

BRIAR CHAPEL

BC PHASE 12

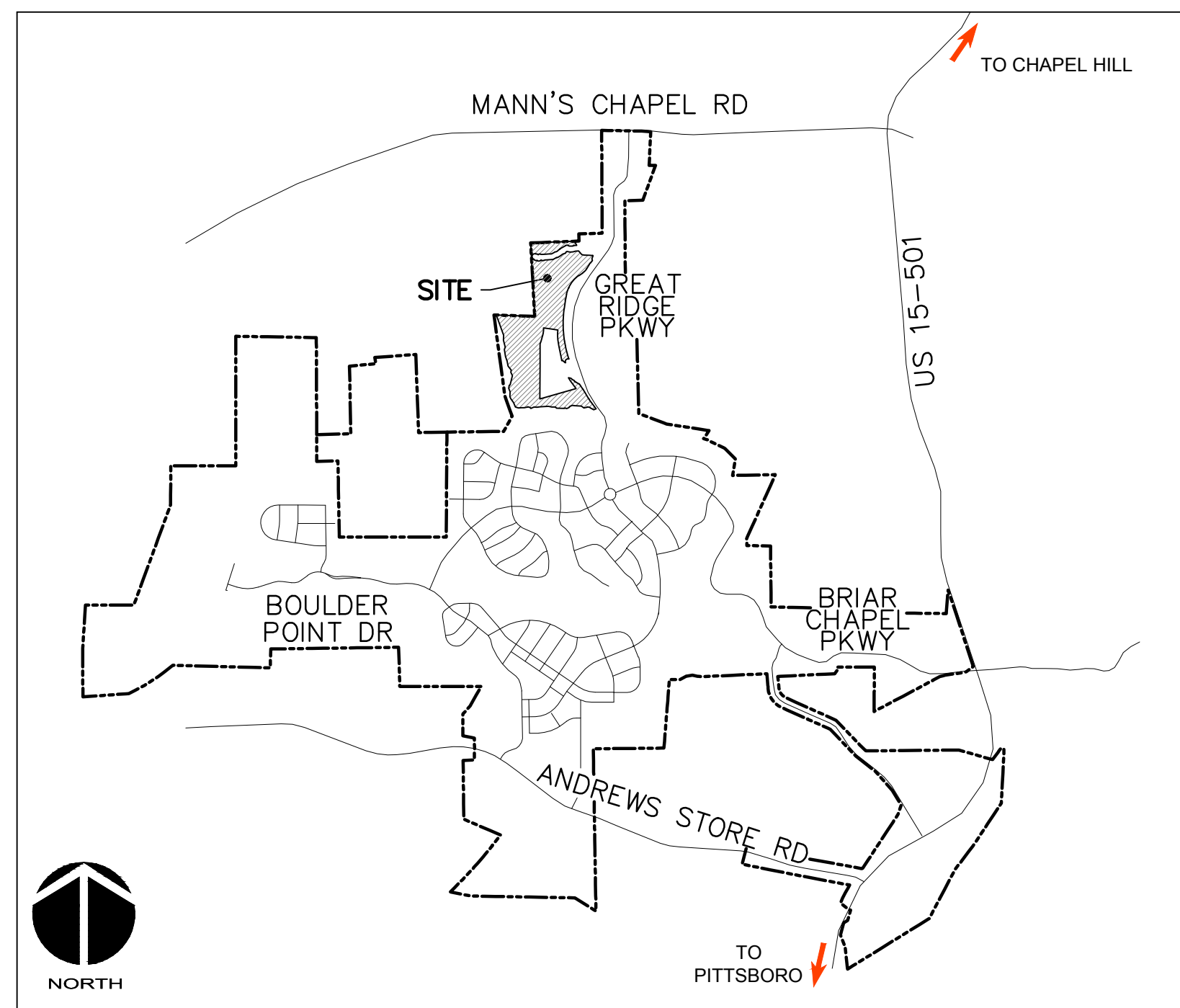
CONSTRUCTION DRAWINGS

U.S. HWY 15-501 and MANN'S CHAPEL ROAD

CHATHAM COUNTY, NORTH CAROLINA

DATE: SEPTEMBER 18, 2018
 REVISED: JANUARY 4, 2019

COUNTY AND AGENCY CONTACTS	
<p>A. Chatham County Planning Department Dunlap Building 80 East Street Pittsboro, NC 27312 (919) 542-8204 phone Contact: Jason Sullivan Email: jason.sullivan@chathamnc.org</p>	<p>E. NCDOT Division 8, District 1 300 DOT Drive P.O. Box 1164 Asheboro, NC 27204 (336) 318-4000 phone Contact: Matthew Kitchen, PE Email: mwkitchen@ncdot.gov</p>
<p>B. Chatham County Environmental Services Dunlap Building 80 East Street Pittsboro, NC 27312 (919) 542-8268 phone Contact: Morgan DeWit Email: morgan.dewit@chathamnc.org</p>	<p>F. NCDENR Division of Environmental Health Public Water Supply Section 1634 Mail Service Center Raleigh, NC 27699-1634 (919) 707-9064 phone Contact: Shashi Bhatta Email: shashi.bhatta@ncdenr.gov</p>
<p>C. Chatham County Soil Erosion and Sedimentation Control Dunlap Building 80 East Street Pittsboro, NC 27312 (919) 542-8268 phone Contact: Morgan DeWit Email: morgan.dewit@chathamnc.org</p>	<p>H. NCDENR Division of Water Quality Surface Water Protection 3800 Barrett Drive Raleigh, NC 27609 (919) 791-4200 phone Contact: Danny Smith Email: danny.smith@ncdenr.gov</p>
<p>D. Chatham County Public Works 964 East Street, 2nd Floor, Suite 205 Pittsboro, NC 27312 (919) 542-8270 phone Contact: Larry Bridges Email: larry.bridges@chathamnc.org</p>	<p>G. NCDEQ Division of Water Quality 512 N. Salisbury St Archdale Building, 9th Floor Raleigh, NC 27604 (919) 807-6373 phone Contact: Karen Higgins Email: karen.higgins@ncdenr.gov</p>



VICINITY MAP
 NTS

PROJECT DATA

NAME OF PROJECT:
 BC PHASE 12
 CHATHAM COUNTY, NORTH CAROLINA

OWNER:
 NNP BRIAR CHAPEL, LLC
 1382 BRIAR CHAPEL PARKWAY
 CHAPEL HILL, NC 27516
 PHONE: (919) 951-0700
 FAX: (919) 240-4963
 CONTACT: LEE BOWMAN
 EMAIL: lbowman@newlandco.com

PREPARED BY:
 MCKIM & CREED
 1730 VARSITY DRIVE, SUITE 500
 RALEIGH, NORTH CAROLINA 27606
 PHONE: (919) 233-8091
 FAX: (919) 233-8031
 CONTACT: GARETH AVANT, PE
 EMAIL: gavant@mckimcreed.com

PROJECT AREA: 36.19 AC

These improvements shall be constructed in accordance with the following plans, and the Standard Specifications of NCDOT and Chatham County.

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C4.1	PLAN & PROFILE ROAD A STA. 10+00.00 TO STA. 21+14.68
C4.2	PLAN & PROFILE ROAD F (1 OF 3) STA. 10+00.00 TO STA. 21+00.00
C4.3	PLAN & PROFILE ROAD F (2 OF 3) STA. 21+00.00 TO STA. 31+00.00
C4.4	PLAN & PROFILE ROAD F (3 OF 3) STA. 31+00.00 TO STA. 40+09.81
C4.5	PLAN & PROFILE ALLEY H STA. 10+00.00 TO STA. 24+26.66
C4.6	PLAN & PROFILE ALLEY I STA. 10+00.00 TO STA. 12+40.64, SEWER OUTFALL, STA 10+00.00 TO 13+65.57
C4.7	PLAN & PROFILE GREAT RIDGE PARKWAY (1 OF 2) STA 14+50.00 TO STA 25+50.00
C4.8	PLAN & PROFILE GREAT RIDGE PARKWAY (2 OF 2) STA 25+50.00 TO STA 32+50.00, STA 38+50.00 TO 42.50.00
C4.9	PLAN & PROFILE SANITARY SEWER FORCE MAIN STA 10+00.00 TO STA 22+00.00
C4.10	PLAN & PROFILE SANITARY SEWER FORCE MAIN STA 10+00.00 TO STA 22+00.00 PUMP STATION ACCESS ROAD STA. 10+00.00 TO STA. 17+50.00
D1.1	EROSION AND SEDIMENTATION CONTROL DETAILS
D1.2	EROSION AND SEDIMENTATION CONTROL DETAILS
D2.1	NCDOT ROADWAY DETAILS
D2.2	NCDOT DRAINAGE DETAILS
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D3.2	UTILITY DETAILS
D4.1	BMP #38 PLAN & DETAILS
D4.2	BMP #39 PLAN & DETAILS
D4.3	BMP #39 PLAN & DETAILS
D4.4	BMP #39 PLAN & DETAILS
D4.5	BMP #40 PLAN & DETAILS
D4.6	BMP #40 PLAN & DETAILS
D4.7	BMP #40 PLAN & DETAILS
D4.8	STORM DRAINAGE AND SANITARY SEWER TABLES

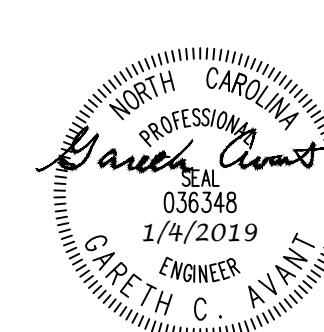


by
 Newland COMMUNITIES

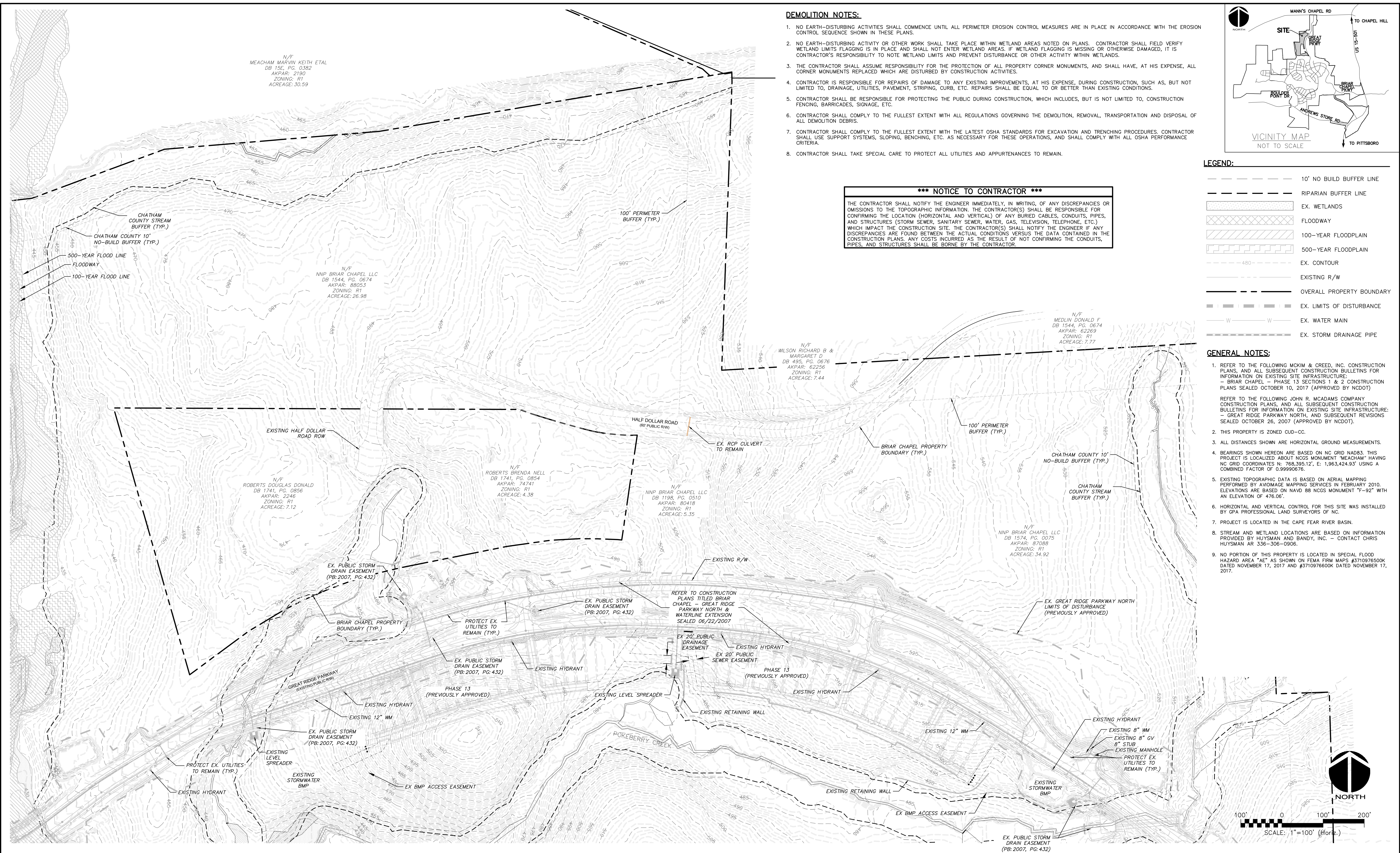


1730 Varsity Drive, Suite 500
 Raleigh, North Carolina 27606
 Phone: (919)233-8091, Fax: (919)233-8031
 F-1222

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FINAL DRAWINGS
 FOR CONSTRUCTION

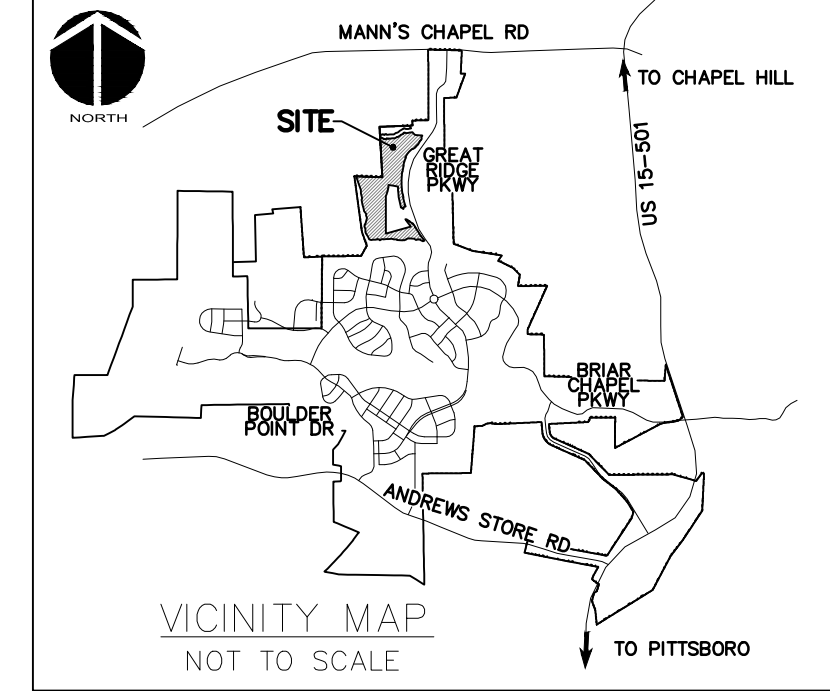


DEMOLITION NOTES:

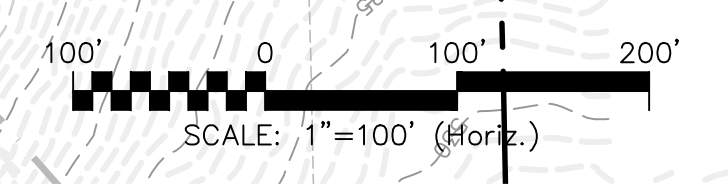
1. NO EARTH-DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERIMETER EROSION CONTROL MEASURES ARE IN PLACE IN ACCORDANCE WITH THE EROSION CONTROL SEQUENCE SHOWN IN THESE PLANS.
2. NO EARTH-DISTURBING ACTIVITY OR OTHER WORK SHALL TAKE PLACE WITHIN WETLAND AREAS NOTED ON PLANS. CONTRACTOR SHALL FIELD VERIFY WETLAND LIMITS FLAGGING IS IN PLACE AND SHALL NOT ENTER WETLAND AREAS. IF WETLAND FLAGGING IS MISSING OR OTHERWISE DAMAGED, IT IS CONTRACTOR'S RESPONSIBILITY TO NOTE WETLAND LIMITS AND PREVENT DISTURBANCE OR OTHER ACTIVITY WITHIN WETLANDS.
3. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS, AT HIS EXPENSE, DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE PUBLIC DURING CONSTRUCTION, WHICH INCLUDES, BUT IS NOT LIMITED TO, CONSTRUCTION FENCING, BARRICADES, SIGNAGE, ETC.
6. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
7. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
8. CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ALL UTILITIES AND APPURTENANCES TO REMAIN.

***** NOTICE TO CONTRACTOR *****

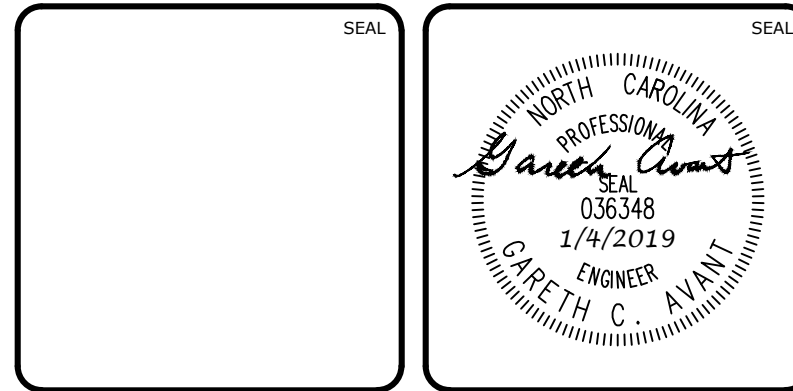
THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES OR OMISSIONS TO THE TOPOGRAPHIC INFORMATION. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION (HORIZONTAL AND VERTICAL) OF ANY BURIED CABLES, CONDUITS, PIPES, AND STRUCTURES (STORM SEWER, SANITARY SEWER, WATER, GAS, TELEVISION, TELEPHONE, ETC.) WHICH IMPACT THE CONSTRUCTION SITE. THE CONTRACTOR(S) SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES ARE FOUND BETWEEN THE ACTUAL CONDITIONS VERSUS THE DATA CONTAINED IN THE CONSTRUCTION PLANS. ANY COSTS INCURRED AS THE RESULT OF NOT CONFIRMING THE CONDUITS, PIPES, AND STRUCTURES SHALL BE BORNE BY THE CONTRACTOR.



- LEGEND:**
- 10' NO BUILD BUFFER LINE
 - - - RIPARIAN BUFFER LINE
 - [Hatched Box] EX. WETLANDS
 - [Cross-hatched Box] FLOODWAY
 - [Diagonal Lines] 100-YEAR FLOODPLAIN
 - [Stippled Box] 500-YEAR FLOODPLAIN
 - - - 480' EX. CONTOUR
 - - - EXISTING R/W
 - - - OVERALL PROPERTY BOUNDARY
 - - - EX. LIMITS OF DISTURBANCE
 - - - EX. WATER MAIN
 - - - EX. STORM DRAINAGE PIPE
- GENERAL NOTES:**
1. REFER TO THE FOLLOWING MCKIM & CREED, INC. CONSTRUCTION PLANS, AND ALL SUBSEQUENT CONSTRUCTION BULLETINS FOR INFORMATION ON EXISTING SITE INFRASTRUCTURE:
 - BRIAR CHAPEL - PHASE 13 SECTIONS 1 & 2 CONSTRUCTION PLANS SEALED OCTOBER 10, 2017 (APPROVED BY NCDOT)
 - GREAT RIDGE PARKWAY NORTH, AND SUBSEQUENT REVISIONS SEALED OCTOBER 26, 2007 (APPROVED BY NCDOT).
 2. THIS PROPERTY IS ZONED CUD-CC.
 3. ALL DISTANCES SHOWN ARE HORIZONTAL GROUND MEASUREMENTS.
 4. BEARINGS SHOWN HEREON ARE BASED ON NC GRID NAD83. THIS PROJECT IS LOCALIZED ABOUT NGSS MONUMENT "MEACHAM" HAVING NC GRID COORDINATES N: 768,395.12', E: 1,963,424.93' USING A COMBINED FACTOR OF 0.99990676.
 5. EXISTING TOPOGRAPHIC DATA IS BASED ON AERIAL MAPPING PERFORMED BY AVIOMAGE MAPPING SERVICES IN FEBRUARY 2010. ELEVATIONS ARE BASED ON NAVD 88 NGCS MONUMENT "F-92" WITH AN ELEVATION OF 476.06'.
 6. HORIZONTAL AND VERTICAL CONTROL FOR THIS SITE WAS INSTALLED BY GPA PROFESSIONAL LAND SURVEYORS OF NC.
 7. PROJECT IS LOCATED IN THE CAPE FEAR RIVER BASIN.
 8. STREAM AND WETLAND LOCATIONS ARE BASED ON INFORMATION PROVIDED BY HUYSMAN AND BANDY, INC. - CONTACT CHRIS HUYSMAN AR 336-306-0906.
 9. NO PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAPS #3710976500K DATED NOVEMBER 17, 2017 AND #3710976500K DATED NOVEMBER 17, 2017.



REV. NO.	DESCRIPTIONS	DATE
8	STORMWATER POND REVISIONS	2019.01.04
7	REVISIONS PER NCDOT COMMENTS	2018.12.18
6	REVISIONS PER NCDOT COMMENTS	2018.12.13
5	REVISIONS PER NCDOT COMMENTS	2018.12.05
4	REVISIONS PER NCDOT PWSS COMMENTS	2018.11.02
3	REVISIONS PER CHATHAM COUNTY EROSION CONTROL COMMENTS	2018.10.15
2	REVISIONS PER COUNTY WATER COMMENTS	2018.09.01
1	INITIAL SUBMITTAL	2018.09.18



MCKIM & CREED
 1730 Varsity Drive, Suite 500
 Raleigh, North Carolina 27606
 Phone: (919)233-8091, Fax: (919)233-8031
 F-1222
www.mckimcreed.com

BRIAR CHAPEL™
 by
Newland COMMUNITIES

**BRIAR CHAPEL
 BC PHASE 12
 CHATHAM COUNTY, NORTH CAROLINA
 OVERALL
 EXISTING CONDITIONS/
 DEMOLITION PLAN**

DATE: SEPTEMBER 18, 2018	SCALE	MSC FILE NUMBER
MCE PROJ. # 02735-0231	HORIZONTAL: AS NOTED	C0.2
DRAWN: LEG	VERTICAL: N/A	DRAWING NUMBER
DESIGNED: LEG		C0.2
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS FOR CONSTRUCTION	REVISION	8

C1.2

N/F
MEACHAM MARVIN KEITH ETAL
DB 156, PG. 0382
AKPAR: 2190
ZONING: R1
ACREAGE: 30.59

CHATHAM COUNTY 10'
NO-BUILD BUFFER (TYP.)
CHATHAM COUNTY
50' STREAM BUFFER (TYP.)

SITE GENERAL NOTES:

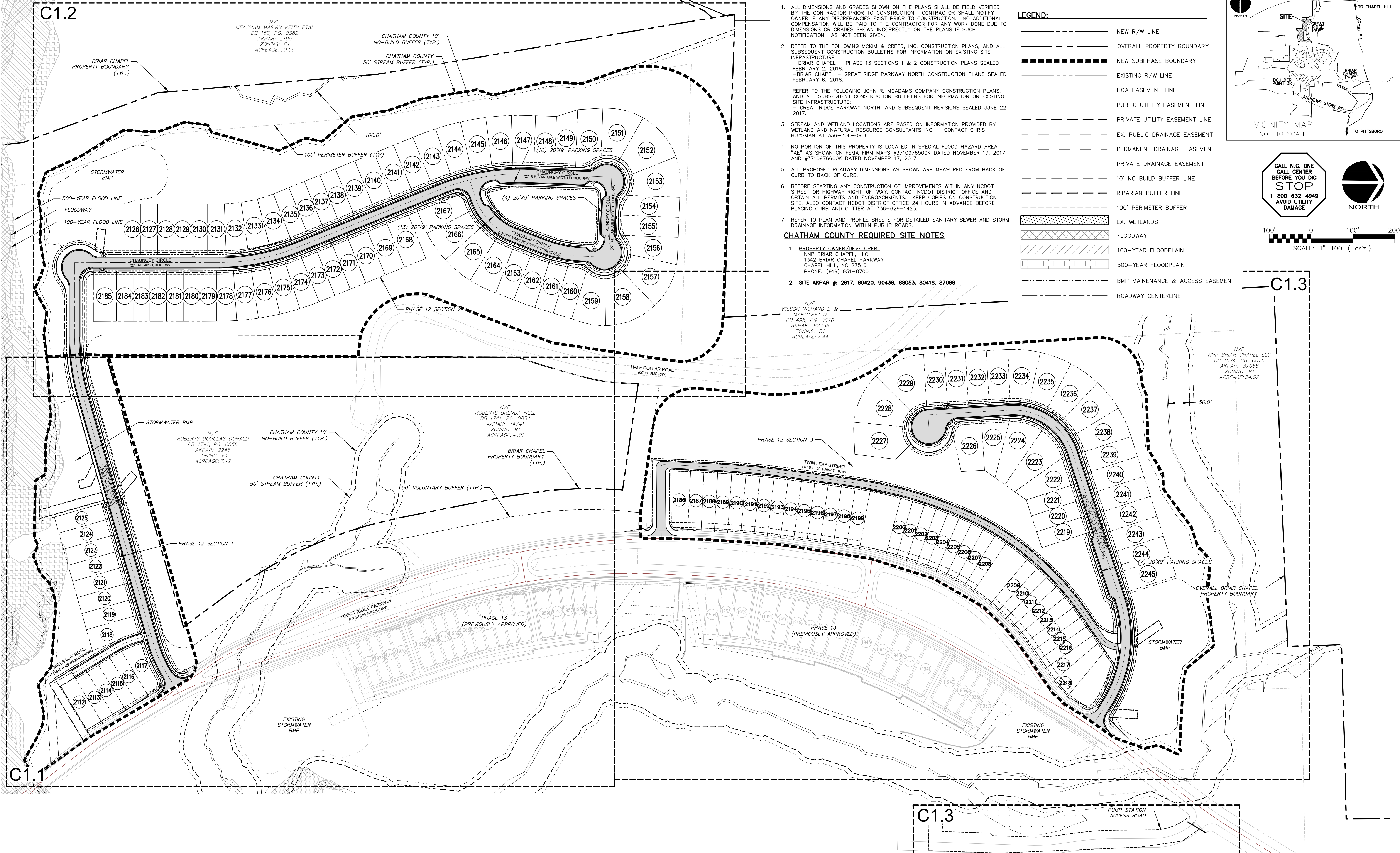
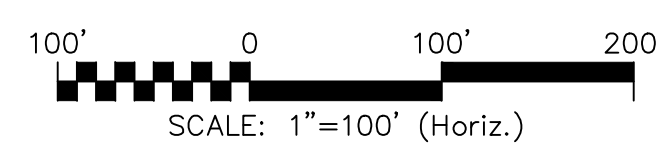
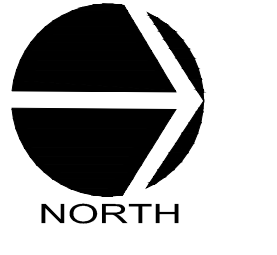
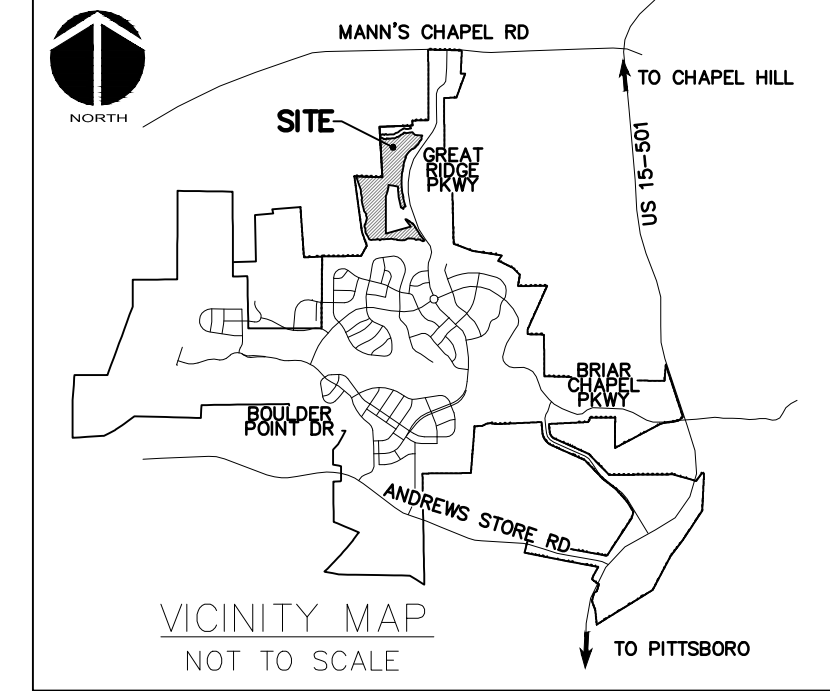
- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY DISCREPANCIES EXIST PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- REFER TO THE FOLLOWING MCKIM & CREED, INC. CONSTRUCTION PLANS, AND ALL SUBSEQUENT CONSTRUCTION BULLETINS FOR INFORMATION ON EXISTING SITE INFRASTRUCTURE:
- BRIAR CHAPEL - PHASE 13 SECTIONS 1 & 2 CONSTRUCTION PLANS SEALED FEBRUARY 2, 2018.
- BRIAR CHAPEL - GREAT RIDGE PARKWAY NORTH CONSTRUCTION PLANS SEALED FEBRUARY 6, 2018.
REFER TO THE FOLLOWING JOHN R. MCADAMS COMPANY CONSTRUCTION PLANS, AND ALL SUBSEQUENT CONSTRUCTION BULLETINS FOR INFORMATION ON EXISTING SITE INFRASTRUCTURE:
- GREAT RIDGE PARKWAY NORTH, AND SUBSEQUENT REVISIONS SEALED JUNE 22, 2017.
- STREAM AND WETLAND LOCATIONS ARE BASED ON INFORMATION PROVIDED BY WETLAND AND NATURAL RESOURCE CONSULTANTS INC. - CONTACT CHRIS HUYSMAN AT 336-306-0906.
- NO PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAPS #371097600K DATED NOVEMBER 17, 2017 AND #3710976600K DATED NOVEMBER 17, 2017.
- ALL PROPOSED ROADWAY DIMENSIONS AS SHOWN ARE MEASURED FROM BACK OF CURB TO BACK OF CURB.
- BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY NCDOT STREET OR HIGHWAY RIGHT-OF-WAY, CONTACT NCDOT DISTRICT OFFICE 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 AT 336-629-1423.
- REFER TO PLAN AND PROFILE SHEETS FOR DETAILED SANITARY SEWER AND STORM DRAINAGE INFORMATION WITHIN PUBLIC ROADS.

CHATHAM COUNTY REQUIRED SITE NOTES

- PROPERTY OWNER / DEVELOPER:
NWP BRIAR CHAPEL, LLC
1342 BRIAR CHAPEL PARKWAY
CHAPEL HILL, NC 27516
PHONE: (919) 951-0700
- SITE AKPAR # 2617, 80420, 90438, 88053, 80418, 87088

LEGEND:

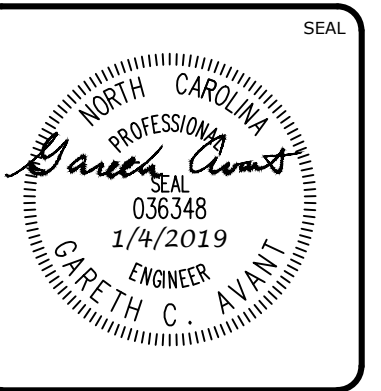
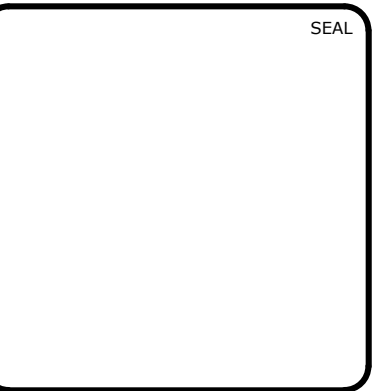
- NEW R/W LINE
- OVERALL PROPERTY BOUNDARY
- NEW SUBPHASE BOUNDARY
- EXISTING R/W LINE
- HOA EASEMENT LINE
- PUBLIC UTILITY EASEMENT LINE
- PRIVATE UTILITY EASEMENT LINE
- EX. PUBLIC DRAINAGE EASEMENT
- PERMANENT DRAINAGE EASEMENT
- PRIVATE DRAINAGE EASEMENT
- 10' NO BUILD BUFFER LINE
- RIPARIAN BUFFER LINE
- 100' PERIMETER BUFFER
- EX. WETLANDS
- FLOODWAY
- 100-YEAR FLOODPLAIN
- 500-YEAR FLOODPLAIN
- BMP MAINTENANCE & ACCESS EASEMENT
- ROADWAY CENTERLINE



C1.1

C1.3

REV. NO.	DESCRIPTIONS	DATE
8	STORMWATER POND REVISIONS	2019.01.04
7	REVISIONS PER NCDOT COMMENTS	2018.12.18
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1	INITIAL SUBMITTAL	2018.09.18



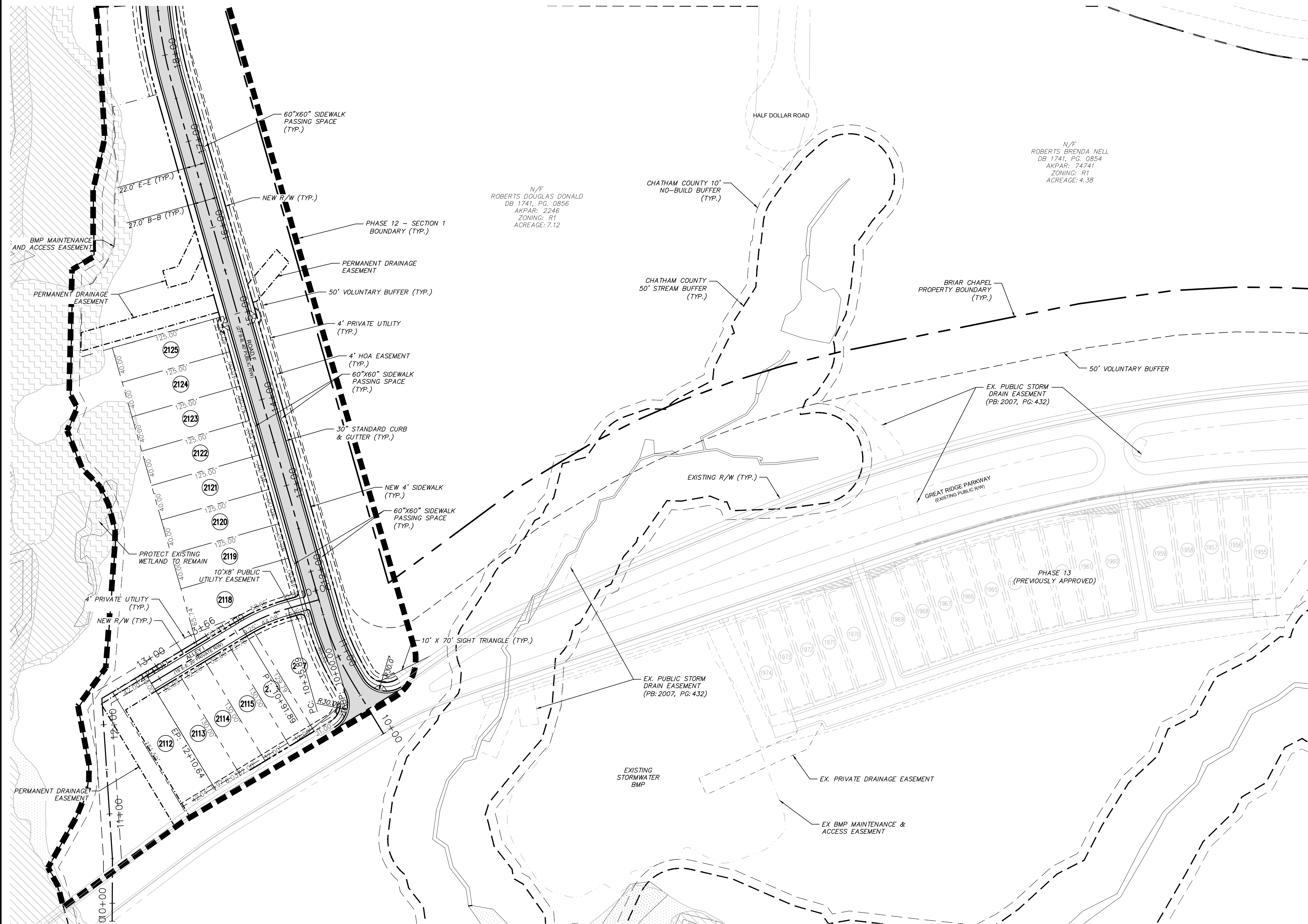
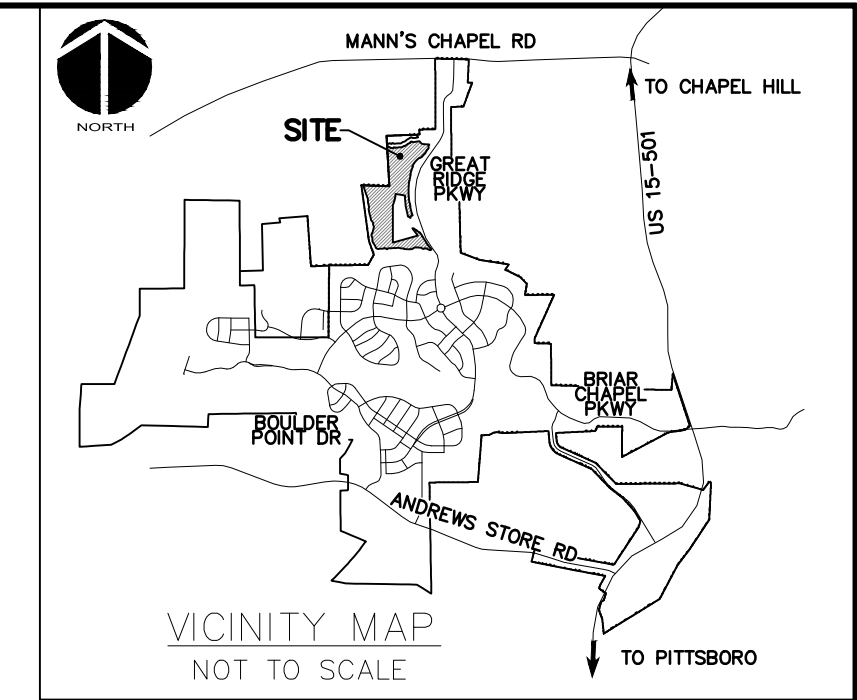
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F-1222
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by
Newland COMMUNITIES

**BRIAR CHAPEL
BC PHASE 12
CHATHAM COUNTY, NORTH CAROLINA**

OVERALL SITE PLAN

DATE: SEPTEMBER 18, 2018	SCALE	M&C FILE NUMBER
M&C PROJ. # 02735-0231	HORIZONTAL: AS NOTED	C1.X
DRAWN: LEG	VERTICAL: N/A	DRAWING NUMBER
DESIGNED: LEG		C1.0
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS FOR CONSTRUCTION	REVISION	8



LOT AREA TABLE		
LOT #	AREA (SF)	AREA (AC)
2112	6325.34	0.15
2113	4160.05	0.10
2114	4160.00	0.10
2115	4160.00	0.10
2116	4159.34	0.10
2117	6042.37	0.14
2118	6403.93	0.15
2119	5000.00	0.11
2120	5000.00	0.11
2121	5000.00	0.11
2122	5000.00	0.11
2123	5000.00	0.11
2124	5000.00	0.11
2125	5000.00	0.11

- LEGEND:**
- NEW R/W LINE
 - OVERALL PROPERTY BOUNDARY
 - NEW SUBPHASE BOUNDARY
 - EXISTING R/W LINE
 - HOA EASEMENT LINE
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 - PRIVATE DRAINAGE EASEMENT
 - 10' NO BUILD BUFFER LINE
 - RIPARIAN BUFFER LINE
 - 100' PERIMETER BUFFER
 - EX. WETLANDS
 - FLOODWAY
 - 100-YEAR FLOODPLAIN
 - 500-YEAR FLOODPLAIN
 - BMP MAINTENANCE & ACCESS EASEMENT
 - ROADWAY CENTERLINE

CALL N.C. ONE
CALL CENTER
BEFORE YOU DIG
STOP
1-800-632-4949
AVOID UTILITY
DAMAGE

NORTH

60' 0 60' 120'
SCALE: 1"=60' (Horiz.)

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3	REVISIONS PER CHATHAM COUNTY EROSION CONTROL COMMENTS	2018.10.15
2	REVISIONS PER COUNTY WATER COMMENTS	2018.09.01
1	INITIAL SUBMITTAL	2018.09.18

SEAL

GRETH C. AVANT
PROFESSIONAL ENGINEER
1/4/2019
036348
NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER

MCKIM & CREED

1730 Varsity Drive, Suite 500
Raleigh, North Carolina 27606
Phone: (919)233-8091, Fax: (919)233-8031
F-1222
www.mckimcreed.com

BRIAR CHAPEL™

by
Newland COMMUNITIES

**BRIAR CHAPEL
BC PHASE 12
CHATHAM COUNTY, NORTH CAROLINA**

SITE PLAN - PHASE 12 SOUTH

DATE: SEPTEMBER 18, 2018
MCE PROJ. # 02735-0231
DRAWN: LEG
DESIGNED: LEG
CHECKED: GCA
PROJ. MGR.: CHS

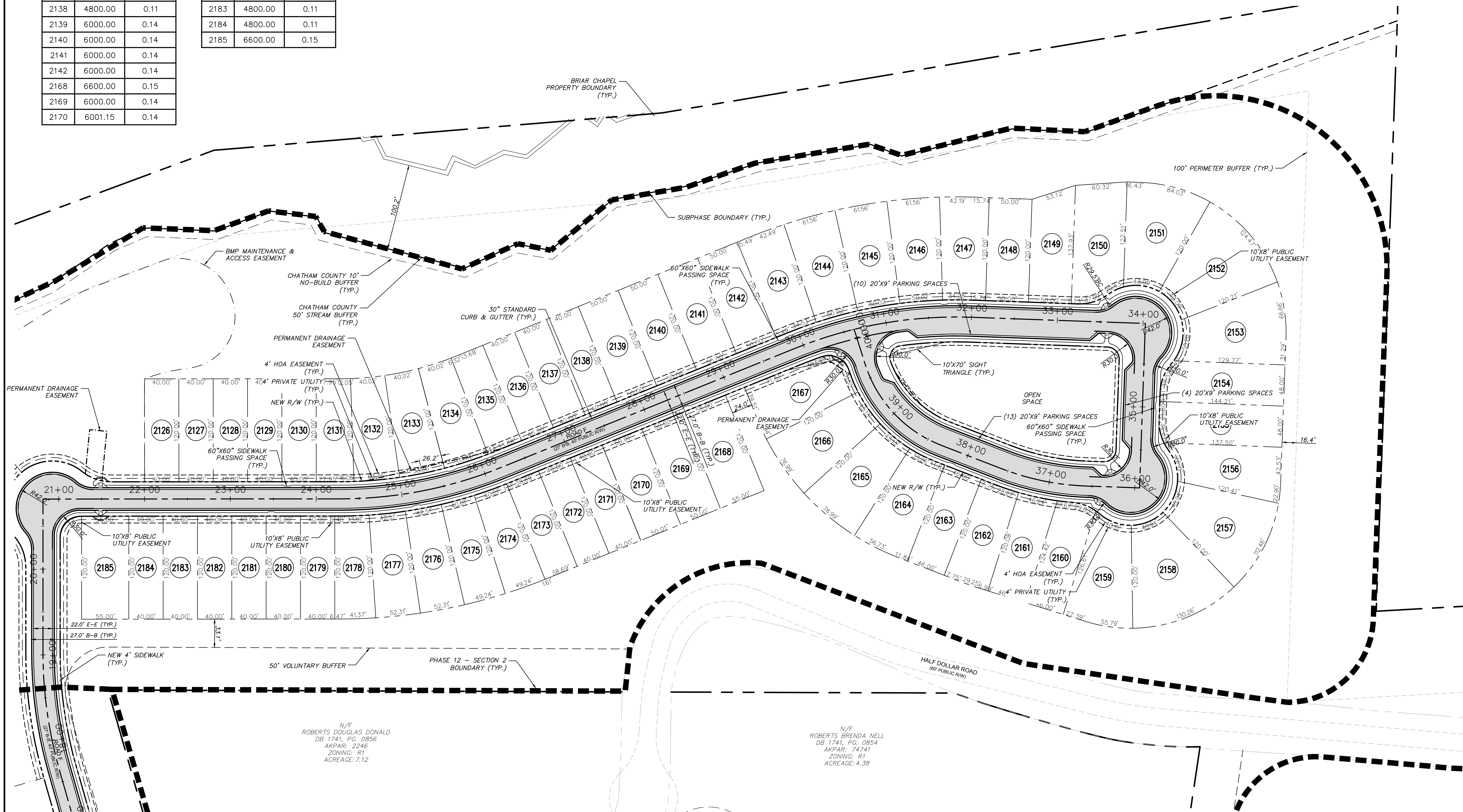
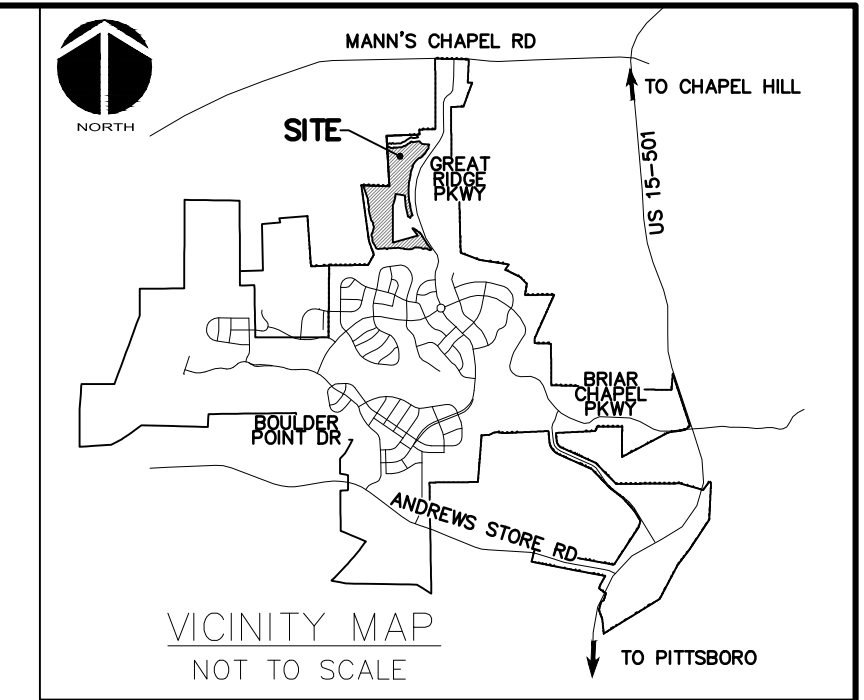
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VERTICAL: N/A

MSC FILE NUMBER: **C1.X**
DRAWING NUMBER: **C1.1**

STATUS: FINAL DRAWINGS FOR CONSTRUCTION
REVISION: 8

LOT #	AREA (SF)	AREA (AC)
2126	4800.00	0.11
2127	4800.00	0.11
2128	4800.00	0.11
2129	4800.00	0.11
2130	4800.00	0.11
2131	5041.15	0.12
2132	5602.88	0.13
2133	5602.88	0.13
2134	5602.88	0.13
2135	4926.43	0.11
2136	4800.00	0.11
2137	4800.00	0.11
2138	4800.00	0.11
2139	6000.00	0.14
2140	6000.00	0.14
2141	6000.00	0.14
2142	6000.00	0.14
2168	6600.00	0.15
2169	6000.00	0.14
2170	6001.15	0.14

LOT #	AREA (SF)	AREA (AC)
2171	4800.00	0.11
2172	4800.00	0.11
2173	4818.15	0.11
2174	5355.17	0.12
2175	5355.17	0.12
2176	5689.15	0.13
2177	5689.15	0.13
2178	5270.85	0.12
2179	4800.00	0.11
2180	4800.00	0.11
2181	4800.00	0.11
2182	4800.00	0.11
2183	4800.00	0.11
2184	4800.00	0.11
2185	6600.00	0.15



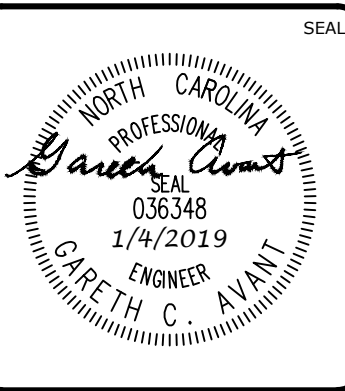
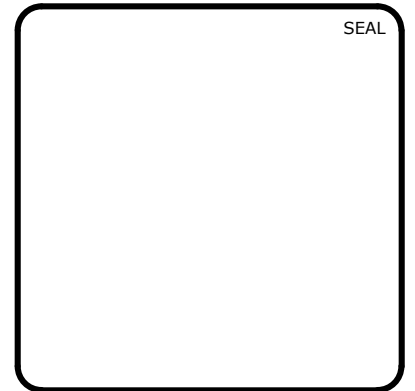
- LEGEND:**
- NEW R/W LINE
 - OVERALL PROPERTY BOUNDARY
 - NEW SUBPHASE BOUNDARY
 - EXISTING R/W LINE
 - HOA EASEMENT LINE
 - PUBLIC UTILITY EASEMENT LINE
 - PRIVATE UTILITY EASEMENT LINE
 - EX. PUBLIC DRAINAGE EASEMENT
 - PERMANENT DRAINAGE EASEMENT
 - PRIVATE DRAINAGE EASEMENT
 - 10' NO BUILD BUFFER LINE
 - RIPARIAN BUFFER LINE
 - 100' PERIMETER BUFFER
 - EX. WETLANDS
 - FLOODWAY
 - 100-YEAR FLOODPLAIN
 - 500-YEAR FLOODPLAIN
 - BMP MAINTENANCE & ACCESS EASEMENT
 - ROADWAY CENTERLINE

CALL N.C. ONE
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AVOID UTILITY
DAMAGE

NORTH

60' 0 60' 120'
SCALE: 1"=60' (Horiz.)

REV. NO.	DESCRIPTIONS	DATE
8	STORMWATER POND REVISIONS	2019.01.04
7	REVISIONS PER NCDOT COMMENTS	2018.12.18
6	REVISIONS PER NCDOT COMMENTS	2018.12.13
5	REVISIONS PER NCDOT COMMENTS	2018.12.05
4	REVISIONS PER NCDOT PWSS COMMENTS	2018.11.02
3	REVISIONS PER CHATHAM COUNTY EROSION CONTROL COMMENTS	2018.10.15
2	REVISIONS PER COUNTY WATER COMMENTS	2018.09.01
1	INITIAL SUBMITTAL	2018.09.18



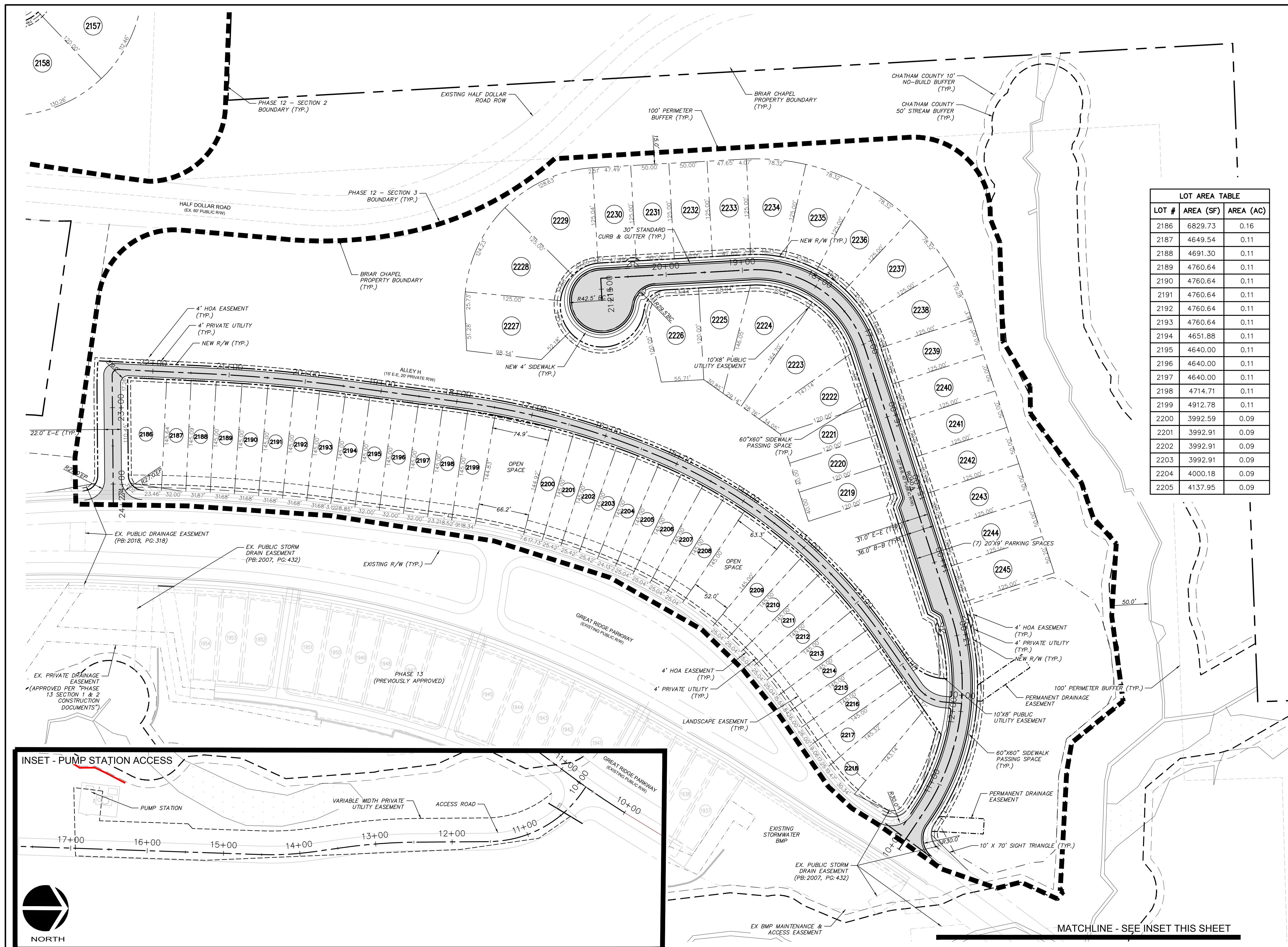
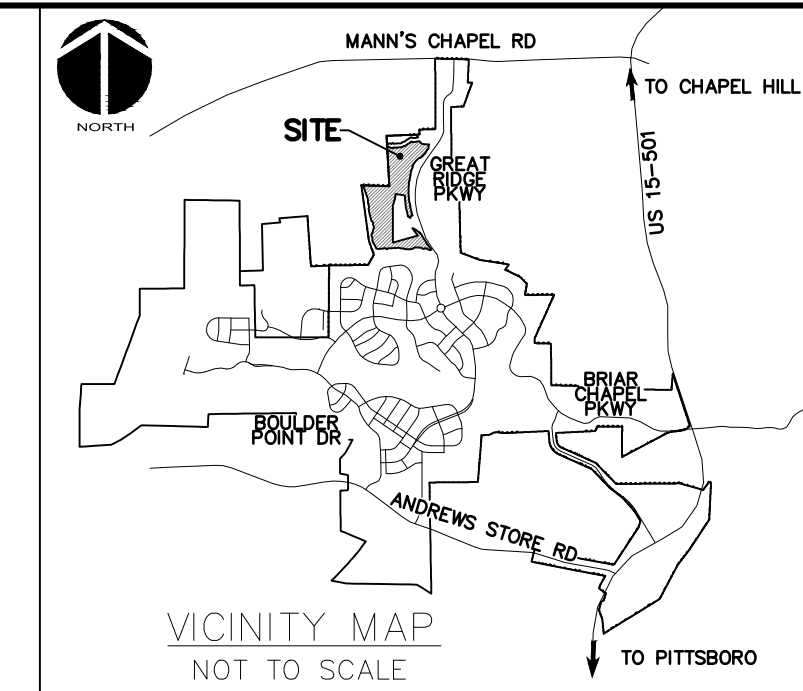
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SITE PLAN - PHASE 12 SOUTH

DATE: SEPTEMBER 18, 2018	SCALE: HORIZONTAL: AS NOTED	MSC FILE NUMBER: C1.X
MCE PROJ. # 02735-0231	VERTICAL: N/A	DRAWING NUMBER: C1.2
DRAWN: LEG		
DESIGNED: LEG		
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS FOR CONSTRUCTION	REVISION: 8	

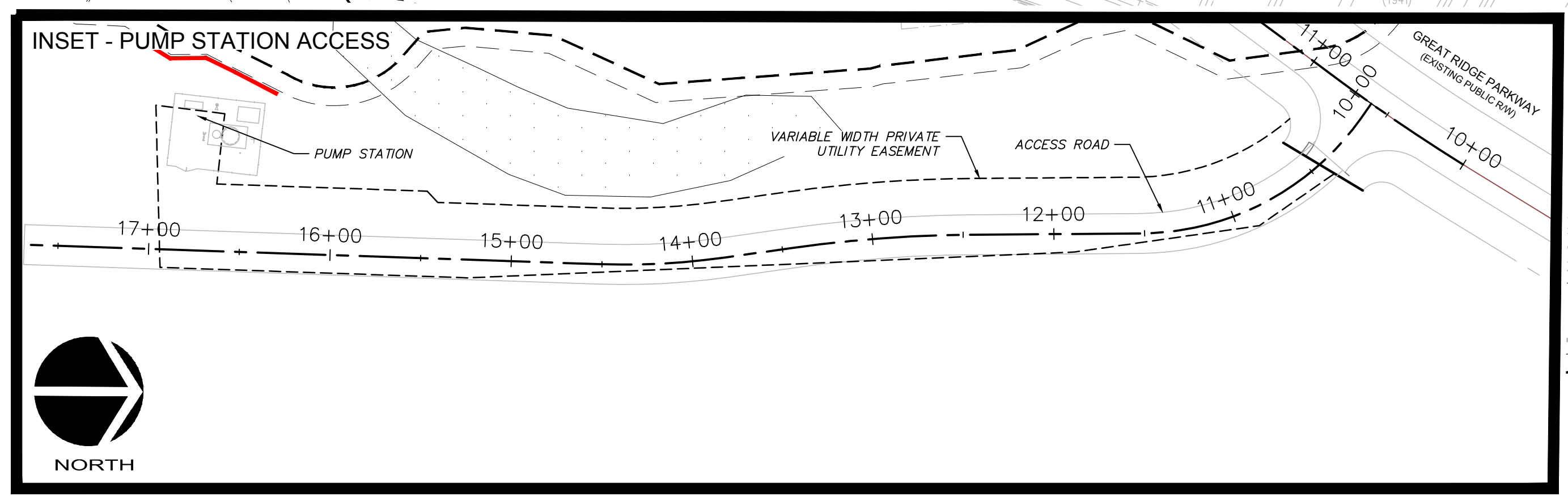


LOT AREA TABLE		
LOT #	AREA (SF)	AREA (AC)
2186	6829.73	0.16
2187	4649.54	0.11
2188	4691.30	0.11
2189	4760.64	0.11
2190	4760.64	0.11
2191	4760.64	0.11
2192	4760.64	0.11
2193	4760.64	0.11
2194	4651.88	0.11
2195	4640.00	0.11
2196	4640.00	0.11
2197	4640.00	0.11
2198	4714.71	0.11
2199	4912.78	0.11
2200	3992.59	0.09
2201	3992.91	0.09
2202	3992.91	0.09
2203	3992.91	0.09
2204	4000.18	0.09
2205	4137.95	0.09

LOT AREA TABLE		
LOT #	AREA (SF)	AREA (AC)
2206	4137.95	0.09
2207	4137.95	0.09
2208	4137.95	0.09
2209	4137.95	0.09
2210	4137.95	0.09
2211	4137.95	0.09
2212	4137.95	0.09
2213	4137.95	0.09
2214	3998.72	0.09
2215	3770.00	0.09
2216	3770.00	0.09
2217	4221.59	0.10
2218	5404.28	0.12
2219	4800.00	0.11
2220	4800.00	0.11
2221	4800.00	0.11
2222	6663.12	0.15
2223	8928.27	0.20
2224	8913.47	0.20
2225	6183.59	0.14

LOT AREA TABLE		
LOT #	AREA (SF)	AREA (AC)
2226	7684.62	0.18
2227	9605.48	0.22
2228	10113.43	0.23
2229	10386.78	0.24
2230	6250.03	0.14
2231	6250.00	0.14
2232	6250.00	0.14
2233	6357.88	0.15
2234	7715.65	0.18
2235	7715.65	0.18
2236	7715.65	0.18
2237	7715.65	0.18
2238	7501.77	0.17
2239	6250.00	0.14
2240	6250.00	0.14
2241	6250.00	0.14
2242	6250.00	0.14
2243	6250.00	0.14
2244	6250.00	0.14
2245	6275.39	0.14

- LEGEND:**
- NEW R/W LINE
 - OVERALL PROPERTY BOUNDARY
 - NEW SUBPHASE BOUNDARY
 - EXISTING R/W LINE
 - HOA EASEMENT LINE
 - PUBLIC UTILITY EASEMENT LINE
 - PRIVATE UTILITY EASEMENT LINE
 - EX. PUBLIC DRAINAGE EASEMENT
 - PERMANENT DRAINAGE EASEMENT
 - PRIVATE DRAINAGE EASEMENT
 - 10' NO BUILD BUFFER LINE
 - RIPARIAN BUFFER LINE
 - 100' PERIMETER BUFFER
 - EX. WETLANDS
 - FLOODWAY
 - 100-YEAR FLOODPLAIN
 - 500-YEAR FLOODPLAIN
 - BMP MAINTENANCE & ACCESS EASEMENT
 - ROADWAY CENTERLINE



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NORTH

60' 0 60' 120'
SCALE: 1"=60' (Horiz.)

REV. NO.	DESCRIPTIONS	DATE
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1	INITIAL SUBMITTAL	2018.09.18

SEAL

North Carolina
Professional Engineer
Greth C. Avant
036348
1/4/2019

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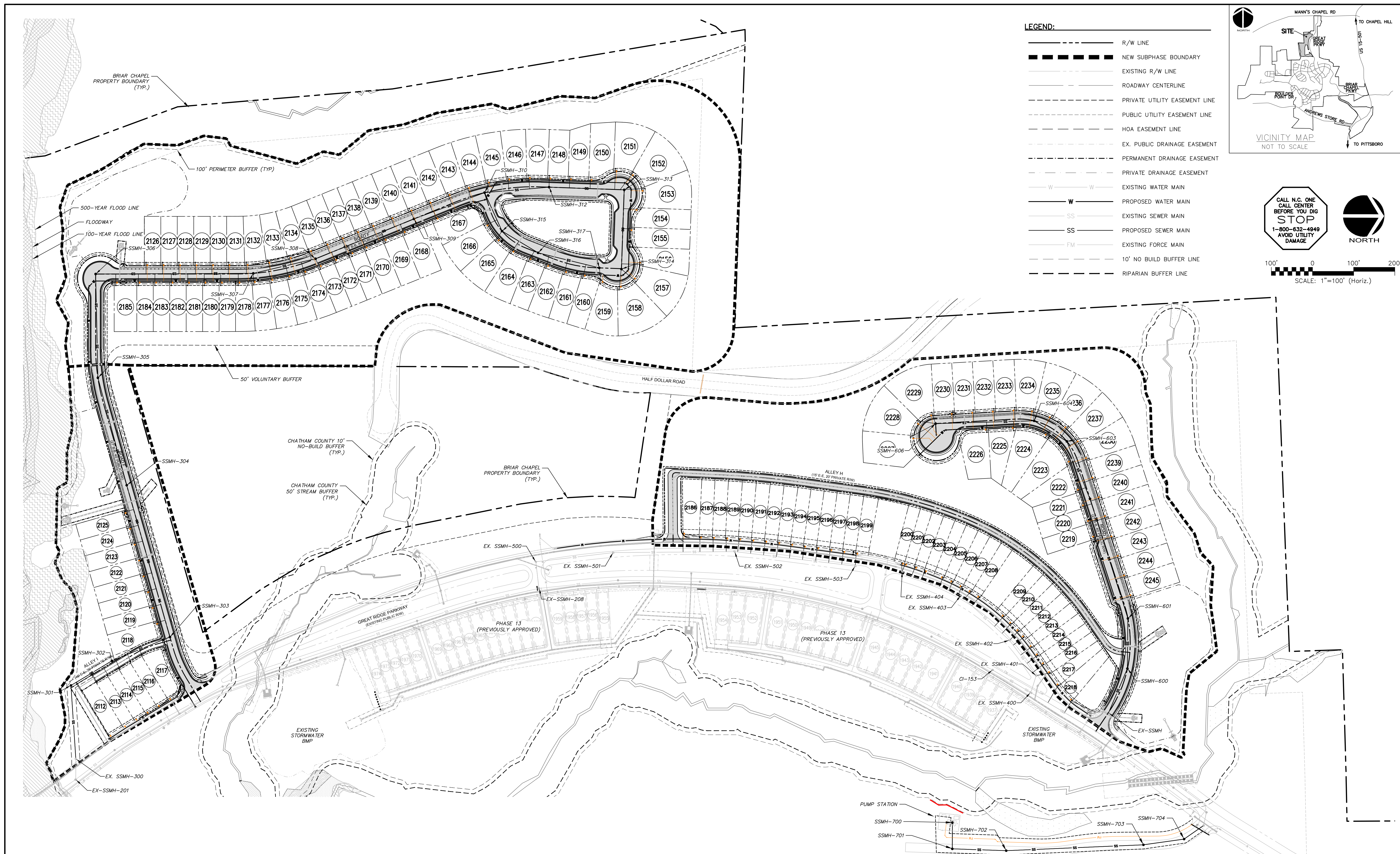
SITE PLAN - PHASE 12 NORTH

DATE: SEPTEMBER 18, 2018
MCE PROJ. # 02735-0231
DRAWN: LEG
DESIGNED: LEG
CHECKED: GCA
PROJ. MGR.: CHS

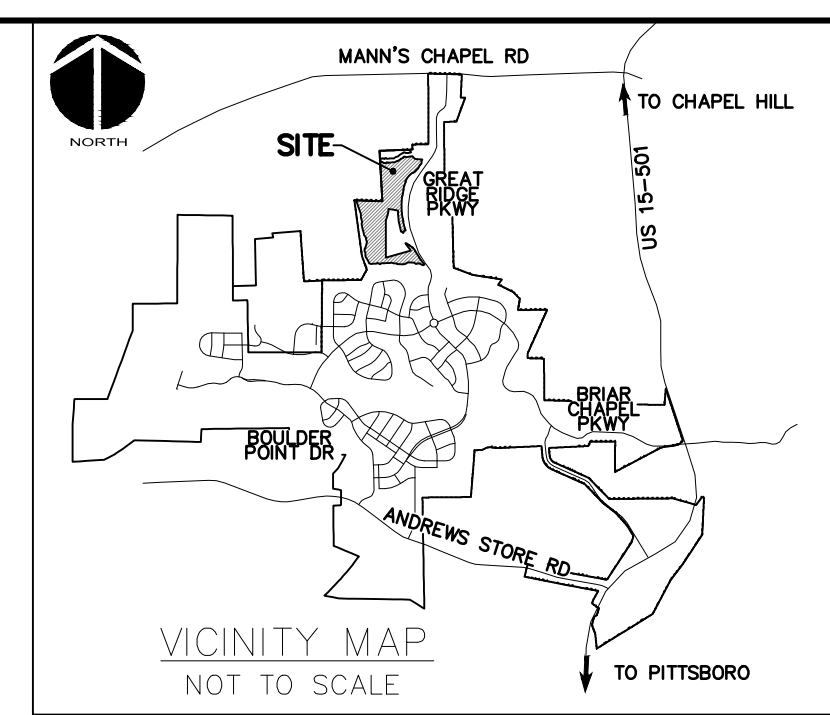
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VERTICAL: N/A

MSC FILE NUMBER: C1.X
DRAWING NUMBER: C1.3

STATUS: FINAL DRAWINGS FOR CONSTRUCTION
REVISION: 8



- LEGEND:**
- R/W LINE
 - NEW SUBPHASE BOUNDARY
 - EXISTING R/W LINE
 - ROADWAY CENTERLINE
 - PRIVATE UTILITY EASEMENT LINE
 - PUBLIC UTILITY EASEMENT LINE
 - HOA EASEMENT LINE
 - EX. PUBLIC DRAINAGE EASEMENT
 - PERMANENT DRAINAGE EASEMENT
 - PRIVATE DRAINAGE EASEMENT
 - W — W — EXISTING WATER MAIN
 - W — PROPOSED WATER MAIN
 - SS — EXISTING SEWER MAIN
 - SS — PROPOSED SEWER MAIN
 - FM — EXISTING FORCE MAIN
 - 10' NO BUILD BUFFER LINE
 - RIPARIAN BUFFER LINE



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DAMAGE

NORTH

0 100' 200'

SCALE: 1"=100' (Horiz.)

REV. NO.	DESCRIPTIONS	DATE
8	STORMWATER POND REVISIONS	2019.01.04
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SEAL

GARETH C. AVANT
PROFESSIONAL ENGINEER
1/4/2019
036348
NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER

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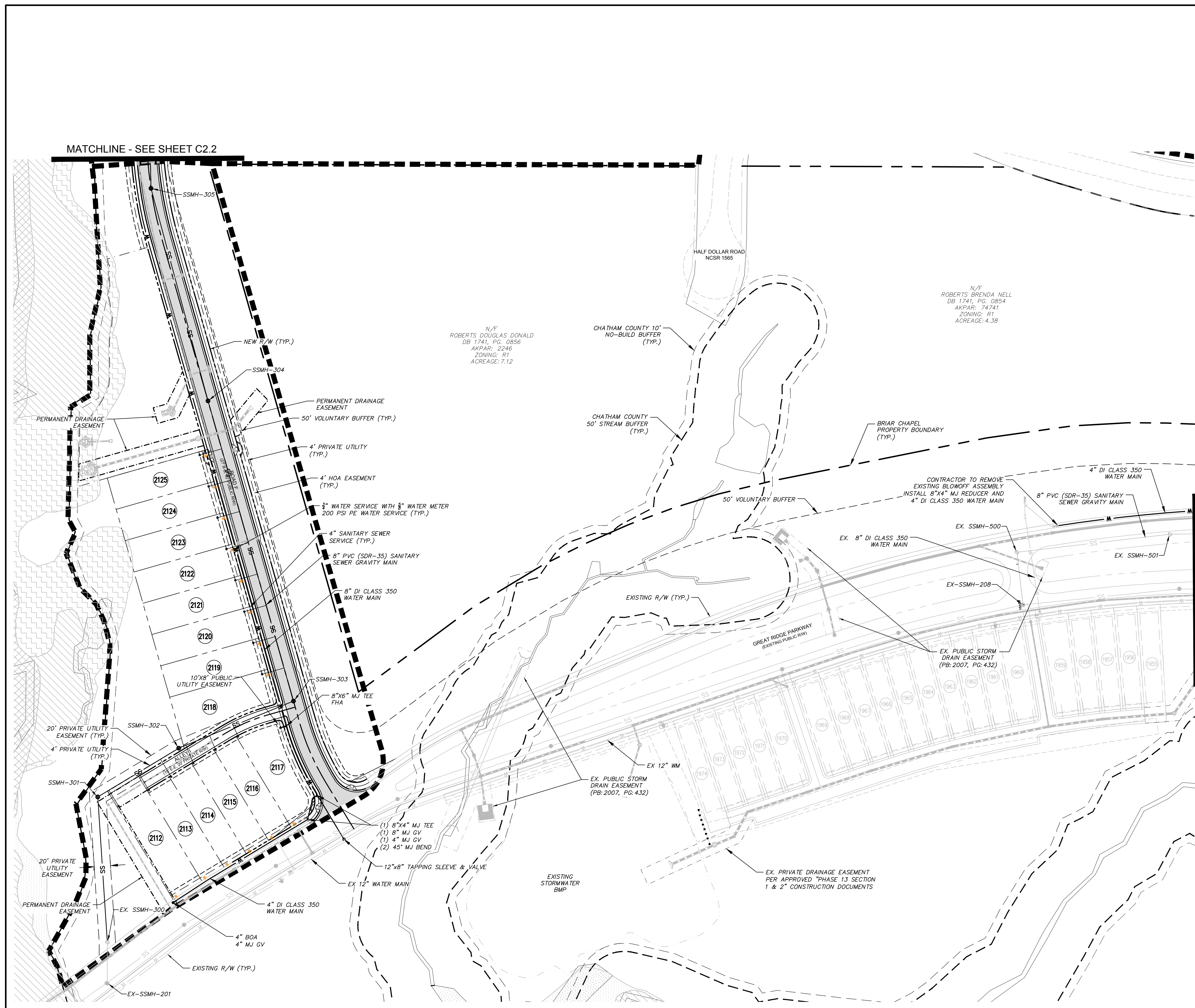
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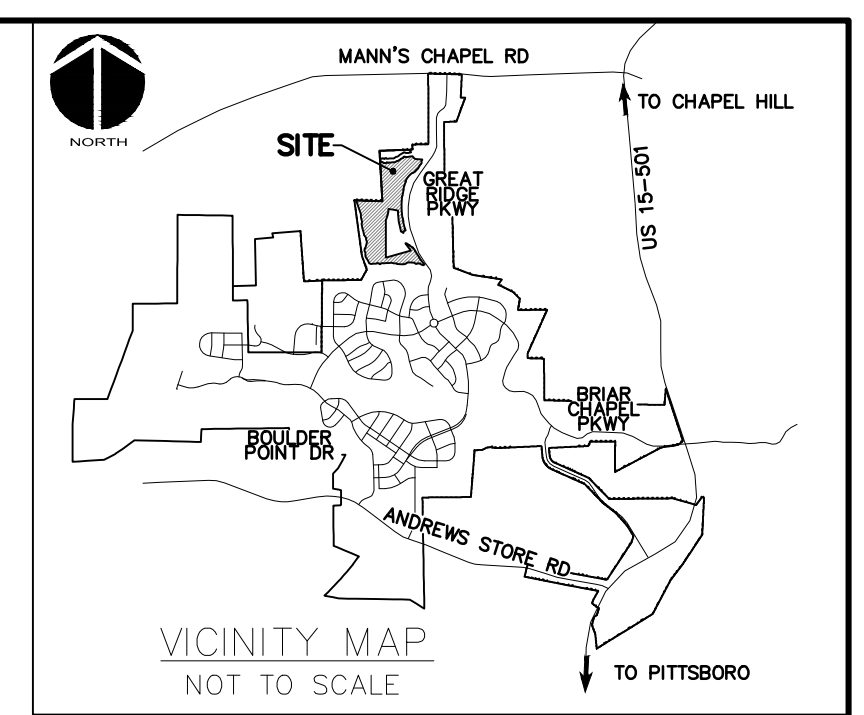
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BC PHASE 12
CHATHAM COUNTY, NORTH CAROLINA**

OVERALL UTILITY PLAN

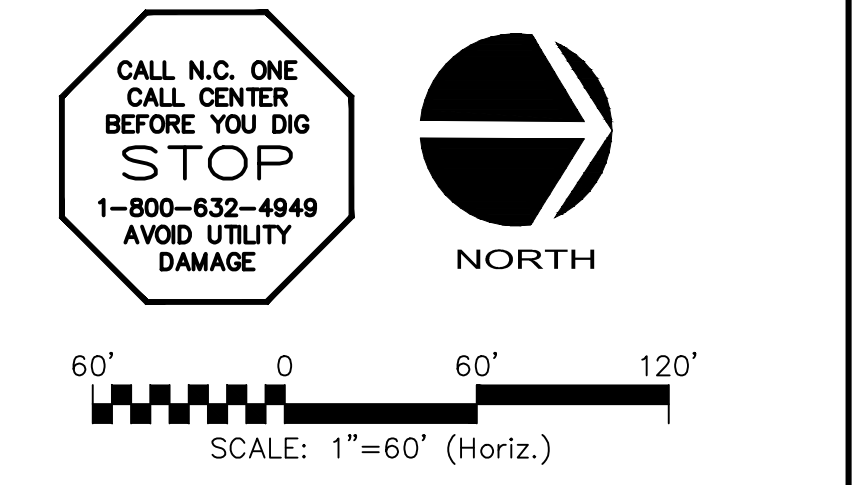
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DRAWN: LEG	VERTICAL: N/A	DRAWING NUMBER
DESIGNED: LEG		C2.0
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS FOR CONSTRUCTION	REVISION	8



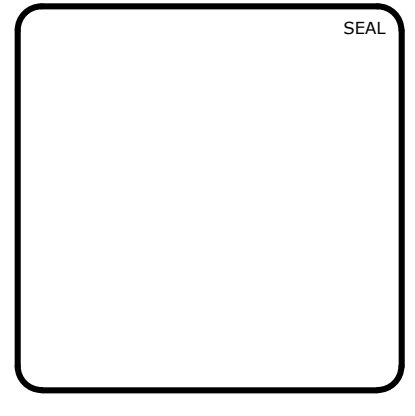
- LEGEND:**
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 - W --- EXISTING WATER MAIN
 - W --- PROPOSED WATER MAIN
 - SS --- EXISTING SEWER MAIN
 - SS --- PROPOSED SEWER MAIN
 - FM --- EXISTING FORCE MAIN
 - --- 10' NO BUILD BUFFER LINE
 - RIPARIAN BUFFER LINE
 - EX. WETLANDS



- UTILITY NOTES:**
- ALL SANITARY SEWER CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH CURRENT NCDNR & CHATHAM COUNTY STANDARDS, SPECIFICATIONS & DETAILS.
 - ALL WATER MAIN CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH CURRENT CHATHAM COUNTY STANDARDS, SPECIFICATIONS & DETAILS.
 - ALL PERMITS RELATING TO THIS PROJECT MUST BE OBTAINED PRIOR TO CONSTRUCTION.
 - ALL WATER MAINS SHALL HAVE A MIN. OF 3'-6" OF COVER AS MEASURED FROM FINISHED GRADE TO TOP OF PIPE AT THE LOCATION WHERE INSTALLED.
 - 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.
 - WHERE A WATER MAIN CROSSES OVER A SANITARY 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 SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
 - WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON 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. SEE NCAC 15A, 18C, SECTION .0906.
 - CONTRACTOR SHALL USE A MIN. 20' SECTION DIP CLASS 350 CENTERED UNDER STORMWATER PIPE WHERE 18" MIN. VERTICAL CLEARANCE CANNOT BE MET BETWEEN STORMWATER AND WATER.
 - TRACER WIRE AND TRACER WIRE TEST STATIONS ARE TO BE INSTALLED ON ALL WATER MAINS. TRACER WIRE TEST STATIONS ARE TO BE LOCATED AT ALL FIRE HYDRANTS WITHIN A 3 FOOT RADIUS OF THE HYDRANT AND PREFERABLY TO THE REAR OF THE HYDRANT.
 - WATER SERVICES SHALL BE EXTENDED FROM THE MAIN TO A METER BOX LOCATED WITHIN THE RIGHT OF WAY. THE METER SHALL BE PLACED AT THE EDGE OF THE SERVICED LOT'S RIGHT OF WAY LINE OR EASEMENT. SERVICE LINE SHALL BE RUN ON A TRUE LINE FROM THE WATER MAIN TO THE METER BOX, AND WHERE POSSIBLE, SERVICE LINE SHALL BE PERPENDICULAR TO THE MAIN LINE. NO WATER BOXES OR VAULTS SHALL BE PLACED IN STREETS, SIDEWALKS, PARKING AREAS, OR DRIVEWAYS.
 - MANHOLES SHALL BE SPACED A MAXIMUM DISTANCE OF 400 FEET APART.
 - MANHOLES SHALL BE INSTALLED AT EACH DEFLECTION OF LINE AND/OR GRADE WITH A MINIMUM DROP OF 0.2 FEET. MANHOLES FOR SEWERS GREATER THAN 21 INCHES IN DIAMETER SHALL BE 5 FOOT MANHOLES. MANHOLES FOR SEWERS 12 FEET OR DEEPER SHALL BE MINIMUM 5 FOOT DIAMETER. MANHOLE TOPS SHALL BE SET FLUSH WITH PAVEMENT WHERE INSTALLED IN A STREET.
 - SERVICE CONNECTIONS FOR THE SANITARY SEWER LINES SHOULD BE PERPENDICULAR FROM THE MAIN LINE TO THE EDGE OF THE SERVICED LOT'S RIGHT OF WAY LINE OR EASEMENT WITH A MINIMUM GRADE OF 1/4" INCH/FOOT FOR 4 INCH AND .6 FOOT/100 FOOT FOR 6 INCH. ALL CLEANOUTS SHALL EXTEND A MINIMUM OF 6 INCHES ABOVE THE FINISHED GRADE. WHERE A SERVICE LINE IS CONNECTED TO A MANHOLE, THE LINE SHALL TERMINATE AT THE EDGE OF THE INVERT IN THE MANHOLE. NO CLEANOUTS SHALL BE PLACED IN STREETS, SIDEWALKS, PARKING AREAS, OR DRIVEWAYS.
 - ALL SANITARY SEWER LINES ARE 8" PVC SDR 35 UNLESS OTHERWISE NOTED AND ALL WATER MAIN LINES ARE 8" DI CLASS 350 UNLESS OTHERWISE NOTED. ALL SANITARY SEWER SERVICES ARE 4" SCHEDULE 40 PVC AND ALL WATER MAIN SERVICES ARE 3/4" 200 PSI PE TUBING.
 - MINIMUM COVER OF 5 FEET IN TRAFFIC AREAS TO BE PROVIDED FOR ALL COLLECTOR LINES 4 INCHES AND LARGER. IF LESS THAN 5 FEET, DUCTILE IRON PIPE SHALL BE REQUIRED.
 - SANITARY SEWER WITHIN PRIVATE EASEMENTS TO BE OWNED, OPERATED AND MAINTAINED BY OLD NORTH STATE WATER COMPANY, LLC.
 - WATER MAINS WILL BE 3.5' OFF CURB AND GUTTER UNLESS SHOWN OTHERWISE.
 - ALL WATER MAINS WITHIN PUBLIC EASEMENTS AND PUBLIC RIGHT-OF-WAY TO BE OWNED, OPERATED AND MAINTAINED BY CHATHAM COUNTY, AND WILL BE CONTAINED WITHIN 20' WIDE PUBLIC WATER LINE EASEMENT (MINIMUM) CENTERED ON THE PROPOSED WATER MAIN.
 - CONTRACTOR TO COORDINATE WITH CHATHAM COUNTY PUBLIC WORKS FOR ALL IRRIGATION SLEEVE SIZING.



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UTILITY PLAN - PHASE 12 SOUTH

DATE: SEPTEMBER 18, 2018	SCALE	MSC FILE NUMBER
MCE PROJ. # 02735-0231	HORIZONTAL: C2.X	DRAWING NUMBER
DRAWN: LEG	AS NOTED	C2.1
DESIGNED: LEG	VERTICAL: N/A	
CHECKED: GCA		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS FOR CONSTRUCTION	REVISION	8