

Draft

Supplemental Environmental Assessment

for

Lake Lanier Islands Resort Proposed Master Plan Modifications Amusement Park Area Lake Sidney Lanier Buford, Hall County, Georgia



**US Army Corps
of Engineers**
Mobile District



Google Earth, 2014

Prepared by



UNITED CONSULTING

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SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
PROPOSED MASTER PLAN MODIFICATIONS –
LEASING OF
GOVERNMENT LAND FOR RECREATIONAL AND PRIVATE DEVELOPMENT

LAKE LANIER ISLANDS RESORT, LAKE SIDNEY LANIER
CITY OF BUFORD, HALL COUNTY, GEORGIA

1. INTRODUCTION:

This supplemental environmental assessment (EA) was prepared utilizing a systematic, interdisciplinary approach integrating the natural and social sciences and the design arts with planning and decision-making. The proposed action has been evaluated in multiple contexts for short-term and long-term effects and for adverse and beneficial effects. This assessment indicates the effects on the human environment are well known and do not involve unique or unknown risks. It is not anticipated that this is a precedent-setting action, nor does it represent a decision in principle about any future consideration.

A previous EA was developed for the Proposed Sublease of Lake Lanier Islands to KSL Lake Lanier, Inc. and Implementation of the 1997 Conceptual Development Plan in June of 1997. A Finding of No Significant Impact (FONSI) was issued on July 15, 1997 associated with the previous EA. An additional Supplemental EA and revised Master Plan Sheets C and D2 with an added sheet D2A was approved by a FONSI dated August 31, 2009. This Supplemental EA is intended to address current and future development plans associated with the ‘Water Park Related/Family Related Activities’ area. This area was identified on the 1997 Master Plan Sheets A, D.1, D.2, D.3, D.4, and E as water park/theme attractions area. However, this Supplemental EA focuses specifically on the expansion of the existing water park/amusement park area as shown on Map A of this Supplemental EA and on the attached plans (see Project Area or Study Area noted on the provided plans) and the long-term management and upgrades anticipated for the area. Appendix C, Exhibit 1 has been developed to clearly define the limits of the amusement park for the purposes of this Supplemental EA.

This EA was conducted in accordance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA [40 Code of Federal Regulations (CFR) 1500-1508], and Engineer Regulation 200-2-2. This assessment process used a systematic interdisciplinary approach integrating the natural and social sciences and environmental design arts with planning and decision-making.

A public review period for this action will be conducted prior to the issuance of any Finding by posting the Draft EA on the U.S. Army Corps of Engineers website. If a FONSI for this Supplemental EA is appropriate, it will be advertised to the public via a Notice of Availability in accordance with 40 CFR 1501.4(e)(1). The posting will provide a method by which any member of the public can request a copy of the FONSI. The FONSI will be mailed directly to individuals and groups expressing an interest in the project.

a. Location:

This EA relates to Lake Lanier Islands Resort, which consists of a series of islands totaling approximately 1,100-acres in Lake Sidney Lanier and is currently subleased by LLI Management Company, Inc. from the State of Georgia who leased the property from the U.S. Army Corps of Engineers (USACE). Lake Lanier Island Resort is located about two miles northeast of Buford Dam on the eastern shore of Lake Lanier. The property is currently operated as a recreation area and consists of land leased from the USACE located in the Apalachicola-Chattahoochee Flint (ACF) river basin.

Lake Lanier Islands is conveniently located approximately 45 minutes northeast of Atlanta. The resort is assessable via two large corridors: Peachtree Industrial Boulevard and Interstate 985 via Lanier Islands Parkway (Exit 8). Both Peachtree Industrial Boulevard and Interstate 985 connect to the larger transportation infrastructure serving the greater metropolitan Atlanta area. The primary access to the Project Area is via Lanier Islands Parkway. Figures 1-3 identify the location of the project and are included in **Appendix A**.

This Supplemental EA has been prepared specifically to evaluate proposed changes to the amusement park area as defined on Exhibit 1 and not the entire Lake Lanier Islands Resort as shown on the previous Master Plan drawings, dated June 1997. The approved Master Plan is composed of multiple design sheets, designated Sheets A, B, C, D.1, D.2, D.3, D.4, and E, which provided flexibility in the implementation of the future development. A Supplemental EA and revised Master Plan Sheet C and D.2 and an added sheet D2A was approved by a FONSI dated August 31, 2009. The amusement/recreational park area has historically been represented on multiple sheets (Sheets A, D.1, D.2, D.3, D.4, and E) and the goal of this Supplemental EA is to clearly define the limits and evolution of only the amusement park area and to assess potential environmental impacts from these proposed modifications as further outlined below.

b. Proposed Action:

The proposed action includes approval of an updated Master Development Plan outlining planned and future redevelopment of the amusement/recreational park area which is currently operated as LanierWorld during the summer months. The proposed action will allow Lake Lanier Islands to more fully utilize the area throughout the year.

During the summer months, LanierWorld is currently subdivided into several attraction areas including the Family Fun Park, Big Beach, and Sunset Cove. Lake Lanier Islands utilize these

subdivisions to meet the distinct needs their target audiences. The Family Fun Park has been developed and marketed to meet the needs of the young family. Big Beach has been designed to cater to the older family dynamic and includes a mixture of water slides, open water swimming areas, and beach access. Sunset Cove has been designed to meet the needs an adult population by providing beach access, upper scale dining, boat slips, and an entertainment venue.

During the winter months, Lake Lanier Islands will market the amusement/recreational park as Snow World. Development of SnowWorld will include the addition of dry slides, snow tubing, and other winter attractions. Further, the proposed action will give Lake Lanier Islands the option to redevelop and upgrade targeted areas of the amusement park as demand, technologies, and safety considerations dictate. This flexibility gives Lake Lanier Islands management the option to utilize existing infrastructure year round, thereby reducing potential development impacts to other areas within the lease. As outlined in the 1997 Master Plan, total development of Lake Lanier Islands is not expected to exceed 20% impervious surfaces. The proposed action(s) will continue to utilize the 20% impervious surfaces threshold (over the entire lease area) as the development not to exceed goal.

Although not an exhaustive list, Lake Lanier Islands foresees potential development of additional attractions/resources within the amusement park, including:

Teaser Phase Slide:

The Teaser Phase Slide is a four (4) lane dry tube slide that uses a commercially available canvas topped hard plastic bottomed snow tube that slides on a low coefficient of friction synthetic snow surface to mimic a snow tube slide that is typically found at snow ski resorts. The synthetic snow surface is manufactured from either virgin or recycled polyethylene and is very durable and stable.

The proposed slide (currently in planning) will start at the concrete deck on the west side of the current Mini-Golf cabana. Starting at an elevation of approximately 1122 feet above mean sea leave (AMSL) the slide will be placed on an elevated platform traverses above the pedestrian sidewalk, retaining wall, and fence onto the existing beach where it will be connected to a floating section of the slide that will extend approximately eighty (80) feet out into the lake. The fixed portion of the structure will end on the existing beach at the water edge at an elevation of approximately 1073 feet AMSL. The portion of the lake where the slide ends in the landing area is currently a no-wake zone and a designated swim area that will not interfere with boat traffic within the cove.

Riders will exit the ride at the end of the landing area and return by foot onto the beach and up the existing concrete walkways to the starting point of the slide. Tubes will be returned to the top of the slide by an aerial tube return system consisting of variable frequency driven motor and overhead cable and hook return that travels parallel to the slide from the end of the slide in the lake to the top of the slide at approximately sixteen (16) feet above existing ground surface.

The overall total length of the slide is approximately three hundred and eight feet (308) feet and the overall total width is approximately thirty six (36) feet. The land portion of the Teaser Phase Slide is approximately two hundred and four (204) feet by twenty eight (28) feet wide and will be a self-supporting wooden structure constructed of southern pine No. 2 pressure treated for exterior use on timber and steel posts set on or imbedded in shallow poured-in-place or precast concrete foundations. The floating section of the slide is approximately one hundred (104) feet long, including the landing pool and floating section structure, with a maximum outside width of approximately thirty six (36) feet. The floating section structure will consist of hot dip galvanized after fabrication steel frames and components designed in accordance with American Society of Civil Engineers (ASCE) Report 50, “Small Craft Harbors” current edition. Frames shall be constructed in accordance with the typical four (4) ft. by twenty (20) ft. box truss. Floatation will be provided by rotationally molded polyethylene encased floats.

Synthetic Snow - Terrain Park:

The terrain within the amusement park lends itself to the development of a year round dry slide/synthetic snow park. Synthetic snow parks generally consist of manufactured panels interlocked into a ‘carpet’ or surface that is secured to the ground with staples, helical anchors, or other methods that smoothly transitions from one area to another without hard edges or abrupt changes in slope. Typically, the slopes may be bordered with concrete, treated wood or synthetic materials, to mark the boundary of the ride-able slope area.

Development of a synthetic snow park can be advantageous because the surface is permeable and does not require additional storm water controls and the mat can be placed around existing infrastructure and trees, as needed.

Snow Tube Slide:

A snow tube slide might consist of a multi-lane slide constructed on an elevated structure of wood or steel. Associated infrastructure might include concrete foundations, footers, retaining walls, and elevated walkways.

Access and Egress:

The amusement/recreation area is bisected by Lanier Islands Parkway. In an effort to reduce pedestrian traffic crossing the parkway, Lake Lanier Islands envisions the development of an elevated pedestrian bridge connecting the Family Fun Park to the Big Beach and Sunset Cove entertainment areas. Additionally, as site use evolves, the existing sidewalks, pathways, handrails, and overlooks will be upgraded, as needed.

Support Areas/Infrastructure:

Support areas may include the construction of permanent structures for use as sitting or viewing areas, retail and rental equipment, instruction, safety training, equipment maintenance. These actions may include the demolition, renovation or expansion of existing buildings (i.e. South Beach Bath House, Mini-Golf Check In, Spa Check In. etc.). Other support areas may include the improvement of the ‘back of the house’

support areas. ‘Back of the house’ areas typically include prep/storage areas for food, custodial, entertainment, and utility services. These upgrades may include widening and improving walkways/ driveways, upgraded utility corridors, mechanical, electrical, and other civil infrastructure improvements.

Prior to construction, Lake Lanier Islands will develop an Implementation Plan for submittal and approval to the USACE per SAMDR 1110-1-3.

c. Purpose and Need for the Proposed Action:

Lake Lanier Islands Resort is redeveloping itself to meet the increased recreational demands placed on Lake Sidney Lanier as the population of metro Atlanta grows. Lake Lanier Islands will continue to cater to the lake residents, day trip users, and vacationers as a resort destination. Quality products will allow Lake Lanier Islands to remain a viable and vibrant enterprise serving the greater metro Atlanta region.

Further, a Draft Environmental Impact Statement (EIS) for the ACF river basin, dated September 1998 by the USACE, indicated that the estimated population in the Georgia portion of the ACF river basin was 3.637 million people. The report indicated a projected population for the Georgia portion of the ACF river basin at 4.782 million people in 2020, and 6.167 million people in 2050. The US Census Bureau indicated that the Atlanta-Sandy Springs-Roswell, Georgia Metropolitan Statistical Area grew from a population of 4,263,438 in 2000 to a population of 5,286,728 in 2010. A population increase of 24 percent in 10 years, which exceeds the projected growth outlined in the 1998 Draft EIS for the ACF river basin in which metropolitan Atlanta lies. It is anticipated the recreational use of Lake Sidney Lanier will increase as the population of the Georgia portion of the ACF river basin increases.

d. Authority:

The construction of Lake Sidney Lanier (originally the Buford Dam multi-purpose project) was authorized by the Rivers and Harbors Act approved July 24, 1946, Public Law 525, 79th Congress, 2nd Session. The construction of Buford Dam was completed in 1957 and Lake Sidney Lanier was designated as such by Public Law 56-457, and approved on March 29, 1956. Recreational facilities were authorized by Section 4 of the Flood Control Act of 1944 as amended (Title 10, USC 460d).

The Final EIS for Lake Sidney Lanier (Lanier EIS), dated November 2003 by the USACE, indicated natural, cultural, and developed resources of projects are to be managed in the public interest, providing the public with safe and healthful recreational opportunities while protecting and enhancing resources. Further, the Lanier EIS indicated that provisions under the real estate leasing authority grant, under law, privileges for private exclusive use of Government real property to certain leaseholders.

Title 16, United States code, Section 460d, states in pertinent part: “The Chief of Engineers, under the supervision of the Secretary of the Army, is authorized to construct, maintain, and operate public park and recreational facilities at water resources development projects under control of the Department of the Army, to permit the construction of such facilities, by local interest (particularly those to be operated and maintained by such interests), and to permit the maintenance and operation of such facilities by local interest.” “Preference shall be given to Federal, State, or local governmental agencies, and agencies for the use of all or any portion of a project area for any public purpose, when the Secretary of the Army determines such action to be in the public interest, and for such periods of time upon such conditions he may find advisable.”

Pursuant to the Recreation Lakes Act of 1996, Public Law 104-333 (http://corpslakes.usace.army.mil/employees/cecwon/pdfs/nat_lakes.pdf), the President of the United States appointed the National Recreation Lakes Study Commission to review opportunities for enhancing water-based recreation at Federal Lakes. The Commission’s charge, in part, was to “make recommendations on alternatives for enhanced recreation opportunities . . . emphasizing private sector initiatives in concert with State and local units of government”. The Commission’s recommendations can be found in their report, “Reservoirs of Opportunity”.

By memorandum of November 20, 2000, Major General Hans A. Van Winkle, Deputy Commander for Civil Works, USACE named Lake Sidney Lanier one of thirty-six Recreation Demonstration Laboratories. These laboratories are empowered, within existing laws, to test or prototype new ways of doing business that improves products or services through innovative planning, development, implementation, and management of recreation programs or activities. The purpose of this program was to reduce development time for proposed projects while working within the parameters of the regulations and to increase public access to the resource.

e. Project History:

In 1974, Lake Lanier Islands celebrated its first year of operation. The first phase of development included Harbor Landing Marina, campgrounds, stables, and a beach area at what is now branded LanierWorld. As the population in the Atlanta area grew, so too did the need for additional recreational venues.

In 1987, the Beach & WaterPark (LanierWorld) was enhanced with the addition of water slides and the wave pool. The 18-hole, par-72 Emerald Pointe Golf Club was added in 1988, complete with Clubhouse, pro shop and grille. A resort hotel opened in 1989 named Lake Lanier Islands Resort, which was renamed the Hilton at Lake Lanier Islands in 1990.

In 1993, Lake Lanier Islands Development Authority and the State of Georgia partnered once again to create Magical Nights of Lights. With an initial investment of over one million dollars, Magical Nights of Lights was well on its way to becoming one of Georgia’s most popular holiday light shows. Today, Magical Nights of Lights is considered the world’s largest animated light extravaganza, which is comprised of more than one million twinkling lights on a six and one-half-mile driving tour.

In May 1996, KSL Recreation Corporation, based in LaQuinta, CA, contracted with the state of Georgia to take over the day-to-day management and operations of Lake Lanier Islands as a result of a statewide privatization effort. KSL Recreation Corporation invested nearly \$30 million in property improvements while managing Lake Lanier Islands.

In 1997, the Beach & WaterPark enjoyed the addition of water attractions and retail space with food and beverage outlets. Harbor Landing received all new docks and Emerald Pointe Golf Club was upgraded with new greens, refurbished bunkers, new drainage system, tee boxes, and all new golf carts.

The addition of The LakeHouses on Lanier[®] in 1998 provided new lodging options at Lake Lanier Islands. The 30 New England inspired homes each feature two bedrooms and two private baths with dressing areas, full kitchen, dining space and large family room with a fieldstone fireplace. The private deck is complete with view of the lake, hot tub and gas grill.

In 2001, KSL transformed the Hilton at Lake Lanier Islands into the Emerald Pointe Resort & Conference Center[®]. In addition to a name change, the 214-room resort completed major renovations. Highlights included a new entrance, refinements to the guestrooms and suites, a completely renovated restaurant, and a new lobby. The resort expanded its meeting space by 8,900 square feet to a total of 21,000 square feet.

In 2005, the lease interest in Lake Lanier Islands was sold to LLI Management Company, a resort enterprise of the Virgil R. Williams family of Gwinnett County, Georgia. The Williams family is committed to enhancing the recreational experience on the islands through higher quality developments and accommodations, more leisure opportunities, and superior landscape.

Once Lake Lanier Islands management took over day-to-day operations of the lease, they began evaluating the economics and condition of site facilities. The PineIsle Resort and Golf Course, which operated a 248+ room resort hotel was closed in 2005. During its operation, the hotel was operated by Stouffer Hotel and more recently by the Marriott Corporation as the Renaissance PineIsle Resort. Early during the summer of 2008 the outdated hotel was demolished in accordance with the lease to make room for replacement and new development. The former hotel site is located in the northwest section of the property and is designated as a resort and golf course site. PineIsle Resort included a beach and a number courtesy boat docks that remain in place and could potentially be used as part of any future development. Utilities serving the hotel were cut and capped and are available for future development. The retaining wall and structures along the lake front were left as a placeholder for future site redevelopment. Prior to that development The State of Georgia Parks Department had also utilized a large beach area on the easternmost part of the leased property.

LLI Management has invested over \$41 million in the resort including the renovation of Emerald Pointe Hotel, the addition of six luxury villas, the redesign of Emerald Pointe Golf Course, and various capital improvements of other amenities. The State of Georgia is also in the midst of a

\$35 million dollar investment in the infrastructure on the Islands, including a new sewer plant, reconstructed roadways, roundabouts and multi-use sidewalks that provide separation between passing cars, pedestrians and golfers, and new roadway lighting, potable water and sanitary sewer lines.

In 2009, LLI Management commissioned a Supplement EA which included approval of an updated Master Development Plan showing removal and relocation of the existing public boat ramp and parking area from the western portion of the lease to the south-central portion of the lease, and construction of associated marine amenities including dry boat storage, 9 docks (4 courtesy docks, 3 continuous wet slip storage docks, and 2 transient docks), boat ramp, pedestrian walkway, parking areas, and a yacht club. The existing public boat ramp located on the western end of the park would be removed. The proposed replacement boat ramp would be designed to accommodate low water (drought) conditions. A FONSI was issued for these actions dated August 31, 2009.

2. ENVIRONMENTAL SETTING WITHOUT THE PROJECT:

a. General Environmental Setting:

Approximately 1,100 acres of Lake Lanier Islands Resort exists above the 1071 National Geodetic Vertical Datum (NGVD) summer pool elevation of Lake Sidney Lanier. Access to the Project Area is via Lanier Islands Parkway, which is a two-lane, asphalt-paved road entering the eastern end of the island chain that makes up Lake Lanier Islands. Currently, Lake Lanier Islands offers a mix of services targeted towards small conferences and light recreation. The resort offers two golf courses, boat rentals/services, an water park/amusement park, equestrian center, amphitheater, day spa, campground, and hotel/conference center.

The existing vegetation varies across Lake Lanier Islands and includes stands of mature hardwood forest, mid-successional pine and mixed pine/hardwood forests, and manicured landscaping. The observed hardwood forest included yellow-poplar (*Liriodendron tulipifera*), southern red oak (*Quercus falcata*), northern red oak (*Q. rubra*), hickories (*Carya* spp.), and American beech (*Fagus grandifolia*). The observed pine/mixed pine/hardwood forest including loblolly pine (*Pinus taeda*) and Virginia pine (*Pinus virginiana*), sweetgum (*Liquidambar styraciflua*), black cherry (*Prunus serotina*), flowering dogwood (*Cornus florida*), Chinese privet (*Ligustrum sinense*), and eastern red cedar (*Juniperus virginiana*).

The amusement park is located on a saddle connecting two of the “islands.” Vegetation within the limits of this study was observed to contain a mix of mature hardwoods, mid-successional pine, emerging pine forests, and landscaped areas. An emerging pine forest system was observed along the southern, eastern, and western boundaries of the Family Fun Park Upper Parking area (reference Figure 8). It appears that mass grading activities were historically conducted in these areas in preparation for parking lot expansion as outlined in the 1997 Master Plan. A mid-successional forest was observed between the Big Beach Parking Area and Big Beach and between Sunset Cove and The Grand Hall development. A mature hardwood forest system was

observed to the north and west of Family Fun Park Upper Parking. Photos of the Project Area are included in **Appendix D**.

b. Significant Resource Description:

(1) Wetlands and Streams.

Qualified wetland biologists completed an on-site wetlands investigation of the subject area in August of 2014. No wetland areas were identified within the limits of this study. The National Wetland Inventory (NWI) map of the Project Area did not indicate previously mapped wetland areas on the Project Area. Lake Sidney Lanier is mapped as a palustrine permanently flooded aquatic system, and would be classified as a deep water habitat. A small, intermittent stream was observed along the southeastern corner of the Project Area, flowing towards the lake.

The soil survey map for the Project Area indicated Pacolet series soils mapped on the Project Area. This soil type is not included on either the local or the national hydric soils lists. Copies of the NWI map and soil survey map are included as Figures 4 and 5, respectively, and are located in **Appendix A**. A copy of the Wetlands Report is included in **Appendix E**.

(2) Fishery Resources.

Lake Sidney Lanier is a popular recreational fishery. The EIS for the Lake Lanier Shoreline Management Plan, dated November 2003 by the USACE, indicated five critical fish species in Lake Sidney Lanier. These five species include crappie (*Pomoxis nigromaculatus*), largemouth bass (*Micropterus salmoides*), spotted bass (*Micropterus punctatus*), striped bass (*Morone saxatilis*), and white bass (*Morone chrysops*). In addition to the five critical fish species, other important fish species in the project area include sunfish (*Lepomis spp.*), channel catfish (*Ictalurus punctatus*), white catfish (*Ameiurus catus*), and carp (*Cyprinus carpio*). Some species of trout exist in Lake Sidney Lanier and below the Buford Dam in the Chattahoochee River. Trout are also stocked in a “put-and-take” fishery below the Buford Dam by the GDNR. Fishing is one of the major recreational draws of Lake Sidney Lanier.

(3) Wildlife Resources.

The forests near and within the Project Area potentially provide habitat for various types of wildlife species. Typical wildlife species found in the ACF river basin include whitetail deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), Eastern wild turkey (*Meleagris gallopavo*), bobwhite quail (*Colinus virginianus*), mourning dove (*Zenaida macroura*), eastern cottontail rabbit (*Sylvilagus floridanus*), and gray squirrel (*Sciurus carolinensis*). Although some of these species are not likely to be present on the Project Area, such as the wild turkey and bobwhite quail, it is still important to note the potential wildlife resources of the area. Several avian species are also found in the Lake Sidney Lanier area. Some common summer species include Canada geese (*Branta canadensis*), great blue herons (*Ardea herodias*), green-backed herons (*Butorides striatus*), kingfishers (*Ceryle alcyon*), and ospreys (*Pandion haliaetus*) are common during the summer. In addition, several herpetofauna and songbird species are likely present as well.

During the on-site field survey of the Project Area, no unusual or protected species were observed. Species observations were limited to common songbirds, whitetail deer, Canada geese, and gray squirrels. Much of the Project Area contained limited understory vegetation and the developed areas included ornamental landscaping.

(4) Threatened and Endangered Species.

Two at-risk animal species and two at-risk plant species are listed on the U.S. Fish and Wildlife Service Information, Planning, and Conservation System (IPAC) website or on the Georgia DNR website as occurring in the area of the Project Area. At-risk species are those that are identified by the U.S. Fish and Wildlife Service (FWS) or the State of Georgia as endangered, threatened, rare, unusual, or candidate species for listing. Federally listed threatened and endangered species are protected under the Endangered Species Act of 1973. This Act was designed to protect critically imperiled species from extinction due to "the consequences of economic growth and development untempered by adequate concern and conservation". The State of Georgia has its own lists of plants and animals (as developed by the Georgia DNR and approved by the legislature) that are considered threatened or endangered and may also be protected under state law. The listed species and their status are included below in Table 1.

Table 1 – Federal and State Listed Protected Species Identified In Lake Sidney Lanier Watershed

SPECIES	FEDERAL STATUS	STATE STATUS
ANIMAL SPECIES		
Indiana Bat <i>(Myotis sodalis)</i>	Endangered	Endangered
Northern Long-eared Bat <i>(Myotis septentrionalis)</i>	Proposed Endangered	Threatened
PLANT SPECIES		
Georgia aster <i>(Symphyotrichum gerogianum)</i>	Candidate	Threatened
Ozark bunchflower <i>(Veratrum woodii woodii)</i>	No Federal Status	Rare

A field investigation was conducted on the property by wildlife biologist Mr. David P. Huetter and biologist Mr. Seth H. Hobson with United Consulting in August of 2014. Based on the site conditions, habitats observed, and field observations, suitable habitat for these protected species were not identified on the Project Area.

(5) Historic and Archeological Resources.

In accordance with the guidelines and regulations found in Section 106 of the National Historic Preservation Act of 1966, literature review and research of the Project Area was conducted to determine if the proposed activity would result in impacts to properties listed on or eligible for listing on the National Register of Historic Places (NRHP). This review was completed by The

University of Georgia in 1978. The University and the Georgia State Historic Preservation Office (SHPO) concluded that no historic properties on the National Register or eligible for nomination to the National Register were found on the Lake Lanier Islands property.

With the exception of a few small tracts to the north, the fee-owned government lands surrounding Lake Sidney Lanier were surveyed for cultural resources between the late 1930s and 1987. These surveys are referenced in Section 3 of the *Final Environmental Impact Statement for the Operation and Maintenance of Lake Sidney Lanier, Georgia*. According to the EIS, no cultural properties were located within the proposed lease area. The results of these surveys were coordinated with the Georgia State Historic Preservation Office (SHPO) as part of the process for completing the *Historic Properties Management Plan for Sidney Lanier Project, Georgia* in March 1997.

In accordance with the Native American Graves Protection and Repatriation Act of 1990 and 43 CFR 10, the following provision must be observed. In the unlikely event that an inadvertent discovery of previously unknown cultural resources or potential human remains are uncovered during construction, all work must cease, the discovery must be protected, and the Mobile District Archaeologist, the Lake Sidney Lanier project manager, as well as the Georgia State Archaeologist must be contacted immediately. Further, Lake Lanier Islands adopted a “Standing Inadvertent Discovery Plan” to meet Section 106 and Section 110 responsibilities.

(6) Navigation.

Navigation is an authorized purpose of the Buford Dam Project based on its ability to store large quantities of water and provide low flow augmentation for commercial navigation downstream in the Chattahoochee and Flint Rivers. Commercial navigation extends to Bainbridge, Georgia on the Flint River and to Columbus, Georgia, and Phenix City, Alabama on the Chattahoochee River. However, navigation on Lake Sidney Lanier is limited to recreational boat traffic. As one of the most heavily visited lakes in the country, recreational traffic is quite heavy at times, particularly on holidays and weekends. The Project Area includes a small portion of the lake, which is a protected cove with limited boat traffic.

(7) Recreation.

Lake Sidney Lanier is a common recreational area for metro Atlanta residents and out of town visitors. Common recreational activities at the lake include water sports, fishing, swimming, and pleasure boating. Annually, Lake Lanier Islands receives approximately one million visitors a year who enjoy the many activities and amenities offered by the resort. Between 2003 and 2014 LanierWorld had an average attendance of 165,206 visitors. Attendance of LanierWorld from 2012 to 2014 has risen from a low of 122,922 visitors to an all time high of 205,635 in 2014.

(8) Aesthetics.

The aesthetics of Lake Lanier Islands have been developed to keep a large portion of the property naturally vegetated in order to maintain the isolated atmosphere of the resort. Lake Lanier Islands strives to provide an isolated feel of a destination resort within easy driving distance of the metropolitan Atlanta community. Structures at the development have been

architecturally designed to complement the resort property and the natural terrain.

(9) Air Quality.

Lake Lanier Islands is located within Hall County, Georgia which is located in the greater Atlanta nonattainment zone for ozone and particulate matter. The nonattainment is primarily due to vehicular emissions and particulate matter. Current activities at LLI do not significantly contribute to the nonattainment condition.

(10) Water Quality.

The Georgia Department of Natural Resources (DNR) and the U.S. Environmental Protection Agency share the responsibility of maintaining water quality at Lake Sidney Lanier. Georgia DNR conducts water quality tests at a fixed point just north of Buford Dam and the USACE conducts fecal coliform bacteria at the 23 public beach areas due to the large goose population at Lake Sidney Lanier. At the time of the issuance of the Lanier EIS in November 2003, none of the public beaches had to be closed due to high concentrations of fecal coliform bacteria at the public beaches.

The Lanier EIS indicated that the overall water quality is considered satisfactory for the designated uses (boating, fishing, flood control, power generation, swimming, and water supply) of the reservoir. The areas in the Chattahoochee River and Chestatee River arms of the lake, where the water is shallower, reportedly have the highest levels of turbidity, total suspended solids, chlorophyll a, and nutrient concentrations, while the main body of the lake has the greatest transparency and the lowest fecal coliform counts and nutrient concentrations.

(11) Floodplain.

The local FEMA Floodplain map (13139C0275F) was reviewed. Based on map review, current building improvements at Lake Lanier Islands have been built outside of the mapped floodplain with the exception of a few existing structures, such as boat docks that have been intentionally built within the relatively permanent flood zone to accommodate recreational boaters and their needs.

(12) Socio-economics.

Lake Lanier Islands currently provides jobs and tax revenue that benefit the local economy. The proposed development will meet current and future recreation demands that are not able to be fulfilled in the immediate area.

Lake Lanier Islands' business model is not to directly compete with area marinas but to offer complimentary products. Lake Lanier Islands offers locals and vacationers access to two golf courses, accommodations, spa services, beach club and amusement park, resulting in a premium product not offered at area marinas. As described above, the Atlanta Metropolitan Statistical Area experienced a 24% growth rate between 2000 and 2010. Census and state projections indicate the area will continue to experience high growth rates.

(13) Prime and Unique Farmlands.

There are no prime farmlands or unique agricultural lands located on, or within the immediate vicinity of the Project Area.

(14) Hazardous and Toxic Materials.

The Project Area does not utilize hazardous or toxic materials, other than small amounts of common household type cleaners, as needed to maintain the water park/amusement park.

(15) Other (Land Use and Vehicular Access).

Currently, Lake Lanier Islands is utilized as a destination resort for conferences, family day trips, and outdoor recreation. Lake Lanier Islands has been developed accordingly, and includes Legacy Lodge and Conference Center, Harbor Landing Marina (utilized mainly as a boat rental facility), the amusement park operated as LanierWorld/Snow World, The LakeHouses on Lanier, a 18-hole golf course, an outdoor amphitheater, and a camp ground facility. Lake Lanier Islands is currently developing the Yacht Club, dry stack storage, and wet slip marina (Sunset Cove Marina) that was previously approved under the Supplemental EA developed in July of 2008. Several wooded areas are located across the property with additional future development proposed and included on the existing 1997 Master Plan. The current Project Area is developed with the LanierWorld water park, Sunset Cove, and associated family outdoor activity areas.

Lake Lanier Islands is located at the terminus of Lanier Islands Parkway. Lanier Islands Parkway is the only road access available to the campus of the resort. Development along the parkway prior to the entrance gates of the park consists of single-family residential homes and commercial interests primarily targeting recreational users of the lake.

3. DESCRIPTION OF THE RECOMMENDED PLAN:

At the time of the original EA and subsequent issuance of the FONSI, the proposed development plan was indicated as conceptual and could take any of several probable configurations as outlined in the 1997 Conceptual Plan for Lake Lanier Islands, but with modifications to the features, attraction, location, and layout.

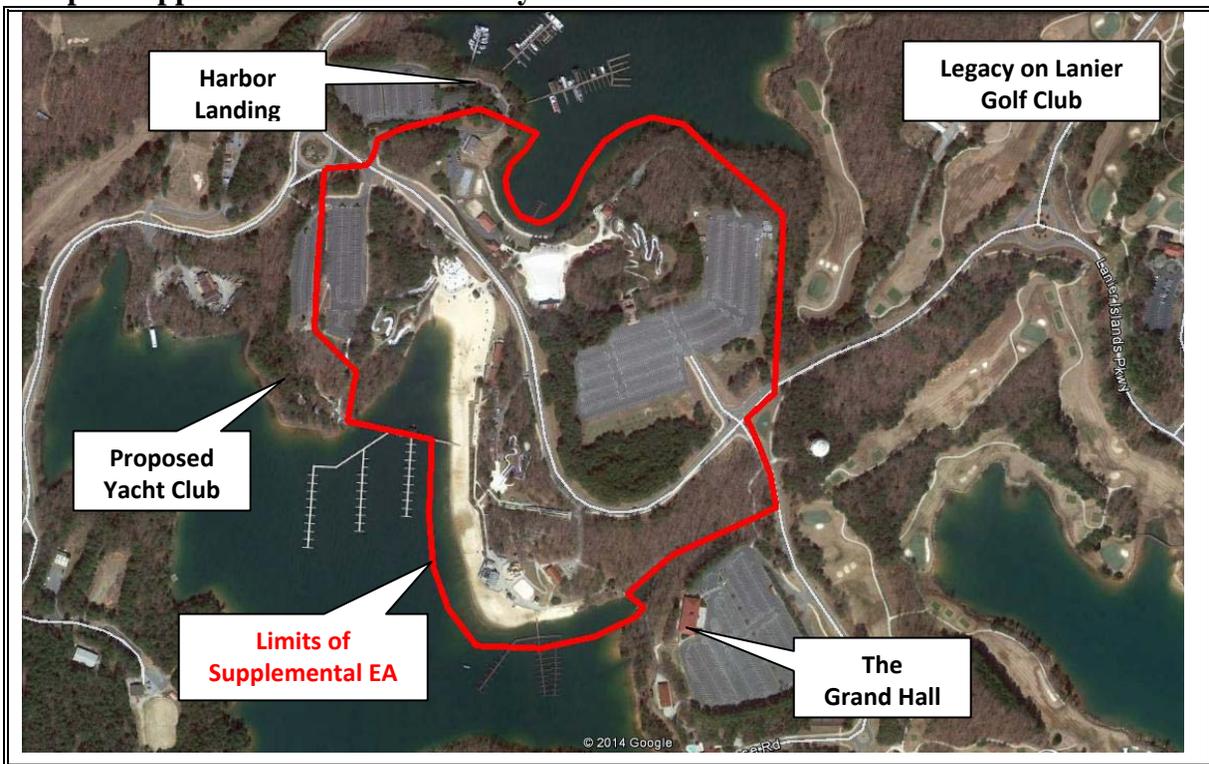
The proposed action outlined in this Supplemental EA includes approval of an updated Master Development Plan for long-term use, management, and upgrades to the water park/amusement park area. The limits of this Project Area are shown below. No additional changes are currently anticipated to the overall Master Plan by this request. Additional detail of the Project Area and the existing conditions are shown on Exhibit 1, located in Appendix C. The Exhibit and the text of this Supplemental EA outline the planned upgrades and future redevelopment opportunities.

The amusement area is subdivided into several attractions operated seasonally as well as year round. The proposed action includes the construction of additional slides, activities, amenities, and the option to redevelop targeted areas of the amusement park as demand, technologies, and

safety considerations dictate. This flexibility will give Lake Lanier Islands management the option to maximize year round use opportunities; thereby reducing potential development impacts to other undeveloped areas within the lease. As outlined in the 1997 Master Plan, total development of Lake Lanier Islands is not expected to exceed 20% impervious surfaces. The proposed action(s) will continue to utilize the 20% impervious surfaces threshold (calculated over the entire lease area) as the development not to exceed goal.

Prior to construction activities, Lake Lanier Islands will develop an Implementation Plan which will outline the best management practices (BMPs) that will be employed throughout the project. Typically, these BMPs include will double row silt fencing around areas of disturbance, dust control measures, and seeding/mulching activities to minimizing erosion potential. Based on the proposed action, Lake Lanier Islands does not anticipate large areas of mass grading. Further, the anticipated cut/fill areas will be limited to the limits of this supplemental EA as shown in Map A below and on Exhibit 1. Once construction has been completed, the site will be stabilized and revegetated as appropriate.

Map A: Approximate Limits of Study Area/Master Plan Revisions



4. ENVIRONMENTAL IMPACT OF THE RECOMMENDED PLAN:

a. Biological and Physical Impacts:

Unavoidable adverse effects would emanate, primarily from construction activities, removal of forest habitat, soil disturbance, and increased human use including noise from vehicle traffic and attractions. Lake Lanier Islands was designated for recreational purposes in the EIS and Lake Sidney Lanier Master Plan (LSLMP) of September 1987, and these effects were anticipated by those documents.

(1) Wetlands.

Lake Sidney Lanier surrounds the Project Area. A wetlands investigation was performed along the lake edge at the proposed development sites. The lake edge is well-defined, and no wetlands were identified above the 1071 NVGD. No wetlands will be disturbed as part of the project. The wetland investigation for this project was conducted by a qualified wetland consultant and consultation with the USACE Regulatory Division should not be necessary. A copy of the Wetlands Report is included in **Appendix E**.

(2) Fishery Resources.

The implementation of the plan would not significantly impact the local fishery resources.

(3) Wildlife Resources.

While the Lake Lanier Islands property currently provides habitat for some small mammals, songbirds, reptiles and amphibians, the property already represents a fragmented habitat due to the landscape position of the park being located on a series of interconnected islands, and the existing development of the park. The proposed plan will include the some clearing of mixed succession and hardwood forest land.

Wooded land located around the Upper Parking of the Family Fun Park was previously mass graded. This previously graded land is now being considered for development under the proposed plan. Examination of the wooded land surrounding the southern and western ends of the parking area found an emerging, loblolly pine forest. This area appeared to be utilized by whitetail deer and songbirds for cover and foraging. Other nearby forested areas are available to provide the necessary habitat for these species and development of the project area is not anticipated to have a negative impact on wildlife species.

(4) Threatened and Endangered Species.

No endangered or threatened species or their critical habitat was identified on the Project Area. Therefore, the project is not anticipated to impact protected species. A request for formal review will be submitted to the FWS. The results will be provided in the final EA.

(5) Historic and Archeological Resources.

There are no known sites eligible for NRHP listing within the boundaries of the Project Area. Further, based on previous evaluations and review by the SHPO and past development of the area, the proposed plan is not anticipated to impact significant cultural resources.

(6) Navigation.

The proposed action is not anticipated to interfere with current navigation conditions. The proposed teaser slide is anticipated to empty into an existing swim area and will not reduced navigable waters within the cove.

(7) Recreation.

Lake Lanier Islands allows general public access by charging an admission fee. The proposed amenities will allow Lake Lanier Islands to more effectively meet the demands of their clientele and the area as the local population expands. This proposed action is anticipated to expose a larger percentage of the population to recreational opportunities on Lake Sidney Lanier that have previously been underserved or nonexistent.

(8) Aesthetics.

Currently, the park consists of wooded areas, walking trails, paved entrance road and parking areas, conference center, boat rental facility, water park, and beach. Under the proposed action, rides and fun park attractions will be limited to the proposed action area. The remainder of the lease area will continue to be operated in the current manner as anticipated in the existing approved Master Plan. No impacts to the aesthetics are anticipated.

(9) Air Quality.

The proposed improvements are not anticipated to adversely affect the long term ambient air quality of the area. Construction activities would temporarily increase vehicle and machine emissions during construction. Impacts will occur during the time of construction and will be confined to the immediate project area. Emissions are expected to be short-term in duration and insignificant. Daily operation of the proposed plan once constructed, is not anticipated to significantly impact the ambient air quality. Once the site is developed, there will be an increase in vehicular emissions as a result of increased utilization of the area.

Lake Lanier Islands is located in a non-attainment area for ozone. This means that the all construction activities must conform to the State Implementation Plan prepared under the requirements of the National Ambient Air Quality Standards. Therefore, no long-term significant adverse impacts to air quality are anticipated as a result of the proposed action.

(10) Water Quality.

The proposed development activities associated with this project will be performed in accordance with Sediment and Erosion Control Requirements in Georgia and in a manner to minimize sediment loss to the Lake. Erosion control Best Management Practices (BMPs) will be utilized to minimize sediment loss and impacts to water quality. This will include preparation of an erosion and sedimentation control plan, preparation and submittal to the Georgia Environmental Protection Division's Stormwater Management Program of all certificates, and storm water monitoring throughout the construction phase. The submission of a Notice of Intent to begin construction, and a Notice of Termination after each phase of the development will be completed and will also be submitted.

The new development would be connected to the on-site waste water treatment system. No septic tanks or leaching fields would be installed. The proposed teaser slide will not utilize water for friction reduction, but will instead utilize a low friction synthetic snow surface. Water runoff from this feature will be limited to rainfall directly on the structure of the slide itself. The proposed terrain park would not result in a significant increase in runoff volume due to the pervious nature of the product. Lake Lanier Islands will review several design options to minimize the impacts of runoff associated with redevelopment. These design options include, but are not limited to: pervious pavement, detention and/or water quality ponds, landscaping, grass medians, and buffer restoration.

Further, with the exception of the minimal clearing necessary for the teaser slide, the 100-foot wide riparian buffer will be maintained where possible. The proposed lower elevation of the teaser slide is currently developed with a beach front, so no additional clearing is anticipated within the buffer. All work performed during construction will be done in a manner which will not interfere with any legitimate water use of Lake Lanier.

(11) Floodplain Impacts.

No new buildings will be located below the 1085 flood elevation line. The proposed action may include additional sidewalks and auxiliary improvements within the limits of the 100-year floodplain per Federal Emergency Management Agency Floodplain map panel number 1304660275F.

(12) Socio-Economics.

The Lanier EIS dated November 2003, indicates that the area surrounding Lake Sidney Lanier is rapidly growing in terms of both population and economics. Estimates for the direct and indirect economic effects of Lake Sidney Lanier on Atlanta and the north Georgia area were as high as 5.5 billion dollars a year in one study (Hughes, 2001). The proposed action will help meet the recreational demands of visitors to Lake Lanier Islands Resort. These facilities would also create new jobs within Hall County, both during the construction phase and through the day to day operations of amenities.

(13) Prime and Unique Farmland.

There are no prime farmlands or unique agricultural lands located on the Project Area or within the immediate vicinity of the Project Area. Therefore, this project would not require a prime farmland evaluation (United States Department of Agriculture Form 1006) by the Natural Resources Conservation Service.

(14) Hazardous and Toxic Materials.

It is not anticipated the proposed plan will result in hazardous or toxic material impacts to the environment.

(15) Other (Land Use and Vehicular Access).

The recommended plan will formalize the current boundaries of the amusement park area; however, use of the land will continue to be utilized and developed as an active recreational park, consistent with the surrounding land use.

The proposed actions may result in an increase in traffic along Lake Lanier Islands Parkway. Lake Lanier Islands Parkway was recently upgraded to handle an increase in vehicular traffic. Further, the intersection with Peachtree Industrial Boulevard is currently being improved.

5. CUMMULATIVE IMPACTS

The CEQ defines cumulative effects as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions (40 CFR 1408.7).”

The primary impacts of the proposed improvements would include the noise impacts and an increase in the recreational use of the resource. The Project Area is surrounded by water and other similar type developments. Foreseeable cumulative impacts to shared resources include an increase in crowding affecting the recreational use of Lake Sidney Lanier, and minimal noise impacts from proposed actions.

6. ENVIRONMENTAL JUSTICE (EXECUTIVE ORDER 12898)

Executive Order (EO) 12898 of February 11, 1994 requires addressing, as appropriate, disproportionately high and adverse human health or environmental effects of Federal actions on minority and low-income populations. No residential properties will be impacted by the proposed project.

7. PROTECTION OF CHILDREN (EXECUTIVE ORDER 13045)

EO 13045 of April 21, 1997 requires, to the extent permitted by law and mission, identifying and assessing environmental health and safety risks to children posed by the proposed action. Potential health and safety risks would be present during the construction activities. As mentioned above, construction equipment may temporarily increase air pollutants through emissions and dust. These emissions are expected to be short-term in duration and insignificant. Further, construction areas will be properly fenced and posted during construction, as required.

8. ANY IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS WHICH WOULD BE INVOLVED SHOULD THE RECOMMENDED PLAN BE IMPLEMENTED.

Any irreversible or irretrievable commitments of resources involved in the proposed action have been considered and are either unanticipated at this time, or have been considered and determined to present minor impacts. The proposed action is reversible, and reclamation of the property could be conducted in the future to return the property to natural conditions. Reclamation, if needed, would include removal of the development structures, grading the site back to the pre-existing grades, and re-vegetation of the disturbed areas.

9. ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED.

Any adverse environmental effects which cannot be avoided should the recommended project be implemented are expected to be minor individually and cumulatively. These include disturbance from construction activities, removal of forest land, and an increase in human use.

10. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY.

The proposed project constitutes a short-term use of man's environment, will result in minimal environmental impacts, and is not anticipated to affect long-term productivity. The proposed use of the Project Area is compatible with surrounding uses and other recreational development in the area.

11. ALTERNATIVES TO THE RECOMMENDED PLAN.

a. "No Action" Alternative:

As evaluated in this EA, the "No-Action" alternative would be to operate Lake Lanier Islands Resort, as is, with no changes to the property. Under the "No Action" alternative, the USACE would deny the request for further recreational redevelopment of this portion of Lake Lanier Islands resort. The primary advantage of this alternative would be the lack of disturbance to the existing environment. However, this action would not satisfy the project purpose and would be contrary to the current policy to privatize and expand recreational development. Further, the "No Action" alternative could result in the submittal of a future plan that could propose these types of activities at an alternate location on Lake Lanier Islands where existing support infrastructure may not already be present, thus resulting in greater environmental impact. In addition, "No Action" would not allow satisfaction of local social and economic needs for the proposed facilities.

b. The General Development Plan Alternative:

The previously approved Master Plan Sheets (1997) include options for Extension of Water Park Related / Family Related Activities. No alternative design plan for expansion of the water

park/amusement park area has been prepared. An alternative plan would likely include development in currently undeveloped areas of Lake Lanier Islands where the necessary supporting infrastructure may not be present. Such an option would result in a need to construct parking areas and other facilities, which would clearly result in greater environmental impact. Therefore, an alternative plan was not further evaluated.

12. REVIEW AND COORDINATION.

During preparation and review of this draft Supplemental EA, review requests will be sent to the Georgia Department of Natural Resources and the U.S. Fish and Wildlife Service and other interested State and Federal Agencies to allow for comment on the proposed action. Coordination with the Georgia Historic Preservation Division will be conducted as part of this Supplemental EA. The results of the coordination will be outlined in the final EA. Finally, the Supplemental EA will be posted on the USACE Mobile website for public review and comment.

13. REFERENCES.

<http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=66600930&IFIT=1>
(FEMA Flood Map Number: 13139CO275F)

<http://www.lakelanierislands.com>

Department of the Army, South Atlantic Division, Corps of Engineers. 2004. Final Environmental Impact Statement. Lake Sidney Lanier, Georgia, Operations and Maintenance.

U.S. Army Corps of Engineers, Mobile District. September 1998. Draft Environmental Impact Statement. Water Allocation Table for the Apalachicola-Chattahoochee Flint (ACF) River Basin, Alabama, Florida, and Georgia.

U.S. Fish and Wildlife Service, Listed Species in Chattahoochee River, Upper North Watershed (HUC8: 03130001), February 2007.

U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Hall County, Georgia, 1977.

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U.S. Geological Survey, 7.5-Minute Series Quadrangle Map, Buford Dam, Georgia, 1964.

U.S. Census Bureau (census.gov), population growth data, Atlanta-Sandy Springs, Roswell Metropolitan Statistical Area.

Environmental Laboratory. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, 1987.

14. APPENDICES - SUPPORTING DOCUMENTS.

- A. Maps and Figures
 - a. Figure 1: Lake Recreation Map
 - b. Figure 2: Site Location/Street Map
 - c. Figure 3: USGS Topographic Map
 - d. Figure 4: National Wetland Inventory Map
 - e. Figure 5: Soil Survey Map
 - f. Figure 6: Current Aerial Photograph
 - g. Figure 7: Lake Lanier Islands Resort – Amenities Map
 - h. Figure 8: LanierWorld – Amenities Map

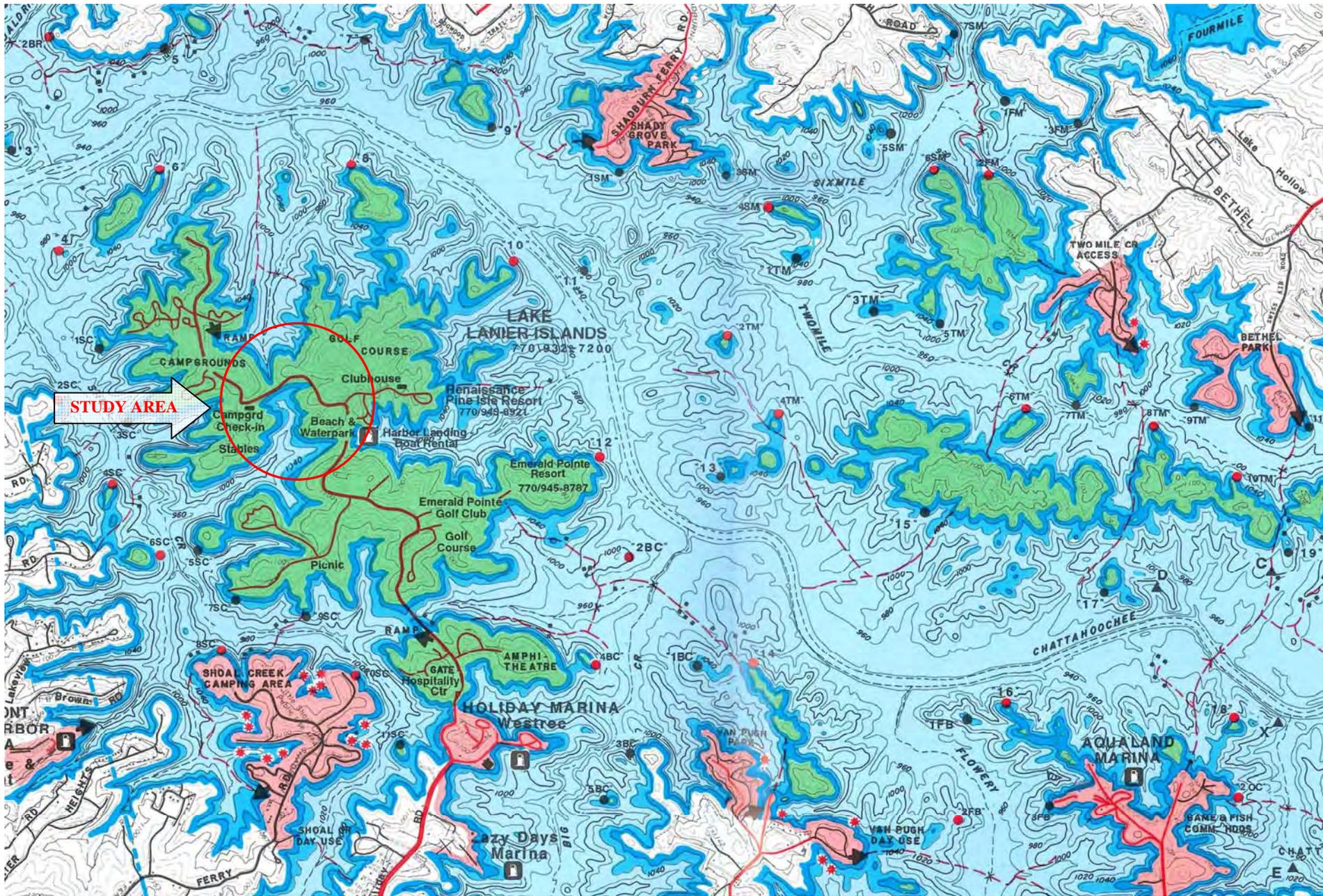
- B. Existing (approved) Master Plan Drawings
 - a. Master Index Sheet
 - b. Sheet A
 - c. Sheet B
 - d. Sheet D.1
 - e. Sheet D.3
 - f. Sheet D.4
 - g. Sheet E
 - h. Sheet F
 - i. Sheet C (2009 Supplemental EA)
 - j. Sheet D.2 (2009 Supplemental EA)
 - k. Sheet D.2A (2009 Supplemental EA)

- C. Proposed Master Plan Drawings
 - a. EX 1 – Proposed Actions

- D. Site Photographs
 - a. Current Conditions
 - b. Example Attraction Photographs

- E. Supporting Documentation
 - a. Wetlands Report

APPENDIX A - MAPS AND FIGURES



Scale:	1" = 2,000'
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Source:
2008 Lake Lanier Recreation and
Fishing Guide
Atlantic Mapping, Inc.
PO Box 7391, Marietta, GA 30065

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	Lake Recreation Map

FIG. 1



Scale:	1" = 1.5 Mile
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	Site Location Map

FIG. 2



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

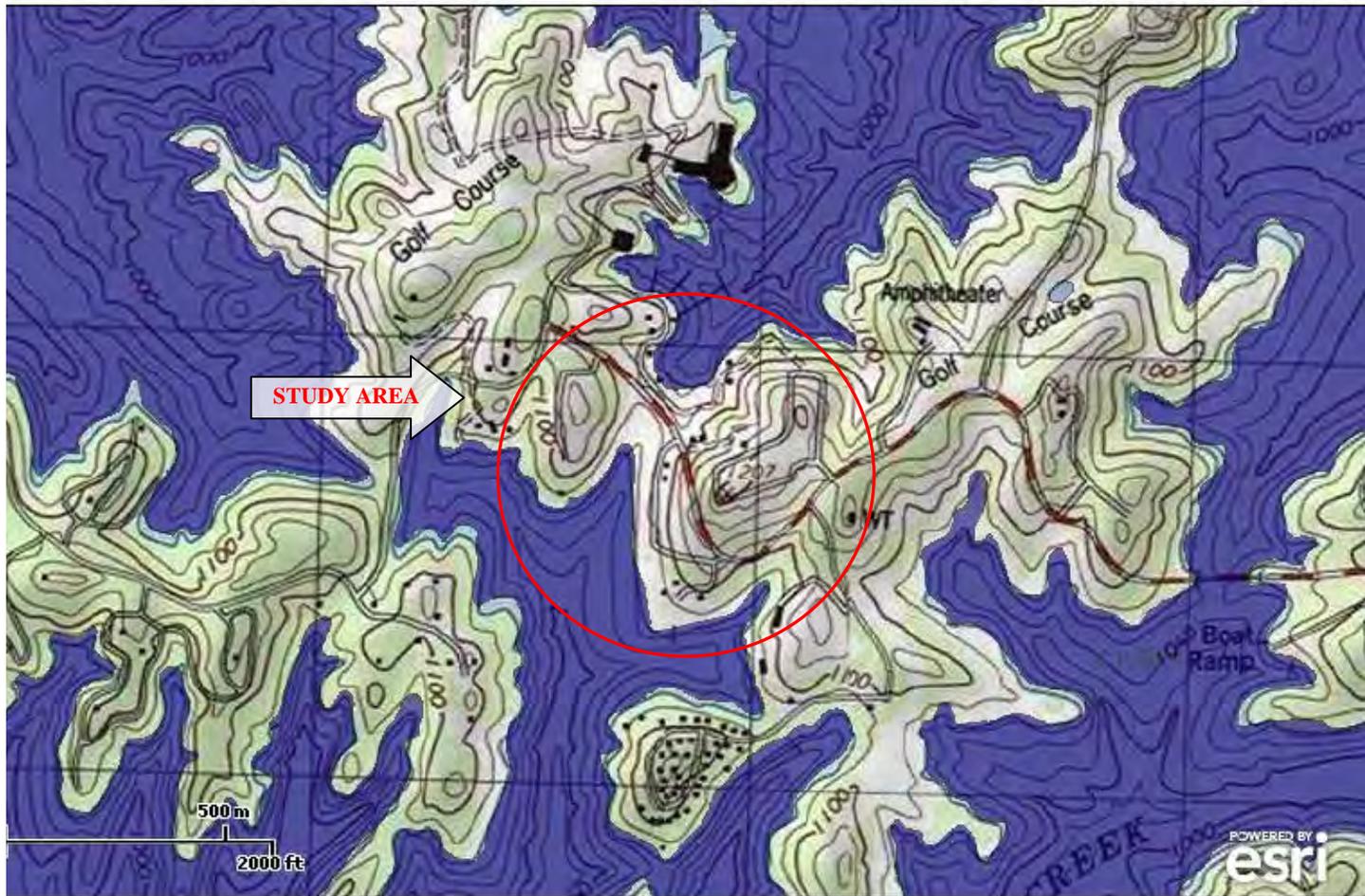
Notes:
2014 USGS Topographic Map

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	USGS Topographic Map

FIG. 3



U.S. Fish and Wildlife Service National Wetlands Inventory



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	National Wetlands Inventory Map

FIG. 4



PaE	Pacolet sandy loam, 15 to 25 percent slopes
PuD2	Pacolet soils, 10 to 15 percent slopes, eroded
W	Water



Scale:	1" = 2,000'
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	NCRS Soil Survey Map

FIG. 5



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:
Google Earth

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	Current Aerial Photograph

FIG. 6



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Source:
Lake Lanier Islands Resort

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	LLI - Amenities Map

FIG. 7



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

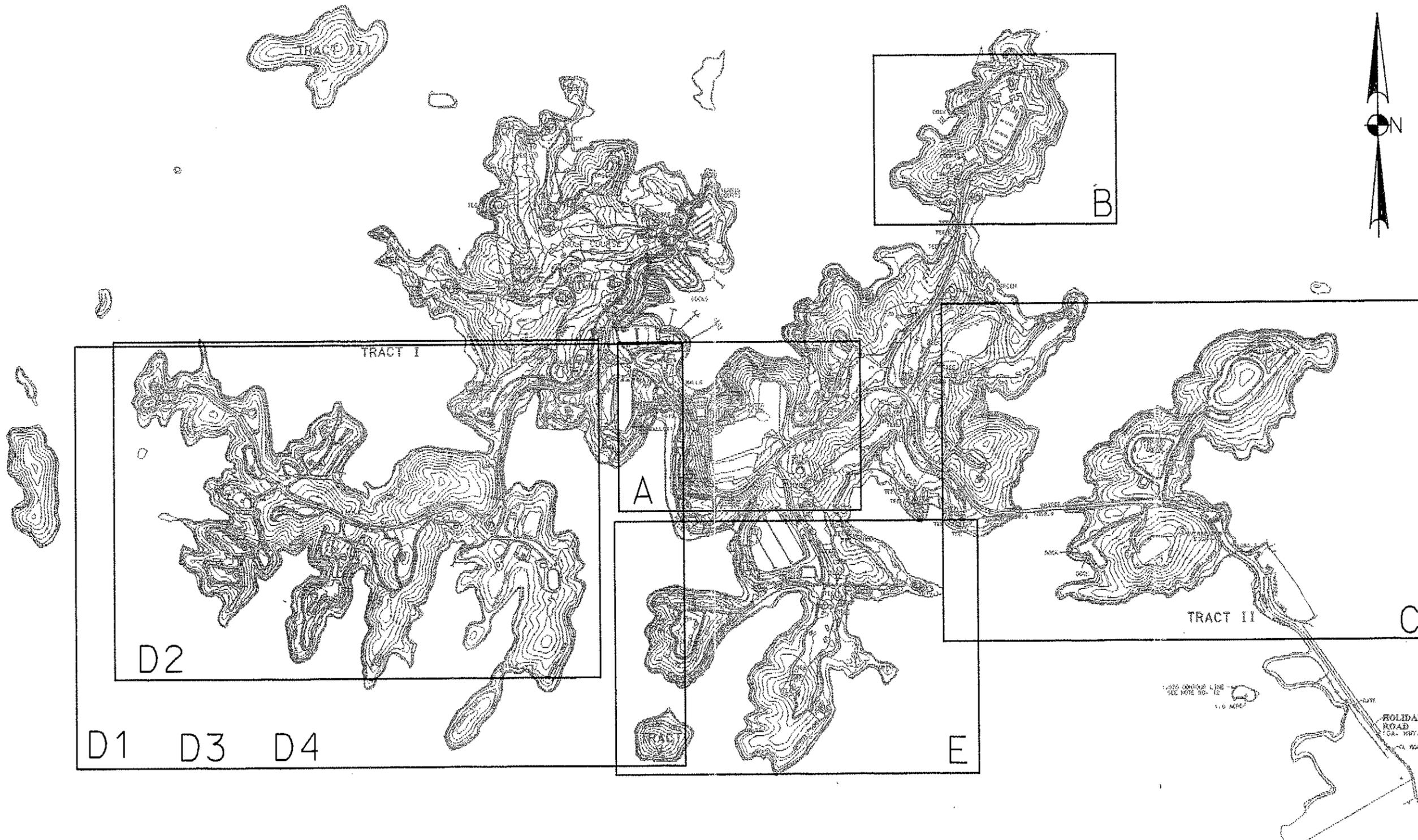
Source:
Lake Lanier Islands Resort

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	LanierWorld – Amenities Map

FIG. 8

APPENDIX B – EXISTING (APPROVED) MASTER PLAN DRAWINGS

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MA Moreland Altobelli Associates, Inc.
 Engineering Planning Landscape Architecture Land Acquisition Surveying
 4000 Dekalb Technology Pkwy.
 Bldg. 300 Suite 370
 Atlanta, Georgia 30340
 770/455-9375

LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 MASTER CUT SHEET LAYOUT

Vertical Scale
 N/A
 Horizontal Scale
 1" = 1200'
 Sheet
MASTER
 Date
 MARCH 1997
 Job Number
 96103D

PREPARED FOR: **KSL RECREATION CORPORATION**

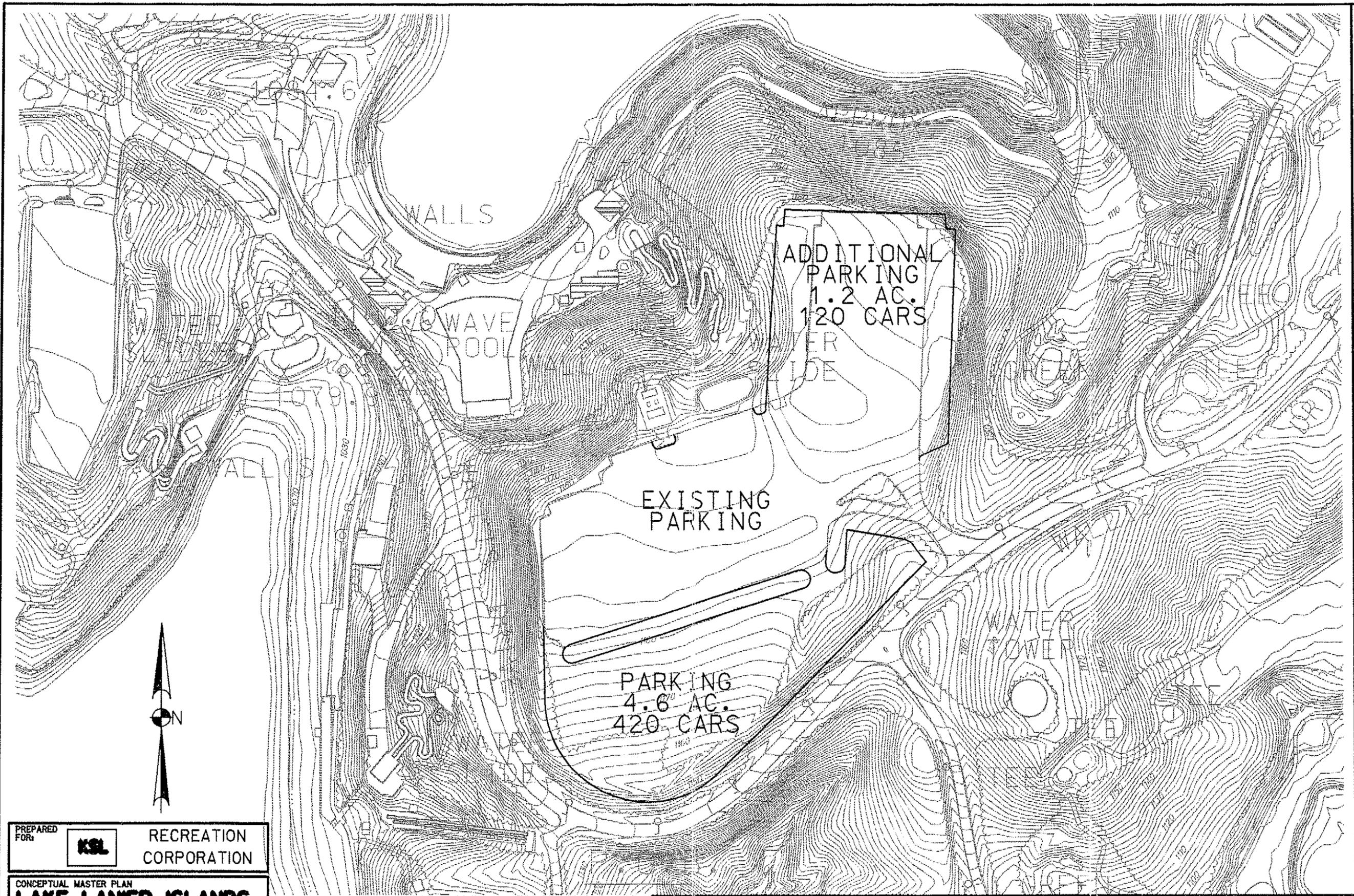
CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

DESIGNED BY: _____	Revised _____ Date _____	Revised _____ Date _____
DRAWN BY: _____	Revised _____ Date _____	Revised _____ Date _____
CHECKED BY: _____	Revised _____ Date _____	Revised _____ Date _____

26103D

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PREPARED FOR: **KSL** RECREATION CORPORATION

CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

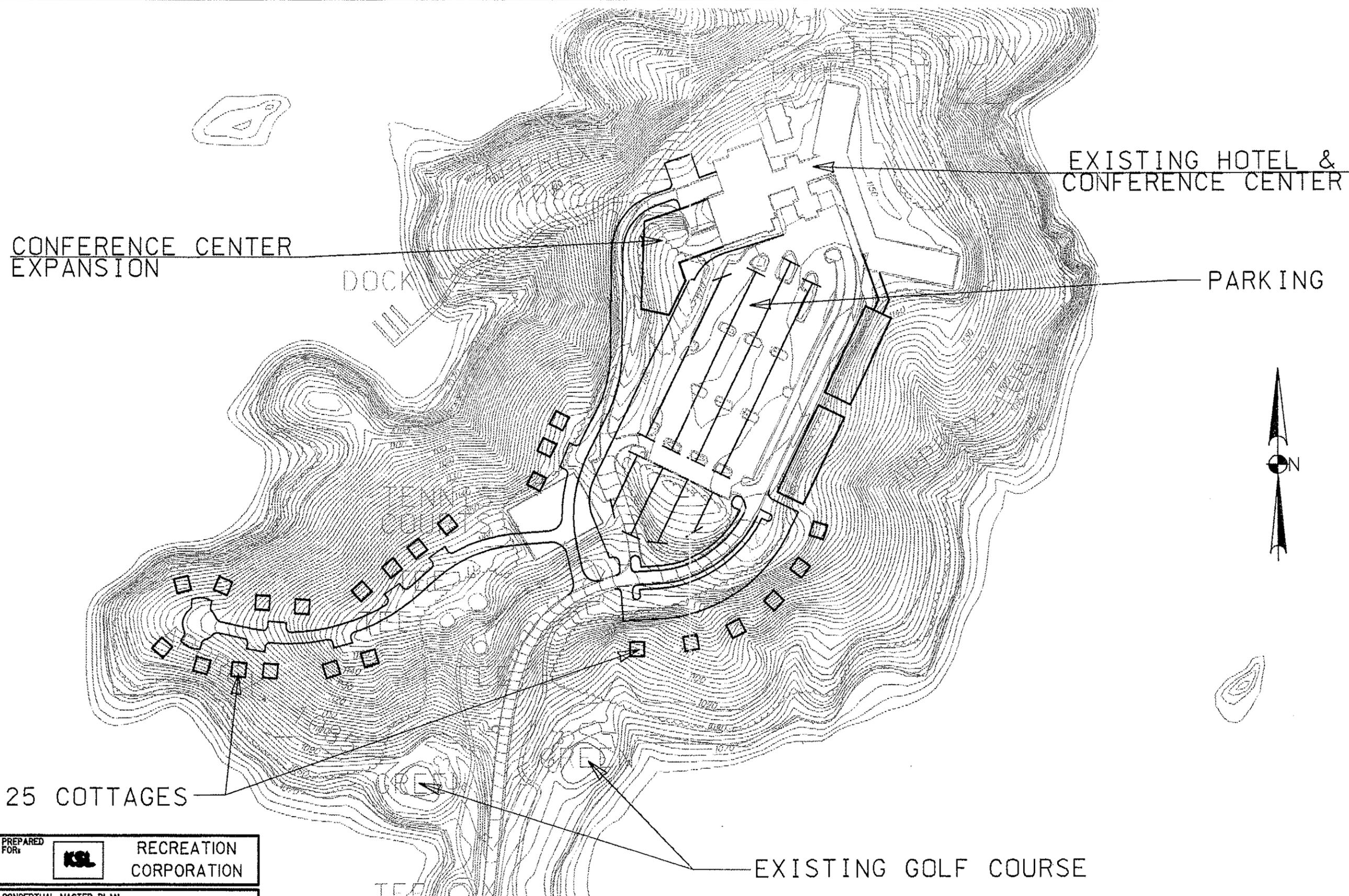
DESIGNED BY: _____	Reviewed _____	Date _____	Drawn _____	Reviewed _____	Date _____
DRAWN BY: _____	Reviewed _____	Date _____	Checked _____	Reviewed _____	Date _____
CHECKED BY: _____	Reviewed _____	Date _____	Reviewed _____	Reviewed _____	Date _____

MA Morland Altobelli Associates, Inc.
 Engineering Planning Landscape Architecture Land Acquisition Surveying
 4000 Dekalb Technology Pkwy.
 Atlanta, Georgia 30340 770/455-9375

LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 WATER PARK/ THEME ATTRACTIONS
 INCREASE EXISTING PARKING LOT (ADDITIONAL 540 SPACES)

Vertical Scale N/A
Horizontal Scale 1" = 200'
Sheet A
Date MARCH 1997
Job Number 961030

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CONFERENCE CENTER
EXPANSION

EXISTING HOTEL &
CONFERENCE CENTER

PARKING

25 COTTAGES

EXISTING GOLF COURSE

PREPARED FOR: **KSL** RECREATION CORPORATION

CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS
AND ASSOCIATES, LTD.

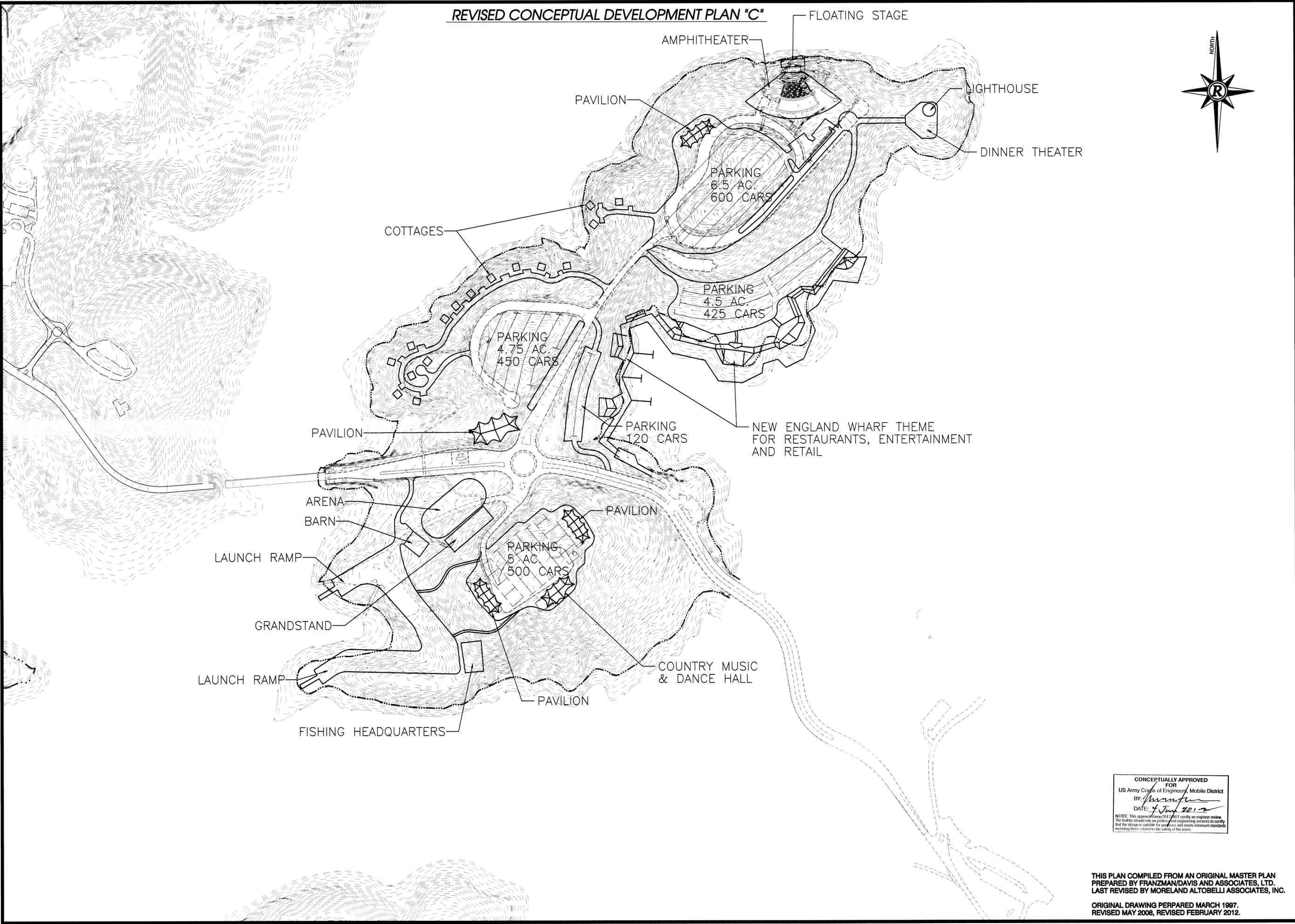
DESIGNED BY: _____	Reviewed _____	Date _____	Reviewed _____	Date _____
DRAWN BY: _____	Reviewed _____	Date _____	Reviewed _____	Date _____
CHECKED BY: _____	Reviewed _____	Date _____	Reviewed _____	Date _____

LAKE LANIER ISLANDS, KSL RECREATION CORP.
HALL COUNTY, GEORGIA
HOTEL/ BALLROOM EXPANSION
ADD: 200 HOTEL ROOMS, 24,000 SF CONFERENCE CENTER,
25 COTTAGES, 250 PARKING SPACES

MA Moreland Alkibelli Associates, Inc.
Engineering Planning Landscapes Architecture Land Acquisition Surveying
4000 Dekalb Technology Pkwy.
Bldg. 300 Suite 370
Atlanta, Georgia 30340
770/455-9375

Vertical Scale	N/A
Horizontal Scale	1" = 200'
Sheet	B
Date	MARCH 1997
Job Number	96103D

REVISED CONCEPTUAL DEVELOPMENT PLAN "C"



Rochester & Associates, Inc.
 425 Oak Street N.W. • Gainesville, Georgia 30501
 (770)718.0600 (770)718.9090 Fax • www.rochester-assoc.com

REVISED CONCEPTUAL DEVELOPMENT PLAN
 FOR :
LAKE LANIER ISLANDS
 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS
2	02/2012	REVISED	REVISED
1	05/2009	REVISED	

ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE SIGNATURE AND SEAL OF THE REGISTERED PROFESSIONAL ENGINEER ASSOCIATES, INC. Voids the seal shown hereon and the liability associated therewith. ANY CHANGES TO THESE DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.

GRAPHIC SCALE
 1" = 100'
 0' 200' 400'

CONCEPTUALLY APPROVED
 FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: *4 Jan 2012*

NOTICE: This approval does not certify an engineer review. The holder should only use professional engineering services to certify that the design is suitable for purposes and meets minimum standards, including those related to the safety of the users.

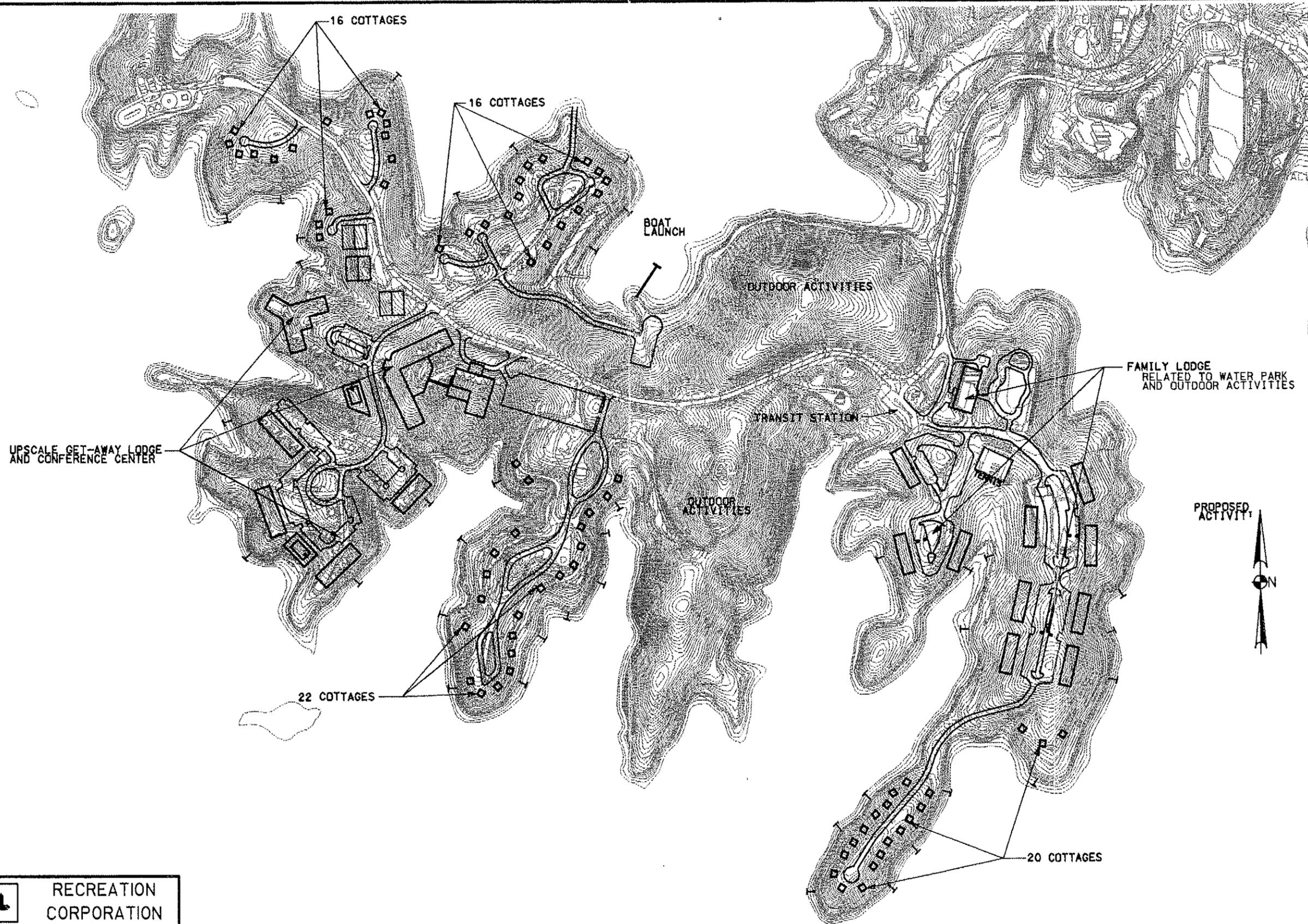
THIS PLAN COMPILED FROM AN ORIGINAL MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD. LAST REVISED BY MORELAND ALTOBELLI ASSOCIATES, INC.

ORIGINAL DRAWING PERPARED MARCH 1997.
 REVISED MAY 2006, REVISED FEBRUARY 2012.

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DATE : 03/1997
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 FILE NO. *EPR.DOCX01
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MA Moreland Altabelli Associates, Inc.
 Planning, Landscape Architecture, Land Acquisition, Surveying
 Engineering
 4000 Decatur Technology Pkwy.
 Bldg. 300 Suite 370
 Atlanta, Georgia 30340
 770/465-9375

LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 LODGING, CONFERENCE CENTER AND OUTDOOR ACTIVITIES

Vertical Scale
N/A
 Horizontal Scale
1" = 500'
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D.I.
 Date
MARCH 1997
 Job Number
96103D

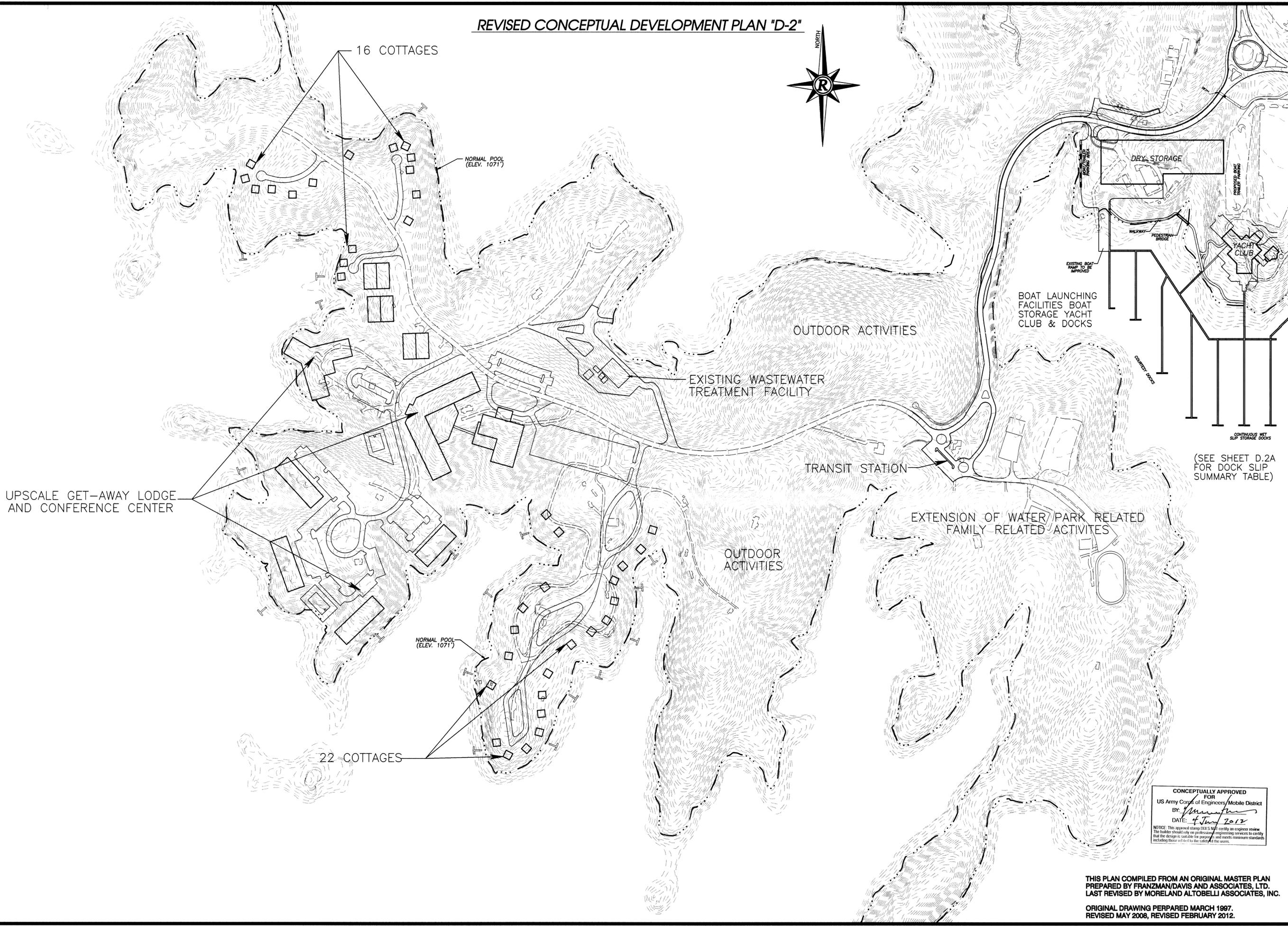
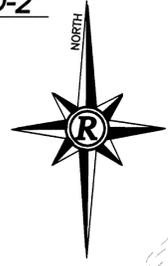
PREPARED FOR: **KSL RECREATION CORPORATION**

CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

DESIGNED BY:	_____ Date _____	Revised _____	Date _____
DRAWN BY:	_____ Date _____	Revised _____	Date _____
CHECKED BY:	_____ Date _____	Revised _____	Date _____

REVISED CONCEPTUAL DEVELOPMENT PLAN "D-2"



CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers/Mobile District
 BY: *[Signature]*
 DATE: 4 June 2012
 NOTICE: This approval stamp is not a professional engineering review. The holder should rely on professional engineering services to certify that the design is suitable for its purpose, and meets minimum standards including those related to the safety of the users.

THIS PLAN COMPILED FROM AN ORIGINAL MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD. LAST REVISED BY MORELAND ALTOBELLI ASSOCIATES, INC.
 ORIGINAL DRAWING PERPARED MARCH 1997. REVISED MAY 2008, REVISED FEBRUARY 2012.

Rochester & Associates, Inc.
 425 Oak Street N.W. • Gainesville, Georgia 30501
 (770)718.0600 (770)718.9090 Fax • www.rochester-assoc.com

REVISED CONCEPTUAL DEVELOPMENT PLAN
 FOR:
LAKE LANIER ISLANDS
 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	REVISIONS
2	02/2012	REVISED
1	05/2008	REVISED

GRAPHIC SCALE
 100' 0' 200' 400'

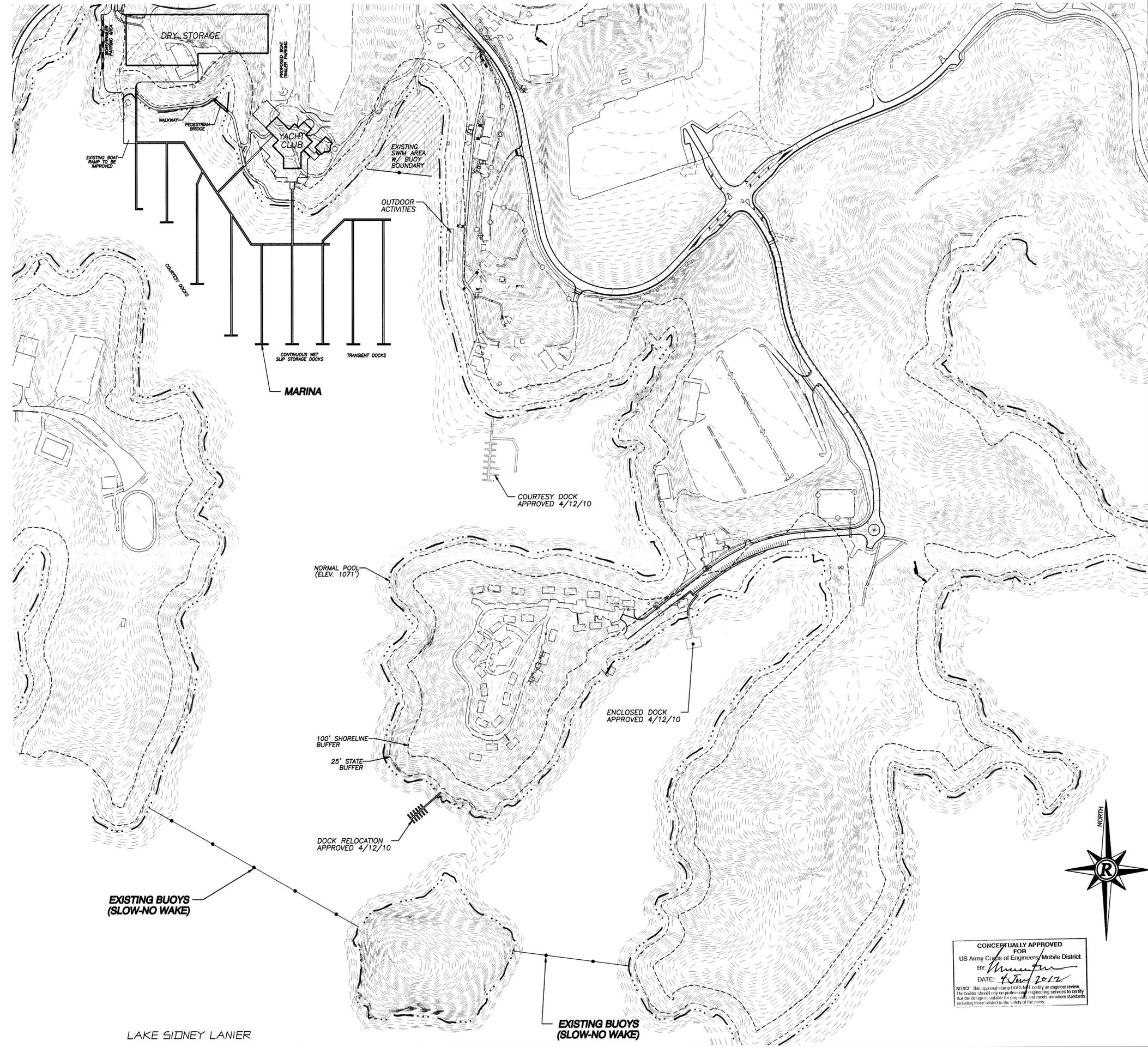
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D-2
 OF

DATE: 03/1997
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 JOB NO.: 0206124 EPR
 FILE NO.: EPR.DOCX01
 DRAWN BY: SWS

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DOCK SLIP SUMMARY TABLE

TYPE	# OF SLIPS
DRY	280
WET	280
COURTESY	60
TRANSIENT	40
TOTAL	600



CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: 4/17/12

NOTICE: This approval stamp is not a professional engineering review. The builder should rely on professional engineering services to certify that the design meets applicable codes and meets minimum standards including those related to the safety of the users.

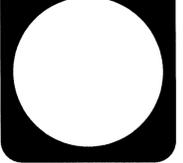
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UPDATED MASTER DEVELOPMENT PLAN
 FOR:
LAKE LANIER ISLANDS
 LOCATED IN HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS

ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE SIGNATURE AND SEAL OF THE ENGINEER HEREON, AND ANY LIABILITY ASSOCIATED THEREWITH, SHALL BE THE RESPONSIBILITY OF THE USER. DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.

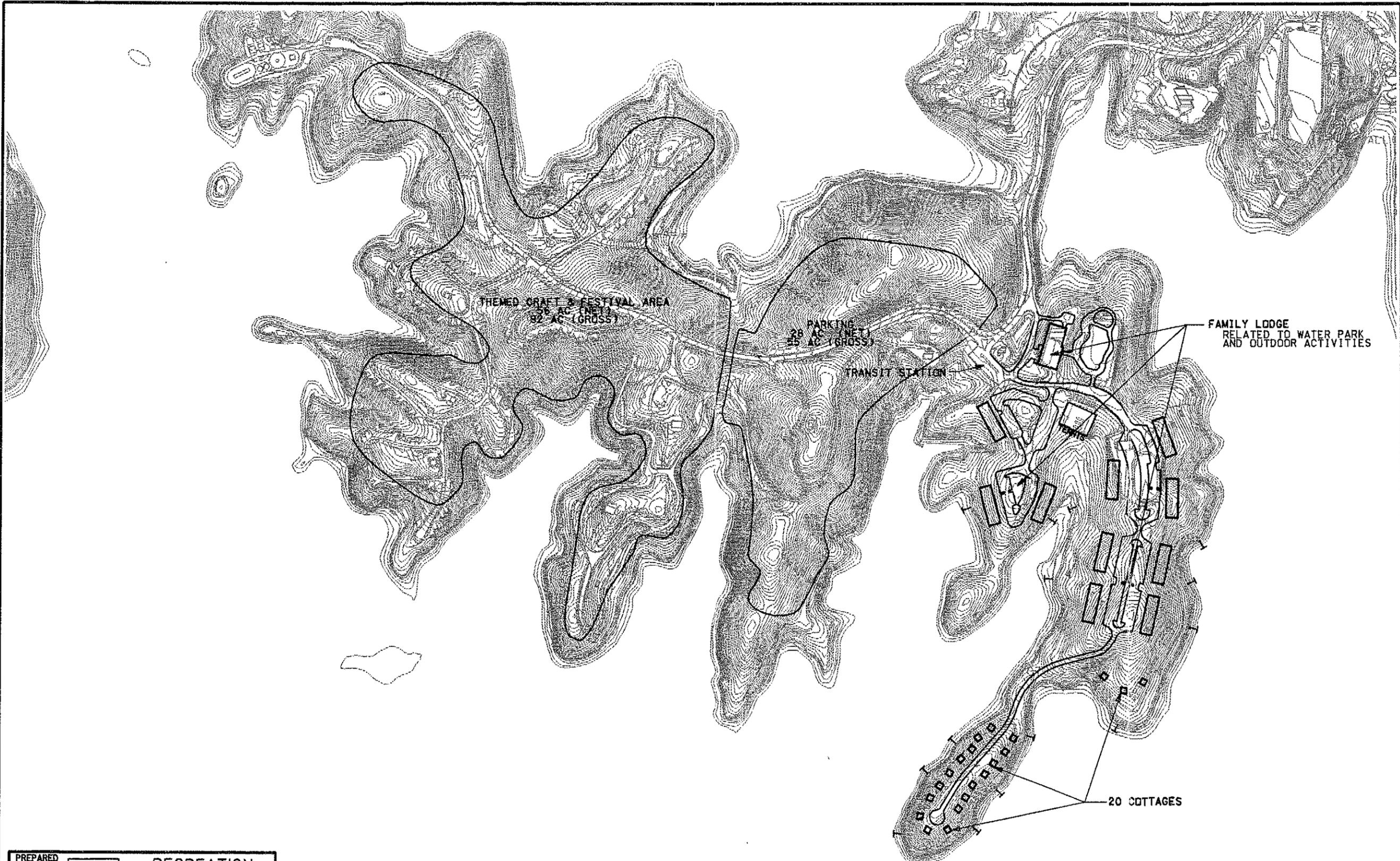
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 1" = 200'
 1" = 400'



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D-2A
 OF

DATE: 2/17/12
 SCALE: 1" = 200'
 JOB NO.: G206124.EPR
 FILE NO.: *EPR.DOC001
 DRAWN BY: JNC

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PREPARED FOR: **KSL** RECREATION CORPORATION

CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

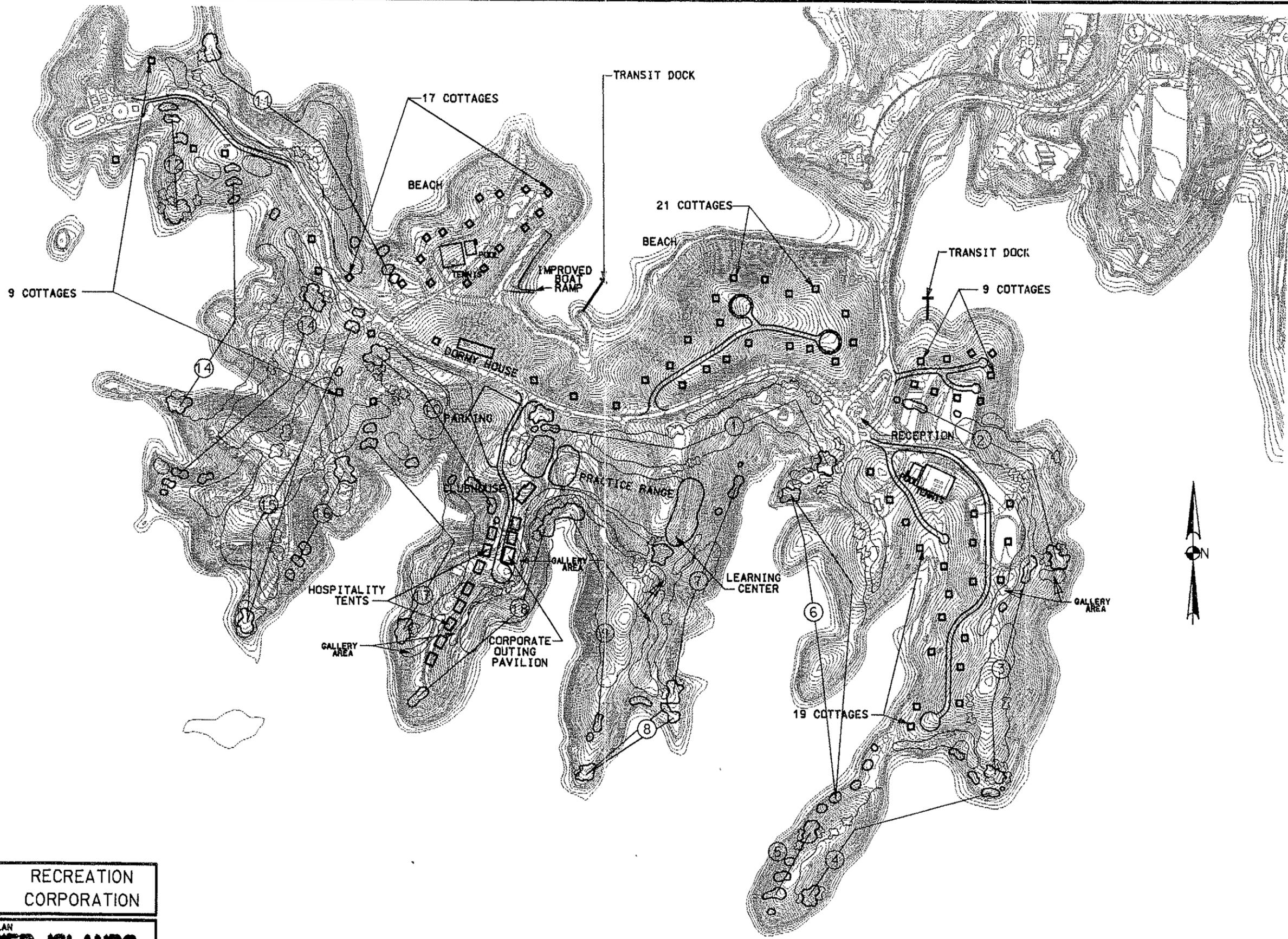
DESIGNED BY:	_____	Reviewed _____	Date _____	Reviewed _____	Date _____
DRAWN BY:	_____	Reviewed _____	Date _____	Reviewed _____	Date _____
CHECKED BY:	_____	Reviewed _____	Date _____	Reviewed _____	Date _____

MA Moreland Altabelli Associates, Inc.
 Engineering Planning Landscape Architecture Land Acquisition Surveying
 4000 Dekalb Technology Pkwy.
 Bldg. 300 Suite 370
 Atlanta, Georgia 30340
 770/455-9375

LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 FAMILY LODGE AND THEMED CRAFT & FESTIVAL AREA

Vertical Scale: N/A
 Horizontal Scale: 1" = 500'
 Sheet: D.3.
 Date: MARCH 1997
 Job Number: 96103

I:\96103\96103D\4.dgn Mar. 11, 1997 16:29:07



MA Moreland Alkibelli Associates, Inc.
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 Engineering
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 Bldg. 300 Suite 370
 Atlanta, Georgia 30340
 770/455-9375

LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 TOURNAMENT GOLF COURSE
 AND 75 BOBBY JONES COTTAGES

Vertical Scale
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 Horizontal Scale
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 Sheet
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 Date
 MARCH 1997
 Job Number
 96103D

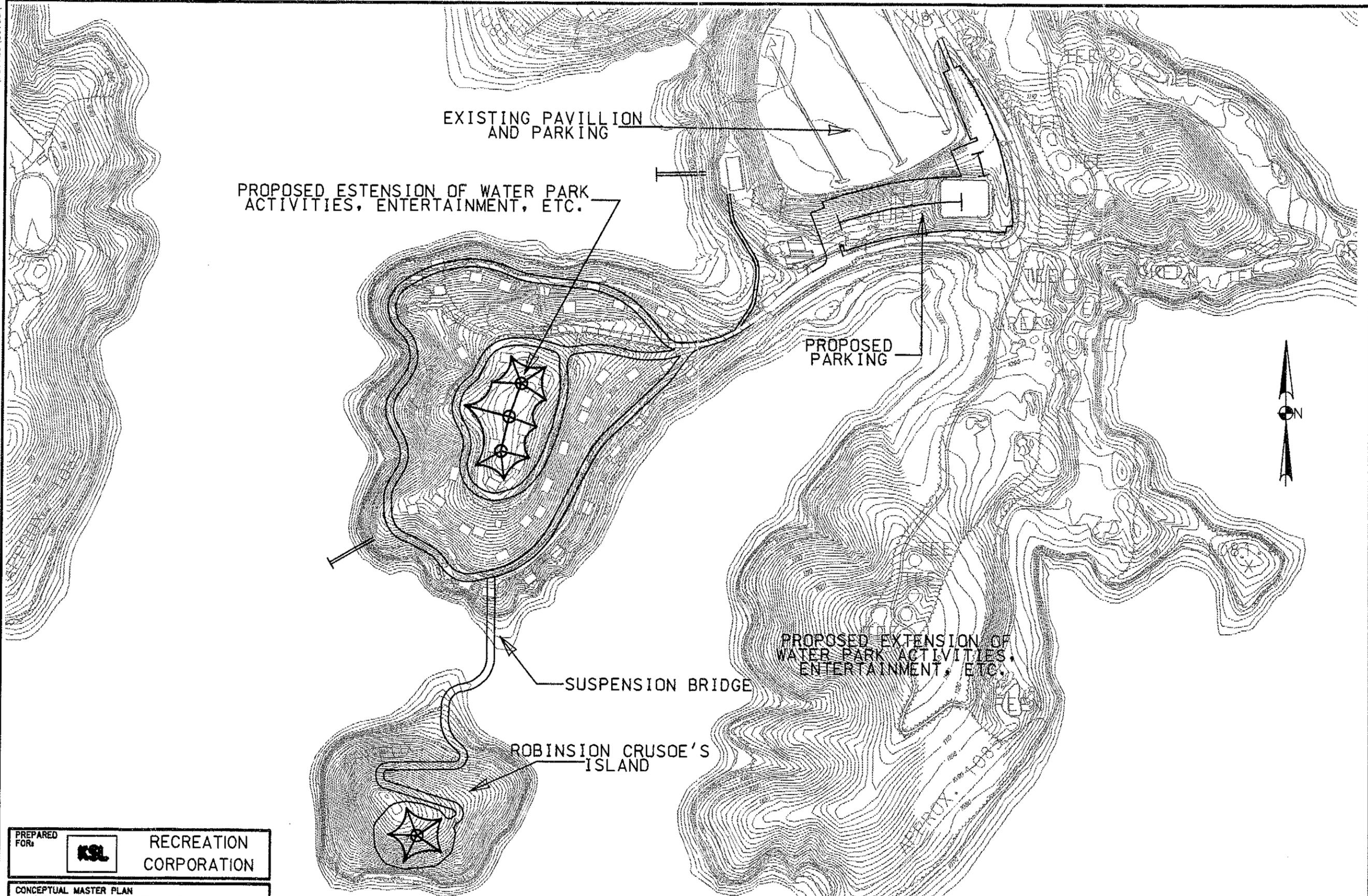
PREPARED FOR: **KSL RECREATION CORPORATION**

CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

DESIGNED BY:	_____ Date _____	Reviewed _____	Date _____
DRAWN BY:	_____ Date _____	Reviewed _____	Date _____
CHECKED BY:	_____ Date _____	Reviewed _____	Date _____

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 Engineering 4000 Dekalb Technology Pkwy.
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LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 FORMER COYAGE AREA
 PROPOSED EXTENSION OF WATER PARK ACTIVITIES,
 ENTERTAINMENT, ETC.

Vertical Scale
N/A
 Horizontal Scale
1" = 300'
 Sheet
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 Date
MARCH 1997
 Job Number
96103D

PREPARED FOR **KSL** RECREATION CORPORATION
 CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

DESIGNED BY:	_____	Reviewed _____	Date _____	Reviewed _____	Date _____
DRAWN BY:	_____	Reviewed _____	Date _____	Reviewed _____	Date _____
CHECKED BY:	_____	Reviewed _____	Date _____	Reviewed _____	Date _____

I:\98103\98103D\1.dgn Mar 11 1997 16:36:31



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 Engineering Planning Landscape Architecture Land Acquisition Surveying
 4000 Dekalb Technology Pkwy.
 Bldg. 300 Suite 370
 Atlanta, Georgia 30340
 770/455-9375

LAKE LANIER ISLANDS, KSL RECREATION CORP.
 HALL COUNTY, GEORGIA
 WILDERNESS ISLE, PIRATE'S ADVENTURE AND RESTAURANT

PREPARED FOR: **KSL RECREATION CORPORATION**

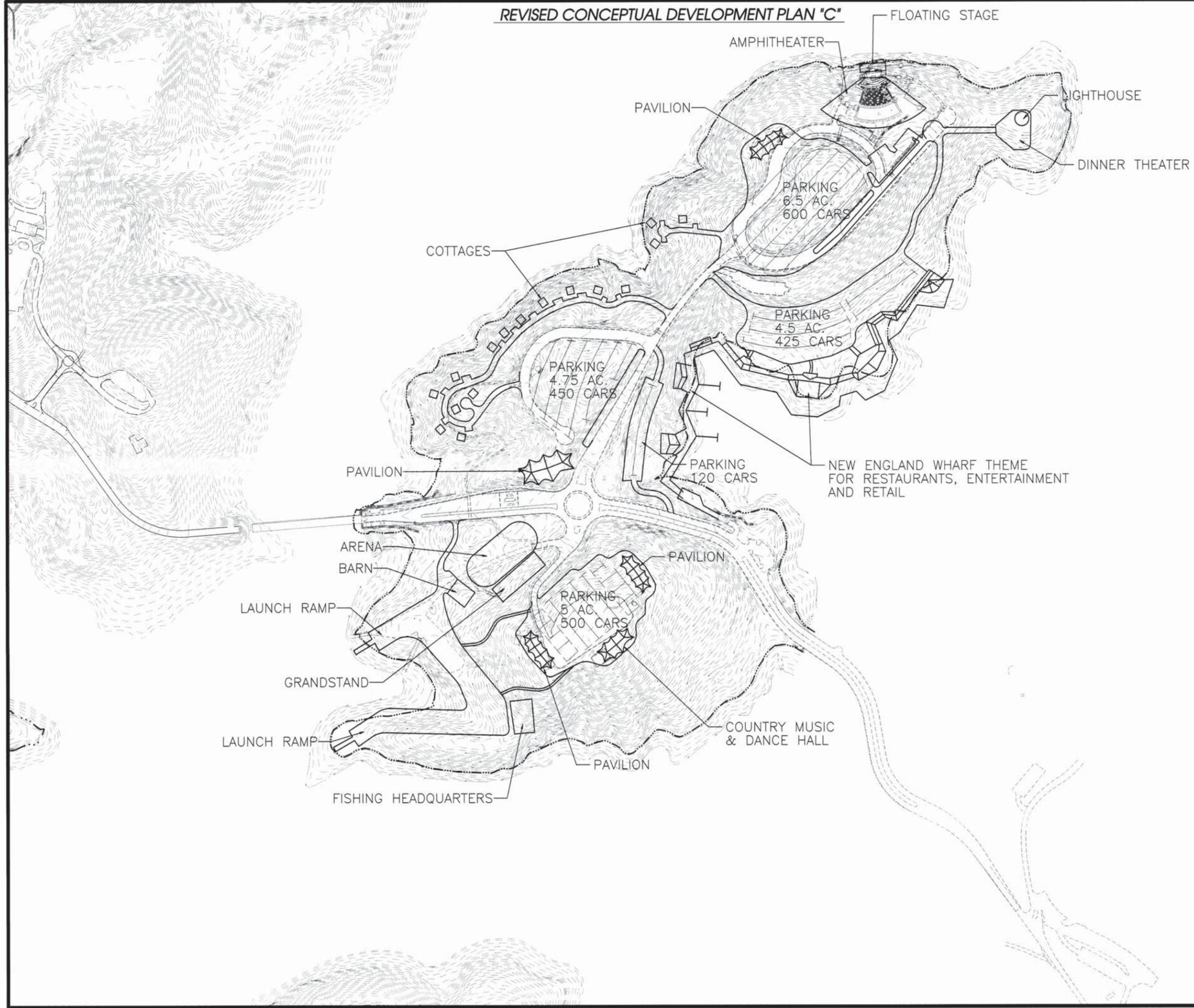
CONCEPTUAL MASTER PLAN
LAKE LANIER ISLANDS
 HALL COUNTY, GEORGIA

MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD.

DESIGNED BY:	_____ Date _____	Revised _____	Date _____
DRAWN BY:	_____ Date _____	Revised _____	Date _____
CHECKED BY:	_____ Date _____	Revised _____	Date _____

Vertical Scale	NA
Horizontal Scale	1" = 1200'
Sheet	F
Date	MARCH 1997
Job Number	98103D

REVISED CONCEPTUAL DEVELOPMENT PLAN "C"



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REVISED CONCEPTUAL DEVELOPMENT PLAN
 FOR :
LAKE LANIER ISLANDS
 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS
2	02/2012	REVISED	
1	05/2008	REVISED	

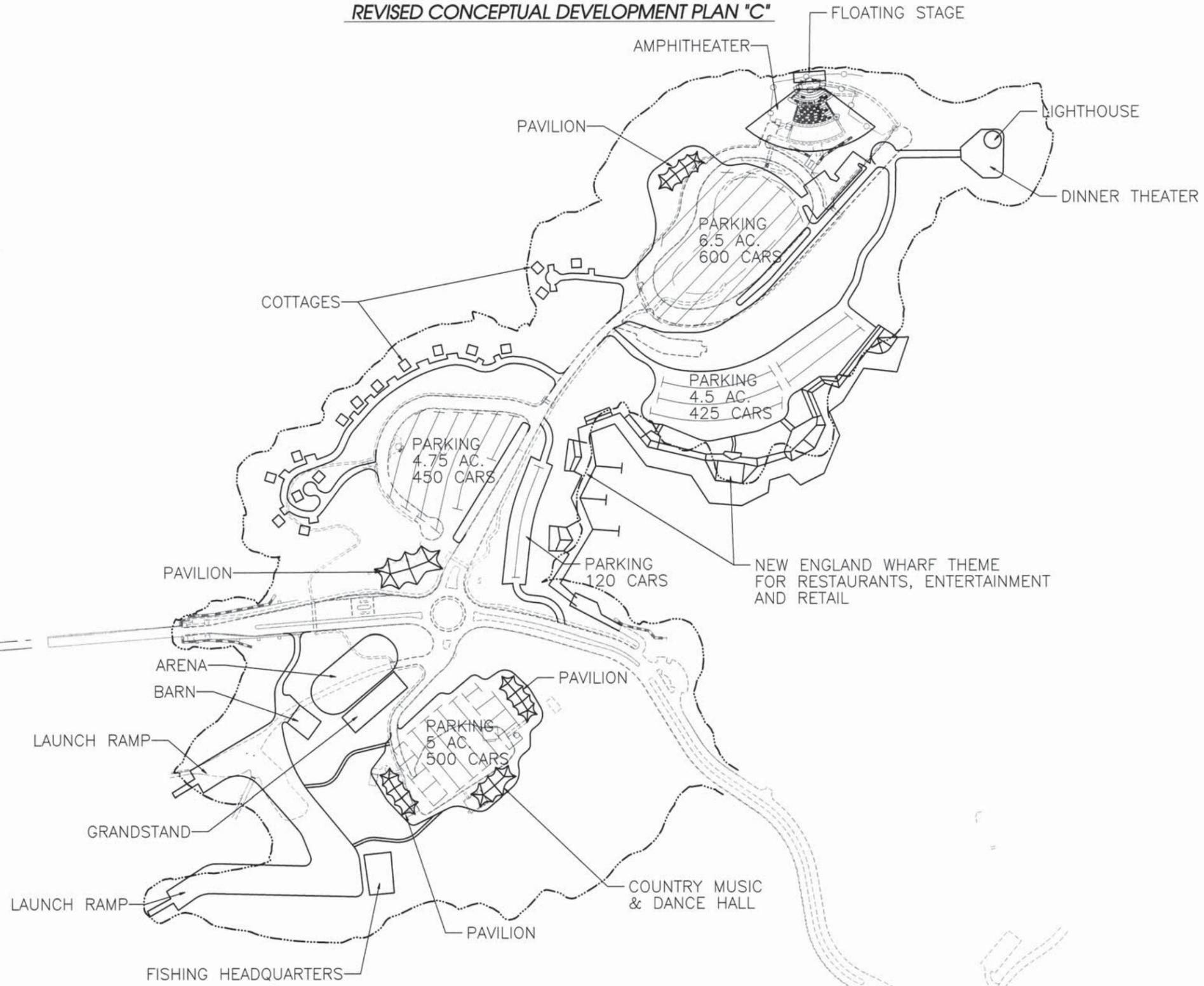
ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE SIGNATURE AND SEAL OF AN ENGINEER HEREON AND ANY LIABILITY ASSOCIATED HERETO SHALL BE THE RESPONSIBILITY OF THE USER. THESE DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.
 GRAPHIC SCALE
 1" = 100'
 0" 200' 400'

CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: 4 Jan 2012

THIS PLAN COMPILED FROM AN ORIGINAL MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD. LAST REVISED BY MORELAND ALTOBELLI ASSOCIATES, INC.
 ORIGINAL DRAWING PERPARED MARCH 1997.
 REVISED MAY 2008, REVISED FEBRUARY 2012.

SHEET
C
 OF
 DATE : 03/1997
 SCALE : 1" = 200'
 JOB NO. : C208124.EPR
 FILE NO. : EPR.DOC001
 DRAWN BY: SWS

REVISED CONCEPTUAL DEVELOPMENT PLAN "C"



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REVISED CONCEPTUAL DEVELOPMENT PLAN
 FOR:
LAKE LANIER ISLANDS
 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS
2	02/2012	REVISED	
1	05/2008	REVISED	

ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE SIGNATURE AND SEAL OF THE ENGINEER HEREIN AND ANY LIABILITY ASSOCIATED WITH THESE DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.
 GRAPHIC SCALE
 1" = 200'
 0' 200' 400'

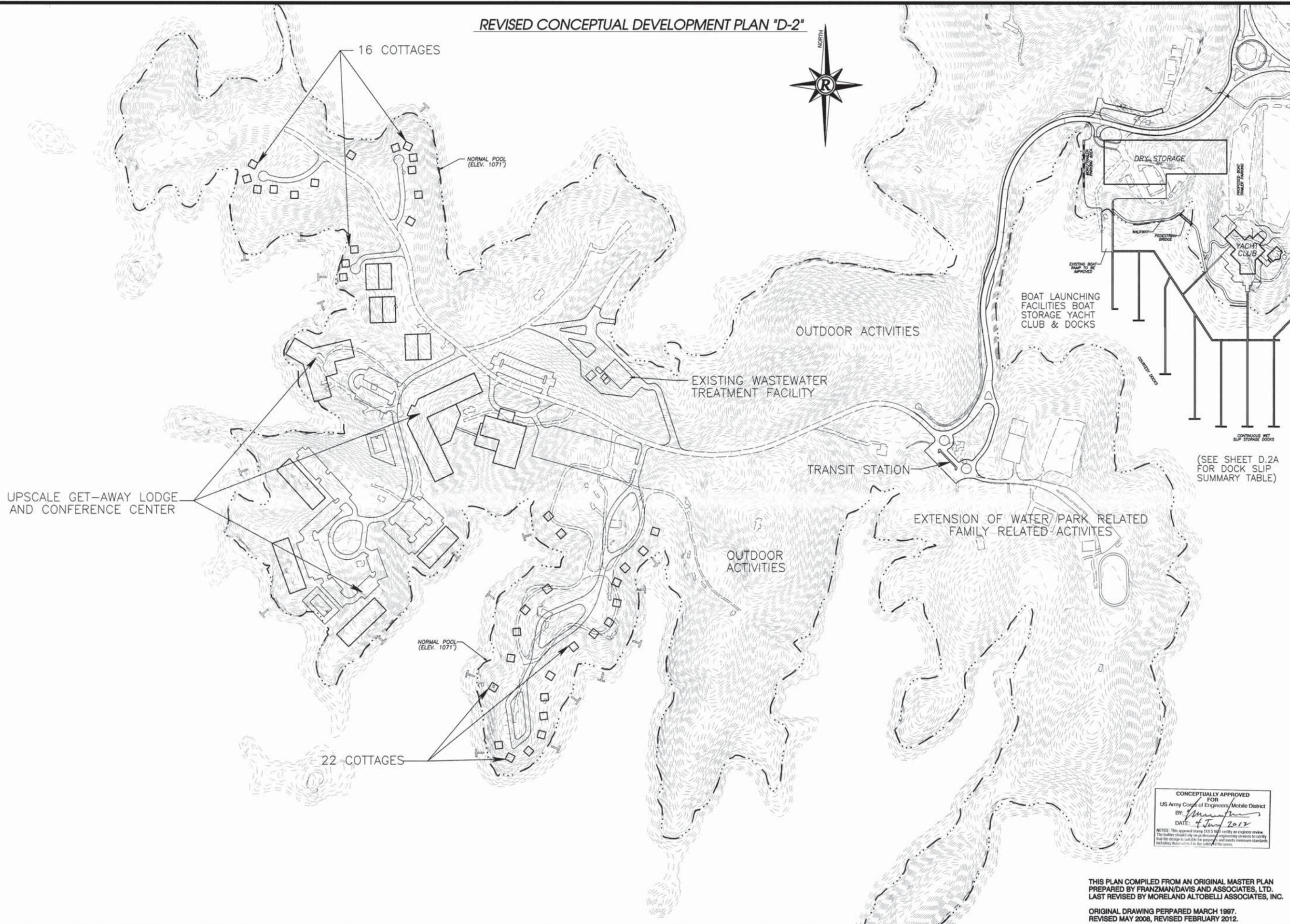
CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: *4/10/2012*

THIS PLAN COMPILED FROM AN ORIGINAL MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD. LAST REVISED BY MORELAND ALTOBELLI ASSOCIATES, INC.
 ORIGINAL DRAWING PERPARED MARCH 1997. REVISED MAY 2008, REVISED FEBRUARY 2012.

SHEET
C
 OF

DATE : 03/1997
 SCALE : 1" = 200'
 JOB NO. : G206124.EPR
 FILE NO. : 4.EPR.DOC201
 DRAWN BY: SWS

REVISED CONCEPTUAL DEVELOPMENT PLAN "D-2"



(SEE SHEET D.2A FOR DOCK SLIP SUMMARY TABLE)

CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers/Mobile District
 BY: *[Signature]*
 DATE: 4 July 2012

NOTICE: This approval stamp (131.5) is not an engineer review. The builder should rely on professional engineering services to certify that the design is suitable for purpose and meets minimum standards including those set forth in the subject of the permit.

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REVISED CONCEPTUAL DEVELOPMENT PLAN
 FOR :
LAKE LANIER ISLANDS
 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS
2	02/2012	REVISED	
1	05/2008	REVISED	

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GRAPHIC SCALE
 100' 0" 200' 400'

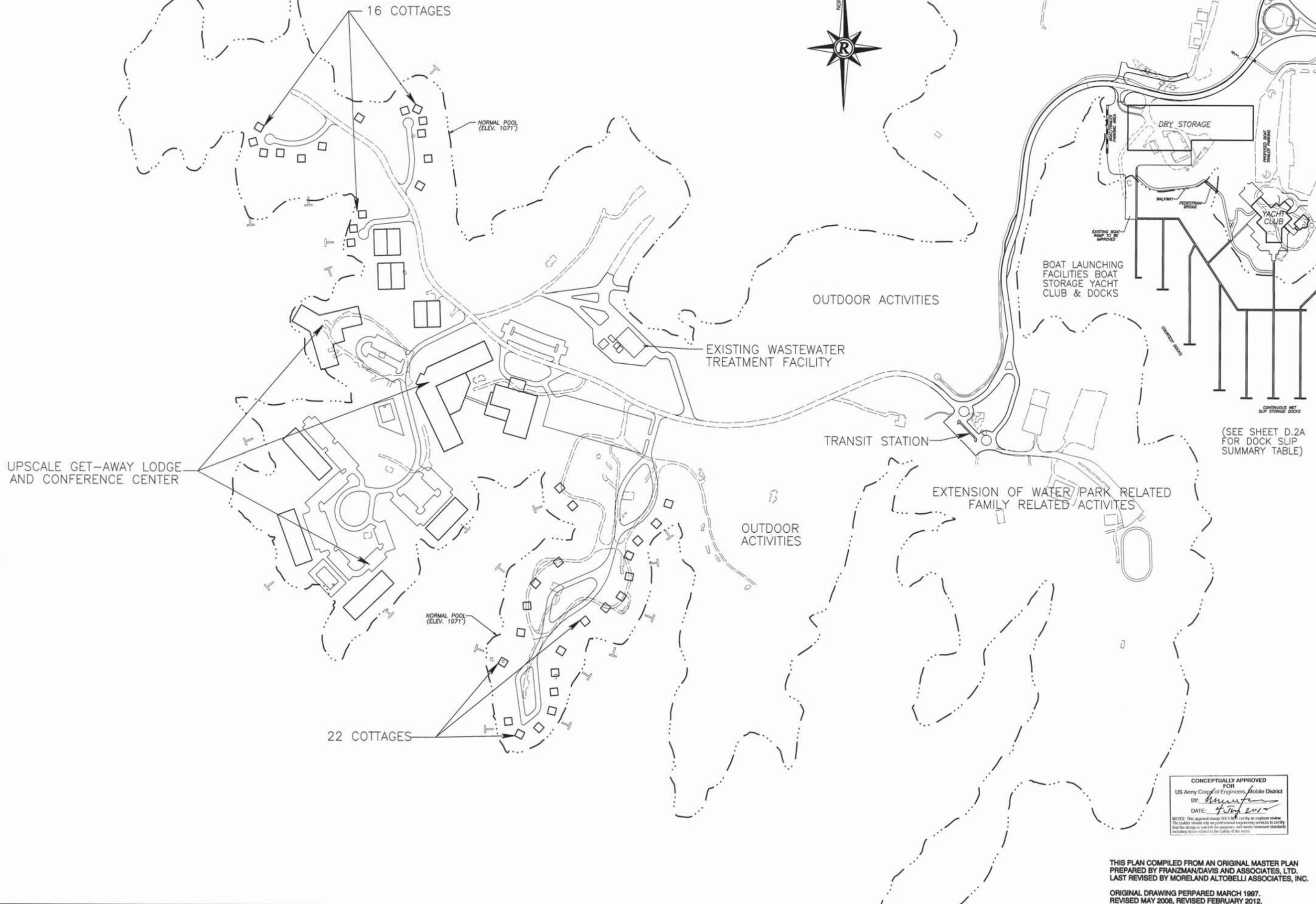


SHEET
D-2
 OF

DATE : 03/1997
 SCALE : 1" = 200'
 JOB NO : C208124.EPR
 FILE NO. : *EPR.DOC001
 DRAWN BY: SWS

THIS PLAN COMPILED FROM AN ORIGINAL MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD. LAST REVISED BY MORELAND ALTOBELLI ASSOCIATES, INC.
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 REVISED MAY 2008, REVISED FEBRUARY 2012.

REVISED CONCEPTUAL DEVELOPMENT PLAN "D-2"



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REVISED CONCEPTUAL DEVELOPMENT PLAN
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 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS
2	02/2012	REVISED	
1	05/2008	REVISED	

ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE SIGNATURE OF THE PROFESSIONAL ENGINEER HEREON AND ANY LIABILITY ASSOCIATED HEREWITH SHALL BE THE RESPONSIBILITY OF THE USER. DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.
 GRAPHIC SCALE
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CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: *4/20/2012*

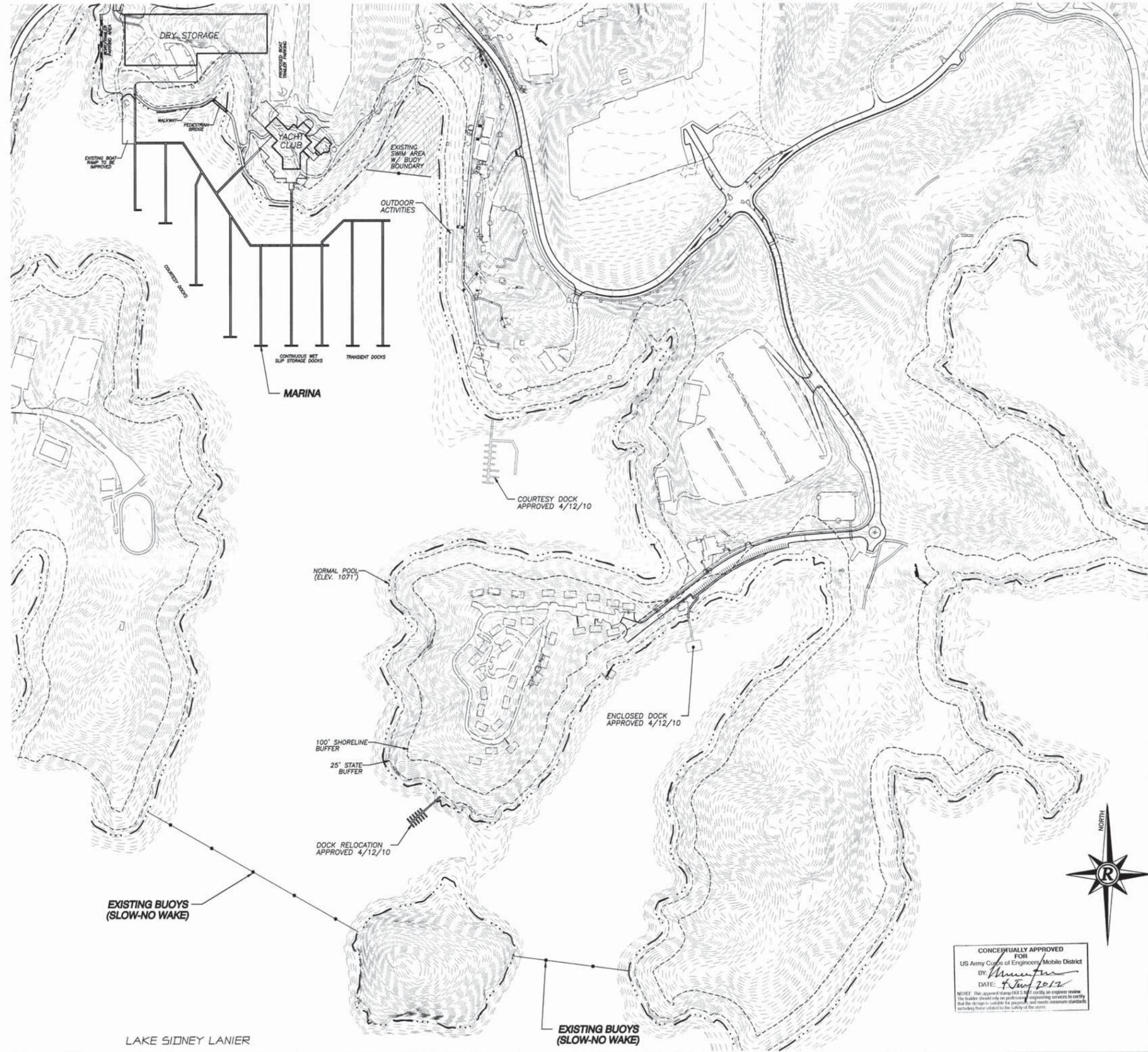
NOTICE: This approval stamp is a 5-hour certify an engineer review. The holder should rely on professional engineering services to certify that the design is suitable for purposes and meets minimum standards including those related to the safety of the users.

THIS PLAN COMPILED FROM AN ORIGINAL MASTER PLAN PREPARED BY FRANZMAN/DAVIS AND ASSOCIATES, LTD. LAST REVISED BY MORELAND ALTABELLI ASSOCIATES, INC.
 ORIGINAL DRAWING PERPARED MARCH 1997.
 REVISED MAY 2008, REVISED FEBRUARY 2012.

SHEET
D-2
 OF
 DATE : 03/19/97
 SCALE : 1" = 200'
 JOB NO : 0206124.EPR
 FILE NO : *EPR.D00201
 DRAWN BY: SWS

DOCK SLIP SUMMARY TABLE

TYPE	# OF SLIPS
DRY	250
WET	250
COURTESY	60
TRANSIENT	40
TOTAL	600



LAKE SIDNEY LANIER

CONCEPTUALLY APPROVED
 FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: 4/20/12

NOTICE: This approval stamp (RCS) is not valid until an engineer reviews the plans and signs the professional engineering services to certify that the design is suitable for purposes and meets minimum standards including those related to the safety of the work.



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UPDATED MASTER DEVELOPMENT PLAN
 FOR :
LAKE LANIER ISLANDS
 LOCATED IN
 HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION	REVISIONS

ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE SIGNATURE AND SEAL OF THE ENGINEER OR ARCHITECT ARE VOID. THE ORIGINAL DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.

GRAPHIC SCALE
 1" = 0' 200' 400'

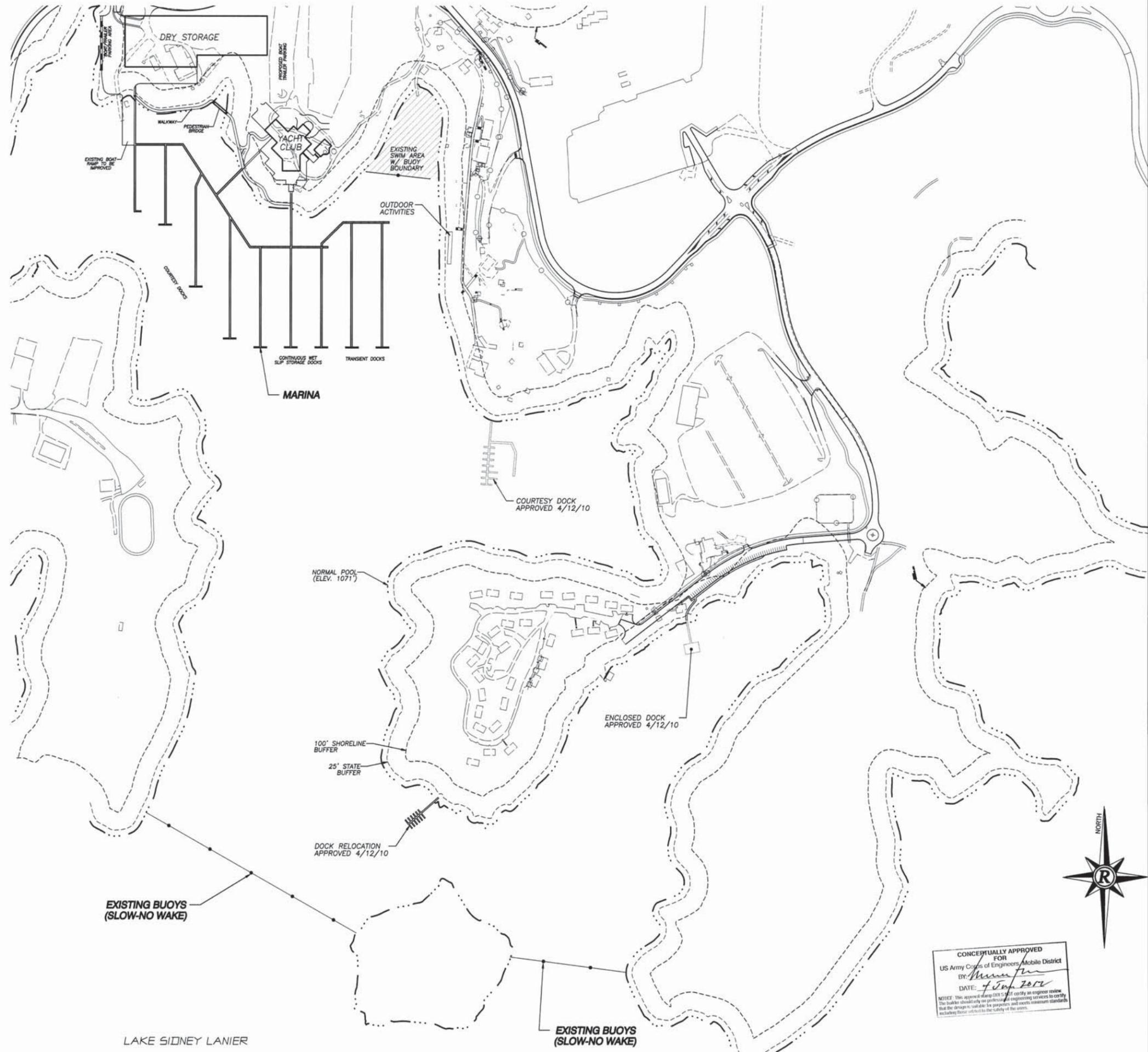


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D-2A
 OF

DATE : 2/17/12
 SCALE : 1" = 200'
 JOB NO : 0206124.EPR
 FILE NO. : EPR.DOCK01
 DRAWN BY: JAC

DOCK SLIP SUMMARY TABLE

TYPE	# OF SLIPS
DRY	280
WET	280
COURTESY	60
TRANSIENT	40
TOTAL	600



CONCEPTUALLY APPROVED FOR
 US Army Corps of Engineers, Mobile District
 BY: *[Signature]*
 DATE: *7/27/12*

NOTICE: This approval is not a certification of an engineer review. The holder shall rely on professional engineering services to certify that the design is suitable for purposes and meets minimum standards including those related to the safety of the users.

UPDATED MASTER DEVELOPMENT PLAN
 FOR :
LAKE LANIER ISLANDS

LOCATED IN
 HALL COUNTY, GEORGIA

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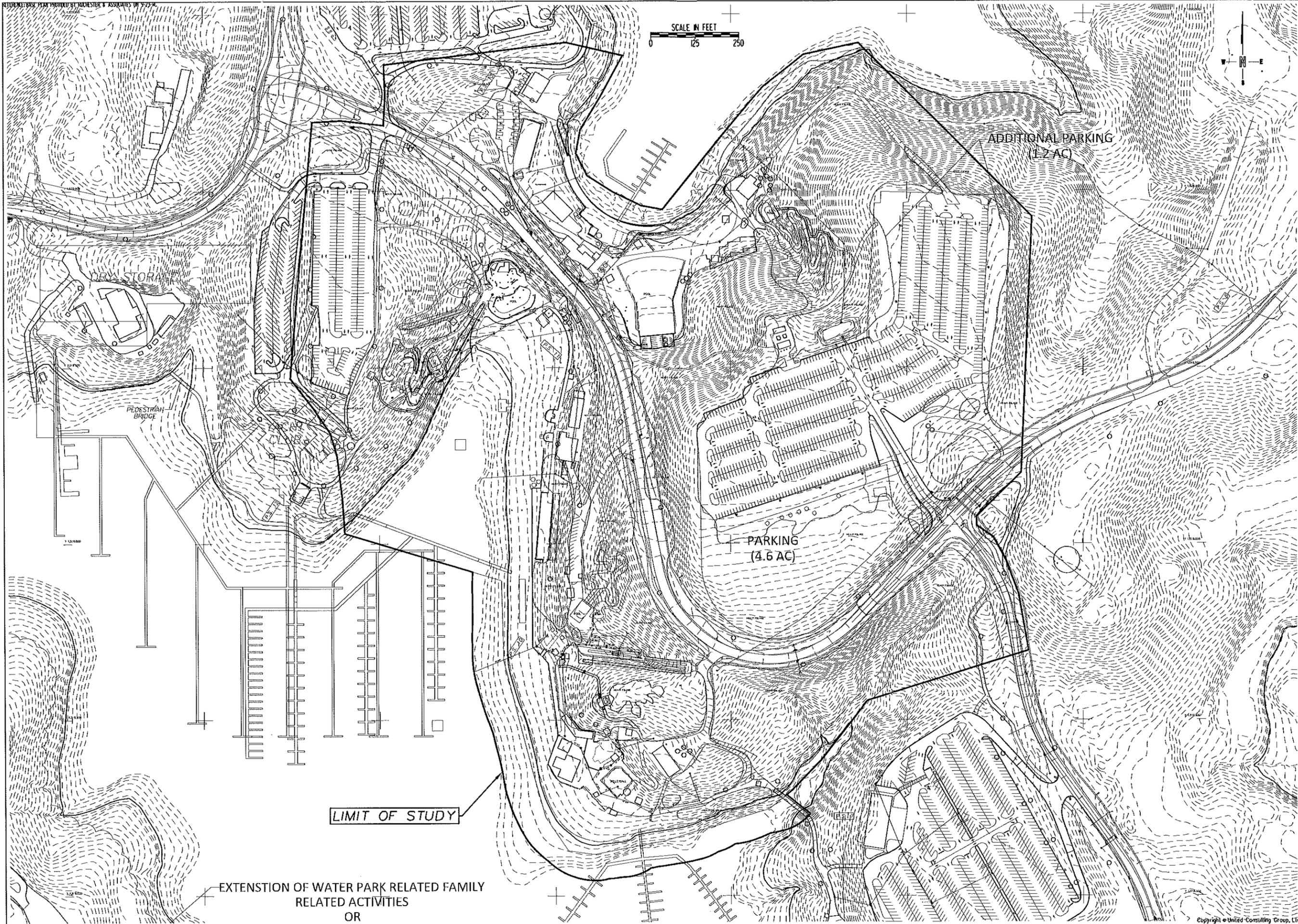
NO.	DATE	DESCRIPTION	REVISIONS



SHEET
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 OF

DATE : 2/17/12
 SCALE : 1" = 200'
 JOB NO : C066724.EPR
 FILE NO. : *EPR.DOC001
 DRAWN BY: JNC

APPENDIX C – PROPOSED MASTER PLAN DRAWINGS (STUDY AREA)



REVISION	
DATE	

625 Holcomb Bridge Road
Norcross, Georgia 30071
770-209-0029 Fax 562-2900
www.unitedconsulting.com



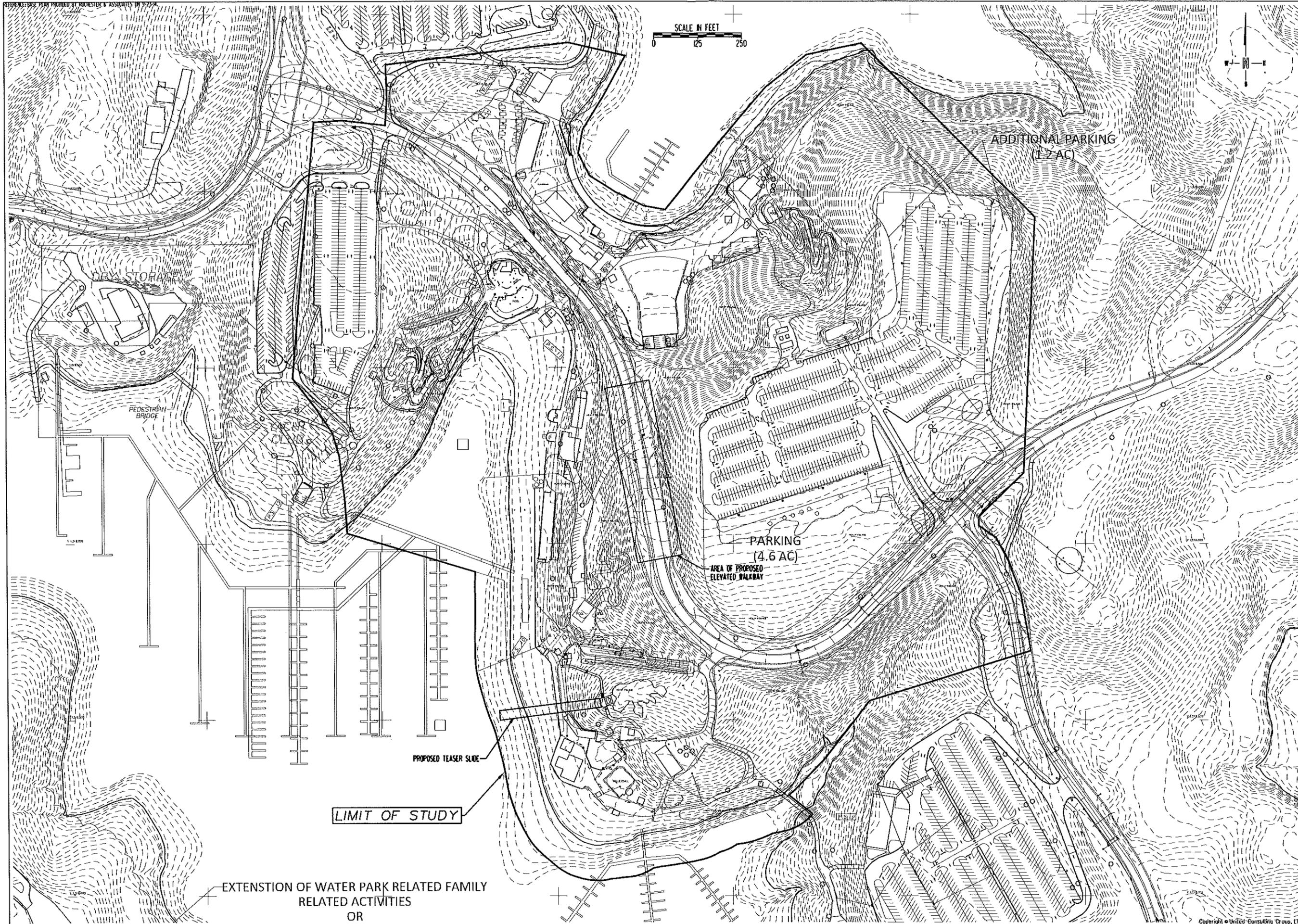
PROJECT DESCRIPTION
**LAKE LANIER ISLANDS EXPANSION
SUPPLEMENTAL EA - AMUSEMENT PARK AREA**

ISLANDS MANAGEMENT COMPANY, LLC

SHEET TITLE
CURRENT CONDITIONS

SCALE: 1" = 125' (SIZE C SHEET)
PREPARED BY: VPP
CHECKED BY: DPH
DATE: 10-2-14
JOB NO.: 2008J335.01
DRAWING NUMBER

EX1



REVISION	
DATE	
PROJECT DESCRIPTION	<p>625 Holcomb Bridge Road Norcross, Georgia, 30071 770-209-0029 Fax 562-2900 www.unitedconsulting.com</p>
SHEET TITLE	<p>LAKE LANIER ISLANDS EXPANSION SUPPLEMENTAL EA - AMUSEMENT PARK AREA</p>
PROPOSED ACTIONS	<p>ISLANDS MANAGEMENT COMPANY, LLC</p>
SCALE: 1" = 125' (SIZE C SHEET)	<p>UNited CONSULTING</p>
PREPARED BY: VPV	<p><i>We're here for you</i></p>
CHECKED BY: DPH	
DATE: 10-2-14	
JOB NO.: 2008A335.01	
DRAWING NUMBER	<p>EX2</p>

APPENDIX D – SITE PHOTOGRAPHS

a. Current Conditions



Photo 1: View from the NW corner of Upper Parking (Fun Park) facing east.



Photo 2: View from the NW corner of Upper Parking (Fun Park) facing south.



Photo 3: Mixed hardwoods observed north of Upper Parking (Fun Park).



Photo 4: Mixed hardwoods observed north of Upper Parking (Fun Park).



Photo 5: Graded and grassed area adjacent to the east of Upper Parking.



Photo 6: Immature pine forest observed south and west of Upper Parking.



Photo 7: Triple Threat & Intimidator water slides.



Photo 8: Lakeside Links Mini Golf.



Photo 9: View from Lakeside Links facing south. Proposed location of Teaser Slide in foreground.



Photo 10: View from Lakeside Links facing east. Sunset Cove in background.



Photo 11: Undeveloped land located north of Lakeside Links.



Photo 12: Undeveloped land located north of Lakeside Links.



Photo 13: View facing west along Islands Parkway, north of Triple Threat Water Slide.



Photo 14: Immature pine forest south of Upper Parking.



Photo 15: Pine forest south of Upper Parking.



Photo 16: Gully observed south of Islands Parkway, west of Camellia Lane.

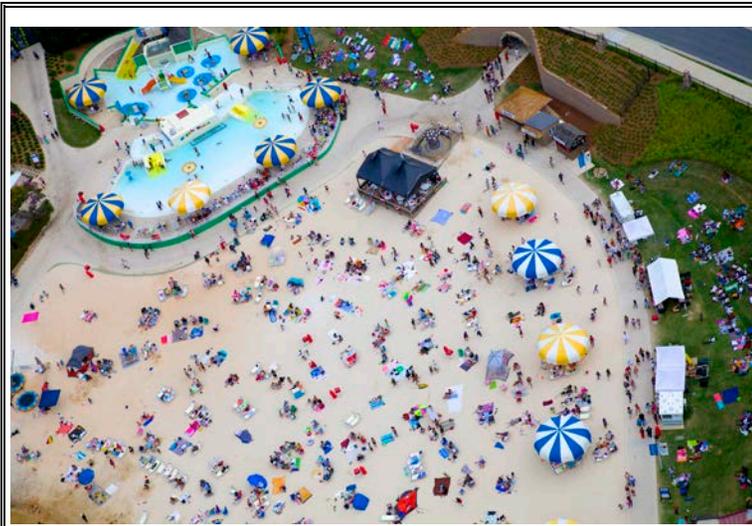


Photo 17: Aerial view of Wiggly Waves Kiddie Waves Lagoon on Big Beach.



Photo 18: View of Boardwalk Beach Clusters and associated swim areas.



Photo 19: Aerial view of Sunset Cove and associated boat docks.



Photo 20: View of Twister water slide.

b. Example Attractions



Photo 1: Example of a snowless "bunny slope."

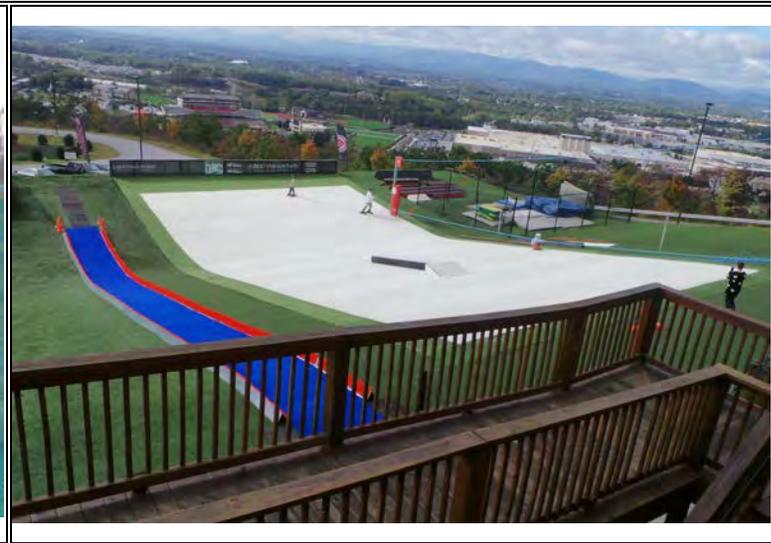


Photo 2: Example synthetic snow attraction



Photo 3: Tube slide on synthetic snow.



Photo 4: Tube slide on synthetic snow.



Photo 5: Synthetic snow terrain park.



Photo 6: Synthetic snow terrain park.

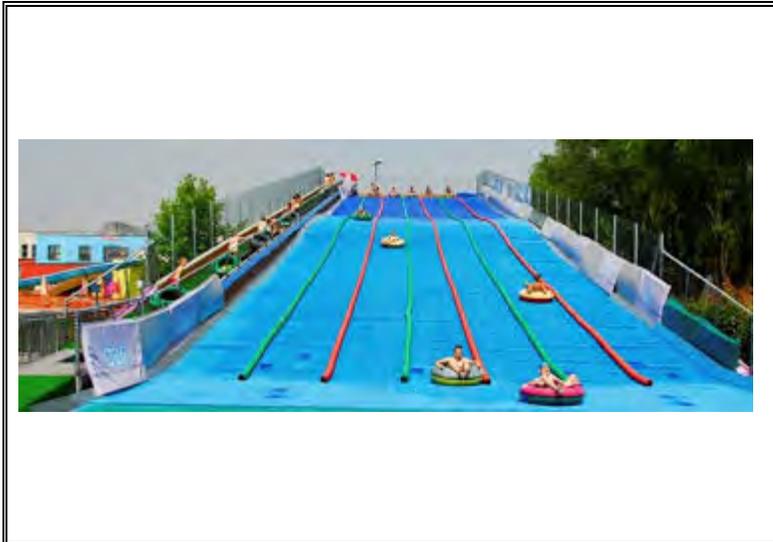


Photo 7: Example of a waterless tube slide.



Photo 8: Example of a waterless tube slide.

APPENDIX E – SUPPORTING DOCUMENTATION



February 6, 2015

Lanier Management Company
7000 Lanier Islands Parkway
Buford, GA 30518

Attn: Mr. Virgil Williams

Via Email: vrw@wmsgrpintl.com

RE: Report of Stream/Wetland Delineation
Lake Lanier Islands
Beach and Water Park Area
Buford, Hall County, Georgia
Project No. 2008.1335.02

Dear Mr. Williams:

Per your request, United Consulting has completed a wetland delineation of the Project Site, which includes Lake Lanier Islands Resort, which consists of a series of islands totaling approximately 1,100-acres in Lake Sidney Lanier and is currently subleased by LLI Management Company, Inc. from the State of Georgia who leased the property from the U.S. Army Corps of Engineers (USACE). The general site location is shown on Figure 1 of this report.

Approach:

United Consulting's evaluation included conducting background research of available topographic, wetland, and soils maps for the Project Site, as well as conducting an on-site investigation of the property for wetlands and other jurisdictional waters of the U.S. in accordance with the U.S. Army Corps of Engineers (USACE) 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*, dated April 2012.

In addition, the on-site drainage features were evaluated for possible classification as state waters, as defined in the Official Code of Georgia Annotated (OCGA), Volume 10, 12-7-3: Definitions, (13) "State waters" and interpreted by the Georgia Environmental Protection Division (EPD). According to the EPD rules concerning state waters and buffers, a stream feature must contain 'normal stream flow' (which has been interpreted to mean 'base flow') in order to be subject to the buffer requirements. Evaluations concerning state waters were based on the Georgia Environmental Protection Division (EPD) rules concerning the identification of state

waters and the GA Department of Natural Resources *Field Guide for Determining the Presence of State Waters That Require a Buffer*.

Map Research:

The U.S. Geological Survey 7.5 Minute Series Topographic Map of the area, *Buford Dam, Georgia*, was reviewed prior to the site visit. According to the map, topography across the Project Site generally slopes into Lake Lanier which surrounds the island area containing the Project Site. A copy of the USGS topographic map is attached as Figure 2.

The National Wetland Inventory (NWI) Digital Map was reviewed to determine if any known wetlands or other jurisdictional waters were mapped on the Project Site. No wetland areas were mapped on the Project Site. A copy of the NWI map is attached as Figure 3.

The Hall County Soil Survey (Web Soil Survey) was reviewed to determine if any known hydric soils have been mapped on the Project Site. The soil map units at the Project Site were mapped as Pacolet and Pacolet Sandy Loam Soils. Hydric soils were not mapped at the Project Site. A copy of the soil survey map is attached as Figure 4.

Following completion of the in-office research, the Project Site was then investigated for visual evidence of wetlands and other jurisdictional waters.

Field Investigation:

Mr. David P. Huetter and Mr. Seth H. Hobson completed an on-site wetlands investigation of the subject area in August of 2014. The Project Site was walked to look for characteristics of wetlands; these included wetland hydrology, wetland soils, and hydrophilic vegetation. No wetland areas were identified within the limits of this study. Lake Sidney Lanier was located along the outer boundary of the Project Site and would be considered a palustrine permanently flooded aquatic system; Lake Lanier would be considered a deep water habitat.

United Consulting also walked the Project Site looking for on-site drainage features in order to evaluate these features for possible classification as state waters. A small, intermittent stream was observed along the southeastern corner of the Project Area, flowing towards the lake.

Conclusions and Recommendations:

The stream and lake on the property are regulated as federal jurisdictional waters by the USACE under Section 404 of the Clean Water Act. Disturbance to these areas would require approval from the USACE. The permitting and review process is dependent on the extent of any proposed impacts. We would be glad to review the final site plan and provide recommendations regarding permit requirements.

In addition, the intermittent stream would be considered state waters requiring a buffer. This stream is subject to the state 25-foot buffer and applicable local buffer requirements. Encroachment into the state buffer would require a variance from the GA EPD. United Consulting understands land disturbing activities are not proposed for this area of the Project Site.

We appreciate the opportunity to assist you with this project. Please call if you have any questions concerning this report, including questions regarding permitting or buffers.

Sincerely,

UNITED CONSULTING

David P. Huetter
Director of Ecological Services

Seth H. Hobson
Senior Environmental Specialist

DPH/SHH/MGA/SDS/tl

Sharepoint: 2008.1335.02.wl

Attachments: Figure 1 – Site Location Map
Figure 2 – USGS Topographic Map
Figure 3 – National Wetlands Inventory
Figure 4 – Hall County Soil Survey



Scale:	1" = 1.5 Mile
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	Site Location Map

FIG. 1



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

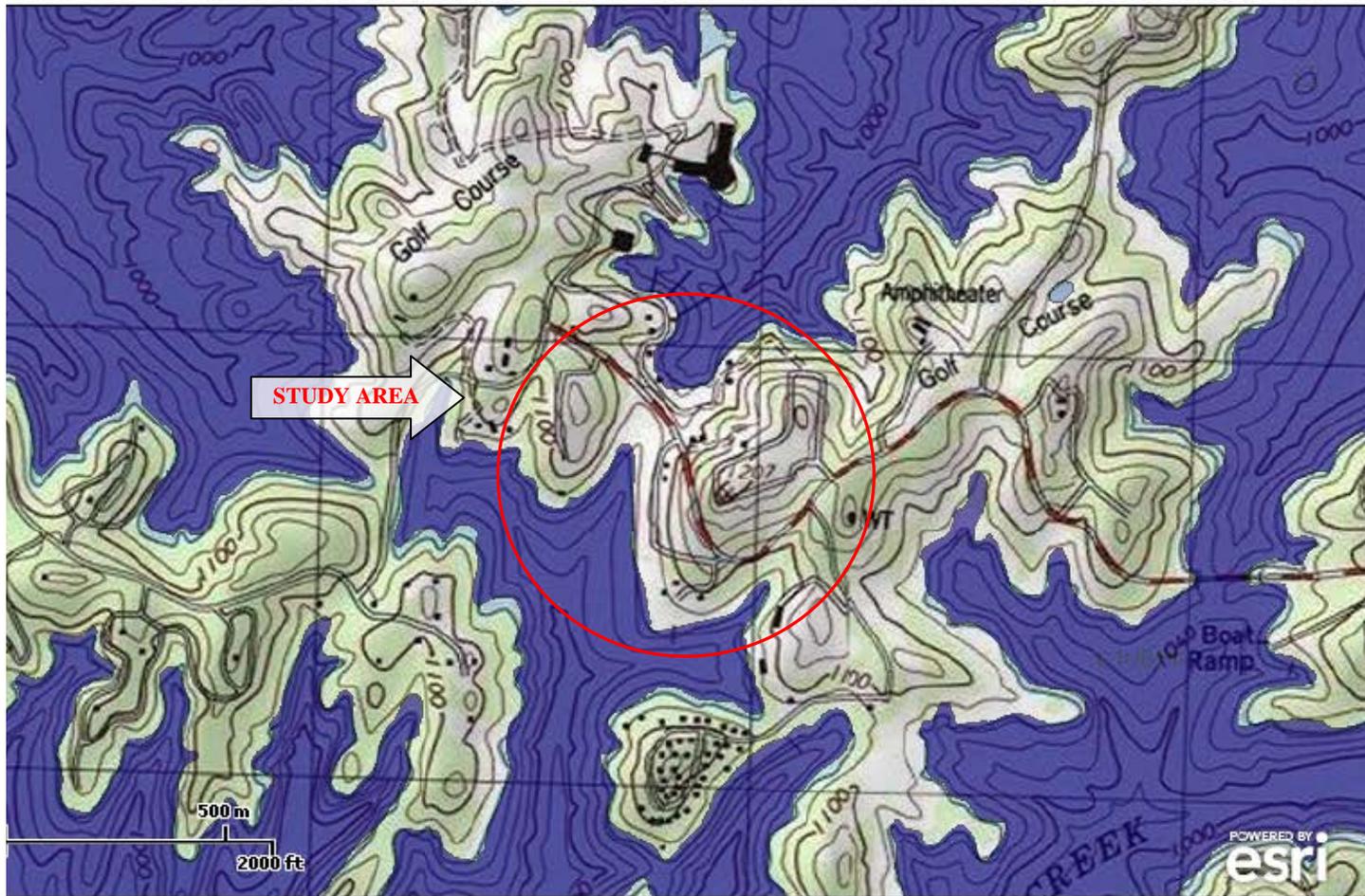
Notes:
2014 USGS Topographic Map

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	USGS Topographic Map

FIG. 2



U.S. Fish and Wildlife Service National Wetlands Inventory



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



Scale:	As Shown
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	National Wetlands Inventory Map

FIG. 3



PaE	Pacolet sandy loam, 15 to 25 percent slopes
PuD2	Pacolet soils, 10 to 15 percent slopes, eroded
W	Water



Scale:	1" = 2,000'
Prepared:	SHH
Checked:	DPH
Project No.:	2008.1335.02

Notes:

Client:	Islands Management Company, LLC
Site:	Lake Lanier Islands Resort Amusement Park Supplemental EA
Title:	NCRS Soil Survey Map

FIG. 4