



**CONSTRUCTION NOTES:**

- A) ALL LUMBER TO BE PRESSURE TREATED
- B) DECK SUPPORT POSTS SHALL BE 6X6 PRESSURE TREATED TIMBERS LOCATED AS SHOWN IN PLAN VIEW. TAPEDED ON THE SUBMERGED END AND DRIVEN WITH A PILE DRIVER SUCH THAT ARE TO BE PLUMB AND TRUE. 4" x 4" PER FT.
- C) SPACING BETWEEN SUBMERGED POSTS NOT TO EXCEED SPACING SHOWN ON DRAWING UNLESS OTHERWISE APPROVED BY THIS ENGINEER
- D) CONNECT OUTER JOISTS TO GIRDERS USING 16 GAUGE SIMPSON STRONG-TIE TWIST STRAPS, 12" LONG
- E) DECK SURFACE SHALL BE ARBOREX ALUMINUM DECKING INSTALLED TO MANUFACTURERS SPECIFICATIONS AND WITH HIDDEN JOISTS
- F) 2X6 BRACING SHALL BE BOLTED TO 6X6 USING 1/2" x 4" HOT DIPPED GALVANIZED LAG BOLTS, 4 PER 2X6. BRACING SHOULD EXTEND FROM THE LAKE BOTTOM UP TO ELEVATION 989.5 (6' BELOW NORMAL WATER LEVEL)
- G) ALL STRUCTURAL DETAILS NOT SHOWN HERE ARE TO BE AS PER IBC BUILDING CODE REQUIREMENTS, APPLICABLE TO NORTH CAROLINA COUNTY AND TOWN OF LAKE LURE ORDINANCES.

**GENERAL NOTES:**

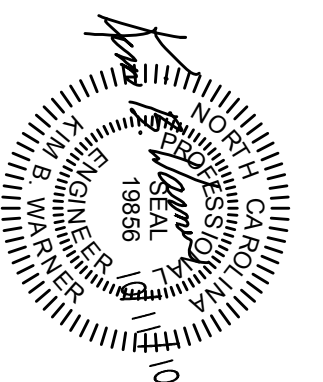
1. SOIL LOADINGS CONSIDERED IN THIS DESIGN ARE BASED ON THE FOLLOWING PARAMETERS:  
 INTRIL SOIL: <math>42 \text{ DEG}</math> FRICTION ANGLE, 0.75 PSF COHESION, UNIT WEIGHT 120 PCF, SOIL TYPE RETAINED SOIL  
 FIRMED SOIL: <math>42 \text{ DEG}</math> FRICTION ANGLE, 0.75 PSF COHESION, UNIT WEIGHT 120 PCF, SOIL TYPE FIRMED SOIL  
 SANDY SOIL: <math>30 \text{ DEG}</math> FRICTION ANGLE, 0.75 PSF COHESION, UNIT WEIGHT 120 PCF, SOIL TYPE SANDY SOIL  
 SANDY CLAY: <math>20 \text{ DEG}</math> FRICTION ANGLE, 0.75 PSF COHESION, UNIT WEIGHT 120 PCF, SOIL TYPE SANDY CLAY  
 2. GLOBAL STABILITY AND SEISMIC LOADINGS ARE NOT CONSIDERED IN THIS DESIGN.  
 3. HYDROSTATIC LOADING IS NOT CONSIDERED IN THIS ANALYSIS. SUFFICIENT DRAINAGE MUST BE PROVIDED SUCH THAT HYDROSTATIC LOADING DOES NOT DEVELOP IN THE REINFORCED ZONE.  
 4. ANALYSIS ASSUMES FILL PLACEMENT IN 8 INCH LIFTS COMPACTED TO 95% OF STANDARD PROCTOR. COMPACTION TEST FREQUENCY SHALL BE DETERMINED BY THE ENGINEER OR AS OTHERWISE SPECIFIED.  
 5. RETAINING WALL UNITS AND INSTALLATION SHALL CONFORM TO THE MANUFACTURERS GUIDELINES.

**DESIGN INFORMATION**

THE DESIGN PRESENTED ON THIS DRAWING IS BASED ON THE FOLLOWING MINIMUM VALUES. VERIFICATION THAT THESE VALUES ARE MET OR EXCEEDED IS NOT THE RESPONSIBILITY OF THE DESIGN ENGINEER.

CONCRETE	MINIMUM 28 DAY COMPRESSIVE STRENGTH	IMPORTANCE FACTORS	WIND SPEED (MPH)
CONCRETE	3000 / 3000 PSF	1.0	10
FTG. & WALLS / SLAB	1500 / 1500 PSF	1.0	10
PERFORMING SLUMP	150 INCHES		
SOIL	MINIMUM SOIL BEARING CAPACITY: 2000 PSF	DESIGN LOADS	15000 PSF
	MINIMUM SOIL INTERNAL FRICTION ANGLE: 30 DEG	FLOOR	10 / 100 PSF
	SLIDING COEFFICIENT: 0.45	WIND	DL / LL
		EXPOSURE CATEGORY	C

**REINFORCING**  
 ALL REINFORCING STEEL IS TO BE ASTM A615 GRADE 60. ALL REINFORCING SHALL BE A MINIMUM OF #3 BARS. ALL BARS SHALL BE A MINIMUM OF 3/8" BARS DIAMETER.



**AERIAL PLAN VIEW**

SCALE - 1" = 20'-0"

PROPOSED RENOVATION PLAN FOR  
**TOWN OF LAKE LURE MARINA**  
 MEMORIAL HWY. LAKE LURE, NC 28746

**AERIAL PLAN**  
 SCALE - AS NOTED

SHEET  
**1**  
 OF 2

ENGINEERED BY  
**KIM B. WARNER, PE, LLC**  
 139 COUNTRYWOOD DRIVE  
 FOREST CITY, NC 28043  
 PE NO 19856

DATE 9-09-10  
 REV 9-13-10  
 REV 9-20-10  
 REV 10-04-10

ALL FEDERAL, STATE, LOCAL CODES AND ORDINANCES AND REGULATIONS SHALL BE CONSIDERED AS PART OF THE PLANS AND SPECIFICATIONS FOR THIS BUILDING AND SHALL TAKE PRECEDENCE OVER ANYTHING SHOWN HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS AND EXISTING CONDITIONS. VARIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR HOMEOWNER FOR RESOLUTION.

SIGNIFICANT CARE AND EFFORT HAVE BEEN TAKEN TO ENSURE THAT THESE PLANS ARE CORRECT AND COMPLETE. HOWEVER, KIM B. WARNER, PE, LLC ASSUMES NO LIABILITY EXCEPT TO MAKE CORRECTIONS AND REISSUE COPIES AS REQUIRED.  
 FILENAME: TOWN OF LAKE LURE MARINAS