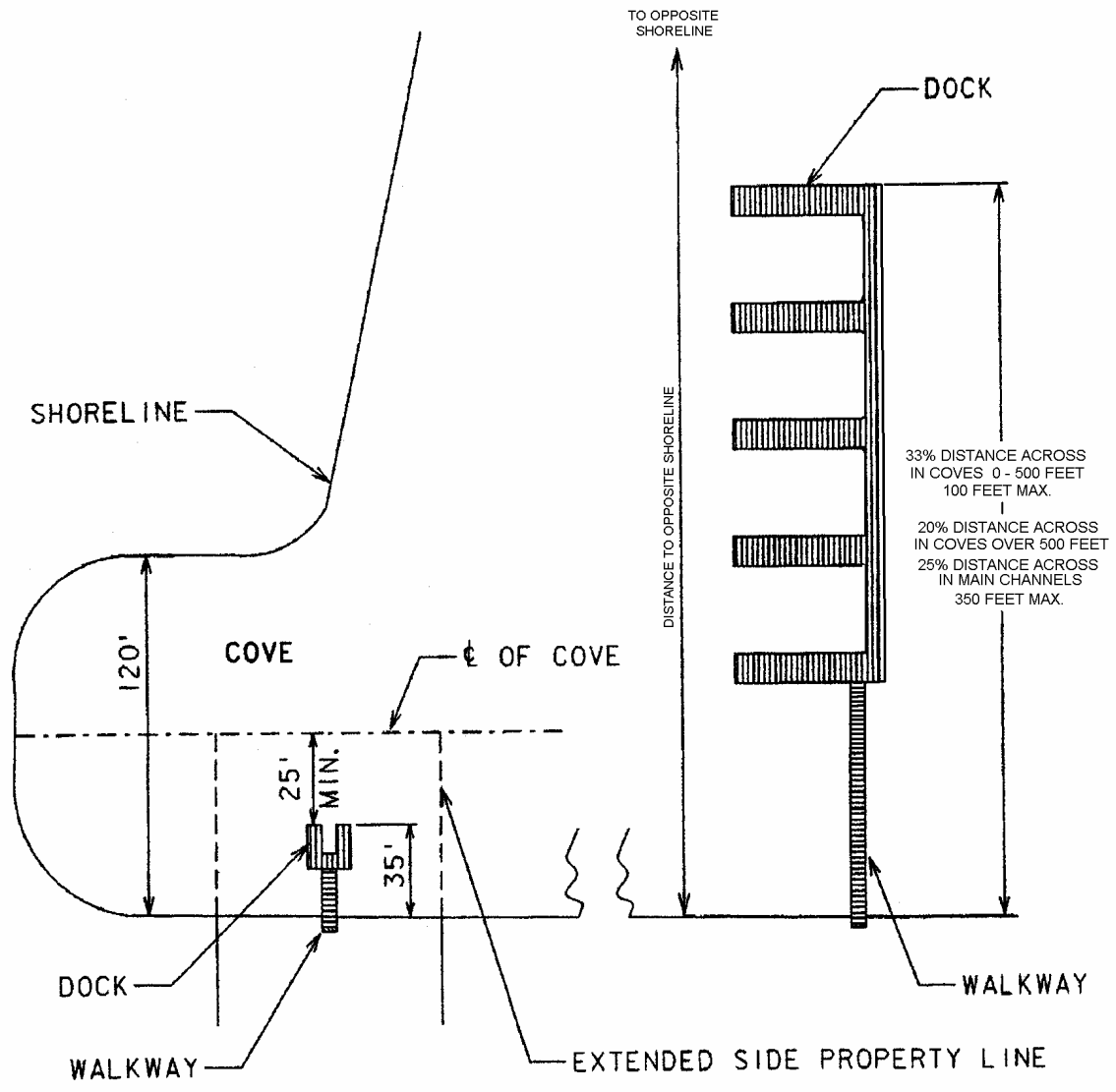
**BANK STABILIZATION**

**Drawing 1-2**



**SETBACK REQUIREMENTS**

**Drawing 3-1**



**DISTANCE FROM SHORELINE**

**Drawing 3-2**





7. Detailed directions to property:

8. List all known permits associated with this property.

Type of Permit

Permit Number

_____	_____
_____	_____
_____	_____
_____	_____

9. Date activity is proposed to commence: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year

Date activity is expected to be completed: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
month day year

10. Is any portion of the activity for which authorization is sought now complete?  Yes  No

If answer is "Yes", give reasons below. Month and year the activity was completed: \_\_\_\_\_ / \_\_\_\_\_  
month year Indicate the existing work on the drawings.

11. List all approvals or certifications required by other federal, interstate, state or local agencies for any structures, construction, discharges, deposits, or other activities described in this application.

<u>Issuing Agency</u>	<u>Type Approval</u>	<u>Identification Number</u>	<u>Date of Application</u>	<u>Date of Approval</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

12. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described here?

Yes  No If yes, list agency: \_\_\_\_\_

13. Application is hereby made for a permit or permits to authorize the activities described herein. I understand and hereby acknowledge that the Lake of the Ozarks is a Federal Project, subject to the jurisdiction of the United States Government and its agencies, and that this permit is subject to all requirements and restrictions that are or may be issued by the United States Government and Union Electric Company, (d/b/a AmerenUE) as Licensee. I further understand and acknowledge that AmerenUE assumes no responsibility or liability for any of the above-described activities or for any damage to the facilities which are the subject of the application that may result from the operation of the Project. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

**Does your application packet include:**

- Signed application for AmerenUE Permit
- Specification Sheet
- Drawings to scale (on 8½" x 11" paper) showing all measurements and elevations as specified on Application for an AmerenUE Permit
- Breakwaters and docks with more than 4 slips, registered engineer drawing.
- Processing Fee (according to the Fee Schedule)
- Use Fee must be submitted with application. If the dock is subject to an annual use fee, do not send it with the application.

\_\_\_\_\_  
Signature of Applicant or Authorized Agent

# DOCK SPECIFICATION SHEET

APPLICANT'S NAME \_\_\_\_\_

Dock is \_\_\_\_\_ Proposed \_\_\_\_\_ New  
\_\_\_\_\_ Existing \_\_\_\_\_ Modification (Permit No. \_\_\_\_\_)

Number of slips \_\_\_\_\_ Size of slips \_\_\_\_\_ x \_\_\_\_\_  
Size of slips \_\_\_\_\_ x \_\_\_\_\_  
Size of slips \_\_\_\_\_ x \_\_\_\_\_

Overall Dimensions:

Length \_\_\_\_\_ feet, Width \_\_\_\_\_ feet Square footage \_\_\_\_\_  
Length \_\_\_\_\_ feet, Width \_\_\_\_\_ feet Square footage \_\_\_\_\_  
Length \_\_\_\_\_ feet, Width \_\_\_\_\_ feet Square footage \_\_\_\_\_

Walkway:

Length \_\_\_\_\_ feet, Width \_\_\_\_\_ feet Square footage \_\_\_\_\_  
Length \_\_\_\_\_ feet, Width \_\_\_\_\_ feet Square footage \_\_\_\_\_

**TOTAL SQUARE FOOTAGE:** \_\_\_\_\_

Roof: Dimensions \_\_\_\_\_ x \_\_\_\_\_ Height \_\_\_\_\_

Flotation: \_\_\_\_\_ Encased or Encapsulated Float Manufacturer \_\_\_\_\_  
\_\_\_\_\_ Polystyrene Planks (White foam) **Not permitted for new installations after 11/1/95.\***  
\_\_\_\_\_ Extruded Polystyrene (Blue/Orange foam) **Not permitted for new installations after 12/31/98.\***  
\_\_\_\_\_ Other (specify) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*Please send verification that the dock was constructed prior to these dates.

Certified Dock Builder Name & Number:  
\_\_\_\_\_

Engineer Name (sealed drawings):  
\_\_\_\_\_

**I/we hereby certify that the above information provided is complete, accurate and complies with AmerenUE dock specifications in effect at the time of application for a dock permit.**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# FEE WORKSHEET

## FEEES

				<b>PROCESSING FEE</b>	<b>USE FEE</b>
<b>BOAT DOCK PERMITS</b>					
_____	New Permit	\$150/one slip	=	_____	
_____	Additional Slips x	\$25/slip	=	_____	_____
_____	Permit Modification	\$75/addn. of 1 slip	=	_____	
_____	Additional Slips x	\$25/slip	=	_____	_____
_____	Permit Transfer	\$25	=	_____	
_____	Permit Extension (one 6 month extension)	\$25	=	_____	
<b>BANK STABILIZATION PERMITS</b>					
_____	Seawall	\$300 plus \$1/foot over 100 feet	=	_____	
_____	Rip Rap	\$200	=	_____	
	<b>EXCAVATION PERMIT</b>	\$300	=	_____	
	<b>BOAT RAMP PERMIT</b>	\$300	=	_____	
	<b>DECK PERMIT</b>	\$100	=	_____	_____
	<b>OTHER PERMITS</b>	\$50	=	_____	
	<b>TOTAL CHARGES:</b>			_____	_____
	<b>TOTAL:</b>			_____	_____
		Amount Received:		_____	
		Balance Due:		_____	

**USE FEES**

Less than 1,800 sq. ft.	\$250
1,800 sq. ft. to 3,000 sq. ft.	\$400
Over 3,000 sq. ft.	Annual Fee

## Bank Stabilization Specification Sheet

Applicant's Name: \_\_\_\_\_

Please choose one:

Proposed Method of Stabilization:

- \_\_\_\_\_ Vegetation
- \_\_\_\_\_ Riprap
- \_\_\_\_\_ Seawall

Bank Stabilization (i.e. Vegetation, Riprap, and Seawall) is:

- \_\_\_\_\_ Proposed/New
- \_\_\_\_\_ Existing      \_\_\_\_\_ Modification (Permit No.) \_\_\_\_\_

1. Is there erosion of the shoreline in the area to which the permit application applies?  
 \_\_\_\_\_ NO: A bank stabilization permit will not be granted.  
 \_\_\_\_\_ YES: Continue

2. If there is erosion, please describe the eroded condition on the attached proposed construction drawing to include the following information:

**Vegetation/Riprap** – Height of the Eroded Bank & Elevation at Toe of Bank  
**Seawall** – Height of the Eroded Bank, Elevation at Top of Footing, Elevation of Lake Bottom (lakeside of wall), Distance from Toe of Bank to Wall, Wall & Footing Dimensions.

3. What is the length of the eroded shoreline within your property lines? \_\_\_\_\_
4. What is the length of the proposed bank stabilization? \_\_\_\_\_

**AmerenUE along with the resource agencies will determine the appropriate type of bank stabilization for your application.**

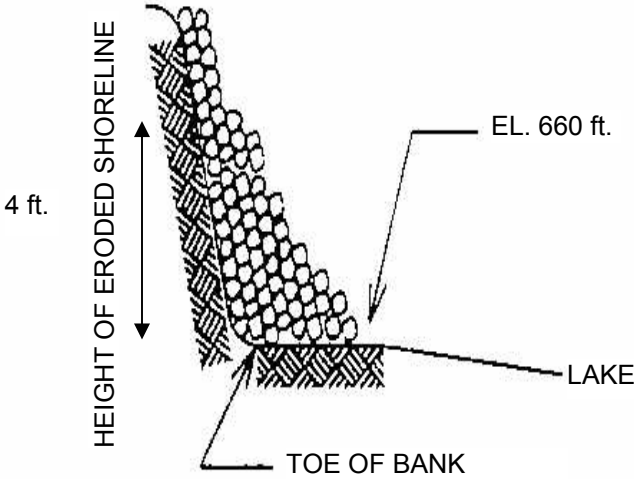
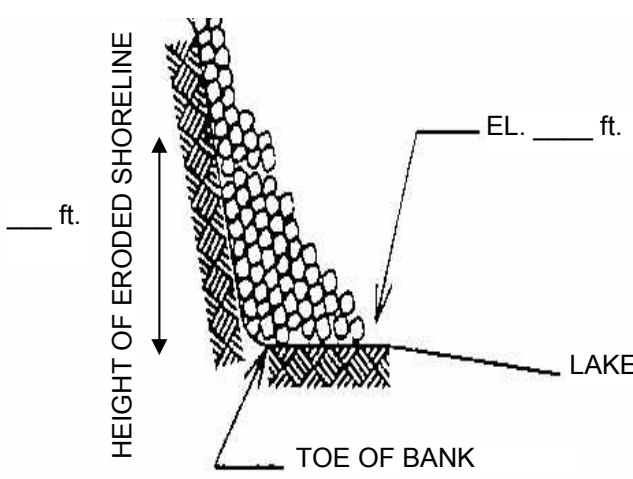
**I/We hereby certify that the above information is true and accurate.**

Signature: \_\_\_\_\_

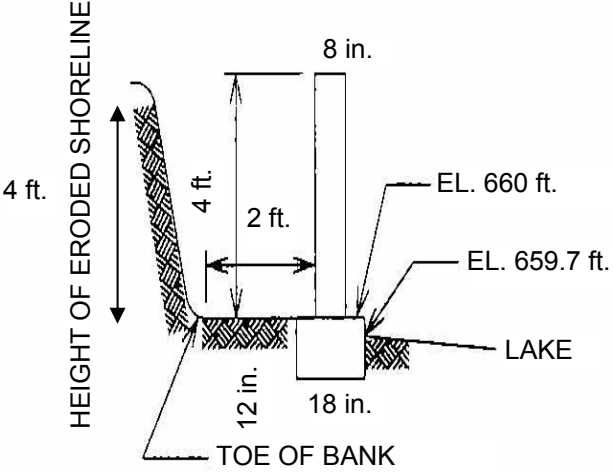
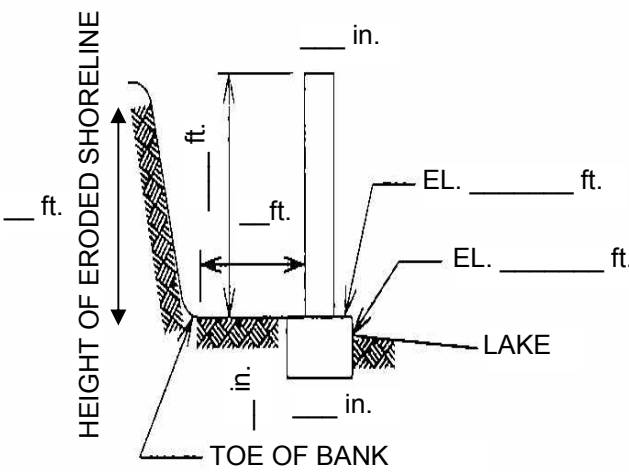
Date: \_\_\_\_\_

Shoreline Stabilization Proposed Construction Drawing

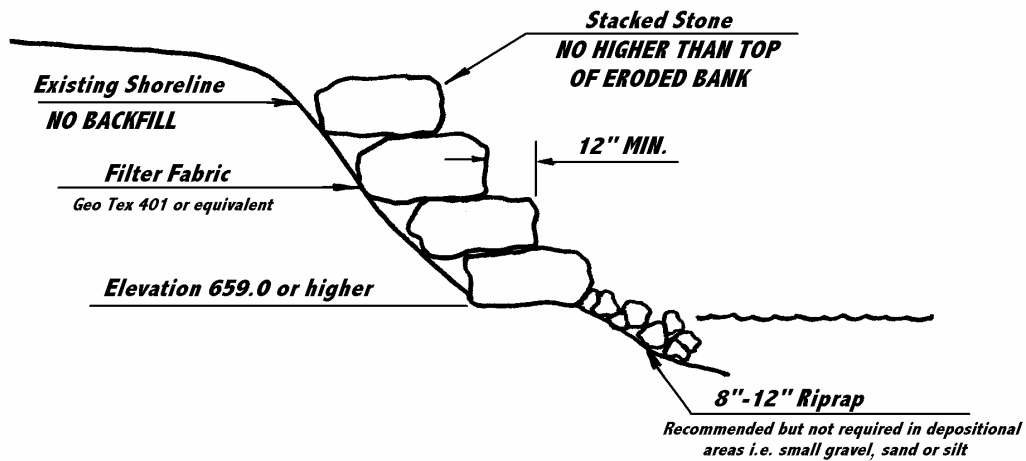
# VEGETATION OR RIP RAP

SAMPLE	APPLICANT WORKSHEET
<p data-bbox="110 331 813 380"><u>VEGETATION OR RIP RAP OPTION</u></p> <p data-bbox="326 386 597 428"><u>SECTION B-B</u></p> 	<p data-bbox="841 331 1544 380"><u>VEGETATION OR RIP RAP OPTION</u></p> <p data-bbox="1057 386 1328 428"><u>SECTION B-B</u></p> 

# SEAWALL

SAMPLE	APPLICANT WORKSHEET
<p data-bbox="212 1228 760 1276"><u>CONCRETE SEAWALL OPTION</u></p> <p data-bbox="363 1283 609 1325"><u>SECTION A-A</u></p>  <p data-bbox="175 1850 732 1881">Seawalls must be within 3' of eroded shoreline.</p>	<p data-bbox="933 1228 1481 1276"><u>CONCRETE SEAWALL OPTION</u></p> <p data-bbox="1084 1283 1330 1325"><u>SECTION A-A</u></p>  <p data-bbox="917 1850 1474 1881">Seawalls must be within 3' of eroded shoreline.</p>

# Riprap Stacked Stone Detail



## ***Bank Stabilization Detail (Riprap Stacked Stone)***

***AmerenUE  
Lake of the Ozarks***

EXISTING PERMIT TRANSFER APPLICATION

Permit numbers for docks stay with the property and do not move with the dock. Any changes or replacement of docks having an existing permit number requires modification approval. An application for the modification must be submitted to AmerenUE for a modified permit.

PARCEL ID REQUIRED FOR PROCESSING

Parcel ID No. \_\_\_\_\_

Include a copy of your conveyance deed (i.e. Warranty Deed, Quit-Claim Deed) with this application indicating you are the owner of the property described below.

Is the permitted facility attached to common ground or subdivision easement? Yes \_\_\_\_\_ No \_\_\_\_\_

<u>Type of Permit</u> (i.e. dock, seawall, etc.)	<u>Permit Number</u>
_____	_____
_____	_____
_____	_____
_____	_____

Subdivision Name: \_\_\_\_\_

Lot Number: \_\_\_\_\_

Lake Mile: \_\_\_\_\_

Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_

County: \_\_\_\_\_

Name of person(s) it is being transferred from: \_\_\_\_\_

Name, mailing address and phone number(s) of the person(s) that the permit(s) is/are being transferred to:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name and phone number of the contact person if other than the applicant:

\_\_\_\_\_

The transfer will be effective when the applicant receives a transfer permit from AmerenUE.

<p><u>Applicant Checklist:</u></p> <p><input type="checkbox"/> Copy of Warranty/Conveyance Deed</p> <p><input type="checkbox"/> \$25 Processing Fee</p> <p><input type="checkbox"/> Sign application below</p>
--

Return to: AmerenUE PO Box 993 Lake Ozark, MO 65049

I certify that the above information contained in this application is true, complete and accurate.

\_\_\_\_\_  
Signature of Applicant Date: \_\_\_\_\_

## Glossary of Terms

**Breakwater:** A structure used to protect docks by stopping or slowing waves or wake.

**Cantilever:** Referring to a deck that extends over the lake or shoreline and is supported by a seawall or piers.

**Commercial Dock:** Mooring facilities associated with a restaurant, marina, gas dock or similar use intended to produce revenue as a primary or accessory business.

**Conveyance deed:** The deed a buyer receives from the seller when buying property (i.e., Warranty, Quit-Claim, or Special Warranty deed)

**Dead load:** The weight of the entire dock structure, including all permanent attachments such as bumpers, dock boxes, winch stands, and roof structures.

**Dead load freeboard:** The distance from the top of the water to the bottom of the dock's structural frame (a minimum of 7 inches in these regulations).

**Horizontal and vertical slope:** This refers to the side of an excavated area. From the bottom of the excavation, the side must be sloped at 3 horizontal feet for each 1 foot vertical rise.

**Lake mile:** Mile markers on Lake of the Ozarks as established by the Corps of Engineers, for the main channel and arms of the Lake. Mile marker "0" starts at Bagnell Dam and runs upstream towards Truman Dam.

**Live load:** Vertical: the weight of people, ice and snow. Horizontal: the force of wind, waves and boat wakes against a dock.

**Marina:** A commercial facility located at the Lake that provides docking, storage, maintenance, and/or other facilities equipped to provide marine repair service, gassing, and supplies. It may also include land-based areas for car parking, boat ramps, and associated facilities and services.

**Project lands:** All of the property rights acquired for the construction of Bagnell Dam and the Osage Project as licensed by the Federal Energy Regulatory Commission. AmerenUE owns the majority of the shoreline property around the lake; however, the extent of this ownership varies. Carefully check ownership records for your property prior to any construction near the lake.

**Purlins:** The horizontal members of the roof structure used to support and attach the roof panels.

**Residential Dock:** Fishing, Swimming or boat mooring structure located on the water and accessory to existing residential land development or uses.

**Riprap:** Clean limestone or native rock that is 8 inches to 12 inches in diameter or larger.

**Setback:** The distance between the side property line extended lakeward, and the closest point to the applicant's boat dock.

**Toe of the bank:** The bottom or lowest point of an eroded bank on the shoreline.

**Waterspace:** The area occupied by the dock (including the area within the slips) walkway, boat lifts, breakwater, and any other structures.

**Wave action:** The force of a wave against the exposed surfaces of the dock and boats. Expressed in pounds per square foot (psf), it is used to determine the size of the anchoring system.

**Wetlands:** Areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted for life in saturated soil. These areas are also referred to as swamps, marshes, and bogs.

**Wind loads:** The force of wind against the exposed surfaces of the dock and boats. Expressed in pounds per square foot (psf), it is used to determine the size of the anchoring system.

## **CONTACTS**

### **ABOUT SEAWALLS AND DOCK PERMITS**

AmerenUE

P.O. Box 993

Lake Ozark, MO 65049

E-mail address: lake@ameren.com

Phone: 573.365.9203

Lake level information: 573.365.9205

About problems or concerns affecting the lake:

Lake and Shoreline Protection Hotline: 573.365.9203

### **ABOUT NEW CONNECTIONS AND SERVICES PROVIDED BY LAKESIDE DISTRICT**

AmerenUE

P.O. Box 993

Lake Ozark, MO 65049

800.552.7583

### **ABOUT U.S. ARMY CORPS OF ENGINEERS PERMITS**

U.S. Army Corps of Engineers

Truman Satellite Office

Attn: CENWK-OD-RM-HT

Route 2, Box 29C

Warsaw, MO 65355

660.438.6697

660.438.6909 fax

### **ABOUT MDNR PERMITS**

Missouri Department of Natural Resources

### **ABOUT BUOY PERMITS**

Missouri State Water Patrol

573.751.3333

**Visit our web site at**

**www.ameren.com for additional  
information and to download forms**