CHARLOTTE. http://development.charmeck.org

FINAL APPROVAL

SDRSF-2015-00001

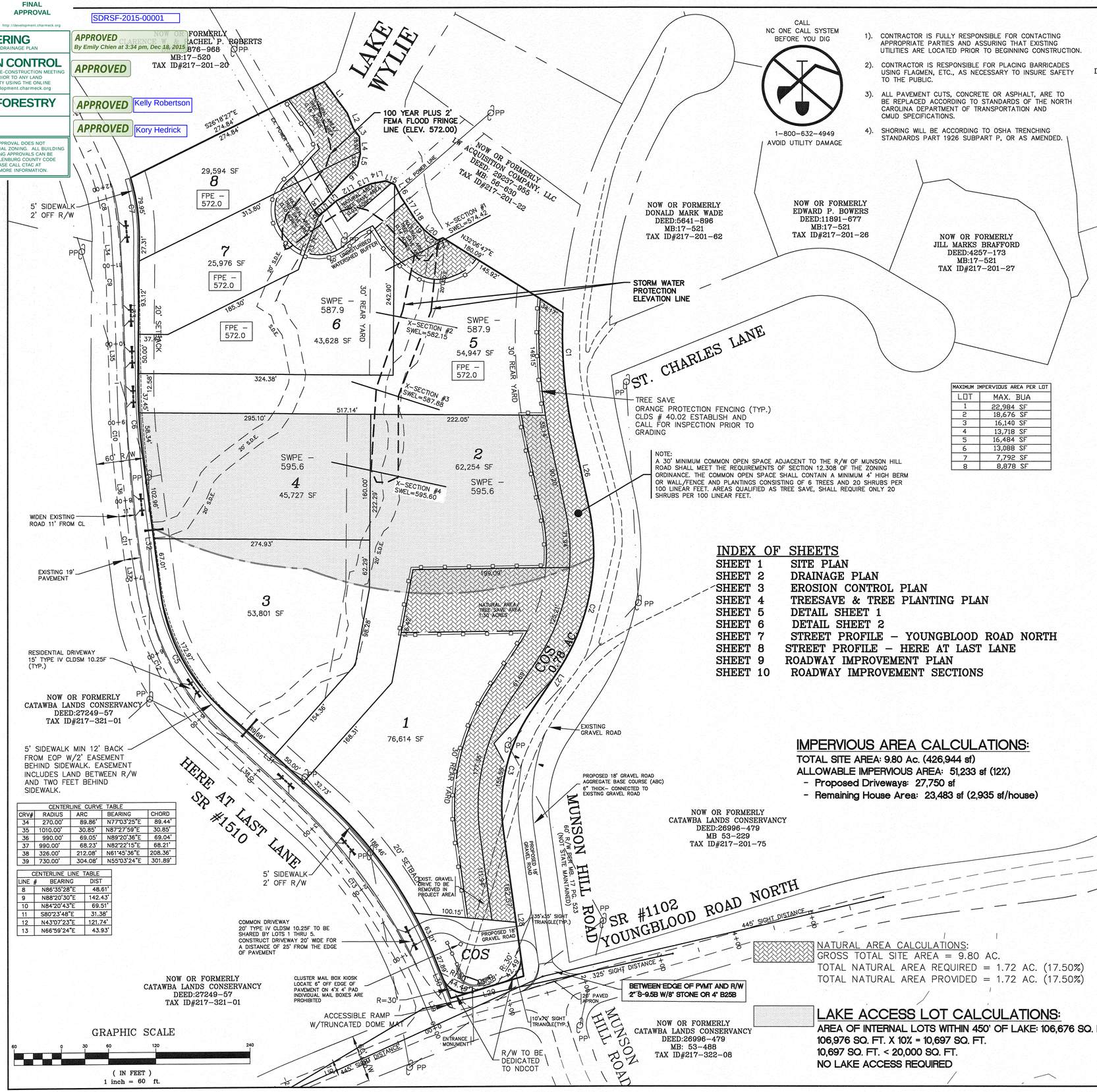
ENGINEERING — PCO / DETENTION / DRAINAGE PLAN — APPROVED By Emily Chien at 3:34 pm, Dec 18, 2015

EROSION CONTROL — NOTE: SCHEDULE PRE-CONSTRUCTION MEETING AT LEAST 48 HRS. PRIOR TO ANY LAND DISTURBING ACTIVITY USING THE ONLINE FORM AT http://development.charmeck.org — APPROVED

URBAN FORESTRY — TREE ORDINANCE — APPROVED Kelly Robertson

CDOT — APPROVED Kory Hedrick

NOTE: THIS PLAN APPROVAL DOES NOT INCLUDE COMMERCIAL ZONING. ALL BUILDING PERMITS AND ZONING APPROVALS CAN BE OBTAINED AT MECKLENBURG COUNTY CODE ENFORCEMENT. PLEASE CALL CTAC AT 704-336-3829 FOR MORE INFORMATION.



CALL NC ONE CALL SYSTEM BEFORE YOU DIG

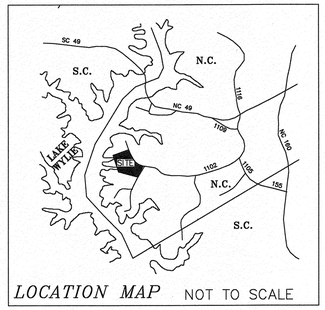
1-800-632-4949 AVOID UTILITY DAMAGE

1). CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.

2). CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.

3). ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND CMUD SPECIFICATIONS.

4). SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.



LOCATION MAP NOT TO SCALE

LINE TABLE		
LINE	LENGTH	BEARING
L1	49.40'	S53°41'48"W
L2	21.37'	S68°01'33"W
L3	12.82'	S54°02'45"W
L4	22.14'	S86°48'15"W
L5	16.22'	N77°04'56"W
L6	27.78'	N44°31'28"W
L7	33.73'	N48°14'05"W
L8	16.60'	N40°28'07"W
L9	8.95'	S50°33'41"W
L10	12.18'	S37°44'39"E
L11	17.12'	S41°32'03"E
L12	30.75'	S28°02'04"E
L13	18.18'	S22°47'22"E
L14	19.38'	S10°43'40"E
L15	12.03'	S21°58'06"W
L16	18.59'	S63°13'22"W
L17	15.43'	S56°59'19"W
L18	17.01'	S57°58'50"W
L19	17.96'	S50°14'33"W
L20	14.63'	S39°58'45"W
L21	7.13'	S33°27'36"W
L22	7.56'	S22°15'38"E
L26	90.22'	S77°40'04"W
L27	61.59'	N56°03'10"W
L28	188.25'	S82°10'30"W
L29	96.64'	N16°38'45"W
L30	54.71'	S68°19'33"W
L31	172.28'	N41°45'15"E
L32	169.97'	S82°34'42"W
L33	183.01'	S89°32'03"E

APPROVED FOR CONSTRUCTION
CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT
By: Joshua Weaver 12-18-2015

MAXIMUM IMPERVIOUS AREA PER LOT	
LOT	MAX. BUA
1	22,984 SF
2	18,676 SF
3	16,140 SF
4	13,718 SF
5	16,484 SF
6	13,088 SF
7	7,792 SF
8	8,878 SF

NOTE:
A 30' MINIMUM COMMON OPEN SPACE ADJACENT TO THE R/W OF MUNSON HILL ROAD SHALL MEET THE REQUIREMENTS OF SECTION 12.308 OF THE ZONING ORDINANCE. THE COMMON OPEN SPACE SHALL CONTAIN A MINIMUM 4' HIGH BERM OR WALL/FENCE AND PLANTINGS CONSISTING OF 6 TREES AND 20 SHRUBS PER 100 LINEAR FEET. AREAS QUALIFIED AS TREE SAVE, SHALL REQUIRE ONLY 20 SHRUBS PER 100 LINEAR FEET.

INDEX OF SHEETS

SHEET 1 SITE PLAN
SHEET 2 DRAINAGE PLAN
SHEET 3 EROSION CONTROL PLAN
SHEET 4 TREESAVE & TREE PLANTING PLAN
SHEET 5 DETAIL SHEET 1
SHEET 6 DETAIL SHEET 2
SHEET 7 STREET PROFILE – YOUNGBLOOD ROAD NORTH
SHEET 8 STREET PROFILE – HERE AT LAST LANE
SHEET 9 ROADWAY IMPROVEMENT PLAN
SHEET 10 ROADWAY IMPROVEMENT SECTIONS

IMPERVIOUS AREA CALCULATIONS:

TOTAL SITE AREA: 9.80 Ac. (426,944 sf)
ALLOWABLE IMPERVIOUS AREA: 51,233 sf (12%)
- Proposed Driveways: 27,750 sf
- Remaining House Area: 23,483 sf (2,935 sf/house)

NATURAL AREA CALCULATIONS:
GROSS TOTAL SITE AREA = 9.80 AC.
TOTAL NATURAL AREA REQUIRED = 1.72 AC. (17.50%)
TOTAL NATURAL AREA PROVIDED = 1.72 AC. (17.50%)

LAKE ACCESS LOT CALCULATIONS:

AREA OF INTERNAL LOTS WITHIN 450' OF LAKE: 106,676 SQ. FT.
106,976 SQ. FT. X 10% = 10,697 SQ. FT.
10,697 SQ. FT. < 20,000 SQ. FT.
NO LAKE ACCESS REQUIRED

BOUNDARY CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD	BEARING	DELTA
C1	159.64'	611.30'	159.19'	N85°06'15"E	14°57'46'
C2	221.36'	274.47'	215.41'	N79°09'26"W	46°12'32'
C3	155.59'	215.55'	152.24'	S77°08'46"E	41°21'28'
C4	250.32'	538.49'	248.07'	S55°02'36"W	26°38'03'
C5	172.97'	238.69'	169.21'	N62°31'40"E	41°31'09'
C6	95.79'	698.23'	95.72'	N86°03'35"E	7°51'39'
C7	79.95'	261.20'	79.64'	S81°58'15"W	17°32'13'

CENTERLINE CURVE TABLE				
CRV#	RADIUS	ARC	BEARING	CHORD
34	270.00'	89.86'	N77°03'25"E	89.44'
35	1010.00'	30.85'	N87°27'59"E	30.85'
36	990.00'	69.05'	N89°20'36"E	69.04'
37	990.00'	68.23'	N82°22'15"E	68.21'
38	326.00'	212.08'	N61°45'36"E	208.36'
39	730.00'	304.08'	N55°03'24"E	301.89'

CENTERLINE LINE TABLE		
LINE #	BEARING	DIST
8	N86°35'28"E	48.61'
9	N88°20'30"E	142.43'
10	N84°20'43"E	69.51'
11	S80°23'48"E	31.38'
12	N43°07'23"E	121.74'
13	N66°59'24"E	43.93'

PCCO Summary	
Original Parcel ID Number(s):	217-201-74, 217-201-89
Development Type:	Single Family
Subject to PCCO? Y/N	Yes
If NO, why?:	
Watershed:	LOWER LAKE WYLIE CRITICAL AREA
Disturbed Area (ac.):	1.74
Site Area (ac.)	9.80
	DA/SI
Total on-site Drainage Area (ac.):	9.80
Existing Built-upon-area (SF):	0
Existing BUA to be removed (SF):	0
Existing BUA to remain (SF):	0
Proposed new BUA (SF):	12,294
Proposed % BUA:	12%
Density (High/Low)	LOW
Total Post-Project BUA for site:	12,294 SF
Development of Redevelopment?	Development
Natural Area Required (ac.):	1.72 Ac.(17.50%)
Natural Area Provided, total (ac.):	1.72 Ac.(17.50%)
Undisturbed Treed Natural Area Preserved(ac)	1.72 ac.
Total Stream Buffer protected on-site (ac.):	N/A
Transit Station Area? Y/N	No
Distressed Business District? Y/N	No
Mitigation Type (if applicable)	N/A
Natural Area Mitigation? Y/N	No
Buffer Mitigation? Y/N	No
Total Phosphorous Mitigation? Y/N	No

GENERAL NOTES

A PRELIMINARY PLAN APPROVED UNDER THE PROVISIONS OF THE SUBDIVISION ORDINANCE WILL BE VALID FOR A PERIOD OF THREE YEARS. FOR SUCH APPROVAL TO REMAIN VALID BEYOND THREE, WORK ON THE SITE IN FURTHERANCE OF THE PLAN IS REQUIRED.

THE OWNER WISHES TO SAVE CERTAIN TREES ON THE SITE. PLACE TREE BARRICADES AS SHOWN ON THE PLAN OR AS SPECIFIED BY THE OWNER BEFORE CONSTRUCTION ACTIVITY BEGINS.

THE DEVELOPER SHALL MAINTAIN THE STREAMBED OF EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.

SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT OF WAY IF DEEMED NECESSARY BY THE INSPECTOR.

THE DEVELOPER SHALL CONTACT THE CHARLOTTE DEPARTMENT OF TRANSPORTATION, GUS JORDI (704-336-7080) TO IDENTIFY ANY CONFLICTS WITH TRAFFIC SIGNALIZATION EQUIPMENT. 60-90 DAYS WILL BE REQUIRED TO COORDINATE RELOCATION. DEVELOPER SHALL BE RESPONSIBLE FOR ALL RELATED RELOCATION COSTS AND/OR ANY REPAIR COST CAUSED BY THE CONTRACTOR/DEVELOPER.

APPROVAL OF THIS PLAN IS NOT AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFFSITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNER.

ALL PUBLIC STREETS WITHIN THE DEVELOPMENT WILL BE CONSTRUCTED TO NCDOT/CITY OF CHARLOTTE STANDARDS IN ORDER TO BE DEDICATED PUBLIC ROADWAYS.

ALL STORM PIPE TO BE CLASS III RCP UNLESS OTHERWISE NOTED.

"AS-BUILT" DRAWINGS AND PLANS OF THE STORM DRAINAGE SYSTEM, INCLUDING DESIGN DITCHES, MUST BE SUBMITTED PRIOR TO SUBDIVISION FINAL INSPECTION TO THE CITY/COUNTY ENGINEERING DEPARTMENT IN ACCORDANCE WITH THE CITY/COUNTY SUBDIVISION ORDINANCE.

PRIOR TO PLAT RECORDATION, OFFSITE R/W AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFFSITE R/W ACQUISITION PROCESS". THESE NEED R/W AND CONSTRUCTION LIMITS ARE CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.

IN ROLLING AND HILLY TERRAINS, SWEEPING OF STONE BASE AND/OR APPLICATION OF A TACK COAT MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE INSPECTOR BASED ON FIELD CONDITIONS.

ALL CONSTRUCTION SHALL CONFORM TO CITY OF CHARLOTTE STANDARDS. IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.50% SLOPE ON CURB.

NON-STANDARD ITEMS (i.e. PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT OF WAY REQUIRES A "RIGHT OF WAY ENCROACHMENT AGREEMENT" WITH THE CHARLOTTE DEPARTMENT OF TRANSPORTATION/ NORTH CAROLINA DEPARTMENT OF TRANSPORTATION) BEFORE INSTALLATION.

COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR.

CURB AND GUTTER SHOWN ON PLANS MAY BE ADJUSTED BASED UPON FIELD STAKING BY CITY ENGINEERING. ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.

DEVELOPER WILL PROVIDE STREET SIGNS PER CLDS 50.05 (9" SIGNS ONLY).

SIGHT TRIANGLES SHOWN ARE THE MINIMUM REQUIRED. FURTHER REQUIREMENTS MAY BE MADE BY THE CHARLOTTE DEPARTMENT OF TRANSPORTATION IN ACCORDANCE WITH CITY CODE.

ALL ROAD IMPROVEMENTS TO HERE AT LAST LANE ARE TO BE COORDINATED WITH THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT AND NCDOT PRIOR TO CONSTRUCTION.

SLOPES SHALL BE GRADED NO STEEPER THAN 2:1.

C.O.S. – COMMON OPEN SPACE

ALL BACK OF CURB AND R/W RADIUS DIMENSIONS ARE 25' UNLESS SHOWN OTHERWISE.

COMMON OPEN SPACE TO BE MAINTAINED BY THE OAKS HOMEOWNERS ASSOCIATION.

SIDEWALKS ARE TO MEET ALL A.D.A. REQUIREMENTS FOR SLOPE AND SPACING BETWEEN TURNAROUND AREA.

BEGIN CONSTRUCTION IN 2014. APPROXIMATELY 3 YEARS TO FULL BUILD OUT.

ALL RIGHT-OF-WAY AND CURB TAPERS ARE 20:1 UNLESS OTHERWISE NOTED.

ALL ON SITE TOPOGRAPHY IS FROM MECKLENBURG COUNTY GIS.

ACCESSIBLE RAMPS SHALL BE INSTALLED AT ALL INTERSECTIONS PER CLDS #10.31 THRU 10.35.

WATER AND SANITARY SEWER SERVICE WILL BE PROVIDED BY CHARLOTTE MECKLENBURG UTILITIES.

THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE. BUILDINGS ARE NOT PERMITTED IN THE EASEMENT AREA. ANY OTHER OBJECTS WHICH IMPEDE STORM WATER FLOW OR SYSTEM MAINTENANCE ARE ALSO PROHIBITED.

HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINAGE PIPE INSTALLED WITHIN EXISTING OR PROPOSED PUBLIC STREET RIGHT-OF-WAY MUST BE APPROVED BY THE CITY'S INSPECTOR PRIOR TO ANY BACKFILL BEING PLACED. BACKFILL MATERIAL MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF THE MATERIAL WITHIN THE PUBLIC STREET RIGHT-OF-WAY.

ALL OPENINGS (E.G., DOORS, WINDOWS, VENTS) IN STRUCTURES BUILT ON LOTS ADJACENT TO THE 100+1 STORMEWATER ELEVATION LINE SHOULD BE LOCATED A MINIMUM OF ONE FOOT ABOVE THE ADJACENT FINISHED GROUND SURFACE. (APPLIES TO LOTS WHICH MAY EXPERIENCE SIGNIFICANT OVERLAND FLOW NOT CONSIDERED IN THE 100+1 FLOOD ANALYSIS.)

CERTIFICATION AND STREET CUT PERMITS ARE REQUIRED FOR UTILITY CUTS ON CITY STREETS. ALLOW 7 DAYS PROCESSING FOR PERMIT. FOR INFORMATION CONTACT CHARLOTTE DEPARTMENT OF TRANSPORTATION (704-336-4025) OR VISIT:
http://www.charmeck.org/Departments/Transportation/Street+Maintenance/Home.htm

NCDOT WILL NOT MAINTAIN STORM DRAINAGE PIPES OUTSIDE OF THE ROAD RIGHT-OF-WAY

NO DEMOLITION LANDFILLS WILL BE CONSTRUCTED ON THIS SITE

ANY BUILDING WITHIN THE 100+1' STORMWATER ELEVATION LINE IS SUBJECT TO THE RESTRICTIONS OF THE (CITY OF CHARLOTTE/ MECKLENBURG COUNTY) SUBDIVISION ORDINANCE, SECTION 7.200.8.

ANY CONSTRUCTION OR USE WITHIN THE FUTURE CONDITIONS FLOOD FRINGE LINE IS SUBJECT THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE CITY OF CHARLOTTE AND MECKLENBURG COUNTY.

PE SEALED SHOP DRAWINGS FOR RETAINING WALLS MUST BE SUBMITTED TO CITY ENGINEER PRIOR TO CONSTRUCTION OF RETAINING WALLS.

PER SECTION 18-175(a) OF CITY CODE AND SECTION 10.0 OF THE CITY'S POST CONSTRUCTION CONTROLS ADMINISTRATIVE MANUAL, ALL REQUIRED NATURAL AREAS AND/ OR POST CONSTRUCTION CONTROLS EASEMENTS (PCCE's) MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

DEVELOPMENT DATA

TAX PARCEL NO.: 217-201-74, 217-201-89
ZONING: R-5 WITH TREE INCENTIVES, LOWER LAKE WYLIE WATERSHED CRITICAL AREA

TOTAL SITE AREA: 9.80 AC.
TOTAL LOTS: 8 LOTS
DENSITY: 8 LOTS/9.80 AC. = 0.81 LOTS/ACRE
COMMON OPEN SPACE: 0.78 AC. (7.95%)
TREESAVE AREA PROVIDED: 1.72 AC. (17.50%)

LOT DATA
MIN. LOT AREA: 6,000 s.f.
MIN. LOT WIDTH: 50'
MIN. FRONT SETBACK: 20
MIN. SIDEYARD: 5'
MIN. SIDEYARD CORNER LOT: 10'
MIN. REARYARD INTERNAL: 30'
MIN REAR YARD EXTERNAL: 35'

NOTE: MAXIMUM BUILDING COVERAGE SHALL BE IN ACCORDANCE WITH TABLE 9.205(1)(I) OF THE ZONING ORDINANCE.

MAX BUILDING COVERAGE PER LOT
UP TO 4,000 SF LOT = 50%
4,001 – 6,500 SF LOT = 45%
6,501 – 8,500 SF LOT = 40%
8,501 – 15,000 SF LOT = 35%
15,001 OR GREATER SF LOT = 30%

THIS PLAN IS A **FINAL DESIGN-NOT RELEASED FOR CONSTRUCTION**
UNLESS INITIALLED/DATED AS APPROVED:
APPROVED: _____ / 10/20/15
INITIALS DATE

BEARINGS BASED ON MB: 25-276 RECORDED DECEMBER 23, 1992

SEAL 14906 ENGINEER MARK ANTHONY HOULE NORTH CAROLINA PROFESSIONAL ENGINEER
10/20/15

NO.	DATE	REVISION	BY
3	10/20/15	REVISED LOTS FROM 12 TO 8	BTG
2	7/2/15	REVISED PER CITY OF CHARLOTTE COMMENTS	WKD
1	5/17/15	REVISED PER CITY OF CHARLOTTE COMMENTS	WKD

SHEET TITLE
SITE PLAN

PROJECT
RIVERS EDGE
STEEL CREEK TWSP, MECK. CO., N.C.(CHARLOTTE ETJ)
FOR: RIVERS EDGE OF LAKE WYLIE, LLC

YARBROUGH-WILLIAMS & HOULE, INC.
Planning ○ Surveying ○ Engineering
730 Windsor Oak Court (28273) P.O. Box 7007 (28241)
Charlotte, North Carolina
704.556.1990 704.556.0505(fax)
NC Corporate Registration #C-0475

PROJECT NO.
SCALE 1"=60'
DATE 12/12/14
DRAWN BY BTG
CHECKED BY MAH
DRAWING NO. 208-98
SHT 1 OF 10 SHTS

P:\MAYES\THE OAKS\CONSTRUCTION\SHEETS\-08245.dwg, 10/23/2015 9:26:59 AM