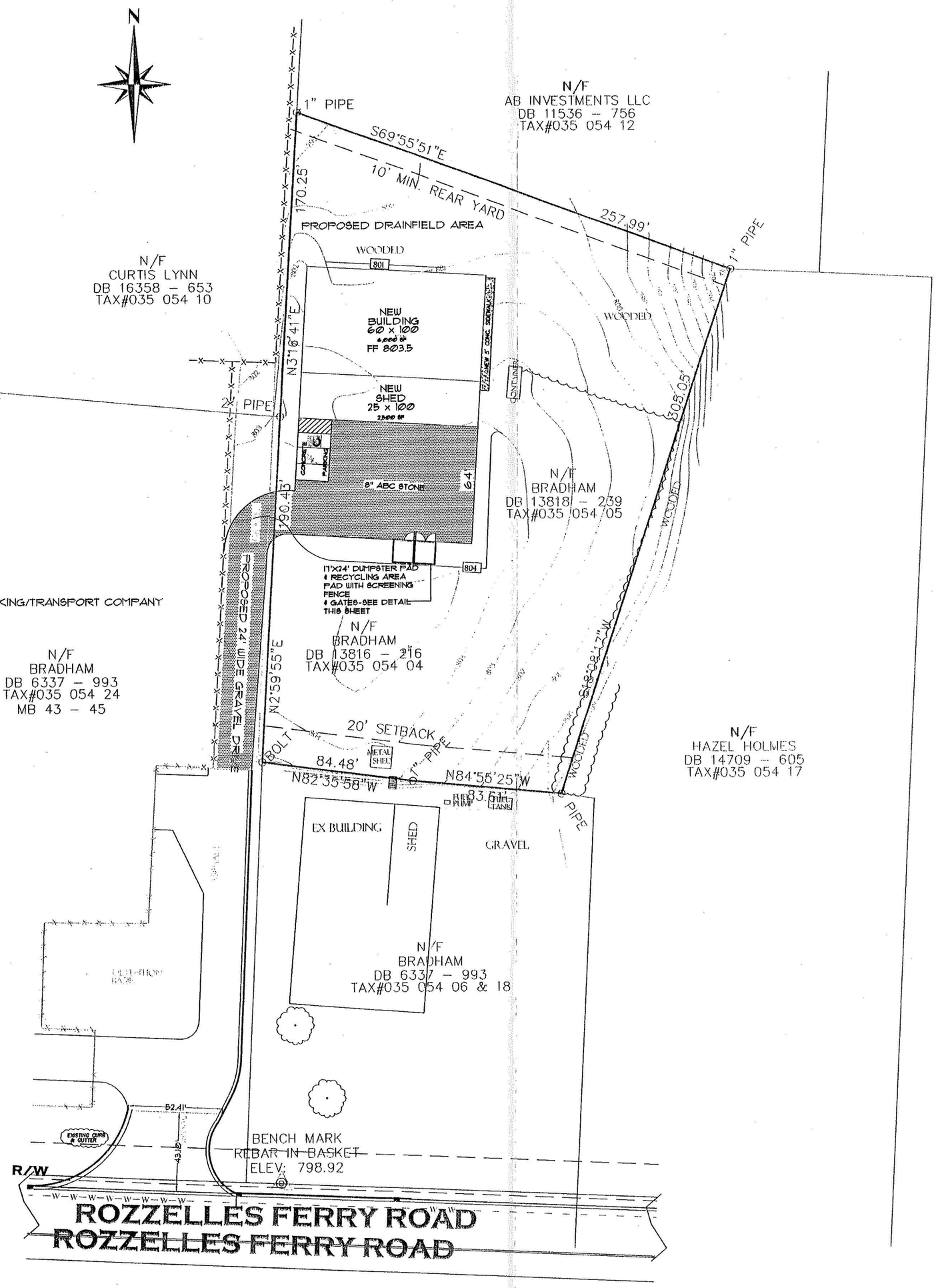


GRADING PLAN

SCALE 1:40

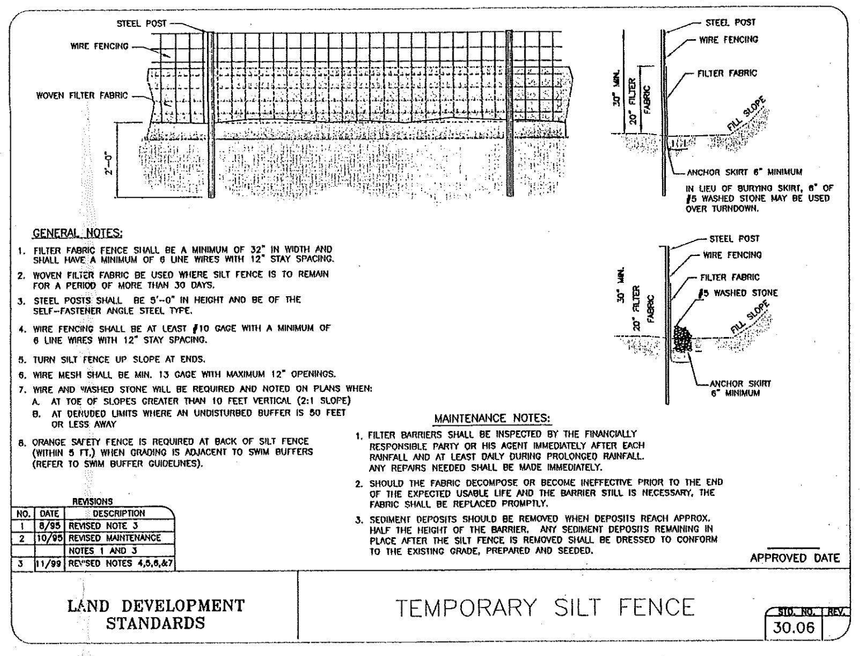
BOUNDARY SURVEY AND TOPOGRAPHIC DATA OBTAINED FROM SURVEY MAPPING OBTAINED FROM OWNER DATED MAY 16, 1989.

TREE PROTECTION NOTES

1. NO SOIL DISTURBANCE OR COMPACTION,CONSTRUCTION MATERIALS,TRAFFIC,BURIAL PITS,TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN TREE PROTECTION ZONE.
2. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION,GRADING,OR CONSTRUCTION BEGINS,AND NOT REMOVED UNTIL FINAL INSPECTION.
3. TREE PROTECTION BARRICADES MUST MEET OR EXCEED TREE ORDINANCE STANDARDS(IN CITY OF CHARLOTTE TREE ORDINANCE GUIDELINES,APPENDIX 3) OR LAND DEVELOPMENT STANDARDS MANUAL 40.02
4. BEFORE GRADING/CLEARING/CONSTRUCTION BEGINS, CALL 704-336-6769 FOR INSPECTION OF TREE PROTECTION BY URBAN FORESTER.
5. NO GRUBBING WITHIN TREE PROTECTION ZONE.LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH . RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.
6. BRUSH, VINES, AND SMALL TREES (<6 IN. DIAMETER, OR AS SMALL AS 2 IN. CALIPER) MAY BE HAND-CLEARED ONLY. CUT FLUSH WITH GROUND SURFACE. EXISTING TREES MAY BE LIMBED UP 6 FEET (LEAVING AT LEAST 2/3 OF THE BRANCHES TO IMPROVE VISIBILITY.
7. EXPOSED TREE ROOTS MUST BE CUT CLEANLY CUT WITH SHARP PRUNING TOOL . BACKFILL ASAP TO MINIMIZE EXPOSURE TO THE AIR.
8. TREE PROTECTION FENCE IS TO BE LOCATED 1 FOOT PER TREE DIAMETER INCH AWAY FROM THE TREE IN THE SETBACK OR RIGHT-OF-WAY.

NOTE : ALL UTILITIES TO BE LOCATED UNDERGROUND.

BEFORE YOU DIG !
CALL 1-800-632-4949
N.C. ONE-CALL CENTER
IT'S THE LAW !



GENERAL NOTES:

1. FILTER FABRIC FENCE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WIRE FENCING SHALL BE AT LEAST #10 GAGE WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
5. TURN SILT FENCE UP SLOPE AT ENDS.
6. WIRE MESH SHALL BE MIN. 13 GAGE WITH MAXIMUM 12" OPENINGS.
7. WIRE AND WASHED STONE WILL BE REQUIRED AND NOTED ON PLANS WHEN:
   A. AT TOE OF SLOPES GREATER THAN 10 FEET VERTICAL (2:1 SLOPE)
   B. AT DESIRED LIMITS WHERE AN UNDISTURBED BUFFER IS 50 FEET OR LESS AWAY
8. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE (WITHIN 5 FT.) WHEN GRADING IS ADJACENT TO SWIM BUFFERS (REFER TO SWIM BUFFER GUIDELINES).

MAINTENANCE NOTES:

1. FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

REVISIONS		
NO.	DATE	DESCRIPTION
1	8/95	REVISED NOTE 3
2	10/95	REVISED MAINTENANCE NOTES 1 AND 3
3	11/99	REVISED NOTES 4,5,6,&7

APPROVED DATE

LAND DEVELOPMENT STANDARDS

TEMPORARY SILT FENCE

STD. NO. | REV.
30.06

GENERAL GRADING & SITE NOTES

(1) THE UTILITIES AND THE LOCATIONS THEREOF, SHOWN ON THE PLANS, REPRESENT THE DESIGNERS UNDERSTANDING OF EXISTING UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH, AND EXISTENCE OF ALL UTILITIES (ELECTRICAL, MECHANICAL, GAS, WATER, TELEPHONE, ETC.) WITHIN THE CONSTRUCTION AREA WITH THE OWNER AND/ OR THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING ANY EXCAVATION. THE OMISSION OR, OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF, OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTACT U-LOCO (800-632-4949).

(2) EXISTING UTILITY LOCATIONS, EXISTING TREE LOCATIONS, EXISTING BOUNDARY, SITE DESIGN AND PROPOSED GRADING ARE BASED UPON INFORMATION OBTAINED FROM SURVEY PERFORMED BY ROBERT S. SPIDEL DATED NOVEMBER 19, 2003 AND WHICH ARE A PART OF THESE PLANS AND SPECIFICATIONS.

(3) ALL LANDSCAPE AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

(4) APPROVAL OF THIS PLAN IS NOT AN AUTHORIZED TO GRADE ADJACENT PROPERTIES WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING CONTRACTOR MUST HAVE WRITTEN PERMISSION FROM THE OWNER(S) BEFORE PROCEEDING.

(5) ALL CONSTRUCTION AND CONSTRUCTION MATERIALS WITHIN CABARRUS COUNTY RIGHT-OF-WAY AND NCDOT RIGHT-OF-WAY SHALL CONFORM TO THEIR STANDARD SPECIFICATIONS.

(6) CONTRACTOR TO PROVIDE ALL EROSION CONTROL MEASURES AS REQUIRED BY LOCAL AND STATE REGULATIONS.

(7) ALL HANDICAPPED RAMPS, PARKING SPACES, ETC. TO MEET ALL APPLICABLE ACCESSIBILITY CODES.

(8) THE CONTRACTOR SHALL REFER TO ARCHITECTURAL / CIVIL DRAWINGS FOR THE LOCATION AND DIMENSIONS OF BUILDING AND SURROUNDING AREA.

(9) USE TEE, BENDS, TEES, ETC. AS NECESSARY FOR ALL DRAINING PIPES, ROOF LEADERS, DOWNSPOUTS, ETC.

(10) CONTRACTOR TO SUBMIT ALL SITE CONSTRUCTION SHOP DRAWINGS TO ENGINEER FOR APPROVAL. ANY SUBSTITUTIONS OR REVISIONS TO MATERIALS OR CONSTRUCTION SHALL BE APPROVED BY ENGINEER PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES.

(11) ALL CONSTRUCTION AND CONSTRUCTION MATERIALS SHALL CONFORM TO GASTON COUNTY LAND DEVELOPMENT STANDARDS.

(12) TOPSOIL TO BE STRIPPED AND STOCKPILED IN AREA DESIGNATED BY ENGINEER.

(13) ANY UNSUITABLE MATERIALS ARE TO BE QUALIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO REMOVAL. CONTRACTOR MUST NOTIFY OWNER OR OWNER'S REPRESENTATIVE IF UNSUITABLE MATERIAL IS UNCOVERED.

(14) ANY EXCESS SOIL SHALL BE WASTED ON-SITE IN AREA DESIGNATED BY ENGINEER. WASTE AREAS SHALL BE STABILIZED TO ENSURE EROSION CONTROL OF SLOPED AREAS.

(15) CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER IF SUBSURFACE DRAINAGE SYSTEMS ARE INSTALLED. IF INITIAL SOILS REPORT RECOMMENDS THE INSTALLATION OF SUBSURFACE DRAINAGE SYSTEMS BENEATH FOOTING AND BUILDING AREAS, CONNECTIONS ARE TO BE FIELD COORDINATED.

(16) ANY GRADING BEYOND THE SPECIFIED DENUDED LIMITS IS A VIOLATION OF THE EROSION CONTROL ORDINANCE AND SUBJECT TO A FINE.

(17) GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE EROSION CONTROL ORDINANCE AND SUBJECT TO A FINE.

(18) STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THIS PLAN. ALL GRADED SLOPES MUST BE SEEDED AND MULCHED WITHIN 30 DAYS OF COMPLETION OF GRADING ACTIVITIES. ALL REMAINING AREAS ARE TO BE SEEDED AND MULCHED WITHIN 120 DAYS.

ECP LEGEND

850	EXISTING CONTOUR
850	FINISHED CONTOUR
DL	DENUDED LIMIT
	CONSTRUCTION ENTRANCE - 30.11A
	INLET SEDIMENT TRAP - 30.08
TSD	TEMPORARY SILT DITCH - STD. 30.05
	ROCK CHECK DAM - STD. 30.10
	SEDIMENTATION BASIN- 30.02
SF	SILT FENCE- 30.06

SITE DATA

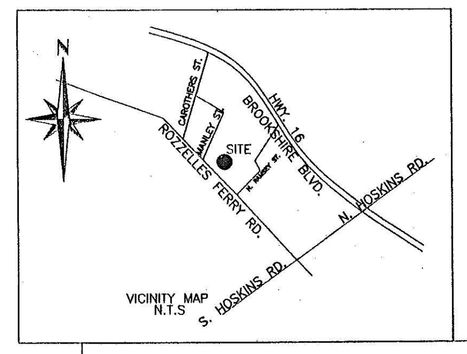
ZONING: I-1(CD)
PIN # 03903412
TOTAL AREA - 3.831 AC.
141,538 SF
DENUDED AREA - 0.21 AC.
EXIST.BUILDING AREA -4,160 SF
NEW BUILDING AREA -7,000 SF
TOTAL BUILDING AREA -11,160 SF

EXIST.IMPERVIOUS AREA - 20,369 SF
NEW IMPERVIOUS AREA - 7,000 SF
TOTAL IMPERVIOUS AREA - 27,369 SF
% IMPERVIOUS AREA - 19%

DRIVEWAY ACCESS

ZONING: I-1(CD)
PIN # 03903402
TOTAL AREA - 3.831 AC.
141,538 SF
EXIST.PAVEMENT - 15,609 SF

BUILDING SETBACKS
FRONT -20'
REAR - 10'
SIDE - 0'



OWNER
NORBERT STEINWEDEL
4420 ROZZELLES FERRY RD.
CHARLOTTE, N.C. 28216

DESIGNER
RAYMOND CATHEY, PE
4260 RACEWAY DR.
CONCORD, N.C. 28027
704-793-4092

CATHEY & ASSOCIATES, INC.
4462 RACEWAY DR.
CONCORD, NC 28027
P.O. BOX 819
HARRISBURG, N.C. 28075
(704) 793-4032 FAX (704) 793-4137

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LICENSED CONTRACTORS, IN THEIR RESPECTIVE TRADES SHALL FOLLOW ALL OSHA SAFETY GUIDELINES.

NORTH CAROLINA PROFESSIONAL SEAL 4842 ENGINEER RAYMOND H. CATHEY
2/16/06

PROJECT TITLE: NEW BUILDING DESIGN FOR:
BRADHAM BROTHERS, INC.
6128 ROZZELLE'S FERRY ROAD, CHARLOTTE, NC 28214

SHEET TITLE: GRADING PLAN
STORMWATER PLAN

DATE: MAY 2006
DRAWN BY: ARH
CHECKED BY: RAY CATHEY

REVISIONS:

SHEET
C-04

05756-4