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- ### DRAINAGE NOTES
- A MINIMUM GRADE OF 0.50 % SHALL BE MAINTAINED ON ALL PIPES, UNLESS OTHERWISE NOTED.
 - PIPE LENGTHS AND SLOPES INDICATED ON THE PLANS ARE APPROXIMATE ONLY.
 - UNDERSIDE UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.
 - EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - EFFLUENT FROM DRAINING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.
 - APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
 - CATCH BASINS, MANHOLES, FRAMES, ETC. SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS. REFERENCE THE FOLLOWING STANDARD DETAILS:

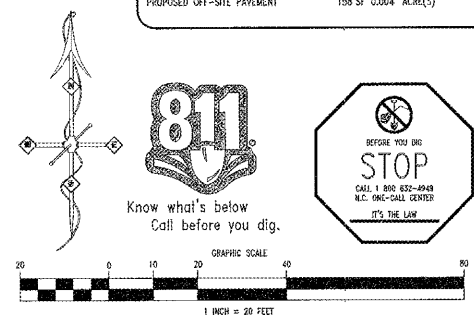
840.02 - CONCRETE CATCH BASIN	840.03 - FRAME, GRATES, AND HOOD FOR CATCH BASINS
840.14 - CONCRETE DROPPED INLET	840.04 - CONCRETE OPEN THROAT CATCH BASIN
840.14 - CONCRETE DROPPED INLET	840.16 - DROPPED INLET FRAME AND GRATES
840.31 - CONCRETE JUNCTION BOX	840.36 - TRAFFIC BEARING GRADED DROPPED INLET
840.52 - PRECAST MANHOLE	840.45 - PRECAST DRAINAGE STRUCTURE
850.80 - PRECAST CONCRETE ENDWALL	
 - ALL PIPES SHALL BE Laid ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
 - STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
 - TYPE 1: RCP, CLASS B PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.
 - TYPE 2: HIGH DENSITY POLYETHYLENE PIPE (HDPE) - SASIBO DISCHARGE M252 TYPE S, M254 TYPE S AND M7-87 TYPE S, SMOOTH INTERIOR/ANNULAR EXTERIOR. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON THE CONSTRUCTION DRAWINGS. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDELINES. PIPE JOINTS AND FITTINGS SHALL BE WATER TIGHT.
 - ALL STORM DRAINAGE WITHIN THE PUBLIC ROADS SHALL BE CLASS B REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
 - EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED PRIOR TO CONSTRUCTION. ALL STRUCTURES TO BE CLEANED OUT TO REMOVE SILT AND DEBRIS.
 - IF ANY EXISTING STRUCTURES TO BE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
 - ALL STORM DRAINAGE STRUCTURES SHALL BE GROUNDED TO THE CONNECTION AT STRUCTURE IS WATER TIGHT.
 - PROTECT STRUCTURES FROM THE USE OF CONSTRUCTION EQUIPMENT.
 - ALL EXISTING STRUCTURES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING INTERIORS. MANHOLES IN UNPAVED AREAS SHALL BE OF ABOVE FINISH GRADE. TOPS SHALL BE LABELED AS FOLLOWS:
 - 1. STRUCTURE TO BE ELEVATION SHOWN HERE IS APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY. RIM ELEVATION AS NOTED AS TO THE OUTER FLOW LINE.

- ### LEGEND:
- TS.....TOP OF SIDEWALK
 - TC.....TOP OF CURB
 - GT.....GUTTER FLOW LINE
 - TP.....TOP OF PAVEMENT
 - TW.....TOP OF WALL
 - BW.....BOTTOM OF WALL
 - CB.....CATCH BASIN
 - GI.....GRATE INLET
 - FES.....FLARED END SECTION
 - YL.....YARD INLET
 - GR.....GROUND
 - FD.....FLOW DIRECTION ARROW

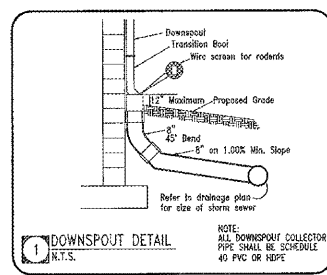
STORMWATER MANAGEMENT NOTE
 STORMWATER RUNOFF FROM THE PROPOSED DEVELOPMENT DRAINS TO THE EXISTING STORMWATER CONTROL MEASURE OPERATED BY THE BAXTON CORPORATE PARK PROPERTY OWNERS ASSOCIATION, INC. ON PARCEL 0407-00-3187.

IMPERVIOUS AREA SUMMARY

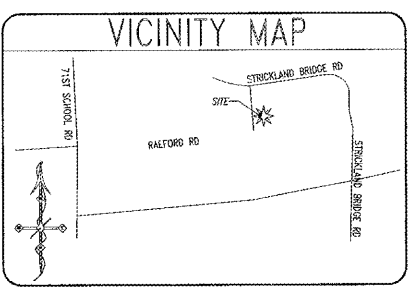
SITE AREA = 31,017 SF (0.71 AC)			
BUILDINGS	2,496 SF	0.06 ACRE(S)	8.05 %
PAVEMENT	15,014 SF	0.35 ACRE(S)	48.41 %
SIDEWALK	1,832 SF	0.04 ACRE(S)	5.91 %
TOTAL IMPERVIOUS AREA (ON-SITE)	19,342 SF	0.45 ACRE(S)	62.36 %
GREEN/OPEN SPACE	11,675 SF	0.27 ACRE(S)	37.64 %
INCREASE IN ON-SITE IMPERVIOUS AREA 19,342 SF			
PROPOSED OFF-SITE PAVEMENT	158 SF	0.004 ACRE(S)	



- ### GRADING NOTES
- REFER TO THE SITE PLAN FOR RELATED NOTES.
 - ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.
 - ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
 - THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL BLENDE NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
 - LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
 - THE PROPOSED CONTOURS SHOWN IN GRIVES AND PAVING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING ASPHALT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
 - THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO EXISTING DRAINAGE INLETS OR SIBEEI OVERLAND.
 - ANY GRADING, BEYOND THE LIMITS OF STRUCTURE SHOWN ON THE GRADING PLAN, IS SUBJECT TO A FINE.
 - GRADING WITHIN APPROVED EROSION CONTROL PLAN IS SUBJECT TO A FINE.
 - STABILIZATION IS THE FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON UNGRADED AREAS AND ESPECIALLY WHEN THE CONSTRUCTION PERIODS EXCEED 90 DAYS.
 - ALL GRADED AREAS TO BE SEED OR LANDSCAPED WITHIN 15 DAYS OF COMPLETION OF GRADING. ALL REMAINING AREAS ARE TO BE SEED WITHIN 30 DAYS.
 - CONTOUR GRADING, CONTOURS, UTILITIES AND OTHER EXISTING FEATURES FROM FIELD RUN SURVEY.
 - THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DRAINAGE NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.
 - THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION, ELEVATION, AND DIMENSIONS OF EXIT DOORS, RAMPS, BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
 - ALL FILL MATERIALS, EXISTING BUILDING FOUNDATIONS, PAVEMENT AND UTILITY STRUCTURES, TOPSOIL, AND ANY OTHER DESTRUCTIBLE MATERIALS SHALL BE COMPLETELY REMOVED FROM WITHIN THE BEARING ZONE BELOW THE STRUCTURE.
 - ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE TO DETERMINE WHETHER UNSUITABLE MATERIAL MUST BE REMOVED. ALL UNSUITABLE MATERIAL SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.
 - ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED OR DEPICTED.
 - THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 - CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
 - CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
 - ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3:1V OR STEEPER.
 - CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.



- ### EROSION CONTROL NOTES:
- AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY NCDER PRIOR TO START OF CONSTRUCTION.
- ### SURVEY NOTE:
- ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: BOHLER ENGINEERING, PLLC
- ### STREAM/WETLAND NOTE:
- THERE IS AN EXISTING JURISDICTIONAL STREAM FEATURE ON THE SOUTHEASTERN PROPERTY BOUNDARY. THERE ARE NO PROPOSED IMPACTS TO THE EXISTING STREAM FEATURE AS PART OF THE DEVELOPMENT OF THE PROPERTY.
- ### FLOOD ZONE NOTE:
- THIS SITE IS NOT LOCATED IN A FLOOD ZONE AREA AS SHOWN ON F.I.R.M. MAPS 571088800J & 571088800K. EFFECTIVE DATE: JANUARY 5, 2007. FLOOD ZONES ARE SUBJECT TO CHANGE BY FEMA.



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REVISED:	DATE:	BY:
1	10/15/19	REVISED PER CITY OF FAYETTEVILLE REVIEW AND LOCAL COMMERCIAL DEVELOPMENT COMMENTS
2	10/29/19	REVISED PER FAYETTEVILLE PWD REVIEW
3	12/20/19	REVISED PER STARBUCKS REVIEW
4	1/17/20	REVISED PER STARBUCKS REVIEW

Project No. 09016
 Date: November 1, 2019
GRADING & DRAINAGE PLAN
 Sheet No. C1.1