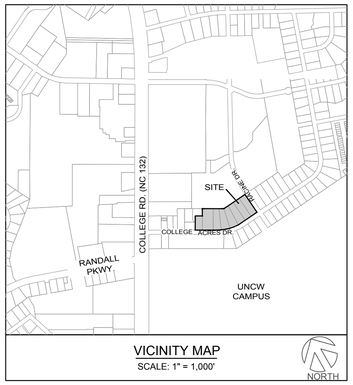
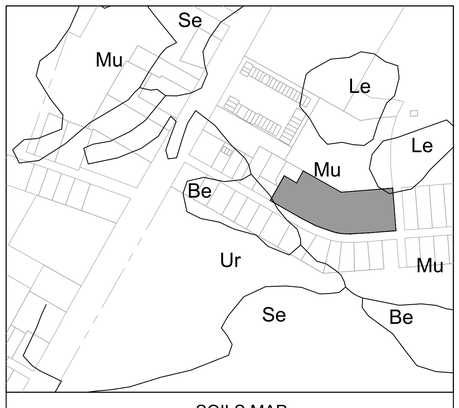
COTTAGE ACRES APARTMENTS

COLLEGE ACRES DRIVE
WILMINGTON, NORTH CAROLINA

CITY OF WILMINGTON T.R.C. DESIGN DOCUMENTS
SEPTEMBER 1, 2020



VICINITY MAP
SCALE: 1" = 1,000'
NORTH



SOILS MAP
SCALE: 1" = 500'

NOTICE REQUIRED

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

CONTRACTORS SHALL CONTACT OVERHEAD ELECTRIC PROVIDER TO COMPLY WITH FEDERAL OSHA 1910.333 MINIMUM APPROACH DISTANCE TO ENERGIZED POWERLINES AND OSH 29 CFR 1926.1407-1411 MUST BE FOLLOWED.

CONTRACTOR SHALL CONTACT AT&T PRIOR TO ANY DEMOLITION TO ALLOW FOR AT&T TO DISCONNECT COMMUNICATIONS CABLES COMING INTO THE SITE.

CONTACT THESE UTILITIES

CITY OF WILMINGTON PLANNING & DEVELOPMENT
ATTN: PAT O'MAHONEY, PLANNER
PH: 910-341-4661

ATTN: ZONING INSPECTIONS
PH: 910-254-0900

PIEDMONT NATURAL GAS (DUKE ENERGY)
ATTN: CATHY PLEASANT
PH: 910-251-2827

EMERGENCY DIAL 911
POLICE - FIRE - RESCUE
ATTN: CITY OF WILMINGTON FIRE & LIFE SAFETY
PH: 910-343-0696

CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)
ENGINEERING/INSPECTIONS
PH: 910-332-6560

OPERATIONS/MAINTENANCE
PH: 910-322-6550

DUKE ENERGY
DISTRIBUTION CONSTRUCTION SERVICE
DEP CSC PH: 1-800-452-2777

TRANSMISSION AGENT
BILL WILDER
PH: 910-772-4903

AT&T/BELL SOUTH
ATTN: STEVE DAYVAULT (BUILDING ENGINEERING)
PH: 910-341-0741

ATTN: JAMES BATSON, ENGINEERING
PH: 910-341-1621

SPECTRUM
GENERAL PH: 800-892-4357

811 Know what's below. Call before you dig.

COTTAGE ACRES APARTMENTS

PROJECT # 19443.PE	September 1, 2020

SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
C-1.0-1.1	GENERAL NOTES
C-2.0	OVERALL SITE PLAN
C-2.1	SITE INVENTORY & DEMOLITION
C-2.2	TREE REMOVAL PLAN
C-3.0	EROSION CONTROL PLAN
C-4.0	GRADING & DRAINAGE PLAN
C-5.0	UTILITY PLAN
C-6.0-6.3	CIVIL DETAILS
~~C-6.4-6.5~~	~~CFPUA UTILITY DETAILS~~
L-1.0	LANDSCAPE PLAN

PROJECT DEVELOPER
College Acres Development, LLC
5217 Market Street
Wilmington, NC 28403
Attn: David DeSpain

DESIGN CONSULTANTS
PARAMOUNTE ENGINEERING, INC.
122 CINEMA DR., WILMINGTON NC 28403
(910) 791-6707
CIVIL ENGINEER: J. BRANCH SMITH, PE
LANDSCAPE ARCHITECT: ALLISON ENGEBRETSON, RLA
SURVEYOR: CHRIS GAGNE, PLS

Approved Construction Plan
Name Date
Planning _____
Traffic _____
Fire _____

WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

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

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

PREPARED BY:
PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

COORDINATION NOTES:

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ANY/ALL PERMITS REQUIRED FOR CONSTRUCTION OF THESE PLANS.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND WITH THE CITY OF WILMINGTON, NEW HANOVER COUNTY, CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA), AND THE STATE OF NORTH CAROLINA.
3. THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THE PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE SITE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS. CONTRACTOR SHALL EMPLOY A PROFESSIONAL SURVEYOR TO PERFORM SITE IMPROVEMENT STAKEOUT(S).
4. ANYTIME WORK IS PERFORMED OFF-SITE OR WITHIN AN EXISTING EASEMENT, THE CONTRACTOR IS TO NOTIFY THE HOLDER OF SAID EASEMENT AS TO THE NATURE OF PROPOSED WORK, AND TO FOLLOW ANY GUIDELINES OR STANDARDS WHICH ARE ASSOCIATED WITH OR REFERENCED IN THE RECORDED EASEMENT.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS BY OTHERS FOR ALL BUILDING DIMENSIONS AND DETAILS.

GENERAL NOTES:

1. BOUNDARY AND EXISTING CONDITIONS SURVEY COMPLETED BY PARAMOUNTE ENGINEERING, INC., AND TREE INVENTORY AND TOPOGRAPHIC SURVEY COMPLETED BY PARAMOUNTE ENGINEERING, INC. THE SURVEY SHALL BE FIELD VERIFIED BY CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE OWNER AND ENGINEER.
2. REASONABLE CARE HAS BEEN EXERCISED IN SHOWING THE LOCATION OF EXISTING UTILITIES ON THE PLANS. THE EXACT LOCATION OF ALL EXISTING UTILITIES IS NOT KNOWN IN ALL CASES. THE CONTRACTOR SHALL EXPLORE THE AREA AHEAD OF DITCHING OPERATIONS BY OBSERVATIONS, ELECTRONIC DEVICES, HAND DIGGING AND BY PERSONAL CONTACT WITH THE UTILITY COMPANIES. IN ORDER TO LOCATE EXISTING UTILITIES IN ADVANCE OF TRENCHING OPERATIONS SO AS TO ELIMINATE OR MINIMIZE DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RESULTING FROM ANY DAMAGE TO THE EXISTING UTILITY LINES INCLUDING LOSS OF UTILITY REVENUES. CONTRACTOR SHALL ARRANGE FOR TEMPORARY SUPPORT OF EXISTING UTILITIES, SUCH AS POLES, CONDUITS, FIBER OPTIC CABLES, TELEPHONE CABLES, WATER LINES, ETC.
3. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT.
4. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK SO AS TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK, SUITABLE BARRIERS, FENCES, SIGNS OR OTHER ADEQUATE PROTECTION, INCLUDING FLAGMEN AND WATCHMEN AS NECESSARY TO INSURE THE SAFETY OF THE PUBLIC AS WELL AS THOSE ENGAGED IN THE CONSTRUCTION WORK. CONSTRUCTION SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" BY THE USDOT.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. ALL WORK BY THE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR AFTER THE OWNER ACCEPTS THE WORK.
7. CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL CENTER AT 811 AND ALLOW THE CENTER TO LOCATE EXISTING UTILITIES BEFORE DIGGING.
8. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO START OF CONSTRUCTION. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
9. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
10. ACCESS TO UTILITIES, FIRE HYDRANTS, STREET LIGHTING, ETC., SHALL REMAIN UNDISTURBED, UNLESS COORDINATED WITH THE RESPECTIVE UTILITY.
11. DO NOT SCALE THIS DRAWING AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
12. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
13. THE GENERAL CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
14. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
15. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.
16. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE GIVEN TO THE OWNER FOR REVIEW, NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE PERMISSION OF THE OWNER, THE CITY OF WILMINGTON, NEW HANOVER COUNTY, OR CFPUA, RESPECTIVELY.
17. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES. THE LOCATION OF ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON PLANS AND WHERE SHOWN ARE ONLY APPROXIMATE. THE CONTRACTOR SHALL ON HIS INITIATIVE AND AT NO EXTRA COST HAVE LOCATED ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. NO CLAIMS FOR DAMAGES OR EXTRA COMPENSATION SHALL ACCRUE TO THE CONTRACTOR FROM THE PRESENCE OF SUCH PIPE OTHER OBSTRUCTIONS OR FROM DELAY DUE TO REMOVAL OR REARRANGEMENT OF THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND STRUCTURES. CONTACT NORTH CAROLINA ONE CALL" TOLL FREE 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL NONSUBSCRIBING UTILITIES.
18. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC., THAT MAY BE REQUIRED.
19. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
20. ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE REFLECTIVE MARKINGS AND SHALL CONFORM TO MUTCD. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
21. LANDSCAPE PLANTINGS AT ENTRANCE/ EXITS WILL BE INSTALLED AND MAINTAINED SO AS NOT TO INTERFERE WITH SIGHT DISTANCE NEEDS OF DRIVERS IN THE PARKING AREA AND AT ENTRANCE/EXIT LOCATIONS PER LOCAL STANDARDS.
22. ALL DIMENSIONS AND RADII ARE TO OUTSIDE FACE OF BUILDING OR TO FACE OF CURB UNLESS OTHERWISE NOTED.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE EROSION CONTROL PLAN SHALL INCLUDE PROVISIONS FOR GROUNDCOVER ON ALL EXPOSED PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. GROUND COVER SHALL BE PROVIDED ON ALL OTHER DISTURBED AREAS WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK. (NO SEPARATE PAYMENT).
3. THE CONTRACTOR SHALL NOTIFY PLAN APPROVING AUTHORITY ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NEW HANOVER COUNTY FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
7. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY EITHER THE REVIEWING AGENCY OR THE ENGINEER. (NO SEPARATE PAYMENT).
8. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
9. ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE IMPROVED SHALL BE SODDED OR SEEDED AS INDICATED AND STABILIZED.
10. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
11. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
12. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. (NO SEPARATE PAYMENT). NCDENR'S FINAL APPROVAL IS REQUIRED.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. (NO SEPARATE PAYMENT).
14. WHEN CROSSING CREEK OR DRAINAGE-WAY, THE DIVISION OF WATER QUALITY SHALL BE CONTACTED PRIOR TO DISTURBING A CREEK. THE CONTRACTOR SHALL INSTALL RIP-RAP WITH FABRIC ALONG DISTURBED BANKS AND CHANNEL AND RESTORE SLOPES TO ORIGINAL CONTOURS, BUT NOT STEEPER THAN 2:1 MAXIMUM. DISTURBED CREEK AREA SHALL BE STABILIZED IMMEDIATELY.

DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE CONSIDERED UNCLASSIFIED EXCAVATION.
3. DEMOLITION SHALL INCLUDE BUT IS NOT LIMITED TO THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE GEOTECHNICAL ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL PRODUCE A PHOTOGRAPHIC RECORD (DIGITAL) OF DEVELOPMENT COMMENCING WITH A RECORD OF THE SITE AS IT APPEARS BEFORE DEMOLITION HAS BEGUN. AFTERWARDS, A PHOTOGRAPHIC RECORD SHALL BE MAINTAINED WEEKLY DURING CONSTRUCTION AND ENDING WITH A PHOTOGRAPHIC RECORD OF THE DEVELOPMENT AS IT APPEARS AFTER DEMOLITION. THIS RECORD SHALL BE DELIVERED TO THE OWNER.
7. EXISTING CURB AND GUTTER, LIGHTS, SIDEWALK, AND UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION.
8. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
9. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
10. CONTRACTOR SHALL MAINTAIN REQUIRED DISTANCES FROM HIGH VOLTAGE OVERHEAD LINES AND REMOVE TREES SO THEY DO NOT FALL TOWARDS OVERHEAD ELECTRICITY.
11. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
12. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
13. EXISTING FIRE HYDRANTS ON OR NEAR THE SITE ARE TO REMAIN IN SERVICE.
14. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS.

TRAFFIC NOTES:

1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY & FOR DRIVEWAY(S) ARE TO BE THERMOPLASTIC & MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
2. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS NOT WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY OPEN CUTTING OF A CITY STREET REQUIRES A UTILITY CUT PERMIT. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES, AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
6. CONTACT TRAFFIC ENGINEERING, AT 341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN. CALL TRAFFIC ENGINEERING FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
7. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND/OR CURBING SHALL BE REPLACED.
8. TACTILE WARNING MATS TO BE INSTALLED AT ALL WHEELCHAIR RAMPS.

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

NOTE: THESE EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES ARE INTENDED FOR EACH "PHASE" OF CONSTRUCTION. THE ORDER AND STEPS TAKEN MUST BE IMPLEMENTED AS EACH PART OF THE PROJECT IS DEVELOPED; WHETHER AS A WHOLE OR IN PHASES. ANY EROSION CONTROL DEVICES/MEASURES MUST REMAIN IN PLACE UNTIL THE ENTIRE DISTURBANCE IS STABILIZED AND ALL IMPROVEMENTS WITHIN THE DISTURBANCE LIMITS ARE COMPLETE.

1. CONSTRUCT TEMPORARY GRAVEL CONSTRUCTION ENTRANCE(S), ESTABLISH THE LIMITS OF DISTURBANCE, TREE PROTECTION FENCING, AND TEMPORARY SILT FENCE.
2. CLEAR AND REMOVE FROM SITE TREES AS DESIGNATED, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN THE DESIGNATED CLEARING LIMITS.
3. INSTALL REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLANS WITHIN THE AREA DISTURBED. ALL EROSION CONTROL MEASURES MUST BE INSTALLED BEFORE COMMENCING CONSTRUCTION.
4. PLANT GRASS OVER ALL GRADED AREAS WITHIN 14 WORKING DAYS OF CEASE OF ANY GRADING ACTIVITY.
5. IMMEDIATELY UPON THE INSTALLATION OF ANY STORM DRAINAGE CATCH BASIN, DROP INLET, ETC., THE CONTRACTOR SHALL INSTALL INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION CONTROL MEASURES.
7. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETE, THE CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL APPROVAL BY ENGINEER OR EROSION CONTROL INSPECTOR.
8. UPON RECEIVING FINAL APPROVAL, THE CONTRACTOR CAN REMOVE TEMPORARY EROSION CONTROL MEASURES.
9. THE CONTRACTOR SHALL CONTINUE TO WATER, FERTILIZE, MOW AND MAINTAIN GRASS & PLANTED AREAS UNTIL ALL CONSTRUCTION IS COMPLETE.

EROSION CONTROL MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF- PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL CONSTRUCTION ENTRANCES WILL BE PERIODICALLY TOP DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. ANY SEDIMENT THAT IS TRACKED INTO THE STREET WILL BE IMMEDIATELY REMOVED.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
5. INLET PROTECTION - INSPECT WIRE AND ROCK INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH SIGNIFICANT ($\frac{1}{2}$ INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.
6. SEDIMENT BASIN/SEDIMENT TRAPS - REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO WITHIN ONE HALF OF THE DESIGN DEPTH. PLACE SEDIMENT IN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, PIPING, AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.
7. SKIMMER - INSPECT SKIMMER AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL TO MAKE SURE THAT THE INTAKE MECHANISM, ORIFICE, OR DISCHARGE PIPE IS NOT CLOGGED WITH TRASH OR SEDIMENT. IF THE BASIN IS DRY, MAKE SURE THAT ANY VEGETATION GROWING ON THE BOTTOM IS NOT HOLDING THE SKIMMER DOWN. TAKE SPECIAL PRECAUTION IN WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.
8. OUTLET PROTECTION - INSPECT RIP RAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT ($\frac{1}{2}$ INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
9. EMERGENCY SPILLWAY / FOREBAY PROTECTION - AFTER EVERY HIGH-WATER EVENT INSPECT THE INTEGRITY OF THE LINED SPILLWAY AND THE ADJACENT EARTHEN BANKS. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE. REPAIR ANY VOIDS IN THE RIP RAP LINED APRONS, RE-ESTABLISH ANY LOOSE STONES, AND FIX GAPS IN THE ADJACENT VEGETATIVE COVER.
10. TEMPORARY DIVERSION DITCH - INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.
11. CHECK DAMS - EXCELSIOR OR RIP-RAP - SEDIMENT SHALL BE REMOVED FROM THE DAM WHEN IT REACHES HALF-FILLED. CHECK DAMS SHALL BE REPAIRED OR REPLACED WHEN THEY NO LONGER DRAIN AS DESIGNED OR ARE DISLODGED, AND CHANNEL SHALL BE REPAIRED OF RUTS, PIPING, AND SETTLEMENT AROUND THE DAMS AS NEEDED.

PERMANENT SEEDING			
GRASS TYPE	LBS/ ACRE	TIME OF SEEDING	FERTILIZER LIMESTONE
BERMUDA, HULLED BERMUDA, UNHULLED	10-20 35	MARCH - AUGUST SEPT. - FEB.	BY SOIL TEST
CENTIPEDE	10	MARCH - AUGUST	BY SOIL TEST (NO HIGH PH)
TALL FESCUE (COASTAL CULTIVAR RECOMMENDED)	50	MARCH - AUGUST	300 LB/AC 10-20-20 OR BY SOIL TEST
SLOPES >= 2:1 CENTIPEDE SERICEA LESPEDEZA	5 20	JAN - DEC	BY SOIL TEST

TEMPORARY SEEDING			
GRASS TYPE	LBS/ ACRE	TIME OF SEEDING	FERTILIZER LIMESTONE
RYE GRAIN	50	OCT. - APR.	400 LBS/AC. 10-20-20
SWEET SUDAN GRASS	50	JUNE - AUGUST	400 LBS/AC. 10-20-20
GERMAN or BROWNTOP MILLET	50	JUNE - AUGUST	400 LBS/AC. 10-20-20
STRAW MULCH AS NEEDED	4,000		

NC ACCESSIBILITY NOTES:

GENERAL NOTES:

1. SPECIAL ATTENTION SHALL BE GIVEN TO COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. IT IS ESSENTIAL THAT CONTRACTORS ARE AWARE OF THE SITE ACCESSIBILITY REQUIREMENTS. PARAMOUNTE ENGINEERING HAS DEVELOPED THESE NOTES AND DETAILS TO ASSURE THAT CONTRACTORS ARE AWARE OF THE REQUIREMENTS AT THE POINT IN TIME WHEN THEY ARE BIDDING THE PROJECT. IN ADDITION, PARAMOUNTE ENGINEERING HAS MADE A POINT IN THESE NOTES AND DETAILS, AS WELL AS IN OUR DRAWINGS, TO PROVIDE SLOPES / GRADES AND DIMENSIONS THAT COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ANSI A117.1 AND APPLICABLE LOCAL LAWS & REGULATIONS. IF THESE SLOPES / GRADES AND DIMENSIONS ARE NOT ACHIEVABLE, THE CONTRACTOR IS REQUIRED TO CONTACT THE OWNER IMMEDIATELY AND BEFORE MOVING FORWARD WITH THE WORK.
3. THE CONTRACTOR SHALL NOTIFY PARAMOUNTE ENGINEERING IMMEDIATELY OF ANY CONFLICT BETWEEN THESE NOTES AND DETAILS AND OTHER PROJECT DRAWINGS, WHETHER BY PARAMOUNTE ENGINEERING OR OTHERS. THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK FOR WHICH THE ALLEGED CONFLICT HAS BEEN DISCOVERED UNTIL SUCH ALLEGED CONFLICT HAS BEEN RESOLVED. NO CLAIM SHALL BE MADE BY THE CONTRACTOR FOR DELAY OR DAMAGES AS A RESULT OF RESOLUTION OF ANY SUCH CONFLICT(S).
4. THESE ACCESSIBILITY NOTES AND DETAILS ARE INTENDED TO DEPICT SLOPE AND DIMENSIONAL REQUIREMENTS ONLY. REFER TO SIDEWALK, CURBING, AND PAVEMENT DETAILS FOR ADDITIONAL INFORMATION.

ACCESSIBLE ROUTE NOTES:

1. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS OR SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE.
2. AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE.
3. WALKING SURFACES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5.0% AND A MAXIMUM CROSS SLOPE OF 2.0%.
4. ANY WALKING SURFACE THAT IS PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5.0% IS A RAMP AND SHALL COMPLY WITH THE GUIDELINES FOR RAMPS OR CURB RAMPS.
5. TRANSITIONS BETWEEN RAMPS, WALKS, LANDINGS, GUTTERS OR STREETS SHALL BE FLUSHAND FREE OF ABRUPT VERTICAL CHANGES (1/4 INCH MAXIMUM VERTICAL CHANGE IN LEVEL PERMITTED).
6. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP RESISTANT.
7. THE MINIMUM CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES SHALL BE FORTY-EIGHT (48) INCHES MINIMUM MEASURED BETWEEN HANDRAILS WHERE HANDRAILS ARE PROVIDED (NC BUILDING CODE 1104.1 & 1104.2).
8. WHERE AN ACCESSIBLE ROUTE MAKES A 180 DEGREE TURN AROUND AN OBJECT THAT IS LESS THAN FORTY-EIGHT (48) INCHES IN WIDTH, CLEAR WIDTH SHALL BE FORTY-TWO (42) INCHES MINIMUM APPROACHING THE TURN, FORTY-EIGHT (48) INCHES MINIMUM DURING THE TURN, AND FORTY-TWO (42) INCHES MINIMUM LEAVING THE TURN. THE CLEAR WIDTH APPROACHING AND LEAVING THE TURN MAY BE THIRTY-SIX (36) INCHES MINIMUM WHEN THE CLEAR WIDTH AT THE TURN IS SIXTY (60) INCHES MINIMUM. .* SEE NOTE 7 ABOVE FOR NC CLEAR WIDTH OF EXTERIOR ACCESSIBLE ROUTES*
9. AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN SIXTY (60) INCHES SHALLPROVIDE PASSING SPACES AT INTERVALS OF TWO HUNDRED (200) FEET MAXIMUM. PASSING SPACES SHALL BE EITHER A SIXTY (60) INCH MINIMUM BY SIXTY (60) INCH MINIMUM SPACE; OR AN INTERSECTION OF TWO (2) WALKING SURFACES THAT PROVIDE A COMPLIANT T-SHAPED TURNING SPACE, PROVIDED THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND FORTY-EIGHT (48) INCHES MINIMUM BEYOND THE INTERSECTION.
10. DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NORTH CAROLINA BUILDING CODE/ ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
11. DIRECTIONAL SIGNAGE INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE BUILDING ENTRANCE SHALL BE PROVIDED AT INACCESSIBLE BUILDING ENTRANCES.
12. WHERE POSSIBLE, DRAINAGE INLETS SHALL NOT BE LOCATED ON AN ACCESSIBLE ROUTE. IN THE EVENT THAT A DRAINAGE INLET MUST BE LOCATED ON AN ACCESSIBLE ROUTE, THE GRATE SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), A117.1, THE NC BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS

RAMP NOTES:

1. ANY PART OF AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 5% SHALL BE CONSIDERED A RAMP.
2. THE MAXIMUM RUNNING SLOPE FOR A RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
3. THE CLEAR WIDTH OF AN EXTERIOR RAMP RUN SHALL BE FORTY EIGHT INCHES (NC BUILDING CODE 1104.1). WHERE HANDRAILS ARE PROVIDED ON THE RAMP RUN, THE CLEAR WIDTH SHALL BE MEASURED BETWEEN THE HANDRAILS.
4. THE RISE FOR ANY RAMP RUN SHALL BE THIRTY (30) INCHES MAXIMUM.
5. LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF RAMPS. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2.0% IN ANY DIRECTION. THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING. THE LANDING CLEAR LENGTH SHALL BE SIXTY (60) INCHES LONG MINIMUM. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING OF SIXTY (60) INCHES BY SIXTY (60) INCHES MINIMUM.
6. RAMP RUNS WITH A RISE GREATER THAN SIX (6) INCHES SHALL HAVE HANDRAILS ON BOTH SIDES COMPLYING WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS.
7. FLOOR SURFACES OF RAMPS AND LANDINGS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
8. EDGE PROTECTION COMPLYING WITH AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1, AND APPLICABLE LOCAL LAWS & REGULATIONS SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND ON EACH SIDE OF RAMP LANDINGS.
9. WHERE DOORWAYS ARE LOCATED ADJACENT TO A RAMP LANDING, MANEUVERING CLEARANCES REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS), THE NC BUILDING CODE/ANSI A117.1 SHALL BE PERMITTED TO OVERLAP THE REQUIRED LANDING AREA. WHERE DOORS THAT ARE SUBJECT TO LOCKING ARE ADJACENT TO A RAMP LANDING, LANDINGS SHALL BE SIZED TO PROVIDE A COMPLIANT TURNING SPACE.

CURB RAMP NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33% AND THE MAXIMUM CROSS SLOPE SHALL BE 2.0%.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. THE CLEAR WIDTH OF A CURB RAMP SHALL BE 36 INCHES (36) MINIMUM, EXCLUSIVE OF FLARED SIDES, IF PROVIDED. *NOTE NC BUILDING CODE REQUIRES EXTERIOR ACCESSIBLE ROUTES TO BE 48 INCHES MINIMUM WIDE (1104.1 & 1104.2).*
4. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION.
5. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
6. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10%.
7. CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES OR PARKING ACCESS AISLES. CURBS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
8. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
9. IT IS RECOMMENDED TO PROVIDE CURB RAMPS WITH A TWENTY-FOUR (24) INCH DEEP DETECTABLE WARNING COMPLYING WITH 406.12 A117.1, EXTENDING THE FULL WIDTH OF THE RAMP. REFERTO DETECTABLE WARNING DETAILS AND NOTES FOR PLACEMENT, ORIENTATION AND NOTES. THE NC BUILDING CODE DOES NOT CURRENTLY REQUIRE DETECTABLE WARNINGS AT CURB RAMPS, NOR DO THE 2010 ADA STANDARDS - HOWEVER US DOT ADA REGULATIONS DO REQUIRE THESE.
10. FLOOR SURFACES OF CURB RAMPS SHALL BE DEEP GROOVED, ½ INCH WIDE BY ¼ INCH DEEP, ONE (1) INCH CENTERS TRANSVERSE TO THE RAMP.
11. WHERE PROVIDED, STOP LINES SHALL BE LOCATED IN ADVANCE OF CURB RAMP.
12. WHERE PROVIDED, PEDESTRIAN ACTIVATED SIGNALS SHALL BE LOCATED ADJACENT TO THE SIDEWALK AND NOT ON THE SIDEWALK.
13. WHERE PROVIDED, DRAINAGE INLETS SHALL BE LOCATED UPSTREAM OF CURB RAMPS AND NOT IN THE RAMP AREA.
14. CURB RAMP TYPE AND LOCATION ARE PER PLAN.

NC ACCESSIBILITY NOTES CONTD.

PARKING SPACE NOTES:

1. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTES OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST NINETY-SIX (96) INCHES WIDE. ACCESS AISLES SHALL BE 60 INCHES WIDE. ONE OF SIX ACCESSIBLE SPACES SHOULD PROVIDE A VAN ACCESSIBLE AISLE. THE AISLE SHOULD BE 96 INCHES WIDE (OR ACCESSIBLE SPACE IS 11 FEET AND ACCESS AISLE IS FIVE FEET). WHERE PARKING SPACES AND ACCESS AISLES ARE MARKED WITH LINES, THE WIDTH MEASUREMENTS SHALL BE MADE FROM CENTERLINE OF THE MARKINGS. WHERE PARKING SPACES OR ACCESS AISLES ARE NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLES, MEASUREMENTS SHALL BE PERMITTED TO INCLUDE THE FULL WIDTH OF THE LINE DEFINING THE PARKING SPACE OR ACCESS AISLE.
3. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND SHALL COMPLY WITH PROVISIONS FORACCESSIBLE ROUTES. MARKED CROSSINGS SHALL BE PROVIDED WHERE THE ACCESSIBLE ROUTE MUST CROSS VEHICULAR TRAFFIC LANES. WHERE POSSIBLE, IT IS PREFERABLE THAT THE ACCESSIBLE ROUTE NOT PASS BEHIND PARKED VEHICLES.
4. TWO (2) ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
5. ACCESS AISLES SHALL EXTEND THE FULL LENGTH OF THE PARKING SPACE THEY SERVE.
6. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
7. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY. ACCESS AISLES SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPTFOR ANGLED VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
8. FLOOR SURFACES OF PARKING SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
9. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
10. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE.
11. PARKING SPACES FOR VANS AND ACCESS AISLES AND VEHICULAR ROUTES SERVING THEM SHALL PROVIDE A VERTICAL CLEARANCE OF NINETY-EIGHT (98) INCHES MINIMUM. SIGNS SHALL BE PROVIDED AT ENTRANCES TO PARKING FACILITIES INFORMING DRIVERS OF CLEARANCES AND THE LOCATION OF VAN ACCESSIBLE PARKING SPACES.
12. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL BE INSTALLED AT A MINIMUM CLEAR HEIGHT OF SIXTY (60) INCHES ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED WITH BOLLARD PROTECTION.
13. SIGNAGE AT ACCESSIBLE PARKING SPACES REQUIRED BY THE NC BUILDING CODE SECTION 1106.1SHALL COMPLY WITH THE REQUIREMENTS OF NORTH CAROLINA GENERAL STATUTE 20-37.6 AND 136-30 AND THE NCDOT UNIFORM MANUAL ON TRAFFIC CONTROL DEVICES. A SEPARATE SIGN IS REQUIRED FOR EACH SPACE. SIGNS TO INDICATE THE MAXIMUM PENALTY MUST BE PROVIDED AT EACH ACCESSIBLE SPACE.
14. ACCESSIBLE PARKING SPACE, ACCESS AISLE STRIPING, AND INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE PAINTED BLUE (OR ANOTHER COLOR THAT CAN BE DISTINGUISHED FROM PAVEMENT).

PASSENGER LOADING ZONE NOTES:

1. PASSENGER LOADING ZONES SHALL PROVIDE VEHICULAR PULL-UP SPACE NINETY-SIX (96) INCHES WIDE MINIMUM AND TWENTY (20) FEET LONG MINIMUM.
2. PASSENGER LOADING ZONES SHALL PROVIDE A CLEARLY MARKED ACCESS AISLE THAT IS SIXTY (60) INCHES WIDE MINIMUM AND EXTENDS THE FULL LENGTH OF THE VEHICLE PULL-UP SPACE THEY SERVE.
3. ACCESS AISLE SHALL ADJOIN AN ACCESSIBLE ROUTE AND NOT OVERLAP THE VEHICULAR WAY.
4. VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE VEHICLE PULL-UP SPACE THEY SERVE. CHANGES IN LEVEL ARE NOT PERMITTED.
5. FLOOR SURFACES OF VEHICLE PULL-UP SPACES AND ACCESS AISLES SERVING THEM SHALL BE STABLE, FIRM AND SLIP RESISTANT.
6. VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM AND A VEHICULAR ROUTE FROM AN ENTRANCE TO THE PASSENGER LOADING ZONE, AND FROM THE PASSENGER LOADING ZONE TO A VEHICULAR EXIT SERVING THEM, SHALL PROVIDE A VERTICAL CLEARANCE OF ONE HUNDRED FOURTEEN (114) INCHES MINIMUM.

ACCESSIBLE ENTRANCE NOTES:

1. ACCESSIBLE ENTRANCES SHALL BE PROVIDED AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) AND THE NORTH CAROLINA BUILDING CODE, AND APPLICABLE LOCAL LAWS & REGULATIONS.
2. ENTRANCE DOORS, DOORWAYS AND GATES SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (2010 ADA STANDARDS) THE NC BUILDING CODE/ANSI A117.1 AND SHALL BE ON AN ACCESSIBLE ROUTE.

GENERAL STORM SEWER NOTES:

1. ALL STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WILMINGTON REQUIREMENTS AS SPECIFIED ON THE DRAWINGS AND IN THE PROJECT SPECIFICATIONS.
2. BEDDING FOR ALL STORM SEWER PIPE SHALL BE AS SPECIFIED ON THE DRAWINGS.
3. ALL STORM SEWER PIPES SHOWN AS RCP ON THE PLANS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, UNLESS INDICATED OTHERWISE ON PLANS.

ROOF DRAIN NOTE:

1) PROPOSED BUILDING SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM.

EXISTING UTILITY NOTES:

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE ACTUAL LOCATION AND AVAILABILITY OF ALL EXISTING AND PROPOSED UTILITIES IN THE FIELD PRIOR TO GROUND BREAKING.
2. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

WETLAND NOTES:

1) THERE ARE NO WETLANDS FLAGGED AND SURVEYED ON THE PROPERTY.

811 Know what's below. Call before you dig.

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

Approved Construction Plan	Name	Date
Planning		
Traffic		
Fire		

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:________ Permit #________
Signed: ________

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

GENERAL NOTES

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07.31.19
SCALE: N.T.S.
DESIGNED: CDR
DRAWN: CDR
CHECKED: JBS

SEAL

C-1.0

PEI JOB#: 19443.PE

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	**Stabilize within this many calendar days after ceasing land disturbance**	**Timeframe variations**
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

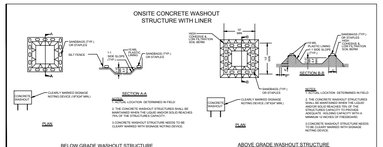
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible***. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

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

Approved Construction Plan

Name Date

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON NORTH CAROLINA

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date:_____ Permit #_____

Signed: _____

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

NPDES NCG01 NOTES

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

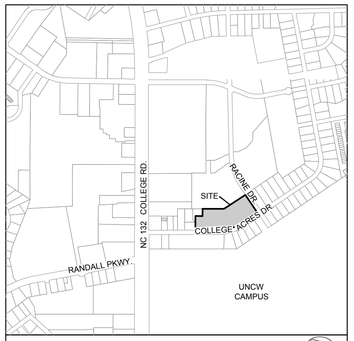
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
PLANS:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07.31.19
SCALE: N/A
DESIGNED: JBR
DRAWN: CDS
CHECKED: JBS

SEAL

C-1.1

PEI JOB#: 19443.PE



VICINITY MAP
SCALE: 1" = 1,000'
NORTH

SITE INFORMATION:

PARCEL IDs:	R05508-002-007 thru 014-000
CURRENT ZONING:	MF-M (CD)
EXISTING USE:	SINGLE-FAMILY RESIDENCES
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL
PROPERTY AREA:	± 5.53 ACRES (± 241,062 SF)
PROJECT LIMITS AND DISTURBANCE:	± 5.40 ACRES
OWNER INFORMATION:	SEE SHEET C-2.1 SITE INVENTORY PLAN
FLOOD INFORMATION:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2018.
FEMA FLOODPLAIN NOTE:	N/A
CONSERVATION RESOURCES DISTRICT:	POCOSIN
OVERLAY ZONE:	COLLEGE RD.
CAMA AREAS OF ENVIRONMENTAL CONCERN:	N/A
CAMA FUTURE LAND USE:	URBAN
EXISTING HISTORIC AND ARCHAEOLOGICAL SITE:	N/A
EXISTING WETLANDS OR STREAMS:	N/A
EXISTING SURFACE WATERS:	N/A

GENERAL NOTES

1. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/ OR NCDOT STANDARDS.
2. ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
3. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
4. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
5. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
6. COMMON DUMPSTER PROVIDED FOR DEVELOPMENT TRASH DISPOSAL.
7. CONTRACTOR SHALL REFER TO LANDSCAPE PLAN FOR SPECIFIC TREE REMOVAL AND OTHER LANDSCAPING DETAILS.
8. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30" TO 10'
9. THERE ARE NO WETLANDS LOCATED ON SITE.

DIMENSIONAL REQUIREMENTS:

MF-M (CD)

PROVIDED BUILDING SETBACKS:

-	FRONT (COLLEGE ACRES DR):	20' (REQ'D 15' DUPLEX)
-	REAR (CAMPUS EDGE APARTMENTS):	25' (REQ'D 25' MF)
-	SIDE (BUFFERYARD)	20' (REQ'D 5' DUPLEX)
-	CORNER SIDE:	30' (REQ'D 30' MF)
-	BUILDING HEIGHT:	<35' (REQ'D 35' HEIGHT)

IMPERVIOUS DATA:

IMPERVIOUS AREA:	
EXISTING BUILDING:	20,800 SF
EXISTING PAVEMENT:	13,000 SF
EXISTING GRAVEL:	3,350 SF
TOTAL EXISTING IMPERVIOUS:	37,150 SF (TO BE REMOVED)
PROPOSED BUILDINGS:	53,555 SF
PROPOSED PAVEMENT:	55,950 SF
PROPOSED SIDEWALKS:	11,600 SF
OTHER:	2,740 SF
FUTURE:	2,000 SF
TOTAL NEW IMPERVIOUS:	125,845 SF (52% OF PROPERTY)
OFFSITE IMPERVIOUS:	4,500 SF (TO WETLAND)
PERV. PAVEMENT IMPERVIOUS:	31,355 SF
SW WETLAND IMPERVIOUS:	98,990 SF
NET IMPERVIOUS TO WETLAND:	98,990 - 37,150 SF = 61,840 SF TO WETLAND

OPEN SPACE DATA:

MF-M REQUIRED: 35% OF TOTAL PROPERTY SUBTRACT NATURAL OR STORMWATER
FEATURES:
TOTAL REQ'D = 241,062 - 11,135 (WETLAND) = 229,927*0.35
TOTAL REQ'D = 80,475 SF

OPEN SPACE PROVIDED = 99,485 SF
(42,605 SF OF RECREATION SPACE & 56,880 SF OF REMAINING UNCOVERED LANDS)

RECREATION AREA
REQUIRED: 50% OF OPEN SPACE = 40,237 SF REQ'D.

RECREATION AREA
PROVIDED: ACTIVE SPACE (AMENITY, LOOP WALKS, & TWO OPEN YARDS)
TOTAL = 22,605 SF
PASSIVE SPACE (BUILDING YARDS & TWO OPEN YARDS)
TOTAL = 22,000 SF

BUILDING INFORMATION:

BUILDING COVERAGE:
(B) (9) 2-STORY DUPLEXES @ 2,200 SF±
(A) (5) 3-STORY MULTI-FAMILY @ 6,100 SF±
(C) (1) 1-STORY AMENITY CENTER @ 2,700 SF±
***TOTAL SF: 53,000 SF± (22.02%)**
(MF-M ALLOWS 30% MAX.)

TOTAL GROSS FLOOR AREA:
(9) 2-STORY DUPLEXES @ 4,400 SF±
(5) 3-STORY MULTI-FAMILY @ 18,300 SF±
(1) 1-STORY AMENITY CENTER @ 2,700 SF±
***TOTAL SF: 133,800 SF± GFA**

CONSTRUCTION TYPE:
VB; SPRINKLER SYSTEM

PARKING DATA:

MINIMUM: 18 - 4BR UNITS @ MIN. 4 SPACE / UNIT = 72
60 - 3BR UNITS @ MIN. 2.25 SPACE / UNIT = 135
MIN. TOTAL SPACES = 207 SPACES*
*SPACES ABOVE MIN. MUST BE PERVIOUS PER COND. DISTRICT

MAXIMUM: 18 - 4BR UNITS @ MAX. 4 SPACE / UNIT + 10% = 73
60 - 3BR UNITS @ MAX. 2.50 SPACE / UNIT = 150
MAX. TOTAL SPACES ALLOWED = 223 SPACES

PROVIDED: 244 SPACES PER (70 PERVIOUS PAVEMENT SPACES > REQ'D = 37)

ACCESSIBLE PARKING: 244 TOTAL REQUIRES 5 STD. & 2 VAN SPACES TOTALS 7
PROVIDED: 9 SPACES INCL. 8 VAN SPACES

BIKE PARKING: PARKING REQUIRED = 20 MIN.
PARKING PROVIDED = 6 @ 5 SPACE RACK = 30 SPACES

TRAFFIC DATA:

1. TABLE 4.1.1 BELOW INDICATES THAT THIS PORTION OF COLLEGE ACRES DRIVE IS CURRENTLY OPERATING WITHIN ITS DESIGNED CAPACITY AT A LEVEL OF SERVICE (LOS) OF A. HOWEVER, BOTH MAJOR INTERSECTIONS WITH COLLEGE ACRES DR. INCLUDING S. COLLEGE ROAD AND RACINE DRIVE, ARE OPERATING BEYOND THEIR DESIGN CAPACITY AT A LOS OF F. TABLE 4.1.2 INDICATES THAT ESTIMATED VEHICLE TRIPS ASSOCIATED WITH THE PROPOSED USE WOULD BE GREATER THAN DEVELOPMENT UNDER THE EXISTING ZONING DISTRICT.
2. BASED ON THE ESTIMATED TRIP GENERATION A TRAFFIC IMPACT ANALYSIS (TIA) IS NOT REQUIRED.
3. THE DEVELOPMENT PROVIDES DRIVEWAY ACCESSES OFF OF COLLEGE ACRES DRIVE AND RACINE DRIVE.
4. A RECENT TRAFFIC IMPROVEMENT AT THE INTERSECTION OF COLLEGE ACRES DRIVE AND RACINE DRIVE CURRENTLY RESTRICTS LEFT TURN MOVEMENTS AT THIS INTERSECTION.
5. THE SITE CONNECTS TO THE EXISTING SIDEWALK NETWORK ALONG RACINE DRIVE WHICH PROVIDES PEDESTRIAN ACCESS TO THE UNCW CAMPUS AND EXISTING COMMERCIAL USES TO THE NORTH.

Table 4.1.1 Current Volumes, Capacities and Levels of Service

Road	Location	Volume	Capacity	V/C	LOS
College Acres Dr	Between S. College Rd and Racine Dr	826	9,400	0.09	A
S. College Rd	Between College Acres Dr and New Centre Dr	76,547	41,700	1.8	F
Racine Dr	Between College Acres Dr and New Centre Dr	21,454	10,000	2.1	F

Table 4.1.2 Estimated Trip Generation

Zoning	Land Use	Intensity	AM Peak Hour Trips	PM Peak Hour Trips	Average Weekday 2-way Volume Trips (ADT)
Existing R-15	Single-family detached	11 units	13	12	136
Proposed MF-M(CD)	Duplexes	18 units	9	13	95
Proposed MF-M(CD)	Multi-Family	60 units	21	27	324
Total		78	30	40	419

Source: Institute of Transportation Engineers Trip Generation, 10th Edition, 2018; TRIP GENERATION BY Trafficware TripGen

BUFFER/ SCREENING INFORMATION:

STREETYARDS: MF-M MULTIPLIER = 18
2,394 SF COLLEGE ACRES = (924 LF OF FRONTAGE - 24' OF DRIVEWAY) X 18 = 16,200 SF / 600 SF = 27 CANOPY TREES
27 * 6 SHRUBS = 162 SHRUBS (12" HGT. AT PLANTING)
RACINE DRIVE = (290 LF OF FRONTAGE - 24' OF DRIVEWAY) X 9(1/2 MF-M) = 2,394 SF / 600 SF = 4 CANOPY TREES
4 * 6 SHRUBS = 24 SHRUBS (12" HGT. AT PLANTING)

WEST BUFFER: 403LF x 8' DEPTH MIN. W/ 8' WOOD SCREEN FENCE W/ DOUBLE ROW OF SHRUBS

SCREENING: ALL DUMPSTERS, HVAC, MECHANICAL EQUIPMENT AND ANY OTHER ITEMS REQUIRING SCREENING AS DEFINED BY THE CITY OF WILMINGTON LDC TO BE SCREENED IN ACCORDANCE WITH SECTION 18-504.

WATER & SEWER CAPACITY:

ALL EXISTING WATER AND SEWER UTILITIES ARE OWNED BY CFPUA

SANITARY SEWER
MULTI-FAMILY - ASSUMING 120 GPD/BED
PROPOSED - 252 BDRM @ 120 GPD = 30,240 GPD
WATER
PROPOSED 125% OF SEWER DEMAND = 37,800 GPD

EXISTING ESTIMATION = ±2880 GPD

CD-11-320 CONDITIONS:

1. The use and development of the property shall comply with all regulations and requirements imposed by the Land Development Code, the City of Wilmington Technical Standards and Specifications Manual and any other applicable federal, state or local law, ordinance or regulation, as well as any condition stated below. In the event of a conflict, the more stringent requirement or higher standard shall apply.
2. Approval of this conditional district rezoning does not constitute technical approval of the site plan. Final approval by the Technical Review Committee and the issuance of all required permits must occur prior to release of the project for construction.
3. If, for any reason, any condition for approval is found to be illegal or invalid or if the applicant should fail to accept any condition following approval, the approval of the site plan for the district shall be null and void and of no effect and proceedings shall be instituted to rezone the property to its previous zoning classification.
4. The use and development of the property shall be in accordance with the site plan and elevation approved by City Council.
5. The proposed use shall be limited to 9 duplexes and 5 buildings with 12 multi-family residential units in each for a total of 78 residential units.
6. Access shall be limited to one driveway off College Acres Drive and one driveway off of Racine Drive.
7. Building footprints, parking areas, and stormwater control measures shall be adjusted to preserve protected trees to the maximum extent practical. Protected trees not located within the building footprint or impacted by essential site improvements shall be preserved.
8. Parking in excess of 207 spaces shall be constructed of pervious materials, with a maximum allowance of 250 spaces.
9. Exterior lighting shall be installed so as not to shine directly onto adjacent residential parcels.
10. All city, state and federal regulations shall be followed.
11. The duplex units shall have facades similar to the elevations provided in this summary, while the apartment structures shall incorporate similar colors, materials, and architectural features as shown in the provided elevations.
12. Units adjacent to College Acres Drive and Racine Drive shall include entrances that front the right-of-ways.
13. Sidewalk connections shall be provided between all units fronting College Acres Drive and the public sidewalk required along the College Acres Drive frontage.

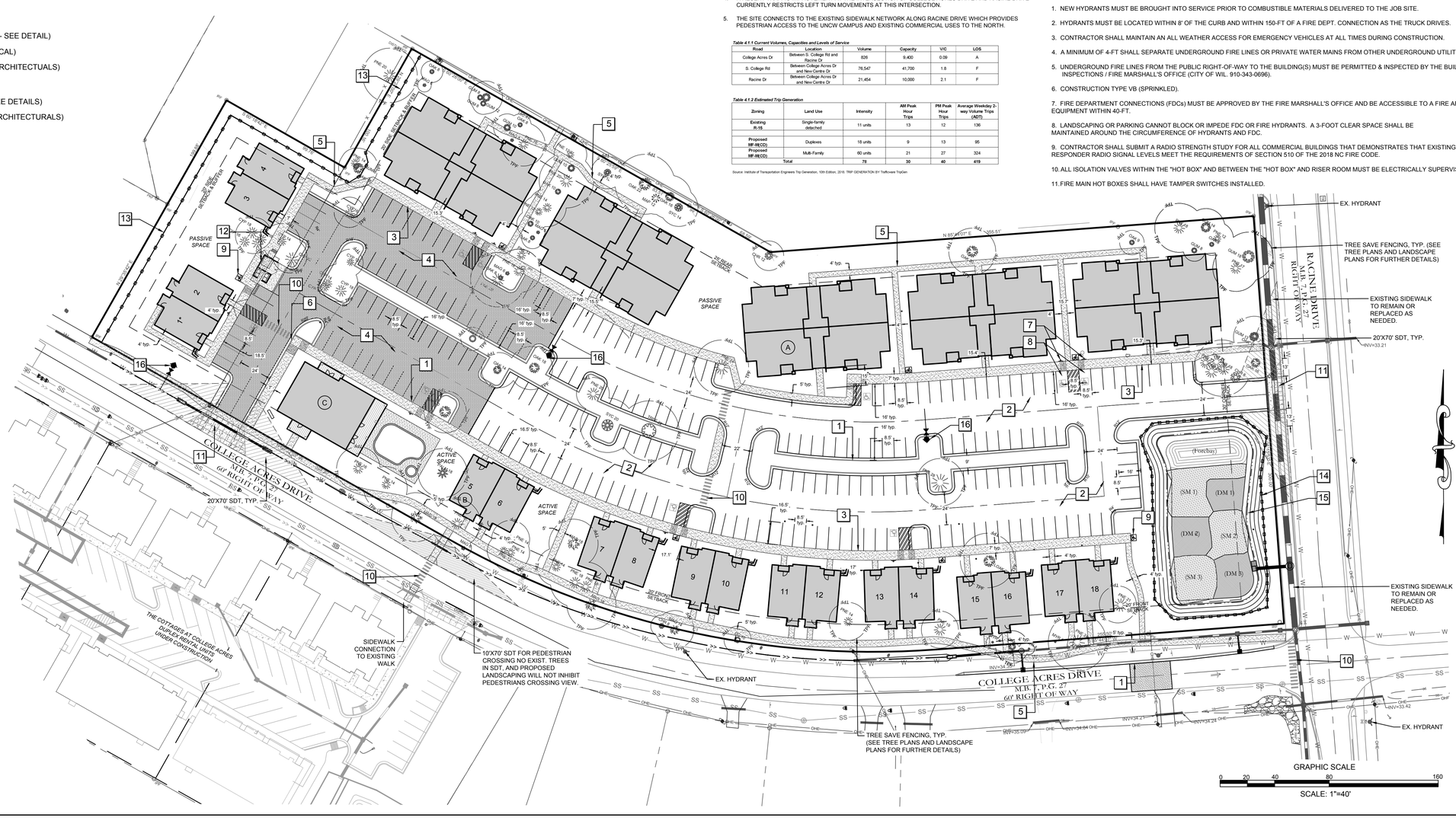
FIRE AND LIFE SAFETY NOTES

1. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
2. HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB AND WITHIN 150-FT OF A FIRE DEPT. CONNECTION AS THE TRUCK DRIVES.
3. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
4. A MINIMUM OF 4-FT SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
5. UNDERGROUND FIRE LINES FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING(S) MUST BE PERMITTED & INSPECTED BY THE BUILDING INSPECTIONS / FIRE MARSHALL'S OFFICE (CITY OF WIL. 910-343-0696).
6. CONSTRUCTION TYPE VB (SPRINKLED).
7. FIRE DEPARTMENT CONNECTIONS (FDCs) MUST BE APPROVED BY THE FIRE MARSHALL'S OFFICE AND BE ACCESSIBLE TO A FIRE APPARATUS EQUIPMENT WITHIN 40-FT.
8. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC.
9. CONTRACTOR SHALL SUBMIT A RADIO STRENGTH STUDY FOR ALL COMMERCIAL BUILDINGS THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.
10. ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND RISER ROOM MUST BE ELECTRICALLY SUPERVISED.
11. FIRE MAIN HOT BOXES SHALL HAVE TAMPER SWITCHES INSTALLED.

SITE KEYNOTES:

1. 24" CURB & GUTTER (TYPICAL - SEE DETAIL)
2. ASPHALT PARKING PAVEMENT (TYPICAL - SEE DETAIL)
3. 4" CONCRETE TURNDOWN WALK (TYPICAL - SEE DETAIL)
4. PERVIOUS PAVEMENT (TYPICAL - SEE DETAIL)
5. CONCRETE SIDEWALK (4ft, 5ft, & 7ft - SEE DETAIL)
6. TYPE 1 HANDICAP RAMP (TYPICAL - SEE DETAIL)
7. PROPOSED ACCESSIBLE PARKING SIGN (TYPICAL - SEE DETAIL)
8. PROPOSED ACCESSIBLE SPACE WITH AISLE (TYPICAL)
9. PROPOSED BIKE RACK (5-SPACE, TYPICAL - REF. ARCHITECTUALS)
10. PROPOSED CROSSWALK (TYPICAL - SEE DETAIL)
11. PROPOSED CITY STD. DRIVE APRON (TYPICAL - SEE DETAILS)
12. COMPACTOR WITH ENCLOSURE (TYPICAL - REF. ARCHITECTURALS)
13. 8-FT SCREENING FENCE WITHIN BUFFER
14. 4-FT DECORATIVE FENCE AROUND WETLAND
15. STORMWATER WETLAND
16. PROPOSED FIRE HYDRANT

WETLAND HATCH LEGEND	
	SHALLOW MARSH ZONE (SM)
	DEEP MARSH ZONE (DM)



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

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE PLAN

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

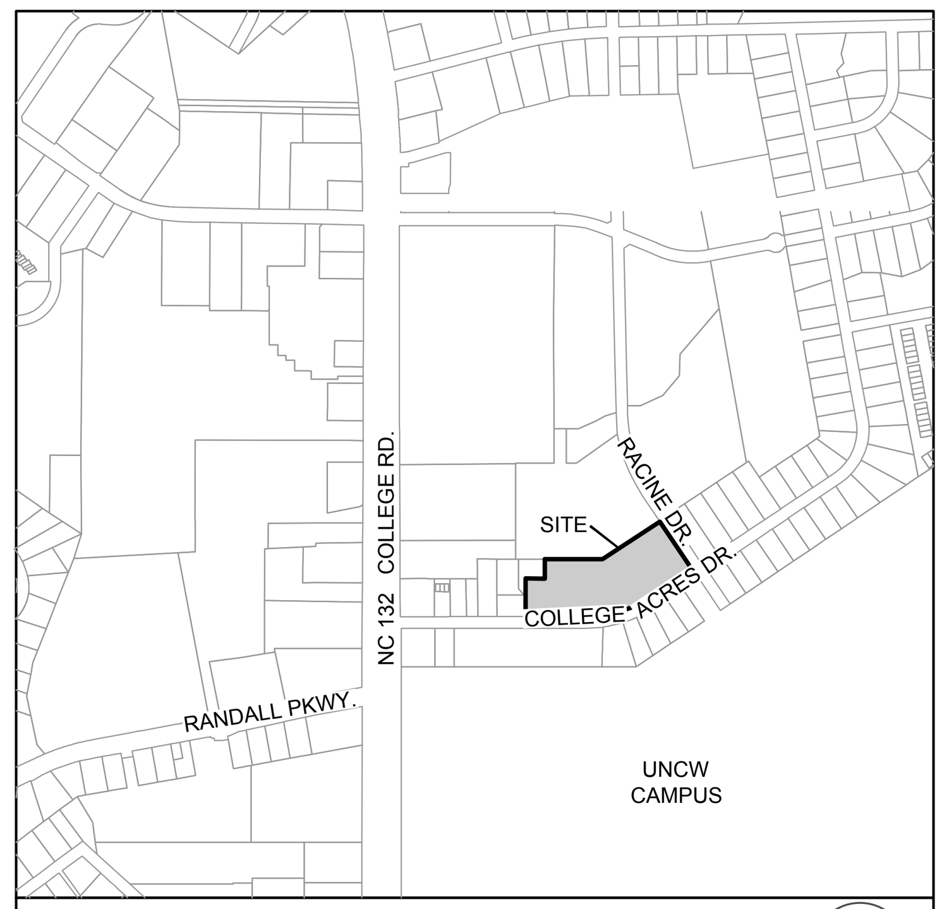
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07.24.19
SCALE: 1" = 40'
DESIGNED: JBS
DRAWN: JBS
CHECKED: TGC

SEAL

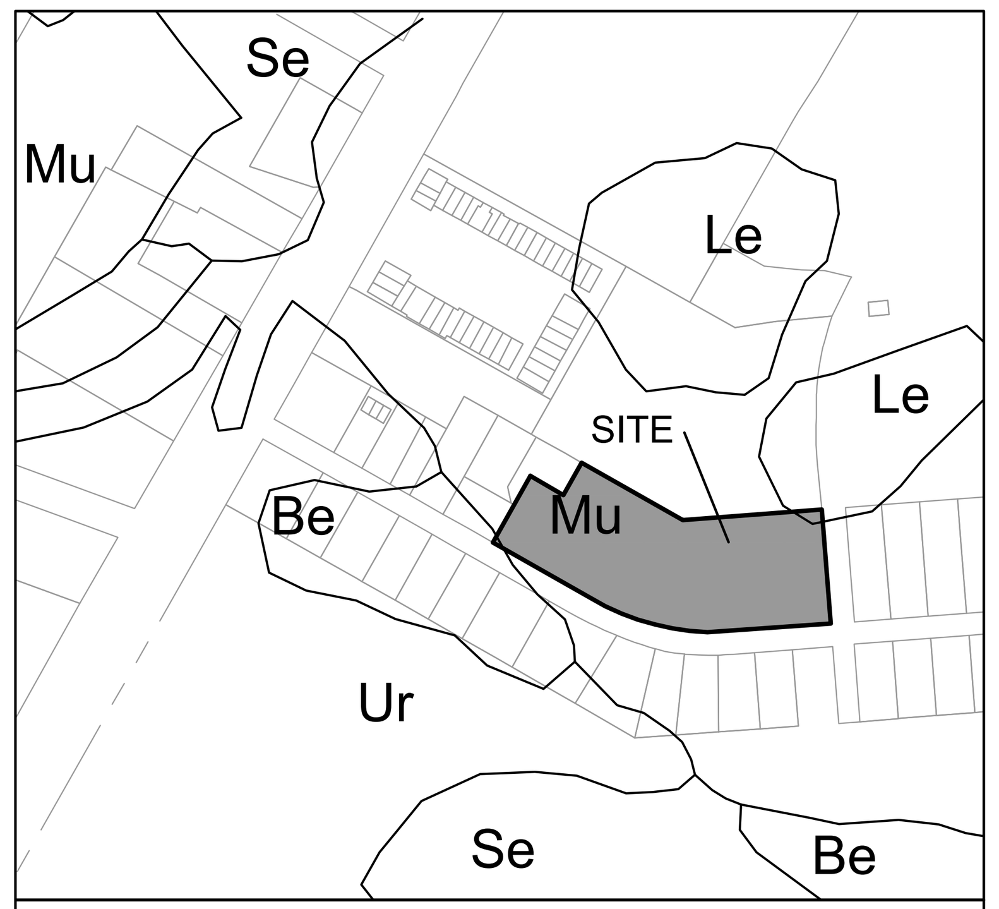
C-2.0

PEI JOB#: 19443.PE



VICINITY MAP

SCALE: 1" = 1,000'



SOILS MAP

SCALE: 1" = 500'

SITE INVENTORY DATA

1. PREPARER OF THE PLAN:	PARAMOUNTE ENGINEERING, INC. 122 CINEMA DRIVE WILMINGTON, NC 28403
2. APPLICANT NAME:	COLLEGE ACRES DEVELOPMENT, LLC 5217 MARKET STREET WILMINGTON, NC 28405
3. SITE ADDRESS:	[MULTIPLE] COLLEGE ACRES DR. WILMINGTON, NC 28403
4. PROPERTY OWNER(S):	TEYNOR JEREMY LETAL 5006 CARLETON DR. UNIT 36 WILMINGTON, NC 28403 THORUP PRESERVATION COMMON TR 4733 COLLEGE ACRES DR. WILMINGTON, NC 28403 ROBO INVESTMENTS, LLC PO BOX 1489 WRIGHTSVILLE BEACH, NC 28480 HYMAN ROBERT B. PO BOX 7905 WILMINGTON, NC 28406 LEEUWENBURG CHARLES C. 4749 COLLEGE ACRES DR. WILMINGTON, NC 28403 FAULK PROPERTIES, LLC 2605 TATTON DR. RALEIGH, NC 27608 PRIVETTE DAVID S. SANDRA R. 4757 COLLEGE ACRES DR. WILMINGTON, NC 28403
5. DEVELOPER:	COLLEGE ACRES DEVELOPMENT, LLC. 5217 MARKET STREET WILMINGTON, NC 28405
6. PROPERTY BOUNDARY:	SEE PLAN
7. ZONING:	MF-M (CD)
8. ADJACENT PROPERTY INFORMATION (OWNER AND ZONING):	SEE PLAN
9. VICINITY MAP:	SEE MAP THIS SHEET
10. TOPOGRAPHY:	SEE PLAN
11. 100 YEAR FLOOD PLAIN BOUNDARY:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2018
12. LOCATION OF EXISTING DITCHES, CREEKS, AND STREAMS:	SEE PLAN
13. SOILS:	BAYMEADE (Be), LEON SAND (Le), MURVILLE FINE SAND (Mu), (SEE SOILS MAP THIS SHEET)
14. CAMA AEC & ASSOCIATED SETBACKS:	N/A
15. CAMA LAND CLASSIFICATION:	URBAN
16. CONSERVATION RESOURCES:	N/A
17. LOCAL, STATE, OR FEDERAL HISTORIC OR ARCHAEOLOGICAL SITE:	N/A
18. LOCATION OF CEMETERIES, BURIAL SITES, OR BURIAL GROUNDS:	N/A
19. SQUARE FOOTAGE OF FORESTED AREA, HABITAT, AND DOMINANT SPECIES:	N/A
20. SECTION 404 WETLANDS AND SECTION 10 WATERS:	N/A
21. PROTECTED SPECIES OR HABITAT:	N/A
22. THOROUGHFARES, BIKE ROUTES, SIDEWALKS, TRANSIT FACILITIES (EXISTING OR PROPOSED):	SEE PLAN & VICINITY MAP

CITY OF WILMINGTON NORTH CAROLINA

Public Services ● Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

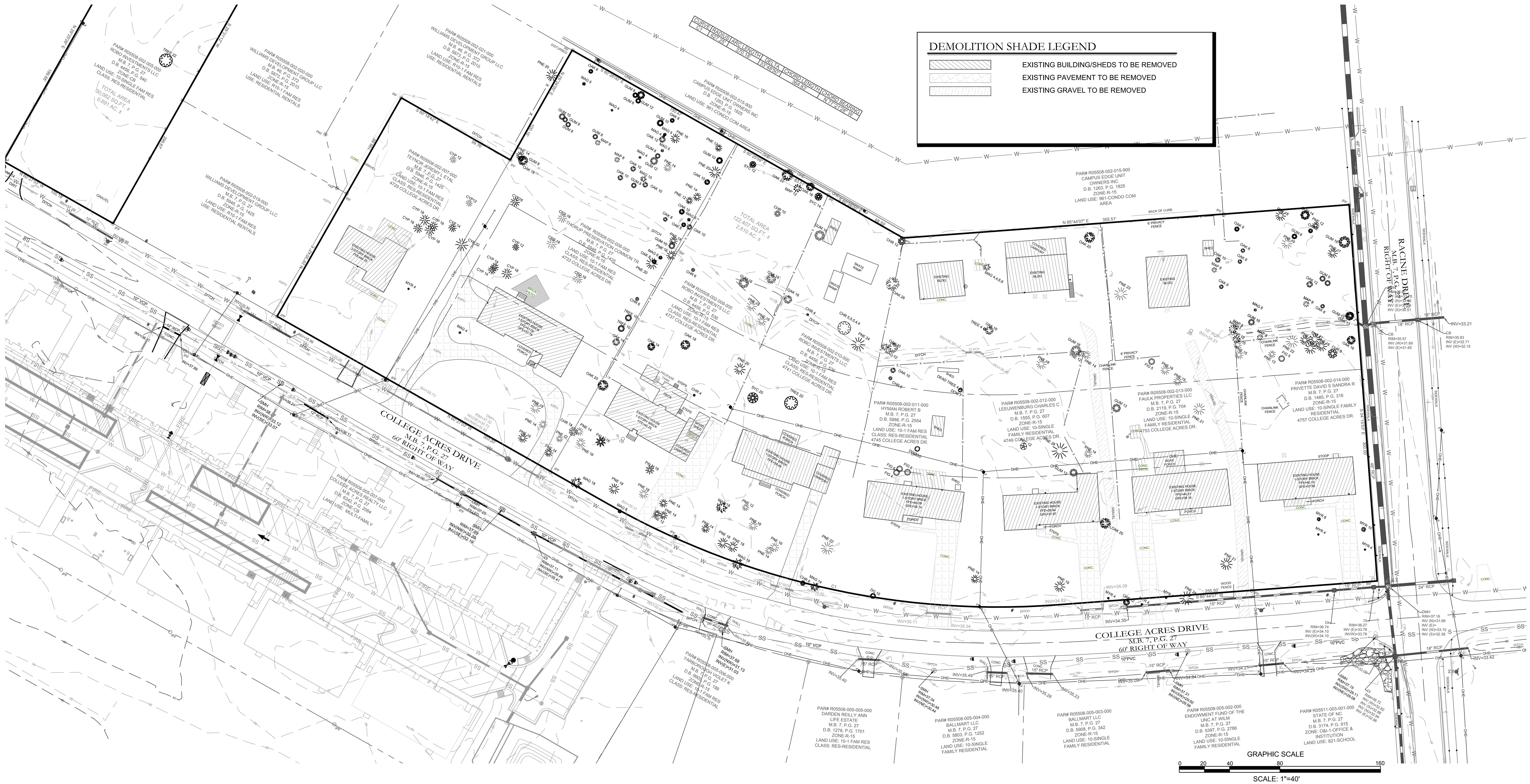
Date:____________ Permit #____________________

Signed: ______________________________

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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



DEMOLITION SHADE LEGEND

- EXISTING BUILDING/SHEDS TO BE REMOVED
- EXISTING PAVEMENT TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:

COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

SITE INVENTORY PLAN & SITE DEMOLITION PLAN

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

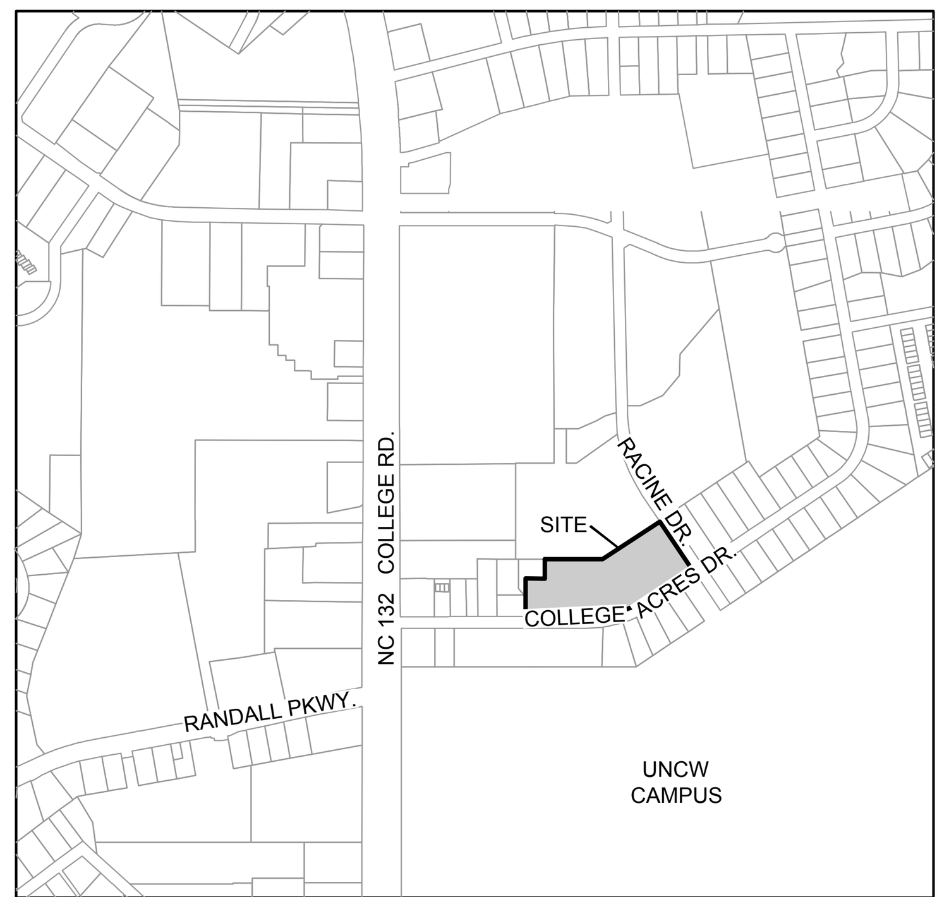
DRAWING INFORMATION

DATE:	07.31.19
SCALE:	1" = 40'
DESIGNED:	JBS
DRAWN:	JCM
CHECKED:	TGC

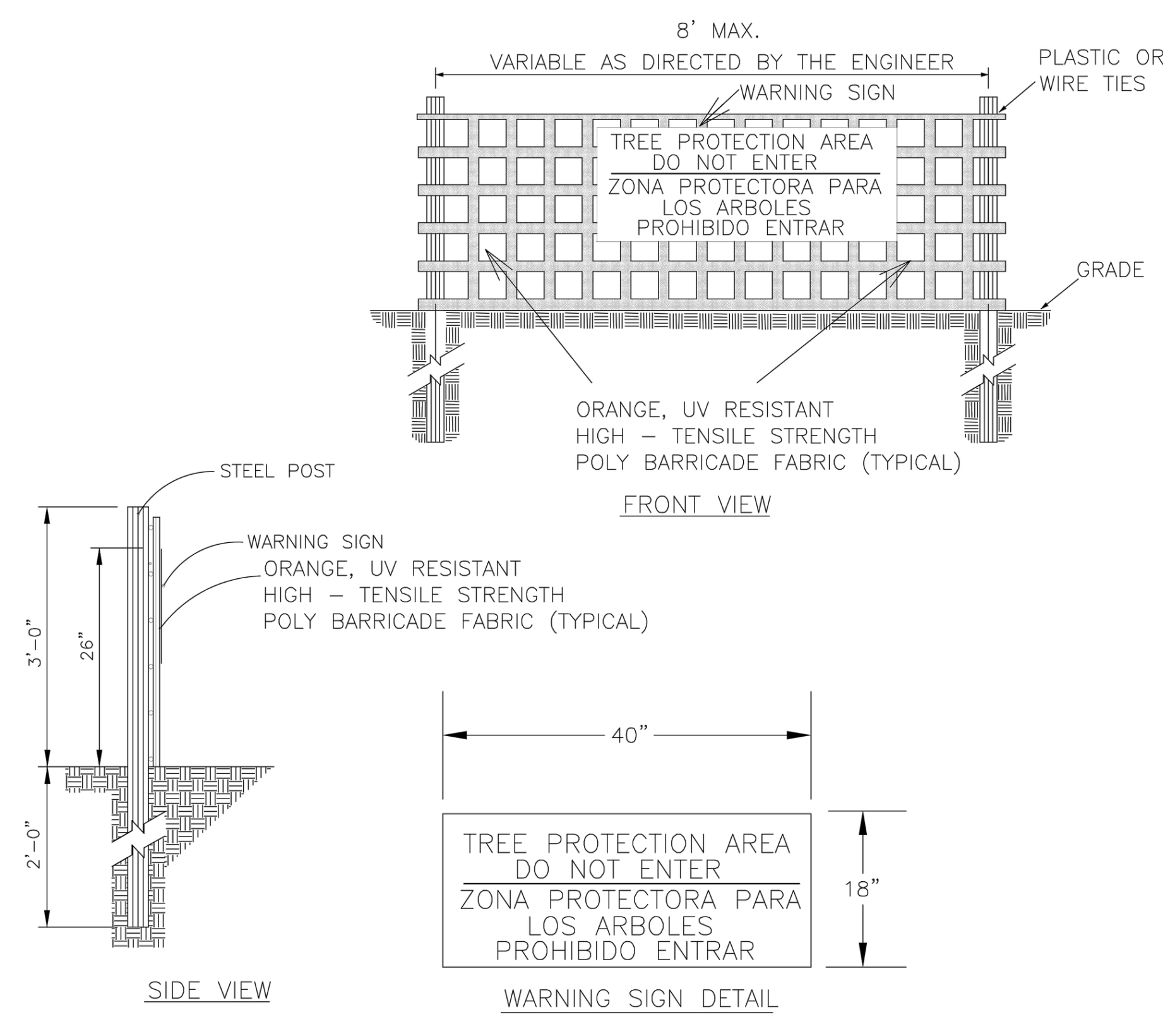
SEAL

C-2.1

PEI JOB#: 19443.PE



VICINITY MAP
SCALE: 1" = 1,000'



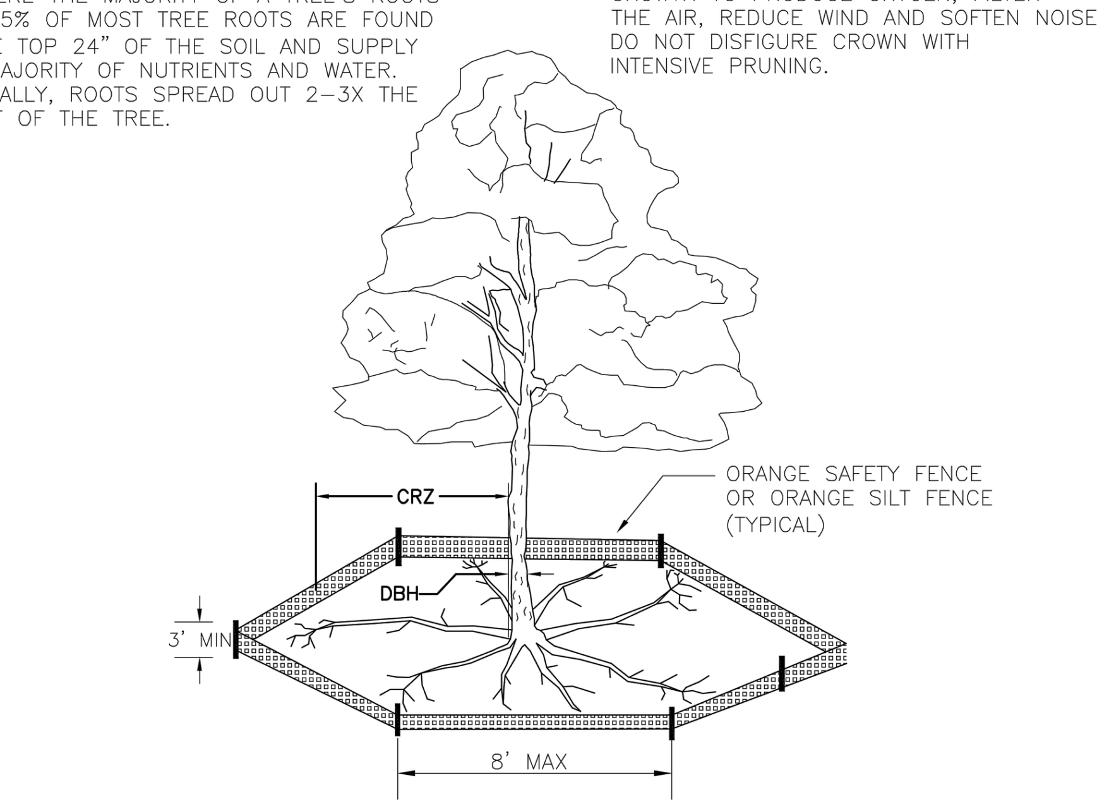
NOTES:

1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

DATE: JAN, 2015	STANDARD DETAIL	CITY OF WILMINGTON NORTH CAROLINA
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION	CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807
CHECKED BY RDG, P.E.		
SCALE NOT TO SCALE	SHEET 2 of 2	SD 15-09

NOTE:
THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



NOTES:

1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATTS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF $500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

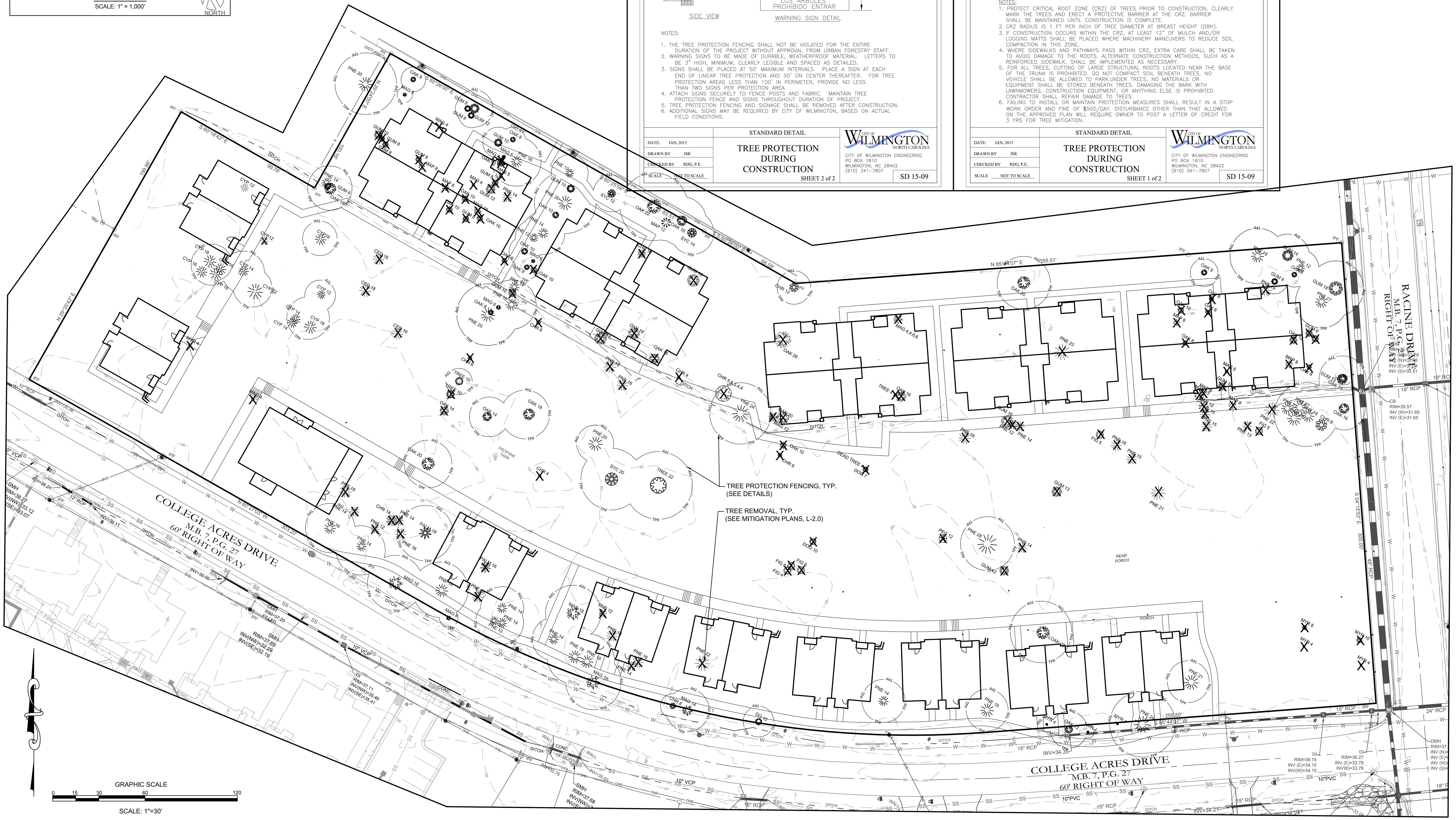
DATE: JAN, 2015	STANDARD DETAIL	CITY OF WILMINGTON NORTH CAROLINA
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION	CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807
CHECKED BY RDG, P.E.		
SCALE NOT TO SCALE	SHEET 1 of 2	SD 15-09

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:____________ Permit #____________
Signed: ____________

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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



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REVISIONS:

CLIENT INFORMATION:
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5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

TREE REMOVAL PLAN

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION

DATE:	07.31.19
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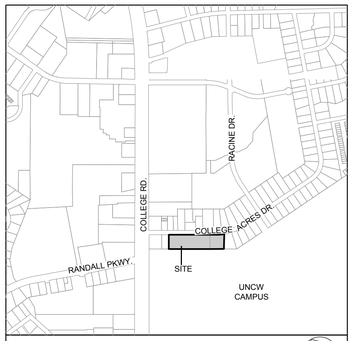
CHECKED:	TGC

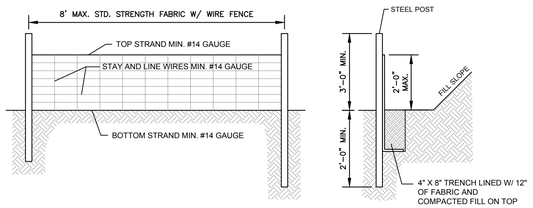
SEAL

C-2.2

PEI JOB#: 19443.PE

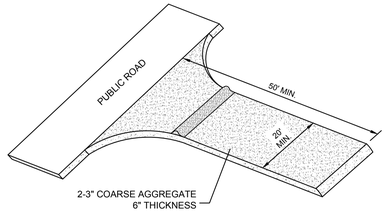


VICINITY MAP
SCALE: 1" = 1,000'

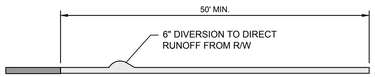


NOTES:
1. WIRE FENCE (IF USED) SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM MESH OPENING OF 6-INCHES.
2. SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFIN'S OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 AND ALSO SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS ACCORDING TO ASTM D 4355.
3. SEE THE NC EROSION CONTROL MANUAL FOR SPECIFICATIONS INSTALLING SEDIMENT FENCE USING THE SLICING METHOD MACHINERY.

TEMPORARY SILT FENCE
NOT TO SCALE



PLAN VIEW



SECTION VIEW

TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE

EROSION CONTROL LEGEND:

- LOD LOD — LIMITS OF DISTURBANCE
- SF SF — SILT FENCE
- TREE PROTECTION FENCING
- >TDD >TDD — TEMP. DIVERSION DITCHES
- 20 — PROPOSED CONTOURS
- -20- — EXISTING CONTOURS
- TREE REMOVAL
- TREE PROTECTION FENCING
- INLET PROTECTION
- GRAVEL ENTRANCE

CITY OF WILMINGTON NORTH CAROLINA
Public Services ● Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

811 Know what's below. Call before you dig.

EROSION CONTROL NOTES:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE STOCKPILE LOCATIONS ON SITE IF NOT SPECIFIED. SEE GENERAL NOTES SHEET FOR GRADING, DRAINAGE, AND EROSION CONTROL NOTES AND REQUIREMENTS. IN ADDITION, REFERENCE TECHNICAL SPECIFICATIONS AND DETAIL SHEETS FOR MORE INFORMATION.

2.) SEE GRADING AND DRAINAGE PLANS FOR FINISH GRADES AND STORM PIPE SCHEDULE.

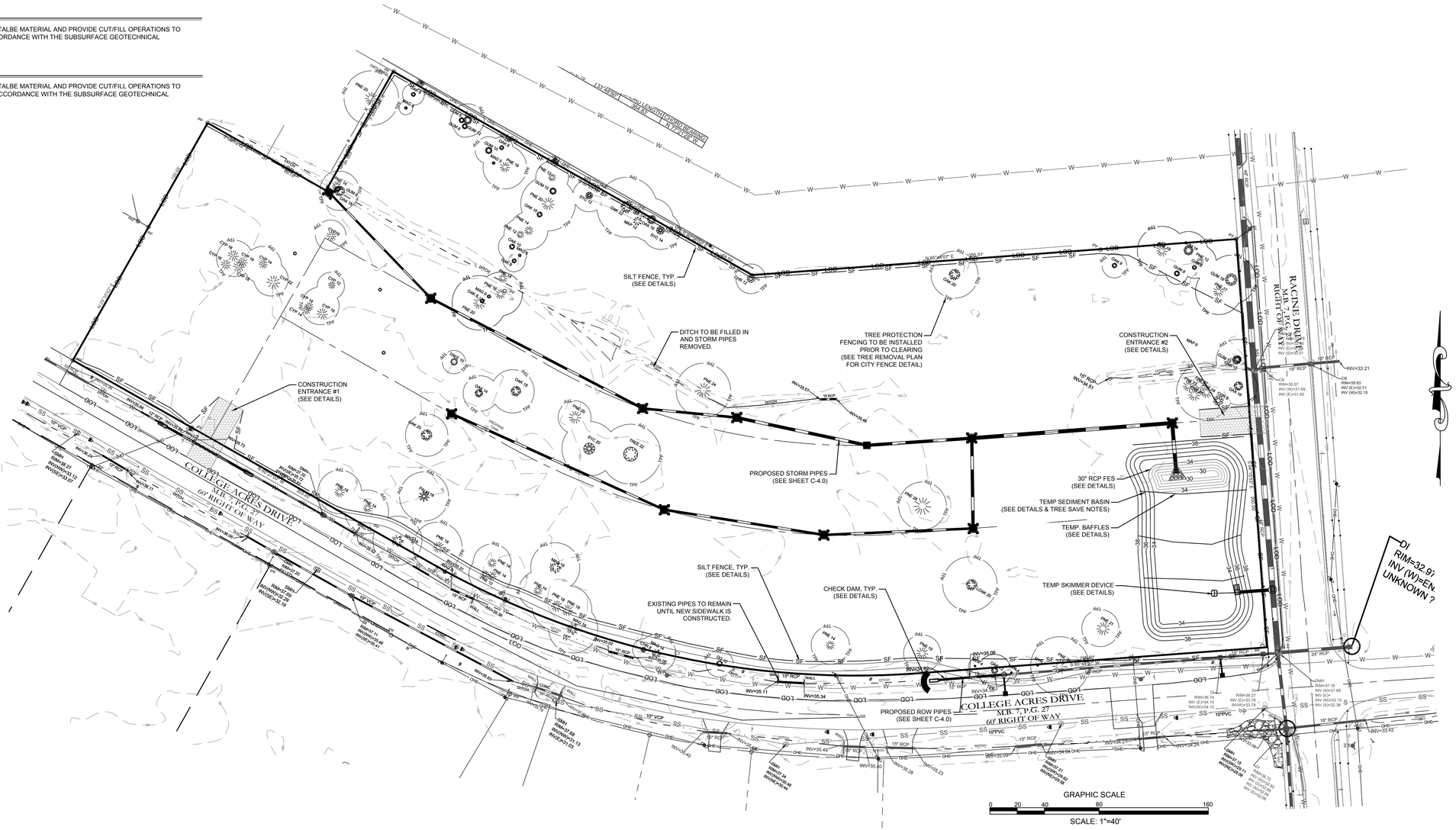
3.) A GEOTECHNICAL ENGINEER OR INSPECTORS SHALL BE CONSULTED TO CONFIRM SUITABILITY OF SUBGRADE MATERIAL AND PROPER COMPACTION PER EARTHWORK SPECIFICATIONS IN FILL AREAS

ASPHALT AREA NOTE:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED SUBGRADE, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

BUILDING PAD NOTE:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED BUILDING PAD, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.



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REVISIONS:

CLIENT INFORMATION:
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5217 MARKET STREET
WILMINGTON, NC 28405

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EROSION CONTROL PH I

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

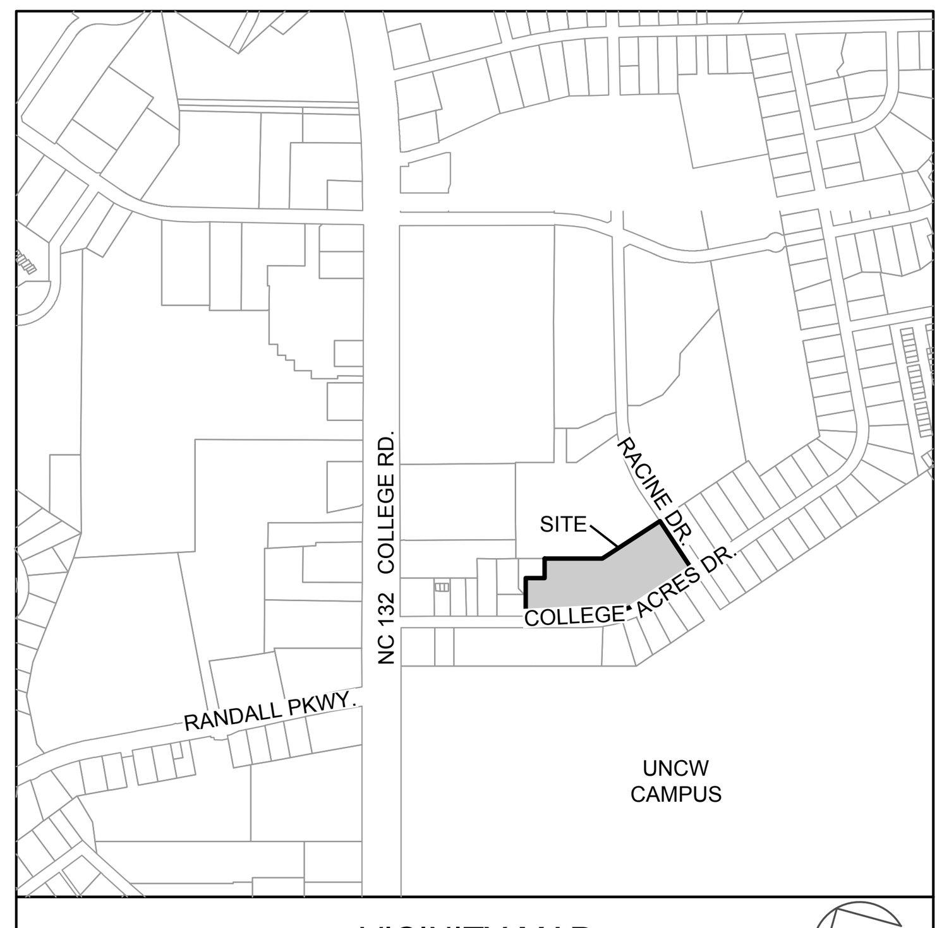
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07/21/19
SCALE: 1" = 40'
DESIGNED: CDR
DRAWN: MWS
CHECKED: JBS

SEAL

C-3.0

PEI JOB#: 19443.PE



VICINITY MAP

SCALE: 1" = 1,000'

NOTES:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITABLE MATERIAL AND PROVIDE STOCKPILE LOCATIONS ON SITE IF NOT SPECIFIED. SEE GENERAL NOTES SHEET FOR GRADING, DRAINAGE, AND EROSION CONTROL NOTES AND REQUIREMENTS. IN ADDITION, REFERENCE TECHNICAL SPECIFICATIONS AND DETAIL SHEETS FOR MORE INFORMATION.

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BUILDING PAD NOTE:

1.) SITE CONTRACTOR SHALL STRIP TOPSOIL AND ANY UNSUITALBE MATERIAL AND PROVIDE CUT/FILL OPERATIONS TO PROVIDE A COMPACTED CONTROLLED BUILDING PAD, IN ACCORDANCE WITH THE SUBSURFACE GEOTECHNICAL EXPLORATION AND TECHNICAL SPECIFICATIONS.

AS-BUILT STORMWATER RULE [15A NCAC 02H.1044]:

1.) THE CONTRACTOR WILL EMPLOY A LAND SURVEYOR LICENSED IN THE STATE OF NORTH CAROLINA TO PROVIDE ACCURATE REPRODUCIBLE AS-BUILT DRAWINGS OF THE WET DETENTION BASIN, COLLECTION SYSTEM, AND IMPERVIOUS AREA ON THE SITE TO THE ENGINEER & OWNER UPON COMPLETION OF CONSTRUCTION. UPON CERTIFICATION BY THE ENGINEER AND VERIFICATION FROM THE OWNER ANY DISCREPANCIES WILL BE INDICATED, THEN THESE PLANS SHALL BE RETURNED TO THE CONTRACTOR FOR CORRECTION PRIOR TO FINAL PAYMENT AND FINAL INSPECTION.

STORM SCHEDULE:

Upstream Node	Downstream Node	Upstream Invert	Downstream Invert	Diameter (In)	Pipe Length (ft)	Slope (%)	Upstream Rim Elev
DI 101	FES 100	31.00	30.00	30	32.7	3.060%	37.17
DI 102	DI 101	31.70	31.00	30	147.2	0.480%	36.80
DI 102-1	DI 102	32.07	31.70	24	66.1	0.560%	36.80
DI 102-2	DI 102-1	32.50	32.07	18	109.3	0.390%	36.50
DI 102-3	DI 102-2	33.00	32.50	18	118.6	0.420%	36.50
DI 102-4	DI 102-3	33.50	33.00	18	170.9	0.290%	36.75
DI 103	DI 102	32.50	31.70	24	77.0	1.040%	36.50
CI 104	DI 103	32.95	32.50	24	97.5	0.460%	37.20
DI 105	CI 104	33.25	32.95	18	69.2	0.430%	36.50
DI 106	DI 105	34.15	33.25	18	174.9	0.510%	37.40
YI 107	DI 106	34.65	34.15	15	107.6	0.460%	36.90

ROOF DRAINAGE & COLLECTION NOTES:

1.) SITE CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR IN PIPING OF DOWNSPOUTS TO CONNECT TO STORM DRAINAGE PIPING OR STORMWATER WETLAND DIRECTLY. UNDERGROUND CONNECTIONS CAN BE MADE WITH BOOTED PLASTIC CONNECTIONS TO HP PIPE OR OTHERWISE PIPED TO STRUCTURES.

DRAINAGE NOTES:

1.) DRAINAGE EASEMENT AND STORMWATER SYSTEM MAINTENANCE IS THE RESPONSIBILITY OF THE DEVELOPER OR HOA, INCLUDING PONDS, PIPES, AND INFILTRATION BASINS AND TRENCHES AS PERMITTED WITH THE STATE AND LOCAL MUNICIPALITY.

2.) ALL IMPERVIOUS MUST DRAIN TO THE DESIGNED STORMWATER SYSTEM UNLESS THE APPROVED PLANS SHOW OTHERWISE.

3.) NO OBSTRUCTIONS ARE ALLOWED IN DRAINAGE EASEMENTS, INCLUDING FENCES.

4.) ALL PUBLIC STORM DRAINAGE STRUCTURES SHALL MEET NCDOT STANDARDS AND SPECIFICATIONS AND SHALL BE TRAFFIC RATED FOR H-20 LOADS AT A MINIMUM. PRIVATE DRAINAGE SYSTEMS SHALL BE PER APPROVED PLANS AND SPECIFICATIONS.

5.) ALL CATCH BASIN (CB) RIM ELEVATIONS ARE LISTED AS THE "GUTTER OF FLOWLINE ELEVATION" WITHIN THE CURB SECTION. THE CONTRACTOR SHALL MAINTAIN A UNIFORM EDGE OF PAVEMENT (EOP) WHEN PLACING THE STORM INLETS WITHIN THE CURB-LINE (SEE "CURB TRANSITION" DETAIL). FOR CATCH BASINS WITHIN A TRANSITION FROM 24" STANDARD CURB & GUTTER, THE RIM ELEVATION GIVEN IS 1 INCH BELOW EOP. FOR MODIFIED VALLEY, THE RIM ELEVATION GIVEN IS 1/2 INCH BELOW EOP.

6.) MANHOLE RIM ELEVATION SHOWN ABOVE IS FLUSH WITH PROPOSED GRADE. CONTRACTOR SHALL PROVIDE 6" CLEARANCE ABOVE PROPOSED GRADE WHEN PLACED IN A GRASS/PERVIOUS AREA; AND A FLUSH CONDITION WITH PROPOSED PAVEMENT OR IMPERVIOUS COVER.

7.) PROPOSED BUILDINGS SHALL DIVERT ROOF DRAINAGE TO STORMWATER COLLECTION SYSTEM. SEE CIVIL OR ARCHITECTURAL DETAILS FOR DOWNSPOUT DETAILS AND CONNECTIONS.

8.) CONTRACTOR SHALL ADJUST ALL FRAMES OF EX. UTILITY INFRASTRUCTURE TO MATCH PROPOSED GRADES.

9.) THE CONTRACTOR SHALL USE STORM PIPE PER THE SPECIFICATIONS (TYPICALLY CONCRETE OR HP PIPE). EITHER WAY THE CONTRACTOR SHALL FOLLOW THE TRENCH DETAILS AND SPECIFICATIONS, AND THE PIPE MANUFACTURER SPECIFICATIONS.

LEGEND:

—— 20 ——	PROPOSED CONTOURS
— — 20 — —	EXISTING CONTOURS
—W——W——W—	WATER LINE
—FM——FM—	FORCEMAIN LINE
—SS——SS—	SANITARY SEWER LINE
———	SANITARY SEWER LATERAL/SERVICE
▬ ▬ ▬	STORM DRAIN LINE
▬ ▬ ▬	ROOF DRAIN LINE
—— 20 ——	PROPOSED CONTOURS
— — — —	PROPOSED SETBACKS
— — — —	PROPOSED BUFFERS/EASEMENTS
—··—··—	PROPOSED POND OUTLINE
● C.O.	SANITARY SEWER CLEANOUT
Ⓢ	SANITARY SEWER MANHOLE
→◆	FIRE HYDRANT ASSEMBLY
⊠	WATER METERS/BACKFLOW ENCLOSURES
⧗	VALVES/APPURTENANCES
TC 20.50 EP 20.00	SPOT GRADES
■	INLET PROTECTION
▨	BUILDING HATCH
▨	CONCRETE PAVEMENT
▨	SIDEWALK
☐	ASPHALT PAVEMENT
▨	RIP-RAP
+ + +	VEGETATION BY TYPE

WETLAND HATCH LEGEND	
▨	SHALLOW MARSH ZONE (SM)
▨	DEEP MARSH ZONE (DM)

CITY OF WILMINGTON NORTH CAROLINA

Public Services ● Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date:____________ Permit #__________________

Signed: ______________________________

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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

SPOT GRADE LEGEND:

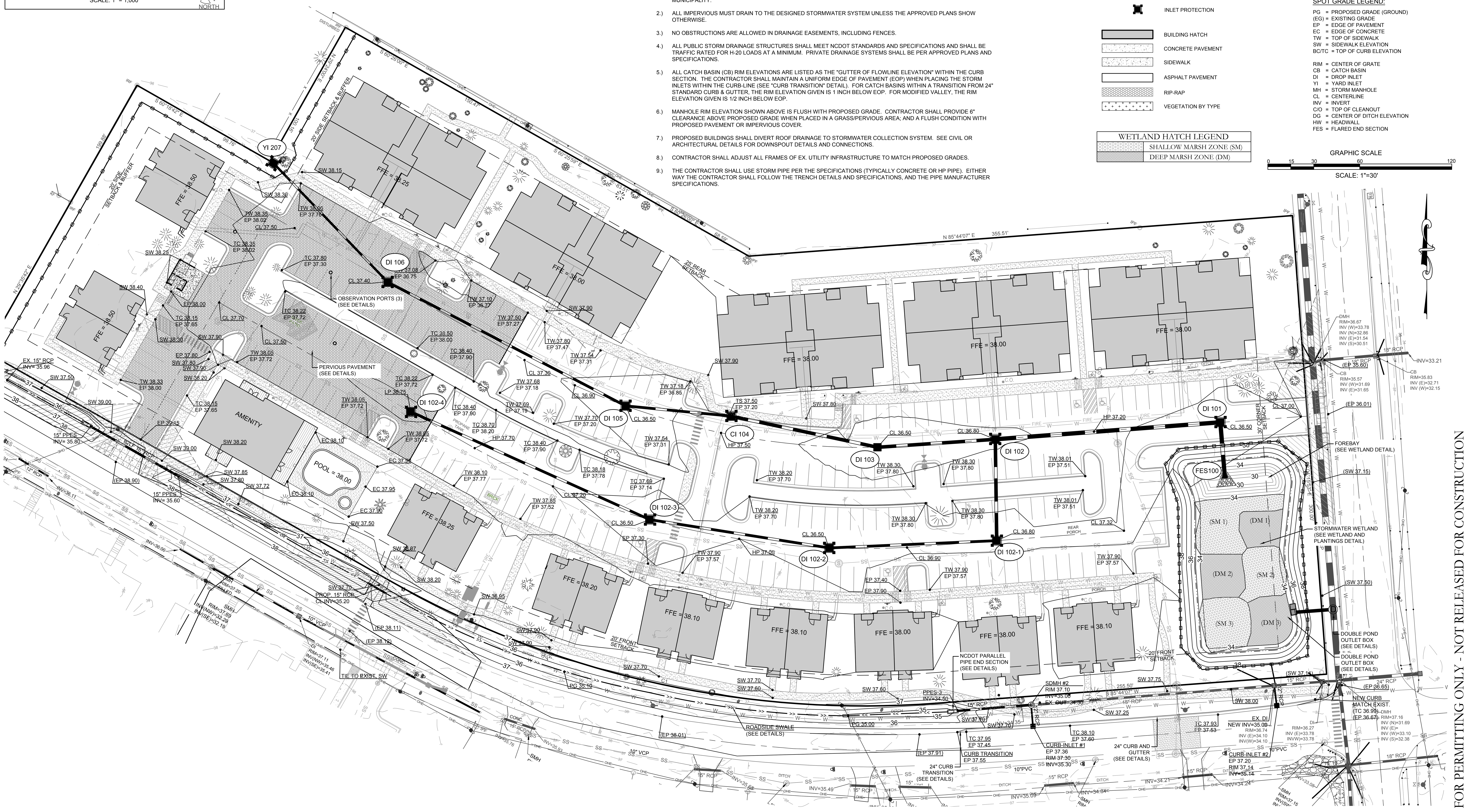
PG = PROPOSED GRADE (GROUND)
(EG) = EXISTING GRADE
EP = EDGE OF PAVEMENT
EC = EDGE OF CONCRETE
TW = TOP OF SIDEWALK
SW = SIDEWALK ELEVATION
BC/TC = TOP OF CURB ELEVATION

RIM = CENTER OF GRATE
CB = CATCH BASIN
DI = DROP INLET
YI = YARD INLET
MH = STORM MANHOLE
CL = CENTERLINE
INV = INVERT
C/O = TOP OF CLEANOUT
DG = CENTER OF DITCH ELEVATION
HW = HEADWALL
FES = FLARED END SECTION

GRAPHIC SCALE

0 15 30 60 120

SCALE: 1"=30'



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NC License #: C-2846

GRADING & DRAINAGE
PHASE II EROSION CONTROL

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

PROJECT STATUS

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PRELIMINARY LAYOUT:
FINAL DESIGN:
RELEASED FOR CONST.:

DRAWING INFORMATION

DATE:	07.29.19
SCALE:	1" = 30'
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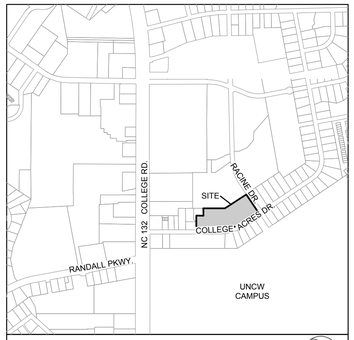
DRAWN:	CDR
CHECKED:	JBS

SEAL

C-4.0

PEI JOB#: 19443.PE



VICINITY MAP
SCALE: 1" = 1,000'
NORTH

UTILITY KEYNOTES:

- A — 8" C-900 PVC MAIN
- B — 6" C-900 PVC MAIN
- C — [1] 12"x6" TS&V
- D — [1] 12"x6" TS&V DOMESTIC
- E — 4" WATER METER VAULT IN FRONT OF SIDEWALK
- F — DOUBLE CHECK DETECTOR ASSEMBLIES FOR FIRE & DOMESTIC
- G — 12"x2" TS&V WITH 1" IRRIGATION METER AND 2" SERVICE LINE (REFER TO IRRIGATION PLANS FOR CONTINUATION)
- H — 2" PVC WATER & FIRE MAINS
- I — 4" C900 WATER & FIRE MAINS
- J — PROPOSED FDC
- K — PROPOSED FIRE HYDRANT
- L — EXISTING FIRE HYDRANT (TYPICAL)
- M — WATER SERVICE CONNECTION TO BUILDING (REFER TO PLUMBING PLANS)
- N — FIRE SERVICE CONNECTION TO BUILDING (REFER TO PLUMBING AND SPRINKLER PLANS)
- O — 6" SANITARY SEWER LATERAL AT 1.50% MINIMUM SLOPE
- P — SANITARY SEWER CLEAN-OUT (TYPICAL)
- Q — EXIST. METERS TO BE REMOVED AT THE MAIN PER CFPUA

CITY OF WILMINGTON NORTH CAROLINA
Public Services ● Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

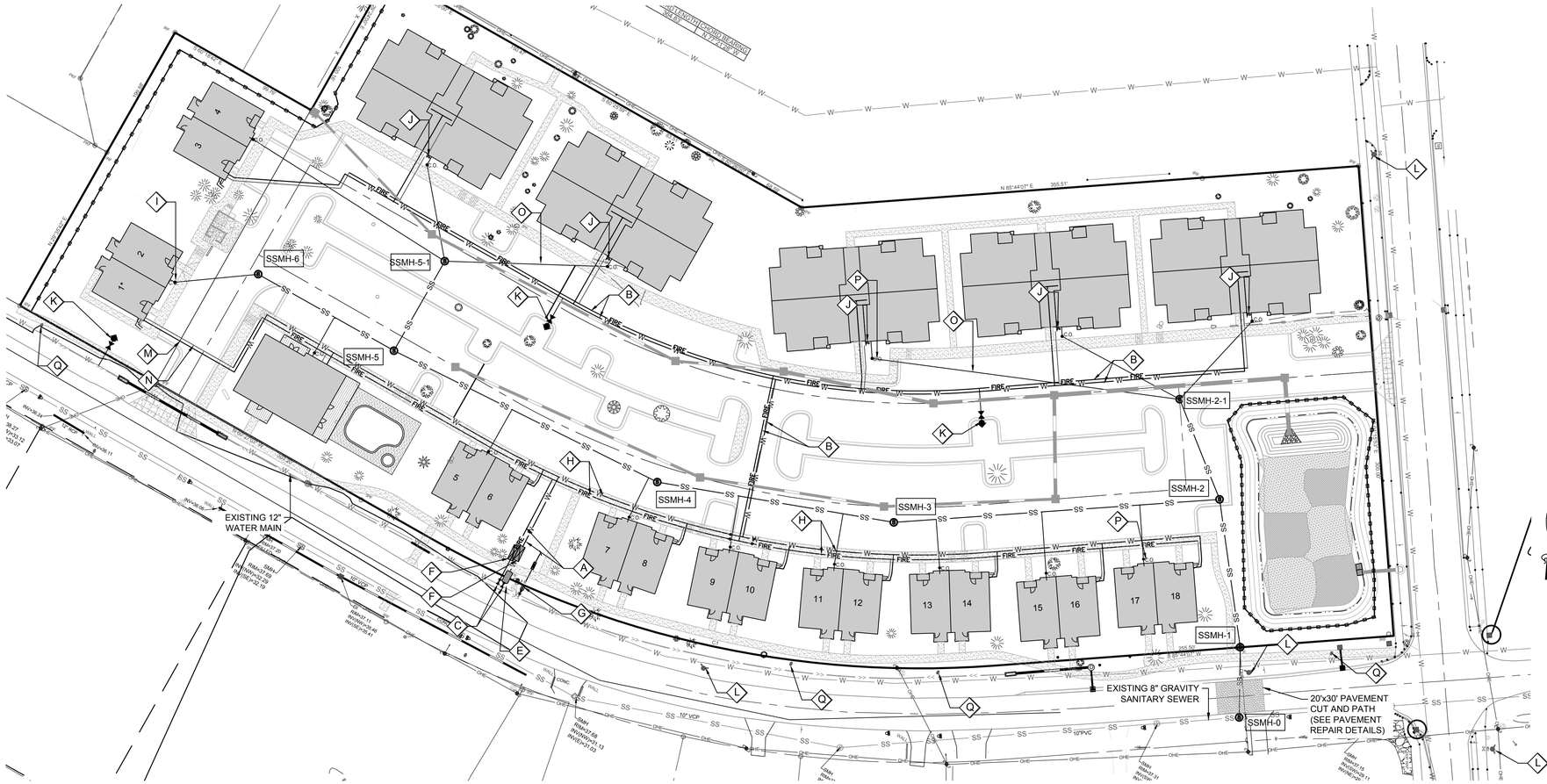
For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:

1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT R/W LINE. SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. NO FLEXIBLE COUPLINGS SHALL BE USED.
5. ALL STAINLESS STEEL FASTENERS SHALL BE 316.

UTILITY NOTES: (NCAC 15A.02T.0305 / T15A.18C.0904-906)

1. WATER MAINS SHALL BE LAID SO AS TO PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET FROM SEWERS. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN CAN BE INSTALLED AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, EITHER IN A SEPARATE TRENCH, OR IN THE SAME TRENCH ON A BENCH OF UNDISTURBED EARTH.
2. WHEN CROSSING A WATER MAIN OVER A SEWER, THE WATER MAIN SHALL BE LAID AT LEAST 18 INCHES ABOVE THE SEWER. IF CONDITIONS EXIST SUCH THAT THIS SEPARATION CANNOT BE ACHIEVED, BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH JOINTS THAT MEET WATER MAIN STANDARDS. THE DUCTILE IRON PIPE SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING WITH A SECTION OF WATER MAIN PIPE CENTERED ON THE CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.
4. WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE.
5. WHERE VERTICAL CLEARANCE IS LESS THAN 18" BETWEEN WATER MAIN AND STORM DRAIN WHEN STORM IS ABOVE WATER, WATER MAIN SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING AND STORM DRAIN SHALL BE RC PIPE. OTHERWISE, A 12" MIN. SEPARATION SHALL BE CONSTRUCTED.
6. MATERIALS, INSTALLATION, AND TESTING FOR PRIVATE UTILITIES SHALL BE IN ACCORDANCE WITH CFPUA SPECIFICATIONS.
7. CONTRACTOR SHALL ABANDON ALL UNUSED SEWER AND WATER TAPS.
8. WATER MAINS SHALL BE BURIED A MIN. OF 30-INCHES OR DEPTH BELOW THE FROST-LINE OR GREATER IF THE LOCAL UTILITY PROVIDER REQUIRES.



FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

UTILITY PLAN

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

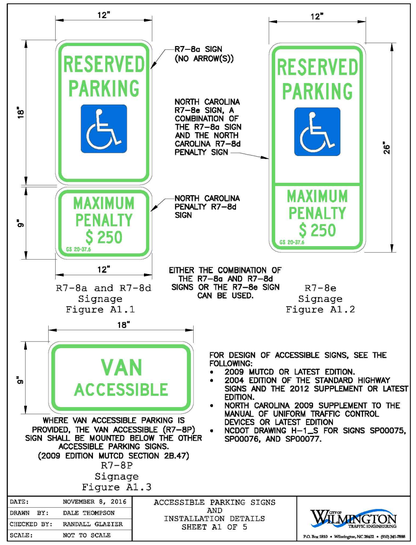
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL LAYOUT:
RELEASED FOR CONST.:

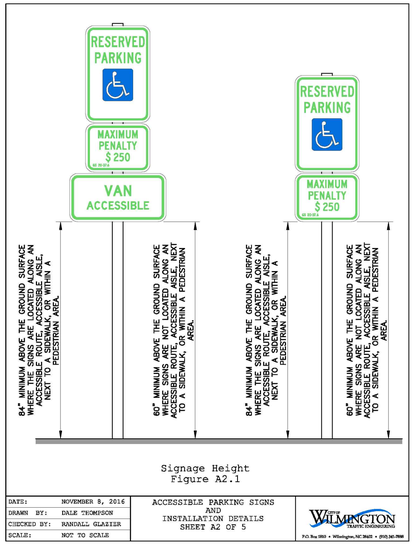
DRAWING INFORMATION
DATE: 08.20.20
SCALE: 1" = 40'
DESIGNED: CDR
DRAWN: CDR
CHECKED: JMS

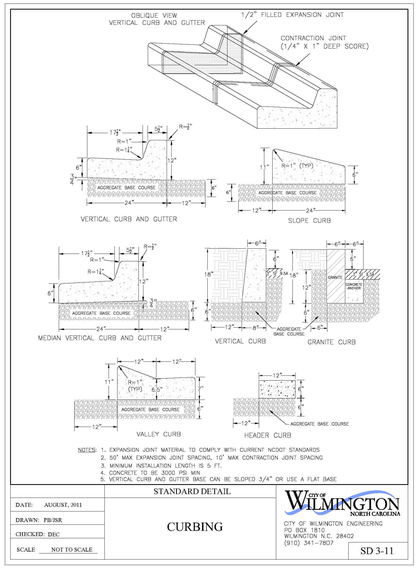
SEAL

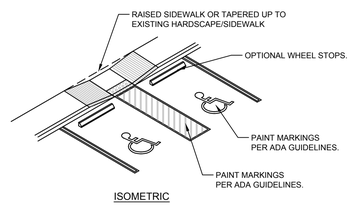
C-5.0

PEI JOB#: 19443.PE









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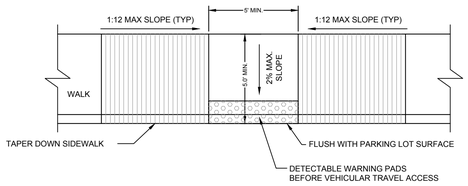
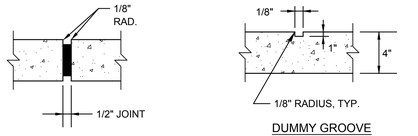


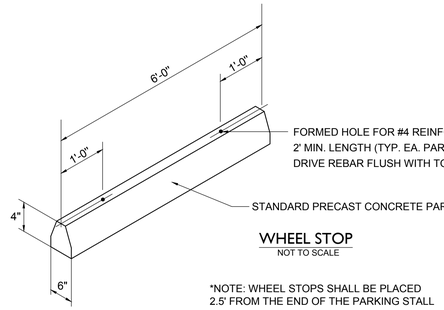
CURB RAMP DETAIL

NOT TO SCALE



SIDEWALK DETAILS

NOT TO SCALE



WHEEL STOP

NOT TO SCALE

*NOTE: WHEEL STOPS SHALL BE PLACED 2.5' FROM THE END OF THE PARKING STALL

CITY OF WILMINGTON NORTH CAROLINA
Public Services ● Engineering Division
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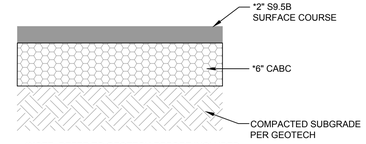
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

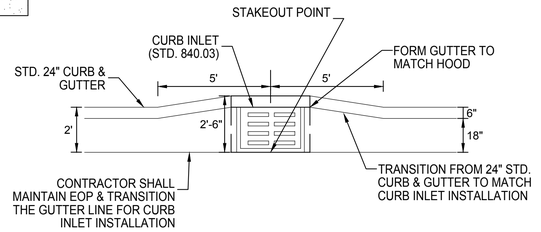
	Name	Date
Planning		
Traffic		
Fire		

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



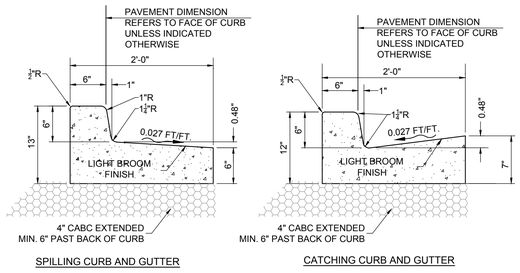
*NOTE: REFER TO GEOTECH REPORT INCLUDED WITHIN THE SPECIFICATIONS FOR PAVEMENT SPECS.

ASPHALT PAVEMENT SECTION



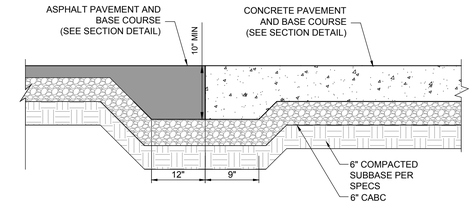
24" CURB & GUTTER TRANSITION DETAIL

NOT TO SCALE

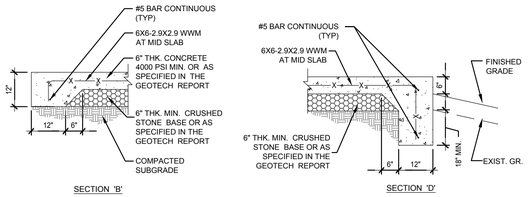


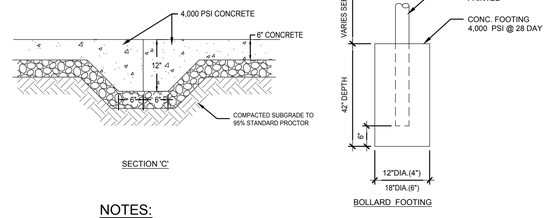
24" CURB AND GUTTER (STD. & SPILL)

NOT TO SCALE



ASPHALT TO CONCRETE TRANSITION (TYPICAL)



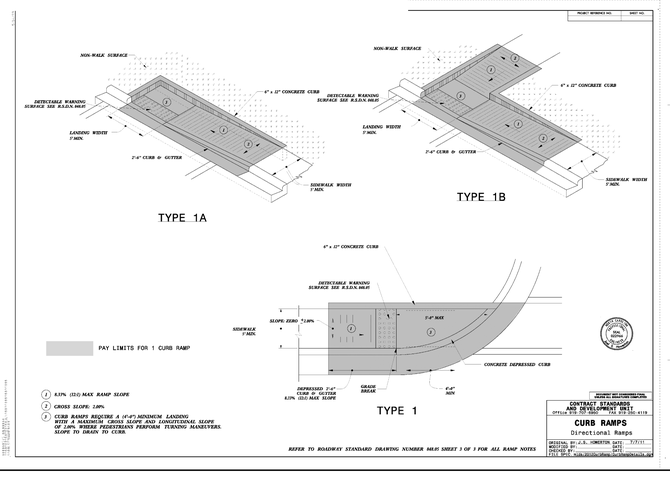


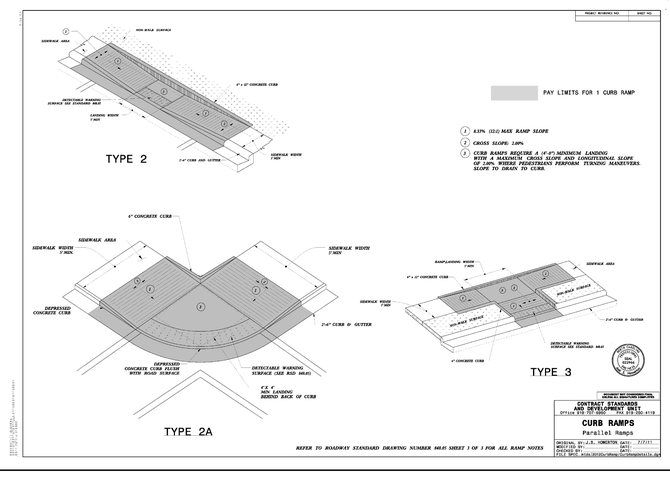
NOTES:

1. DUMPSTER SHALL BE A TRASH COMPACTOR DEVICE AND THE ENCLOSURE AND ACCESS WILL BE PROVIDED BY THE ARCHITECTURAL PLANS.

DUMPSTER PAD DETAILS

NOT TO SCALE





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REVISIONS:

CLIENT INFORMATION:
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5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

DETAILS

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

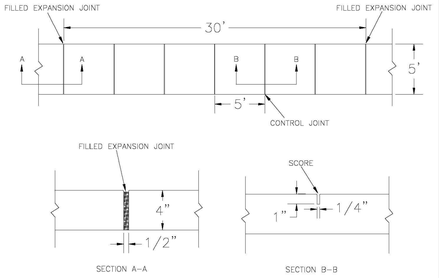
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL LAYOUT:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07.24.19
SCALE: 1" = 30'
DESIGNED: CDR
DRAWN: CDR
CHECKED: JAS

SEAL

C-6.0

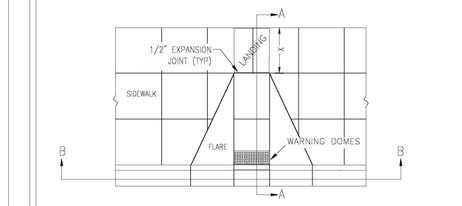
PEI JOB#: 19443.PE



NOTES:

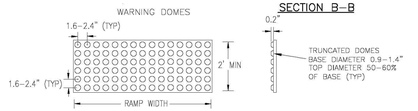
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" - 3,000 PSI.
5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

	STANDARD DETAIL	
DATE: OCTOBER, 2010	SIDEWALK	CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807
DRAWN: PB/JSR		
CHECKED: DEC		
SCALE NOT TO SCALE		SD 3-10



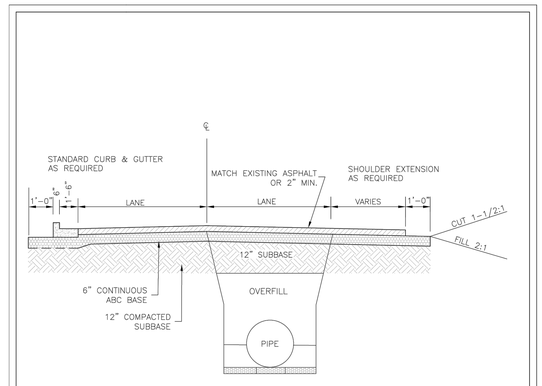
SECTION A-A

SECTION B-B



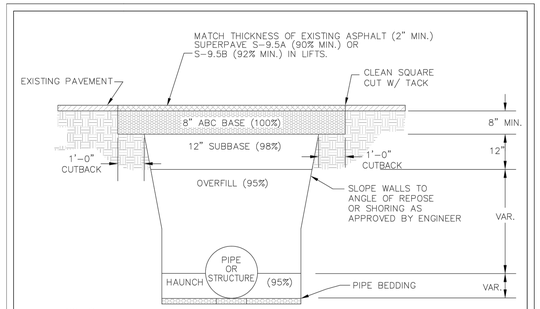
WARNING DOME NOTES:
1. USE CONTRASTING COLORS, RED OR BLACK ON WHITE PAVEMENT.
2. USE CAST IN PLACE PAVERS FOR NEW CONSTRUCTION.
3. RUBBER MATS ARE PERMITTED FOR RETROFITS.
4. LANDING AND RAMP WIDTH MAY BE REDUCED TO 3' WHERE SPACE IS LIMITED AND DESIGN IS APPROVED BY THE CITY ENGINEER.

	STANDARD DETAIL	
DATE: DECEMBER, 2010	PERPENDICULAR CURB RAMP ADJACENT TO WALKING SURFACE	CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807
DRAWN: PB/JSR		
CHECKED: DEC		
SCALE NOT TO SCALE		SD 3-07



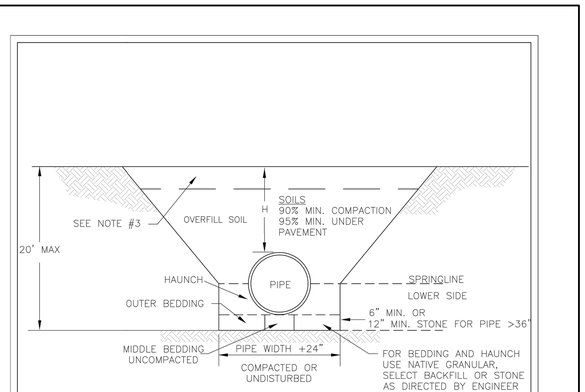
NOTES:
1. PAVEMENT RESTORATION DESIGN IS DEPENDENT ON CITY STREET CUT POLICY AND PERMITTED CONDITIONS.
2. PIPE TRENCH AND COMPACTION REQUIREMENTS PER SPECIFICATIONS. SEE SD 1-07 AND SD1-05.

	STANDARD DETAIL	
DATE: MAY, 2013	TYPICAL ROAD REBUILD	CITY OF WILMINGTON ENGINEERING 212 OPERATIONS CENTER DR. WILMINGTON, NC 28412 (910) 341-7807
DRAWN BY JSR		
CHECKED BY B.R., P.E.		
SCALE NOT TO SCALE		SD 1-04



NOTES:
1. CONTRACTOR SHALL ENSURE BOTTOM OF TRENCH IS SUITABLE FOR INSTALLATION AND DOES NOT REQUIRE FOUNDATION CONDITIONING STONE.
2. FILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
3. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
4. SOIL SHALL BE INSTALLED IN 6"-8" LIFTS AND COMPACTED BY A MECHANIZED TAMPER (I.E JUMPING JACK), HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
5. ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.
6. COMPACT MATERIALS TO MINIMUM % DENSITY SHOWN IN DIAGRAM AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D-698-A FOR SOILS; AND ASTM D-698-C FOR ABC STONE; AND BY NUCLEAR GAUGE OR CORE SAMPLE FOR ASPHALT.
7. CUTBACKS OF ASPHALT SHALL BE PREPARED ON EDGE OF EXCAVATION OVER TOP OF UNDISTURBED SOIL.

	STANDARD DETAIL	
DATE: MAY, 2013	PAVEMENT REPAIRS- UTILITY CUTS	CITY OF WILMINGTON ENGINEERING OFFICE 212 OPERATIONS CENTER DRIVE WILMINGTON N.C. 28412 (910) 341-7807
DRAWN BY JSR		
CHECKED BY D.E.C., P.E.		
SCALE NOT TO SCALE		SD 1-05



NOTES:

1. CONTRACTOR SHALL ENSURE BOTTOM OF TRENCH IS SUITABLE FOR PIPE INSTALLATION AND DOES NOT REQUIRE FOUNDATION CONDITIONING STONE.
2. CONTRACTOR TO INSTALL BEDDING AND PIPE BEFORE INSTALLING HAUNCH AND THEN OVERFILL. SOILS SHALL BE INSTALLED IN 6"-8" LIFTS AND COMPACTED TO MIN. % DENSITY AS DETERMINED BY THE STANDARD PROCTOR ASTM D-698-A METHOD.
3. WHERE IN PAVEMENT, CONTRACTOR SHALL ADHERE TO CITY STREET CUT POLICY AND SD 1-04 OR SD 1-05 FOR ROAD AND PAVEMENT REBUILD.
4. SOIL SHALL BE COMPACTED BY A MECHANIZED TAMP (I.E. JUMPING JACK). HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
5. THIS DETAIL IS REPRESENTATIVE AND PIPE TRENCH DESIGN IS SUBJECT TO SPECIFIC SOIL CATEGORY (I, II, III), AND INSTALLATION TYPE (1, 2, 3, 4), AS DIRECTED BY THE ENGINEER AND SITE CONDITIONS.

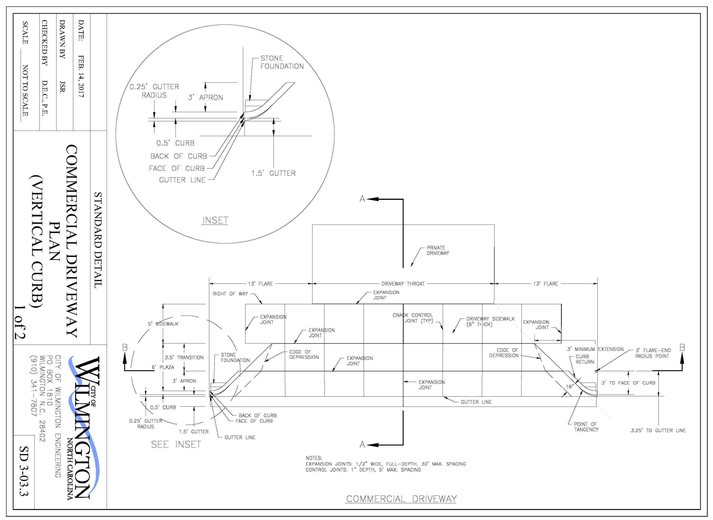
	STANDARD DETAIL	
DATE: MAY, 2013	PIPE TRENCH TYPICAL	CITY OF WILMINGTON ENGINEERING OFFICE 212 OPERATIONS CENTER DRIVE WILMINGTON N.C. 28412 (910) 341-7807
DRAWN: JSR		
CHECKED: BDR, P.E.		
SCALE: NOT TO SCALE		SD 1-07

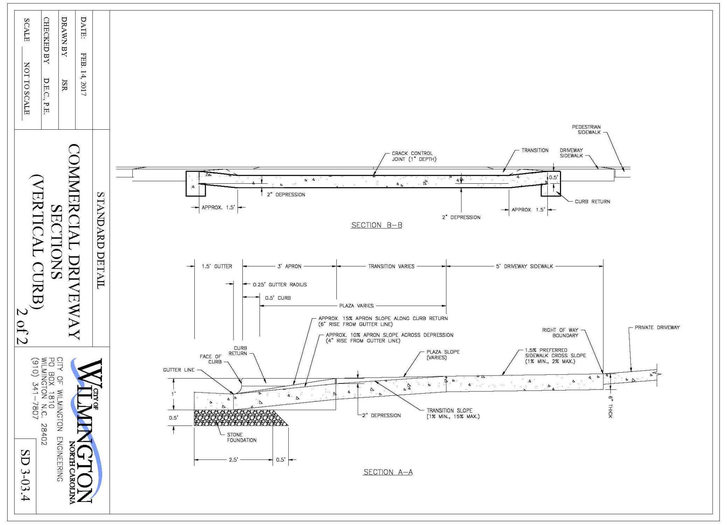
CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

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





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REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

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122 Cinema Drive
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(910) 791-6707 (O) (910) 791-6760 (f)
NC License #: C-2846

DETAILS

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

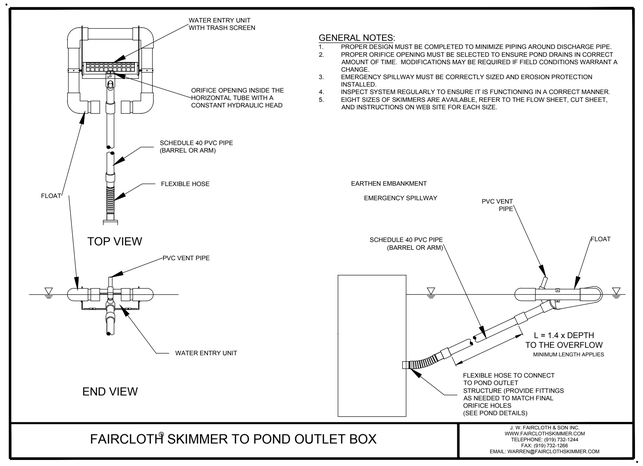
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL LAYOUT:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07.31.19
SCALE: 1" = 30'
DESIGNED: CDR
DRAWN: CDR
CHECKED: JAS

SEAL

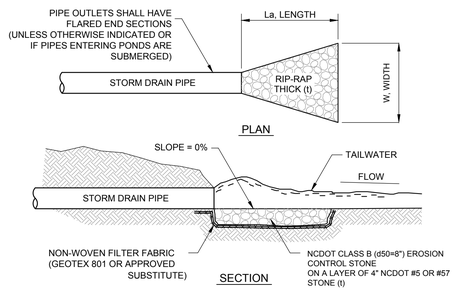
C-6.1

PEI JOB#: 19443.PE



TEMPORARY SKIMMER DEWATERING DEVICE

NOT TO SCALE

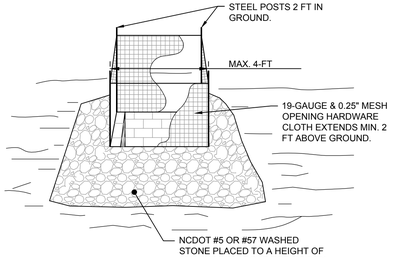


RIP-RAP APRON SCHEDULE

RIPRAP LOCATIONS	PIPE DIA. (IN.)	LENGTH, La (ft)	UPSTREAM WIDTH (FT.)	DOWNSTREAM WIDTH, W (FT.)	STONE THICKNESS t (IN.)
FES 100	30	10.00	3.75	11.25	13.5

RIP-RAP APRON DETAIL

NOT TO SCALE



NOTES:

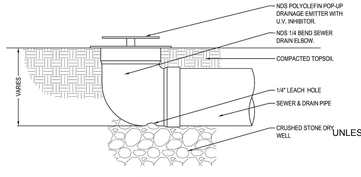
1. DRIVE 5-FOOT STEEL POSTS (1.25 lb/ft steel) 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
2. SURROUND THE POSTS WITH AT LEAST 19-GAUGE HARDWARE CLOTH WITH A 1/4-INCH MESH OPENING. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM FOR A MIN. 2 FEET ABOVE THE GROUND. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING AND REMOVAL IS RECOMMENDED.
3. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET. THE TOP ELEVATION OF THE STRUCTURE MUST BE AT LEAST 12-INCHES LOWER THAN THE SURROUNDING GROUND ELEVATION DOWNSLOPE FROM THE INLET TO ENSURE THAT STORM FLOWS GET INTO THE INTENDED INLET; UNLESS OTHER SEDIMENT-CONTROL DEVICES ARE INSTALLED TO PREVENT OFF-SITE SEDIMENT-RUNOFF.

TEMPORARY INLET PROTECTION

NOT TO SCALE

NDS®
We put water in its place

NDS, INC.
851 NORTH HARVARD AVE.
LINDSAY, CA 93247
TOLL FREE: 1-800-726-1994
PHONE: (559) 562-9888
FAX: (559) 562-4488
www.ndspro.com

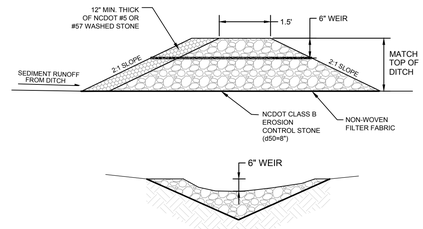


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

DRAINAGE EMITTER
TYPICAL POP-UP DRAINAGE EMITTER

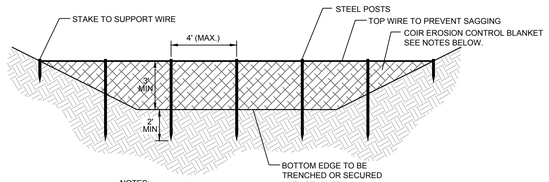
NDS SDS KEY COMPONENT www.ndspro.com/sds

REVISION DATE 8-24-2015



TEMPORARY CHECK DAM DETAIL

NOT TO SCALE

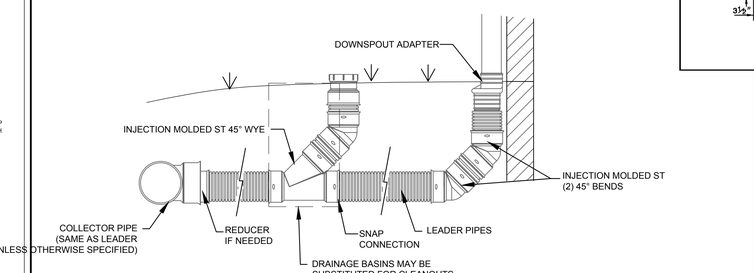


NOTES:

1. INSTALL ONE CONTINUOUS PIECE OF FABRIC ACROSS THE ENTIRE BASIN--DO NOT SPLICE.
2. COIR FIBER MATERIAL SHALL BE 0.30" THICK, TENSILE STRENGTH OF 900x680 lb/ft min, ELONGATION OF 69%x34%, ALLOW 10-12 fps, 700g/m² WEIGHT MIN., WIDTH OF 6.5 FT, AND AT LEAST 50% OPEN AREA.

COIR FIBER BAFFLE DETAIL

NOT TO SCALE



Schedule	
Downspout	Leader Pipe
2" x 3"	4" Dia.
3" x 4"	6" Dia.
4" x 5"	6" Dia.
5" x 5"	8" Dia.
6" x 6"	12" Dia.
3"/4" Dia.	4" Dia.
5"/6" Dia.	6" Dia.

NOTES:

1) FOR ALL DEPTHS OF COVER LESS THAN 24-INCHES AND WILL HAVE TRAFFIC OR PAVEMENT OVERTOP, PIPE MUST BE SCHEDULE 40 PVC. CONSULT WITH ENGINEER AND OWNER FOR AREAS OF CONCERN.

2) THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE PIPE LOCATIONS WITH DOWNSPOUTS PER THE ARCHITECTURE PLANS - THESE PLANS TYPICALLY SHOW CONNECTIONS TO PROVIDED DOWNSPOUTS PER THE ARCHITECT PLANS AT TIME OF ISSUANCE. BUILDING CONTRACTOR IS NORMALLY RESPONSIBLE FOR FOR EXTENDING DOWNSPOUT THROUGH CAP.

3) INSTALL PIPES CLEAR OF PORCHES, BOLLARDS, AND OTHER BUILDING APPURTENANCES.

4) POP-UP DRAINAGE EMITTERS CAN BE INSTALLED IN THE GRASS TO TERMINATE ROOF DRAINS. SEE NDS DETAILS.

TYPICAL ROOF DRAINAGE LEADERS WITH CLEANOUTS

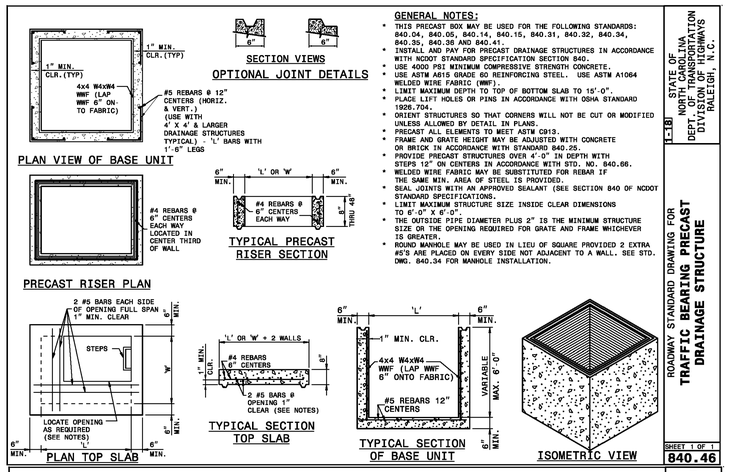
NOT TO SCALE

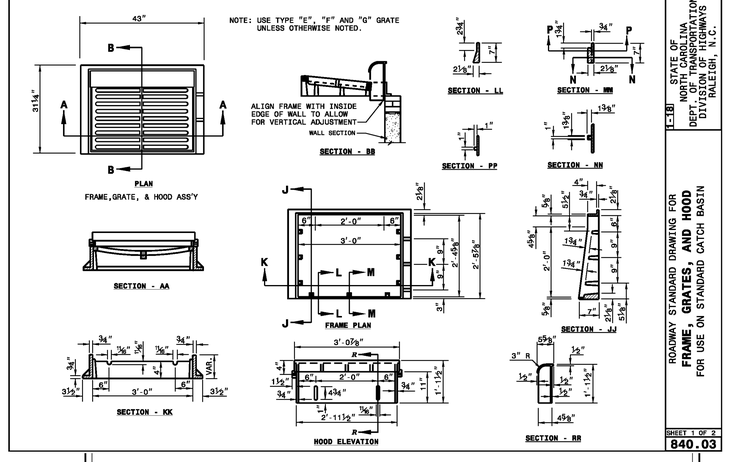
For each open utility cut of City streets, a $325 permit shall be required from the City prior to occupancy and/or project acceptance.

CITY OF WILMINGTON NORTH CAROLINA
Public Services ● Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

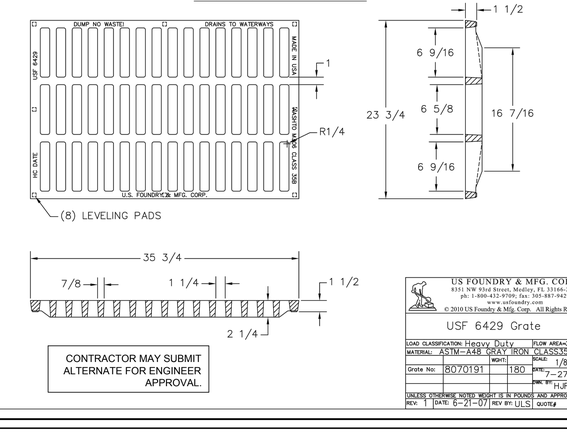
Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		





2X3 DROP INLET GRATE



CONTRACTOR MAY SUBMIT ALTERNATE FOR ENGINEER APPROVAL.

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

DETAILS

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

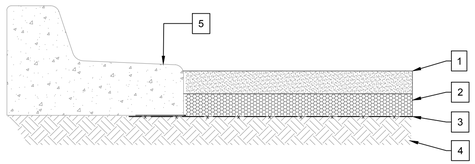
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL:
RELEASED FOR CONST:

DRAWING INFORMATION
DATE: 07-24-19
SCALE: 1" = 30'
DESIGNED: CDR
DRAWING: CDR
CHECKED: JBS

SEAL

C-6.2

PEI JOB#: 19443.PE

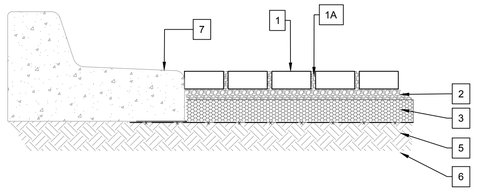


1. 6" PERVIOUS CONCRETE (450PSI FLEX)
2. 6" BEDDING COURSE- ASTM #57 WASHED AGGREGATE (FREE OF FINES)
3. MIRFAI 140N NONWOVEN GEOTEXTILE
4. SUBGRADE SCARIFIED PER GEOTECH ENGINEER
5. 18" CURB AND GUTTER (SEE DETAILS)

NOTES:
1. PERVIOUS CONCRETE SHALL CONFORM TO ALL REQUIREMENTS OF ACI 522.1-13, 'SPECIFICATION FOR PERVIOUS CONCRETE PAVEMENT,' PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE EXCEPT AS MODIFIED BY THESE CONTRACT DOCUMENTS.
2. IN-FIELD INFILTRATION TESTING SHALL CONFIRM ECS SOIL TESTS OF EXISTING CONDITIONS.

PERVIOUS CONCRETE PAVEMENT SECTION
NOT TO SCALE

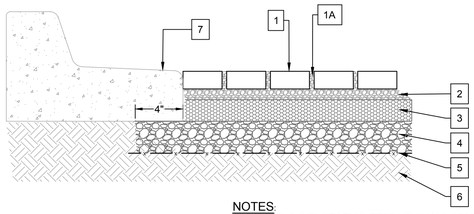
PERVIOUS CONCRETE OPTION 1



1. BELGARD AQUALINE PERMEABLE PAVER (3-1/8")* *OWNER SHALL DETERMINE COLOR
1A. JOINT MATERIAL NO. 8, 89, OR 9 STONE
2. 2" BEDDING COURSE - ASTM #8 AGGREGATE
3. 6" BEDDING COURSE- ASTM #57 AGGREGATE
5. MIRFAI 140N NONWOVEN GEOTEXTILE
6. SUBGRADE COMPACTERD PER GEOTECH REPORT
7. 24" CURB AND GUTTER

NOTES:
1. IN-FIELD INFILTRATION TESTING SHALL CONFIRM ECS SOIL TESTS OF EXISTING CONDITIONS.

PERVIOUS PAVER PARKING SPACE PAVEMENT SECTION
NOT TO SCALE



1. BELGARD AQUALINE PERMEABLE PAVER (3-1/8")* *OWNER SHALL DETERMINE COLOR
1A. JOINT MATERIAL NO. 8, 89, OR 9 STONE
2. 2" BEDDING COURSE - ASTM #8 AGGREGATE
3. 4" BEDDING COURSE- ASTM #57 AGGREGATE
4. 6" SUBBASE COURSE- ASTM #2 OR #3 AGGREGATE
5. MIRFAI 160N NONWOVEN GEOTEXTILE
6. SUBGRADE COMPACTERD PER GEOTECH REPORT
7. 18" CURB AND GUTTER (SEE DETAILS)

NOTES:
1. IN-FIELD INFILTRATION TESTING SHALL CONFIRM ECS SOIL TESTS OF EXISTING CONDITIONS.

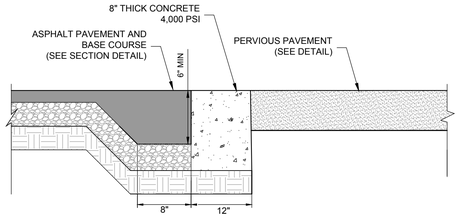
PERVIOUS PAVERS OPTION 2

STORMWATER WETLAND ZONE PLANTINGS:

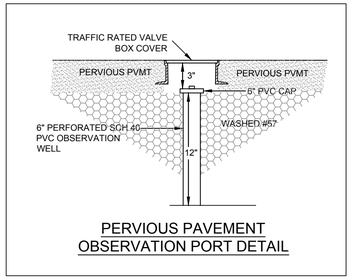
Area #	Common Name	Botanical Name	Size	Quantity	Comments
	Forebay (4'+ below permanent pool)				
FB 1	Spatterdock	Nuphar luteum	Lg Plug (5 - 7 cu. inch)	75	Stagger 6' O.C. in groups of 7 - 9
	Needle Spikerush	Eleocharis acicularis	Lg Plug (5 - 7 cu. inch)	75	Stagger 6' O.C. in groups of 7 - 9
	Pondweed	Potamogeton perfoliatus	Lg Plug (5 - 7 cu. inch)	75	Stagger 6' O.C. in groups of 7 - 9
OUT 1	Spatterdock	Nuphar luteum	Lg Plug (5 - 7 cu. inch)	150	Stagger 6' O.C. in groups of 7 - 9
	Needle Spikerush	Eleocharis acicularis	Lg Plug (5 - 7 cu. inch)	150	Stagger 6' O.C. in groups of 7 - 9
	Pondweed	Potamogeton perfoliatus	Lg Plug (5 - 7 cu. inch)	150	Stagger 6' O.C. in groups of 7 - 9

Area #	Common Name	Botanical Name	Size	Quantity	Comments
	Deep Marsh (1' - 2' below permanent pool)				
DM 1	Giant Cutgrass	Zizaniopsis miliacea	Lg Plug (5 - 7 cu. inch)	327	Stagger 6' O.C. in groups of 7 - 9
	Water Willow	Decodon verticillatus	Lg Plug (5 - 7 cu. inch)	327	Stagger 6' O.C. in groups of 7 - 9
	Buttonbush	Cephalanthus occidentalis	Lg Plug (5 - 7 cu. inch)	327	Stagger 6' O.C. in groups of 7 - 9
DM 2	Giant Cutgrass	Zizaniopsis miliacea	Lg Plug (5 - 7 cu. inch)	272	Stagger 6' O.C. in groups of 7 - 9
	Water Willow	Decodon verticillatus	Lg Plug (5 - 7 cu. inch)	272	Stagger 6' O.C. in groups of 7 - 9
	Buttonbush	Cephalanthus occidentalis	Lg Plug (5 - 7 cu. inch)	272	Stagger 6' O.C. in groups of 7 - 9

Area #	Common Name	Botanical Name	Size	Quantity	Comments
	Shallow Marsh (0'-1'- below permanent pool)				
SM 1	Sweet Flag	Acorus calamus	Lg Plug (5 - 7 cu. inch)	219	Stagger 2' O.C. in groups of 7 - 9
	Arrow Arum	Peltandra virginica	Lg Plug (5 - 7 cu. inch)	219	Stagger 2' O.C. in groups of 7 - 9
	Pickerelweed	Pontederia cordata	Lg Plug (5 - 7 cu. inch)	219	Stagger 2' O.C. in groups of 7 - 9
	Lizard Tail	Saururus cenuus	Lg Plug (5 - 7 cu. inch)	219	Stagger 2' O.C. in groups of 7 - 9
	Duck Potatoe	Sagittaria latifolia	Lg Plug (5 - 7 cu. inch)	219	Stagger 2' O.C. in groups of 7 - 9
SM 2	Sweet Flag	Acorus calamus	Lg Plug (5 - 7 cu. inch)	303	Stagger 2' O.C. in groups of 7 - 9
	Arrow Arum	Peltandra virginica	Lg Plug (5 - 7 cu. inch)	303	Stagger 2' O.C. in groups of 7 - 9
	Pickerelweed	Pontederia cordata	Lg Plug (5 - 7 cu. inch)	303	Stagger 2' O.C. in groups of 7 - 9
	Lizard Tail	Saururus cenuus	Lg Plug (5 - 7 cu. inch)	303	Stagger 2' O.C. in groups of 7 - 9
	Duck Potatoe	Sagittaria latifolia	Lg Plug (5 - 7 cu. inch)	303	Stagger 2' O.C. in groups of 7 - 9
SM 3	Sweet Flag	Acorus calamus	Lg Plug (5 - 7 cu. inch)	20	Stagger 2' O.C. in groups of 5
	Arrow Arum	Peltandra virginica	Lg Plug (5 - 7 cu. inch)	20	Stagger 2' O.C. in groups of 5
	Pickerelweed	Pontederia cordata	Lg Plug (5 - 7 cu. inch)	20	Stagger 2' O.C. in groups of 5
	Lizard Tail	Saururus cenuus	Lg Plug (5 - 7 cu. inch)	20	Stagger 2' O.C. in groups of 5
	Duck Potatoe	Sagittaria latifolia	Lg Plug (5 - 7 cu. inch)	20	Stagger 2' O.C. in groups of 5



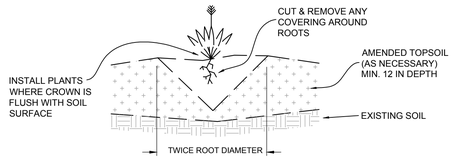
ASPHALT TO PERVIOUS PAVEMENT TRANSITION
(TYPICAL)



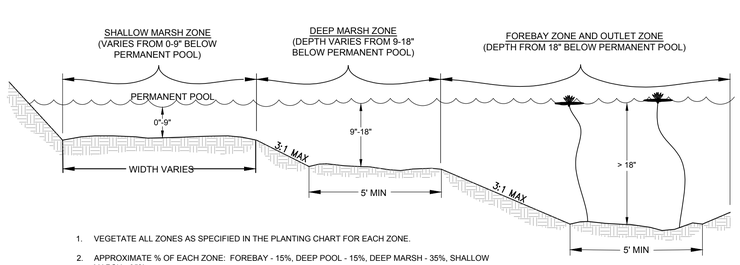
PERVIOUS PAVEMENT OBSERVATION PORT DETAIL

PLANTING SPECIFICATIONS

1. APPROXIMATELY 5 GRAMS OF A BALANCED SLOW RELEASE FERTILIZER SHALL BE INSTALLED NEXT TO EACH HERBACEOUS LARGE PLUG WITHIN THE WETLAND. FERTILIZER MAY BE OMITTED IF 6 INCHES OF FERTILE TOPSOIL HAS BEEN APPLIED THROUGHOUT THE WETLAND.
2. ALL PLANTS SHOULD BE PLANTED IN THE SPECIFIED ZONE TO ENSURE SURVIVAL.
3. AVOID PLANTING INDIVIDUAL SPECIES IN LARGE GROUPS BY SPACING CLUSTERS A MIN. OF 5' APART.
4. ALL ZONES TO BE PLANTED WITH BARE ROOT, PLUGS, OR CONTAINER LIVE PLANTINGS AS SPECIFIED
5. BEGIN PLANTING DURING LOCAL GROWING SEASON IN ORDER TO ENSURE THAT PLANTS HAVE ADAQUET TIME TO ESTABLISH BEFORE WINTER MONTHS.
6. FRESH PLANTS WILL BE OBTAINED FROM A NURSERY AND WILL BE STORED WITH ROOTS IN MOIST SOILS.
7. PLANTINGS WILL BE INSPECTED AND MAINTAINED. PLANTS WILL BE INSPECTED FOR WASHOUT. WASHED OUT PLANTS WILL BE REPLACED.
8. A SUITABLE STAND OF WETLAND PLANTS WILL BE ESTABLISHED WITHIN 8 MONTHS OF PLANTING. A 90% SURVIVAL RATE MEETS THIS OBJECTIVE. SUPPLEMENTAL PLANTINGS WILL BE PROVIDED AS NEEDED TO MEET THIS CRITERIA.

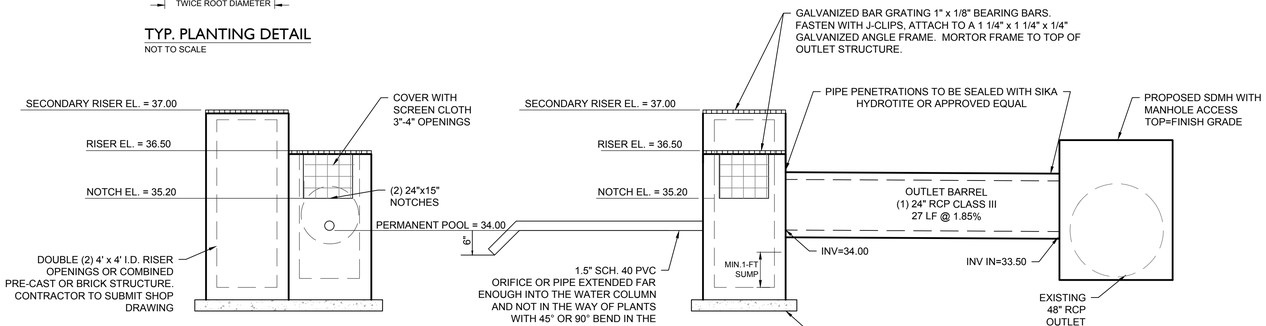


TYP. PLANTING DETAIL
NOT TO SCALE



1. VEGETATE ALL ZONES AS SPECIFIED IN THE PLANTING CHART FOR EACH ZONE.
2. APPROXIMATE % OF EACH ZONE: FOREBAY - 15%, DEEP POOL - 15%, DEEP MARSH - 35%, SHALLOW MARSH - 35%

WETLAND SHALLOW AND DEEP ZONES TYP. SECTION
NOT TO SCALE



DOUBLE OUTLET STRUCTURE DETAIL
NOT TO SCALE

SOIL AMENDMENT SPECIFICATIONS

1. TOPSOIL TO BE ADDED TO TOP OF CONSTRUCTED WETLAND SHELF IF NATIVE SOILS ARE NOT SUITABLE FOR GROWTH OF SELECTED PLANT SPECIES.
2. TOPSOIL SHALL BE WELL MIXED, FREE OF TRASH AND DEBRIS, UNCOMPACTED, AND VOID OF LARGE (>2 INCHES) AND WOODY MATERIAL (>3 INCHES).
3. TOPSOIL (TOP 12") SHALL MEET THE FOLLOWING SPECIFICATIONS:
   SOIL TYPE: CLAY < 60%, SAND < 80%, SILT < 80%
   ORGANIC CONTENT: 5-8%
   P-I: 20<50
   pH: 6.0-7.0
4. IN THE EVENT THAT SELECTED TOPSOIL DOES NOT MEET SPECIFICATION LISTED ABOVE, CONSULT WITH LANDSCAPE ARCHITECT.
5. UPON PLACEMENT OF TOPSOIL, AREA SHOULD BE LIGHTLY COMPACTED TO ENSURE STABILIZATION OF MATERIAL. EXCESSIVE TRAFFICKING OF EQUIPMENT OVER CONSTRUCTED WETLAND PLANTING AREAS SHOULD BE AVOIDED.

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

CITY OF WILMINGTON NORTH CAROLINA
Public Services ● Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

Approved Construction Plan

	Name	Date
Planning		
Traffic		
Fire		

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNT ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

DETAILS

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

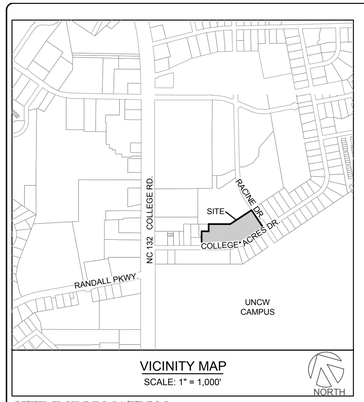
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
FINAL PLANS:
RELEASED FOR CONST.:

DRAWING INFORMATION
07.24.19
DATE:
SCALE: NTS
DESIGNED: CDR
DRAWN BY: CDR
CHECKED: JAS

SEAL

C-6.3

PEI JOB#: 19443.PE



VICINITY MAP
SCALE: 1" = 1,000'

NORTH

SITE INFORMATION:

PARCEL IDs:	R05508-002-007 thru 014-000
CURRENT ZONING:	MF-M (CD)
EXISTING USE:	SINGLE-FAMILY RESIDENCES
PROPOSED USE:	MULTI-FAMILY RESIDENTIAL
PROPERTY AREA:	± 5.53 ACRES (± 241,062 SF)
PROJECT LIMITS AND DISTURBANCE:	± 5.40 ACRES
OWNER INFORMATION:	SEE SHEET C-2.1 SITE INVENTORY PLAN
FLOOD INFORMATION:	THIS PARCEL IS LOCATED IN FLOOD ZONE X, WHICH IS NOT A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY FEMA FLOOD PANEL 3720314700K DATED AUGUST 28, 2018.
FEMA FLOODPLAIN NOTE:	N/A
CONSERVATION RESOURCES DISTRICT:	POCOSIN
OVERLAY ZONE:	COLLEGE RD.
CAMA AREAS OF ENVIRONMENTAL CONCERN:	N/A
CAMA FUTURE LAND USE:	URBAN
EXISTING HISTORIC AND ARCHAEOLOGICAL SITE:	N/A
EXISTING WETLANDS OR STREAMS:	N/A
EXISTING SURFACE WATERS:	N/A

IMPERVIOUS DATA:

IMPERVIOUS AREA:	
EXISTING BUILDING:	20,800 SF
EXISTING PAVEMENT:	13,000 SF
EXISTING GRAVEL:	3,350 SF
TOTAL EXISTING IMPERVIOUS:	37,150 SF (TO BE REMOVED)
PROPOSED BUILDINGS:	53,555 SF
PROPOSED PAVEMENT:	55,950 SF
PROPOSED SIDEWALKS:	11,600 SF
OTHER:	2,740 SF
FUTURE:	2,000 SF
TOTAL NEW IMPERVIOUS:	125,845 SF
OFFSITE IMPERVIOUS:	4,500 SF (TO WETLAND)
PERV. PAVEMENT IMPERVIOUS:	31,355 SF
SW WETLAND IMPERVIOUS:	98,990 SF
NET IMPERVIOUS TO WETLAND:	98,990 - 37,150 SF = 61,840 SF TO WETLAND

BUFFER/ SCREENING INFORMATION:

STREETYARDS: MF-M MULTIPLIER = 18
COLLEGE ACRES = (924 LF OF FRONTAGE - 24' OF DRIVEWAY) X 18 = 16,200 SF
16,200 SF / 600 SF = 27 CANOPY TREES
27 * 6 SHRUBS = 162 SHRUBS (12" HGT. AT PLANTING)
RACINE DRIVE = (290 LF OF FRONTAGE - 24' OF DRIVEWAY) X 9(1/2 MF-M) = 2,394 SF
2,394 SF / 600 SF = 4 CANOPY TREES
4 * 6 SHRUBS = 24 SHRUBS (12" HGT. AT PLANTING)

WEST BUFFER: 403LF x 8' DEPTH MIN. W/ 8' WOOD SCREEN FENCE W/ DOUBLE ROW OF SHRUBS

SCREENING: ALL DUMPSTERS, HVAC, MECHANICAL EQUIPMENT AND ANY OTHER ITEMS REQUIRING SCREENING AS DEFINED BY THE CITY OF WILMINGTON LDC TO BE SCREENED IN ACCORDANCE WITH SECTION 18-504.

LANDSCAPE CALCULATIONS:

REQUIRED FOUNDATION PLANTINGS [(BLDG LENGTH X BLDG HGT) X 12%]

REQUIRED:	
TYPE A (APARTMENT):	(105 X 35) X 0.12 = 441 SF
TYPE B (DUPLEX):	(50 X 28) X 0.12 = 168 SF
CLUBHOUSE:	(68 X 14) X 0.12 = 114 SF
PROVIDED:	
TYPE A (APARTMENT):	830 SF
TYPE B (DUPLEX):	256 SF
CLUBHOUSE:	218 SF
PARKING REQUIREMENTS:	1 CANOPY TREE / ISLAND, GROUNDCOVER OR SHRUBS
SHADE CALCULATIONS:	35% OF 67,550 SF IMPERVIOUS AREA
REQUIRED:	23,643 SF
PROVIDED:	24,746 SF;
	11,312 SF = (16) CANOPY TREES @ 707 SF
	13,434 SF = EXISTING SHADE (SEE PLAN)
OVERALL SITE PLANTING	15 TREES / ACRE
REQUIRED:	83 TREES (15 X 5.53 ACRE)
PROVIDED:	351 TREES (63 PROPOSED + 288 RETAINED CREDIT)

LANDSCAPE NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
2. TREES SHALL BE LOCATED NO CLOSER THAN 5 FEET FROM SEWER/WATER CONNECTIONS OR AS OTHERWISE DICTATED BY LOCAL REGULATIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE UTILITIES.
3. ALL PLANT MATERIAL SHALL MEET THE CURRENT VERSION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
4. NO TREE, OTHER THAN THOSE SHOWN ON APPROVED PLANS FOR REMOVAL WITH THESE PLANS AND/ OR TREE REMOVAL PERMIT PLANS, SHALL BE REMOVED WITHOUT WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
5. ALL SHRUB BEDS AND/OR PLANTING AREAS EXCLUDING TURF AREAS SHALL BE MULCHED WITH 3 INCH MINIMUM AND 4 INCH MAXIMUM DEPTH PINE STRAW MULCH UNLESS OTHERWISE NOTED.
6. ALL PLANTS, 4 FEET OR LESS APART, WILL BE CONNECTED IN ONE PLANTING BED. ALL GROUPS OF PLANTS SHOULD BE WITHIN ONE PLANTING BED WITH THE EDGE OF MULCH EXTENDING 2 FEET BEYOND THE EDGE OF PLANT MASS. ALL SINGLE TREES (INCLUDING BOTH PROPOSED AND EXISTING TREES) SHOULD HAVE A CIRCLE OF MULCH NOT LESS THAN 5 FEET DIAMETER.
7. PLANTING SOIL MIX: MIX EXISTING SOIL WITH THE SOIL AMENDMENTS AND FERTILIZERS IN THE QUANTITIES RECOMMENDED BY THE SOIL TESTING LABORATORY. THIRD PARTY RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE OR AS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
8. ANY AND ALL SUBSTITUTIONS OF PLANT MATERIAL SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. FAILURE IN OBTAINING APPROVAL MAY RESULT IN LIABILITY TO THE CONTRACTOR.
9. THE CONTRACTOR SHALL REPLACE DEAD AND/OR UNHEALTHY PLANT MATERIAL WITHIN 12 MONTHS OF ACCEPTANCE OF THE INSTALLED MATERIAL FROM THE OWNER OR OWNER'S REPRESENTATIVE.
10. THE CONTRACTOR SHALL PREPARE ALL SEEDED OR SODDED AREAS TO ASSURE THAT THE SUBGRADE HAS BEEN RAKED AND ROLLED TO ACCEPT THE SOD/SEED. ALL SOD/SEED AREAS MUST BE IRRIGATED OR HAND WATERED. ALL SOD SHALL BE PLACED WITH STAGGERED JOINTS AND NO GAPS BETWEEN SOD JOINTS. SOD SHOULD BE ROLLED AFTER INSTALLATION. ALL SEEDED AND/OR SODDED AREAS SHOULD PROVIDE A SMOOTH SURFACE FREE OF DIPS AND UNLEVELED GROUND.
11. IRRIGATION SHALL BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATION CONTRACTOR IN THE STATE OF NORTH CAROLINA.
12. IF IRRIGATION IS REQUIRED, PLANS AND SPECIFICATIONS FOR THE IRRIGATION DESIGN SHALL BE SUBMITTED TO THE OWNER OR OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PURCHASE OR INSTALLATION OF THE MATERIALS.
13. CONTRACTOR IS RESPONSIBLE FOR REMOVING TRASH, DEBRIS AND EXCESS MATERIALS FROM THE JOB SITE ONCE THE PROJECT IS COMPLETE. SECURING ANY MATERIALS LEFT ON SITE DURING THE COURSE OF THE PROJECT IS THE CONTRACTOR'S RESPONSIBILITY.
14. ALL DISTURBED AREAS NOT DESIGNATED FOR SOD SHALL BE SEEDED.
15. ALL LANDSCAPE ISLANDS ARE NOT TO BE SEEDED. LANDSCAPE ISLANDS TO BE MULCHED AS PER OWNER OR OWNER'S REPRESENTATIVE SPECIFICATION.
16. ALL VEGETATION PROPOSED WITHIN SIGHT DISTANCE AREAS SHALL NOT INTERFERE WITH SIGHT DISTANCE FROM 30' TO 10'.
17. PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

PLANT SCHEDULE

CANOPY TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
	LO	53	Quercus virginiana Southern Live Oak	10` - 12` H
UNDERSTORY TREES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**SIZE**
	LGM	10	Magnolia g. `Little Gem` Dwarf Southern Magnolia	15 gal - 4`-5` H
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONTAINER**
	AZA	30	Azalea `Red Ruffles` Red Ruffles Azalea	3 gal
	BUX	141	Buxus m. `Wintergreen` Wintergreen Boxwood	7 gal
	DYH	131	Ilex vomitoria `Nana` Dwarf Yaupon	3 gal
	LIG	125	Ligustrum japonicum `East Bay` East Bay Privet	7 gal
	PV	160	Pittosporum t. `Variegata` Variegated Mock Orange	7 gal
	POD	46	Podocarpus m. maki Shrubby Yew Podocarpus	4` ht
ORNAMENTAL GRASSES	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONTAINER**
	PM	174	Muhlenbergia capillaris Pink Muhly	3 gal
	CAS	106	Pennisetum a. `Cassian` Cassian Fountain Grass	1 gal
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**
	AJ	2,463	Trachelospermum a. `Asiatic` Asiatic Jasmine	1 gal

College Acres North Tree Preservation Credit

Qty of Trees	Caliper Inches *	Tree Common Name	Total Tree Caliper Inches to be Preserved	City Tree Mitigation Credit	Mitigation Credit for Preserved Trees (# of trees)
Note: * All listed as total caliper inches for entire tree cluster or single tree trunk caliper in compliance with City of Wilmington					
1	2	CHERRY	2	1	1
2	8	CHERRY	16	2	4
1	12	CYPRESS	12	3	3
3	14	CYPRESS	42	3	9
3	16	CYPRESS	48	3	9
3	18	CYPRESS	54	4	12
1	22	CYPRESS	22	4	4
1	10	DOGWOOD	10	2	2
4	8	GUM	32	2	8
2	10	GUM	20	2	4
1	12	GUM	12	3	3
1	13	GUM	13	3	3
1	14	GUM	14	3	3
1	18	GUM	18	4	4
3	5	MAGNOLIA	15	1	3
2	6	MAGNOLIA	12	2	4
1	14	MAGNOLIA	14	3	3
3	18	MAGNOLIA	54	4	12
1	12	MAPLE	12	3	3
3	4	MYRTLE	12	1	3
5	8	OAK	40	2	10
1	9	OAK	9	2	2
2	10	OAK	20	2	4
1	12	OAK	12	3	3
1	13	OAK	13	3	3
1	14	OAK	14	3	3
2	16	OAK	32	3	6
2	18	OAK	36	4	8
3	20	OAK	60	4	12
1	22	OAK	22	4	4
1	18	PALM	18	4	4
4	12	PINE	48	3	12
8	14	PINE	112	3	24
3	16	PINE	48	3	9
2	17	PINE	34	3	6
5	18	PINE	90	4	20
1	19	PINE	19	4	4
5	20	PINE	100	4	20
2	21	PINE	42	4	8
2	24	PINE	48	4	8
1	28	PINE	28	4.67	5
1	12	SYCAMORE	12	3	3
1	14	SYCAMORE	14	3	3
1	20	SYCAMORE	20	4	4
1	10	UNCLASSIFIED TREE	10	2	2
1	22	UNCLASSIFIED TREE	22	4	4
TOTAL CALIPER INCHES TO BE RETAINED:			1357		
				TOTAL TREE CREDITS	288

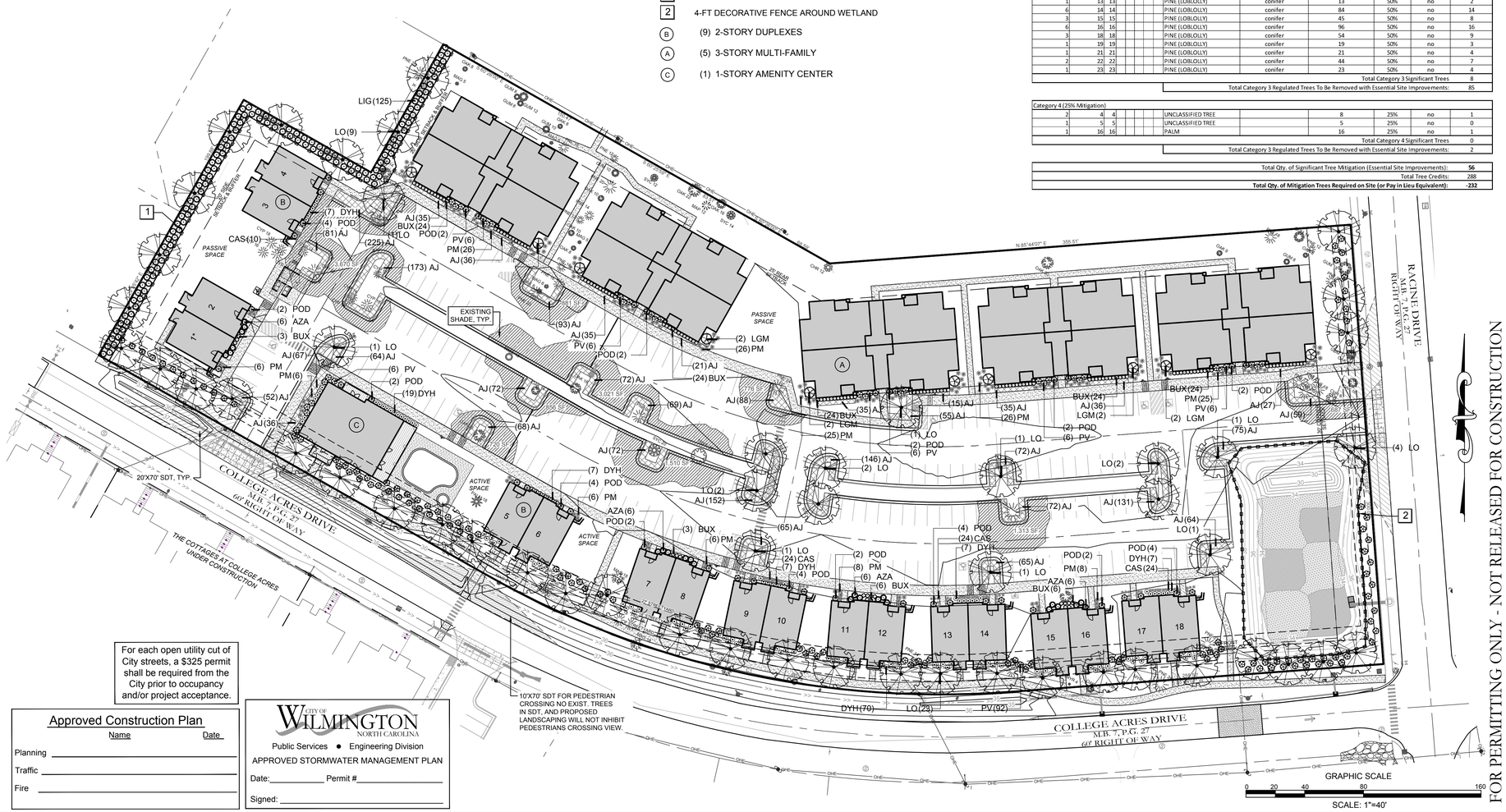
SITE KEYNOTES:

1. 8-FT SCREENING FENCE WITHIN BUFFER
2. 4-FT DECORATIVE FENCE AROUND WETLAND
- (B) (9) 2-STORY DUPLEXES
- (A) (5) 3-STORY MULTI-FAMILY
- (C) (1) 1-STORY AMENITY CENTER

College Acres North Removal & Required Mitigation

Qty of Trees	Caliper Inches*	Individual Trunk Calipers AND Individual Cluster	Tree Common Name	City Tree Type Classification	Total Cal. Inches to be Removed	% Mitigation	Significant	Total Qty. of Mitigation Trees Required
Note: * All listed as total caliper inches for entire tree cluster or single tree trunk caliper in compliance with City of Wilmington Land Development Code definition for " diameter at breast height"								
Essential Site Improvements: It is anticipated that all trees will be removed for essential site improvements, so only significant trees require mitigation								
REGULATED & SIGNIFICANT TREES								
Category 1 (100% Mitigation)								
2	12	12	CYPRESS	conifer	24	100%	yes	16
1	7	7	DOGWOOD	ornamental flowering	7	100%	no	2
1	10	10	DOGWOOD	ornamental flowering	10	100%	yes	3
4	4	4	MAGNOLIA	ornamental flowering	16	100%	no	5
2	5	5	MAGNOLIA	ornamental flowering	10	100%	no	3
1	10	10	MAGNOLIA	ornamental flowering	10	100%	yes	3
1	12	12	MAGNOLIA	ornamental flowering	12	100%	yes	4
1	20	4 4 6 6	MAGNOLIA	ornamental flowering	20	100%	yes	7
4	8	8	MAPLE (RED MAPLE)	hardwood	32	100%	no	11
2	9	9	MAPLE (RED MAPLE)	hardwood	18	100%	no	6
1	12	12	MAPLE (RED MAPLE)	hardwood	12	100%	no	4
1	13	13	MAPLE (RED MAPLE)	hardwood	13	100%	no	4
1	3	3	MYRTLE	ornamental flowering	3	100%	no	1
3	4	4	MYRTLE	ornamental flowering	12	100%	no	4
1	8	8	MYRTLE	ornamental flowering	8	100%	yes	3
1	10	10	MYRTLE	ornamental flowering	10	100%	yes	3
5	8	8	OAK	hardwood	40	100%	no	13
6	10	10	OAK	hardwood	60	100%	no	20
2	12	12	OAK	hardwood	24	100%	no	8
1	14	14	OAK	hardwood	14	100%	no	5
2	16	16	OAK	hardwood	32	100%	no	11
1	18	18	OAK	hardwood	18	100%	no	6
1	20	20	OAK	hardwood	20	100%	no	7
1	26	26	OAK	hardwood	26	100%	yes	9
					Total Category 1 Significant Trees Mitigation Required:			48
					Total Category 1 Regulated Trees To Be Removed with Essential Site Improvements:			158
Category 2 (75% Mitigation)								
2	16	16	CEDAR	conifer	32	75%	no	8
1	18	18	CEDAR	conifer	18	75%	no	5
1	4	4	FIG	ornamentalflowering	4	75%	no	1
2	5	5	FIG	ornamentalflowering	10	75%	no	3
2	6	6	FIG	ornamentalflowering	12	75%	no	3
5	8	8	GUM	hardwood	40	75%	no	10
2	9	9	GUM	hardwood	18	75%	no	5
3	10	10	GUM	hardwood	30	75%	no	8
2	12	12	GUM	hardwood	24	75%	no	6
1	13	13	GUM	hardwood	13	75%	no	3
3	16	16	GUM	hardwood	48	75%	no	12
1	12	12	PECAN	hardwood	12	75%	no	3
					Total Category 2 Significant Trees:			0
					Total Category 2 Regulated Trees To Be Removed with Essential Site Improvements:			65
Category 3 (50% Mitigation)								
2	4	4	CHERRY (BLACK CHERRY)	ornamental flowering	8	50%	no	1
3	6	6	CHERRY (BLACK CHERRY)	ornamental flowering	18	50%	no	3
1	10	10	CHERRY (BLACK CHERRY)	ornamental flowering	10	50%	yes	2
1	14	14	CHERRY (BLACK CHERRY)	ornamental flowering	14	50%	yes	2
1	23	5 5 5 4 4	CHERRY (BLACK CHERRY)	ornamental flowering	23	50%	yes	4
3	12	12	PINE (LOBLOLLY)	conifer	36	50%	no	6
1	13	13	PINE (LOBLOLLY)	conifer	13	50%	no	2
6	14	14	PINE (LOBLOLLY)	conifer	84	50%	no	14
3	15	15	PINE (LOBLOLLY)	conifer	45	50%	no	8
6	16	16	PINE (LOBLOLLY)	conifer	96	50%	no	16
3	18	18	PINE (LOBLOLLY)	conifer	54	50%	no	9
1	19	19	PINE (LOBLOLLY)	conifer	19	50%	no	3
1	21	21	PINE (LOBLOLLY)	conifer	21	50%	no	4
2	22	22	PINE (LOBLOLLY)	conifer	44	50%	no	7
1	23	23	PINE (LOBLOLLY)	conifer	23	50%	no	4
					Total Category 3 Significant Trees			8
					Total Category 3 Regulated Trees To Be Removed with Essential Site Improvements:			85
Category 4 (25% Mitigation)								
2	4	4	UNCLASSIFIED TREE		8	25%	no	1
1	5	5	UNCLASSIFIED TREE		5	25%	no	0
1	16	16	PALM		16	25%	no	1
					Total Category 4 Significant Trees			0
					Total Category 3 Regulated Trees To Be Removed with Essential Site Improvements:			2

Total Qty. of Significant Tree Mitigation (Essential Site Improvements):	56
Total Tree Credits:	288
Total Qty. of Mitigation Trees Required on Site (or Pay in Lieu Equivalent):	**-232**



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

Approved Construction Plan

Name Date

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON NORTH CAROLINA
Public Services ● Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed: _____

FOR PERMITTING ONLY - NOT RELEASED FOR CONSTRUCTION

REVISIONS:

CLIENT INFORMATION:
COLLEGE ACRES DEVELOPMENT, LLC
5217 MARKET STREET
WILMINGTON, NC 28405

PARAMOUNTE ENGINEERING
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
NC License #: C-2846

LANDSCAPE PLAN

COLLEGE ACRES APARTMENTS
COLLEGE ACRES DRIVE
WILMINGTON, NEW HANOVER CO., NC

PROJECT STATUS
CONCEPTUAL LAYOUT
PRELIMINARY LAYOUT
PERMITTING
RELEASED FOR CONST.

DRAWING INFORMATION
DATE: 10-01-20
SCALE: 1"=40'
DESIGNED: JBS
DRAWN: JBS
CHECKED:

SEAL

L-1.0

PEI JOB#: 19443.PE

- ELEVATION HEIGHT EXHIBIT - FRONT ELEVATION OPTION 2 - MANSARD

SCALE: NTS

BROWN INVESTMENT PROPERTIES
ESTABLISHED • 1961

COTTAGES AT COLLEGE ACRES PHASE II

WILMINGTON, NC

AUGUST 4, 2020

SGA
NarmourWright
DESIGN


ROOF BEARING
19' - 9 3/4"
T/O SUBFLOOR 02
10' - 8 1/4"
T/O SLAB
0"

COLLEGE ACRES AMENITY AND POOL HOUSE - STREETYARD VIEW