

GENERAL PLANTING NOTES

1. THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, FINAL GRADING, SEEDING, SOIL AMENDMENTS, ETC., AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION.
2. QUANTITIES SHOWN IN PLANT LISTS ARE FOR CONVENIENCE ONLY. PLANS SHALL GOVERN.
3. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANT LOCATIONS OR INSUFFICIENT PLANT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
4. ALL TREE AND SHRUB MATERIAL SPECIFIED MUST MEET STANDARD INDUSTRY SPECIFICATIONS FOR THE CONTAINER SIZE INDICATED. DOWNSIZING OR SUBSTITUTION OF PLANT MATERIAL WITHOUT PRIOR APPROVAL OF LANDSCAPE ARCHITECT WILL NOT BE ALLOWED.
5. ALL LANDSCAPE AREAS SHALL BE GRADED TO A SMOOTH EVEN SURFACE PRIOR TO ANY PLANT INSTALLATION. ALL PLANT MATERIALS SHALL BE INSTALLED USING GOOD HORTICULTURAL PRACTICES IN ACCORDANCE WITH THE PLANS AND DETAILS.
6. TREES SHALL NOT BE PLANTED CLOSER THAN FOUR (4) FEET FROM ANY WALKWAY OR PUBLIC SIDEWALK EXCEPT WHERE TREE WELLS OR PARKWAYS ARE PROVIDED IN THE SIDEWALK AREA. ALL TREE PLANTED WITHIN FIVE (5) FEET OF WALKS OR PUBLIC UTILITIES SHALL RECEIVE DEEP ROOT BARRIERS.
7. TREE LOCATIONS SHOWN ON PLAN MAY REQUIRE ADJUSTMENT IN THE FIELD, WHENEVER FEASIBLE. TREES SHOULD BE PLANTED A MINIMUM OF TEN (10) FEET FROM ALL UNDERGROUND UTILITIES, STREETLIGHTS, HYDRANTS, AND OUT OF DRAINAGE FLOW LINES. SHOULD THIS NOT BE POSSIBLE, CONTACT THE LANDSCAPE ARCHITECT FOR DECISION ON PLACEMENT.
8. ALL TREES IN TURF AREAS SHALL HAVE 12" MIN. CLR. CIRCUMFERENCE AROUND THE TRUNK BASE. PROVIDE 2" MIN. THK. MULCH AT BASE OF TRUNK.
9. GROUND COVER TYPE SHOWN SHALL BE PLANTED IN ALL SHRUB AREAS AS SPECIFIED ON PLANS. GROUND COVER SHALL BE PLANTED AT 8" ON-CENTER UNIFORM TRIANGULAR SPACING, AND SHALL BE CONTINUOUS UNDER ALL TREE AND SHRUB MASSES AS SHOWN ON PLAN.
10. MATURE PLANTINGS SHALL NOT INTERFERE WITH UTILITIES AND TRAFFIC SIGHT LINES.
11. ALL AREAS PLANTED WITH GROUND COVER SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH. ALL REMAINING AREAS SHALL BE MULCHED WITH PINESTRAW.

LANDSCAPE REQUIREMENTS

	REQUIRED	PROVIDED
PARKING LOT INTERIOR CANOPY COVERAGE 42,567 SF (30%)	12,770 SF	14,467 SF* 24 TREES; 3 EXISTING TREES = 1,034 SF 19 PROPOSED LARGE SHADE TREES = 13,433 SF
* CANOPY COVERAGE PROVIDED PARTIALLY BY EXISTING TREES. EXISTING CANOPY COVERAGE CALCULATIONS ARE BASED ON AREA OF DRIP LINE OVERHANGING PARKING FACILITY.		
STREET YARD PLANTING		
TIBURON DRIVE (571 LF x 18)	10,278 SF 17 (1/ 600 SF)	14,418 SF 56 EXISTING CANOPY TREES
SHRUBS REQUIRED	102 (6/ 600 SF)	102
FOUNDATION PLANTING	12% FACADE AREA (ADJ. TO PARKING/DRIVE AISLE)	
FITPARK		
NORTH SIDE (160LF x 45' x .12) + (220 x 33' x .12)	1,735 SF	4,930 SF
EAST SIDE (138 x 33' x .12)	546 SF	2,837 SF
SOUTH SIDE (409 x 33' x .12)	1,619 SF	3,669 SF
WEST SIDE (50 x 45' x .12) + (77 x 33' x .12)	575 SF	3,566 SF
LOB III		
SOUTH SIDE (222 LF x 60.75' x .12)	1,618 SF	2,394 SF

PRESERVED TREES ONSITE

QUANTITY	SIZE	COMMON NAME	CREDITS
7	2"	PINE	7
24	2"	OAK	24
21	3"	PINE	21
61	3"	OAK	61
7	4"	PINE	7
1	4"	MAGNOLIA	1
1	5"	MAGNOLIA	1
12	5"	PINE	12
6	5"	OAK	6
17	6"	PINE	34
5	6"	OAK	5
1	7"	OAK	2
12	8"	PINE	24
5	8"	OAK	10
2	9"	OAK	4
6	10"	OAK	12
10	10"	PINE	20
1	12"	MAPLE	3
3	12"	PINE	9
1	13"	OAK	3
1	14"	PINE	15
6	15"	PINE	18
8	15"	PINE	24
5	16"	PINE	15
6	17"	PINE	18
1	18"	PINE	4
1	20"	PINE	4
1	24"	PINE	4
TOTAL CREDITS FOR PRESERVED TREES :			374

TREE MITIGATION REQUIREMENTS -

ALL TREES LISTED BELOW ARE LOCATED WITHIN THE BUILDING 4 BUILDING PAD

REMOVED REGULATED PINES

QUANTITY	SIZE	COMMON NAME	% MITIGATION
1	12"	PINE	50
2	13"	PINE	50
1	15"	PINE	50
1	16"	PINE	50
1	17"	PINE	50
3	18"	PINE	50
140' x .5 = 70' / 3 = 23.33 TREES REQUIRED FOR MITIGATION			

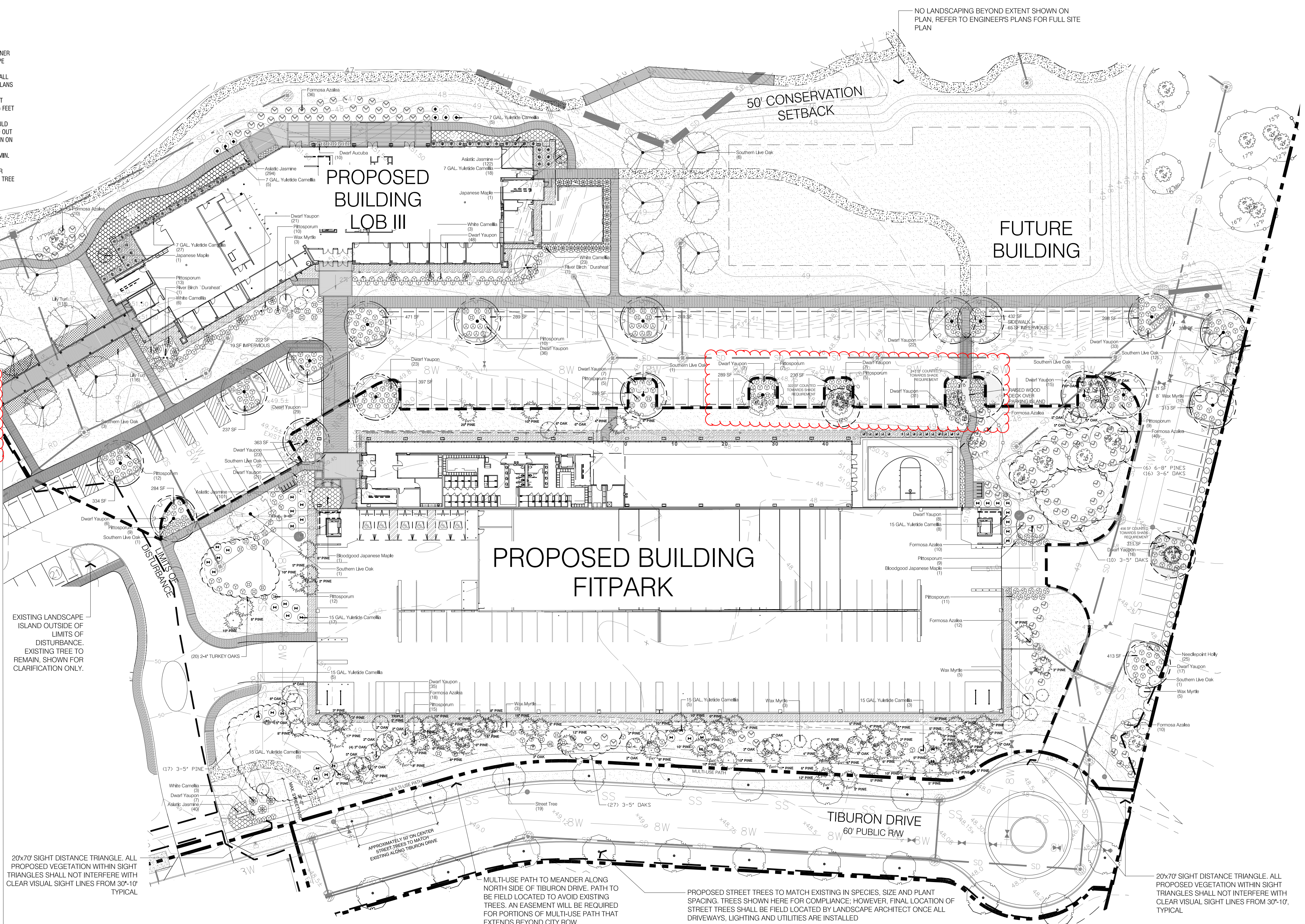
REMOVED REGULATED HARDWOODS

QUANTITY	SIZE	COMMON NAME	% MITIGATION
2	8"	OAK	100
1	10"	OAK	100
1	11"	OAK	100
2	12"	OAK	100
1	15"	OAK	100
1	18"	OAK	100
94' / 3 = 31.33 TREES REQUIRED FOR MITIGATION			
23.33 + 31.33 = 55 TREES REQUIRED FOR MITIGATION			

TOTAL CREDITS FOR PRESERVED TREES : 374
PRESERVED TREE CREDITS FULFILLING MITIGATION REQUIREMENT: 55

OVERALL TREE REQUIREMENTS (15 TREES/DISTURBED ACRE)

REQUIRED: 12.94 ACRES DISTURBED x 15 TREES = 194 TREES REQUIRED
PROVIDED: 374 TREE CREDITS (EXISTING RETAINED TREES)
54 TREES PROPOSED - REFER TO PLANTING LEGEND
TOTAL: 428 TREES PROVIDED



20x70' SIGHT DISTANCE TRIANGLE. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10' TYPICAL

MULTI-USE PATH TO MEANDER ALONG NORTH SIDE OF TIBURON DRIVE. PATH TO BE FIELD LOCATED TO AVOID EXISTING TREES. AN EASEMENT WILL BE REQUIRED FOR PORTIONS OF MULTI-USE PATH THAT EXTENDS BEYOND CITY ROW.

PROPOSED STREET TREES TO MATCH EXISTING IN SPECIES, SIZE AND PLANT SPACING. TREES SHOWN HERE FOR COMPLIANCE; HOWEVER, FINAL LOCATION OF STREET TREES SHALL BE FIELD LOCATED BY LANDSCAPE ARCHITECT ONCE ALL DRIVEWAYS, LIGHTING AND UTILITIES ARE INSTALLED

20x70' SIGHT DISTANCE TRIANGLE. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10' TYPICAL

PLANT SCHEDULE OVERALL

LARGE SHADE TREES	BOTANICAL NAME / COMMON NAME	CONT	CAL	RANGE	QTY
1	Acer s. 'Bloodgood' / Bloodgood Japanese Maple	8 & 8	3" CAL	8-10' HT	2
1	Acer palmatum / Japanese Maple	15 gal	2" CAL	6-8' HT	2
1	Green Leaf Japanese Maple	15 gal	2" CAL	6-8' HT	2
2	Betula nigra / River Birch / Duraheat	8 & 8	3" CAL	10-12' HT	2
1	Quercus virginiana / Southern Live Oak	8 & 8	4" CAL	10-12' HT	21
1	Quercus virginiana / Southern Live Oak	SPADE	3" CAL	14-16' HT	9
1	Street Tree Quercus virginiana (Southern Live Oak) to match existing street trees along Tiburon Drive	8 & 8	2.5" CAL	10-12' HT	19

SMALL SHADE TREES

BOTANICAL NAME / COMMON NAME	CONT	CAL	RANGE	QTY	
Box c. 'Hedgehog' / Hedgehog Holly	7 gal	3-4" HT		25	
Box s. 'Nana' / Dwarf Yaupon	7 gal	18-24" HT		412	
Myrica celtica / Wax Myrtle	--	8' HT		19	
Myrica celtica / Wax Myrtle	15 gal			19	
Pittosporum tobira / Pittosporum	10 gal	24-30" HT		127	
GROUND COVERS	BOTANICAL NAME / COMMON NAME	SIZE	RANGE	SPACING	QTY
Liriodendron t. 'Big Blue' / Lily Turf	1 quart	6-12" HT	18" o.c.		425
Sanicula europaea / Adonis / Adonis Jasmine	1 qt	6-12" HT	24" o.c.		537
SOILSCREENS	BOTANICAL NAME / COMMON NAME	SIZE	RANGE	SPACING	QTY
Zoysia japonica / Emerald / Emerald Zoysia	900				

SYMBOL LEGEND

	EXISTING TREE TO REMAIN WITH TREE PROTECTION FENCING
	EXISTING PINE AND OAK TREES
	LARGE SHADE TREE COUNTED TOWARD PARKING LOT SHADE REQUIREMENTS (707 SF)
	EXISTING SHADE TREE COUNTED TOWARD PARKING LOT SHADE REQUIREMENTS

*NOTE: PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING

Approved Construction Plan

Name _____ Date _____

Planning _____

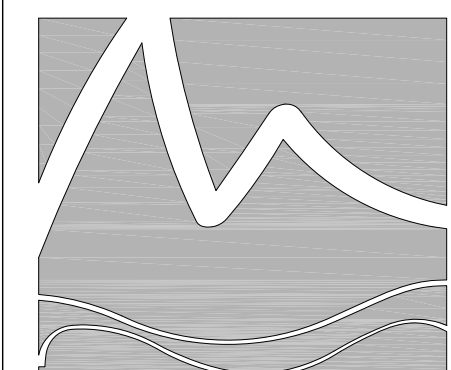
Traffic _____

Fire _____

0 30 60 90 feet

NORTH

SCALE: 1" = 30'



MIHALY LAND DESIGN
PLANNING + LANDSCAPE ARCHITECTURE
330 MILITARY CUTOFF RD., SUITE A3
WILMINGTON, NC 28405 910.392.4355



Revisions
2017-12-18: REVISED PLAN PER COMMENTS FROM COV.
2017-12-28: REVISED PLAN PER COMMENTS FROM COV.
2018-02-07: ADDED STREET TREES ALONG TIBURON PER CITY REQUEST
2018-07-11: REVISED PLAN PER FIELD LOCATED TREES. CALCULATIONS REVISED ACCORDINGLY.
2018-08-14: REVISED PARKING LOT SHADE TREE. ADDED (1) TREE AND ADJUSTED COUNTS

CLIENT
LIVE OAK BANK
1741 TIBURON DRIVE
WILMINGTON, NC

PROJECT
LIVE OAK BANK
BUILDING 3 AND FITPARK
TIBURON DRIVE
LANDSCAPE PLANS

Date: 11/27/2017
Phase: CD
Job Number: 560-07
Designed by: MLD
Drawn by: ALM
Checked by: JWM

Sheet Title:
PLANTING PLAN - OVERALL

Sheet Number:
L1.0
of 1 sheets

EASEMENT (39...
 LINA COASTAL LAND
 3348 PG 985-997
 OLEANDER COMPANY
 BK 531 PG 67
 ZONED O&I-1

TREE INVENTORY DATA

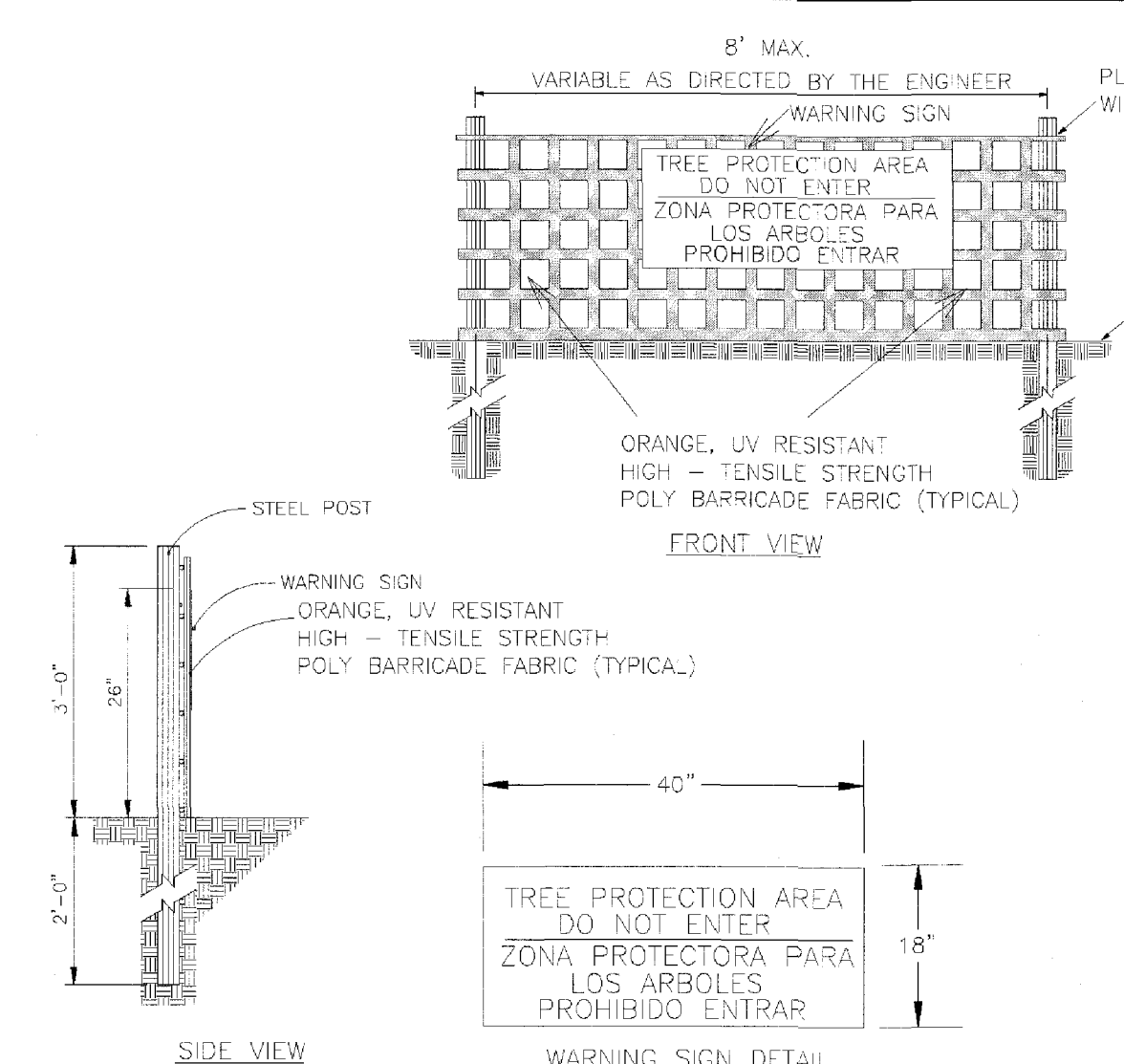
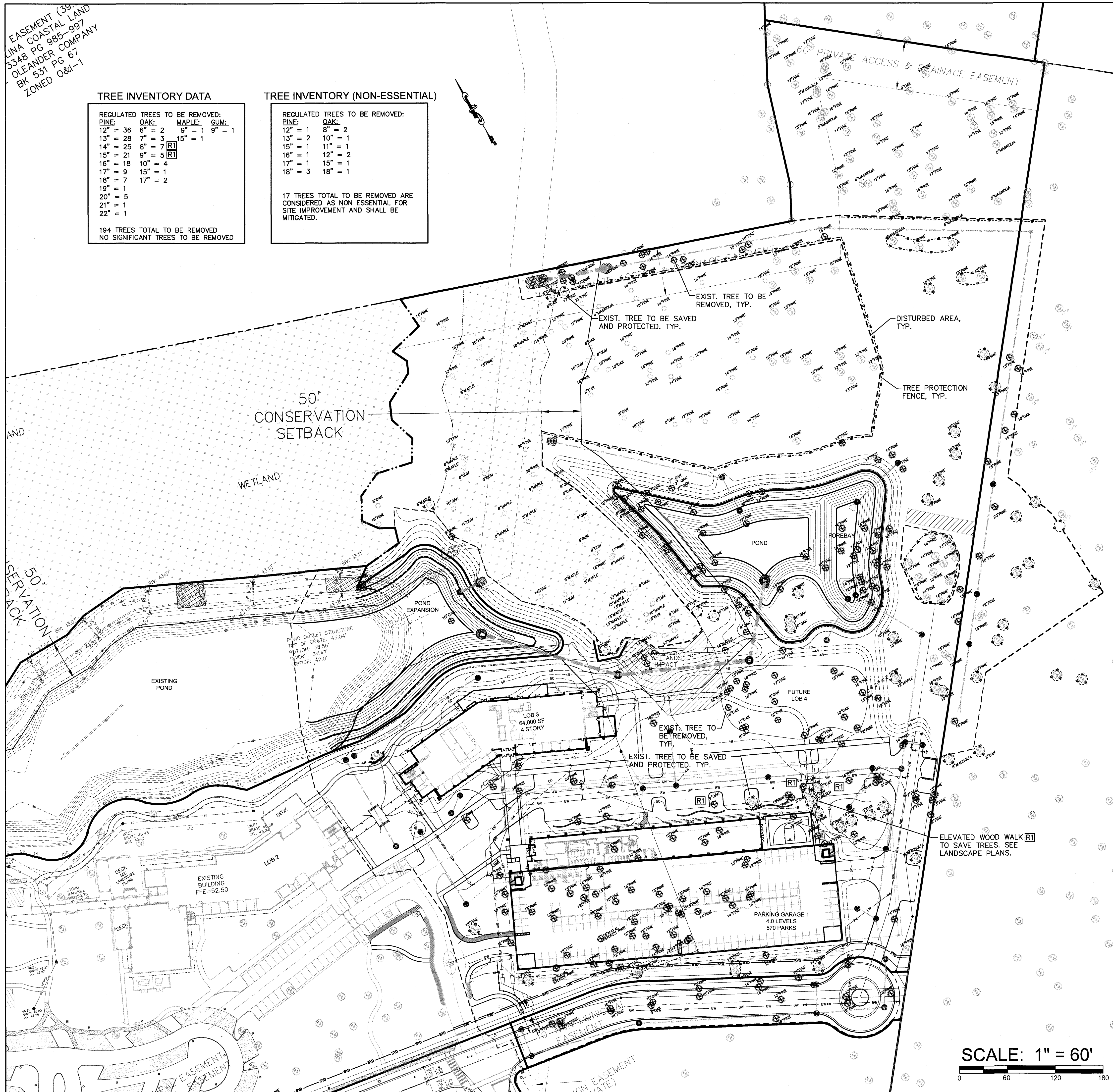
REGULATED TREES TO BE REMOVED:			
PINE	OAK	MAPLE	OTHER
12" = 36	6" = 2	9" = 1	9" = 1
13" = 28	7" = 3	15" = 1	
14" = 25	8" = 7		
15" = 21	9" = 5		
16" = 18	10" = 4		
17" = 9	15" = 1		
18" = 7	17" = 2		
19" = 1			
20" = 5			
21" = 1			
22" = 1			

194 TREES TOTAL TO BE REMOVED
 NO SIGNIFICANT TREES TO BE REMOVED

TREE INVENTORY (NON-ESSENTIAL)

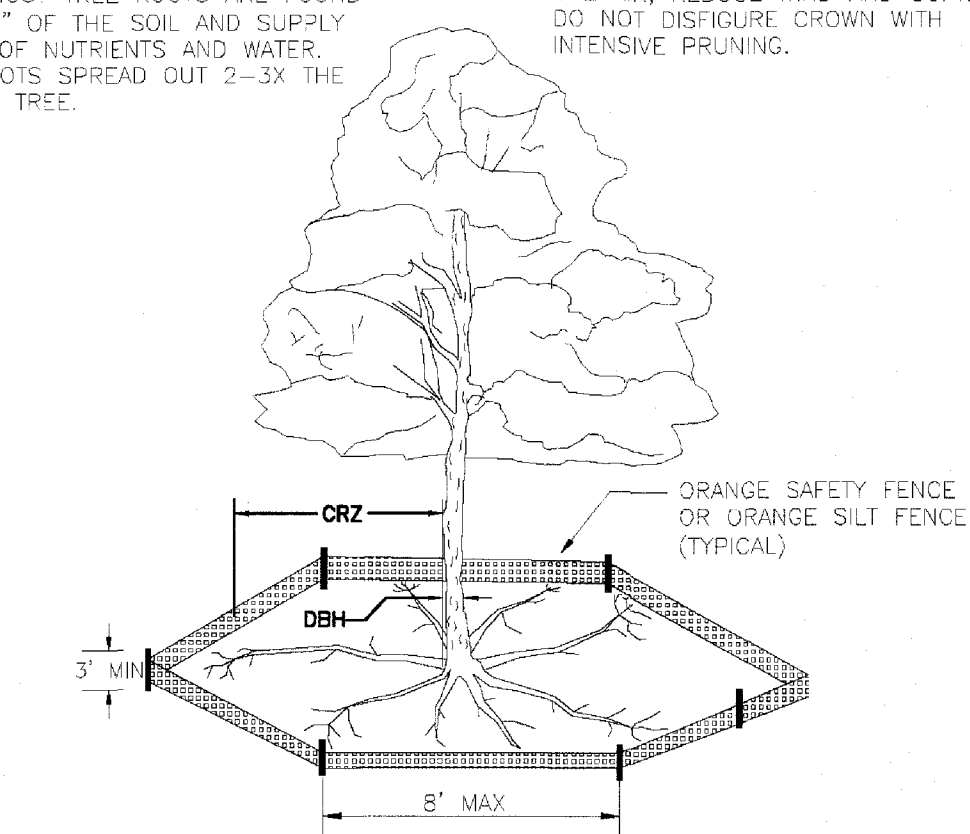
REGULATED TREES TO BE REMOVED:	
PINE	OAK
12" = 1	8" = 2
13" = 2	10" = 1
15" = 1	11" = 1
16" = 1	12" = 2
17" = 1	15" = 1
18" = 3	18" = 1

17 TREES TOTAL TO BE REMOVED ARE
 CONSIDERED AS NON ESSENTIAL FOR
 SITE IMPROVEMENT AND SHALL BE
 MITIGATED.



- NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
 2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
 4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
 5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
 6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.



- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
 5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
 6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

TREE PROTECTION DETAILS

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

NCDENR PWSS WATER PERMIT #: _____ GPD
 WATER CAPACITY: _____ GPD
 DWQ SEWER PERMIT #: _____ GPD
 SEWER CAPACITY: _____ GPD
 SEWER SHED # AND PLANT: _____
 SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

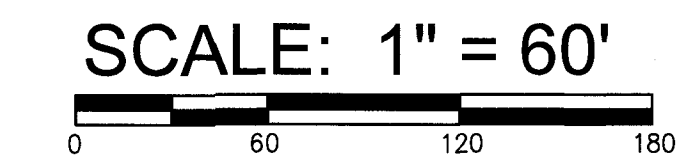
APPROVED STORMWATER MANAGEMENT PLAN

City of Wilmington, North Carolina
 Public Services • Engineering Division

Approved Construction Plan
 Name: _____ Date: _____

Planning _____
 Public Utilities _____
 Traffic _____
 Fire _____

Date: _____ Permit #: _____
 Signed: _____



REV.	DATE	DESCRIPTION	BY
RT	02.11.19		

REVISIONS
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TREE REMOVAL PLAN
LIVE OAK BANKING COMPANY 3/FITPARK
 1741 TIBURON DRIVE
 WILMINGTON, NORTH CAROLINA 28403

OWNER/DEVELOPER
 W. LEE WILLIAMS
 EXECUTIVE VICE PRESIDENT
 LIVE OAK BANKSHARES, INC.
 1741 TIBURON DRIVE
 WILMINGTON, NC 28403
 910-796-1647
 910-790-5868

NORRIS & TUNSTALL
 CONSULTING ENGINEERS P.C.

1429 ASH+LITTLE RIVER RD. NW
 ASHLI, NC 28420
 PHONE (910) 443-9653

902 MARKET STREET
 WILMINGTON, NC 28401
 PHONE (910) 443-9653

Licence #C-3641

16169

DES. JST
 CDR. JPN
 DRWN. NKS

DATE 1/3/18

WILMINGTON CITY ENGINEER
 J. CARROLL
 DEAL
 19851
 NORRIS & TUNSTALL

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