SITE PLAN

FOR

AUTUMN LAKES SUBDIVISION PHASEII

CONTACT INFORMATION

REFERENCES "BOUNDARY SURVEY OF: GAY FAMILY PARTNERSHIP II" PREPARED BY ALLIED ASSOCIATES, PA ALLIED ASSOCIATES JOB NO. PA160922 DATED: 12/14/2017 SITE PLAN AUTUMN LAKES ROADWAY IMPROVEMENTS PREPARED BY BOHLER ENGINEERING NC, PLLC PREPARED BY BOHLER ENGINEERING NC. PLLC BOHLER ENGINEERING JOB NO. NRS162057 GEOTECHNICAL INVESTIGATION REPORT PREPARED BY SUMMIT ENGINEERING, LABORATORY & TESTING, INC. SUMMIT PROJECT NO. 1203-08R "SUMMARY OF GEOTECHNICAL EVALUATION, 1225 OLD BUNN ROAD PROPERTY PREPARED BY SUMMIT ENGINEERING, LABORATORY & TESTING, INC. 'PHASE 1 ENVIRONMENTAL SITE ASSESSMENT OLD BUNN ROAD SITE' PREPARED BY SUMMIT ENGINEERING, LABORATORY & TESTING, INC. SUMMIT PROJECT NO. 4285.500 DATED: 09/30/16 "PHASE 1 ENVIRONMENTAL SITE ASSESSMENT OLD BUNN ROAD SITE"

SUMMIT PROJECT NO. 4285.500-2 TRAFFIC IMPACT ANALYSIS FOR AUTUMN LAKES" PREPARED BY RAMEY KEMP & ASSOCIATES, INC.

PREPARED BY SUMMIT ENGINEERING, LABORATORY & TESTING, INC.

GOVERNING AGENCIES

TOWN OF ZEBULON PLANNING DEPARTMENT

ZEBULON, NC 27597 CONTACT- JULIE SPRIGGS

EMAIL: JSPRIGGS@TOWNOFZEBULON.ORG CITY OF RALEIGH PUBLIC UTILITY DEPARTMENT

ONE EXCHANGE PLAZA RALEIGH, NC 27601 (919) 996-3474 WAKE COUNTY ENVIRONMENTAL SERVICES DEPARTMENT

RALEIGH, NC 27602 NC DEPARTMENT OF TRANSPORTATION DIVISION 5

(910) 220-4600

336 FAYETTEVILLE STREE

ONE S. WILMINGTON STREET

OWNERS GAY FAMILY LIMITED PARTNERSHIP I

104 W HORTON STREET ZEBULON, NC 27597

BUNN EDGAR ROGER III HEIRS OCEAN ISLE BEACH, NC 28469

DEVELOPER

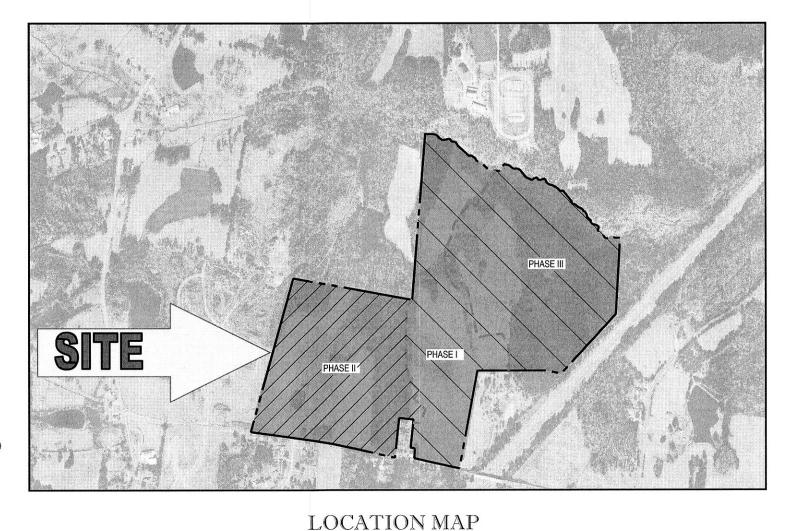
LGI HOMES, INC. LANCASTER, SC 29720 CONTACT - JEFF WEBB

jeff.webb@lgihomes.com

LOCATION OF SITE

0 OLD BUNN ROAD ZEBULON, NC 27597

PIN # 2706615785; 2706729236; 2706514158 WAKE COUNTY, NORTH CAROLINA



PUBLIC IMPROVEMENT

ADDITIONALLY THE FOLLOWING PLANS ARE INCLUDED FOR

REFERENCE ONLY. THEY ARE CURRENTLY UNDER REVIEW

RW-1.0 OLD BUNN ROADWAY EXISTING CONDITIONS 1

RW-4.0 OLD BUNN ROAD PAVEMENT MARKING PLAN 1

OLD BUNN ROADWAY IMPROVEMENT PLAN 1

OLD BUNN ROAD GRADING PLAN 1

WITH PHASE I DRAWINGS.

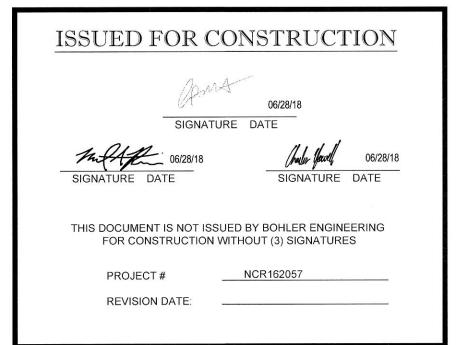
Number

PHASE NUMBER(S)	3	
TOTAL NUMBER OF LOT(S)	506	
LOT NUMBER(S) BY PHASE	PH II: 188	
PHASE II PUBLIC UTILITIES		
PUBLIC SEWER (LF)	8,189	
PUBLIC WATER (LF)	7,263	
PHASE II PUBLIC STREETS		
RESIDENTIAL COLLECTOR (LF)	1,572	
LOCAL STREET (LF)	5,545	
PUBLIC SIDEWALK (LF)	6,850	

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UTILITY SERVICE CONTACTS

SERVICE	UTILITY / GOVERNING AGENCY
WATER AND SEWER	CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT ONE EXCHANGE PLAZA, 6TH FLOOR RALEIGH, NC 27601 ROBERT MASSENGILL - DIRECTOR PHONE: (919) 996-4540
STORMWATER AND EROSION CONTROL	STORMWATER MANAGEMENT DIVISION 127 W. HARGETT STREET, 8TH FLOOR RALEIGH, NC 27601 PHONE: (919) 996-3940
GAS	PSNC ENERGY 150 FAYETTEVILLE STREET #570 RALEIGH, NC 27601 PHONE: (800) 752-7504
ELECTRIC	DUKE ENERGY 411 FAYETTEVILLE STREET RALEIGH, NC 27601 PHONE: (800) 452-2777
TELEPHONE/CABLE	TIME WARNER CABLE 2505 ATLANTIC AVENUE #101 RALEIGH, NC 27604 PHONE: (919) 595-4892







4130 PARKLAKE AVE., SUITE 130 RALEIGH, NC 27612

Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com

CONTACT: MIKE ROSELLI - MROSELLI@BOHLERENG.COM

PHASE II SITE DATA

PHASE II SI	ILE DATA
SITE AREA: (AC.)	PIN# 2706615785: ±85.65 AC PIN# 2706729236: ±22.38 AC PIN# 2706514158: ±52.01 AC Total = ±160.04 AC
ZONING:	R-13-SUD
WATERSHED: FIRM MAP DATE: FIRM MAP NUMBER: FLOODPLAIN:	BEAVERDAM CREEK (NEUSE RIVER BASIN) MAY 2, 2006 3720270600J NOT IN FLOODPLAIN
PHASE II AREA: PROPOSED # OF LOTS: PROPOSED DENSITY: ALLOWABLE MINIMUM LOT SIZE: PROPOSED MINIMUM LOT SIZE: AVERAGE LOT SIZE: ALLOWABLE MINIMUM LOT WIDTH: PROPOSED MINIMUM LOT WIDTH: SETBACKS: FROM STREET RIGHT-OF-WAY (FRONT):	53.74 AC 188 2.71 DUA 4,800 SF 5,000 SF 5,000 SF 50 FT 50 FT
SIDEYARD: REARYARD: MAX BUILDING HEIGHT:	5 MIN; 12 AGGREGATE 20 2 STORIES
REQUIRED OPEN SPACE (25%): PROPOSED OPEN SPACE:	13.40 AC 20.34 AC
INFRASTRUCTURE QUANTITIES AVERAGE SEWER FLOW: PROPOSED # OF DOMESTIC WATER TAPS: PROPOSED # OF SEWER TAPS: 15" RCP: 18" RCP: 24' RCP: 30" RCP: 42" RCP: 42" RCP: 48" RCP: 54" RCP:	90,240 GPD (188 x 480 GPD) 191 188 4,616 LF 977 LF 1,205 LF 1,073 LF 553 LF 803 LF 617 LF
IMPERVIOUS SURFACES STREETS: SIDEWALKS: LOTS (MAX 2,500 SF PER LOT): TOTAL: PERCENT IMPERVIOUS: (%) SUBDIVISION DISTURBED AREA: (AC.)	201,164 SF 33,514 SF 470,000 SF 704,680 SF 16.18 AC / 53.74 AC = 30.1% 45.34 AC

E CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR THE EXTENSION OF WATER, SEWER, AND/OR REUSE, AS APPROVED IN THESE PLANS, IS RESPONSIBLE FOR CONTACTING AT LEAST TWENTY FOUR HOURS PRIOR TO BEGINNING ANY OF THEIR CONSTRUCTION.

FAILURE TO CALL FOR INSPECTION, INSTALL A DOWNSTREAM PLUG, HAVE PERMITTED PLANS ON THE JOBSITE, OR ANY OTHER VIOLATION OF CITY OF RALEIGH STANDARDS WILL RESULT IN A FINE AND POSSIBLE EXCLUSION FROM FUTURE WORK IN THE CITY OF RALEIGH

Sheet List Table Sheet Number C-0.0 COVER SHEET GENERAL NOTES SPECIAL USE PERMIT 1 OF 2 ALTA SURVEY C-0.4 2 OF 2 ALTA SURVEY EXISTING CONDITIONS & DEMOLITON PLAN C-3.0 OVERALL PHASING PLAN C-3.1 SITE PLAN - AREA A C-3.2 SITE PLAN - AREA B SITE PLAN - AREA C C-3.3 SITE PLAN - AREA D STREET SIGN AND PAVEMENT MARKING PLAN C-3.5 C-3.6 LIGHTING PLAN C-4.0 GRADING PLAN - AREA A GRADING PLAN - AREA B GRADING PLAN - AREA C C-4.2 C-4.3 GRADING PLAN - AREA D C-4.5 BMP PLAN BMP PLAN

C-5.0 MASTER UTILITY PLAN

C-5.2

C-5.3

C-6.0

C-6.2

C-8.0

C-8.2

C-8.3

C-8.5

D-1.0

D-1.6

UTILITY PLAN - AREA A UTILITY PLAN - AREA B

UTILITY PLAN - AREA C

UTILITY PLAN - AREA D

HOWLING WIND DRIVE PLAN AND PROFILE

LOGAN CANON LANE PLAN AND PROFILE

EROSION CONTROL DRAINAGE AREA PLAN

EROSION CONTROL PLAN PHASE I - AREA B

EROSION CONTROL PLAN PHASE I - AREA C EROSION CONTROL PLAN PHASE I - AREA D

EROSION CONTROL PLAN PHASE II - AREA A

EROSION CONTROL PLAN PHASE II - AREA B

EROSION CONTROL PLAN PHASE II - AREA C

EROSION CONTROL PLAN PHASE II - AREA D

OVERALL LANDSCAPE PLAN

LANDSCAPE PLAN - AREA A

LANDSCAPE PLAN - AREA B

LANDSCAPE PLAN - AREA C

LANDSCAPE PLAN - AREA D

AMENITY AREA ENLARGEMENT

LANDSCAPE HARDSCAPE DETAILS

PRE DEVELOPMENT DRAINAGE AREA PLAN POST DEVELOPMENT DRAINAGE AREA PLAN

Water Distribution / Extension System The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the

Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and

tandards and specifications of the City's Public Utilities Handbook.

construction methods used for this project shall conform to the

andards and specifications of the City's Public Utilities Handbook

AMENITY AREA

SITE DETAILS SITE DETAILS STORM DETAILS SEWER DETAILS SEWER DETAILS

WATER DETAILS

WATER DETAILS

EROSION DETAILS

D-1.8 EROSION DETAILS

FROSTY WAY PLAN AND PROFILE

FROSTY WAY PLAN AND PROFILE

BRISK WAY PLAN AND PROFILE

FLANNEL WAY PLAN AND PROFILE

GOURD STREET PLAN AND PROFILE

C-7.1 EROSION CONTROL PLAN PHASE I - AREA A

SANITARY PLAN AND PROFILE

SANITARY PLAN AND PROFILE

LINE OF SIGHT PROFILE

C-6.5 BRISK WAY PLAN AND PROFILE



* * * * * *

REVISIONS

11-8-17 PER TOWN COMMENTS

2-7-18 PER TOWN COMMENTS

2-23-18 PER WAKE COMMENTS

COMMENT

PER WAKE, COR, & IFC

COMMENTS

ALWAYS CALL 811 BEFORE YOU DIG It's fast. It's free. It's the law.

APPROVED FOR CONSTRUCTION

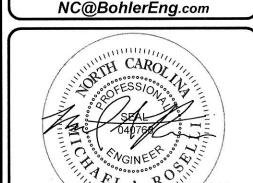
DRAWN BY: CHECKED BY: SCALE:

> LAKES PHASE II



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA





Phone: (919) 578-9000

(919) 703-2665

SHEET TITLE:

COVER SHEET

GENERAL NOTE: S THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJEC RK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE E SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN THE SPECIFICATIONS OF APPLICABLE COURSE, IT IS THE CONTRACTOR AS SOSTIONALLY TO HOTHY THE PROJECT ENGINEER SHALL CONSTITUTION OF THE PROJECT ENGINEER SHAL

H \2016\NCR162057\DRAWINGS\PI AN SETS\PHASE II PLAN SETS\NCR162057SD2 - PHASE II DWG PRINTED BY: SKEIDEL 6.28.18 @ 2:16 PM LAST SAVED BY: SKEIDEL

GENERAL NOTES:

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE

- 1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
- SURVEY "BOUNDARY SURVEY OF: GAY FAMILY PARTNERSHIP II" PREPARED BY ALLIED ASSOCIATES, P.A. PROJECT #PA160922 DATED 10/26/2016.
- ADDITIONAL SURVEY BOHLER ENGINEERING NC, PLLC PROJECT #NSR162057 DATED 4/28/17.
- GEOTECHNICAL INVESTIGATION REPORT "SUMMARY OF GEOTECHNICAL EVALUATION, OLD BUNN PROPERTY" PREPARED BY SUMMIT, PROJECT #1203-08R DATED 10/05/16 AND "SUMMARY OF GEOTECHNICAL EVALUATION, 1225 OLD BUNN ROAD PROPERTY" PREPARED BY SUMMIT, PROJECT #1203-08R DATED 12/13/16.
- ENVIRONMENTAL SITE ASSESSMENT "PHASE 1 ENVIRONMENTAL SITE ASSESSMENT OLD BUNN ROAD SITE" PREPARED BY SUMMIT, PROJECT #4285.500 DATED 09/30/16 AND "PHASE 1 ENVIRONMENTAL ASSESSMENT OLD BUNN ROAD SITE" PREPARED BY SUMMIT, PROJECT #4285.500-2 DATED 12/23/16.
- TRAFFIC ASSESSMENT "TRAFFIC IMPACT ANALYSIS FOR AUTUMN LAKES" PREPARED BY RAMEY KEMP & ASSOCIATES, INC.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.

- 2. ALL ACCESSIBLE (A/K/A ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seg. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED
- 3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN
- 4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

- 5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
- 6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORTS AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
- 7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
- 8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES

 GENERAL GRADING & UTILITY NOTES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS 1. PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK
- 9. CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS "OF RECORD" FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY
- 10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST
- 11. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES
- 13. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THI STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE
- 14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF
- 15. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
- 16. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEAN METHODS. TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME
- 18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS. SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE
- 19. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND IMMEDIATELY BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN
- 20. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS. PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY.

H.\2016\NCR162057\DRAWINGS\PLAN SETS\PHASE II PLAN SETS\NCR162057SD2 - PHASE II.DWG PRINTED BY: SKEIDEL 6.28.18 @ 2:16 PM LAST SAVED BY: SKEIDE

BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 19 FOR JOB SITE SAFETY

- 21. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED
- 22. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S
- 23. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY
- 24. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER
- 25. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
- 26. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
- 27. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.
- 28. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE
- 29. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS
- 30. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

- LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO GAS WATER ELECTRIC SANITARY AND STORM SEWER TELEPHONE CABLE FIBER OPTIC CABLE ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION. AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD. IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR'S FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTOR'S FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND. FURTHER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAM
- 4. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE
- 5. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- 6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
- 7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES. TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIF-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND 37. THE TOWN OF ZEBULON WILL BE RESPONSIBLE FOR ALL STREET DRAINAGE INFRASTRUCTURE WITHIN THE ROW OR PRIOR TO CONSTRUCTION, RESOLVE SAME.
- 8. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
- ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS
- 10. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS MUST BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS. SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT. EARTHWORK ACTIVITIES INCLUDING. BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR
- 11. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE LITHLITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS. FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
- 12. THE CONTRACTOR MUST COMPLY, TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
- 13. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- 14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.

15. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLAN. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE SITE PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.

- 16. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE. THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO STORM SEWER, SANITARY SEWER, UTILITIES, AND IRRIGATION LINE, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A 2X4, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE SITE PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.
- 17. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST CONFIRM AND ENSURE 0.75% MINIMUM SLOPE AGAINST ALL ISLANDS, GUTTERS, AND CURBS: 1.0% ON ALL CONCRETE SURFACES: AND 1.5% MINIMUM ON ASPHALT (EXCEPT WHERE ADA REQUIREMENTS LIMIT GRADES), TO PREVENT PONDING. CONTRACTOR MUST IMMEDIATELY IDENTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, CONTRACTOR SHALL INDEMNIFY. DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.
- 18. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT DESIGN ENGINEER APPROVES FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF
- 19. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
- 20. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTROL. CONTRACTOR MUST IMMEDIATELY NOTIFY THE DESIGN ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
- 21. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK ANY WORK.
- 22. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTINGS/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION

23. STORM DRAINAGE PIPE:

UNLESS INDICATED OTHERWISE, ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR WATER TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE

- 24. SANITARY SEWER PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE INDICATED OTHERWISE. SANITARY LATERAL MUST BE PVC SCHEDULE 40 OR PVC SDR 26 UNLESS INDICATED, IN WRITING, OTHERWISE.
- 25. STORM AND SANITARY SEWER PIPE LENGTHS INDICATED ARE NOMINAL AND MEASURED CENTER OF INLET AND/OR MANHOLES STRUCTURE TO CENTER OF STRUCTURE.
- 26. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON PRELIMINARY ARCHITECTURAL PLANS. CONTRACTOR IS RESPONSIBLE TO AND FOR VERIFYING LOCATIONS OF SAME BASED ON FINAL ARCHITECTURAL PLANS.
- 27. SEWERS CROSSING STREAMS AND/OR LOCATION WITHIN 10 FEET OF THE STREAM EMBANKMENT, OR WHERE SITE CONDITIONS SO INDICATE, MUST BE CONSTRUCTED OF STEEL, REINFORCED CONCRETE, DUCTILE IRON OR OTHER SUITABLE MATERIAL
- 28. SEWERS CONVEYING SANITARY FLOW COMBINED SANITARY AND STORMWATER FLOW OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNMENT AGENCY WITH JURISDICTION
- 29. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET. ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.
- 30. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER PURVEYOR. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
- 31. CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SEWER. WATER AND STORM SYSTEMS, MUST BE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND/OR STATE DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
- 32. WHERE BASEMENTS ARE TO BE PROVIDED FOR PROPOSED DWELLING UNITS, THE DEVELOPER SHALL, BY BORING OR BY TEST PIT, DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED DWELLINGS. WHERE GROUNDWATER IS ENCOUNTERED IN THE BASEMENT AREA, BASEMENTS WILL NOT BE INSTALLED UNLESS SPECIAL CONSTRUCTION METHODS ARE UTILIZED. TO BE REVIEWED AND APPROVED BY THE MUNICIPAL CONSTRUCTION CODE OFFICIAL. IF AND WHERE SUMP PUMPS ARE INSTALLED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER. A CLEANOUT MUST BE PROVIDED PRIOR TO THE CONNECTION TO THE STORM DRAIN IN ORDER THAT BLOCKAGES CAN BE
- 33. FOR SINGLE AND TWO-FAMILY RESIDENTIAL PROJECTS, WHERE THE PROPOSED DWELLING AND ADJACENT SPOT ELEVATION(S) ARE SCHEMATIC FOR GENERIC BUILDING FOOTPRINT, GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE A MINIMUM OF SIX (6) INCHES BELOW TOP OF BLOCK AND /OR SIX (6) INCHES BELOW SIDING, WHICHEVER IS LOWEST, AND MUST PROVIDE POSITIVE DRAINAGE (2% MIN.) AWAY FROM DWELLING. ALL CONSTRUCTION, INCLUDING GRADING, MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODE AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
- 34. LOCATION OF PROPOSED UTILITY POLE RELOCATION IS AT THE SOLE DISCRETION OF UTILITY COMPANY.
- 35. CONSULTANT IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, SHALL HAVE NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE
- 36. ALL BMP/WET POND STRUCTURES SHALL BE LOCATED IN HOA OPEN SPACE AND SHALL BE OWNED AND MAINTAINED BY THE
- DEDICATED PUBLIC/TOWN EASEMENTS. ALL OTHER STORM DRAINAGE IS TO BE LOCATED IN A HOA DRAINAGE AND ACCESSS MAINTENANCE EASEMENT AND WILL BE OWNED AND MAINTAINED BY THE HOA/DEVELOPER. THE BMP INCLUDING ALL ASSOCIATED CHANNELS, DRAINAGE SWELLS, OUTLET STRUCTURE PIPE, WET/DRY PONDS AND ETC. ARE TO BE OWNED AND MAINTAINED BY THE HOA/DEVELOPER.

TOWN OF ZEBULON CONSTRUCTION NOTES

- 1. ALL ROADWAY AND GREENWAY INFRASTRUCTURE CONSTRUCTION SHALL CONFORM TO THE TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS. 2. CONTRACTOR SHALL CONTRACT JASON BROWN AT 919-795-5640 WITH THE TOWN OF ZEBULON TO SCHEDULE A
- PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING CONSTRUCTION. ALL ROADWAY, GREENWAY, SIDEWALK AND STORM DRAINAGE IMPROVEMENTS IN ROW OR DEDICATED PUBLIC EASEMENTS WILL BE REQUIRED TO BE DEDICATED TO THE TOWN OF ZEBULON AT COMPLETION OF THE
- PROJECT AS-BUILT SITE PLANS FOR ROADWAY, GREENWAY AND UTILITY WORK MUST BE SUBMITTED AND APPROVED PRIOR TO FINAL ACCEPTANCE. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RED-LINE LINE DRAWINGS. DEVELOPER/OWNER IS RESPONSIBLE FOR CONTRACTING WITH THIRD PARTY NCDOT CERTIFIED TESTING FIRM.
- AND GREENWAY TRAIL WORK, FINAL REPORTING AND CERTIFICATION(SEALED) IS REQUIRED AT COMPLETION OF THE PROJECT BY THE GEO-TECHNICAL ENGINEER. TESTING IS REQUIRED FOR SUBGRADE. ROADWAY/GREENWAY STONE, ASPHALT AND CURB AND GUTTER PER TOWN OF ZEBULON SPECS.

THE FIRM MUST BE APPROVED BY TOWN OF ZEBULON. MATERIAL TESTING IS REQUIRED FOR ALL ROADWAY

- ALL CURB AND GUTTER REQUIRES CONCRETE TESTING FOR THE FOLLOWING REQUIREMENTS SECTION 2.1.1 4" CONCRETE SLUMP
- TEMPERATURE 50 AND 90 DEGREES
- AIR MIXTURE RANGE 3.5% TO 6.5% • STRUCTURAL STRENGTH BREAK TEST - 7,14,28 DAYS @ 3000 PSI @ 28 DAYS • SAMPLES EVERY 1000 LF OF CURB AND GUTTER TO ENSURE QUALITY
- MAX WATER -CEMENT RATIO BY WEIGHT: 0.594
- MINIMUM CEMENT CONTENT (LBS/CY): 602
- CONCRETE SIDEWALK TESTING IS NOT REQUIRED, UNLESS CONSTRUCTION INSPECTOR DETERMINES THAT THE QUALITY IS INFERIOR AND DOES NOT MEET INDUSTRY STANDARDS. CONTRACTOR MUST MAINTAIN A 4-INCH SLUMP FOR ALL SIDEWALK WORK. AIR TEMPERATURES AT PLACEMENT MUST BE 40 DEGREES AND RISING. SURFACE TEMPERATURES SHALL BE 50 DEGREES OR GREATER (SECTION 2.2.2 E).

TOWN OF ZEBULON ROADWAY/GREENWAY NOTES

- ROADWAY/GREENWAY SUB-GRADE: THE BASE SOIL ELEVATION DETERMINED BY APPROVED ENGINEERED
- DRAWINGS PRIOR TO PLACEMENT OF ROADWAY ABC AND ASPHALT. ROADWAY/GREENWAY STONE GRADE: THE APPROVED COMPACTED ROADWAY SUB-GRADE PLUS THE COMPACTED STONE GRADE PRIOR TO PLACEMENT OF ASPHALT.
 - IN ALL CASES. THE ROADWAY/GREENWAY SUB-GRADE MUST PAST A PROOF-ROLL TEST BEFORE PLACEMENT OF STONE. THE DEVELOPER/OWNER/CONTRACTOR SHOULD PROVIDE THIRD PARTY NCDOT CERTIFIED. GEOTECHNICAL FIRM TO PERFORM DENSITY TESTING OF SUB-GRADE EVERY 300 FEET AND ROADWAY/GREENWAY ABC EVERY 150 FEET VIA A NUCLEAR GAUGE. THE TOWN OF ZEBULON CONSTRUCTION INSPECTOR WILL SELECT VARIOUS LOCATIONS OF THE DENSITY TESTING. IT IS RECOMMENDED THAT TESTING BE PERFORMED AT FILL LOCATIONS OR UTILITY CUTS. A TOWN OF ZEBULON CONSTRUCTION INSPECTOR MUST
- BE PRESENT DURING ALL TESTING. ALL TEST RESULTS SHALL BE SUBMITTED TO AND APPROVED BY THE TOWN OF ZEBULON PUBLIC WORKS DIRECTOR BEFORE ROADWAY STONE IS INSTALLED. PROOF ROLL STANDARD - A FULLY LOADED TANDEM DUMP TRUCK/MOTOR GRADER THAT HAS A MINIMUM GROSS WEIGHT OF AT LEAST 20,000 POUNDS (10 TONS) UNDER THE OBSERVATION OF THE TOWN OF ZEBULON REPRESENTATIVE. NO OTHER METHOD WILL BE ACCEPTED. ALL AREAS OF THE ROADWAY/GREENWAY
- SUB-GRADE OR ROADWAY STONE SHALL BE COVERED BY THE WHEELS OF THE PROOF-ROLLER OPERATING AT WALKING SPEED (TWO TO THREE MILES PER HOUR) OR 225 TO 300 FEET PER MINUTE. IT IS THE CONTRACTOR RESPONSIBILITY TO PROTECT ALL STRUCTURAL FACILITIES ON THE PROJECT SUCH AS
- BRIDGES, BOX CULVERTS, PIPE CULVERTS, AND UTILITIES FROM DAMAGE FROM PROOF ROLLING EQUIPMENT. PROOF ROLLS ARE REQUIRED AT THE ROADWAY/GREENWAY SUB-GRADE CONSTRUCTION PHASE AND ROADWAY/GREENWAY STONE CONSTRUCTION PHASE
- ANY AND ALL AREAS, WHICH RUT OR PUMP EXCESSIVELY UNDER THE WHEELS OF THE PROOF-ROLLER SHALL BE REPAIRED BY THE DEVELOPER/CONTRACTOR BEFORE ROADWAY STONE OR ASPHALT IS INSTALLED. PROOF ROLL AREAS AGAIN FOLLOWING THE COMPLETION OF THE NECESSARY CORRECTIONS. ALL COST
- ASSOCIATED WITH THE PROOF ROLLING PROCESS IS THE RESPONSIBILITY OF DEVELOPER/OWNER OR 9. THE TOWN SHALL NOT BE RESPONSIBLE FOR ENSURING PROPER GRADES AND ALIGNMENT OF ROADWAY/GREENWAY AND CURB AND GUTTER. IF THE ALIGNMENT AND GRADES ARE INCORRECT; IT WILL BE
- THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER/OWNER TO MAKE CORRECTIVE REPAIRS AT THEIR OWN 10. REQUIREMENTS: 98% STANDARD PROCTOR ON ALL SOILS EVERY 300'. ALL LOCATIONS TESTED SHALL MEET THE
- 98% TESTING REQUIREMENTS. AVERAGING OF DENSITY SCORES TO MEET STANDARD IS NOT ALLOWED. 11. SUCCESSFUL PROOF-ROLLS REQUIRED FOR ALL SUB-GRADE SOILS. ALL ROADWAY SUB-GRADE MUST PASS A PROOF-ROLL TEST (NO EXCEPTIONS) 12. ROADWAY/GREENWAY SUB GRADE THAT DOES NOT PASS THE PROOF ROLL TEST OR DENSITY TEST WILL
- REQUIRE REMEDIAL REPAIRS. REPAIR RECOMMENDATIONS FROM GEO-TECHNICAL FIRM CAN BE MADE BY USING SEVERAL METHODS INCLUDING THE USE OF GEO-GRID/STABILIZATION FABRIC AND ADDITIONAL ABO STONE, CEMENT STABILIZATION, LIME STABILIZATION OR REPLACEMENT OF UNSUITABLE SOILS WITH DRIER/MORE SUITABLE SOILS. REGARDLESS OF THE METHOD CHOSEN BY THE CONTRACTOR, GEOTECHNICAL FIRM, DEVELOPER OR OWNER FOR REMEDIAL REPAIRS; A SUCCESSFUL PROOF-ROLL MUST BE OBTAINED PRIOR
- TO PLACEMENT OF ABC STONE CAN BEGIN. 13. IF REPAIRS WERE MADE TO THE ROADWAY/GREENWAY SUB GRADE INVOLVE USING GEO-GRID/STABILIZATION FABRIC AND ADDITIONAL STONE: NO DENSITY ADDITIONAL TESTING IS REQUIRED. IF REPAIRS TO THE ROADWAY SUB GRADE INVOLVE UNDERCUTTING UNSUITABLE SOILS AND REPLACEMENT WITH OTHER MORE SUITABLE SOILS THEN DENSITY TESTING IS REQUIRED TO VERIFY COMPLIANCE OF 98% COMPACTION REQUIREMENT. THE CONTRACTOR/GEO-TECHNICAL FIRM MUST PROVIDE THE TOWN OF ZEBULON INSPECTOR WITH DENSITY TEST RESULTS PRIOR TO PLACEMENT OF ABC STONE WERE REQUIRED. ALL COST OF DENSITY TESTING SHALL BE BY
- THE DEVELOPER OR OWNER. 14. NOTE: IF THE ROADWAY/GREENWAY SUB-GRADE IS EXPOSED TO PRECIPITATION (RAIN, SNOW, ICE, ETC.) GREATER THAN A 1/10 OF INCH BEFORE IT IS COVERED WITH ABC STONE, THE EXPOSED SUB-GRADE MUST PASS
- AN ADDITIONAL PROOF-ROLL. ADDITIONAL DENSITY TESTING IS NOT REQUIRED UNDER THESE CONDITIONS. 15. REQUIREMENTS: 98% STANDARD PROCTOR ON ALL ROADWAY/GREENWAY ABC EVERY 150'. ALL LOCATIONS TESTED SHALL MEET THE 98% TESTING REQUIREMENT AVERAGING OF DENSITY SCORES TO MEET STANDARD IS
- NOT ALLOWED. SUCCESSFUL PROOF-ROLLS REQUIRED FOR ALL ROADWAY/GREENWAY ABC STONE. 16. ROADWAY/GREENWAY ABC STONE MUST BE INSTALLED PER TOWN OF ZEBULON MINIMUM REQUIREMENTS AND/OR APPROVED ENGINEERING ROADWAY DRAWINGS. ROADWAY ABC STONE SHALL BE INSTALLED IN COMPACTED LIFTS PER MANUFACTURE EQUIPMENT RECOMMENDATIONS. A MINIMUM OF SIX INCHES OF COMPACTED ABC STONE SHALL BE INSTALLED UNDER CURB AND GUTTER. ALL ROADWAYS WILL HAVE A MINIMUM OF EIGHT INCHES OF COMPACTED ABC STONE. THE PLACEMENT OF ROADWAY ABC STONE IS REQUIRED TO PASS A PROOF-ROLL AND PASS DENSITY TESTING OF 98% MINIMUM EVERY 150' FEET. THE ZEBULON CONSTRUCTION INSPECTOR MUST HAVE DENSITY TESTING RESULTS PRIOR TO START OF PAVING THE ROADWAY STONE CROSS-SLOPE, FROM CROWN TO CURB, SHALL BE CHECKED WITH A STRING LINE PRIOR
- TO THE PLACEMENT OF ASPHALT 17. THE ROADWAY/GREENWAY STONE SHALL BE PROOF ROLLED JUST PRIOR TO THE PLACEMENT OF ASPHALT. IF A SECTION OF ROADWAY FAILS PRIOR TO PLACEMENT OF ASPHALT AFTER ALL OTHER SUCCESSFUL TESTS: ADDITIONAL ASPHALT AT THE DIRECTION OF THE CONSTRUCTION INSPECTOR MAY BE ALLOWED. ONE INCH OF ASPHALT MAY BE SUBSTITUTED FOR EVERY TWO INCHES OF STONE
- NOTE: IF THE ROADWAY/GREENWAY ABC IS EXPOSED TO PRECIPITATION (RAIN, SNOW, ICE, ETC.) GREATER THAN 1/10 INCH BEFORE IT IS COVERED WITH ABC STONE, THE EXPOSED SUB-GRADE MUST PASS AN ADDITIONAL PROOF-ROLL. ADDITIONAL DENSITY TESTING IS NOT REQUIRED UNDER THESE CONDITIONS 19. ASPHALT PLACEMENT SHOULD BE IN ACCORDANCE WITH ENGINEERING DRAWINGS, SIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL INSTALL ASPHALT IN TWO
- LAYERS. THE FINAL 1" OVERLAY WILL BE AT THE 80% BUILDING PERMIT LEVEL FOR EACH PHASE OR AT THE DIRECTION OF THE PUBLIC WORKS DIRECTOR. ASPHALT CORES WILL BE TAKEN AT BOTH OVERLAYS TO INSURE COMPLIANCE WITH ENGINEERING DRAWINGS FOR THICKNESS. 20. IF MORE THAN 2.5 INCHES OF SF 9.5 ASPHALT IS REQUIRED, ASPHALT MUST BE PLACED IN TWO LIFTS, THE FIRST
 - SF 9.5A 1.0-1.5 INCHES

LIFT HAVING A THICKNESS OF NOT LESS THAN 1.5 INCHES.

- SF 9.5B 1.5-2.0 INCHES 22. ASPHALT MIXTURES SHALL NOT BE PLACED DURING RAINY WEATHER, WHEN SUBGRADE OR COURSE IS FROZEN, OR WHEN THE MOISTURE ON THE SURFACE TO BE PAVED WOULD PREVENT A PROPER BOND. ASPHALT MATERIAL MUST NOT BE PLACED WHEN THE AIR TEMPERATURE MEASURED IN THE SHADE AWAY FROM ARTIFICIAL HEAT AT THE LOCATION OF THE PAVING OPERATION AND THE ROAD SURFACE TEMPERATURE IN THE SHADE AT THE PAVING SITE IS BELOW 40 DEGREES AIR TEMPERATURE AND 50 DEGREES MINIMUM SURFACE
- 23. A TACK COAT OF LIQUID ASPHALT IS REQUIRED FOR EXISTING LAYERS OF ASPHALT OR CONCRETE SURFACES TO PROMOTE A BOND BETWEEN OLD PAVEMENT SURFACES AND THE NEW ASPHALT LAYER. PRIOR TO PLACING ASPHALT TACK THE FOLLOWING CONDITIONS MUST BE MET:
 - EXISTING PAVEMENT SURFACE MUST BE CLEAN.
 - RATE OF APPLICATION MUST COMPLY WITH NCDOT STANDARDS. UNFORMED COVERAGE OVER THE ENTIRE AREAS TO BE PAVED.
 - ALLOW TACK TO THOROUGHLY CURE BEFORE PLACING THE NEW ASPHALT.
- 24. ASPHALT CORE SAMPLES SHOULD BE SELECTED EVERY 300' FEET OR MINIMUM OF TWO CORES PER ROADWAY FOR ANALYSIS OF THICKNESS AND DENSITY. ASPHALT PAVEMENT MIX SF 9.5 B SHOULD BE COMPACTED TO A MINIMUM OF 92% OF THE MAXIMUM SPECIFIC GRAVITY. ASPHALT PAVEMENT MIX OF SF 9.5 A SHOULD BE COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM SPECIFIC GRAVITY. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING/CREATING A CHART/MAP IF THE CORED LOCATIONS FOR SUBMITTAL WITH THE TESTING. CORES WILL BE RANDOMLY TAKEN ALONG THE LONGITUDINAL DIRECTIONS ACROSS THE ROADWAY BUT NOT WITHIN ONE FOOT OF THE EDGE OF PAVEMENT. THE RESULTS OF SAMPLES GREATER THAN 10 FEET APART WILL NOT BE AVERAGE AND USED TO VERIFY COMPLIANCE WITH THE TOWN OF ZEBULON SPECIFICATIONS (SECTION 2.6.H).

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REVISIONS DATE COMMENT 11-8-17 | PER TOWN COMMENTS | SJ 2-7-18 PER TOWN COMMENTS | SJI 2-23-18 PER WAKE COMMENTS | SJI PER WAKE, COR, & IF(6-28-18 COMMENTS



APPROVED FOR CONSTRUCTION

It's fast. It's free. It's the law

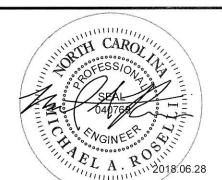
DRAWN BY:



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



1130 PARKLAKE AVENUE, SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



SHEET TITLE:

GENERAI



e360 F93/ Town of Zebulon

The Town of Friendly People

Town of Zebulon Special Use Permit Granted

SU 2017-02 - Autumn Lakes Subdivision

On March 6, 2017, the Board of Commissioners for the Town of Zebulon convened a hearing to consider an application for a Special Use Permit for the purpose of developing a single family residential subdivision known as Autumn Lakes located on Old Bunn Road. The property is approximately 163.24 acres with the North Carolina Parcel Identification Numbers (NC PINs) 2706729236, 2706615785, 2706514158, Real Estate Identification Numbers (REIDs) 0022181, 0038099, 0054286, and current zoning classification of Residential (R-20).

Robert MacNaughton LGI Homes, Inc. 3037 Sherman Drive

Gay Family Limited Partnership II Property Owner:

104 W. Horton Street Zebulon, North Carolina 27597-2600

Edgar Roger Bunn, III Heirs

Bunn Farms Incorporated

Lancaster, South Carolina 39720

436 E. Second Street Ocean Isle Beach, North Carolina 28469-7702

Property Location: 605 Parks Village Road, 1225 Old Bunn Road, and

0 Old Bunn Road (unaddressed parcel) Zebulon, NC 27597

Scale: 04 Block: 72 Lot: 9236 Tax Map: 2706 Scale: 04 Block: 51 Lot: 4158 Tax Map: 2706 Scale: 04 Block: 61 Lot: 5785

Approved use of property: Single Family Residential Subdivision - Autumn Lakes Approved zoning of property: R-13-SUD

Having heard all the evidence and arguments presented at the hearing, the Board of Commissioners finds that the application is complete, that the application complies with all the applicable requirements of the Town of Zebulon Code of Ordinances for the development proposed, and the purpose indicated is hereby approved subject to the conditions attached and subject to all applicable existing provisions of the Zebulon Code of Ordinance, Street and Storm

113 E. Vance Street Zebulon, NC 27597

POLICE DEPARTMENT 1001 N. Arendell Avenue Zebulon, NC 27597 Facsimile (919) 269-2618 Facsimile (919) 269-0312

Drainage Specifications Manual, and adopted Plans.

1003 N. Arendell Avenue Zebuton, NC 27597 (919) 269-7455 Facsimile (919) 269-6200

450 E. Horton Street Page 1,9197269-5285 Facsimile (919) 269-2617

Public Works DEPARTMENT

Conditions of Approval:

Stipulations Specific to the Development

- 1. Recordation: Special use permit and updated Illustrative Concept Plan must be recorded with the Wake County Register of Deeds. 2. Illustrative Concept Plan: Special use permit and an updated Illustrative Concept Plan
- addressing the approved special use permit conditions and applicable timelines shall be submitted no later than ninety (90) days following approval. 3. Site Plan: Site plan review and approval by the Zebulon Technical Review Committee (ZTRC) shall be required.
- 4. Site Plan (Phasing): Site plan review by the ZTRC may be submitted by phase or through submittal of an overall development plan. If a phased approach is preferred, phases shall require a separate submittal. The applicant may group phases together and phases may be submitted out of numerical order as shown on the recorded Illustrative
- 5. Site Plan (Greenways); Greenway trails such as Corridor #2 may submit separate site plans for each individual phase for review and approval by the ZTRC.
- 6. Adopted Plans/Policies: All town ordinances, plans, and adopted policies shall be adhered to and enforced by the ZTRC in addition to the special use permit approved
- 7. Annexation: The development shall be annexed into Town limits prior to any approval for final plats. 8. Lot Sizes (Single Family Dwellings): The minimum lot sizes shall be 4,800 square feet. 9. Lot Widths: The minimum lot widths shall be fifty feet (50').

10. Signage (Main Entrance): One main entrance monument sign will be allowed along Old

- Bunn Road and shall be made of brick, stone, or masonry material. Signage shall not exceed sixty-four square feet (64 SF) and must be setback at least ten feet (10') from the public right-of-way. 11. Signage (Secondary Entrances): One (1) secondary entrance monument sign will be
- allowed along Old Bunn Road and shall be made of brick, stone, or masonry material. The secondary entrance monument shall not exceed forty square feet (40 SF) and must be setback at least ten feet (10') from the public right-of-way. 12. Signage (Stub-out Connections): Four (4) entrance signs will be allowed on the stub-out

streets that provide interconnectivity to other developments. These signs shall be made of

- brick, stone, or masonry material, and shall not exceed ten square feet (10 SF) and must be setback at least ten feet (10') from the public right-of-way.
- Stipulations Specific to the Homeowner's Association 13. Homeowner's Association: All owners of developable lots shall immediately become
- members of the Homeowner's Association. 14. Homeowner's Association: A Declaration of Covenants, Conditions, and Restrictions
- (CC&R) and bylaws for the Homeowner's Association shall be reviewed, approved and recorded with the Phase I final plat. 15. Homeowner's Association: Homeowner's Association, or if applicable a Homeowner's
- Association management firm, shall be in place to enforce and abate all community association covenants, conditions, and restrictions. 16. Homeowner's Association: Homeowner's Association, or if applicable a Homeowner's Association management firm, shall enforce tall grass, trash, debris and rubbish along with the removal of any junked, abandoned, or nuisance automobiles as defined by the

adopted town ordinances.

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17. Homeowner's Association: Homeowner's Association, or if applicable a Homeowner's Association management firm, shall be responsible for the maintenance and upkeep of all open space and improvements built therein, landscaped center islands, roadway medians,

or roundabouts located throughout the development. 18. Homeowner's Association: Homeowner's Association, or if applicable a Homeowner's Association management firm, shall be responsible for the maintenance and upkeep of all drainage easements and Detention/Retention/Water Quality Pond Areas as described in the Town of Zebulon Street and Storm Drainage Standards & Specifications Manual.

Stipulations Relating to Setbacks

19. Setbacks (Old Bunn Road); All residential lot lines shall be setback at least thirty feet (30') from Old Bunn Road. 20. Setbacks (US 64 Highway): All residential lot lines shall be setback at least thirty feet

(30°) from US 64 Highway

21. Setbacks (Residential Buildings): Setbacks shall be measured from the lot line to the building wall. Building caves, at-grade patios, and at-grade stoops shall be allowed in the setback area. Decks, porches or other building extensions shall not be permitted in the setback area. The minimum setbacks from the lot lines to the buildings for each residential use type shall be as follows:

Land Use Type	Minimum Front Setback	Minimum Side Setback	Minimum Side Setback (Adjacent to Street)	Minimum Rear Setback
Single Family Dwelling	20°	5', 12' Aggregate	10*	20*

Stipulations Relating to Recreation Amenities

22. Recreation Amenities: All recreation amenities shall be detailed on a site plan and recreation master plan to show the location and proposed use of all parks, open spaces, and passive recreation areas. This plan will be reviewed and approved by the Zebulon Technical Review Committee.

23. Recreation Amenities (Pond Trail): Tract 2 Phase 3 pond trail as shown on the Illustrative Concept Plan shall have a six to eight-foot (6' - 8') variable width private trail including a minimum of two (2) benches, two (2) trash receptacles and one (1) dog waste station. 24. Recreation Amenities (Pond Trail): Permits for the construction of the Tract 2 Phase 3 pond trail as shown on the Illustrative Concept Plan shall be pulled prior to the issuance of the 100th Certificate of Occupancy for homes within the development or within thirty-

whichever comes first. 25. Recreation Amenities: Permits for the construction of the community pavilion and playground located on Tract 1 Phase 1 as shown on the Illustrative Concept Plan shall be pulled prior to the issuance of the 100th Certificate of Occupancy for homes within the development or within twenty-four (24) months following the issuance of the final plat for

six (36) months following the issuance of the final plat for Phase I of the development,

Phase I of the development, whichever comes first. 26. Playground Equipment: Playground equipment shall be included for toddlers ages 2-5 and children ages 5-12. A minimum of two (2) bike racks holding eight (8) bikes each shall be provided. A minimum of two (2) benches, two (2) trash receptacles and one (1) dog waste station shall be provided.

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Stipulations Relating to Greenways

- 27. Greenway Trail (General): The public greenway trail is to be in accordance with the latest version of the Town of Zebulon Street and Storm Drainage Standards and Specifications Manual and the latest version of the Town of Zebulon Greenway, Bicycle, and Pedestrian Master Plan specifications. Greenway engineered drawings are required to be submitted with each phase of construction to the Zebulon Technical Review Committee for approval. Zebulon Technical Review Committee approved engineer drawings for the proposed public greenway trails and associated trailhead connections will be required prior to final
- plat approval for each phase. 28. Greenway Trail (General): Installation and dedication of the required public greenway trails and trailhead connection improvements must be completed prior to final plat approval for each phase of construction. Upon dedication and acceptance, all maintenance of the public greenway trails and trailhead connections will be the
- responsibility of the Town of Zebulon. 29. Greenway Trail (Corridor #2): A complete design for a minimum ten-foot (10°) public greenway trail with a minimum twenty-foot (20°) wide public greenway easement and associated trailbead connections along Beaverdam Creek adjacent to phases 1 and 2 as shown in the recorded Illustrative Concept Plan shall be engineer designed, approved by ZTRC, and installed.
- 30. Greenway Trail (Corridor #2): A minimum of three (3) greenway trailhead connections for the single family residential area adjacent to Phases 1 and 2 as shown on the Illustrative Concept Plan shall be provided at each cul-de-sac near the greenway trails and one other connection based on a minimum pavement width of ten feet (10') and a minimum 6.25-ton load capacity for any necessary bridges or boardwalks.
- 31. Greenway Trail (Corridor #2) Timeline; The greenway along the Beaverdam Creek Sewer Outfall adjacent to phases 1 and 2 as shown in the recorded Illustrative Concept Plan must have design plan approval no later thirty-six (36) months after approval of the special use permit and construction approval not later than forty-eight (48) months after approval of the special use permit.
- 32. Greenway Connectivity: Connectivity to greenways shall be provided with each phase. This shall be accomplished through trailheads, sidewalks, and internal trail connections as specified in Autumn Lakes Special Use Application dated November 2, 2016. All internal trail connections shall be designated as open space and maintained by the Homeowner's Association, or if applicable a Homeowner's Association management

Stipulations Relating to Transportation

33. Turn Lanes: Review of the Transportation Impact Analysis (TIA) by Ramcy Kemp and Associates dated November 2016 and sealed November 22, 2016, shows two site drives along Old Bunn Road. Site Drive #1 shall have an exclusive eastbound left turn lane with a minimum of 100 feet (100') full width storage. Site drive #2 shall have an exclusive westbound right turn lane with a minimum of one hundred fifty feet (150') of

full width storage. 34. Turn Lanes: A fee-in-lieu shall be required for the additional turn lanes at the intersection of NC 97 Highway and Old Bunn Road. The southbound right turn lane shall have a minimum of one hundred feet (100') of full width storage and the eastbound left turn lane shall have a minimum of one hundred fifty feet (150') of full width storage. Off-site roadway improvements shall have a signed and sealed engineered construction estimate or the fee-in-lieu and fee-in-lieu paid prior to the issuance of the 330th Certificate of Occupancy for the development or when the TIA requires the improvement, whichever

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35. Turn Lanes: A fee-in-lieu shall be required for the additional turn lanes at the intersection of Old Bunn Road and Shepard School Road shall be installed. A westbound left turn lane with a minimum of one hundred feet (100') of full width storage on Old Bunn Road at Shepard School Road shall have a signed and sealed engineered construction estimate for the fee-in-lieu and fee-in-lieu paid prior to the issuance of the 330th Certificate of Occupancy for the development or when the TIA requires the improvement, whichever

36. Traffic Impact Analysis Recommendations: Recommendations from the TIA by Ramey Kemp and Associates dated November 2016 and scaled November 22, 2016 will be incorporated into site plan review by the ZTRC for conformance with Town and NCDOT

37. Additional Right-of-Way (Old Bunn Road): Dedication of additional right-of-way along Old Bunn Road shall be included with each final plat. Dedication amounts may vary depending on current widths; however, total amount shall be required to equal a total right-of-way width of a minimum of one hundred feet (100') or as directed by the North

Carolina Department of Transportation. 38. New Roadways: Installation and dedication of any roadway infrastructure, improvements, or right-of-way widths for any and all phases of the development as shown on the Illustrative Concept Plan for Autumn Lakes Subdivision shall be in accordance with the latest version of the Town of Zebulon Street and Storm Drainage Standards and Specifications Manual specifications. Engineer certification of the roadway must be provided by a licensed engineer with acceptable bonding information during the final plat process for the development.

39. Public Roadways: All streets within the Autumn Lakes Subdivision shall be public and in accordance with the latest version of the Town of Zebulon Street and Storm Drainage

Standards and Specifications Manual specifications. 40. Curb and Gutter: All curb and gutter installations throughout the subdivision and along all rights-of-way should be in accordance with the latest version of the Town of Zebulon

Street and Storm Drainage Standards and Specifications Manual specifications. 41. Bonding: Developer is responsible for posting a bond for final roadway, sidewalk or amenities improvements for each phase prior to the issuance of the first building permit. Developer is fully responsible for all necessary roadway repairs of dedicated streets prior

to final overlay and striping. Regardless of residential construction progress the final

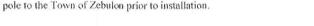
overlay of dedicated streets shall be over-laid within eighteen (18) months of the original roadway acceptance date for that phase. 42. Sidewalks: Each street within the subdivision will be required to have a five foot (5)

wide sidewalk on one side of the street. 43. Sidewalks: Installation of five foot (5') wide sidewalks is required along the north side of Old Bunn Road. Sidewalks shall be continuous and not interrupted along the interior roadway development perimeters or as directed by the North Carolina Department of Transportation. Sidewalks shall be continuous and not interrupted along the interior roadway development perimeters or as directed by the North Carolina Department of Transportation. Optional fee-in-lieu for portions of the sidewalk with design

44. Street Signage: All street signage shall be decorative and must be in accordance with the latest version of the Town of Zebulon Street and Storm Drainage Standards and Specifications Manual specifications. 5. Street Lights: The developer is responsible for coordination with Duke Energy on the lighting plan layout; however, the Town of Zebulon will be approving the lighting plan.

complications associated with offsite improvements may be considered at technical

Street Lights: The developer is responsible for paying the current Duke Energy fee per



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47. Street Lights: All street lights shall be decorative and must in accordance with the latest version of the Town of Zebulon Street and Storm Drainage Standards and Specifications

- Manual specifications. 48. Street Lights: All street lights shall be decorative Mitchell 50 Watt Series LED unless
- otherwise specified and authorized by the Town of Zebulon Public Works Director. 49. Street Lights: All street lights shall be a minimum of 125 linear feet with a maximum of
- 140 linear feet apart with alternate spacing on either side of the street. 50. Entrances: All entrances shall be reviewed and approved by the Town of Zebulon and the North Carolina Department of Transportation during the appropriate site plan
- 51. Driveways: All individual driveways shall be concrete and able to accommodate at least two vehicles outside of the public right-of-way (inclusive of the garage) and should be in accordance with the latest version of the Town of Zebulon Street and Storm Drainage
- Standards and Specifications Manual specifications. 52. Driveway Restrictions: No driveways to individual lots should be located within the circulating roadway of any internal roundabouts and should be located as far away from
- 53. Additional Parking: Local streets shall incorporate off-street parking where practical. Stipulations Relating to Landscaping/Buffers

- 54. Open Space: All lands within areas required to be maintained as open space by the omeowner's Association, or if applicable a Homeowner's Association management firm, shall be protected by a permanent conservation easement and restrictive covenant,
- prohibiting further development, and recorded upon final plat approval as "Open Space". 55. Streetscaping: Old Bunn Road shall have streetscaping along the north side of the street. A minimum of one large shade tree every thirty-five feet (35°) with at least five (5) bushes minimum three (3) gallon container and eighteen inches (18") in height must be planted three feet (3') apart.

56. Streetscaping: Street trees shall be planted a minimum of one hundred feet (100') on each

- side of all local and residential collector streets with alternating spacing and shall be planted within a landscape easement. Trees shall be deciduous and shall be a minimum size of two and a half inches (2.5") caliper at time of planting. Tree varieties shall be approved by the Technical Review Committee. 57. Lot Tree Requirement: One deciduous shade tree shall be planted in the front yard of
- half inches (2.5") at time of planting. 58. Landscape Buffer (Property Perimeters): A ten-foot (10') wide Type "A" landscape buffer with two and a half inch (2.5") caliper trees shall be installed along all outer property perimeters except in areas where greenway easements are dedicated along the perimeter. Preservation of any existing trees are encouraged and may be used as a credit toward the buffer requirement.

each single family and paired single family home with a minimum caliper of two and a

Stipulations Relating to Architecture

- 59. Garages: All homes within the subdivision shall have at least a one-stall garage. 60. Building Materials: Exterior building materials will be brick or stone veneer, vinyl or
- fiber cement (such as hardieplank) siding. 61. Building Façade: Fifty percent of all homes must have a front façade comprised of brick
- or stone equal to a minimum of thirty-three percent (33%) overall coverage. Foundations: Foundations will be slab on grade, stem wall, crawl space or basement as determined by the site grading and topography or as determined by the builder. ousing Square Footage: The minimum heated square footage shall be 1,400 square

Stipulations Relating to Environment

- 64. Environmentally Sensitive Areas: No unauthorized disturbances of environmentally sensitive areas as defined by U.S. Army Corps of Engineers, NCDEQ, Wake County
- Environmental Services and the Town of Zebulon Planning Department 65. Floodplain: No portion of any lot shall contain wetlands, riparian buffers, floodplain or
- 66. Rock Formations: Rock outcropping appearing above the surface prior to construction in the pre-determined Open Space areas shall be preserved.

Stipulations Relating to Utilities

- 67. Water and Sewer Allocation: Water and sewer allocation shall be authorized during the final plat process. Allocation requests shall be limited to 50,000 gallons per day (GPD) with a not to exceed amount of 200 dwelling units per phase.
- 68. Solid Waste and Recycling, Yard Waste and Leaf Collection: All homes within the on and recycling, vard waste and leaf collection
- 69. Storm Drainage Infrastructure: Certification of the storm drainage infrastructure must be provided by a licensed engineer. Bonding will be applied to drainage structures not completed prior to final plat recording. Best Management Practices (BMP's) are not converted from erosion control to permanent stormwater devices until most of the home construction is complete. BMP certification will be completed as directed by the Stormwater Administrator.
- 70. Water, Sewer and Pump Station Improvements: All water, sewer and pump station improvements will be reviewed and approved by the City of Raleigh Public Utilities during the Zebulon Technical Review Committee site plan review process. The utility improvements must be in accordance with the City of Raleigh adopted plans, policies, ordinances, and handbook requirements.



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71. Beaverdam Creek Sewer Outfall Fee: Payment of a fee for the Beaverdam Creek Sewer Outfall project (currently approximated to be \$1,614.09 per dwelling) will be required to be paid prior to the building permit issuance for each lot. Listed below is the method of calculation for each lot's proportional share to the Beaverdam Creek Sewer Outfall project:

Title	Calculation Method	Value
Flow capacity for the Beaverdam Creek Sewer Outfall project	1,107,301 gallons per day (GPD)	1,107,301 GPD
Average household wastewater flow per day	250 gallons per day (GPD)	250 GPD
Total project cost (estimated)	 \$6,500,000 - based on City of Raleigh Public Utilities construction bid subtotal \$324,800 - Engineering Budget \$324,000 - Land Acquisition Project Total = \$7,148,800 	\$7,148,800
Number of total homes in Autumn Lakes (all phases)	550 homes	550 homes
Total number of homes served by the Beaverdam Creek Sewer Outfall project	1,107,301 outfall capacity / 250 GPD per home = 4,429 homes served	4,429 homes
Total cost per home (estimated)	\$7,148,800 project cost / 4,429 homes served = \$1,614.09 cost per home	\$1,614.09 cost per home
Autumn Lakes homes that will need to contribute to the Beaverdam Creek Sewer Outfall project	550 homes in Autumu Lakes will need to contribute to the Beaverdam Creek Sewer Outfall project	550 homes
Total amount Autumn Lakes subdivision will need to contribute to the Beaverdam Creek Sewer Outfall project (estimated)	\$1,614.09 cost per home x 550 homes = \$887,749.50 amount needed to contribute toward the Beaverdam Creek Sewer Outfall project	\$887,749.50

The Town will review during its annual budget process the annual estimates or actual construction costs and will adjust its fee accordingly to ensure the Town is receiving full cost reimbursement and the developer is treated reasonably to respect the cost.

Stipulations Relating to Mailbox Kiosk

2. Mailbox Kiosk: Installation and maintenance of mailbox kiosks shall be accordance to the United States Post Office standards. Access and parking for the mailbox kiosk site should be in accordance with the latest version of the Town of Zebulon Code of

Page 8 of 13

Ordinances and the Street and Storm Drainage Standards and Specifications Manual 73. Mailbox Kiosk: A mailbox kiosk shall be installed prior to final plat approval. There

shall be a minimum of one (1) mailbox kiosk installed for the development.

Stipulations Relating to Fire Code and Blasting

74. Fire Code: Development must comply with the 2012 NC Fire Prevention Code or current edition adopted for use by the Town of Zebulon. This includes, but is not limited to, the access roadway requirements, hydrant locations, and blasting.

75. Blasting: Blasting operations shall be conducted in accordance with the provisions of the

NC Fire Prevention Code. Nothing authorized by the permit may be done until the property owner properly executes and returns to the Town of Zebulon the attached acknowledgement of the issuance of this permit so

that the Town of Zebulon may have it on file in the Planning Department.

Page 9 of 13

KNOW WHAT'S BELOW **ALWAYS CALL 811 BEFORE YOU DIG**

4444

UPST NEW NEW NEW NEW

* * * * * *

REVISIONS

11-8-17 PER TOWN COMMENTS

2-7-18 PER TOWN COMMENTS

2-23-18 PER WAKE COMMENTS

PER WAKE, COR, & IF

COMMENTS

COMMENT

REV DATE

6-28-18

APPROVED FOR CONSTRUCTION

It's fast. It's free. It's the law.

DRAWN BY: CHECKED BY:

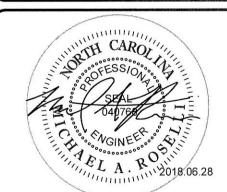


LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597

WAKE COUNTY, NORTH CAROLINA

ENGINEERING NC, PLLC 130 PARKLAKE AVENUE, SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665

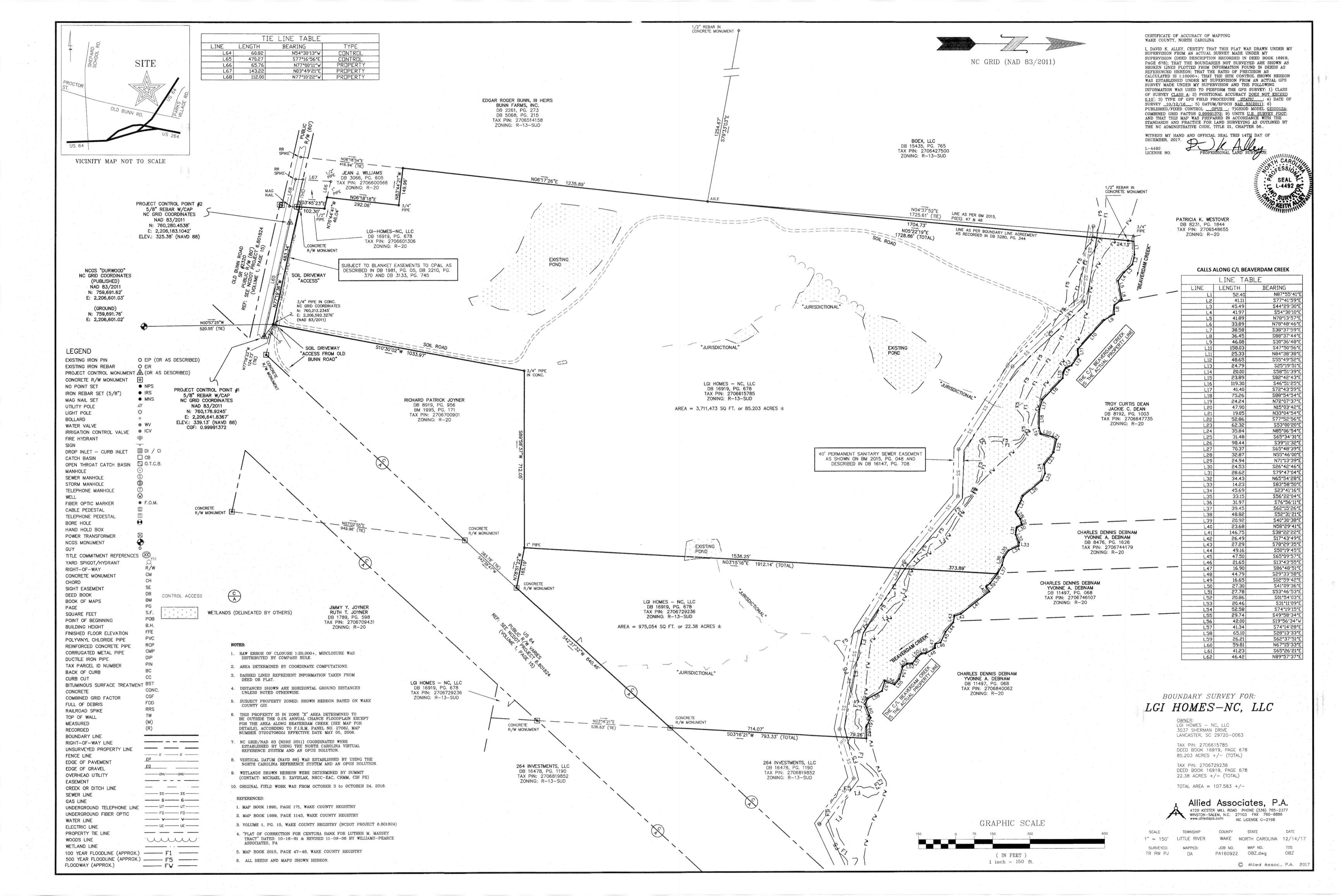
NC@BohlerEng.com

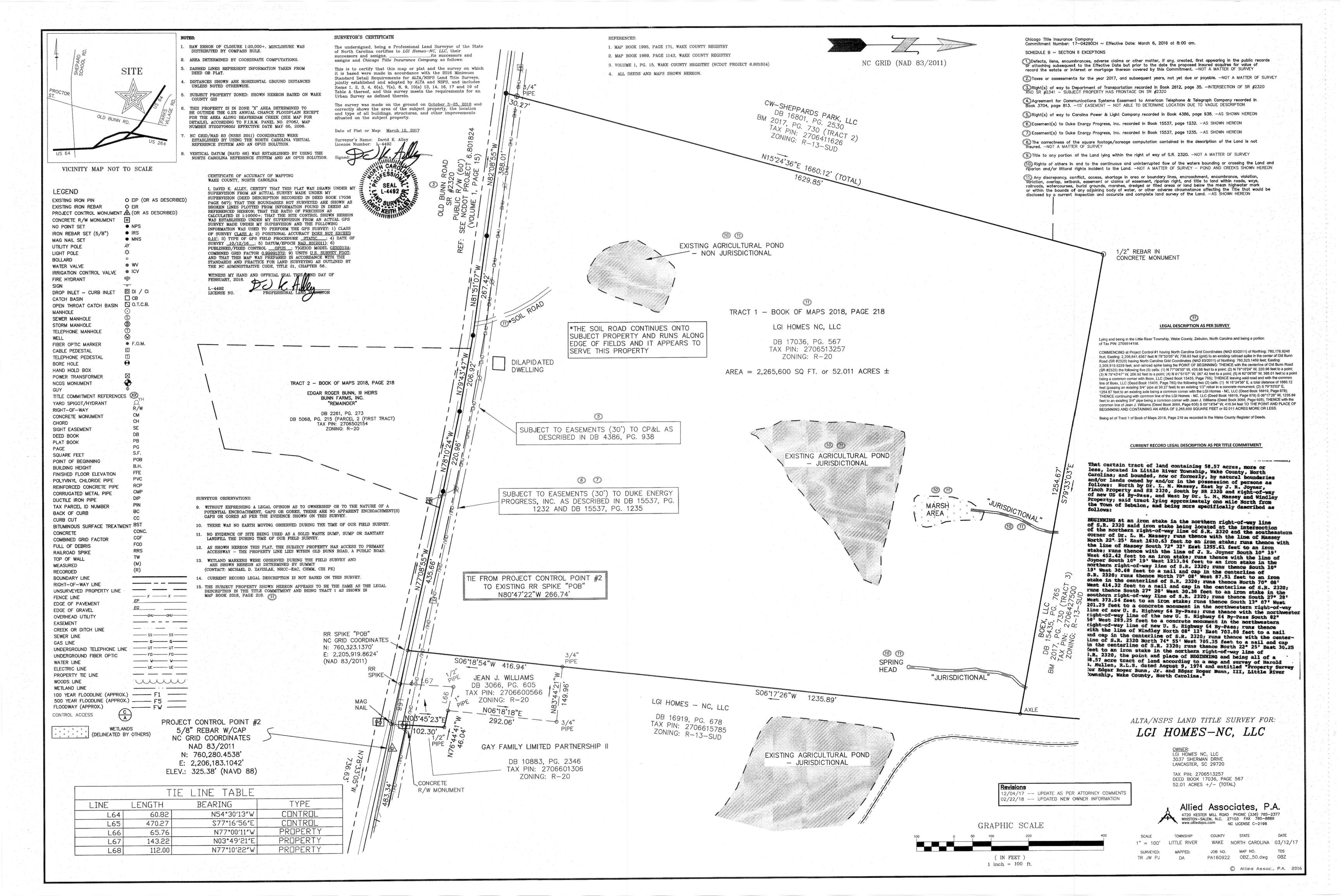


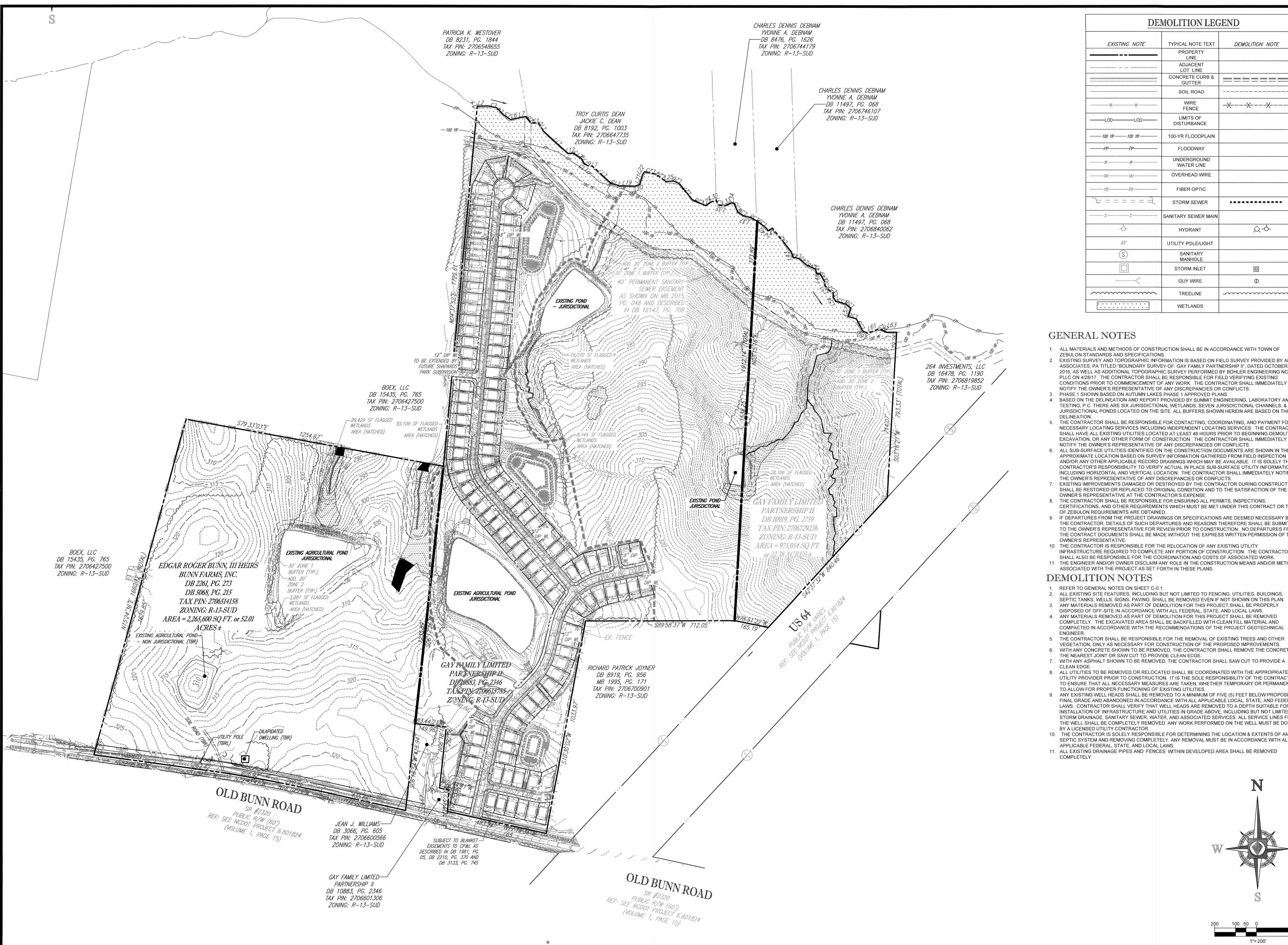
SHEET TITLE:

SPECIAL USE PERMIT

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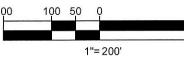
DEMOLITION LEGEND			
EXISTING NOTE	TYPICAL NOTE TEXT PROPERTY	DEMOLITION NOTE	
	LINE ADJACENT LOT LINE		
	CONCRETE CURB & GUTTER	======	
	SOIL ROAD		
X	WIRE FENCE	-XX	
LODLOD	LIMITS OF DISTURBANCE		
100 YR 100 YR	100-YR FLOODPLAIN		
FPFP	FLOODWAY		
W	UNDERGROUND WATER LINE		
	OVERHEAD WIRE		
F0	- FIBER OPTIC		
	STORM SEWER	**********	
	SANITARY SEWER MAIN		
<u></u>	HYDRANT	Д-ф-	
Ø	UTILITY POLE/LIGHT		
S	SANITARY MANHOLE		
	STORM INLET		
	GUY WIRE	Φ	
	TREELINE		
	WETLANDS		

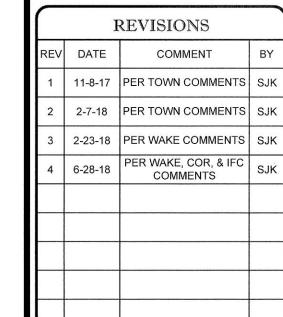
- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF
- 2. EXISTING SURVEY AND TOPOGRAPHIC INFORMATION IS BASED ON FIELD SURVEY PROVIDED BY ALLIED ASSOCIATES, PA TITLED "BOUNDARY SURVEY OF: GAY FAMILY PARTNERSHIP II", DATED OCTOBER, 26 2016, AS WELL AS ADDITIONAL TOPOGRAPHIC SURVEY PERFORMED BY BOHLER ENGINEERING NC, PLLC ON 4/28/17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- PHASE 1 SHOWN BASED ON AUTUMN LAKES PHASE 1 APPROVED PLANS.
- BASED ON THE DELINEATION AND REPORT PROVIDED BY SUMMIT ENGINEERING, LABORATORY AND TESTING, P.C. THERE ARE SIX JURISDICTIONAL WETLANDS, SEVEN JURISDICTIONAL CHANNELS, & TWO JURISDICTIONAL PONDS LOCATED ON THE SITE. ALL BUFFERS SHOWN HEREIN ARE BASED ON THIS
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION. EXCAVATION. OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- 6. ALL SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS WHICH MAY BE AVAILABLE. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL IN PLACE SUB-SURFACE UTILITY INFORMATION INCLUDING HORIZONTAL AND VERTICAL LOCATION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
- EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT OR TOWN
- OF ZEBULON REQUIREMENTS ARE OBTAINED. 9. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE
- 10. THE CONTRACTOR IS RESPONSIBLE FOR THE RELOCATION OF ANY EXISTING UTILITY INFRASTRUCTURE REQUIRED TO COMPLETE ANY PORTION OF CONSTRUCTION. THE CONTRACTOR
- SHALL ALSO BE RESPONSIBLE FOR THE COORDINATION AND COSTS OF ASSOCIATED WORK. 11. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.

DEMOLITION NOTES

- 1. REFER TO GENERAL NOTES ON SHEET C-0.1.
- 2. ALL EXISTING SITE FEATURES, INCLUDING BUT NOT LIMITED TO FENCING, UTILITIES, BUILDINGS, SEPTIC TANKS, WELLS, SIGNS, PAVING, SHALL BE REMOVED EVEN IF NOT SHOWN ON THIS PLAN.
- 3. ANY MATERIALS REMOVED AS PART OF DEMOLITION FOR THIS PROJECT SHALL BE PROPERLY DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS. 4. ANY MATERIALS REMOVED AS PART OF DEMOLITION FOR THIS PROJECT SHALL BE REMOVED
- COMPLETELY. THE EXCAVATED AREA SHALL BE BACKFILLED WITH CLEAN FILL MATERIAL AND COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF EXISTING TREES AND OTHER VEGETATION, ONLY AS NECESSARY FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
- 6. WITH ANY CONCRETE SHOWN TO BE REMOVED, THE CONTRACTOR SHALL REMOVE THE CONCRETE TO THE NEAREST JOINT OR SAW CUT TO PROVIDE CLEAN EDGE.
- 8. ALL UTILITIES TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE APPROPRIATE
- UTILITY PROVIDER PRIOR TO CONSTRUCTION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL NECESSARY MEASURES ARE TAKEN, WHETHER TEMPORARY OR PERMANENT, TO ALLOW FOR PROPER FUNCTIONING OF EXISTING UTILITIES.
- 9. ANY EXISTING WELL HEADS SHALL BE REMOVED TO A MINIMUM OF FIVE (5) FEET BELOW PROPOSED FINAL GRADE AND ABANDONED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS. CONTRACTOR SHALL VERIFY THAT WELL HEADS ARE REMOVED TO A DEPTH SUITABLE FOR THE INSTALLATION OF INFRASTRUCTURE AND UTILITIES IN GRADE ABOVE, INCLUDING BUT NOT LIMITED TO STORM DRAINAGE, SANITARY SEWER, WATER, AND ASSOCIATED SERVICES. ALL SERVICE LINES FROM THE WELL SHALL BE COMPLETELY REMOVED. ANY WORK PERFORMED ON THE WELL MUST BE DONE BY A LICENSED UTILITY CONTRACTOR.
- 10. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING THE LOCATION & EXTENTS OF ANY SEPTIC SYSTEM AND REMOVING COMPLETELY. ANY REMOVAL MUST BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
- 11. ALL EXISTING DRAINAGE PIPES AND FENCES WITHIN DEVELOPED AREA SHALL BE REMOVED







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APPROVED FOR CONSTRUCTION

BEFORE YOU DIG

It's fast. It's free. It's the law.

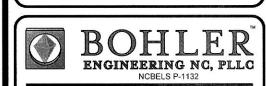
DRAWN BY: CHECKED BY:

SCALE: CAD I.D.: 1" = 200' PROJECT: AUTUMN

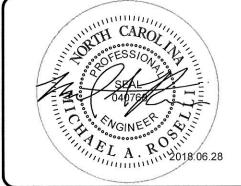
LAKES PHASE II



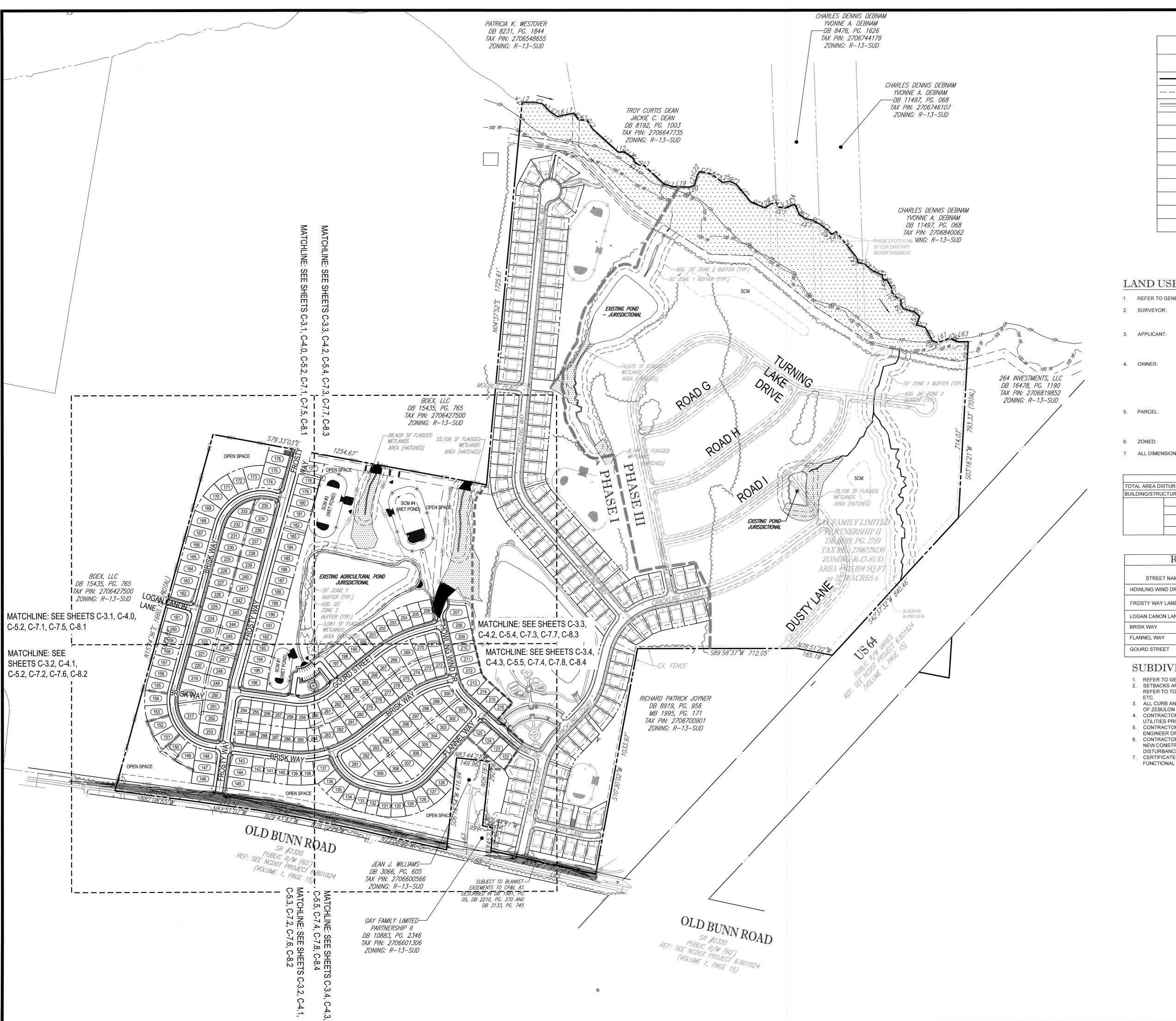
LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



4130 PARKLAKE AVENUE, SUITE 130 RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



EXISTING CONDITIONS & DEMOLITON PLAN



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	GRAPHIC LEGE	ND
EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	PROPERTY/LEASE LINE	
	BUILDING OR PARKING SETBACK	
	CURB & GUTTER	
	FLUSH CURB	
	PARKING COUNT	<u>6</u>
	ELEC. TRANSFORMER ON CONC. PAD	Т
	PAVEMENT STRIPING - 4" SSYL	
	STOP SIGN	-
	ADA ACCESSIBLE PARKING SIGN	
E	PAINTED STOP BAR	8ТОР
0	TREE	
	PHASE LINE	

LAND USE AND ZONING INFORMATION AND NOTES:

REFER TO GENERAL NOTES SHEET C-0.1

SURVEYOR: ALLIED ASSOCIATES, P.A. 4720 KESTER MILL ROAD WINSTON-SALEM, NC 27103

> LGI HOMES 3037 SHERMAN DRIVE LANCASTER, SC 39720

GAY FAMILY LIMITED PARTNERSHIP II 1301 OLD BUNN ROAD

ZEBULON, NC 27597 BUNN EDGAR ROGER III HEIRS

436 E SECOND STREET OCEAN ISLE BEACH, NC 28469

2706615785, 2706729236, 2706514158 0 OLD BUNN ROAD ZEBULON, NC

WAKE COUNTY, NORTH CAROLINA

7. ALL DIMENSIONS ARE SHOWN FROM BACK OF CURB TO BACK OF CURB UNLESS OTHERWISE NOTED.

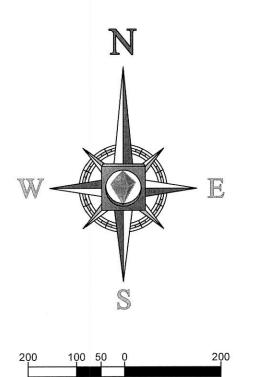
		PROPOSED
TOTAL AREA	DISTURBED AREA	±45.34 AC
BUILDING/STF	RUCTURE SETBACKS	
	FROM PRIMARY STREET	20'
	FROM SIDE STREET	10'
	FROM SIDE LOT LINE	5' MIN, 12' AGGREGATE
	FROM REAR LOT LINE	20'

ROADWAY DATA TABLE				
STREET NAME	CLASSIFICATION	DESIGN/ POSTED SPEED		LENGTH OF NEW ROAD
HOWLING WIND DRIVE	LOCAL STREET	30/25	PUBLIC	786'
FROSTY WAY LANE	RESIDENTIAL COLLECTOR	30/25	PUBLIC	1,610'
LOGAN CANON LANE	LOCAL STREET	30/25	PUBLIC	135'
BRISK WAY	LOCAL STREET	30/25	PUBLIC	2,672'
FLANNEL WAY	LOCAL STREET	30/25	PUBLIC	893'
GOURD STREET	LOCAL STREET	30/25	PUBLIC	1,042'

SUBDIVISION NOTES

- REFER TO GENERAL NOTES ON SHEET C-0.1.
 SETBACKS ARE SHOWN IN ACCORDANCE WITH THE APPROVED TOWN OF ZEBULON STANDARDS. REFER TO TOWN OF ZEBULON LAND DEVELOPMENT ORDINANCE FOR PORCHES, DECKS, GARAGES,
- 3. ALL CURB AND GUTTER SHALL BE CONSTRUCTED ACCORDING TO STANDARD DETAILS OF THE TOWN
- OF ZEBULON STREET AND STORM DRAINAGE STANDARDS & SPECIFICATIONS MANUAL.

 4. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (1-800-632-4949) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 5. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING OR RELOCATING ALL UTILITIES IN CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO
- 7. CERTIFICATES OF OCCUPANCY FOR PHASE I WILL BE LIMITED TO 100 UNITS UNTIL SUCH TIME AS FUNCTIONAL FIRE ACCESS IS PROVIDED THROUGH PHASE II.





REVISIONS			
REV	DATE	COMMENT	BY
1	11-8-17	PER TOWN COMMENTS	SJK
2	2-7-18	PER TOWN COMMENTS	SJK
3	2-23-18	PER WAKE COMMENTS	SJK
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK
		-	



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CONSTRUCTION DRAWN BY:

CHECKED BY: 1" = 200' SCALE: CAD I.D

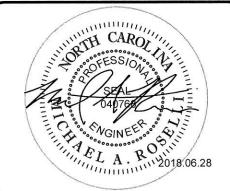
PROJECT: AUTUMN LAKES PHASE II



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA

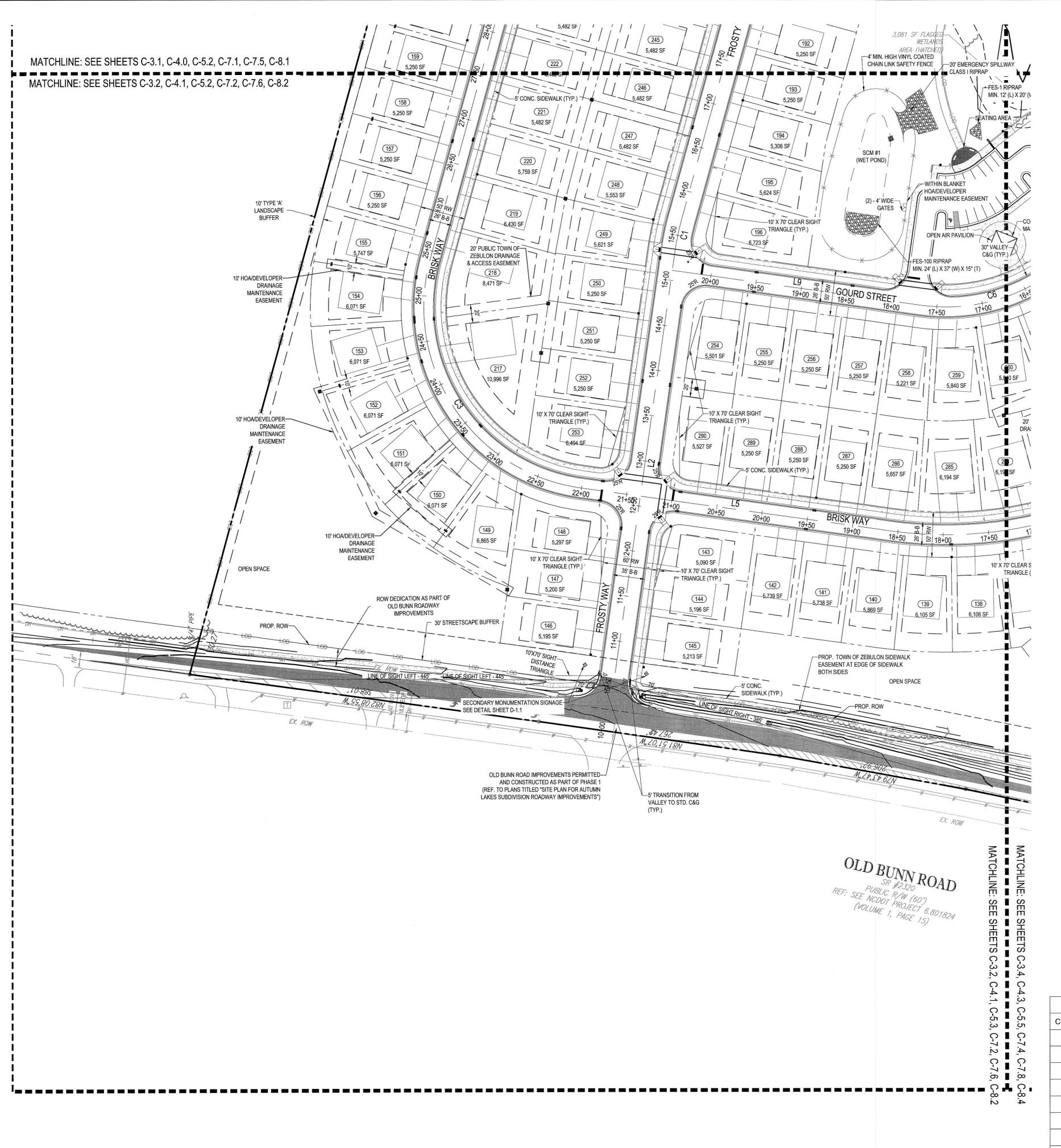


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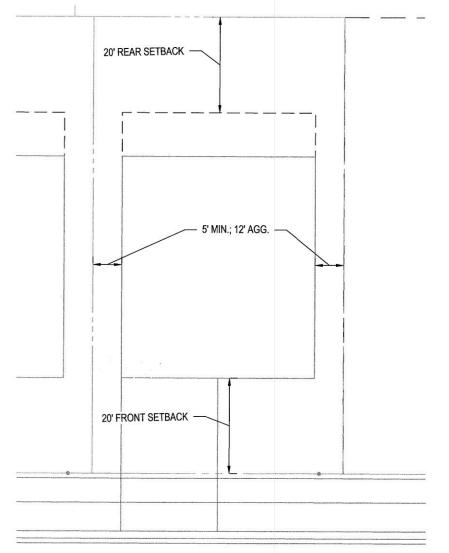
OVERALL PHASING PLAN

SHEET NUMBER:



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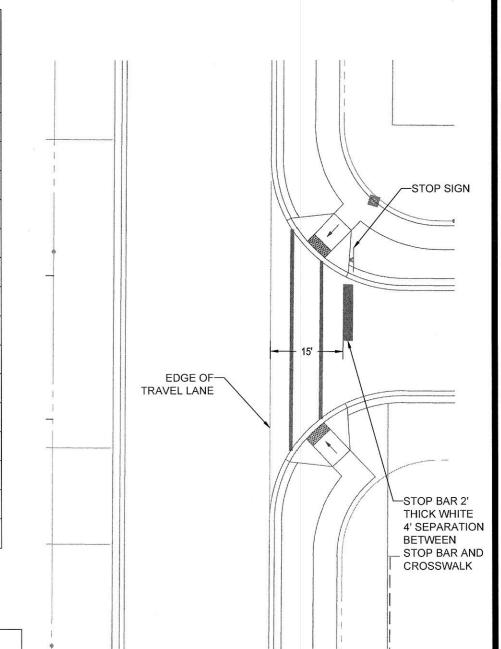
GRAPHIC LEGEND			
EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE	
	PROPERTY/LEASE LINE		
	ADJACENT LOT LINE		
	BUILDING OR PARKING SETBACK		
	CURB & GUTTER		
	FLUSH CURB		
	PARKING COUNT	<u>6</u>	
	ELEC. TRANSFORMER ON CONC. PAD	Т	
	PAVEMENT STRIPING - 4" SSYL		
	STOP SIGN	_v_	
	ADA ACCESSIBLE PARKING SIGN		
	PAINTED STOP BAR		
0	TREE		
©	STREET LIGHT	×	



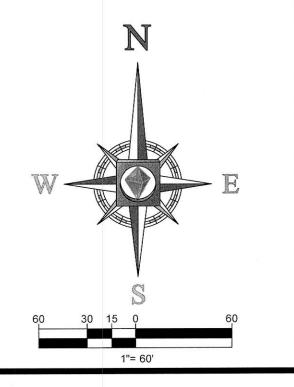
TYP. SETBACK DETAIL SCALE: 1" = 20'

ROAD CENTERLINE LINE TABLE		
LINE	BEARING	DISTANCE
L1	S15° 24' 36"W	1067.07'
L2	S08° 08' 53"W	467.21'
L3	N74° 35' 24"W	55.00'
L4	S15° 24' 36"W	762.44'
L5	S82° 00' 35"E	342.14'
L6	N51° 47' 53"E	284.82'
L7	N74° 52' 32"E	87.48'
L8	S74° 35' 24"E	135.03'
L9	S82° 00' 35"E	275.03'
L10	N51° 47′ 53″E	284.82'
L11	N74° 52' 32"E	96.95'
L12	S19° 19' 30"E	26.23'
L13	S77° 28' 47"E	77.03'
L14	N42° 01' 48"E	375.49'
L15	S12° 55' 21"E	360.21'
L16	S47° 58' 12"E	283.41'

ROAD CENTERLINE CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C1	300.00'	38.02'	S11°46'44"W	38.00'	007°15'44"	19.04'
C2	200.00'	314.16'	S60°24'36"W	282.84'	090°00'00"	200.00'
C3	200.00'	340.06'	S33°17'59"E	300.55'	097°25'12"	227.73'
C4	450.00'	362.79'	N74°53'39"E	353.05'	046°11'31"	191.90'
C5	308.00'	124.06'	N63°20'13"E	123.22'	023°04'39"	62.88'
C6	200.00'	161.24'	N74°53'39"E	156.91'	046°11'31"	85.29'
C7	558.00'	224.75'	N63°20'13"E	223.23'	023°04'39"	113.92'
C8	200.00'	203.00'	S48°24'09"E	194.40'	058°09'17"	111.21'
C9	200.00'	211.15'	N72°16'31"E	201.48'	060°29'25"	116.61'
C10	200.00'	122.34'	S30°26'46"E	120.44'	035°02'51"	63.15'
C11	250.00'	0.37'	S48°00'43"E	0.37'	000°05'03"	0.18'
C12	250.00'	34.37'	S51°59'34"E	34.34'	007°52'37"	17.21'



TYP. INTERSECTION DETAIL



BOHLLER ENGINEERING NC, PLLC	LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES	SOUTHERN NEW JERSEY
BENG	IVIL AN PROGI PERM	44444
	SITE C LAND SURVEYING SUSTAINABLE DESIGN	 UPSTATE NEW YORK NEW ENGLAND BOSTON, MA NEW YORK, NY NEW YORK METRO NORTHERN NEW JERSEY

	REVISIONS				
REV	DATE COMMENT BY		BY		
1	11-8-17	PER TOWN COMMENTS	SJK		
2	2-7-18	PER TOWN COMMENTS	SJK		
3	2-23-18	PER WAKE COMMENTS	SJK		
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK		
		,			
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APPROVED FOR CONSTRUCTION

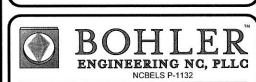
It's fast. It's free. It's the law.

PROJECT No.: NCR DRAWN BY: CHECKED BY: DATE: SCALE:

AUTUMN
LAKES
PHASE II

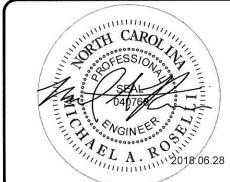


LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



Phone: (919) 703-2665

NC@BohlerEng.com



SHEET TITLE:

SITE PLAN -AREA A

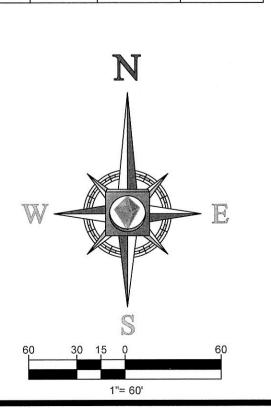


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	GRAPHIC LEGE	ND
EXISTING NO	TE TYPICAL NOTE TEXT	PROPOSED NOTE
	PROPERTY/LEASE LINE	
	ADJACENT LOT LINE	
	BUILDING OR PARKING SETBACK	
	CURB & GUTTER	
	FLUSH CURB	
	PARKING COUNT	<u>^6</u>
	ELEC. TRANSFORMER ON CONC. PAD	Т
	PAVEMENT STRIPING - 4" SSYL	
	STOP SIGN	-
	ADA ACCESSIBLE PARKING SIGN	-₩-
georgie.	PAINTED STOP BAR	
(3)	TREE	
©	STREET LIGHT	⊠

ROAD CENTERLINE LINE TABLE				
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C8	200.00'	203.00'	S48°24'09"E	194.40'	058°09'17"	111.21'
C9	200.00'	211.15'	N72°16'31"E	201.48'	060°29'25"	116.61'
C10	200.00'	122.34'	S30°26'46"E	120.44'	035°02'51"	63.15'
C11	250.00'	0.37'	S48°00'43"E	0.37'	000°05'03"	0.18'
C12	250.00'	34.37'	S51°59'34"E	34.34'	007°52'37"	17.21'



			OPPOSITE VALUE OF THE PARTY OF			
	REVISIONS					
REV	DATE	COMMENT	BY			
1	11-8-17	PER TOWN COMMENTS	SJK			
2	2-7-18	PER TOWN COMMENTS	SJK			
3	2-23-18	PER WAKE COMMENTS	SJK			
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK			



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 PROJECT No.:
 NCR162057

 DRAWN BY:
 SJK

 CHECKED BY:
 MAR

 DATE:
 8/16/17

 SCALE:
 1" = 60'

 CAD I.D.:
 SP2

PROJECT: AUTUMN
LAKES
PHASE II

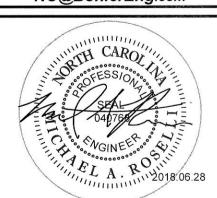


LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



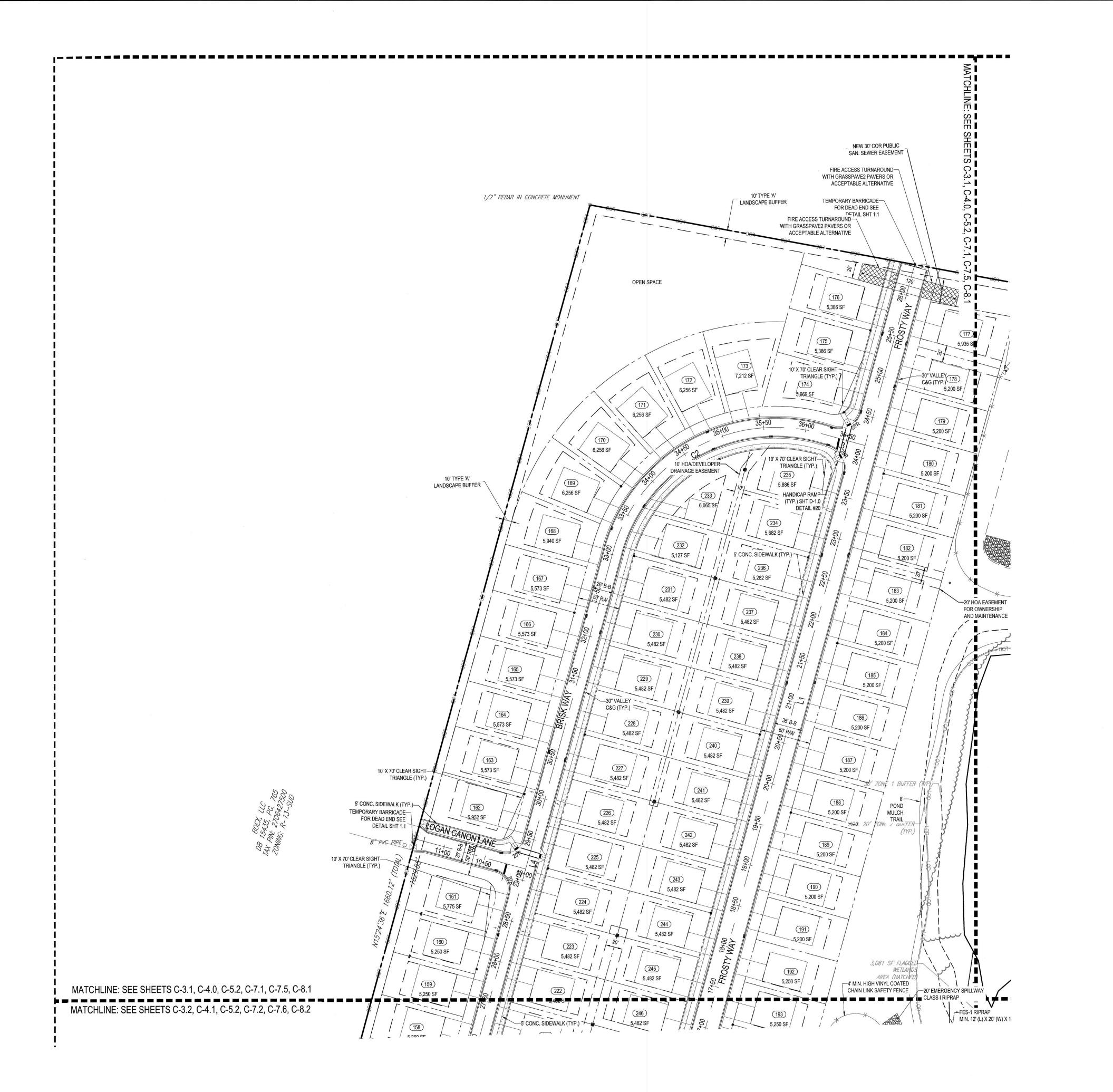
Phone: (919) 703-2665

NC@BohlerEng.com



SHEET TITLE:

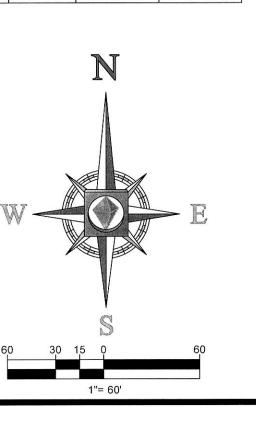
SITE PLAN -AREA B



	GRAPHIC LEGEND		
EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE	
	PROPERTY/LEASE LINE		
	_ ADJACENT LOT LINE		
	BUILDING OR PARKING SETBACK		
	CURB & GUTTER		
	FLUSH CURB		
	PARKING COUNT	6	
	ELEC. TRANSFORMER ON CONC. PAD	Т	
	PAVEMENT STRIPING - 4" SSYL		
	STOP SIGN	.	
	ADA ACCESSIBLE PARKING SIGN	-© -	
	PAINTED STOP BAR		
(3)	TREE		
©	STREET LIGHT	⊠	

ROAD CENTERLINE LINE TABLE				
LINE	BEARING	DISTANCE		
L1	S15° 24' 36"W	1067.07'		
L2	S08° 08' 53"W	467.21'		
L3	N74° 35' 24"W	55.00'		
L4	S15° 24' 36"W	762.44'		
L5	S82° 00' 35"E	342.14'		
L6	N51° 47' 53"E	284.82'		
L7	N74° 52' 32"E	87.48'		
L8	S74° 35' 24"E	135.03'		
L9	S82° 00' 35"E	275.03'		
L10	N51° 47' 53"E	284.82'		
L11	N74° 52' 32"E	96.95'		
L12	S19° 19' 30"E	26.23'		
L13	S77° 28' 47"E	77.03'		
L14	N42° 01' 48"E	375.49'		
L15	S12° 55' 21"E	360.21'		
L16	S47° 58' 12"E	283.41'		

		ROAI	D CENTERLINE CUR	VE TABLE		
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C1	300.00'	38.02'	S11°46'44"W	38.00'	007°15'44"	19.04'
C2	200.00'	314.16'	S60°24'36"W	282.84'	090°00'00"	200.00'
C3	200.00'	340.06'	S33°17'59"E	300.55'	097°25'12"	227.73'
C4	450.00'	362.79'	N74°53'39"E	353.05'	046°11'31"	191.90'
C5	308.00'	124.06'	N63°20'13"E	123.22'	023°04'39"	62.88'
C6	200.00'	161.24'	N74°53'39"E	156.91'	046°11'31"	85.29'
C7	558.00'	224.75'	N63°20'13"E	223.23'	023°04'39"	113.92'
C8	200.00'	203.00'	S48°24'09"E	194.40'	058°09'17"	111.21'
C9	200.00'	211.15'	N72°16'31"E	201.48'	060°29'25"	116.61'
C10	200.00'	122.34'	S30°26'46"E	120.44'	035°02'51"	63.15'
C11	250.00'	0.37'	S48°00'43"E	0.37'	000°05'03"	0.18'
C12	250.00'	34.37'	S51°59'34"E	34.34'	007°52'37"	17.21'



BOHLER ENGINEERING NC, PLLC	SITE CIVIL AND CONSULTING ENGINEERING LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE SUSTAINABLE DESIGN PERMITTING SERVICES UPSTATE NEW YORK U

REVISIONS

COMMENT

11-8-17 PER TOWN COMMENTS SJ

2-7-18 PER TOWN COMMENTS | SJ

PER WAKE, COR, & IFC COMMENTS

'S BELOW

3 2-23-18 PER WAKE COMMENTS SJ

EV DATE

4 6-28-18

ENTER TABLE			
NG	DISTANCE		
36"W	1067.07'		
53"W	467.21'		
24"W	55.00'		
36"W	762.44'		IANONA NATIO PEL OVA
35"E	342.14'		KNOW WHAT'S BELOW ALWAYS CALL 811
53"E	284.82'		BEFORE YOU DIG
32"E	87.48'		It's fast. It's free. It's the law.
24"E	135.03'		APPROVED FOR
35 " E	275.03'		CONSTRUCTION
53"E	284.82'		PROJECT No.: NCR DRAWN BY:
32"E	96.95'		CHECKED BY: DATE:
30"E	26.23'		SCALE: CAD I.D.:
		1	



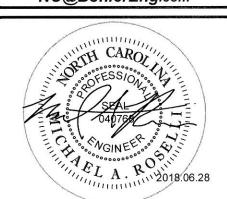
LAKES

PHASE II

BOHLER

ENGINEERING NC, PLLC

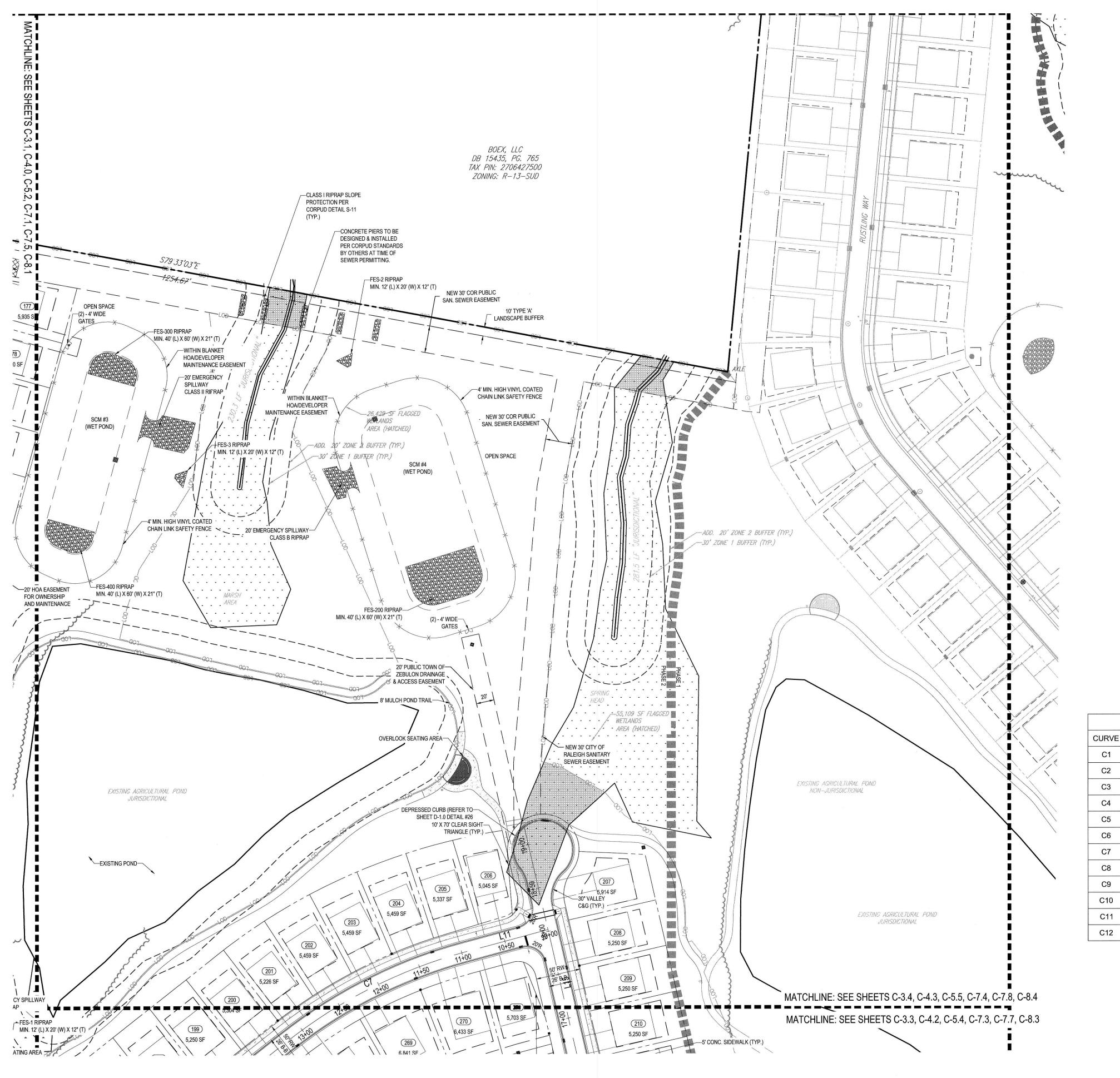
NCBELS P-1132 4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



SHEET TITLE:

SITE PLAN -AREA C

SHEET NUMBER: C - 3.3



H:\2016\NCR162057\DRAWINGS\PLAN SETS\PHASE |I PLAN SETS\NCR162057SP2 - PHASE |I.DWG PRINTED BY: SKEIDEL 6.28.18 @ 2:18 PM LAST SAVED BY: CMARCHFELD

	G	RAPHIC LEGE	ND
	EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
		PROPERTY/LEASE LINE	
		ADJACENT LOT LINE	
		BUILDING OR PARKING SETBACK	
		CURB & GUTTER	
,		FLUSH CURB	
		PARKING COUNT	<u>6</u>
		ELEC. TRANSFORMER ON CONC. PAD	Т
		PAVEMENT STRIPING - 4" SSYL	
		STOP SIGN	.
		ADA ACCESSIBLE PARKING SIGN	-⊚
		PAINTED STOP BAR	
		TREE	
	©	STREET LIGHT	×

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LINE	BEARING	DISTANCE			
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T				
	BOHLLER ENGINEERING NC, PLLC	LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES	IEW YORK SOUTHERN NEW JERSEY BALTIMORE, MD CHARLOTTE, NC SOUTHERN MARYLAND ATLANTA, GA A PHILADELPHIA, PA NORTHERN VIRGINIA TAMPA, FL CHIGH VALLEY, PA CENTRAL VIRGINIA SOUTH FLORIDA NORTHERN VIRGINIA NORTH	THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING, ONLY APPROYED, SIGNED AND SEALED PLANS SHALL BE UTLIZED FOR CONSTRUCTION PURPOSES.
		SITE LAND SURVEYING SUSTAINABLE DESIG	 UPSTATE NEW YORK NEW ENGLAND BOSTON, MA NEW YORK, NY NEW YORK METRO NORTHERN NEW JERSEY 	THE INFORMATION, DESIGN AND CONTENT

	REVISIONS						
REV	DATE	COMMENT	BY				
1	11-8-17	PER TOWN COMMENTS	SJK				
2	2-7-18	PER TOWN COMMENTS	SJK				
3	2-23-18	PER WAKE COMMENTS	SJK				
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK				
Sign 1							



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PROJECT No.: NCR1620
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CHECKED BY: M

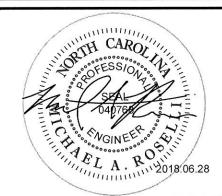
PROJECT: AUTUMN
LAKES
PHASE II



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



SHEET TITLE:

SITE PLAN -AREA D



H./2016/NCR162057/DRAWINGS/PLAN SETS/PHASE II PLAN SETS/NCR162057SP2 - PHASE II.DWG PRINTED BY: SKEIDEL 6.28.18 @ 2:19 PM LAST SAVED BY: CMARCHFELD

SI	GNAGE AND	MAR	KING LEGE	ND	
SYMBOL	SIGN / MARKING	MUTCD#	SIGN DIMENSIONS	QUANTIT	
L	SPEED LIMIT 25	R2-1	24" x 30"	11	
S	STOP SIGN	R1-1	30" x 30"	6	
©	PEDESTRIAN CROSSWALK WARNING SIGN	W11-2	30" x 30"	4	
©	AHEAD SIGN	W16-90	24" x 12"	4	
TQ	WH	HITE CROSSWA	LK LINE (8", 120 MIL)		
(JB)		RIGHT TURN ARROW (90 MIL)			
Œ	WHITE SOLID LANE LINE (4", 120 MIL)				
Œ	3 FT 0 FT./SP WHITE MINISKIP (4", 120 MIL)				
(T2)		WHITE STOPE	BAR (24", 120 MIL)		









PAVEMENT MARKING & SIGNAGE NOTES

- ALL PAVEMENT MARKINGS AND STREET SIGNAGE SHALL BE IN ACCORDANCE WITH THE MUTCD.
 PAVEMENT MARKINGS SHALL BE THERMOPLASTIC AND SHALL COMPLY WITH NCDOT STANDARDS AND
- SPECIFICATIONS.

 3. SIGNS MUST USE PRISMATIC SHEETING AND MEET THE MINIMUM RETROREFLECTIVITY LEVELS SHOWN IN THE LATEST EDITION OF THE MUTCD. SIGNS PROVIDED FOR PEDESTRIAN CROSSINGS SHALL USE THE STRONG YELLOW-GREEN COLORING.
- 4. ALL SPECIALTY TRAFFIC CONTROL AND STREET NAME SIGNS AND POSTS MUST COMPLY WITH TOWN OF ZEBULON POLICY STANDARDS. REQUESTS FOR SPECIALTY SIGNS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEERING DEPARTMENT.
- 5. ALL STREET NAME SIGNS SHALL ADHERE TO THE 2009 MUTCD REQUIREMENTS RELATED TO COLOR, LETTER CASE AND LETTER HEIGHTS. SIGN DESIGNS SHALL BE SUBMITTED TO TOWN STAFF APPROVAL PRIOR TO ACCEPTANCE OF STREETS FOR MAINTENANCE.



ENGINEERING
E CIVIL AND CONSULTING ENGIN
PROGRAM MANAGEMENT LA
IGN PERMITTING SERVICES TR



]	REVISIONS	
REV	DATE	COMMENT	BY
1	11-8-17	PER TOWN COMMENTS	SJK
2	2-7-18	PER TOWN COMMENTS	SJK
3	2-23-18	PER WAKE COMMENTS	SJK
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK
obs. sca		1	



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PROJECT No.:
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DATE:
SCALE:

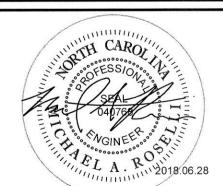
PROJECT: AUTUMN
LAKES
PHASE II



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



EET TITLE:

STREET SIGN AND PAVEMENT MARKING PLAN

NUMBER: **C-3** 5



H:\2016\NCR162057\DRAWINGS\PLAN SETS\PHASE |I PLAN SETS\NCR162057\P2 - PHASE |I.DWG PRINTED BY: SKEIDEL 6.28.18 @ 2:19 PM LAST SAVED BY: SKEIDEL

LIGHTING NOTES

- 1. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP, LIGHTING CONTRACTOR, OR LOCAL ELECTRIC COMPANY. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
- 2. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
- 3. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
- THE FIVE AREA LIGHTS FOR PARKING AT THE OUTDOOR AMENITY CENTER WILL BE RESPONSIBILITY OF THE HOW FOR INSTALLATION FEES AND MONTHLY CHARGES.
- 5. THE DEVELOPER IS RESPONSIBLE FOR THE DUKE PROGRESS ENERGY ONETIME FEE CHARGES FOR POLE INSTALLATION. INSTALLATION MUST BE COORDINATED WITH DUKE PROGRESS ENERGY AND THE TOWN OF ZEBULON PUBLIC WORKS DEPARTMENT. THE TOWN OF ZEBULON WILL BE RESPONSIBILITY FOR MONTHLY FEES FOR THE 28 STREET LIGHTS ALONG THE ROW.

GENERAL NOTES

- THIS PLAN IS TO BE UTILIZED FOR LIGHTING PURPOSES ONLY. REFER TO ELECTRICAL ENGINEERING PLANS FOR CIRCUITRY DESIGN AND SPECIFICATIONS.
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.
- 3. LIGHTING FIXTURE MANUFACTURER: MITCHELL SERIES

SYMBOL	LABEL	QUANTITY	MANUFACTURER	DESCRIPTION	SPACING	WATTAGE
	А	56	MITCHELL SERIES	16' BLACK FIBERGLASS POLE WITHOUT BANDING AND RIBBON	125-140 LF	50

ENGINEERING NC, PLLC
SITE CIVIL AND CONSULTING ENGINEERING
NG PROGRAM MANAGEMENT LANDSCAPE ARCHITEC
DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
ORK + SOUTHERN NEW JERSEY + BALTIMORE, MD + CHARLOTTI
+ PHILADELPHIA, PA + SOUTHERN MARYLAND + ATAMPA, FL

+ PITTSBURGH, PA + NORTHERN VIRGINIA + TAMPA, FL

SITE
LAND SURVEYING
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SUSTAINABLE DESIG
VEW ENGLAND
BOSTON, MA
NEW YORK, NY
NEW YORK, NY
NEW YORK METRO
NORTHERN NEW JERSE
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ROAD DETERMENT

	REVISIONS						
V	DATE	COMMENT	BY				
	11-8-17	PER TOWN COMMENTS	SJK				
	2-7-18	PER TOWN COMMENTS	SJK				
	2-23-18	PER WAKE COMMENTS	SJK				
	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK				



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ALWAYS CALL 811
BEFORE YOU DIG

CONSTRUCTION

PROJECT No.:
DRAWN BY:
CHECKED BY:
DATE:
SCALE:

PROJECT: AUTUMN

LAKES

PHASE II

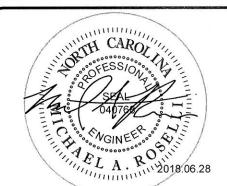


LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



Phone: (919) 578-9000
Fax: (919) 703-2665

NC@BohlerEng.com



SHEET TITLE:

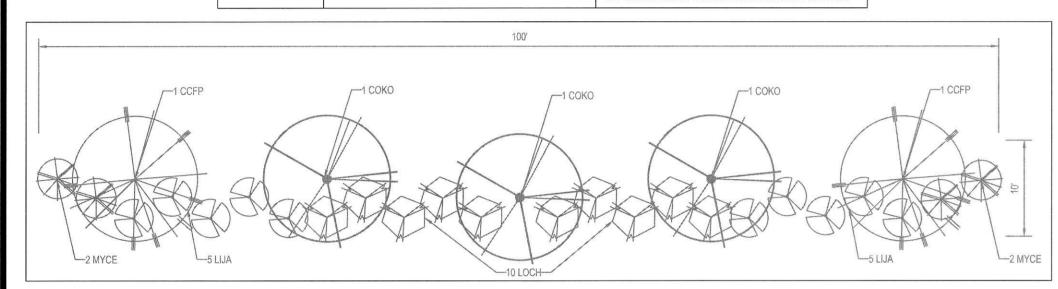
LIGHTING PLAN

T NUMBER:

STREETSCAPE & AMENITY LANDSCAPE SCHEDULE							
KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL.	CONT.	SIZE	Remarks
QULY	20	Quercus lyrata 'Highbeam'	'Highbeam' Overcup Oak	2.5" CAL	B+B	12-14' HT	Full, Central Leader
QUNU	37	Quercus nuttallii	Nuttall Oak	2.5" CAL	B+B	12-14' HT	Full, Central Leader
QUPH	24	Quercus phellos 'Hightower'	'Hightower' Willow oak	2.5" CAL	B+B	12-14' HT	Full, Central Leader
QUSH	38	Quercus shumardii	Shumard Oak	2.5" CAL	B+B	12-14' HT	Full, Central Leader
ULPA	21	Ulmus parvifolia 'Allee'	'Allee' Lacebark Elm	2.5" CAL	B+B	12-14' HT	Full
ULPB	18	Ulmus parvifolia 'Bosque'	Bosque Elm	2.5" CAL	B+B	12-14' HT	Full
RXEN	135	Rhododendron x 'Encore'	Encore Azalea Variety	N/A	5 GAL	32" HT	Full
RXSG	65	Rhododendron x satsuki 'Gumpo'	Gumpo Azalea	N/A	5 GAL	32" HT	Full

LANDSCAPE COMPLIANCE CHART ZEBULON, NC

	ZEBULO	N, NC
	REQUIREMENT	COMPLIANCE
STREETSCAPING	OLD BUNN ROAD (NORTH SIDE): 1 LARGE SHADE TREE EVERY 35 LF + 5 BUSHES ALONG ALL LOCAL AND RESIDENTIAL CONNECTOR STREETS: 1 LARGE DECIDIOUS TREE EVERY 100 LF	STREETSCAPING PROVIDED
AMENITY PARKING	1 SHADE TREE PER 8 SPACES	20 SPACES REQUIRED: 3 TREES PROVIDED: 3 TREES
LANDSCAPE BUFFER	10' WIDE TYPE "A" LANDSCAPE BUFFER: OPAQUE SCREEN TO A HEIGHT OF 6' TRESS SHALL BE NO LESS THAN 20' AT MATURITY	TYPICAL 100' SECTION OF BUFFER PROVIDED. INSTALLED ALONG PROPERTY PERIMETER EXCEPT IN AREAS WHERE GREENWAY EASEMENTS ARE DEDICATED. ANY EXISTING TREE IN PERIMETER BUFFER SHOULD BE PRESERVED.



TYPICAL TYPE A BUFFER

TYPE A BUFFER LANDSCAPE SCHEDULE						
KEY	BOTANICAL NAME	COMMON NAME	CAL.	CONT.	SIZE	Remarks
CCFP	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	2.5" CAL	B+B	8-10' HT	Full
соко	Cornus kousa	Kousa Dogwood	2.5" CAL	B+B	8-10' HT	Full
LCCH	Loropetalum chinense 'Chang Nain Hong'	Ever Red Fringe Flower		5 GAL	36" HT	Full
LIJA	Ligustrum japonicum	Japanese Privet		5 GAL	36" HT	Full
MYCE	Myrica cerifera	Wax Myrtle		B+B	5' HT	Full

TOTAL PHASE II WET POND LANDSCAPE LEGEND:

JIER

CHGL: CHELONE GLABRA - WHITE TURTLEHEAD / 896 UNITS

EUDU: EUPATORIADELPHUS DUBIUS - DWARF JOE PYE WEED / 611 UNITS

LOCA: LOBELIA CARDINALIS - CARDINAL FLOWER / 668 UNITS

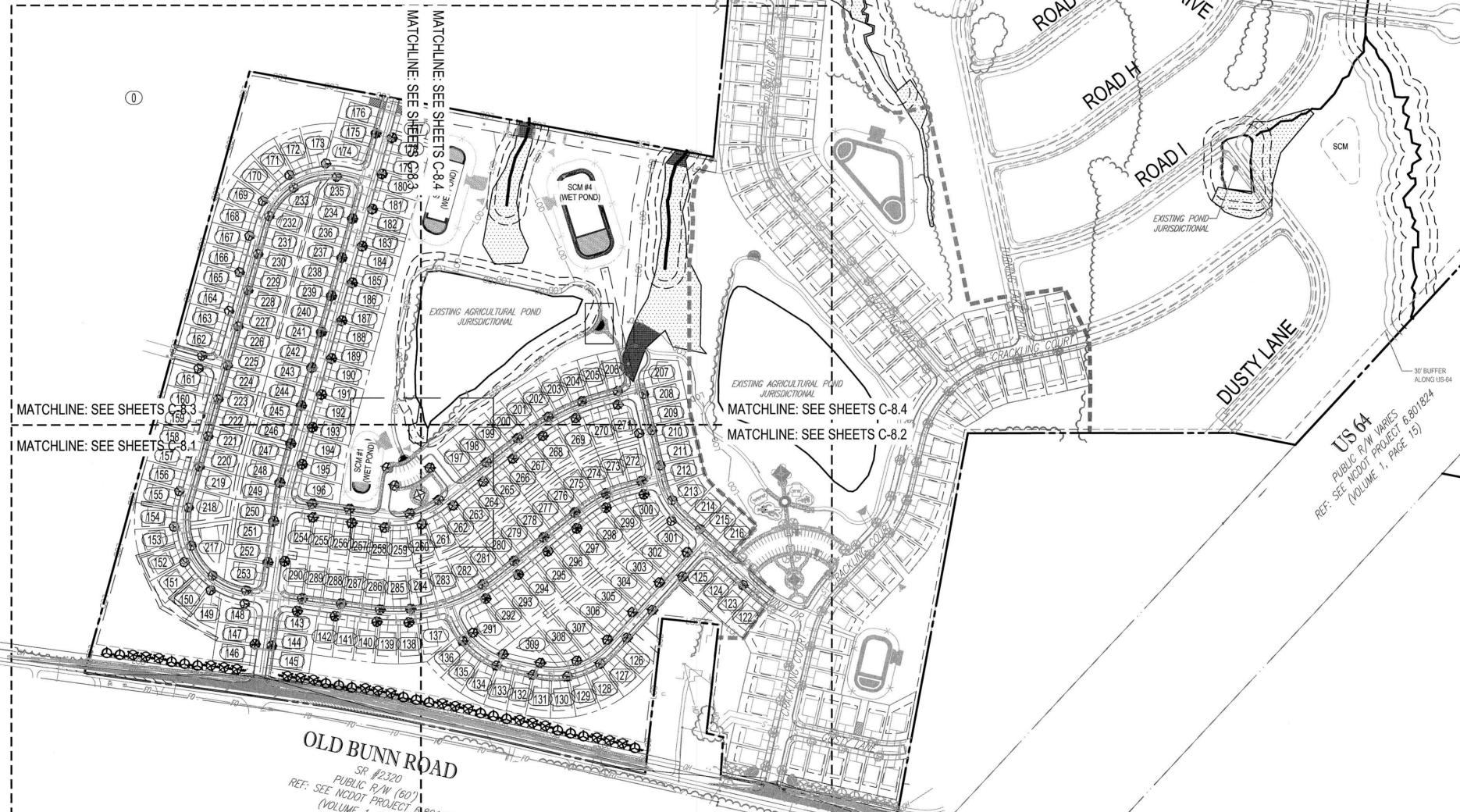
SHALLOW WATER

IRVI: IRIS VIRGINIA - BLUE IRIS / 769 UNITS

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ACSU: ACORUS SUBCORDATUM — SWEETFLAG / 510 UNITS

SACE: SAURURUS CERNUUS - LIZARD'S TAIL / 659 UNITS



EXISTING POND — JURISDICTIONAL



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REVISIONS				
REV	DATE	COMMENT	BY	
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APPROVED FOR CONSTRUCTION

BEFORE YOU DIG

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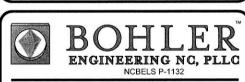
DATE:
SCALE:
CAD I.D.:

PROJECT: AUTUMN

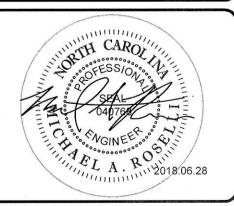
LAKES



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



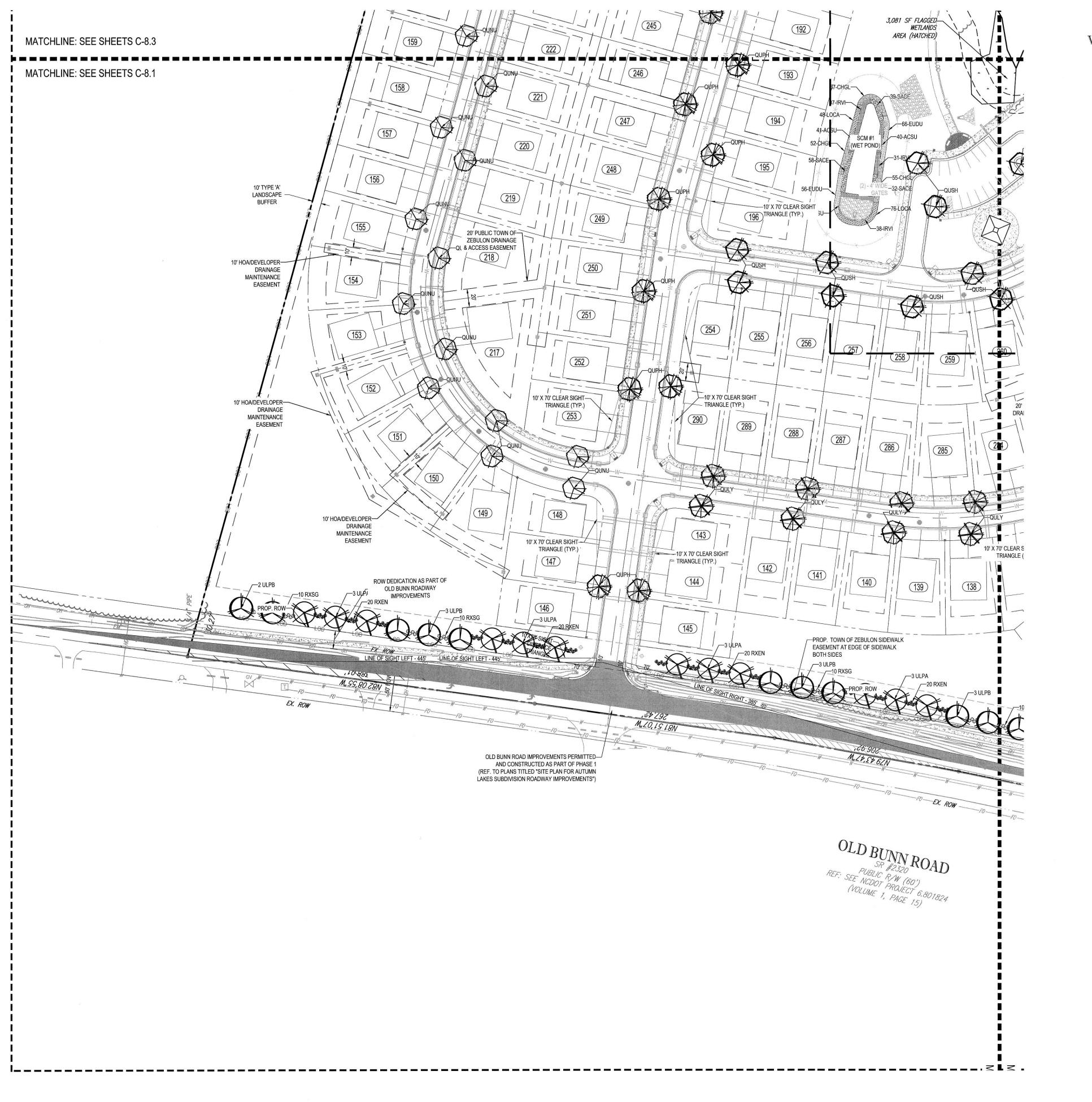
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Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



EET TITLE:

OVERALL LANDSCAPE PLAN

 \mathbb{C} =8.0



H:12016INCR162057IDRAWINGSIPLAN SETSIPHASE II PLAN SETSINCR162057LL2 - PHASE II.DWG PRINTED BY: SKEIDEL 6.28.18 @ 2:32 PM LAST SAVED BY: CMARCHFELD

WET POND (SCM #1) LANDSCAPE LEGEND:

SHALLOW LAND

CHGL: CHELONE GLABRA - WHITE TURTLEHEAD / 164 UNITS

EUDU: EUPATORIADELPHUS DUBIUS - DWARF JOE PYE WEED / 122 UNITS

LOCA: LOBELIA CARDINALIS - CARDINAL FLOWER / 124 UNITS

SHALLOW WATER

IRVI: IRIS VIRGINIA - BLUE IRIS / 106 UNITS

IRI AC

ACSU: ACORUS SUBCORDATUM - SWEETFLAG / 119 UNITS

SACE: SAURURUS CERNUUS - LIZARD'S TAIL / 129 UNITS

BOHLLERING NG, PLLC

SITE CIVIL
LAND SURVEYING PRO
SUSTAINABLE DESIGN PE.

UPSTATE NEWYORK \$ SO

NEW ENGLAND \$ PHI

BOSTON, MA

NEWYORK, NY \$ LEF

NEWYORK METRO \$ SO

REVISIONS

V DATE COMMENT BY

11-8-17 PER TOWN COMMENTS SJK

2-7-18 PER TOWN COMMENTS SJK

2-23-18 PER WAKE COMMENTS SJK

KNOW WHAT'S BELOW

6-28-18 PER WAKE, COR, & IFC COMMENTS

ALWAYS CALL 811

BEFORE YOU DIG

It's fast. It's free. It's the law.

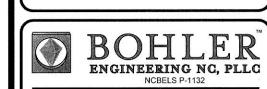
APPROVED FOR CONSTRUCTION

PROJECT No.: DRAWN BY: CHECKED BY: DATE: SCALE:

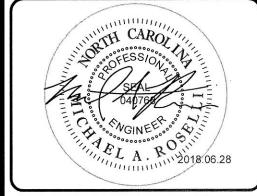
TAUTUMN
LAKES
PHASE II



LOCATION OF SITE
0 OLD BUNN RD
ZEBULON, NC 27597
WAKE COUNTY, NORTH CAROLINA



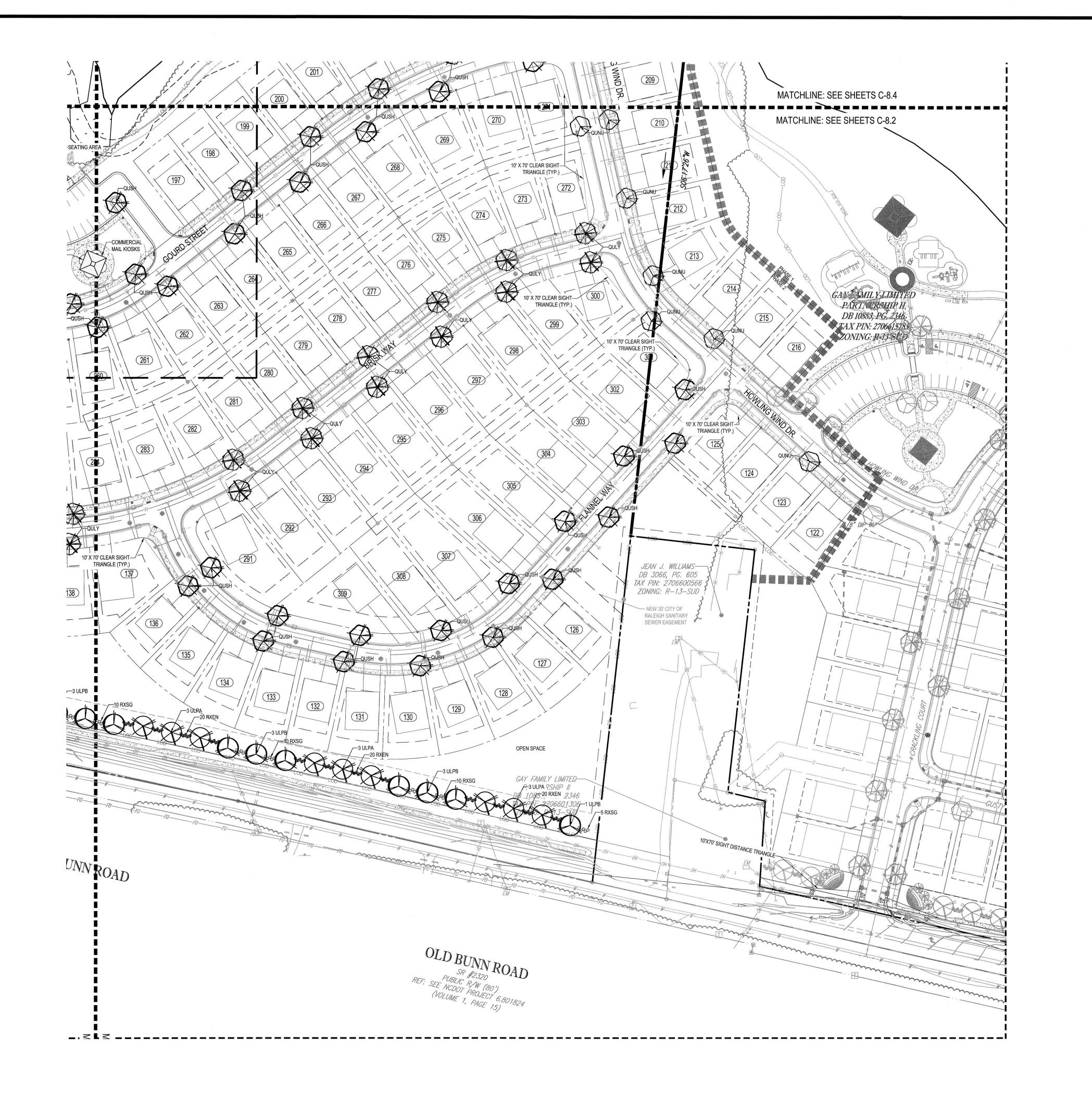
4130 PARKLAKE AVENUE, SUITE 130
RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



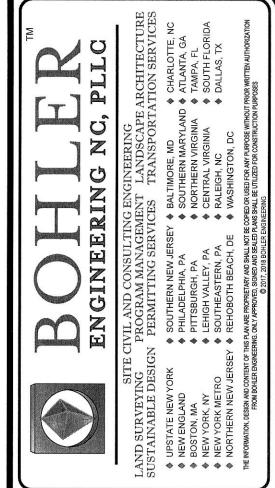
SHEET TITLE:

LANDSCAPE PLAN - AREA A

C=8.1



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	REVISIONS			
REV	DATE	COMMENT	BY	
1	11-8-17	PER TOWN COMMENTS	SJK	
2	2-7-18	PER TOWN COMMENTS	SJK	
3	2-23-18	PER WAKE COMMENTS	SJK	
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK	



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PROJECT No.:
DRAWN BY:
CHECKED BY:
DATE:
SCALE:
CAD I.D.:

PROJECT: AUTUMN
LAKES
PHASE II

8/16/17 1" = 60' LL1



LOCATION OF SITE

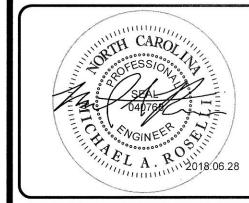
0 OLD BUNN RD

ZEBULON, NC 27597

WAKE COUNTY, NORTH CAROLINA



D PARKLAKE AVENUE, SUIT RALEIGH, NC 27612 Phone: (919) 578-9000 Fax: (919) 703-2665 NC@BohlerEng.com



SHEET TITLE

LANDSCAPE PLAN - AREA B

C-8.2



H:\2016\NCR162057\DRAWINGS\PLAN SETS\PHASE II PLAN SETS\NCR162057\LL2 - PHASE II.DWG PRINTED BY: SKEIDEL 6.28.18 @ 2.33 PM LAST SAVED BY: CMARCHFELD

SOHLER NGINEERING NC, PLLC

EN

SITE CIVIL PROPERTY PROPER

		LAS			
REVISIONS					
EV	DATE	COMMENT	BY		
1	11-8-17	PER TOWN COMMENTS	SJK		
2	2-7-18	PER TOWN COMMENTS	SJK		
3	2-23-18	PER WAKE COMMENTS	SJK		
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK		



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PROJECT No.: DRAWN BY: CHECKED BY: DATE:

PROJECT: AUTUMN

LAKES

PHASE II



LOCATION OF SITE

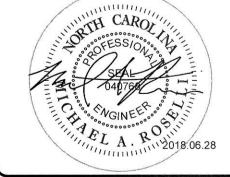
0 OLD BUNN RD

ZEBULON, NC 27597

WAKE COUNTY, NORTH CAROLINA





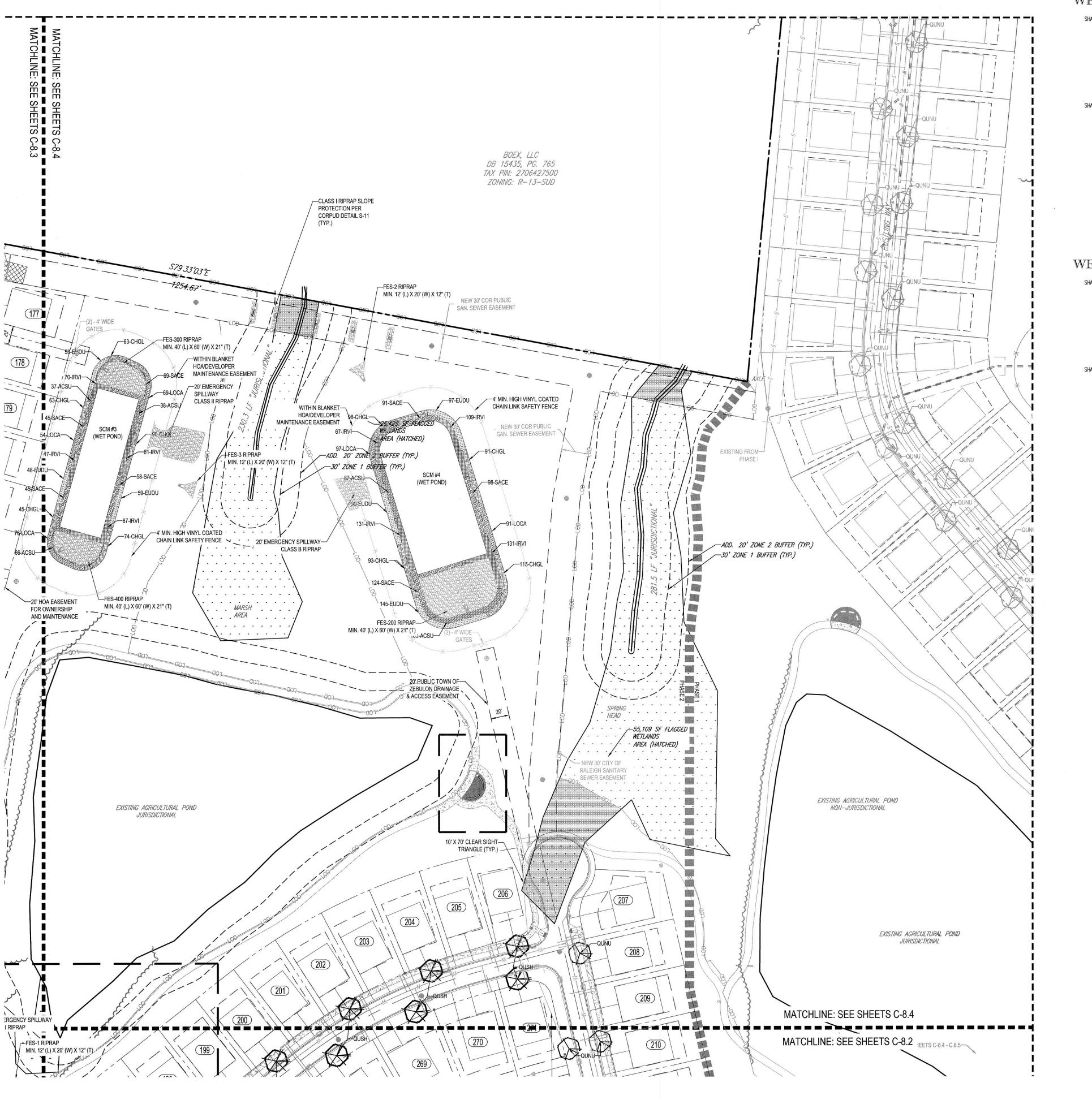


SHEET TITLE:

LANDSCAPE PLAN - AREA C

ET NUMBER:

 \mathbb{C} -8.3



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WET POND (SCM #2) LANDSCAPE LEGEND:

CHGL: CHELONE GLABRA - WHITE TURTLEHEAD / 335 UNITS EUDU: EUPATORIADELPHUS DUBIUS - DWARF JOE PYE WEED / 157 UNITS LOCA: LOBELIA CARDINALIS — CARDINAL FLOWER / 356 UNITS SHALLOW WATER IRVI: IRIS VIRGINIA - BLUE IRIS / 265 UNITS ACSU: ACORUS SUBCORDATUM - SWEETFLAG / 141 UNITS

WET POND (SCM #3) LANDSCAPE LEGEND:

CHGL: CHELONE GLABRA - WHITE TURTLEHEAD / 397 UNITS EUDU: EUPATORIADELPHUS DUBIUS - DWARF JOE PYE WEED / 332 UNITS

LOCA: LOBELIA CARDINALIS — CARDINAL FLOWER / 188 UNITS

SACE: SAURURUS CERNUUS – LIZARD'S TAIL / 217 UNITS

SHALLOW WATER

ACSU: ACORUS SUBCORDATUM - SWEETFLAG / 250 UNITS

IRVI: IRIS VIRGINIA - BLUE IRIS / 398 UNITS

SACE: SAURURUS CERNUUS - LIZARD'S TAIL / 313 UNITS



REVISIONS COMMENT 11-8-17 PER TOWN COMMENTS 2-7-18 PER TOWN COMMENTS 2-23-18 PER WAKE COMMENTS | SJI 6-28-18 PER WAKE, COR, & IFC COMMENTS



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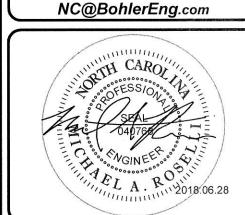
PROJECT: AUTUMN

LAKES PHASE II

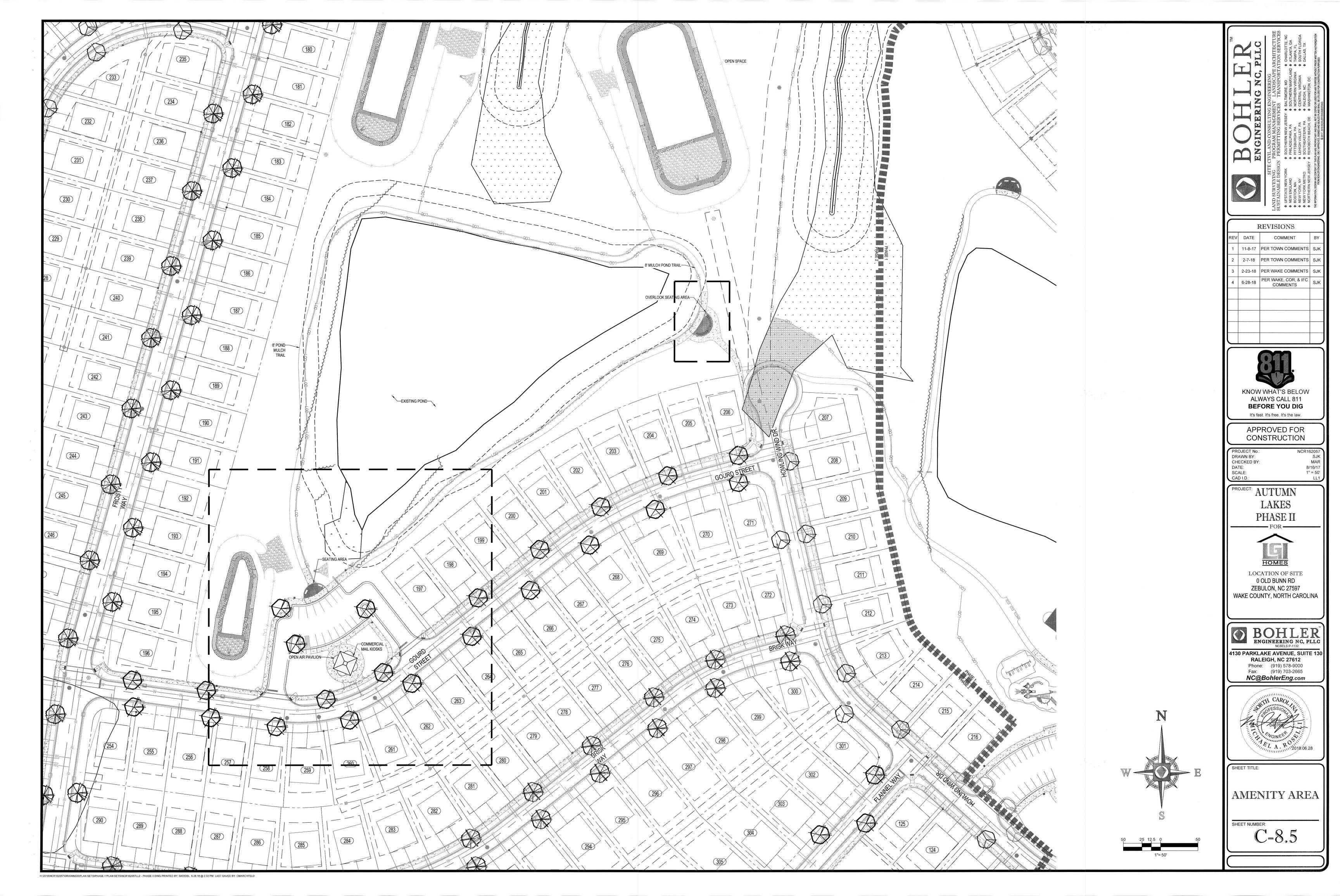


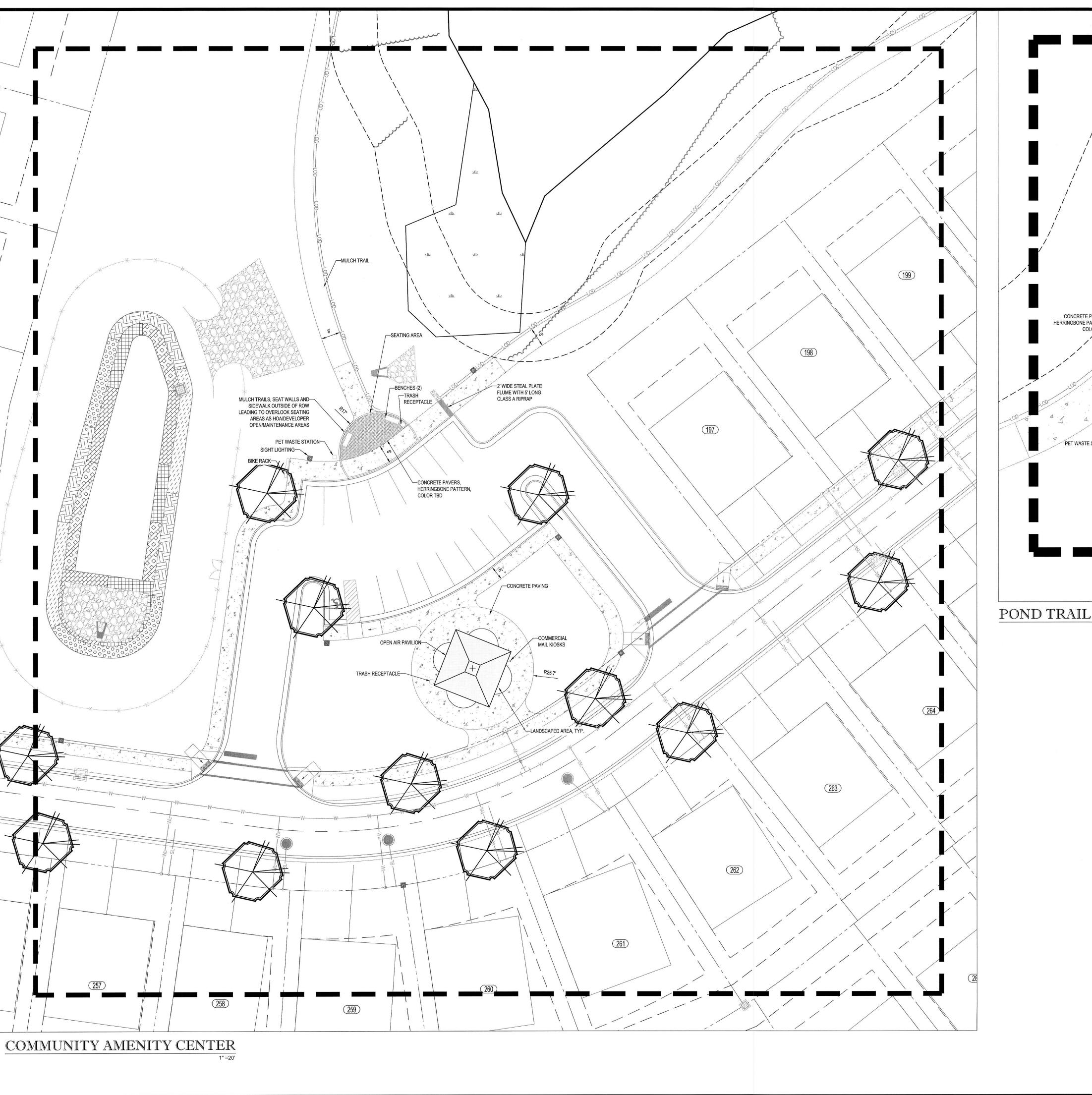
LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



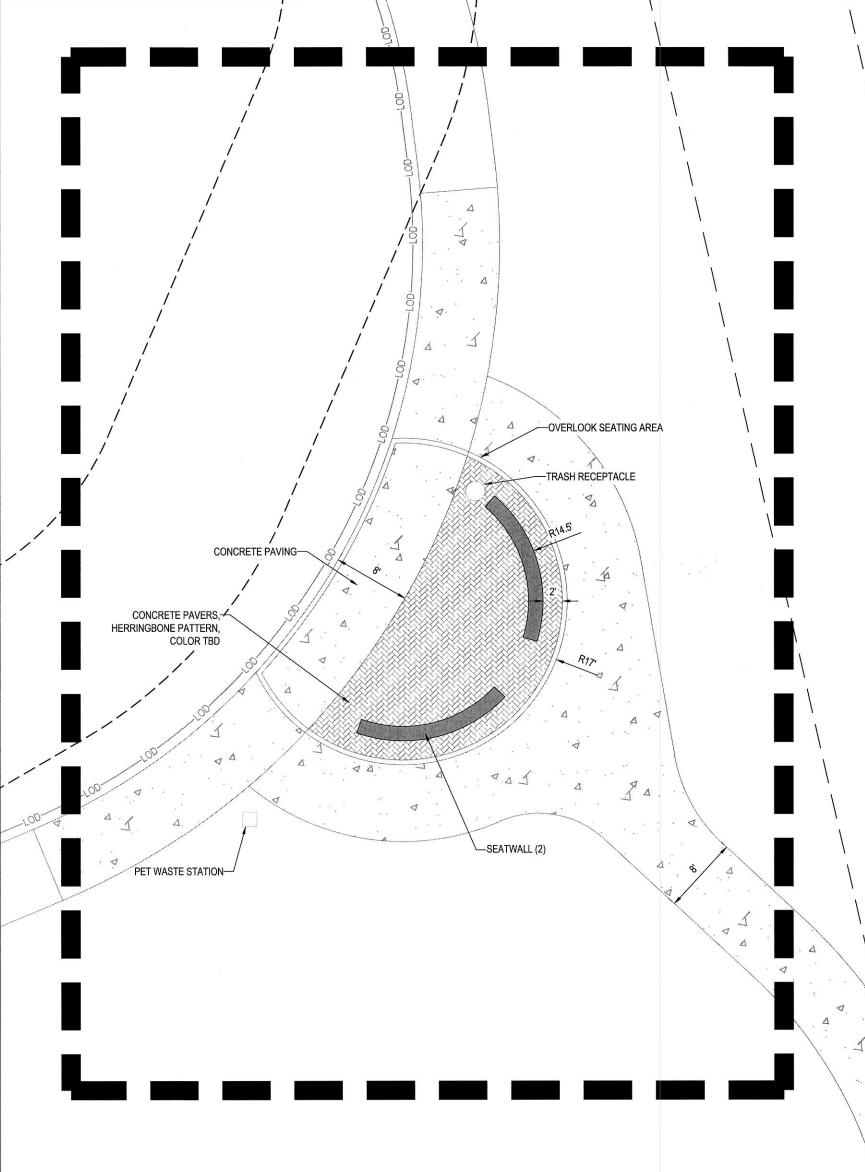


LANDSCAPE PLAN - AREA D

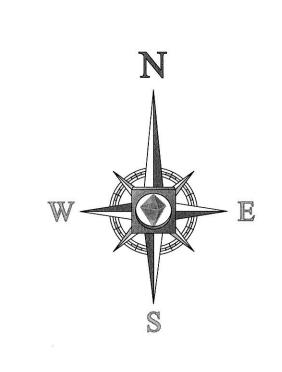




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POND TRAIL OVERLOOK



LAND E SUSTAI + UPST + NEW + BOST + NEW + NORTHER

REVISIONS					
ΕV	DATE	COMMENT	BY		
1	11-8-17	PER TOWN COMMENTS	SJK		
2	2-7-18	PER TOWN COMMENTS	SJK		
3	2-23-18	PER WAKE COMMENTS	SJK		
4	6-28-18	PER WAKE, COR, & IFC COMMENTS	SJK		
- 3017					



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PROJECT No.: DRAWN BY: CHECKED BY: 8/16/17 AS NOTED LL2

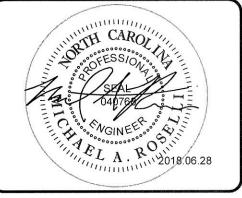
> LAKES PHASE II



LOCATION OF SITE 0 OLD BUNN RD ZEBULON, NC 27597 WAKE COUNTY, NORTH CAROLINA



4130 PARKLAKE AVENUE, SUITE 130 RALEIGH, NC 27612
Phone: (919) 578-9000
Fax: (919) 703-2665
NC@BohlerEng.com



AMENITY AREA ENLARGEMENT

C - 8.6