

Preliminary Subdivision Plan Application



**DEVELOPMENT
SERVICES
DEPARTMENT**

Development Services Customer Service Center | 1 Exchange Plaza, Suite 400 | Raleigh, NC 27601 | 919-996-2495 | efax 919-996-1831
Litchford Satellite Office | 8320 - 130 Litchford Road | Raleigh, NC 27601 | 919-996-4200

When submitting plans, please check the appropriate review type and include the Plan Checklist document.

Office Use Only: Transaction # 575605 Project Coordinator		Team Leader M. Ke Walters	
PRELIMINARY APPROVALS			
<input type="checkbox"/> Subdivision *	<input checked="" type="checkbox"/> Conventional Subdivision	<input type="checkbox"/> Compact Development	<input type="checkbox"/> Conservative Subdivision
*May require City Council approval if in a Metro Park Overlay or Historic Overlay District			
If your project has been through the Due Diligence process, provide the transaction #:			
GENERAL INFORMATION			
Development Name Trailwood Subdivision			
Proposed Use Residential			
Property Address(es) 1000 and 1100 Trailwood Drive, Raleigh, NC			
Wake County Property Identification Number(s) for each parcel to which these guidelines will apply:			
PIN Recorded Deed 0793.13-13-4771	PIN Recorded Deed 0793.13-14-4260	PIN Recorded Deed	PIN Recorded Deed
What is your project type?			
<input checked="" type="checkbox"/> Single family	<input type="checkbox"/> Townhouse	<input type="checkbox"/> Subdivision in a non-residential zoning district	
<input type="checkbox"/> Other (describe):			
OWNER/DEVELOPER INFORMATION			
Company Name Mangrum Building, LLC		Owner/Developer Name Mark Mangrum	
Address 412- B East Williams Street, Apex, NC			
Phone 919-868-3114	Email radams@mangrumbuilding.com	Fax	
CONSULTANT/CONTACT PERSON FOR PLANS			
Company Name The Nau Company		Contact Name David Arnold, PE	
Address P.O. Box 810, Rolesville, NC 27571			
Phone 919.630.2552	Email darnold@thenauco.com	Fax	

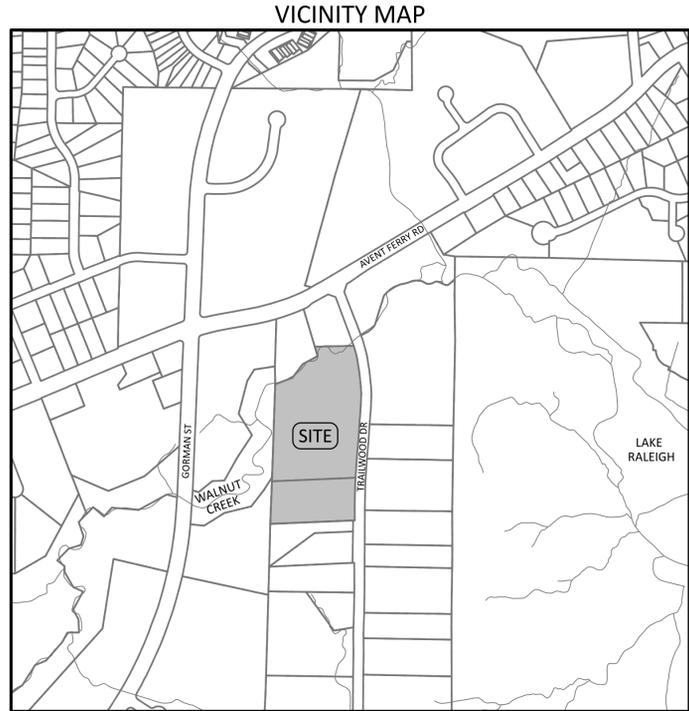
TRAILWOOD

PRELIMINARY SUBDIVISION PLAN REVISION

S-65-16
TRANSACTION #490139

RALEIGH, NORTH CAROLINA

OCTOBER 30, 2018



SCALE: 1' = 500'

SHEET INDEX		
SHEET NO.	SHEET NAME	MOST CURRENT REVISION DATE
C1.0	EXISTING CONDITIONS PLAN	10/30/2018
C2.0	SUBDIVISION PLAN	10/30/2018
C3.0	GRADING AND DRAINAGE PLAN	10/30/2018
C4.0	UTILITY PLAN	10/30/2018
LA1.0	LANDSCAPE AND PLANTING PLAN	10/30/2018
TC1.0	TREE CONSERVATION PLAN	10/30/2018

COMMITTED ELEMENTS

- SIDEWALKS SHALL BE PROVIDED ALONG BOTH SIDES OF ALL PUBLIC STREETS.
- A FOOTPATH OR SIMILAR FACILITY SHALL BE PROVIDED FROM THE PUBLIC RESIDENTIAL STREET R/W TO THE WALNUT CREEK GREENWAY TRAIL. THE FOOTPATH SHALL BE ACCESSIBLE TO THE PUBLIC.
- ALL THE BUILDINGS SHALL BE LIMITED TO NO MORE THAN TWO FLOORS AND FORTY FEET IN HEIGHT - ROOF AREAS/DECKS BASEMENTS AND CRAWL SPACES SHALL NOT BE COUNTED TOWARD THIS MEASUREMENT.
- NO VINYL SIDING SHALL BE ALLOWED.
- HVAC EQUIPMENT, UTILITY METERS, TRANSFORMERS, GENERATORS AND SIMILAR EQUIPMENT SHALL BE SCREENED FROM VIEW WITH PLANT MATERIAL OR ARCHITECTURAL SCREEN - MATERIALS SHALL BE COMPATIBLE TO PRINCIPLE BUILDING. THIS TYPE OF EQUIPMENT SHALL NOT BE LOCATED BETWEEN THE FRONT WALL OF ANY BUILDING AND A PUBLIC OR PRIVATE STREET.
- NO PRESSURE TREATED SOUTHERN YELLOW PINE RAILINGS OR HAND RAILS SHALL BE PERMITTED ON ANY BUILDING.
- NO "WALL PACK" TYPE LIGHT FIXTURE SHALL BE PERMITTED ON ANY BUILDING OR STRUCTURE.
- THE STORAGE PLACE FOR TRASH RECEPTACLES, ROLL-OUT CARTS OR CANS SHALL BE SCREENED FROM THE PUBLIC R/W OR ANY OFF-SITE VIEW.
- RESIDENTIAL DENSITY SHALL BE LIMITED TO NO MORE THAN TWELVE SINGLE FAMILY DETACHED DWELLING UNITS WITH A DEFINITION THAT CONSTITUTES A FAMILY TO BE NO MORE THAN THREE UNRELATED INDIVIDUALS.
- LOTS SHALL BE A MINIMUM OF 5,000 SF IN AREA.
- PRIOR TO CONSTRUCTION, HOA DOCUMENTS SHALL BE RECORDED THAT REQUIRE OWNER OCCUPANCY WITH A "SABBATICAL" PROVISION THAT SHALL ALLOW RENTAL FOR NO MORE THAN 12 CONSECUTIVE MONTHS. A DWELLING IN THE DEVELOPMENT MAY REMAIN VACANT INDEFINITELY SO LONG AS IT IS NOT RENTED.
- PRIOR TO ANY CONSTRUCTION AND/OR LOT RECORDED, WHICHEVER OCCURS FIRST, ALL REMAINING LAND OUTSIDE OF SINGLE FAMILY LOTS AND PUBLIC R/W DEDICATION SHALL BE DESIGNATED BY DEED AS COMMON OPEN SPACE FOR THE USE OF THE HOA AND/OR OTHER ENTITY (I.E. CONSERVATION EASEMENT) AS MAY BE DETERMINED BY THE OWNER.
- NINE OF THE TWELVE DWELLING UNITS SHALL BE A MINIMUM OF 1,800 SF IN AREA (GROSS).
- PRIOR TO ANY DEVELOPMENT, RECORDED EASEMENTS AND DEDICATIONS REQUESTED BY THE CITY OF RALEIGH SHALL BE RECORDED AT THE WAKE COUNTY REGISTER OF DEEDS.
- NO MORE THAN ONE (1) VEHICULAR ACCESS POINT SHALL BE ALLOWED FROM TRAILWOOD DRIVE. THE ROAD SHALL BE DESIGNED TO MINIMIZE GRADING IMPACT FOR THE ROAD AND UTILITIES.
- NO PUBLIC STREET (EXCEPT TO ALLOW FOR FUTURE IMPROVEMENTS TO TRAILWOOD DRIVE) SHALL BE BUILT WITHIN THE FLOODPLAIN OF WALNUT CREEK.
- A 10'x20' TRANSIT EASEMENT SHALL BE PROVIDED TO THE CITY OF RALEIGH ALONG TRAILWOOD DRIVE PRIOR TO ANY LOT RECORDED OR PERMIT ISSUANCE, WHICHEVER SHALL OCCUR FIRST.
- A 50' AVERAGE NATURAL PROTECTIVE YARD WITH RANGE OF 25' MINIMUM, TO 100' MAXIMUM SHALL BE PROVIDED ALONG TRAILWOOD DRIVE.
- BUILDING SETBACKS; EACH HOME WILL BE SITED WITH REGARDS TO ENVIRONMENTAL CRITERIA (TREES AND SLOPES) AND HOW IT WOULD RELATE TO ITS NEIGHBORS. IN NO EVENT SHALL THE SETBACKS BE LESS THAN THE FOLLOWING: (A) NO SINGLE FAMILY HOME SHALL BE LOCATED CLOSER THAN 30' FROM THE SOUTHERN BOUNDARY OF THE PROPERTY ADJOINING WAKE COUNTY PIN 0793134465 (B) FRONT SETBACKS SHALL BE 10' MINIMUM (C) REAR SETBACKS SHALL BE 20' MINIMUM; EXCEPT AS NOTED IN ITEM (A) ABOVE. (D) SIDE SETBACKS SHALL BE 0' MINIMUM, WITH A 10' AGGREGATE YARD.
- SITE LIGHTING, EXCEPT PUBLIC R/W STREET LIGHTING, SHALL NOT EXCEED 12' IN HEIGHT. ALL EXTERIOR LIGHTING SHALL BE CUT-OFF TYPE FIXTURE, AND SHALL BE AIMED AND/OR ORIENTED TO MINIMIZE GLARE OBSERVED FROM OFF-SITE PROPERTIES AND PUBLIC R/W. UPON ACCEPTANCE BY AND APPROVAL BY THE CITY OF RALEIGH AND/OR NCDOT, STREET YARD REQUIREMENTS MAY BE PROVIDED WITHIN THE PUBLIC R/W.
- MASTER PLAN 03-05, CR 10951, TRAILWOOD MASTER PLAN

Preliminary Subdivision Plan Application

Development Services Customer Service Center | 1 Backlog Plaza, Suite 400 | Raleigh, NC 27601 | 919-996-2495 (ext. 919-996-1831)
Landscape Satellite Office | 1325 - 137 Lenoir Road | Raleigh, NC 27601 | 919-996-4208

When submitting plans, please check the appropriate review type and include the Plan Checklist document.

Office Use Only: Transaction # _____ Project Coordinator _____ Team Leader _____

PRELIMINARY APPROVALS

Subdivision * Conventional Subdivision Compact Development Conservative Subdivision

*May require City Council approval if in a Metro Park Overlay or Historic Overlay District

If your project has been through the Due Diligence process, provide the transaction #: _____

GENERAL INFORMATION

Development Name: Trailwood Subdivision

Proposed Use: Residential

Property Address(es): 1000 and 1100 Trailwood Drive, Raleigh, NC

Wake County Property Identification Number(s) for each parcel to which these guidelines will apply:

PIN Recorded Deed 0793-13-14-077	PIN Recorded Deed 0793-13-14-080	PIN Recorded Deed _____	PIN Recorded Deed _____
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What is your project type?

Single family Townhouse Subdivision in a non-residential zoning district

Other (describe): _____

OWNER/DEVELOPER INFORMATION

Company Name: Mangrum Building, LLC Owner/Developer Name: Mark Mangrum

Address: 412- B East Williams Street, Apex, NC

Phone: 919-868-3114 Email: radams@mangrumbuilding.com Fax _____

CONSULTANT/CONTACT PERSON FOR PLANS

Company Name: The Nau Company Contact Name: David Arnold, PE

Address: P.O. Box 810, Rolesville, NC 27571

Phone: 919-630-2552 Email: darnold@thenauco.com Fax _____

PAGE 1 OF 3 WWW.RALEIGHNC.GOV REVISION 03.11.16

DEVELOPMENT TYPE AND SITE DATE TABLE (Applicable to all developments)

ZONING INFORMATION

Zoning District(s): PD

If more than one district, provide the acreage of each: 10,834 ac

Overlay District? Yes No

Inside City Limits? Yes No

CUD (Conditional Use District) Case #: S-65-05

COA (Certificate of Appropriateness) Case #: _____

BOA (Board of Adjustment) Case #: A- _____

STORMWATER INFORMATION

Existing Impervious Surface: 0 acres/sf Flood Hazard Area: Yes No

Proposed Impervious Surface: TBD acres/sf Newer River Buffer: Yes No

Wetlands: Yes No

If in a Flood Hazard Area, provide the following:

Allowable Soils: _____ Flood Study: FEMA Map Panel #: 3720079300J

NUMBER OF LOTS AND DENSITY

Total # of Townhouse Lots: Detached _____ Attached _____

Total # of Single Family Lots: 12 Total # of All Lots: 12

Overall Units/Acre Densities Per Zoning District: 1.11 units/acre

Total # of Open Space and/or Common Area Lots: 1

SIGNATURE BLOCK (Applicable to all developments)

In filing this plan as the property owner(s), I/we do hereby agree and firmly bind ourselves, my/our heirs, executors, administrators, successors and assigns jointly and severally to construct all improvements and make all dedications as shown on this proposed subdivision plan as approved by the City.

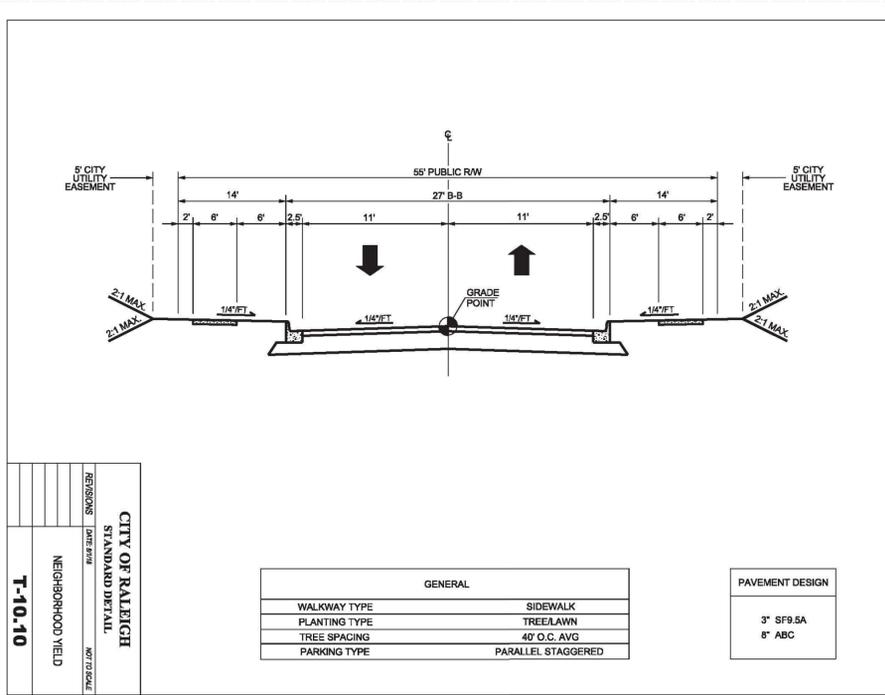
I hereby designate: David Arnold, PE to serve as my agent regarding this application, to receive and respond to administrative comments, to resubmit plans on my behalf, and to represent me in any public meeting regarding this application.

I have had read, acknowledge, and affirm that this project is conforming to all application requirements applicable with the proposed development use.

Signature: Mark Mangrum Date: 10/29/18

Signature: _____ Date: _____

PAGE 2 OF 3 WWW.RALEIGHNC.GOV REVISION 03.11.16



CLIENT/OWNER

MANGRUM BUILDING, LLC
ATTN: MR. RONNIE ADAMS
412-A EAST WILLIAMS ST
APEX, NC 27502
919-868-3114

PROJECT NOTES

- ALL OFF-SITE EASEMENTS SHALL BE ACQUIRED BY THE DEVELOPER. THESE OFF-SITE EASEMENTS SHALL BE RECORDED BY MAP AND BY DEED OF EASEMENT PRIOR TO CONSTRUCTION APPROVAL. THE EASEMENTS SHALL BE DEDICATED TO THE CITY OF RALEIGH AND ENTITLED CITY OF RALEIGH SANITARY SEWER EASEMENT.
- ALL PERMANENT EASEMENTS SHALL BE GRADED AND SMOOTH TO ALLOW SUFFICIENT ACCESS AND USE FOR MOWING EQUIPMENT AND MAINTENANCE VEHICLES PRIOR TO ACCEPTANCE BY THE CITY. TYPICALLY A MINIMUM OF 3:1 SLOPE WILL BE REQUIRED.
- DEVELOPER/OWNER IS RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF THE GREENWAY TRAIL CONNECTION, HOA TO TAKE OVER MAINTENANCE.
- CITY TRAIL SPECIFICATIONS SHALL APPLY TO CONNECTION TRAIL CONSTRUCTION.
- ANY IMPACTS TO THE GREENWAY EASEMENT DURING CONSTRUCTION OF THE CONNECTION SHOULD BE FIRST REVIEWED AND APPROVED BY CITY OF RALEIGH GREENWAY STAFF - LISA POTTIS (919) 996-4785, lisa.pottis@raleighnc.gov AND TJ MCCOURT (919) 996-6079, thomas.mccourt@raleighnc.gov
- EXISTING BIKE PATH REPAIR AS NECESSARY. ANY POTENTIAL DAMAGE AND/OR REPAIRS TO THE TRAIL SHOULD BE FIRST REVIEWED AND APPROVED BY CITY STAFF.
- NO CLEARING OR GRADING IS PERMITTED IN THE GREENWAY EASEMENT BEYOND THAT WHICH IS NECESSARY FOR TRAIL CONSTRUCTION.
- IMPROVEMENTS TO TRAILWOOD DRIVE WOULD BE REPAIRED AT THE 8TH OCCUPANCY OR 75% OF DEVELOPMENT UNLESS NCDOT REQUIRES DIFFERENT SCHEDULING.

SPECIAL CONDITIONS OF APPROVAL

- ALL SIZES, MATERIALS, SLOPES, GEOMETRY, LOCATIONS, EVALUATIONS, EXTENSIONS AND DEPTHS FOR ALL EXISTING AND PROPOSED STREETS AND UTILITIES (WATERLINES, SANITARY SEWER LINES AND STORM DRAINAGE CONVEYANCE SYSTEMS) SHALL BE DESIGNED TO THE SPECIFICATIONS SET FORTH IN THE DESIGN CRITERIA AND STANDARDS OF THE PUBLIC WORKS DEPARTMENT AND BE SUBJECT TO REVIEW AND APPROVAL BY THE PUBLIC WORKS DEPARTMENT AT CONSTRUCTION DRAWINGS SUBMITTAL.
- THE DEVELOPER IS RESPONSIBLE FOR FABRICATION AND INSTALLATION OF ALL REQUIRED SIGNS AND PAVEMENT MARKINGS WITHIN THE PUBLIC R/W. THE DEVELOPER SHALL SUBMIT A SIGNING AND MARKINGS PLAN TO THE CITY AT CONSTRUCTION PLAN STAGE FOR REVIEW AND APPROVAL. ALL SIGNS AND PAVEMENT MARKINGS, SHOWN ON THE CONSTRUCTION PLANS, MUST BE IN PLACE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY AND/OR STREET ACCEPTANCE, AS DETERMINED BY THE CITY.
- WATER AND SEWER PERMITS ARE REQUIRED FOR THIS PROJECT.
- NCDOT DRIVEWAY PERMIT IS REQUIRED. THE CITY OF RALEIGH WILL ENDORSE THE PERMIT REQUEST AFTER PRELIMINARY APPROVAL AND PRIOR TO SUBMITTAL TO NCDOT.
- RIGHT-OF-WAY AND EASEMENT DEDICATION SHALL BE RECORDED PRIOR TO ANY BUILDING PERMITS.
- PROVIDE BUS SHELTER WITH CONCRETE PAD ON TRAILWOOD DRIVE. DESIGN SPECIFICATIONS AND EXACT LOCATION TO BE REVIEWED AND APPROVED BY DATA PRIOR TO CONSTRUCTION.
- A FEE-IN-LIEU OF CONSTRUCTION IS REQUIRED FOR 1/2 OF THE 53' BACK TO BACK CURB AND GUTTER SECTION AND 1/2 OF 5' SIDEWALK ALONG THE PROPERTY FRONTAGE OF TRAILWOOD DRIVE. THE FEE-IN-LIEU WILL NOT BE REQUIRED WHERE THE ULTIMATE SECTION HAS BEEN CONSTRUCTED WITH THIS PLAN. A SURETY FOR INCOMPLETE PUBLIC IMPROVEMENTS IS TO BE PAID AND AGREEMENT APPROVED PRIOR TO MAP RECORDED.
- ALL STREETS ON THESE PLANS SHALL HAVE THE FULL WIDTH OF R/W CLEARED AND GRADED WITH 50' OF ALL INTERSECTIONS. THE FULL WIDTH OF THE R/W SHALL BE CLEARED AND GRADED ALONG ALL MAJOR, MINOR AND SENSITIVE AREA THROUGHFARES.

The Nau Company
Consulting Civil Engineers

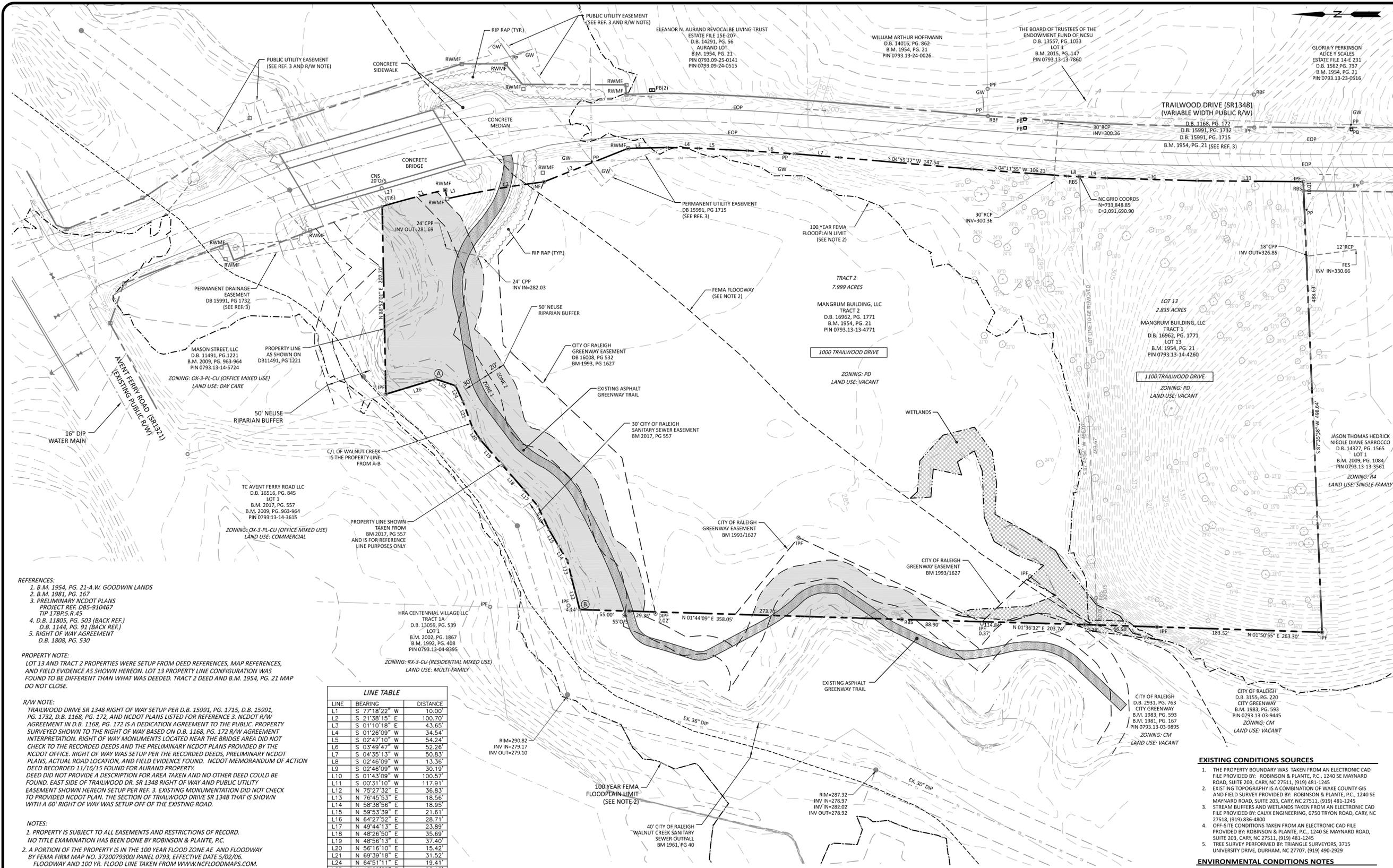
PO Box 810 | Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

CLIENT:
 MANGRUM BUILDING
 412-A EAST WILLIAMS ST
 APEX, NC 27502
 919-866-3114

**TRAILWOOD SUBDIVISION
 PRELIMINARY SUBDIVISION PLAN REVISION**
 RALEIGH, NORTH CAROLINA
EXISTING CONDITIONS PLAN

PROJECT NO: 10-30-2018
 DESIGN BY: JDA
 DRAWN BY: RSF
 SCALE: 1"=50'
 DATE: 2018-10-30
 SHEET NO: **C1.0**



- REFERENCES:**
1. B.M. 1954, PG. 21-A.W. GOODWIN LANS
 2. B.M. 1981, PG. 167
 3. PRELIMINARY NCDOT PLANS
 PROJECT REF: DB5-910467
 TIP 17895.7-4.5
 4. D.B. 11805, PG. 503 (BACK REF.)
 D.B. 1144, PG. 91 (BACK REF.)
 5. RIGHT OF WAY AGREEMENT
 D.B. 1808, PG. 530

PROPERTY NOTE:
 LOT 13 AND TRACT 2 PROPERTIES WERE SETUP FROM DEED REFERENCES, MAP REFERENCES, AND FIELD EVIDENCE AS SHOWN HEREON. LOT 13 PROPERTY LINE CONFIGURATION WAS FOUND TO BE DIFFERENT THAN WHAT WAS DEEDED. TRACT 2 DEED AND B.M. 1954, PG. 21 MAP DO NOT CLOSE.

R/W NOTE:
 TRAILWOOD DRIVE SR 1348 RIGHT OF WAY SETUP PER D.B. 15991, PG. 1715, D.B. 15991, PG. 1732, D.B. 1168, PG. 172, AND NCDOT PLANS LISTED FOR REFERENCE 3. NCDOT R/W AGREEMENT IN D.B. 1168, PG. 172 IS A DEDICATION AGREEMENT TO THE PUBLIC. PROPERTY SURVEYED SHOWN TO THE RIGHT OF WAY BASED ON D.B. 1168, PG. 172 R/W AGREEMENT INTERPRETATION. RIGHT OF WAY MONUMENTS LOCATED NEAR THE BRIDGE AREA DID NOT CHECK TO THE RECORDED DEEDS AND THE PRELIMINARY NCDOT PLANS PROVIDED BY THE NCDOT OFFICE. RIGHT OF WAY WAS SETUP PER THE RECORDED DEEDS, PRELIMINARY NCDOT PLANS, ACTUAL ROAD LOCATION, AND FIELD EVIDENCE FOUND. NCDOT MEMORANDUM OF ACTION DEED RECORDED 11/16/15 FOUND FOR AURAND PROPERTY.
 DEED DID NOT PROVIDE A DESCRIPTION FOR AREA TAKEN AND NO OTHER DEED COULD BE FOUND. EAST SIDE OF TRAILWOOD DR. SR 1348 RIGHT OF WAY AND PUBLIC UTILITY EASEMENT SHOWN HEREON SETUP PER REF. 3. EXISTING MONUMENTATION DID NOT CHECK TO PROVIDED NCDOT PLAN. THE SECTION OF TRAILWOOD DRIVE SR 1348 THAT IS SHOWN WITH A 60' RIGHT OF WAY WAS SETUP OFF OF THE EXISTING ROAD.

- NOTES:**
1. PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD. NO TITLE EXAMINATION HAS BEEN DONE BY ROBINSON & PLANTE, P.C.
 2. A PORTION OF THE PROPERTY IS IN THE 100 YEAR FLOOD ZONE AE AND FLOODWAY BY FEMA FIRM MAP NO. 3720079300I PANEL 0793, EFFECTIVE DATE 5/02/06. FLOODWAY AND 100 YR. FLOOD LINE TAKEN FROM WWW.NCFLOODMAPS.COM.
 3. NO EVALUATION OF RIPARIAN BUFFERS HAVE BEEN SUPPLIED FOR THE SUBJECT PROPERTY SURVEYED. RIPARIAN BUFFERS SHOWN ARE BASED ON EXISTING RECORDED MAPS AND PROVIDED PRELIMINARY PLANS. CONTACT NCDWR FOR EVALUATION.
 4. UNDERGROUND UTILITIES PAINTED/FLAGGED BY NC ONE CALL (811) AND THOSE LOCATIONS WERE FIELD LOCATED BY ROBINSON & PLANTE, PC DURING THE COURSE OF THE SURVEY. ONLY AREA FOUND PAINTED/FLAGGED WAS AT THE INTERSECTION OF AVENT FERRY ROAD AND TRAILWOOD DRIVE.
 5. NOT ALL STRUCTURES, UTILITIES, OR PIPES HAVE BEEN LOCATED FOR TRACT 2. GREENWAY PATH WAS LOCATED AND STRUCTURES, UTILITIES, OR PIPES WERE ONLY LOCATED IN THE PARTIAL TOPOGRAPHIC AREA.

LINE	BEARING	DISTANCE
L1	S 77°18'22" W	10.00'
L2	S 21°38'15" E	100.70'
L3	S 01°10'18" E	43.65'
L4	S 01°26'09" W	34.54'
L5	S 02°47'10" W	54.24'
L6	S 03°49'47" W	52.26'
L7	S 04°35'13" W	50.83'
L8	S 02°46'09" W	13.36'
L9	S 02°46'09" W	30.19'
L10	S 01°43'09" W	100.57'
L11	S 00°31'10" W	117.91'
L12	N 75°27'32" E	36.83'
L13	N 76°45'53" E	18.56'
L14	N 58°38'56" E	18.95'
L15	N 59°53'39" E	21.61'
L16	N 64°27'52" E	28.71'
L17	N 49°44'13" E	23.89'
L18	N 48°26'50" E	35.69'
L19	N 48°56'13" E	37.40'
L20	N 56°16'10" E	15.42'
L21	N 69°39'18" E	31.52'
L24	N 64°51'11" E	19.41'
L25	N 18°20'35" E	23.13'
L26	N 16°43'36" W	57.83'
L27	N 88°52'01" E	20.00'

CURVE	DELTA	RADIUS	ARC	CHORD	TANGENT	CHORD BRG
C1	3°46'24"	1100.00'	72.44'	72.43'	36.24'	S 14°34'50" E
C2	5°43'46"	1090.00'	109.00'	108.96'	54.55'	S 09°49'45" E

7.999 ACRES (AREA IN TRACT 2)
+2.835 ACRES (AREA IN LOT 13)
10.834 ACRES (TOTAL PROJECT AREA)

- LEGEND**
- (IPF) - IRON PIPE FOUND
 - (RBS) - REBAR SET
 - (DIPF) - DISTURBED IRON PIPE FOUND
 - (SS) - SPIKE SET
 - (CNS) - CONCRETE NAIL SET
 - (RWMF) - RIGHT OF WAY MONUMENT FOUND
 - (NF) - NAIL FOUND
 - (PB) - PHONE BOX
 - (PP) - POWER POLE
 - (GW) - GUY WIRE

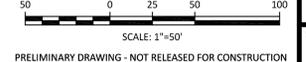
PARCEL PIN(S)	EXISTING SITE DATA
0793134771, 0793144260	PD WITH SRPOD OVERLAY
	MP 3-05/72-65-05
	10.834 ACRES (471,929 SF)
	VACANT
	NEUSE

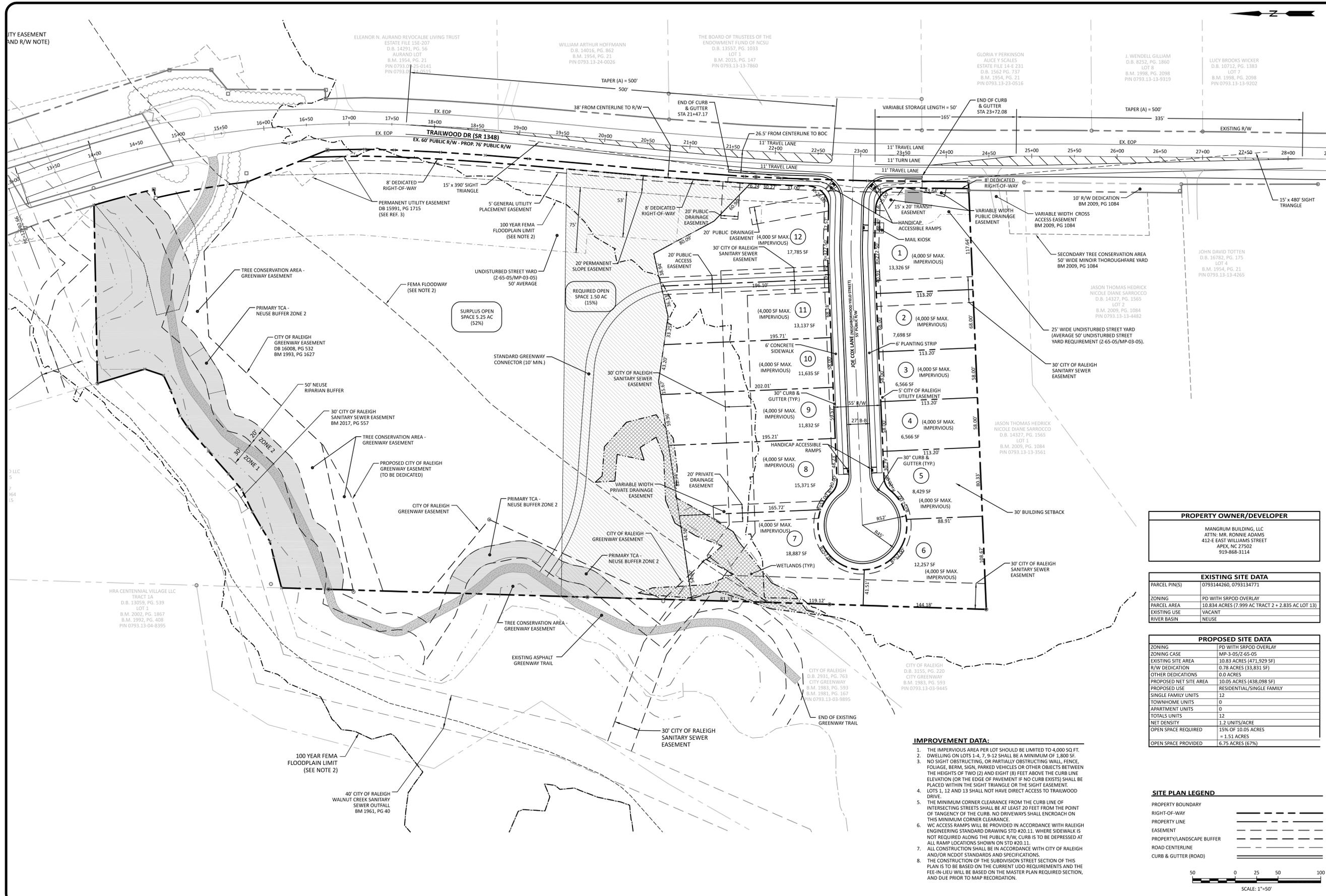
EXISTING CONDITIONS SOURCES

1. THE PROPERTY BOUNDARY WAS TAKEN FROM AN ELECTRONIC CAD FILE PROVIDED BY: ROBINSON & PLANTE, P.C., 1240 SE MAYNARD ROAD, SUITE 203, CARY, NC 27511, (919) 481-1245
2. EXISTING TOPOGRAPHY IS A COMBINATION OF WAKE COUNTY GIS AND FIELD SURVEY PROVIDED BY: ROBINSON & PLANTE, P.C., 1240 SE MAYNARD ROAD, SUITE 203, CARY, NC 27511, (919) 481-1245
3. STREAM BUFFERS AND WETLANDS TAKEN FROM AN ELECTRONIC CAD FILE PROVIDED BY: CALYX ENGINEERING, 6750 TRYON ROAD, CARY, NC 27518, (919) 836-4800
4. OFF-SITE CONDITIONS TAKEN FROM AN ELECTRONIC CAD FILE PROVIDED BY: ROBINSON & PLANTE, P.C., 1240 SE MAYNARD ROAD, SUITE 203, CARY, NC 27511, (919) 481-1245
5. TREE SURVEY PERFORMED BY: TRIANGLE SURVEYORS, 3715 UNIVERSITY DRIVE, DURHAM, NC 27707, (919) 490-2929

ENVIRONMENTAL CONDITIONS NOTES

1. THIS PROPERTY LIES WITHIN THE NEUSE RIVER BASIN AND PORTIONS OF THE PROPERTY MAY BE SUBJECT TO PROTECTIVE BUFFERS AS DEFINED BY NCEM.
2. THIS PROPERTY IS LOCATED IN A FLOODPLAIN PER FEMA MAP #3720079300I DATED 5/02/06
3. THERE ARE STREAM BUFFERS ON THIS SITE
4. THERE ARE WETLANDS ON THIS SITE





PREPARED BY:
The Nau Company
 Consulting Civil Engineers
 PO Box 810 Rolesville, NC 27571
 919-435-6395
 NCBELTS License P-0751

CLIENT:
 MANGRUM BUILDING
 412-E EAST WILLIAMS ST
 APEX, NC 27502
 919-868-3114

REVISIONS

NO.	DATE	DESCRIPTION

TRAILWOOD SUBDIVISION
PRELIMINARY SUBDIVISION PLAN REVISION
 RALEIGH, NORTH CAROLINA
SITE PLAN

PROPERTY OWNER/DEVELOPER

MANGRUM BUILDING, LLC ATTN: MR. RONNIE ADAMS 412-E EAST WILLIAMS STREET APEX, NC 27502 919-868-3114

EXISTING SITE DATA

PARCEL PIN(S)	0793144260, 0793134771
ZONING	PD WITH SRPOD OVERLAY
PARCEL AREA	10.834 ACRES (7.999 AC TRACT 2 + 2.835 AC LOT 13)
EXISTING USE	VACANT
RIVER BASIN	NEUSE

PROPOSED SITE DATA

ZONING	PD WITH SRPOD OVERLAY
ZONING CASE	MP-3-05/2-65-05
EXISTING SITE AREA	10.83 ACRES (471,929 SF)
R/W DEDICATION	0.78 ACRES (33,831 SF)
OTHER DEDICATIONS	0.0 ACRES
PROPOSED NET SITE AREA	10.05 ACRES (438,098 SF)
PROPOSED USE	RESIDENTIAL/SINGLE FAMILY
SINGLE FAMILY UNITS	12
TOWNHOME UNITS	0
APARTMENT UNITS	0
TOTALS UNITS	12
NET DENSITY	1.2 UNITS/ACRE
OPEN SPACE REQUIRED	15% OF 10.05 ACRES = 1.51 ACRES
OPEN SPACE PROVIDED	6.75 ACRES (67%)

- IMPROVEMENT DATA:**
- THE IMPERVIOUS AREA PER LOT SHOULD BE LIMITED TO 4,000 SQ. FT. DWELLING ON LOTS 1-4, 7, 9-12 SHALL BE A MINIMUM OF 1,800 SF.
 - NO SIGHT OBSTRUCTING, OR PARTIALLY OBSTRUCTING WALL, FENCE, FOLIAGE, BERM, SIGN, PARKED VEHICLES OR OTHER OBJECTS BETWEEN THE HEIGHTS OF TWO (2) AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION (OR THE EDGE OF PAVEMENT IF NO CURB EXISTS) SHALL BE PLACED WITHIN THE SIGHT TRIANGLE OR THE SIGHT EASEMENT.
 - LOTS 1, 12 AND 13 SHALL NOT HAVE DIRECT ACCESS TO TRAILWOOD DRIVE.
 - THE MINIMUM CORNER CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 20 FEET FROM THE POINT OF TANGENCY OF THE CURB. NO DRIVEWAYS SHALL ENCRONCH ON THIS MINIMUM CORNER CLEARANCE.
 - WC ACCESS RAMPS WILL BE PROVIDED IN ACCORDANCE WITH RALEIGH ENGINEERING STANDARD DRAWING STD #20.11. WHERE SIDEWALK IS NOT REQUIRED ALONG THE PUBLIC R/W, CURB IS TO BE DEPRESSED AT ALL RAMP LOCATIONS SHOWN ON STD #20.11.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH AND/OR NC DOT STANDARDS AND SPECIFICATIONS.
 - THE CONSTRUCTION OF THE SUBDIVISION STREET SECTION OF THIS PLAN IS TO BE BASED ON THE CURRENT UDO REQUIREMENTS AND THE FEE-IN-LEU WILL BE BASED ON THE MASTER PLAN REQUIRED SECTION, AND DUE PRIOR TO MAP RECORDATION.

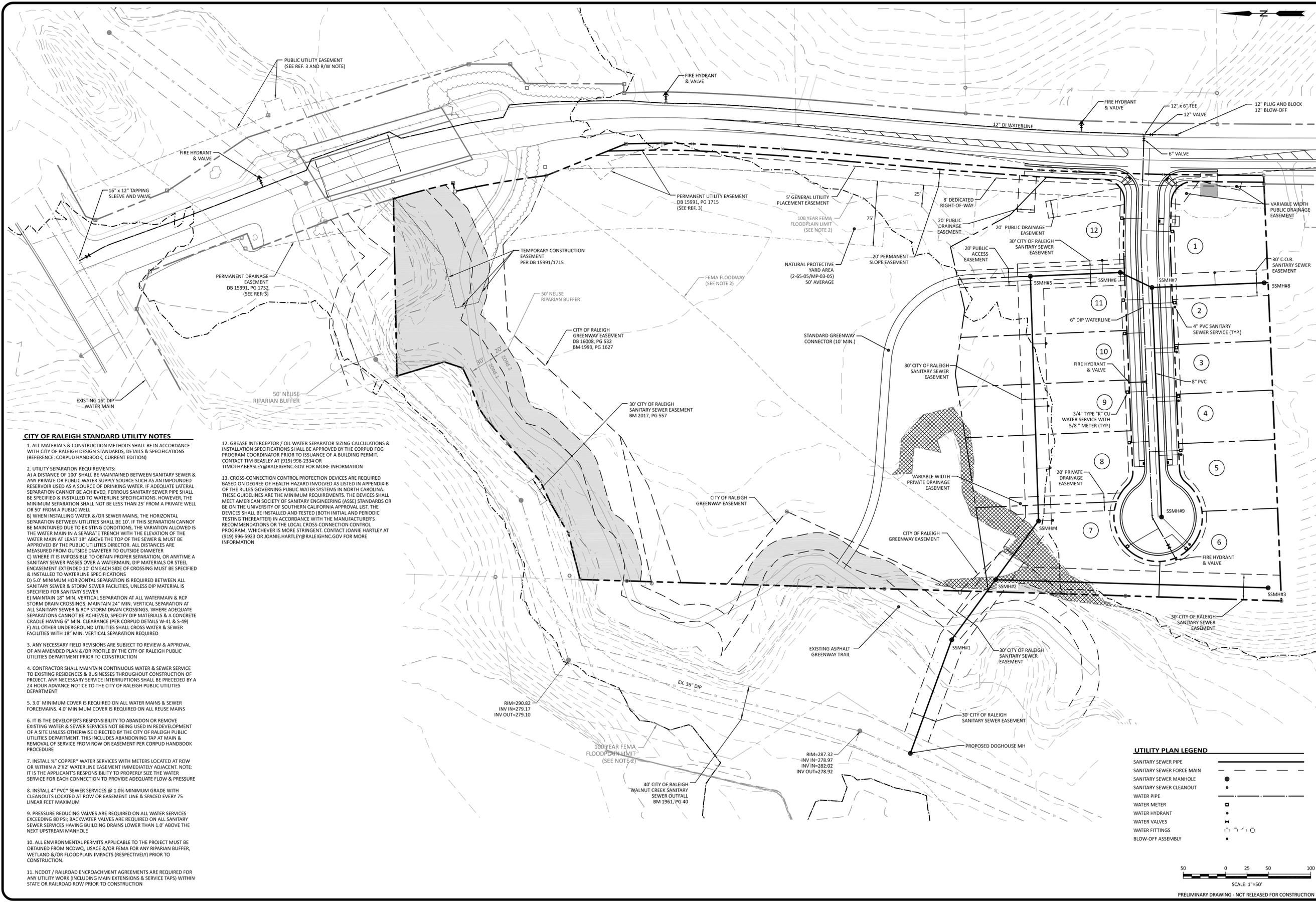
SITE PLAN LEGEND

PROPERTY BOUNDARY	---
RIGHT-OF-WAY	---
PROPERTY LINE	---
EASEMENT	---
PROPERTY/LANDSCAPE BUFFER	---
ROAD CENTERLINE	---
CURB & GUTTER (ROAD)	---



PROJECT NO:
 DESIGN BY: JDA
 DRAWN BY: RSF
 SCALE: 1"=50'
 DATE: 2018-10-30
 SHEET NO: **C2.0**

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



CITY OF RALEIGH STANDARD UTILITY NOTES

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:
 - A) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL
 - B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER
 - C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASUREMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS
 - D) 5' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
 - E) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49)
 - F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE
7. INSTALL 3/4" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE
8. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION

12. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION
13. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION

UTILITY PLAN LEGEND

- SANITARY SEWER PIPE
- SANITARY SEWER FORCE MAIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- WATER PIPE
- WATER METER
- WATER HYDRANT
- WATER VALVES
- WATER FITTINGS
- BLOW-OFF ASSEMBLY

SCALE: 1"=50'

50 0 25 50 100

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

PREPARED BY: **The Nau Company**
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NCBELTS License P-0751

CLIENT: MANGRUM BUILDING
412-A EAST WILLIAMS ST
APEX, NC 27502
919-866-3114

REVISIONS

PROJECT NO: _____

DESIGN BY: JDA

DRAWN BY: RSF

SCALE: 1"=50'

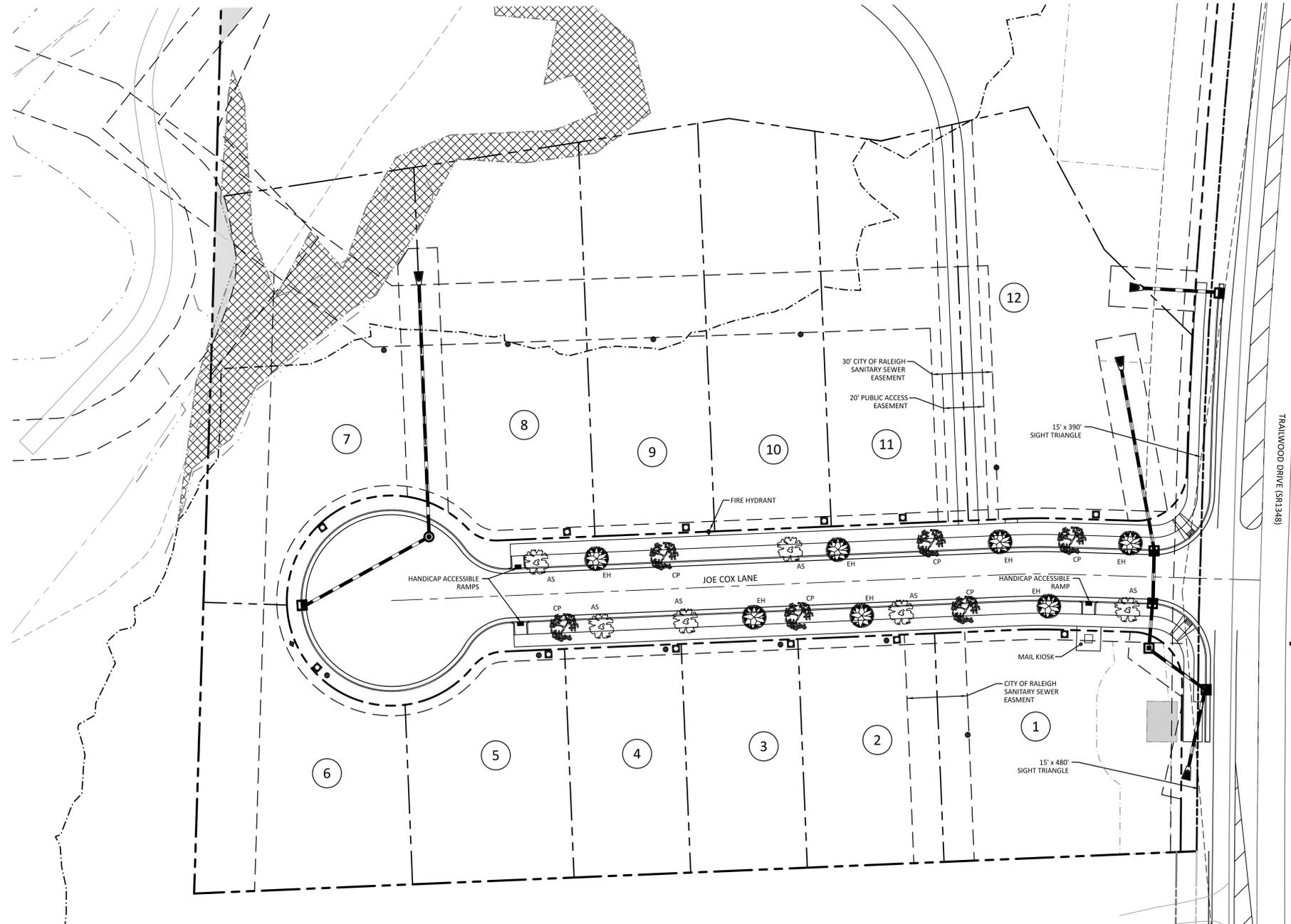
DATE: 2018-10-30

SHEET NO: **C4.0**

TRAILWOOD SUBDIVISION
PRELIMINARY SUBDIVISION PLAN REVISION
RALEIGH, NORTH CAROLINA
UTILITY PLAN

GENERAL NOTES

- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS BEEN GIVEN.
- ALL DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.
- BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY CITY OR NCDOT STREET OR HIGHWAY R/W THE FOLLOWING PROCEDURES SHOULD BE UNDERTAKEN: CITY R/W: CONTACT LOCAL AUTHORITIES' TRAFFIC ENGINEERING DEPARTMENT FOR INFORMATION ON DETOURS, OPEN CUTTING OF STREETS OR FOR ANY CONSTRUCTION WITHIN R/W. NCDOT R/W: CONTACT PROJECT ENGINEERS AND OBTAIN ALL PERMITS AND ENCROACHMENTS (KEEP COPIES ON CONSTRUCTION SITE. ALSO CONTACT NCDOT DISTRICT OFFICE 24 HOURS IN ADVANCE BEFORE PLACING CURB AND GUTTER).
- BUILDINGS SHALL BE SET BACK AT LEAST 10' FROM THE EDGE OF ANY PRESERVED TREE COVERAGE.
- NO PLANTING OF SHRUBS WITHIN R/W WITHOUT A LICENSE AGREEMENT WITH THE CITY OF RALEIGH.
- EXISTING TREE SURVEY PERFORMED BY TRIANGLE SURVEYORS, INC.
- IF EXISTING TREES CAN BE PROTECTED DURING CONSTRUCTION AND SATISFY ALL OR PART OF THE STREET TREE REQUIREMENT THEN PROPOSED STREET TREES CAN BE DEDUCTED ACCORDINGLY.
- LANDSCAPING / C.O. STANDARDS NOTES: ALL LANDSCAPING MUST BE IN PLACE PRIOR TO REQUEST FOR A CERTIFICATE OF COMPLIANCE.
- PROTECTION OF EXISTING VEGETATION: AT START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN SHARP VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE. NO STORAGE OF MATERIALS, FILL OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED AREA.
- TREE PROTECTION NOTE: TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT.
- ROOT PROTECTION ZONE: EQUALS ONE FOOT OF RADIUS FOR EVERY INCH OF DIAMETER OF EXISTING TREES, OR SIX FOOT RADIUS, WHICHEVER IS GREATER. NO DISTURBANCE ALLOWED WITHIN THIS AREA. AREA MUST BE PROTECTED WITH BOTH TREE PROTECTION FENCING AND WARNING SIGNS.



PLANT LISTING

KEY/CODE	TOTAL QUANTITY	BOTANICAL NAME	COMMON NAME	HT.	CALIPER
AS	6	ACER SACCHARUM	SUGAR MAPLE	10'	3"
EH	7	CARPINUS BETULUS	EUROPEAN HORNBEAN	10'	3"
CP	6	PISTACIA CHINENSIS	CHINESE PISTACHIO	10'	3"

NOTES

- PLANT SIZES INDICATED SPECIFY MINIMUM ALLOWABLE SIZES AT PLANTING.
- WHERE CONTAINER SIZE AND HEIGHT ARE INDICATED FOR A SINGLE SPECIES, BOTH SIZE REQUIREMENTS MUST BE MET.
- NO SHRUBS TO BE PLANTED WITHIN 6' OF NEW TREES, OR WITHIN THE DRIP LINE OF EXISTING TREES.



PREPARED BY:
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REVISIONS	NO.	DESCRIPTION

TRAILWOOD SUBDIVISION
 PRELIMINARY SUBDIVISION PLAN REVISION
 RALEIGH, NORTH CAROLINA
LANDSCAPE AND PLANTING PLAN

DESIGN BY: JDA
 DRAWN BY: RSF
 SCALE: 1"=30'
 DATE: 2018-10-30
 SHEET NO: **LA1.0**