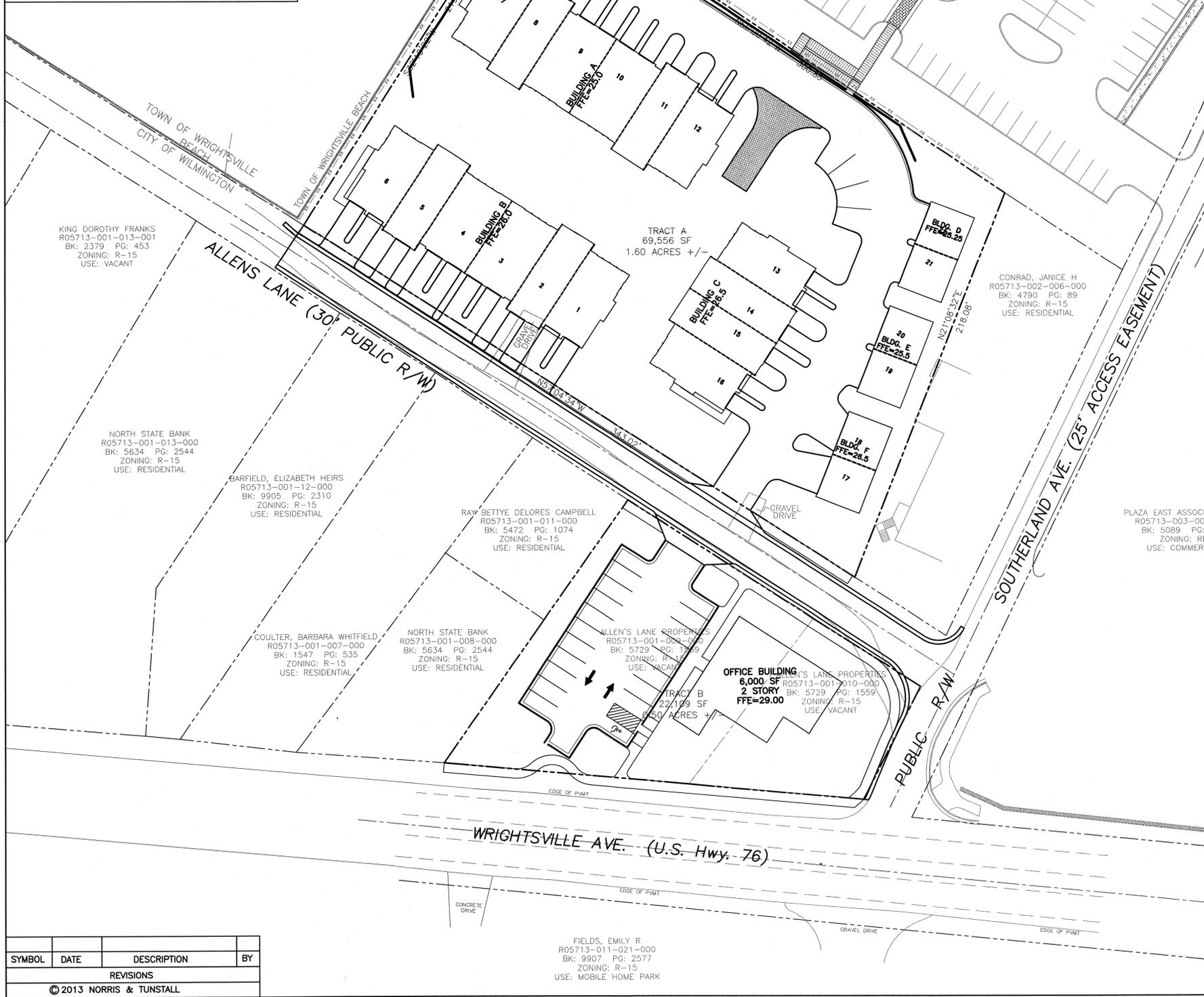


LOCATION MAP

NTS



SITE DATA TABLE (TRACT A)

PARCEL ID#: R05713-002-005-000, R05713-002-010-000, R05713-002-011-000, R05713-002-004-000
 MAP ID#: 315715.53.6721.000, 315715.53.7634.000, 315715.53.7690.000, 315715.53.8526.000
 PARCEL ADDRESS: 11, 15, 17, 19 ALLENS LANE
 SITE ADDRESS: 2011 ALLENS LANE
 PARCEL AREA: 1.60 AC (69,556 SF)
 PROPOSED PARCEL USE: TOWNHOMES
 ZONING: O&I-1 (CO)
 CAMA LAND CLASSIFICATION: RESOURCE PROTECTION
 BUILDING SETBACKS O&I-1: FRONT SETBACK: 20', INTERIOR SIDE SETBACK: 10', CORNER SIDE SETBACK: 20', REAR SETBACKS: 20'

BUILDING SETBACKS (PROPOSED)
 FRONT SETBACK: 20'
 SIDE SETBACK EAST: 10', SIDE SETBACK WEST: 10'
 REAR SETBACK: 20'

MAX. LOT COVERAGE O&I-1: 40%
 PROPOSED LOT COVERAGE: 31.85%
 PROPOSED BUILDING: 22,157 SF
 MAX. BUILDING HEIGHT O&I-1: 45'/UP TO 75' WITH SPECIAL USE PERMIT, LOT COVERAGE AND SETBACK CONDITIONS
 BUILDING HEIGHT PROPOSED: 30'-10" / 35' (SEE BUILDING DATA TABLE)
 PROPOSED DENSITY: 13.75 DU/AC

PROPOSED BUILDINGS: SEE TABLE

PROPOSED PARKING REQUIREMENT
 PARKING REQ'D: RESIDENTIAL
 MAX: 2.5 PER UNIT = 55
 MIN: 2 BR (2) = 12
 3 BR (2.25) = 36
 55 MAX., 48 MIN.
 77 TOTAL INCLUDING DRIVEWAYS AND GARAGES

TOTAL PARKING REQUIRED: 55
PARKING PROVIDED: 77 TOTAL INCLUDING DRIVEWAYS AND GARAGES

BICYCLE PARKING REQUIRED/PROPOSED: 5

PROPOSED IMPERVIOUS AREA ON SITE:
 BUILDINGS: 22,157 SF
 CONCRETE CURB AND GUTTER: 444 SF
 PERVIOUS PAVEMENT: 17,067 SF
 SITE TOTAL: 39,668 SF
 SITE PERCENT IMPERVIOUS: 57%

PROPOSED IMPERVIOUS AREA OFF SITE:
 CONCRETE CURB AND GUTTER: 2,010 SF
 PERVIOUS PAVEMENT: 1,084 SF
 ASPHALT PAVEMENT: 7,534 SF
 OFF SITE TOTAL: 10,608 SF

LANDSCAPING REQUIREMENTS (REFER TO LANDSCAPE PLAN)
 STREET/PAVING LANDSCAPING: 18 MULTIPLIER
 18 X 228 LF = 4,098 REQUIRED, 4,094 PROVIDED
 FOUNDATION PLANTINGS: 12% FACE OF BUILDING X LENGTH
 BUFFER YARD (EAST SIDE): 20' REQUIRED
 REDUCTION IN BUFFER YARD REQUESTED FOR SITE CONSTRAINTS ALONG ADJACENT PROPERTIES. 10' BUFFER TO COMBINED WITH 8' OPAQUE FENCE.

WATER USAGE:
 (2) BR UNIT X 400 GPD: 6 (2 BR UNITS) X 400 = 2,400
 (3) BR UNIT X 400 GPD: 16 (3 BR UNITS) X 400 = 6,400
 TOTAL: 8,800 GPD

SEWER USAGE:
 (2) BR UNIT X 240 GPD: 6 (2 BR UNITS) X 240 = 1,440
 (3) BR UNIT X 360 GPD: 16 (3 BR UNITS) X 360 = 5,760
 TOTAL: 7,200 GPD

SITE DATA TABLE (TRACT B)

PARCEL ID#: R05713-001-009-000, R05713-002-010-000
 MAP ID#: 315715.53.7442.000, 315715.53.8430.000
 PARCEL ADDRESS: 6841, 6843 WRIGHTSVILLE AVE.
 PARCEL AREA: 0.50 AC (22,109 SF)
 PROPOSED PARCEL USE: OFFICE
 ZONING: O&I-1 (CO)
 CAMA LAND CLASSIFICATION: RESOURCE PROTECTION
 BUILDING SETBACKS O&I-1: FRONT SETBACK: 20', INTERIOR SIDE SETBACK: 10', CORNER SIDE SETBACK: 20', REAR SETBACKS: 20'

BUILDING SETBACKS (PROPOSED)
 FRONT SETBACK: 20'
 SIDE SETBACK EAST: 37.5', SIDE SETBACK WEST: 85'
 REAR SETBACK: 20.25'

MAX. LOT COVERAGE O&I-1: 40%
 PROPOSED LOT COVERAGE: 13.89%
 MAX. BUILDING HEIGHT O&I-1: 45'/UP TO 75' WITH SPECIAL USE PERMIT, LOT COVERAGE AND SETBACK CONDITIONS
 BUILDING HEIGHT PROPOSED: 2 STORY (35')
 BUILDING AREA: 6,000 SF (3,000 PER FLOOR)

PROPOSED PARKING REQUIREMENT
 PARKING REQ'D: OFFICE
 MAX: 1/200 SF
 MIN: 1/300 SF
 30 MAX., 20 MIN.
 20 TOTAL
 HC PARKING REQUIRED: 1
 HC PARKING PROVIDED: 1
 BICYCLE PARKING REQUIRED/PROPOSED: 5

PROPOSED IMPERVIOUS AREA ON SITE:
 BUILDINGS: 3,072 SF (FOOTPRINT)
 CONCRETE CURB AND GUTTER: 1,007 SF
 PERVIOUS PAVEMENT: 7,471 SF
 SITE TOTAL: 11,550 SF
 SITE PERCENT IMPERVIOUS: 52.24%

PROPOSED IMPERVIOUS AREA OFF SITE:
 PERVIOUS PAVEMENT: 970 SF
 OFF SITE TOTAL: 970 SF

LANDSCAPING REQUIREMENTS (REFER TO LANDSCAPE PLAN)
 STREET/PAVING LANDSCAPING: 18 MULTIPLIER
 18 X 220 LF = 3,960 REQUIRED, 4,682 PROVIDED
 PRIMARY (WRIGHTSVILLE AVE.)
 18 X 220 LF = 3,960 REQUIRED, 4,682 PROVIDED
 SECONDARY (SOUTHERLAND AVE./ALLENS LANE)
 9 X 177 LF = 1,593 REQUIRED, 2,232 PROVIDED
 FOUNDATION PLANTINGS: 12% FACE OF BUILDING X LENGTH
 BUFFER YARD (WEST SIDE): 20' REQUIRED
 REDUCTION IN BUFFER YARD REQUESTED FOR SITE CONSTRAINTS ALONG ADJACENT PROPERTIES. 10' BUFFER TO COMBINED WITH 8' OPAQUE FENCE.

WATER USAGE: 15 EMPLOYEES X 25 GPD/EMPLOYEE = 375 GPD
SEWER USAGE: 15 EMPLOYEES X 25 GPD/EMPLOYEE = 375 GPD

BUILDING DATA TABLE

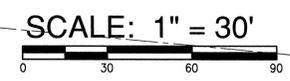
BUILDING	TOTAL UNITS	HEIGHT	STORIES	BLDG AREA	FOOT PRINT	APPROX. BLDG. DIMS AT WIDEST POINT
A	6 (3 BR)	30'-10"	3	13,150 SF	14,170 SF	150' X 54'
B	6 (3 BR)	30'-10"	3	13,150 SF	14,170 SF	150' X 54'
C	4 (3 BR)	30'-10"	3	9,186 SF	4,471 SF	93' X 54'
D	2 (2 BR)	35'	3	2,726 SF	1,172 SF	48' X 24'
E	2 (2 BR)	35'	3	2,726 SF	1,172 SF	48' X 24'
F	2 (2 BR)	35'	3	4,000 SF	1,172 SF	48' X 24'
TOTAL	22			43,664 SF	22,157 SF	

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED DRAINAGE PLAN
 Date: _____ Permit # _____
 Signed: _____

Approved Construction Plan
 Name _____ Date _____
 Planning _____
 Traffic _____
 Fire _____

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

NOTE: ALL DRIVEWAYS AND WALKWAYS SHALL BE CONSTRUCTED OF PERVIOUS MATERIALS TO ALLOW FOR INFILTRATION TO MEET THE STATE REQUIREMENTS.



SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
© 2013 NORRIS & TUNSTALL			

OVERALL SITE PLAN
 SPARTINA AT LUMINA STATION - 2011 ALLENS LANE
 ALLENS LANE/WRIGHTSVILLE AVE.
 WILMINGTON, NORTH CAROLINA

OWNER/DEVELOPER
 ALLENS LANE PARTNERS, LLC
 JAMES E. WALLACE, JR.
 MEMBER/MANAGER
 1902 EASTWOOD ROAD
 WILMINGTON, NC 28403
 910 5091921

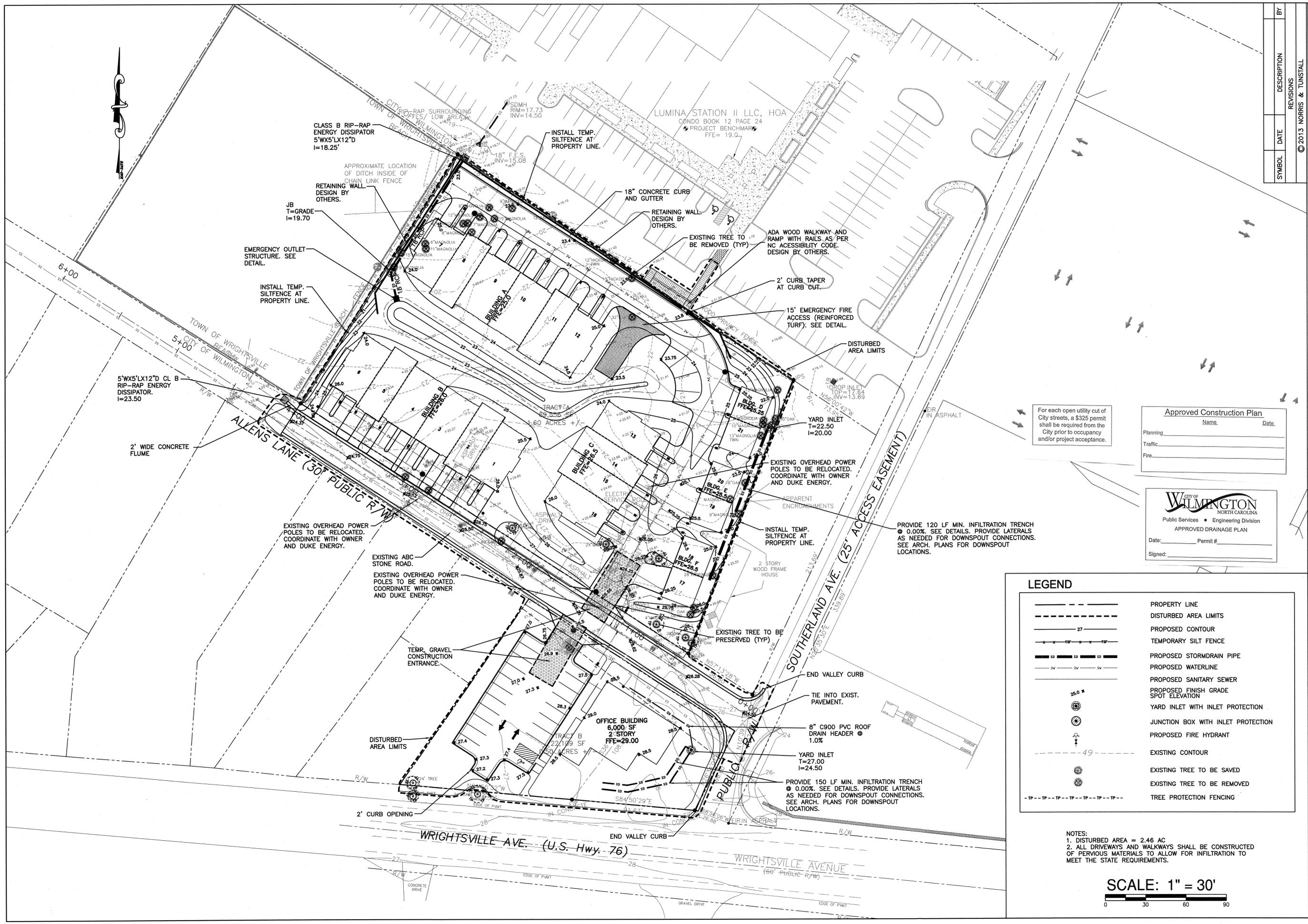
NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
 1127 FLORAL PARKWAY
 SUITE 400
 WILMINGTON, NC 28403
 PHONE (910) 343-9653
 FAX (910) 343-9604
 office@nteng.com
 license # 9641

13082
 DES: JST
 ORD: JPN
 DRWN: NKS
 DATE: 11/20/13



CO

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SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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GRADING, DRAINAGE AND EROSION CONTROL PLAN

SPARTINA AT LUMINA STATION - 2011 ALLENS LANE
ALLENS LANE/WRIGHTSVILLE AVE.
WILMINGTON, NORTH CAROLINA

OWNER/DEVELOPER
ALLENS LANE PARTNERS, LLC
JAMES E. WALLACE, JR.
MEMBER/MANAGER
1902 EASTWOOD ROAD
WILMINGTON, NC 28403
910 5691921

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9804
license #C-3641

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

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

City of WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED DRAINAGE PLAN

Date: _____ Permit # _____

Signed: _____

LEGEND

	PROPERTY LINE
	DISTURBED AREA LIMITS
	PROPOSED CONTOUR
	TEMPORARY SILT FENCE
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE
	PROPOSED SANITARY SEWER
	PROPOSED FINISH GRADE
	SPOT ELEVATION
	YARD INLET WITH INLET PROTECTION
	JUNCTION BOX WITH INLET PROTECTION
	PROPOSED FIRE HYDRANT
	EXISTING CONTOUR
	EXISTING TREE TO BE SAVED
	EXISTING TREE TO BE REMOVED
	TREE PROTECTION FENCING

NOTES:
1. DISTURBED AREA = 2.46 AC
2. ALL DRIVEWAYS AND WALKWAYS SHALL BE CONSTRUCTED OF PERVIOUS MATERIALS TO ALLOW FOR INFILTRATION TO MEET THE STATE REQUIREMENTS.

SCALE: 1" = 30'

13082

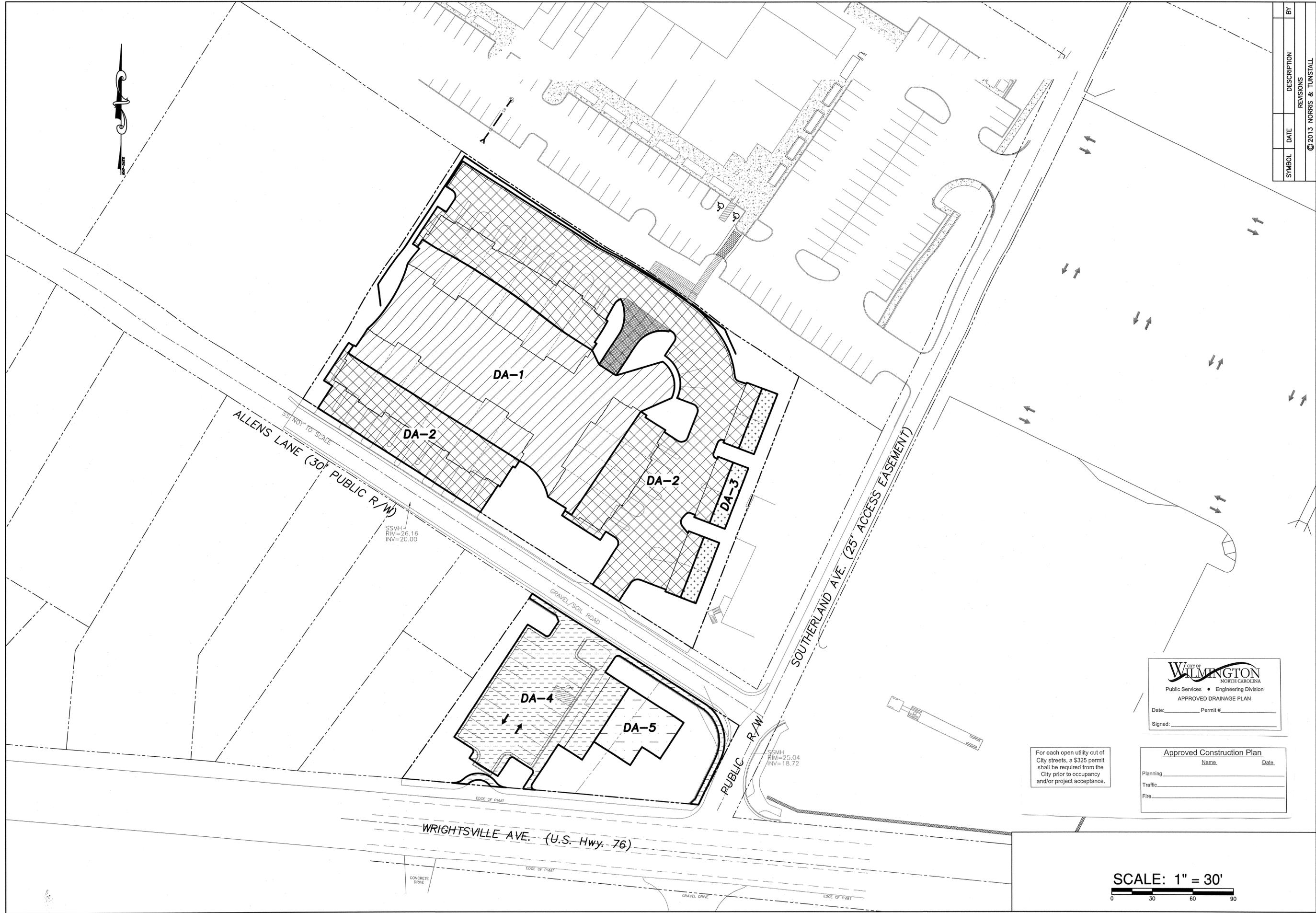
DES. JST
CVD. JPN
DRWN. NKS

DATE 11/20/13



C1

\\Projects\2013\13039 The Townhomes @ Lumina Station Rezoning\13039 Plans\Reg\mancy current.dwg, 11/18/2013 10:34:20 AM



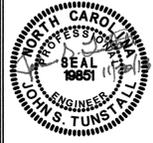
SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
		© 2013 NORRIS & TUNSTALL	

DRAINAGE AREA PLAN
 SPARTINA AT LUMINA STATION - 2011 ALLENS LANE
 ALLENS LANE/WRIGHTSVILLE AVE.
 WILMINGTON, NORTH CAROLINA

OWNER/DEVELOPER
 ALLENS LANE PARTNERS, LLC
 JAMES E. WALLACE, JR.
 MEMBER/MANAGER
 1902 EASTWOOD ROAD
 WILMINGTON, NC 28403
 910 5091921

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
 1127 FLORAL PARKWAY
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 WILMINGTON, NC 28403
 PHONE (910) 343-9653
 FAX (910) 343-9604
 office@nteng.com
 license #13-0691

13082
 DES. JST
 C.D. JPN
 DRWN. NKS
 DATE 11/18/13



C1.1

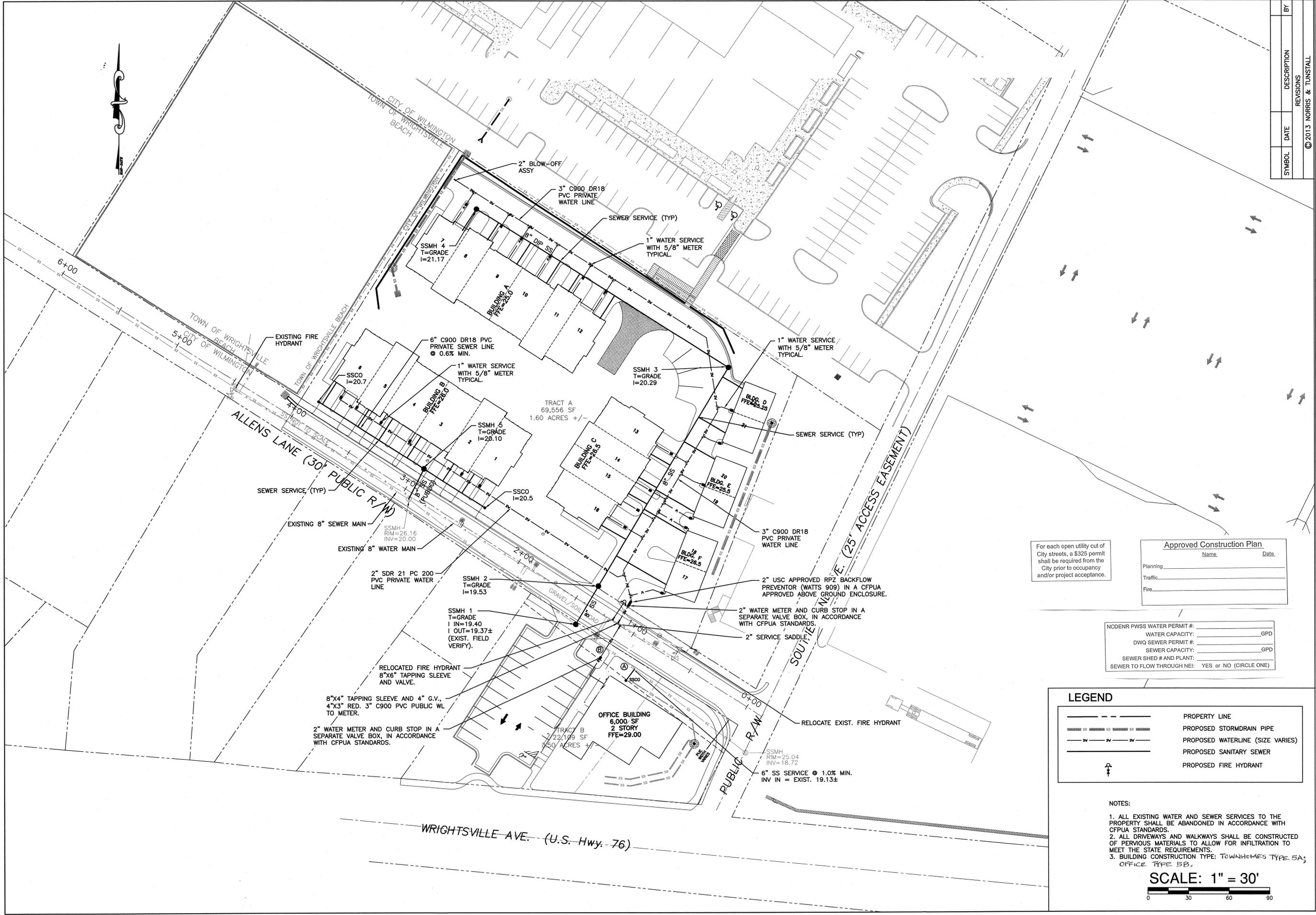
CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
APPROVED DRAINAGE PLAN
 Date: _____ Permit #: _____
 Signed: _____

Approved Construction Plan
 Name: _____ Date: _____
 Planning: _____
 Traffic: _____
 Fire: _____

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

SCALE: 1" = 30'
 0 30 60 90

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SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

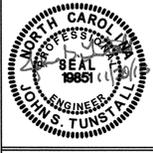
© 2013 NORRIS & TUNSTALL

UTILITY PLAN
 SPARTINA AT LUMINA STATION - 2011 ALLENS LANE
 ALLENS LANE/WRIGHTSVILLE AVE.
 WILMINGTON, NORTH CAROLINA

OWNER/DEVELOPER
 ALLENS LANE PARTNERS, LLC
 JAMES E. WALLACE, JR.
 MEMBER/MANAGER
 1902 EASTWOOD ROAD
 WILMINGTON, NC 28403
 910 5091921

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
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 PHONE (910) 343-9653
 FAX (910) 343-9604
 office@ntkg.com
 license #C-3641

13082
 DES. JUST
 C.D. JFN
 DRWN. NKS
 DATE 11/18/13



C2

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

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

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

LEGEND

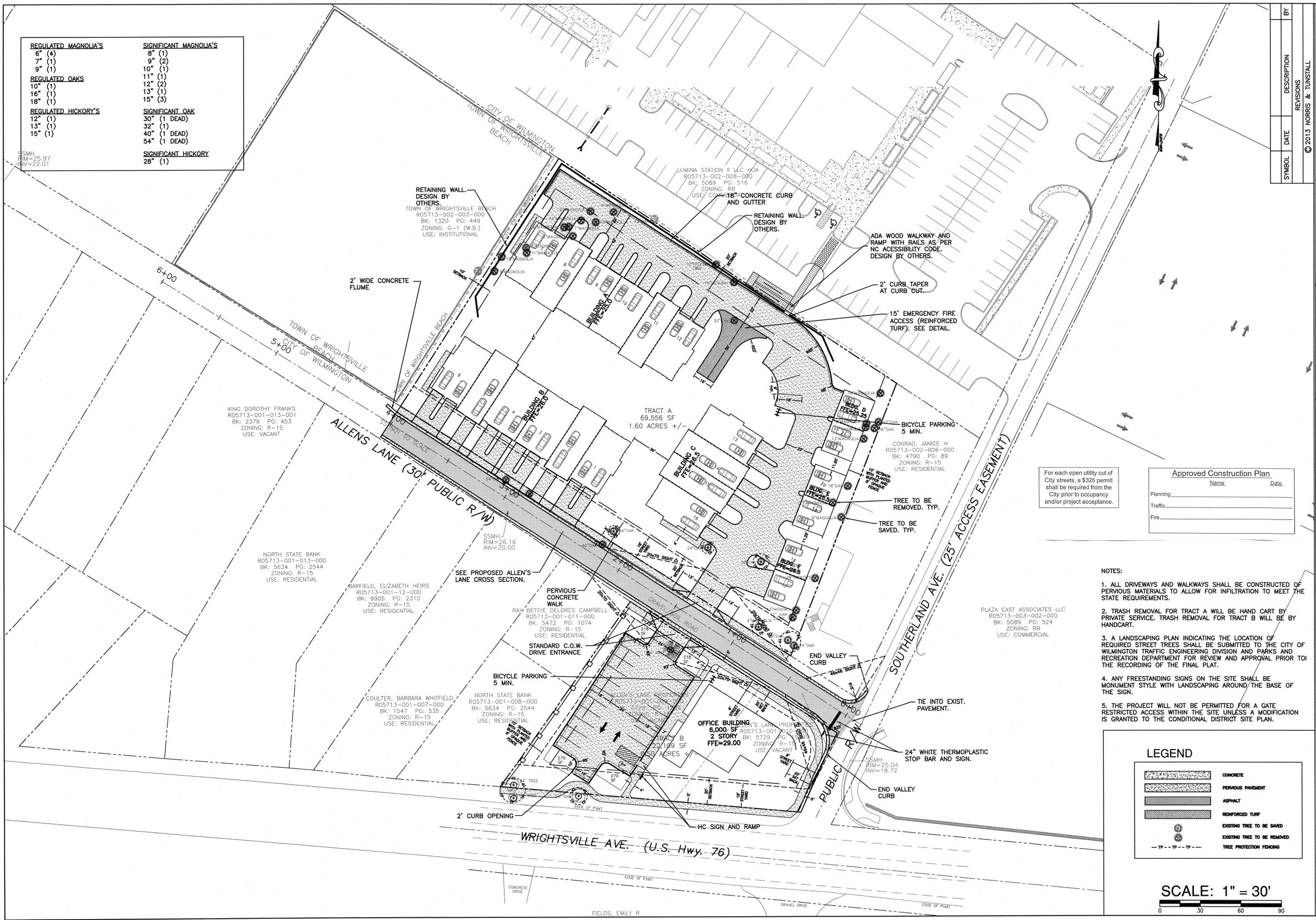
	PROPERTY LINE
	PROPOSED STORMDRAIN PIPE
	PROPOSED WATERLINE (SIZE VARIES)
	PROPOSED SANITARY SEWER
	PROPOSED FIRE HYDRANT

- NOTES:**
- ALL EXISTING WATER AND SEWER SERVICES TO THE PROPERTY SHALL BE ABANDONED IN ACCORDANCE WITH CFPUA STANDARDS.
 - ALL DRIVEWAYS AND WALKWAYS SHALL BE CONSTRUCTED OF PERVIOUS MATERIALS TO ALLOW FOR INFILTRATION TO MEET THE STATE REQUIREMENTS.
 - BUILDING CONSTRUCTION TYPE: TOWNHOMES TYPE 5A; OFFICE TYPE 5B.

SCALE: 1" = 30'

REGULATED MAGNOLIA'S	SIGNIFICANT MAGNOLIA'S
6" (4)	8" (1)
7" (1)	9" (2)
9" (1)	10" (1)
REGULATED OAKS	11" (1)
10" (1)	12" (2)
16" (1)	13" (1)
18" (1)	15" (3)
REGULATED HICKORY'S	SIGNIFICANT OAK
12" (1)	30" (1 DEAD)
13" (1)	32" (1)
15" (1)	40" (1 DEAD)
	54" (1 DEAD)
	SIGNIFICANT HICKORY
	28" (1)

SSMH
RIM=25.97
INV=22.01



KING DOROTHY FRANKS
R05713-001-013-001
BK: 2379 PG: 453
ZONING: R-15
USE: VACANT

NORTH STATE BANK
R05713-001-013-000
BK: 5634 PG: 2544
ZONING: R-15
USE: RESIDENTIAL

BARFIELD, ELIZABETH HEIRS
R05713-001-12-000
BK: 9905 PG: 2310
ZONING: R-15
USE: RESIDENTIAL

COULTER, BARBARA WHITFIELD
R05713-001-007-000
BK: 1547 PG: 535
ZONING: R-15
USE: RESIDENTIAL

NORTH STATE BANK
R05713-001-008-000
BK: 5634 PG: 2544
ZONING: R-15
USE: RESIDENTIAL

RAY BETTIE DELORES CAMPBELL
R05713-001-011-000
BK: 5472 PG: 1074
ZONING: R-15
USE: RESIDENTIAL

LUMINA STATION II LLC HOA
R05713-002-008-000
BK: 5089 PG: 516
ZONING: RB
USE: COMMERCIAL

CONRAD, JANICE H
R05713-002-006-000
BK: 4790 PG: 89
ZONING: R-15
USE: RESIDENTIAL

PLAZA EAST ASSOCIATES LLC
R05713-003-002-000
BK: 5089 PG: 524
ZONING: RB
USE: COMMERCIAL

OFFICE BUILDING
6,000 SF
2 STORY
R05713-001-010-000
BK: 5729 PG: 1074
ZONING: R-15
USE: VACANT

FIELDS, EMILY R

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

LAYOUT AND TREE PLAN

OWNER/DEVELOPER
ALLEN'S LANE PARTNERS, LLC
MEMBER/MANAGER
JAMES E. WALLACE, JR.
1902 EASTWOOD ROAD
WILMINGTON, NC 28403
910 5091921

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
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office@nkteng.com
license #C-3641

13082
DES. JUST
C.B. JPN
DRWL. NKS
DATE 11/20/13



C3

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

Approved Construction Plan

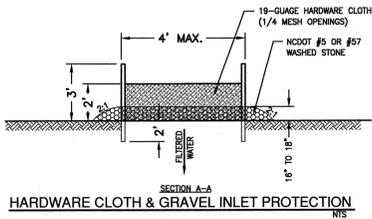
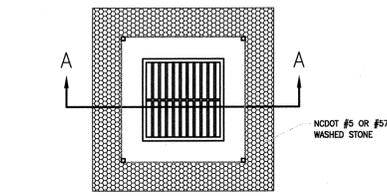
Name	Date
Planning	
Traffic	
Fire	

- NOTES:
- ALL DRIVEWAYS AND WALKWAYS SHALL BE CONSTRUCTED OF PERVIOUS MATERIALS TO ALLOW FOR INFILTRATION TO MEET THE STATE REQUIREMENTS.
 - TRASH REMOVAL FOR TRACT A WILL BE HAND CART BY PRIVATE SERVICE. TRASH REMOVAL FOR TRACT B WILL BE BY HANDCART.
 - A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAN.
 - ANY FREESTANDING SIGNS ON THE SITE SHALL BE MONUMENT STYLE WITH LANDSCAPING AROUND THE BASE OF THE SIGN.
 - THE PROJECT WILL NOT BE PERMITTED FOR A GATE RESTRICTED ACCESS WITHIN THE SITE UNLESS A MODIFICATION IS GRANTED TO THE CONDITIONAL DISTRICT SITE PLAN.

LEGEND

[Pattern]	CONCRETE
[Pattern]	PERVIOUS PAVEMENT
[Pattern]	ASPHALT
[Pattern]	REINFORCED TURF
[Symbol]	EXISTING TREE TO BE SAVED
[Symbol]	EXISTING TREE TO BE REMOVED
[Symbol]	TREE PROTECTION FENCING



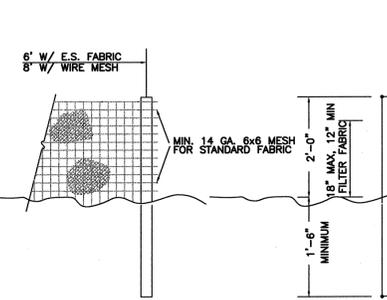


HARDWARE CLOTH & GRAVEL INLET PROTECTION
NTS

CONSTRUCTION SEQUENCE:
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5" STEEL POST 2" INTO THE GROUND SURROUNDING THE INLET. SPACE POST EQUALLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4' APART.
3. SURROUND THE POST WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POST AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2" FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 18" AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

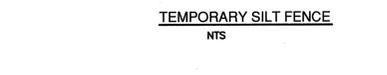
MAINTENANCE:
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL. CLEAN THE WIRE MESH OF ANY DEBRIS OR OTHER OBJECTS TO PROMOTE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE
NTS



ENERGY DISSIPATOR
NTS

NOTE: FILTER FABRIC AND STONE SHALL BE TOED UNDER



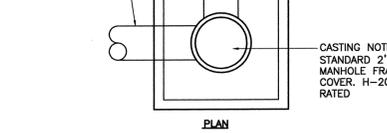
TEMPORARY SILT FENCE
NTS

NOTES:
1. SYN. FENCE FABRIC SHALL BE MIN. OF 30" IN WIDTH WITH 30 LB/IN TENSILE STRENGTH FOR STANDARD FABRIC AND 50 LB/IN FOR EXTRA STRENGTH.
2. FABRIC SHALL BE CONTINUOUS LENGTH. IF JOINTS ARE NECESSARY, LAP FABRIC POST TO POST.
3. STEEL POST SHALL BE MIN 4" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

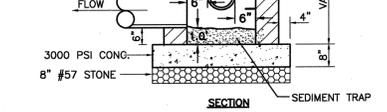


JUNCTION BOX DETAIL
NTS

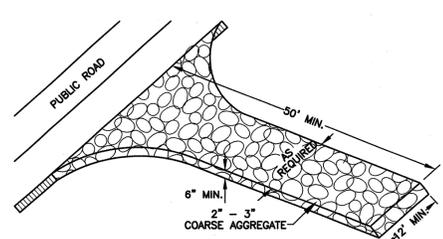
MUST COMPLY WITH CITY OF WILMINGTON STANDARDS



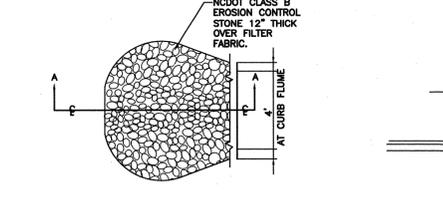
YARD INLET DETAIL
NTS



EMERGENCY OUTLET STRUCTURE
NTS

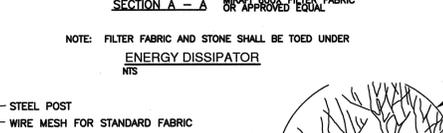


TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE
NTS

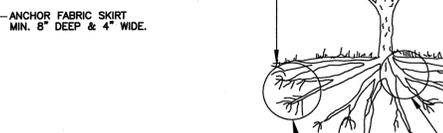


METHOD OF TREE PROTECTION
NTS

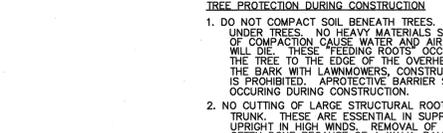
Clearly mark the trees to be saved prior to construction and erect a protective barrier at the drip line.
Drip line- The area of soil directly beneath the tree extending out to the tips of the outermost branches.



METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts



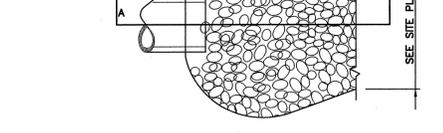
METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts



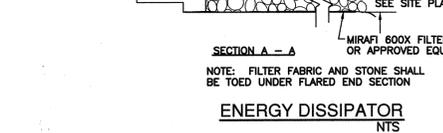
METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts



METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts



METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts



METHOD OF TREE PROTECTION DURING CONSTRUCTION
SD 15-09
nts

EROSION CONTROL NOTES AND MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL. BUT IN NO CASE, LESS THAN EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKES SPACING WILL BE 8 FEET MAX. WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
6. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.
7. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
8. LAND QUALITY REQUIRES:
ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED, ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN, TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 21 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.

UTILITY NOTES FOR FIRE HYDRANTS

1. FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
2. THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
3. LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE FIRE HYDRANT.
4. FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
5. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
6. THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
7. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
8. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0896 FOR ADDITIONAL INFORMATION.
9. A MINIMUM OF 5" SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.

CITY OF WILMINGTON STANDARD NOTES

1. CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-832-4949.
2. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
3. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
6. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
7. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
8. IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS. POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
9. CONTACT TRAFFIC ENGINEERING AT 341-7888 FOURTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
10. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT TRAFFIC ENGINEERING AT 341-7888 FOR MORE DETAILS. AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
11. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
12. CONTACT KAREN DIXON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
13. PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
14. IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
15. ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA WATER SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.
16. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFOCHR OR ASSE.
17. WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE STRAND COPPER WIRE INSTALLED THE ENTIRE LENGTH AND SECURED TO ALL FIRE HYDRANTS AND WATER METER BOXES TO AD IN FUTURE LOCATION OF FACILITIES.
18. THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
19. UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0896 FOR ADDITIONAL INFORMATION.

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TEMPORARY/PERMANENT GRASS SPECIFICATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS.
2. RIP THE ENTIRE AREA TO A 6 INCH DEPTH.
3. REMOVE ALL ROCKS, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACES SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL.
LIME: 45 LBS. PER 1000 S.F.
PHOSPHOROUS: 20 LBS PER 1000 S.F.
FERTILIZER: 17 LBS. PER 1000 S.F.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, UNIFORM SEED BED IS PREPARED 4-6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY.
2 - 3 LBS PER 1000 S.F. (SEE MIXTURE BELOW)
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
GRAIN STRAW & HAY AT 75 TO 100 LBS PER 1000 S.F.
WOOD CHIPS AT 500 LBS. PER 1000 S.F.
JUTE & MESH AS PER MANUFACTURER
8. ASPHALT FOR ANCHORING MULCH SHALL BE TYPE SS-1 EMULSION AND APPLIED AT A RATE OF 1000 GAL. PER ACRE FOR SLOPE STABILIZATION, AND 150 GAL. PER TON OF STRAW FOR ANCHORING STRAW.
9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEED WITHIN THE PLANTING SEASON. IF POSSIBLE IF GRASS STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
10. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE, TREATMENT, AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
11. SEED FOR TEMPORARY AND PERMANENT APPLICATIONS SHALL BE:
20% CURET GRASS
28% BERBERIA GRASS
20% TURF FESCUE
10% CREEPING RED FESCUE
20% ANNUAL RYE GRASS
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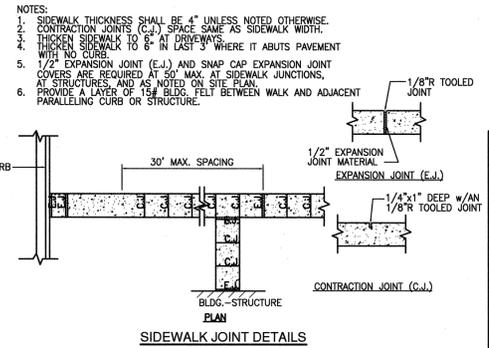
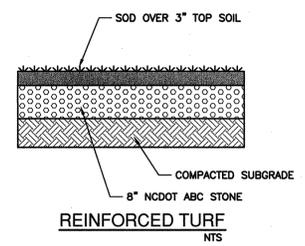
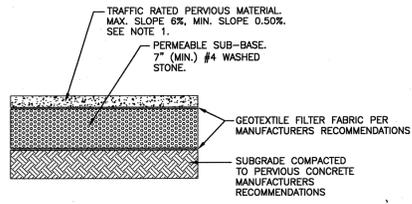
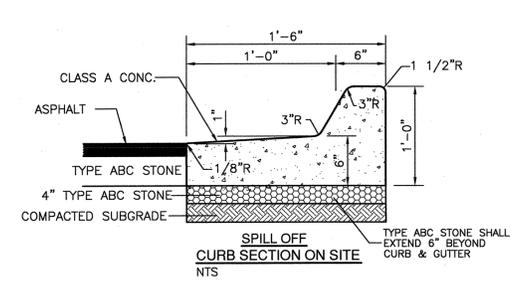
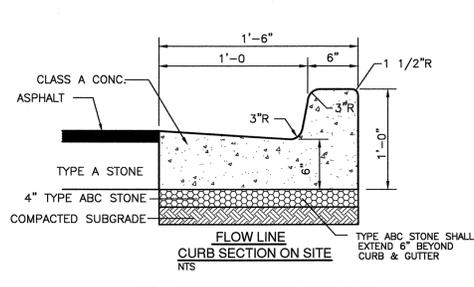
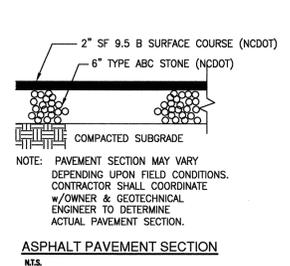
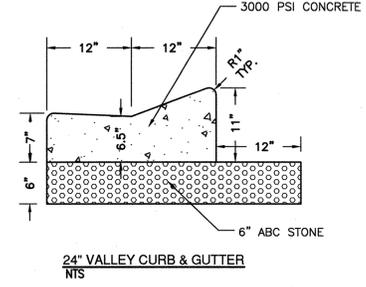
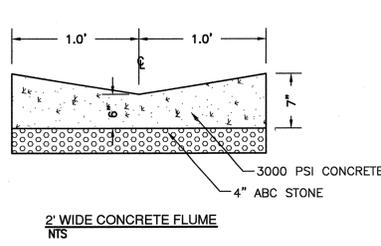
1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS.
2. RIP THE ENTIRE AREA TO A 6 INCH DEPTH.
3. REMOVE ALL ROCKS, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACES SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL.
LIME: 45 LBS. PER 1000 S.F.
PHOSPHOROUS: 20 LBS PER 1000 S.F.
FERTILIZER: 17 LBS. PER 1000 S.F.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, UNIFORM SEED BED IS PREPARED 4-6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY.
2 - 3 LBS PER 1000 S.F. (SEE MIXTURE BELOW)
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
GRAIN STRAW & HAY AT 75 TO 100 LBS PER 1000 S.F.
WOOD CHIPS AT 500 LBS. PER 1000 S.F.
JUTE & MESH AS PER MANUFACTURER
8. ASPHALT FOR ANCHORING MULCH SHALL BE TYPE SS-1 EMULSION AND APPLIED AT A RATE OF 1000 GAL. PER ACRE FOR SLOPE STABILIZATION, AND 150 GAL. PER TON OF STRAW FOR ANCHORING STRAW.
9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEED WITHIN THE PLANTING SEASON. IF POSSIBLE IF GRASS STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
10. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE, TREATMENT, AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
11. SEED FOR TEMPORARY AND PERMANENT APPLICATIONS SHALL BE:
20% CURET GRASS
28% BERBERIA GRASS
20% TURF FESCUE
10% CREEPING RED FESCUE
20% ANNUAL RYE GRASS
*BERBERIA SEED SHALL BE HULLED FOR WARM WEATHER PLANTING. PURITY OF SEED SHALL BE A MIN. OF 98% AND GERMINATION SHALL BE A MIN. OF 85%.

TEMPORARY/PERMANENT GRASS SPECIFICATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS.
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JUTE & MESH AS PER MANUFACTURER
8. ASPHALT FOR ANCHORING MULCH SHALL BE TYPE SS-1 EM



NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

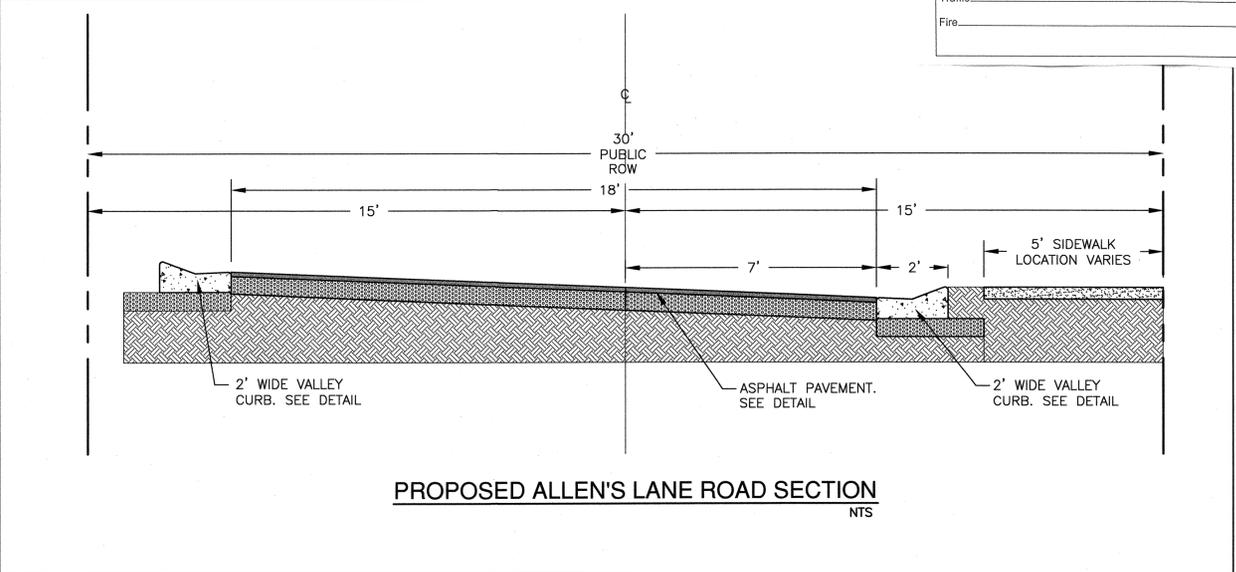
NOTE: CURB TYPE DEPENDS ON GRADES SHOWN ON GRADING PLAN. GRADES INDICATING FALL AWAY FROM CURB SHALL BE SPILL OFF TYPE CURB. GRADES INDICATING CURB ACCEPTING FLOW SHALL BE FLOW LINE TYPE.

- NOTES:
1. TRAFFIC RATED PERVIOUS MATERIALS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
 2. PERVIOUS MATERIALS SECTION MAY VARY DEPENDING UPON FIELD CONDITIONS. THE CONTRACTOR SHALL COORDINATE WITH HOME OWNERS ASSOCIATION ARCHITECTURAL REVIEW BOARD TO DETERMINE ACTUAL PAVEMENT SECTION.
 3. THE SURFACE OF SOIL SUBGRADE SHALL HAVE A SLOPE LESS THAN OR EQUAL TO 0.5%. TERRACES OR BAFFLES MAY BE INCORPORATED TO ACHIEVE FLAT SUBGRADES UNDER SLOPING SURFACES.

PERVIOUS PAVEMENT SECTION NTS.

REINFORCED TURF NTS.

SIDEWALK JOINT DETAILS



PROPOSED ALLEN'S LANE ROAD SECTION NTS.

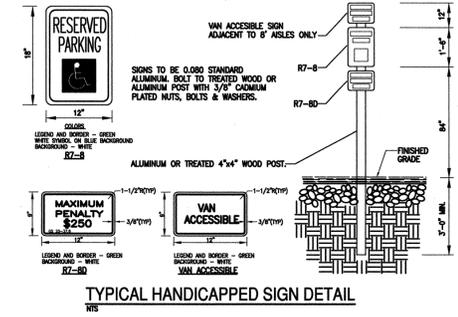
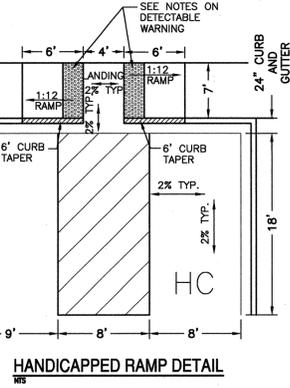
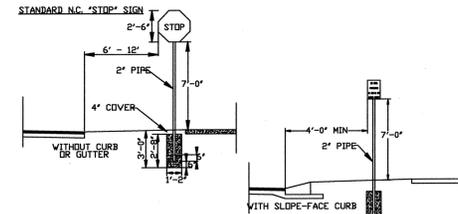
Approved Construction Plan

Name: _____ Date: _____

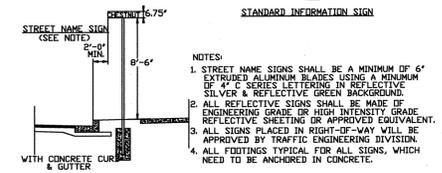
Planning: _____

Traffic: _____

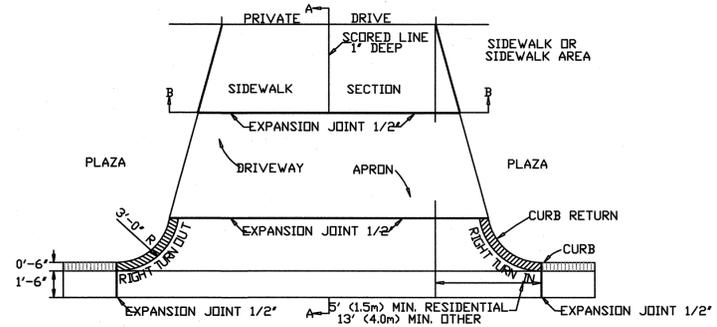
Fire: _____



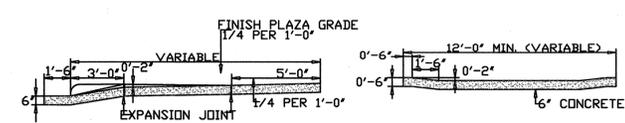
TYPICAL HANDICAPPED SIGN DETAIL NTS.



STANDARD SIGN INSTALLATION LOCATION SD 15-03 NOT TO SCALE

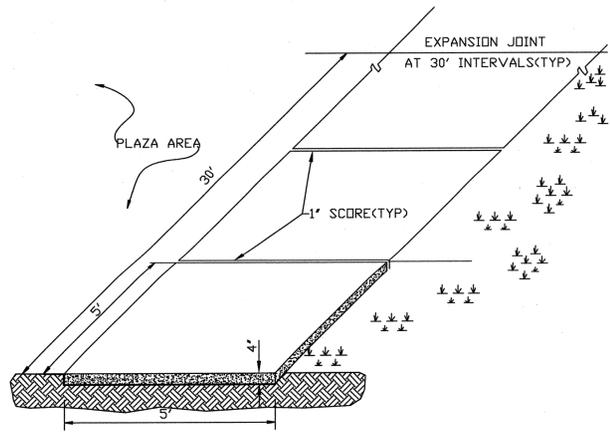


PAVEMENT PLAN

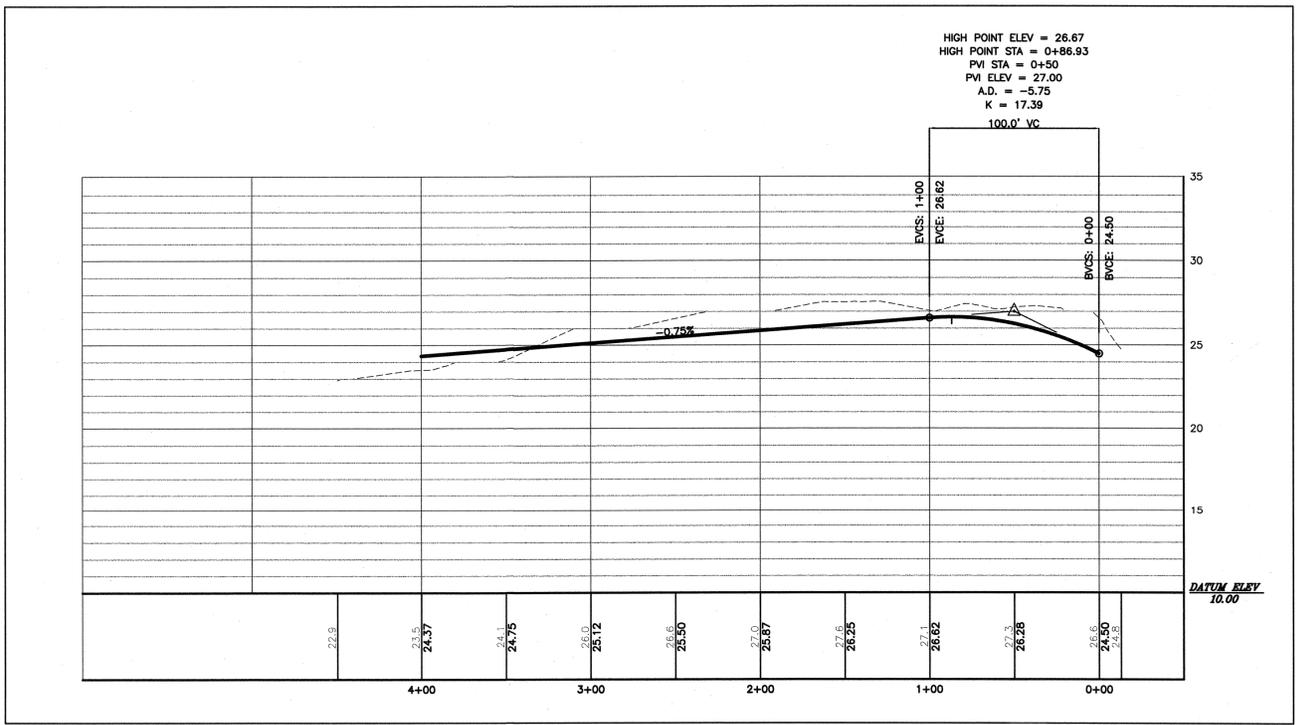


SECTION A-A SECTION B-B

STANDARD DRIVEWAY DETAIL SD 8-02 NOT TO SCALE



STANDARD SIDEWALK DETAIL SD 8-15 NOT TO SCALE



ALLEN'S LANE ROAD PROFILE SCALE: 1"=50' HORIZONTAL 1"=5' VERTICAL

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

SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	

NOTES AND DETAILS

© 2013 NORRIS & TUNSTALL

OWNER/DEVELOPER
ALLEN'S LANE PARTNERS, LLC
JAMES E. WALLACE, JR.
MEMBER/MANAGER
1902 EASTWOOD ROAD
WILMINGTON, NC 28403
910 5091921

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY
SUITE 400
WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nc-norristun.com
license #6-3641

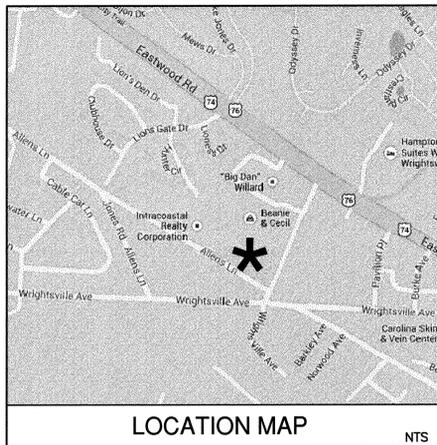
13082

DES. JST
ORD. JPN
DRWN. NKS

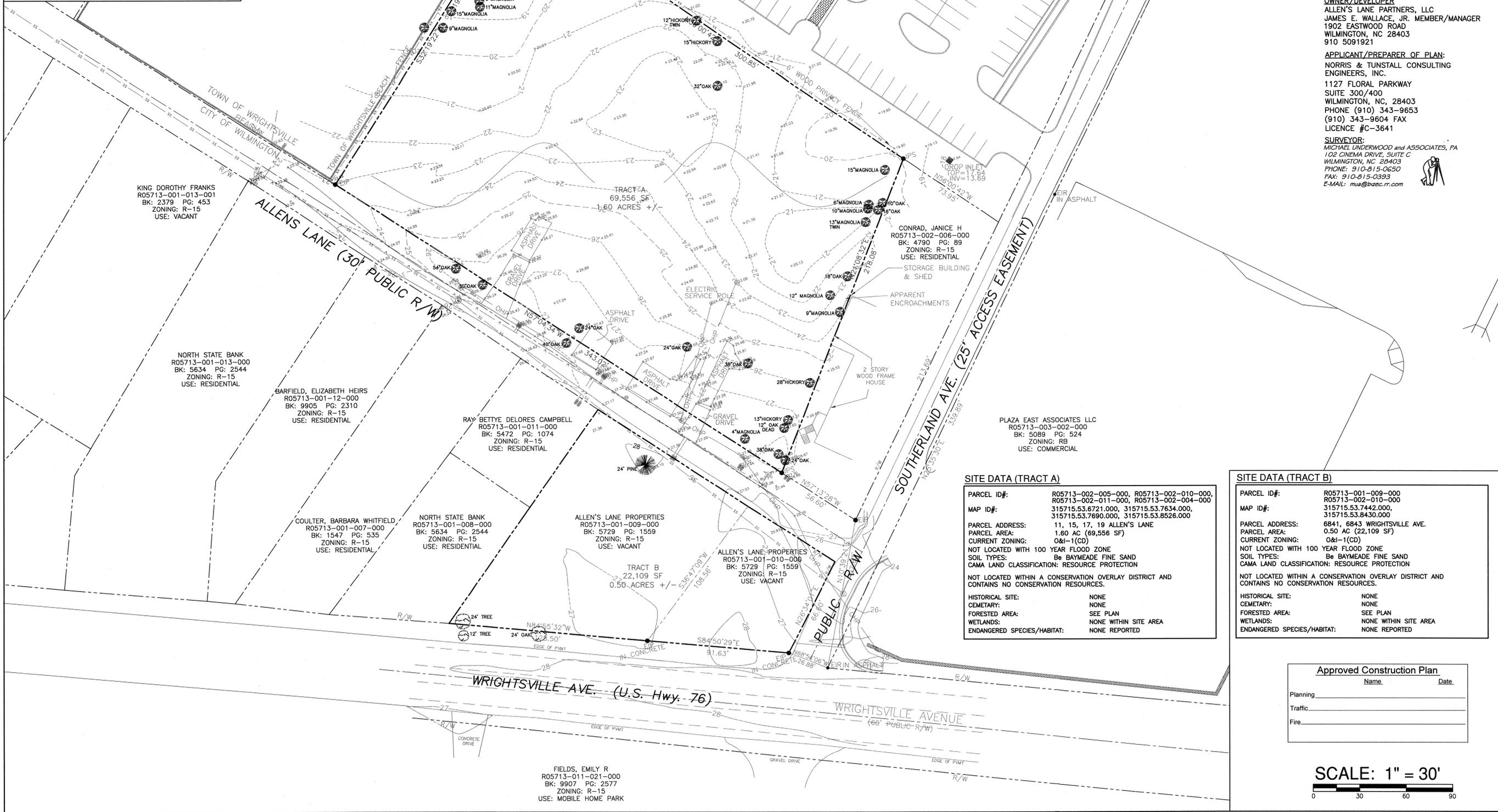
DATE 11/20/13



C5



LOCATION MAP NTS



SYMBOL	DATE	DESCRIPTION	BY
		REVISIONS	
		© 2013 NORRIS & TUNSTALL	

SITE INVENTORY PLAN

OWNER/DEVELOPER
ALLEN'S LANE PARTNERS, LLC
JAMES E. WALLACE, JR. MEMBER/MANAGER
1902 EASTWOOD ROAD
WILMINGTON, NC 28403
910 5091921

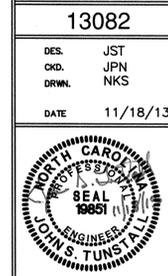
OWNER/DEVELOPER
ALLEN'S LANE PARTNERS, LLC
JAMES E. WALLACE, JR. MEMBER/MANAGER
1902 EASTWOOD ROAD
WILMINGTON, NC 28403
910 5091921

NORRIS & TUNSTALL CONSULTING ENGINEERS, P.C.
1127 FLORAL PARKWAY SUITE 300/400
WILMINGTON, NC 28403
PHONE (910) 343-9653
FAX (910) 343-9604
office@nteng.com
licence #C-3641

13082

DES. JUST
CHK. JPN
DRWN. NKS

DATE 11/18/13



SITE DATA (TRACT A)

PARCEL ID#:	R05713-002-005-000, R05713-002-010-000, R05713-002-011-000, R05713-002-004-000
MAP ID#:	315715.53.6721.000, 315715.53.7634.000, 315715.53.7690.000, 315715.53.8526.000
PARCEL ADDRESS:	11, 15, 17, 19 ALLEN'S LANE
PARCEL AREA:	1.60 AC (69,556 SF)
CURRENT ZONING:	O&I-1(CD)
NOT LOCATED WITH 100 YEAR FLOOD ZONE	
SOIL TYPES:	B _o BAYMEADE FINE SAND
CAMA LAND CLASSIFICATION:	RESOURCE PROTECTION
NOT LOCATED WITHIN A CONSERVATION OVERLAY DISTRICT AND CONTAINS NO CONSERVATION RESOURCES.	
HISTORICAL SITE:	NONE
CEMETARY:	NONE
FORESTED AREA:	SEE PLAN
WETLANDS:	NONE WITHIN SITE AREA
ENDANGERED SPECIES/HABITAT:	NONE REPORTED

SITE DATA (TRACT B)

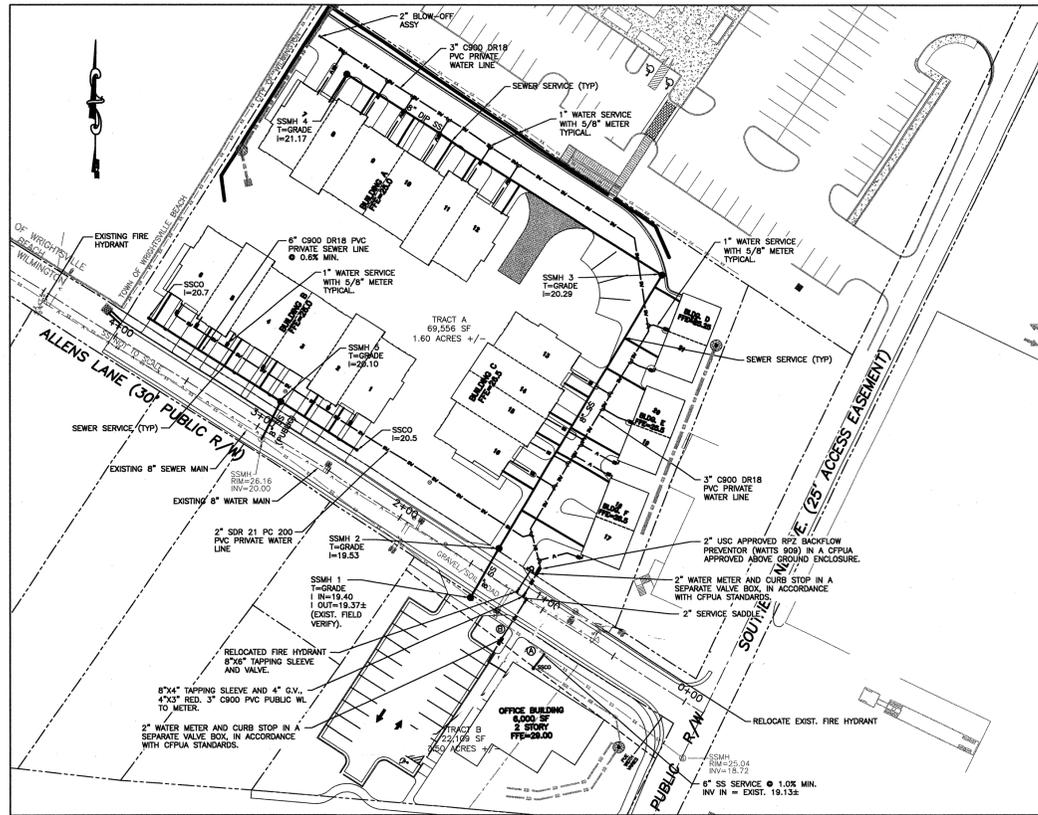
PARCEL ID#:	R05713-001-009-000, R05713-002-010-000
MAP ID#:	315715.53.7442.000, 315715.53.8450.000
PARCEL ADDRESS:	6841, 6843 WRIGHTSVILLE AVE.
PARCEL AREA:	0.50 AC (22,109 SF)
CURRENT ZONING:	O&I-1(CD)
NOT LOCATED WITH 100 YEAR FLOOD ZONE	
SOIL TYPES:	B _o BAYMEADE FINE SAND
CAMA LAND CLASSIFICATION:	RESOURCE PROTECTION
NOT LOCATED WITHIN A CONSERVATION OVERLAY DISTRICT AND CONTAINS NO CONSERVATION RESOURCES.	
HISTORICAL SITE:	NONE
CEMETARY:	NONE
FORESTED AREA:	SEE PLAN
WETLANDS:	NONE WITHIN SITE AREA
ENDANGERED SPECIES/HABITAT:	NONE REPORTED

Approved Construction Plan

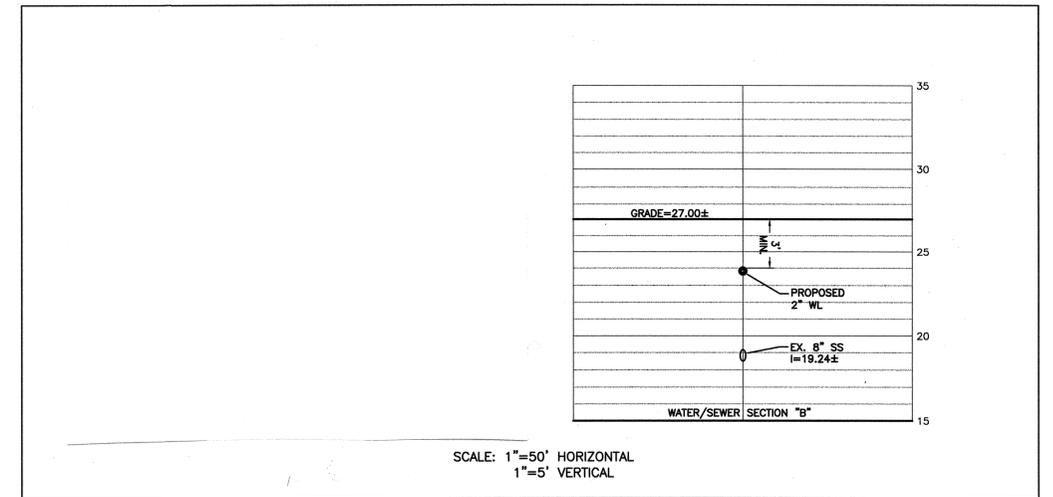
Name	Date
Planning	
Traffic	
Fire	



F:\Projects\2013\13039 The Townhomes @ Lumina Station Rezoning\13039 Plans\dwg\concy current.dwg, 11/18/2013 10:03:48 AM



SCALE: 1" = 50'

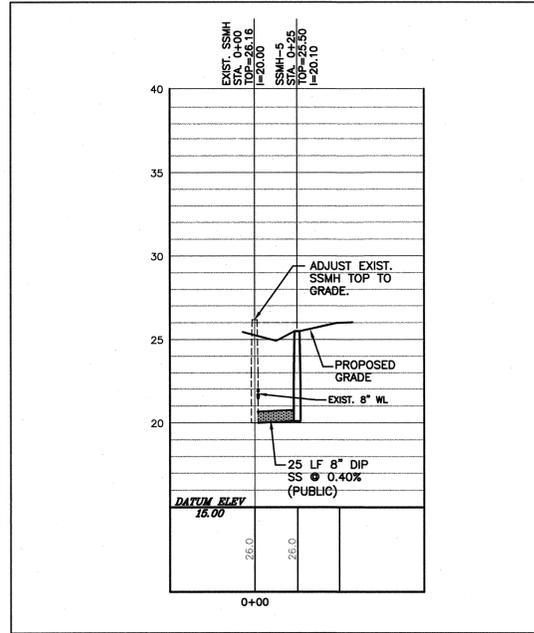


SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

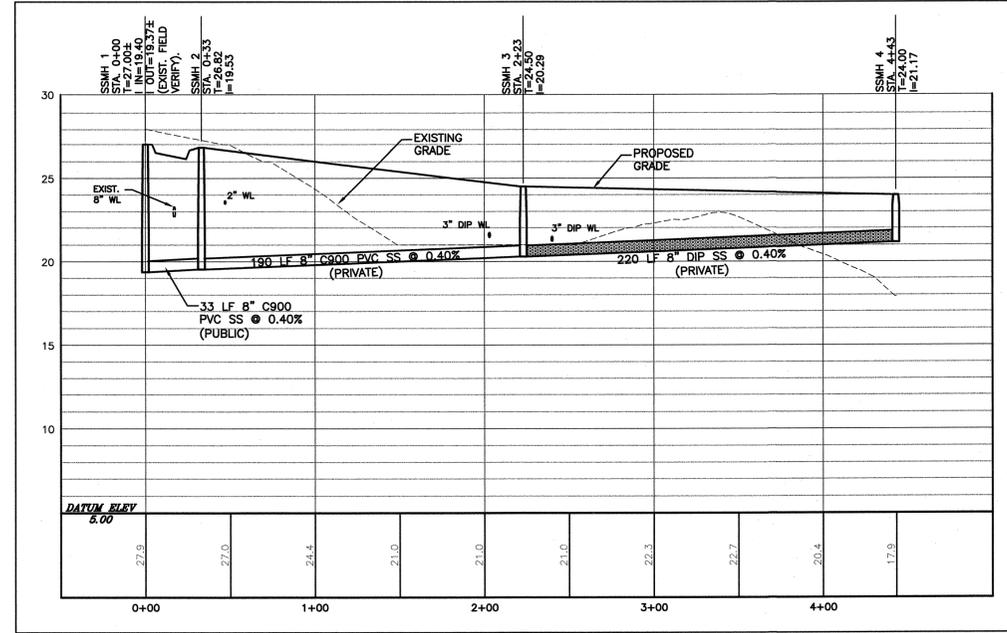
UTILITY NOTES:

- LATERAL SEPARATION OF SEWERS AND WATER MAINS.** WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION-IN WHICH CASE:
 - THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR
 - THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
- CROSSING A WATER MAIN OVER A SEWER.** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION-IN WHICH CASE BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
- CROSSING A WATER MAIN UNDER A SEWER.** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
- THE FOLLOWING SHOULD BE FOLLOWED IN THE CASES OF GRAVITY SEWER UNDER STORM DRAIN:**
 - LESS THAN 12" OF SEPARATION BETWEEN STORM DRAIN AND GRAVITY SEWER, STORM DRAIN MUST BE BRIDGED.
 - 12" TO 24" OF SEPARATION BETWEEN STORM DRAIN AND GRAVITY SEWER, GRAVITY SEWER CAN BE DIP OR STORM DRAIN CAN BE BRIDGED.
 - GREATER THAN 24" OF SEPARATION BETWEEN STORM DRAIN AND GRAVITY SEWER NO BRIDGING OR DIP REQUIRED.
- RESTRAINING/BLOCKING:** THE PLUGS, CAPS, TEES AND BENDS DEFLECTING 22-1/2 DEGREES OR MORE EITHER VERTICALLY OR HORIZONTALLY ON WATER LINES 6 INCHES IN DIAMETER OF LARGER SHALL BE PROVIDED WITH THRUST BLOCKING OF "MEGALUG" RETAINER GLAND AT EACH JOINT, INSTALLED PER MANUFACTURER'S REQUIREMENTS.

- CFPUA STANDARD NOTES:**
- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
 - WELLS IN CONFLICT ARE TO BE RELOCATED.
 - SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT OF WAY LINE. SERVICES IN CUL-DE-SAC ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT OF WAY LINE.
 - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, D.I.P. 401 PROTECTO CERAMIC LINED.
 - NO FLEXIBLE COUPLINGS SHALL BE USED.
 - WATER METERS AND FIRST CLEAN-OUTS SHALL BE 18" MIN. INSIDE ROW/EASEMENT AS PER CFPUA DETAILS.



LINE 1
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL



LINE 2
SCALE: 1" = 50' HORIZONTAL
1" = 5' VERTICAL

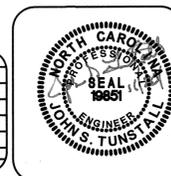
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Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

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

REV. NO.	DESCRIPTION	DATE

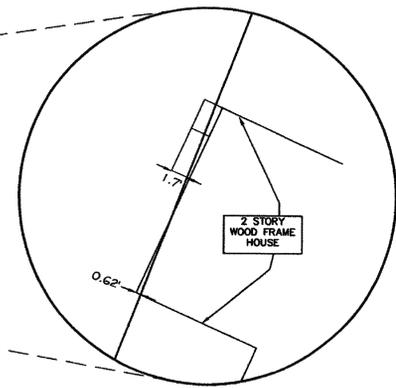
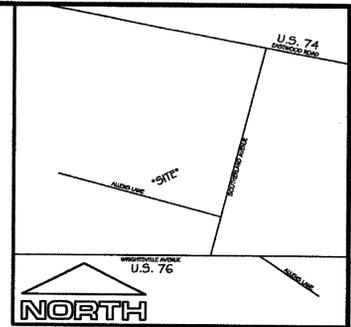
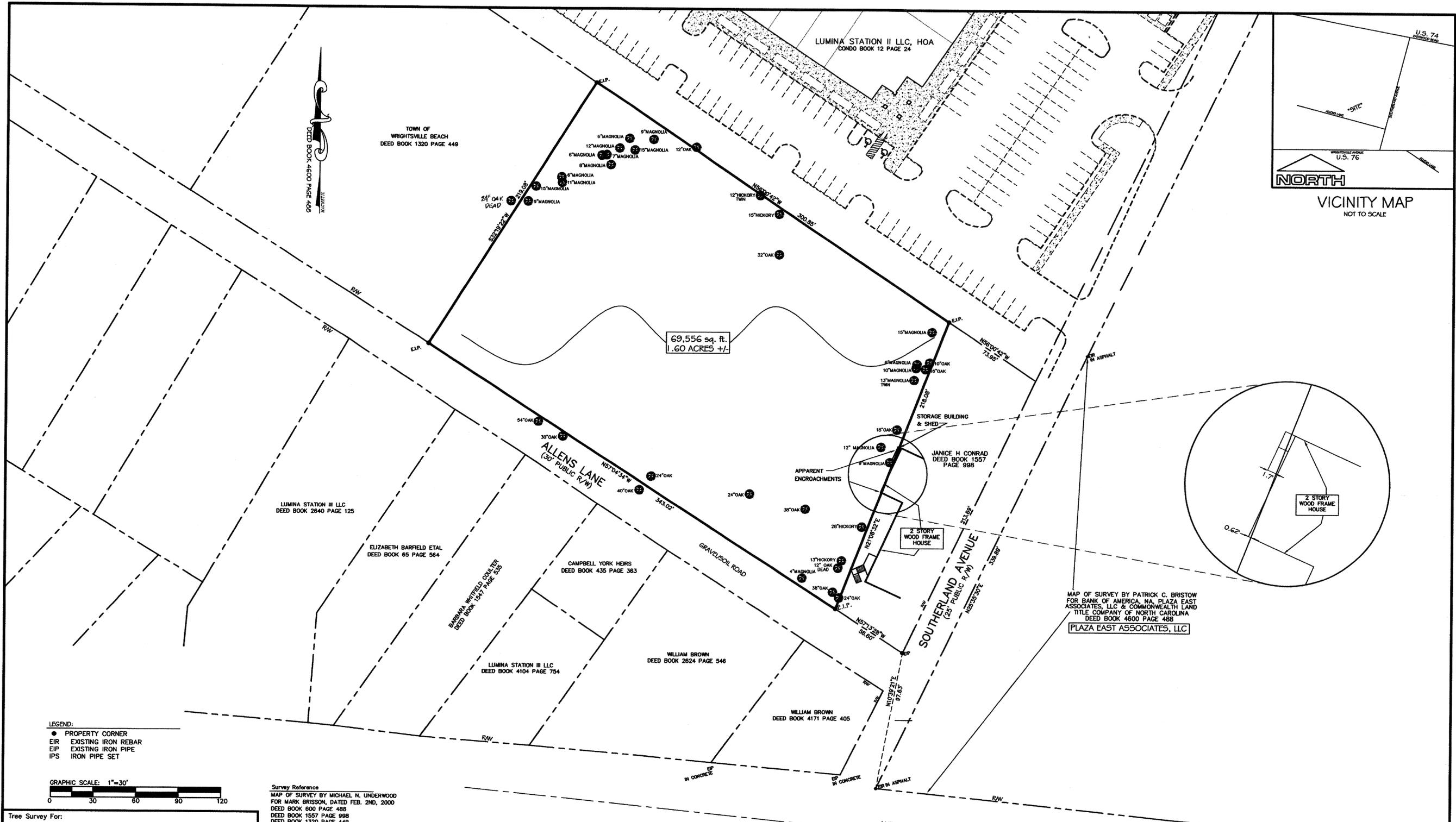


NORRIS & TUNSTALL CONSULTING ENGINEERS, INC.
 1127 FLORENCE PARKWAY
 SUITE 400
 WILMINGTON, NC 28403
 PHONE (910) 343-8883
 FAX (910) 343-8804
 LICENSE IC-0520

DATE: 11/20/13
 SCALE: 1" = 50'
 1" = 5'
 DRAWN: NKS
 CHECKED: JST
 PROJECT NO: 13082

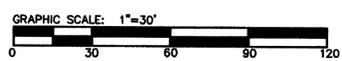
SHEET NO:
PR1

SANITARY SEWER PLAN AND PROFILE
 SPARTINA AT LUMINA STATION
 2011 ALLENS LANE
 WILMINGTON, N. C.



MAP OF SURVEY BY PATRICK C. BRISTOW
FOR BANK OF AMERICA, NA, PLAZA EAST
ASSOCIATES, LLC & COMMONWEALTH LAND
TITLE COMPANY OF NORTH CAROLINA
DEED BOOK 4600 PAGE 488
PLAZA EAST ASSOCIATES, LLC

LEGEND:
● PROPERTY CORNER
EIR EXISTING IRON REBAR
EIP EXISTING IRON PIPE
IPS IRON PIPE SET



Survey Reference
MAP OF SURVEY BY MICHAEL N. UNDERWOOD
FOR MARK BRISSON, DATED FEB. 2ND, 2000
DEED BOOK 600 PAGE 488
DEED BOOK 1557 PAGE 998
DEED BOOK 1320 PAGE 449
MAP BOOK 40 PAGE 398
DEED BOOK 2207 PAGE 815
DEED BOOK 2211 PAGE 38
DEED BOOK 2824 PAGE 546
BOOK 5364 PAGE 2544

Tree Survey For:
ALLENS LANE PARTNERS LLC
1.60 ACRES +/-
BOOK 5729 PAGE 1559
WILMINGTON TOWNSHIP NEW HANOVER COUNTY
NORTH CAROLINA

CLIENT: MIHALY LAND DESIGN
C/O JOSH MIHALY, RLA, LEED AP-PRINCIPAL
EMAIL: JOSH@MIHALYLAND.NET

MICHAEL UNDERWOOD and ASSOCIATES, PA 102 CINEMA DRIVE, SUITE A WILMINGTON, NC 28403 PHONE: 910-815-0650 FAX: 910-815-0393 E-MAIL: mto@uizac-tr.com C#0815	SURVEYED: CC DRAWN BY: BKJ CHECKED BY:	APPROVED: MINU DATE: 6/21/13 SCALE: 1"=30'
---	---	---

NOTE:
THE TRACTS SHOWN HEREON ARE
NOT LOCATED IN AN AREA OF 100 YEAR FLOOD.

CERTIFICATE:
THIS SURVEY IS OF EXISTING PARCELS OF LAND AND DOES NOT
CREATE A NEW STREET OR CHANGE AN EXISTING STREET.
Michael N. Underwood
MICHAEL N. UNDERWOOD, P.L.S. L-2962



NORTH CAROLINA
NEW HANOVER COUNTY
I, MICHAEL N. UNDERWOOD, CERTIFY THAT THIS PLAT WAS DRAWN
UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER
MY SUPERVISION DESCRIPTION AS SHOWN ON THE FACE OF THIS
PLAT RATIO OF PRECISION AS CALCULATED BY COMPUTER IS
1/10,000 +/- THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN
BY BROKEN LINES PLOTTED FROM INFORMATION REFERENCED
THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH "THE
STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH
CAROLINA" WITNESS MY ORIGINAL SIGNATURE, REGISTRATION
NUMBER AND SEAL THIS 21ST DAY OF JUNE
A.D., 2013
Michael N. Underwood
MICHAEL N. UNDERWOOD, P.L.S.
LICENSE NUMBER L-2962
SEAL OR STAMP

Tree Survey