

VICINITY MAP
NOT TO SCALE



EROSION CONTROL LEGEND

- 10- EXISTING CONTOURS
- 10- PROPOSED CONTOURS
- [Symbol] STABILIZED CONSTRUCTION ENTRANCE
- [Symbol] ROCK CHECK DAM
- [Symbol] TEMPORARY SILT FENCE
- [Symbol] CONSTRUCTION LIMITS
- [Symbol] TEMPORARY SEDIMENT TRAP
- [Symbol] TD TEMPORARY DIVERSION DITCH

EROSION CONTROL SEQUENCE

1. OBTAIN GRADING PERMIT.
2. INSTALL SILT FENCE, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
3. MAINTAIN EROSION CONTROL DEVICES AS NEEDED.
4. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
5. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE AND U. S. SOIL CONSERVATION SERVICE.
6. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION.
7. WHEN ALL PROPOSED GRADES ARE ESTABLISHED, SEED AND MULCH ALL DISTURBED AREAS, CONTACT CHINA GROVE PLANNING DEPARTMENT (704-857-2466) FOR FINAL INSPECTION.
8. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES, WHEN FIELD CONDITIONS WARRANT OFFSITE GRADING, CONTRACTOR MUST HAVE WRITTEN PERMISSION FROM THE OWNER BEFORE PROCEEDING.
9. CONTACT PERSON FOR THIS LAND DISTURBING ACTIVITY IS MICHAEL KANEY OF CENTURION DEVELOPMENT (704) 598-8056
10. ONLY AFTER DISTURBED AREAS HAVE BEEN STABILIZED MAY THE EROSION CONTROL DEVICES BE REMOVED.
11. CONTRACTOR SHALL NOTIFY ROWAN COUNTY ENVIRONMENTAL SERVICES (704-638-3078) OF EXCESS SOIL PLACEMENT BEFORE REMOVAL.

SEQUENCE OF CONSTRUCTION

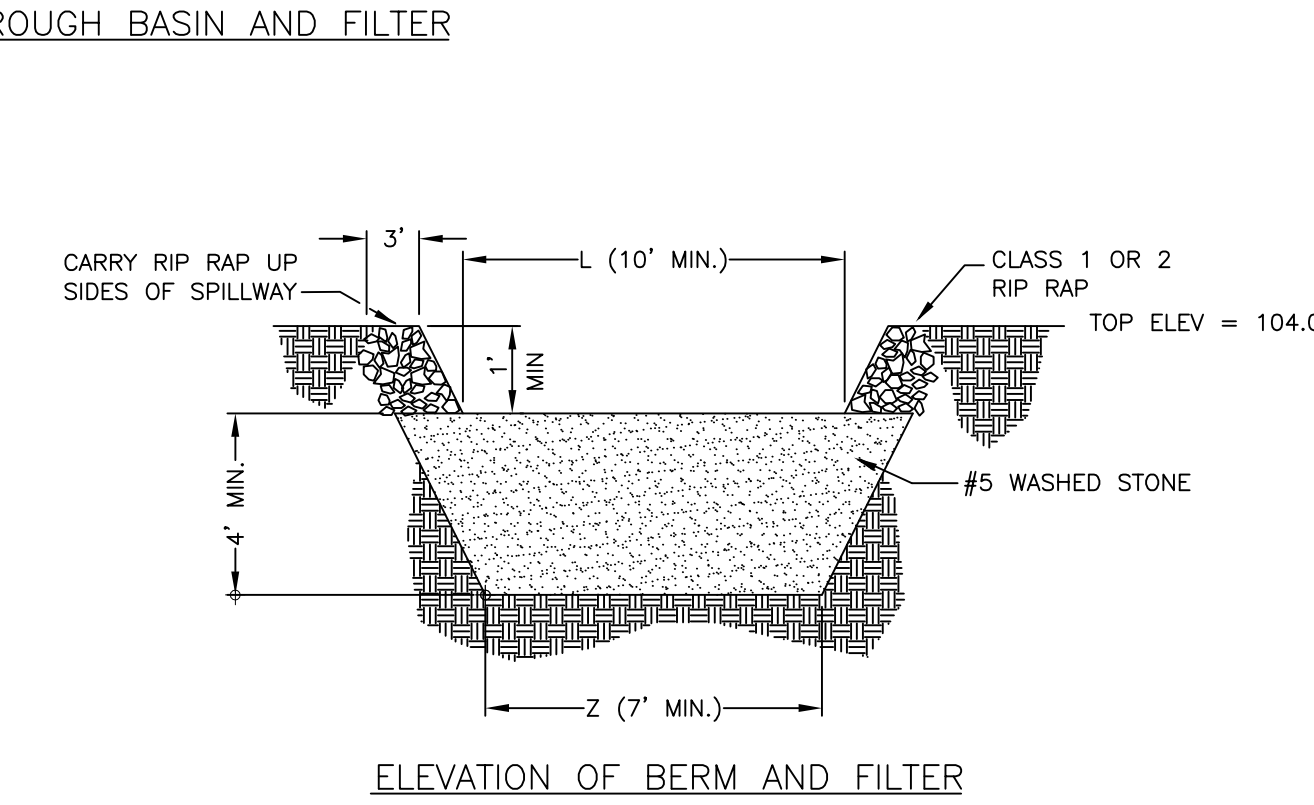
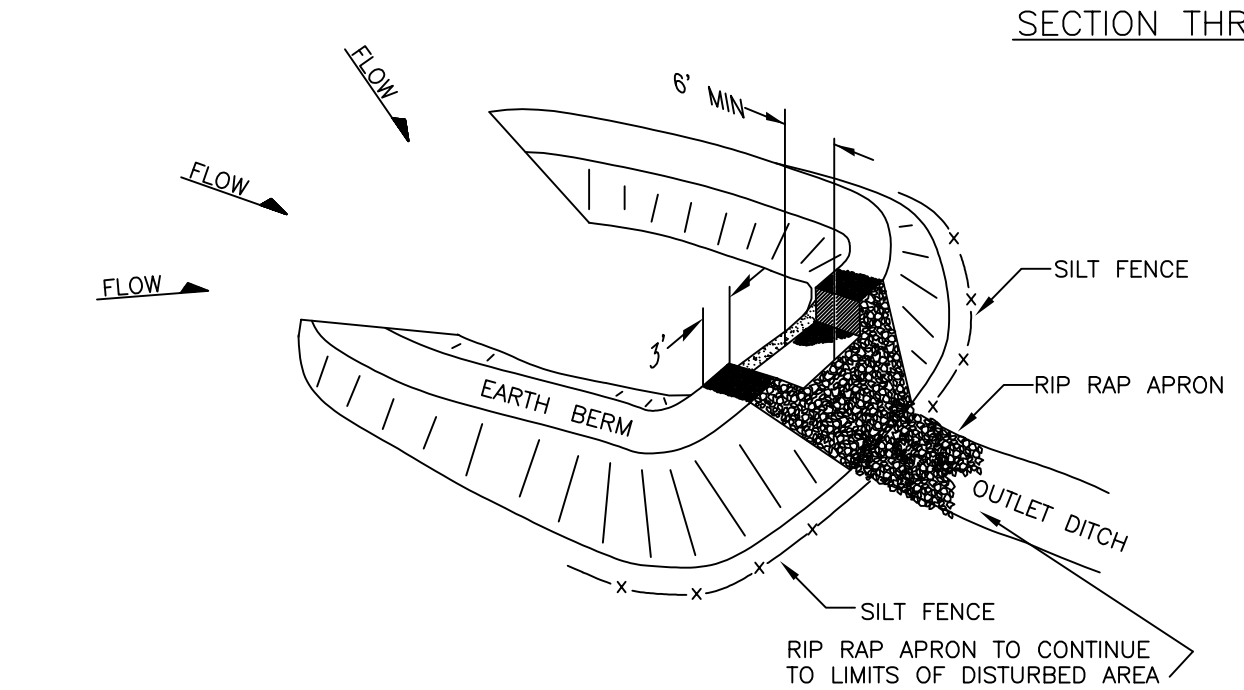
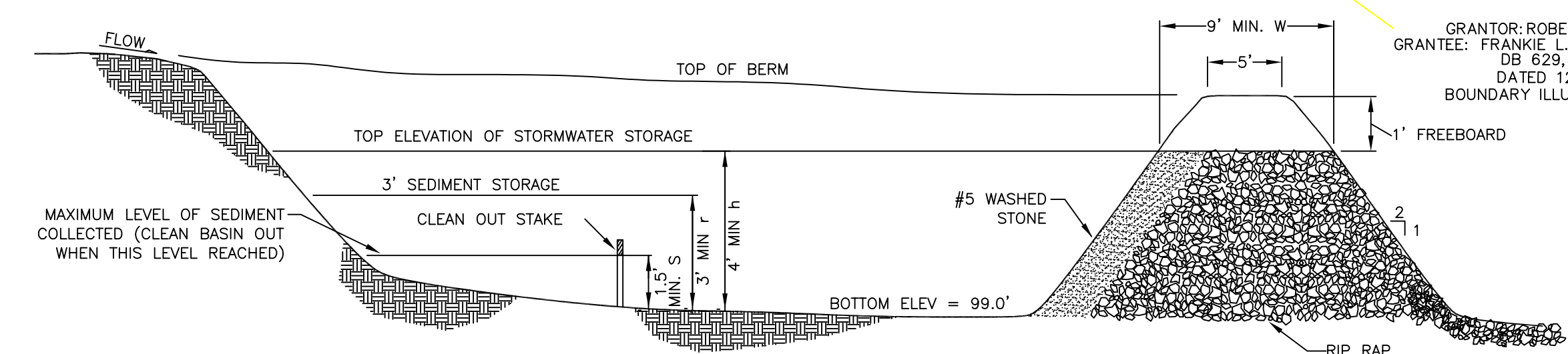
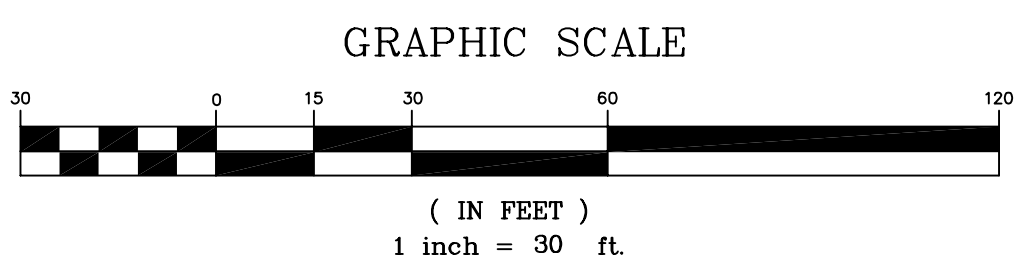
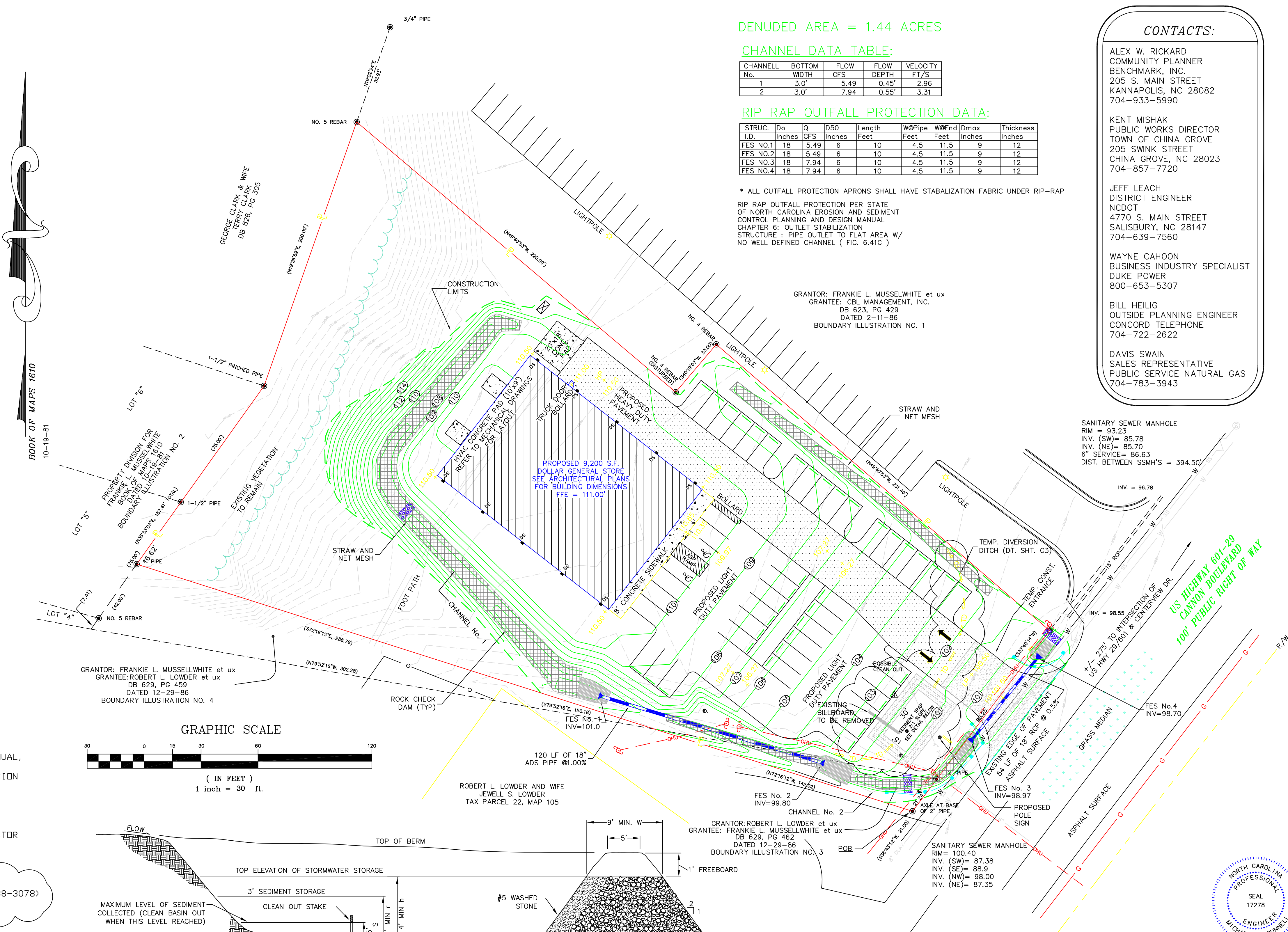
1. INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
2. INSTALL TEMPORARY SOIL EROSION CONTROL FEATURES.
3. START GRADING OPERATIONS.
4. INSTALL UTILITIES.
5. AREAS NOT PAVED SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE.
6. REMOVE TEMPORARY SOIL EROSION CONTROL FEATURES.

GENERAL NOTES

1. 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 THE PLAN. ALL GRADED SLOPES MUST BE SEEDED AND MULCHED WITHIN 30 DAYS OF COMPLETION OF GRADING. ALL REMAINING AREAS ARE TO BE SEEDED AND MULCHED WITHIN 120 DAYS.
2. STORM DRAINAGE STRUCTURES AND CONCRETE DRAINAGE PIPES WITHIN THE RIGHT OF WAY OF HIGHWAY 29 SHALL BE TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
3. RIP RAP APRON STONE IS NOT TO EXTEND ABOVE INVERT OF DRAINAGE PIPES.
4. SEE SHEET C4 FOR OTHER SEEDING AND EROSION CONTROL NOTES.
5. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

SOILS REPORT

GRADING, DEWATERING AND COMPACTION OF SOIL SHALL BE PER SOILS REPORT FOR CENTURION DEVELOPMENT DATED OCTOBER 9, 1998 BY ENGINEERING CONSULTING SERVICES, LTD.



GRAVEL AND RIP RAP SEDIMENT BASIN

DATA BLOCK

W	L	h	r	S	Z
9'	10'	4'	3'	1.5'	8'

DENUDED AREA = 1.44 ACRES

CHANNEL DATA TABLE:

CHANNEL No.	BOTTOM WIDTH	FLOW CFS	FLOW DEPTH	VELOCITY FT/S
1	3.0'	5.49	0.45'	2.96
2	3.0'	7.94	0.55'	3.31

RIP RAP OUTFALL PROTECTION DATA:

STRUC. I.D.	Do	Q	Q50	Length	WBPipe	WBEnd	Dmax	Thickness
	Inches	CFS	Inches	Feet	Feet	Feet	Inches	Inches
FES NO.1	18	5.49	6	10	4.5	11.5	9	12
FES NO.2	18	5.49	6	10	4.5	11.5	9	12
FES NO.3	18	7.94	6	10	4.5	11.5	9	12
FES NO.4	18	7.94	6	10	4.5	11.5	9	12

* ALL OUTFALL PROTECTION APRONS SHALL HAVE STABILIZATION FABRIC UNDER RIP-RAP
RIP RAP OUTFALL PROTECTION PER STATE OF NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL CHAPTER 6: OUTLET STABILIZATION STRUCTURE : PIPE OUTLET TO FLAT AREA W/ NO WELL DEFINED CHANNEL (FIG. 6.41C)

GRANTOR: FRANKIE L. MUSSELWHITE et ux
GRANTEE: CSL MANAGEMENT, INC.
DB 623, PG 429
DATED 2-11-86
BOUNDARY ILLUSTRATION NO. 1

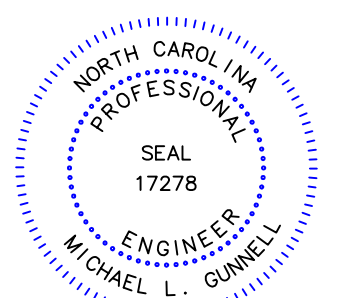
GRANTOR: ROBERT L. LOWDER et ux
GRANTEE: FRANKIE L. MUSSELWHITE et ux
DB 629, PG 462
DATED 12-29-86
BOUNDARY ILLUSTRATION NO. 3

CONTACTS:

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704-783-3943

GENERAL NOTES—SEDIMENT BASINS:

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE BEING CONSTRUCTED. SPILLWAYS SHOULD NOT BE CONSTRUCTED THROUGH FILL SECTIONS.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE TRAP SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY.
5. CONSTRUCTION OPERATION SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
6. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
7. IF SEDIMENT BASIN IS IN USE 30 DAYS OR LONGER, EMBANKMENTS SHOULD BE SEEDED OR OTHERWISE PROPERLY STABILIZED.
8. STORAGE AREA IS SHOWN AS RECTANGULAR FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY BE CONSTRUCTED IN ANY SHAPE PROVIDED THE MINIMUM STORAGE VOLUME REQUIREMENT IS MET. THE BASIN SHOULD ALSO BE ORIENTED SUCH THAT THE FILTER AND THE MAIN FLOW OF WATER AND SEDIMENT ARE ON OPPOSITE ENDS ON THE LONGER BASIN DIMENSIONS.
9. REQUIRED STORAGE IS 1800 CUBIC FEET OF STORAGE VOLUME PER DENUDED ACRE. RECOMMENDED STORAGE IS 1800 CUBIC FEET OF STORAGE PER ACRE OF DRAINAGE AREA.
10. THE LENGTH OF THE STONE OUTLET (SPILLWAY) IS TO BE ON A 10 YEAR STORM.
11. WHENEVER TOPOGRAPHY ALLOWS, THE BASIN LENGTH SHOULD BE TWICE (2X) THE BASIN WIDTH. TO ALLOW FOR SETTLING, BAFFLES SHOULD BE PROVIDED IN THE BASIN WHERE THE LENGTH IS LESS THAN TWICE THE WIDTH.
12. CLEANOUT STAKES SHALL BE PLACED IN ALL SEDIMENT BASINS AT THE LOW POINT IN THE BASIN. THE STAKES SHALL BE MARKED SHOWING THE HALF FULL, CLEANOUT POINT OF THE BASIN.
13. SAFETY FENCING 3' HIGH SHOULD BE PLACED AROUND ALL SEDIMENT BASINS.
14. FOR DESIGN OF RISER TYPE SEDIMENT BASINS, REFER TO THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES, EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
15. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT VOLUME STORED REDUCES THE TOTAL BASIN STORAGE VOLUME TO ONE-HALF THE ORIGINAL CAPACITY. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA IN SUCH MANNER THAT IT WILL NOT ERODE.
16. THE BASIN SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. EMBANKMENTS SHALL BE SEEDED OR OTHERWISE STABILIZED IMMEDIATELY UPON COMPLETION.
17. CLEAN OUT STAKES SHALL BE PLACED IN ALL SEDIMENT BASINS AT THE LOW POINT IN THE BASIN. THE STAKE SHALL BE MARKED SHOWING THE HALF FULL, CLEAN OUT POINT, IN THE BASIN.
18. ENGINEER TO DESIGN VOLUME OF BASIN IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES, EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.



DATE	DESCRIPTION
12-08-98	SUBMITTAL
01-11-99	REVISION PER ROWAN COUNTY ENVIRONMENTAL SERVICES
05-14-99	REVISED GRADING, DRAINAGE, & EROSION CONTROL

MEADE GUNNELL
engineering & surveying, P.C.
Charlotte, North Carolina (704) 398-8805

DATE
12-08-1998

**NEW RETAIL FACILITY
DOLLAR GENERAL STORES
PROJECT CITY—CHINA GROVE**

GRADING, DRAINAGE AND EROSION CONTROL

JOB NUMBER 293.20	SHEET NUMBER C2
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