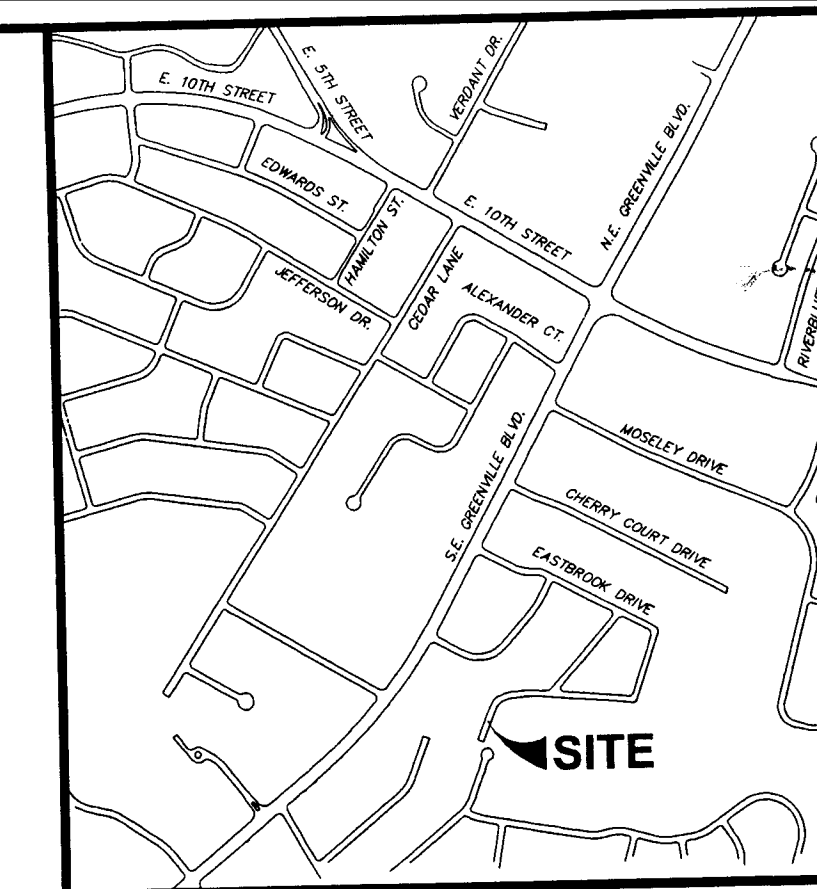
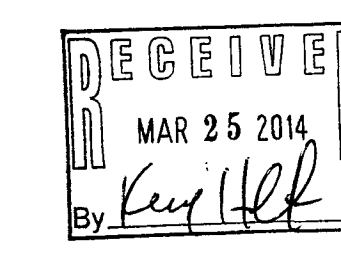


CITY OF GREENVILLE, N.C.

EASTBROOK DRIVE CULVERT REMOVAL AND STREAM BANK IMPROVEMENTS

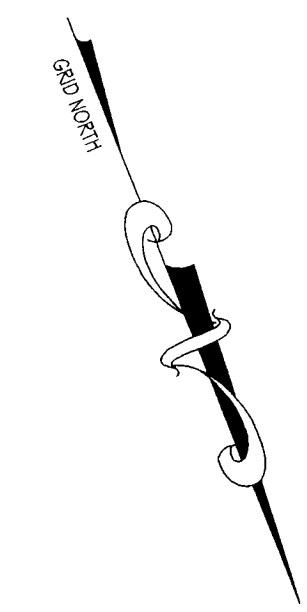
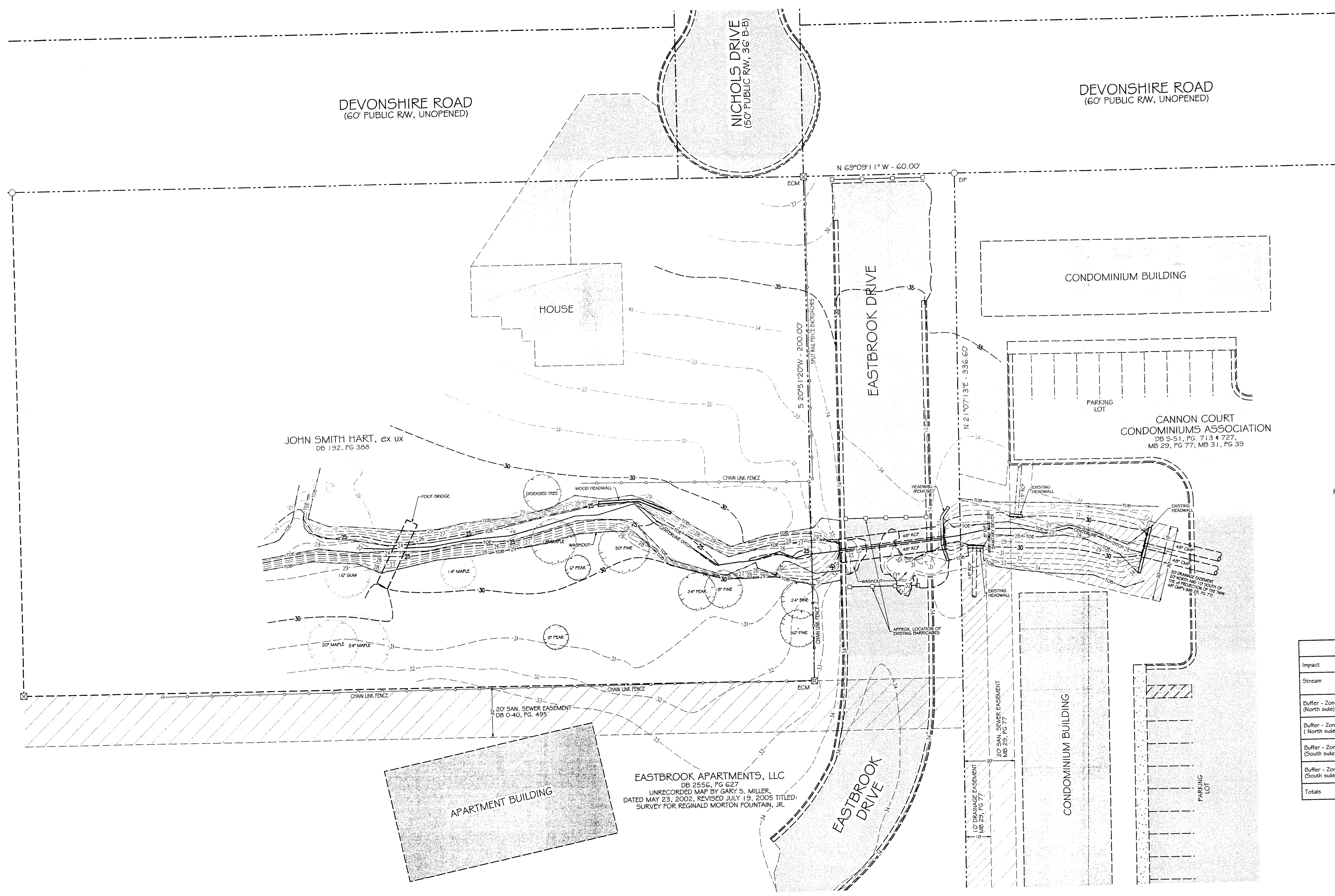


Vicinity Map



DATE	COMMENTS
1/27/14	CITY OF GREENVILLE COMMENTS
3/25/14	NC DENR COMMENTS

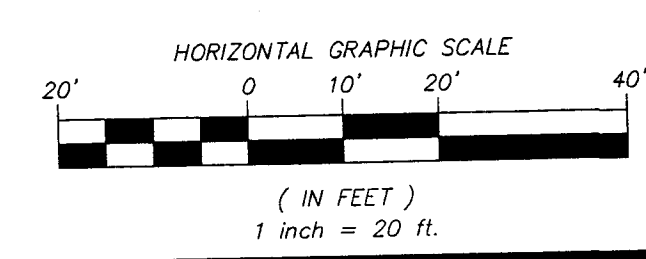
COVER SHEET
CITY OF GREENVILLE
EASTBROOK DRIVE CULVERT REMOVAL AND STREAM BANK IMPROVEMENTS
 CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA



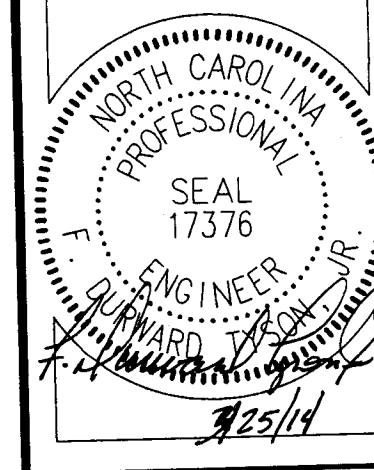
LEGEND:

- ROW = RIGHT OF WAY
- B-B = BACK OF CURB TO BACK OF CURB
- DB = DEED BOOK
- MB = MAP BOOK
- PG = PAGE
- TOB = TOP OF BANK
- TOE = TOE OF BANK
- CMP = CORRUGATED METAL PIPE
- RCP = REINFORCED CONCRETE PIPE

ENVIRONMENTAL IMPACT SUMMARY					
Impact	Ave. Width	Stream Length	Temporary	Permanent	Description
Stream	15'	80'			Culvert removal and channel regrading
Buffer - Zone 1 (North side)				4,515 s.f.	Culvert removal and bank stabilization
Buffer - Zone 2 (North side)			960 s.f.		Removal of existing roadway
Buffer - Zone 1 (South side)				1,965 s.f.	Culvert removal and bank stabilization
Buffer - Zone 2 (South side)			960 s.f.		Removal of existing roadway
Totals		80'	1,920 s.f.	6,480 s.f.	



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 Since 1918
 107 East Second Street
 Greenville, NC 27838 (252) 752-4135
 Engineers
 Planners
 Surveyors
 Landscape Architects
 NC License F-0334



Project Manager: FDT
 Project Engineer: STA
 Designed By: KTW
 Drawn By: JHT
 Checked By: FDT
 Project Number: 2012107
 Drawing Number: W-3458
 Scale: 1" = 20'
 Date: SEPTEMBER 26, 2012

C-1

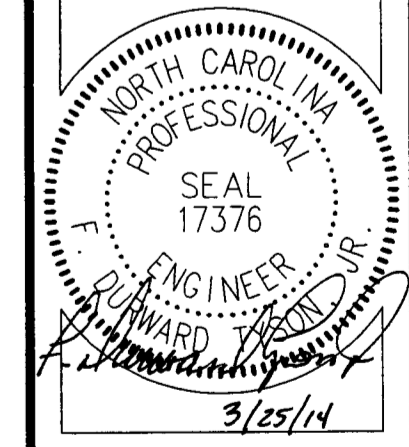
3/25/2014 W:\P\1466\Greenville, City of\2012 On-call Engineering Services\Work Order #2 - Nichols Drive\Eastbrook.dgn

DATE	CITY OF GREENVILLE COMMENTS
1/2/14	

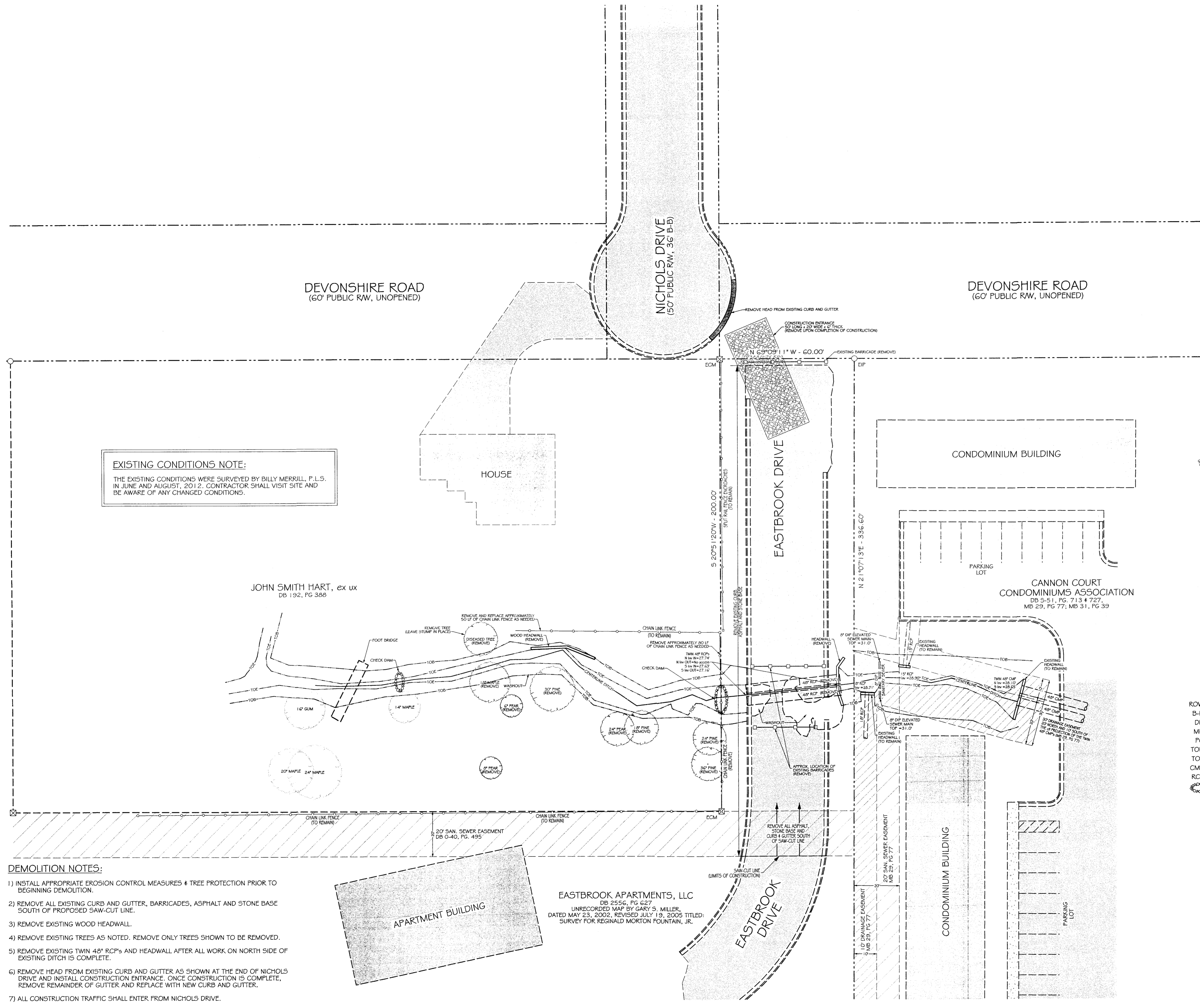
DEMOLITION / EROSION CONTROL PLAN
CITY OF GREENVILLE
EASTBROOK DRIVE CULVERT REMOVAL
AND STREAM BANK IMPROVEMENTS
 CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA

Engineers
 & Planners
 Architects
 Landscape Architects
 NC License: F-0334

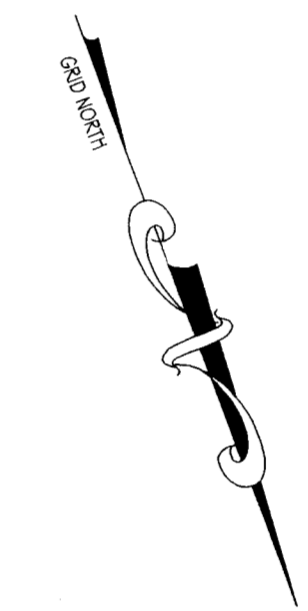
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 8131 Falls of Neuse Road, Suite 300
 Raleigh, NC 27605 (919) 845-3347



Project Manager:	FDT
Project Engineer:	STA
Designed By:	KTW
Drawn By:	JHT
Checked By:	FDT
Project Number:	2012107
Drawing Number:	W-3458
Scale:	1" = 20'
Date:	SEPTEMBER 26, 2012

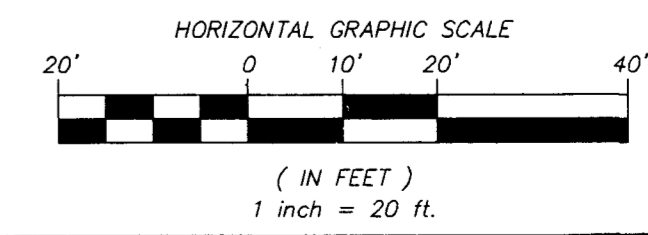


EXISTING CONDITIONS NOTE:
 THE EXISTING CONDITIONS WERE SURVEYED BY BILLY MERRILL, P.L.S. IN JUNE AND AUGUST, 2012. CONTRACTOR SHALL VISIT SITE AND BE AWARE OF ANY CHANGED CONDITIONS.



- LEGEND:**
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 - RCP = REINFORCED CONCRETE PIPE
 - ☉ CHECK DAM
 - ▨ SILT FENCE
 - ▨ TREE PROTECTION FENCE

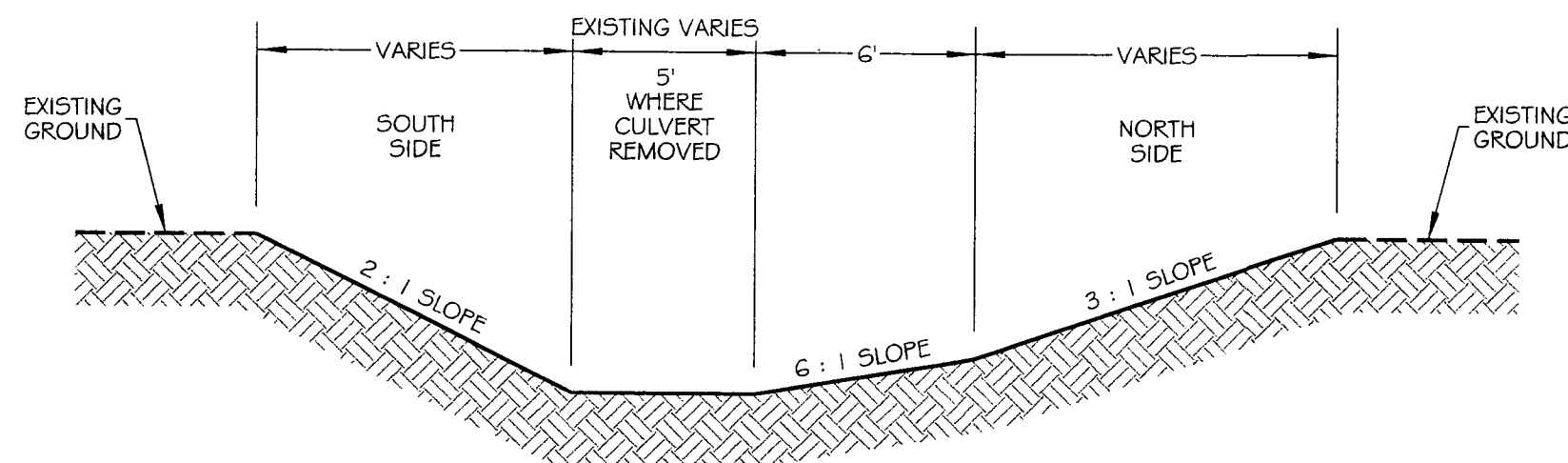
- DEMOLITION NOTES:**
- 1) INSTALL APPROPRIATE EROSION CONTROL MEASURES & TREE PROTECTION PRIOR TO BEGINNING DEMOLITION.
 - 2) REMOVE ALL EXISTING CURB AND GUTTER, BARRICADES, ASPHALT AND STONE BASE SOUTH OF PROPOSED SAW-CUT LINE.
 - 3) REMOVE EXISTING WOOD HEADWALL.
 - 4) REMOVE EXISTING TREES AS NOTED. REMOVE ONLY TREES SHOWN TO BE REMOVED.
 - 5) REMOVE EXISTING TWIN 48" RCP'S AND HEADWALL AFTER ALL WORK ON NORTH SIDE OF EXISTING DITCH IS COMPLETE.
 - 6) REMOVE HEAD FROM EXISTING CURB AND GUTTER AS SHOWN AT THE END OF NICHOLS DRIVE AND INSTALL CONSTRUCTION ENTRANCE. ONCE CONSTRUCTION IS COMPLETE, REMOVE REMAINDER OF GUTTER AND REPLACE WITH NEW CURB AND GUTTER.
 - 7) ALL CONSTRUCTION TRAFFIC SHALL ENTER FROM NICHOLS DRIVE.



(60' PUBLIC RW, UNOPENED)
DEVONSHIRE ROAD
(60' PUBLIC RW, UNOPENED)

NICHOLS DRIVE
(50' PUBLIC RW, 36' B-B)

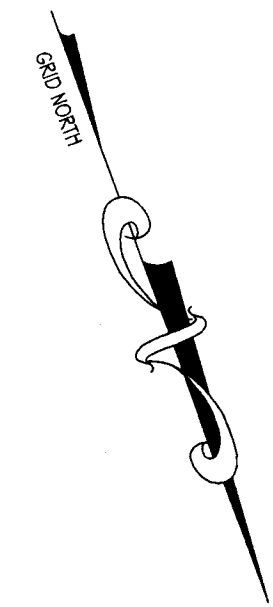
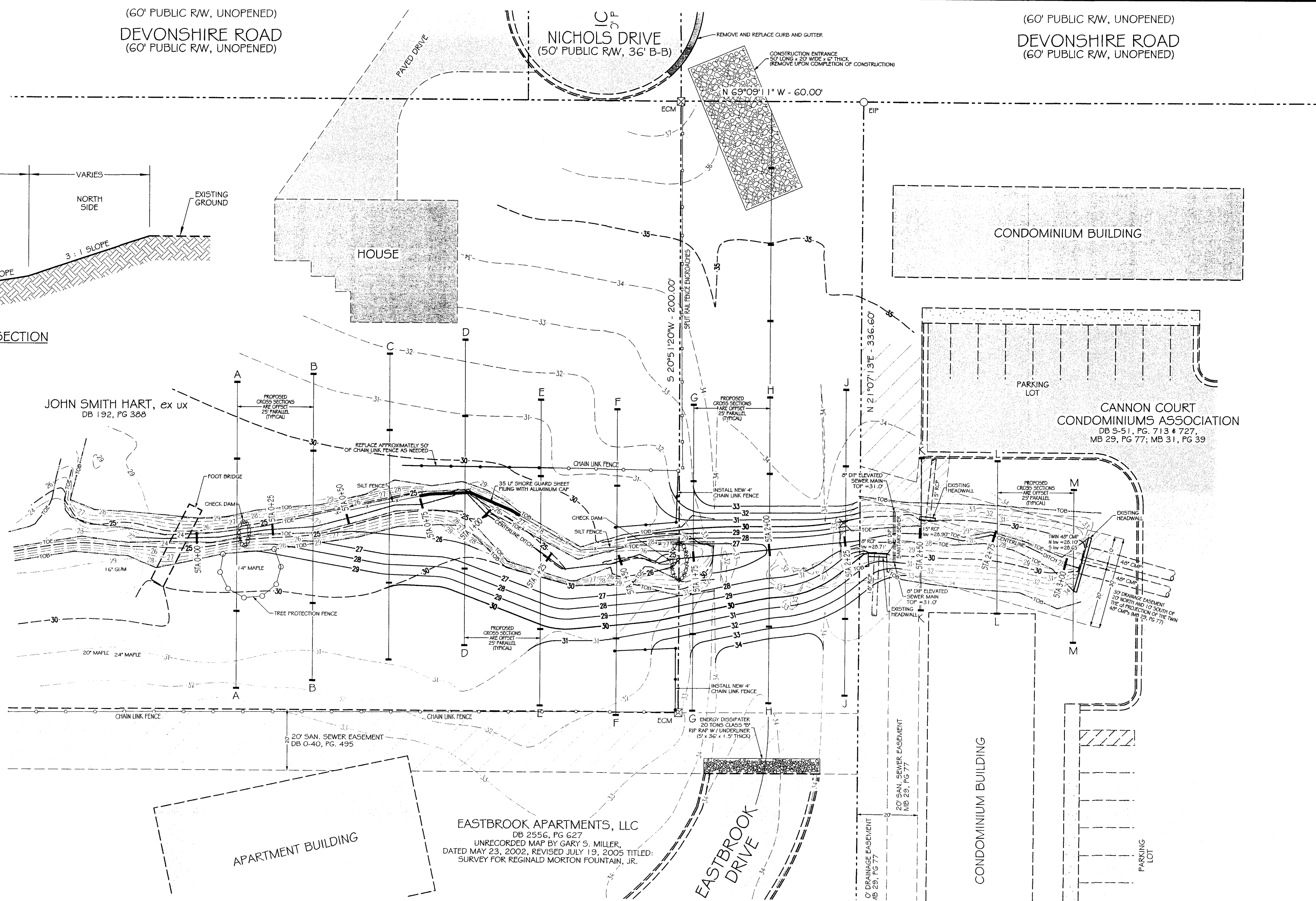
(60' PUBLIC RW, UNOPENED)
DEVONSHIRE ROAD
(60' PUBLIC RW, UNOPENED)



TYPICAL CROSS SECTION
NTS

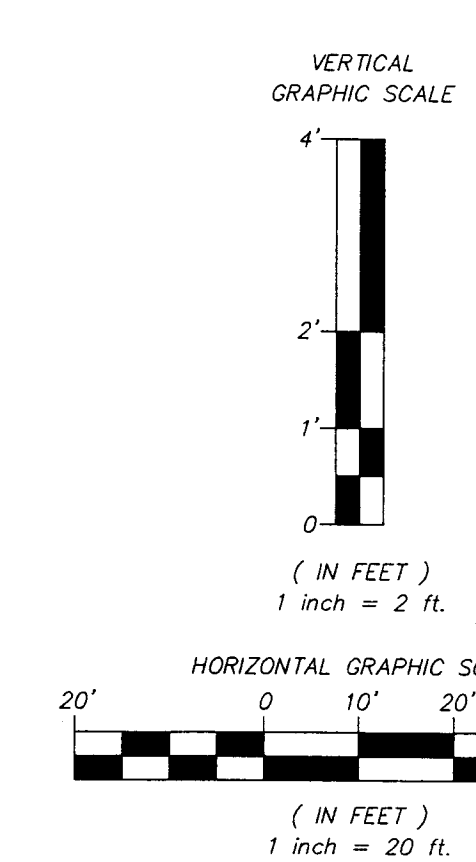
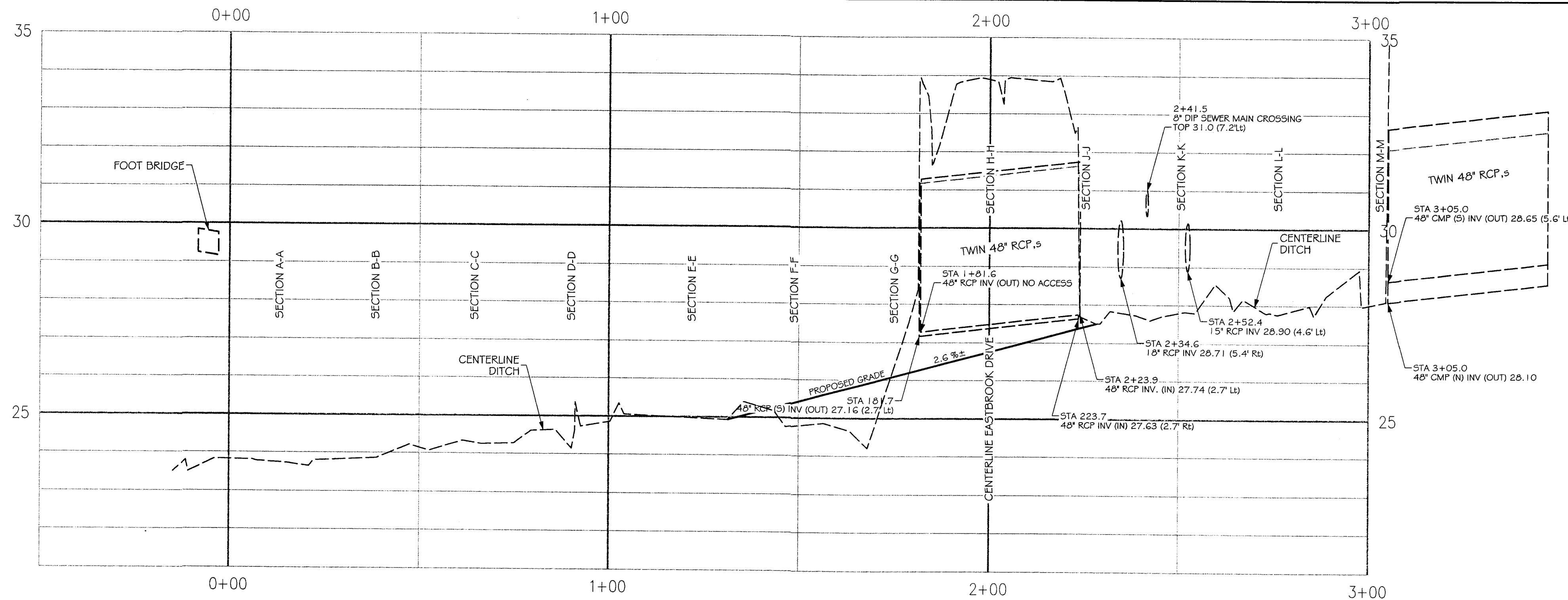
CONSTRUCTION SEQUENCE

- 1) INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES AND TREE PROTECTION FENCE AS SHOWN ON PLANS.
- 2) STABILIZE EASTBROOK DRIVE AS NECESSARY TO ACCESS NORTH SIDE OF PROJECT AREA.
- 3) REMOVE EXISTING TREES, WOOD HEADWALL AND CHAIN-LINK FENCE.
- 4) INSTALL NEW HEADWALL ON SOUTH SIDE OF EXISTING DITCH AS SHOWN ON PLANS.
- 5) REGRADE NORTH SIDE OF EXISTING DITCH UP TO EASTBROOK DRIVE AS SHOWN ON PLANS.
- 6) STABILIZE NEW SLOPES AND REMOVE CHECK DAMS. ROCK FROM CHECK DAMS MAY BE PLACED ALONG TOE OF SHEET PILING.
- 7) INSTALL RESTORATION PLANTINGS WITHIN IMPACTED ZONE #1 OF RIPARIAN BUFFER (REFER TO SHEET C-G FOR RECOMMENDED PLANTINGS AND LOCATIONS).
- 8) REMOVE ASPHALT, STONE BASE AND CURB & GUTTER IN EASTBROOK DRIVE STARTING AT THE SAW-CUT LINE ON THE NORTH END. INSTALL TOPSOIL TO GRADE WHERE ASPHALT IS REMOVED.
- 9) REMOVE EXISTING HEADWALL AND DUAL 48" CONCRETE PIPES AND REGRADE DITCH ACROSS EASTBROOK DRIVE.
- 10) REMOVE THE REMAINDER OF ASPHALT, STONE BASE AND CURB & GUTTER FROM EXISTING DITCH TO SOUTH END OF EASTBROOK DRIVE. BACKFILL TO GRADE WITH TOPSOIL.
- 11) SEED AND MULCH ALL DISTURBED AREAS AND REPLACE CURB & GUTTER IN NICHOLS DRIVE.



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- RCP = REINFORCED CONCRETE PIPE
- ☉ CHECK DAM
- SILT FENCE
- TREE PROTECTION FENCE
- INV = INVERT
- N = NORTH
- S = SOUTH
- STA = STATION
- 31 — MINOR CONTOUR
- 30 — MAJOR CONTOUR

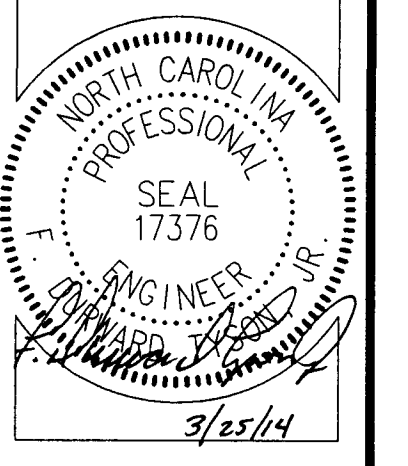


REVISIONS	
DATE	COMMENTS
1/2/14	CITY OF GREENVILLE COMMENTS
3/25/14	NCCDENR COMMENTS

CONSTRUCTION PLAN
CITY OF GREENVILLE
EASTBROOK DRIVE CULVERT REMOVAL AND STREAM BANK IMPROVEMENTS
CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA

Engineers
Planners
Surveyors
Landscapers
NC License: F-0334

Rivers & Associates, Inc.
Since 1918
107 East Second Street
Greenville, NC 27636 (252) 762-4135



Project Manager: FDT
Project Engineer: STA
Designed By: KTW
Drawn By: JHT
Checked By: FDT
Project Number: 2012107
Drawing Number: W-3458
Scale: HOR: 1" = 20' - VER: 1" = 2'
Date: SEPTEMBER 26, 2012

C-3

3/25/2014 W:\Private\Greenville_City_03012 On-call Engineering Services\Work Order #2 - Nichols Drive\Eastbrook.dgn

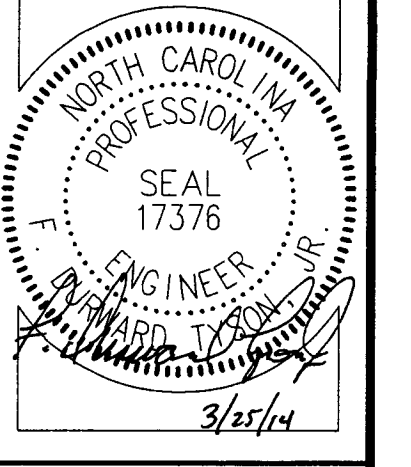
REVISIONS

NO.	DATE	COMMENTS

CROSS SECTIONS
CITY OF GREENVILLE
EASTBROOK DRIVE CULVERT REMOVAL
AND STREAM BANK IMPROVEMENTS
 CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA

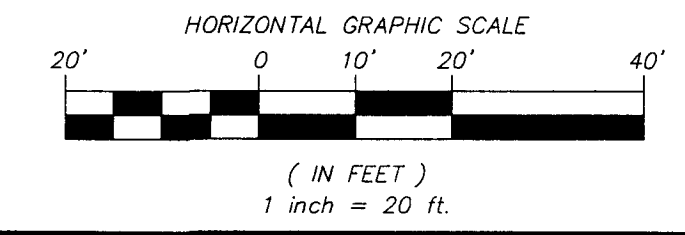
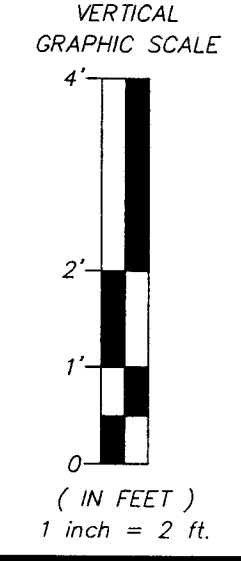
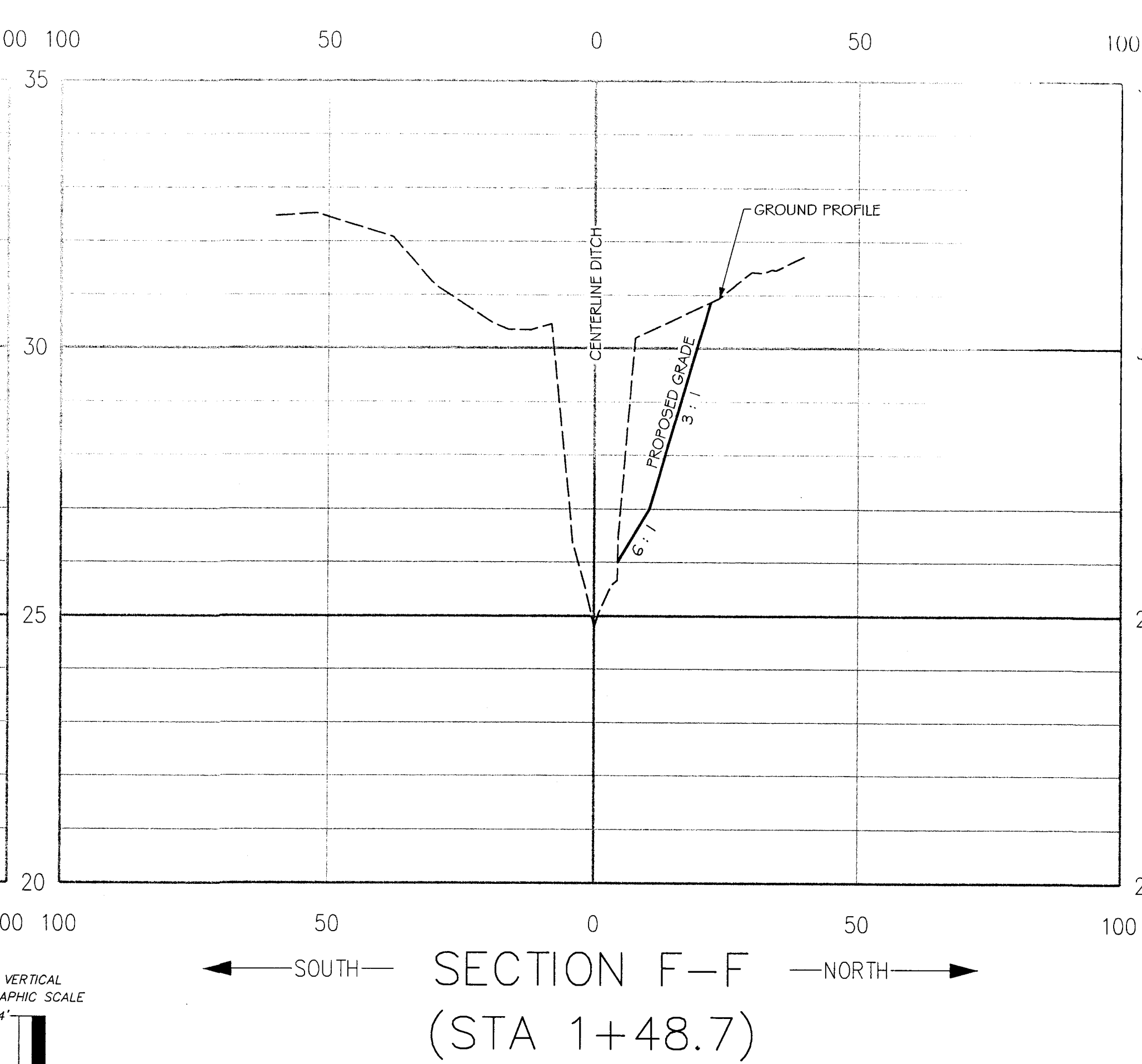
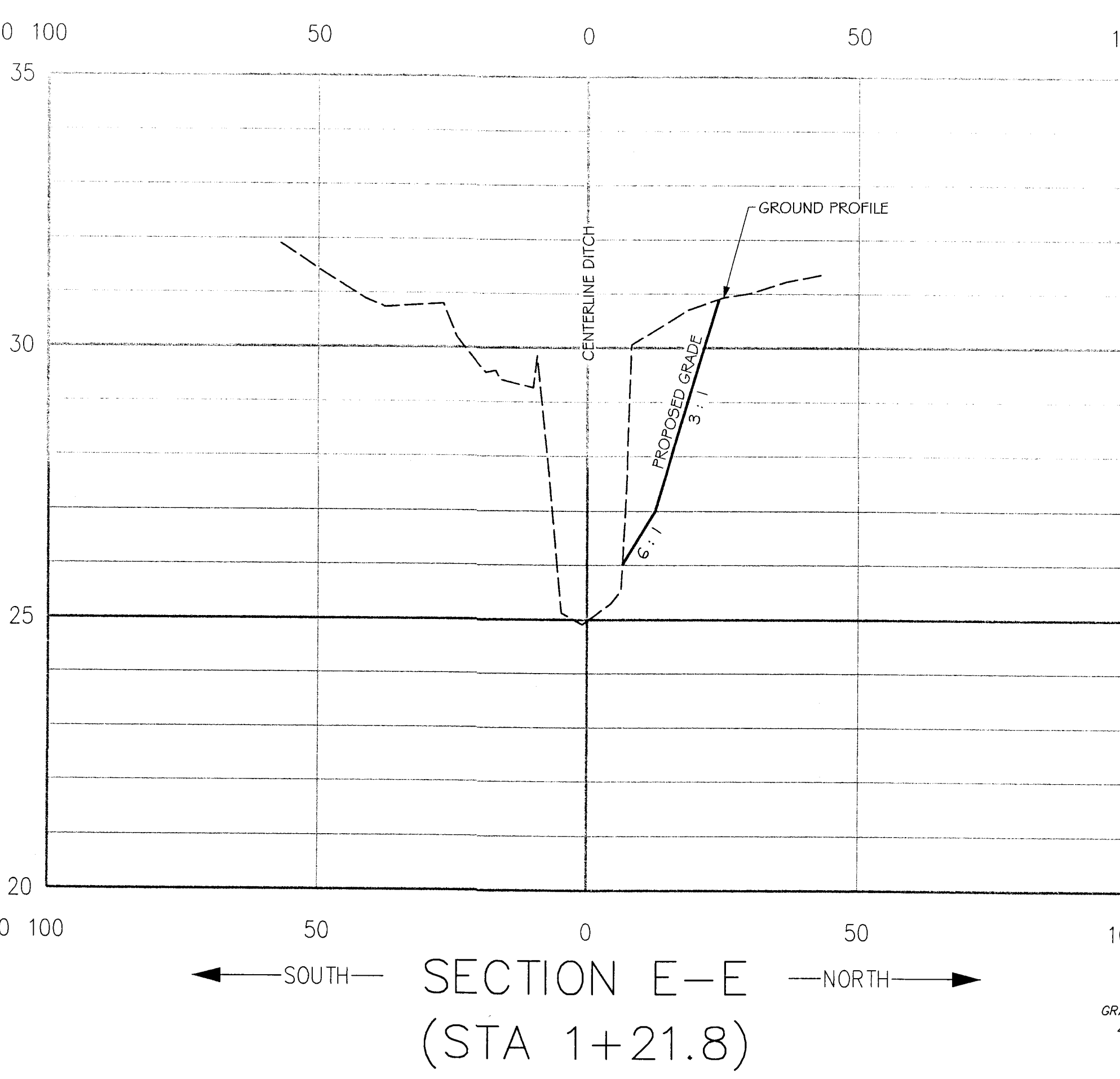
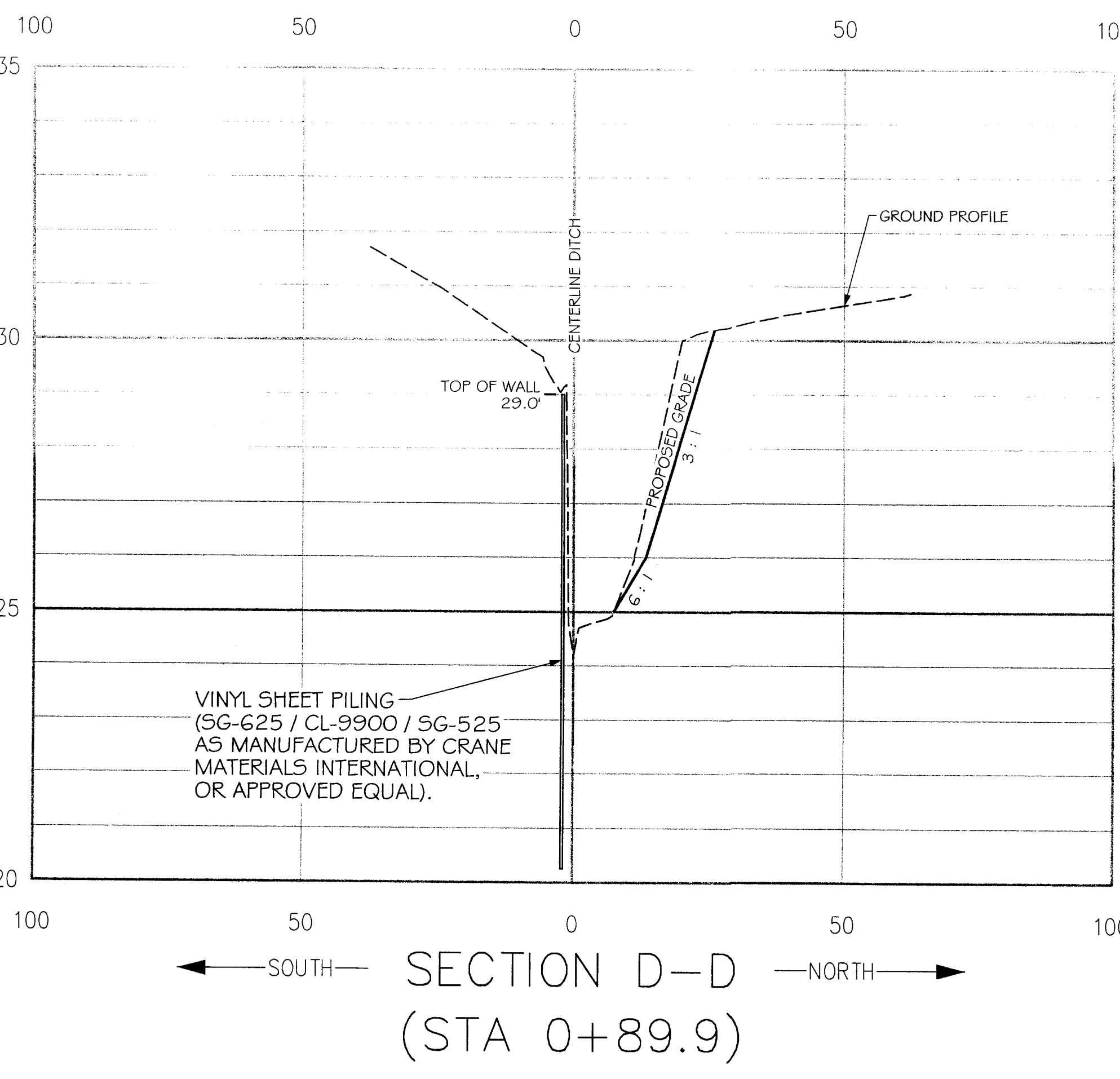
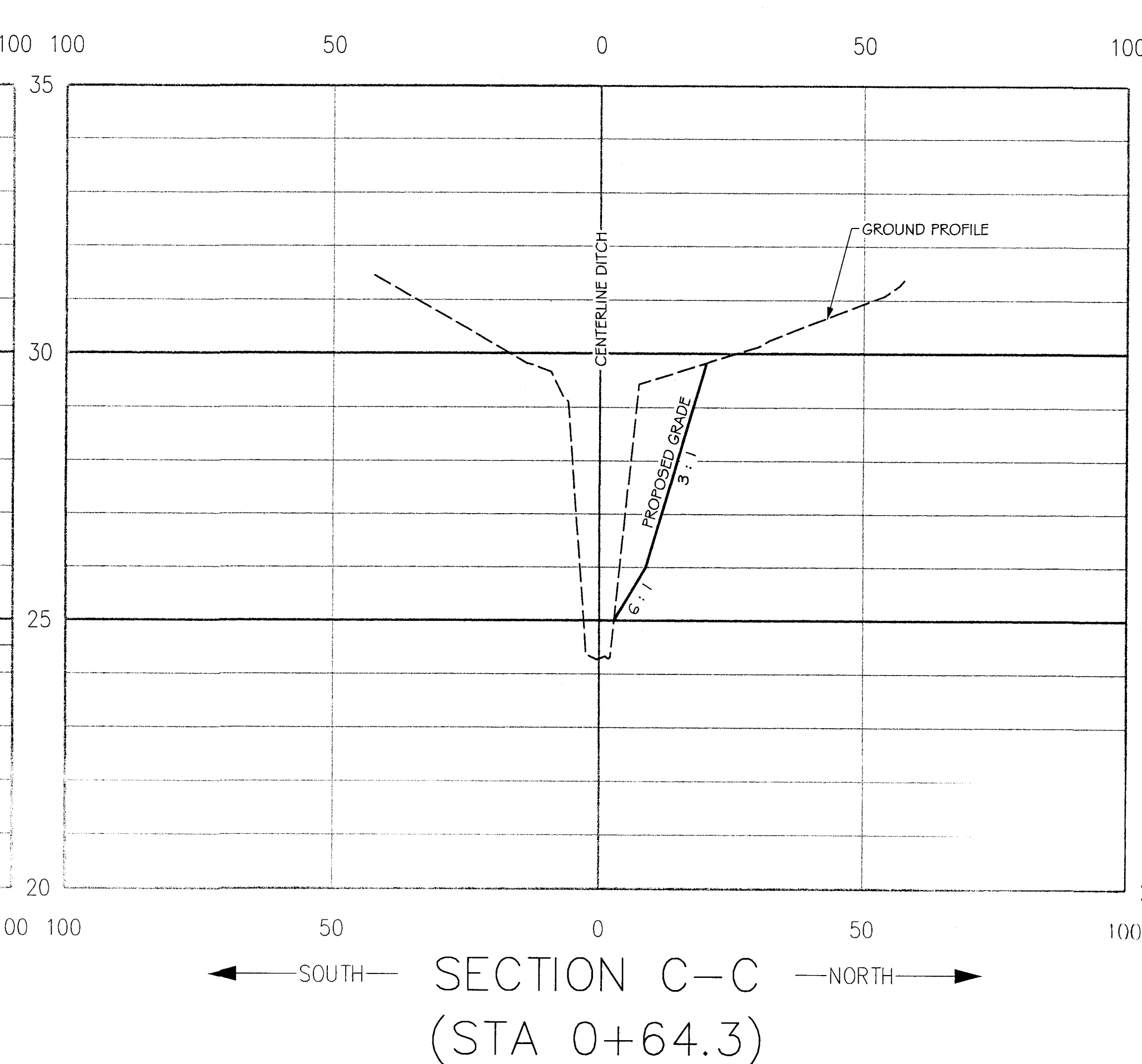
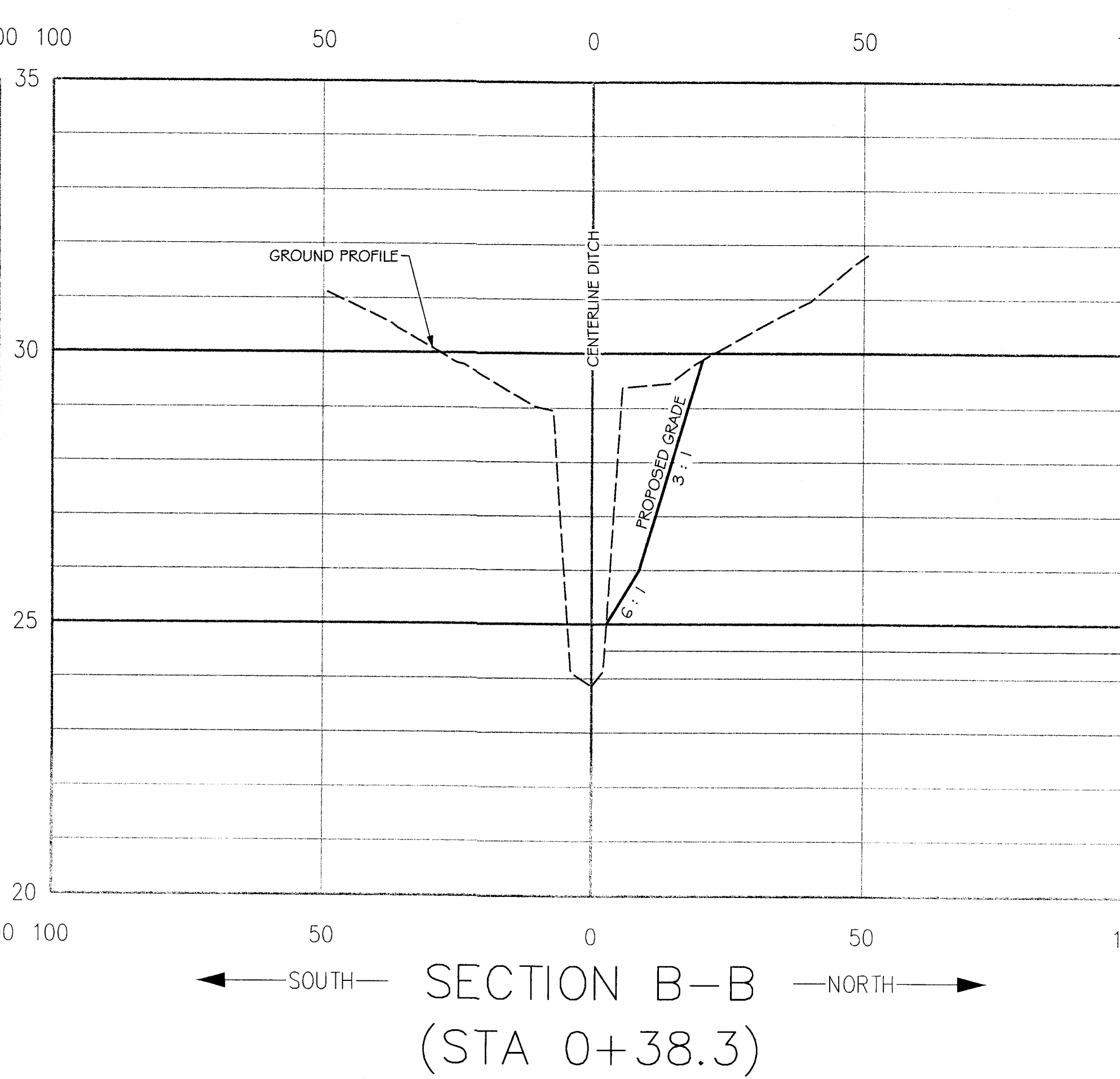
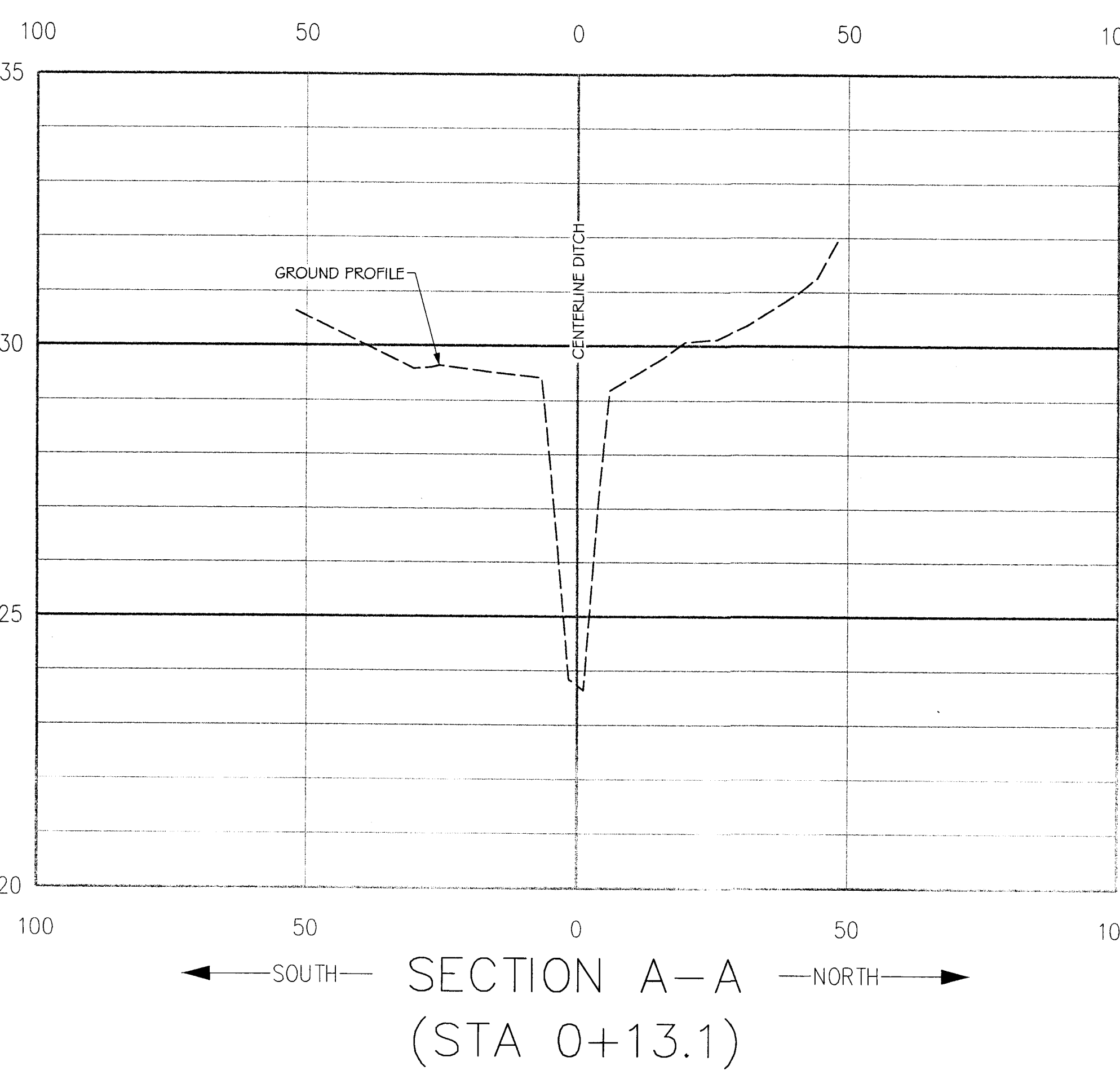
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Project Manager:	FDT
Project Engineer:	STA
Designed By:	KTW
Drawn By:	JHT
Checked By:	FDT
Project Number:	2012107
Drawing Number:	W-3458
Scale:	HOR: 1" = 20' - VER: 1" = 2'
Date:	SEPTEMBER 26, 2012

C-4



3/25/2014 W:\Private\Greenville, City of\2012 On-call Engineering Services\Work Order #2 - Nichols Drive Eastband.dgn

DATE	COMMENTS
3/25/14	INCENR. COMMENTS

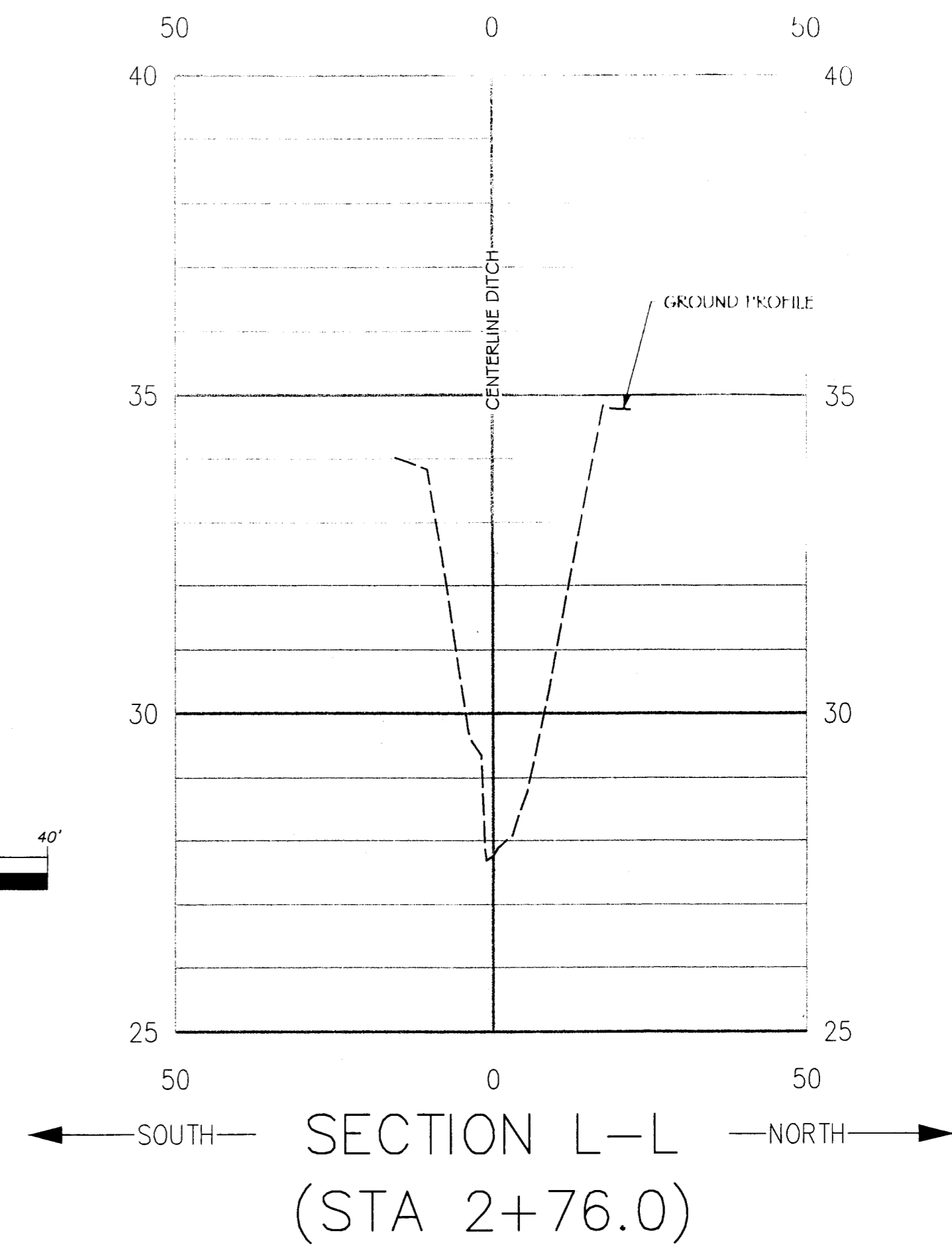
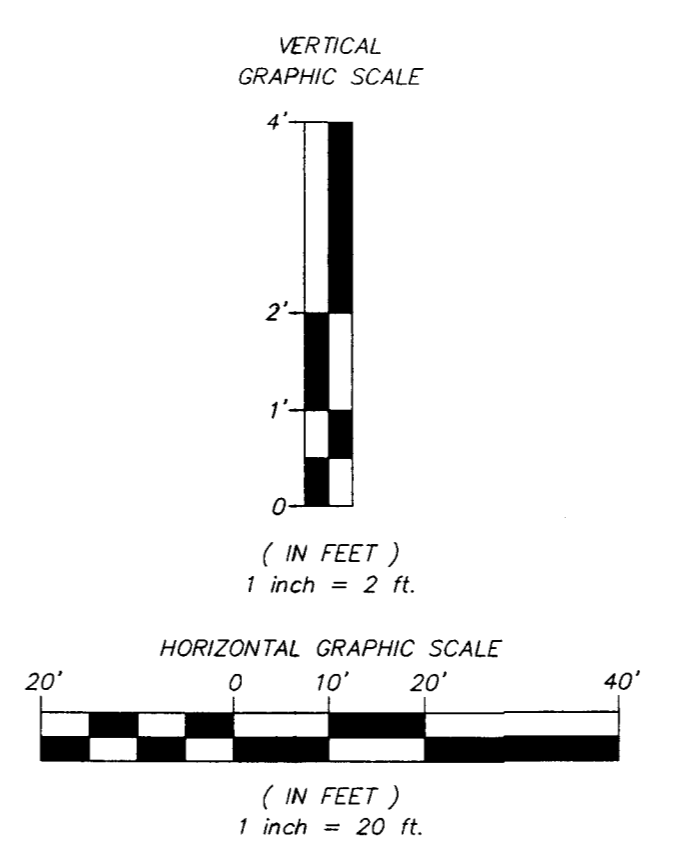
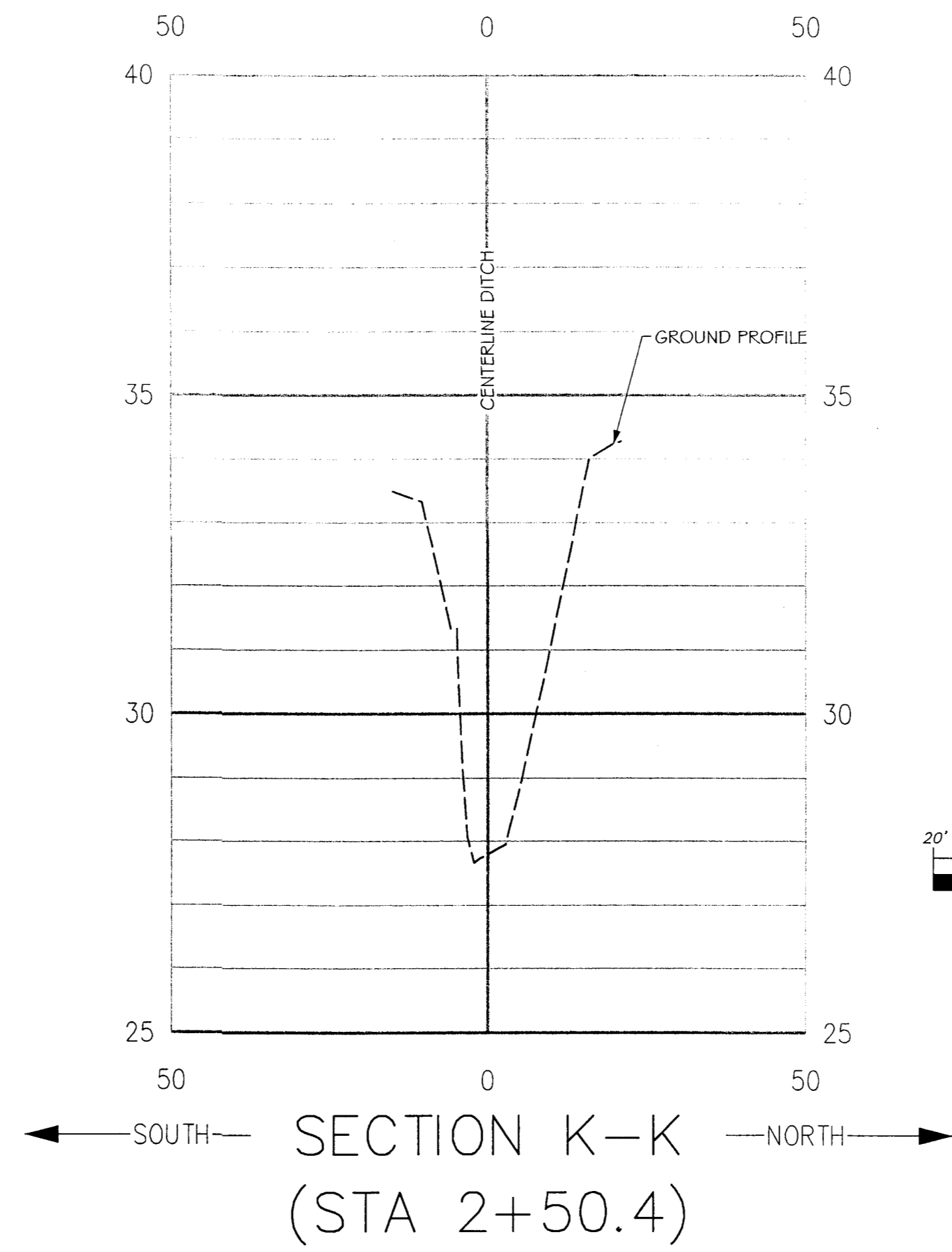
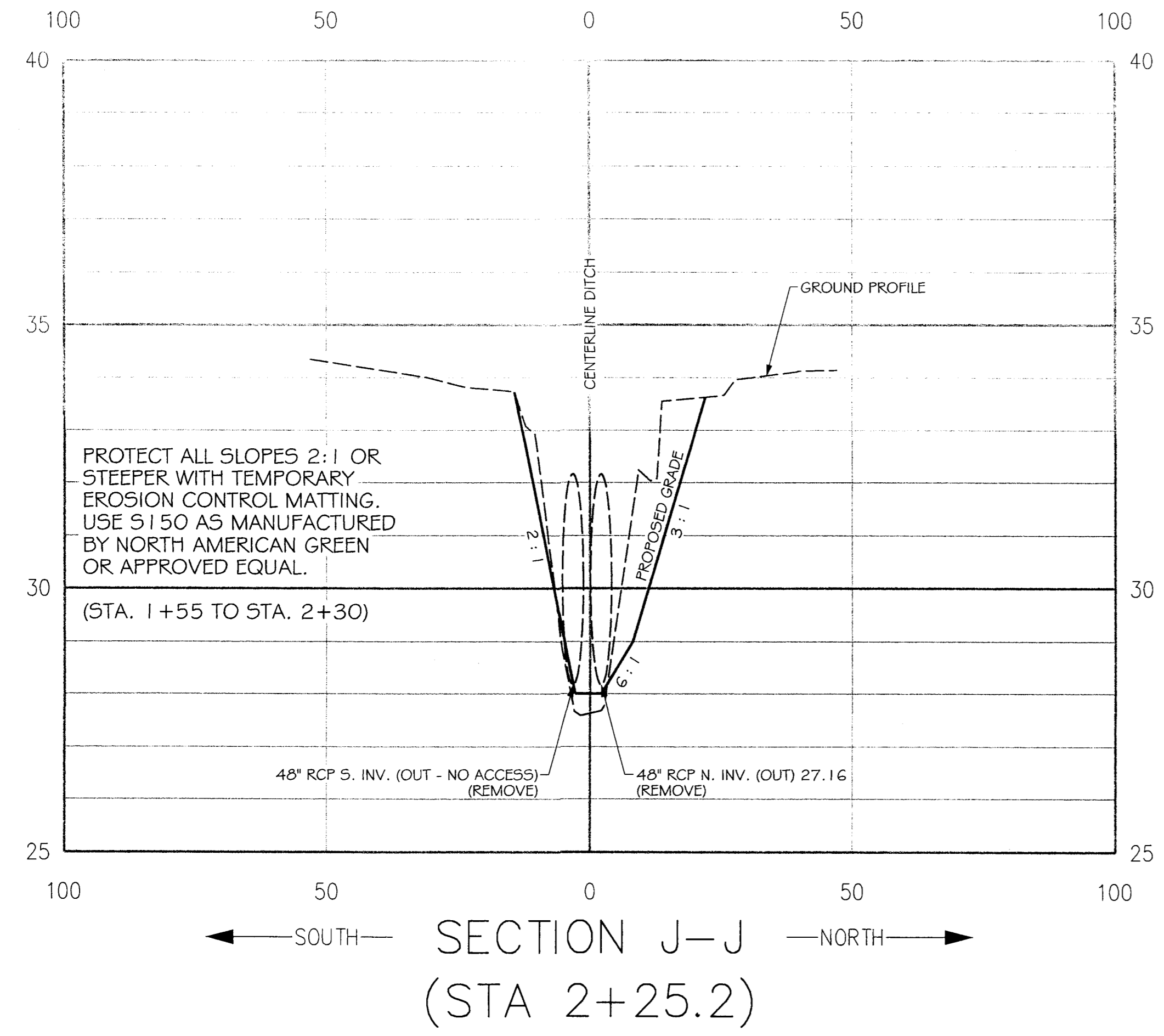
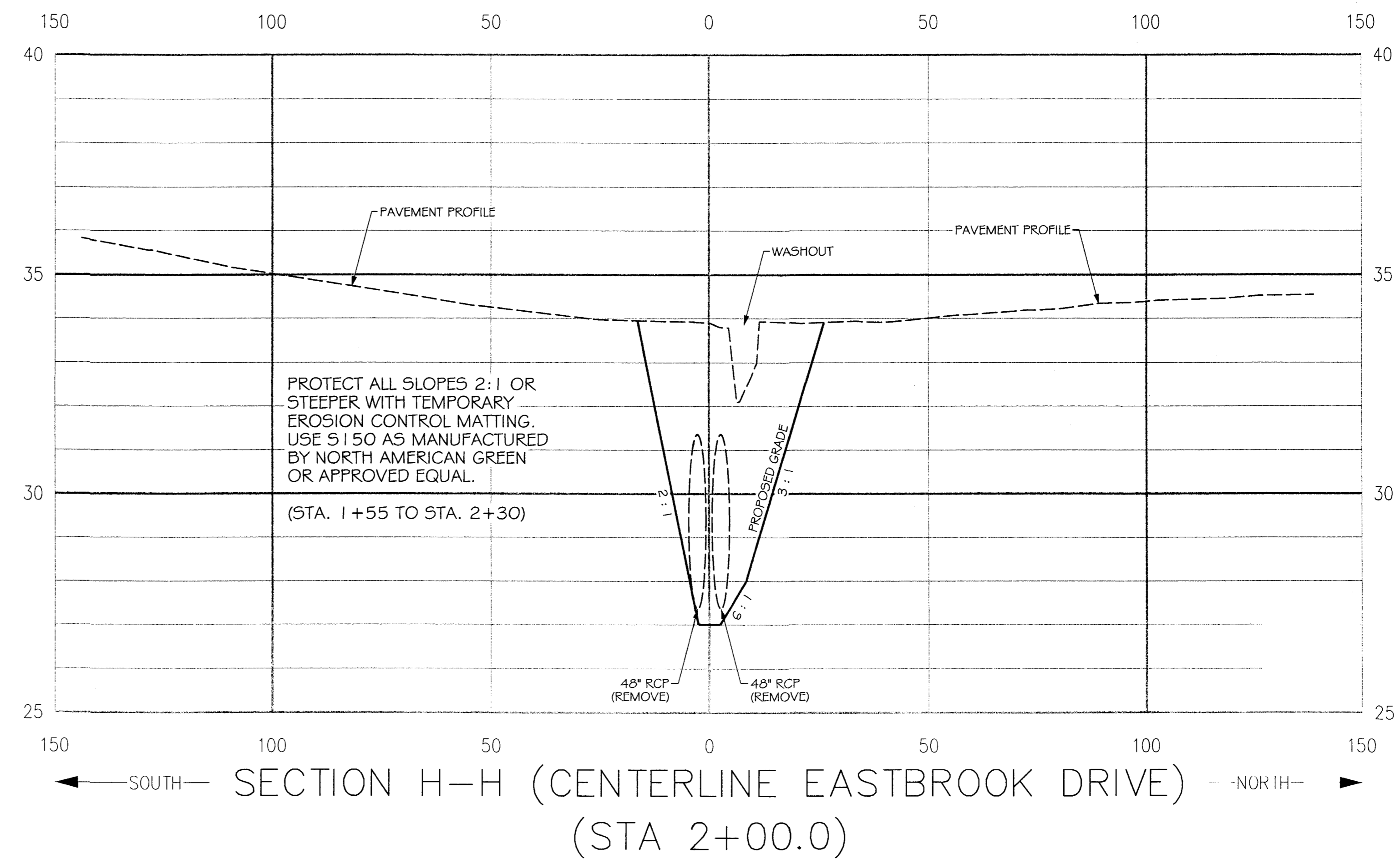
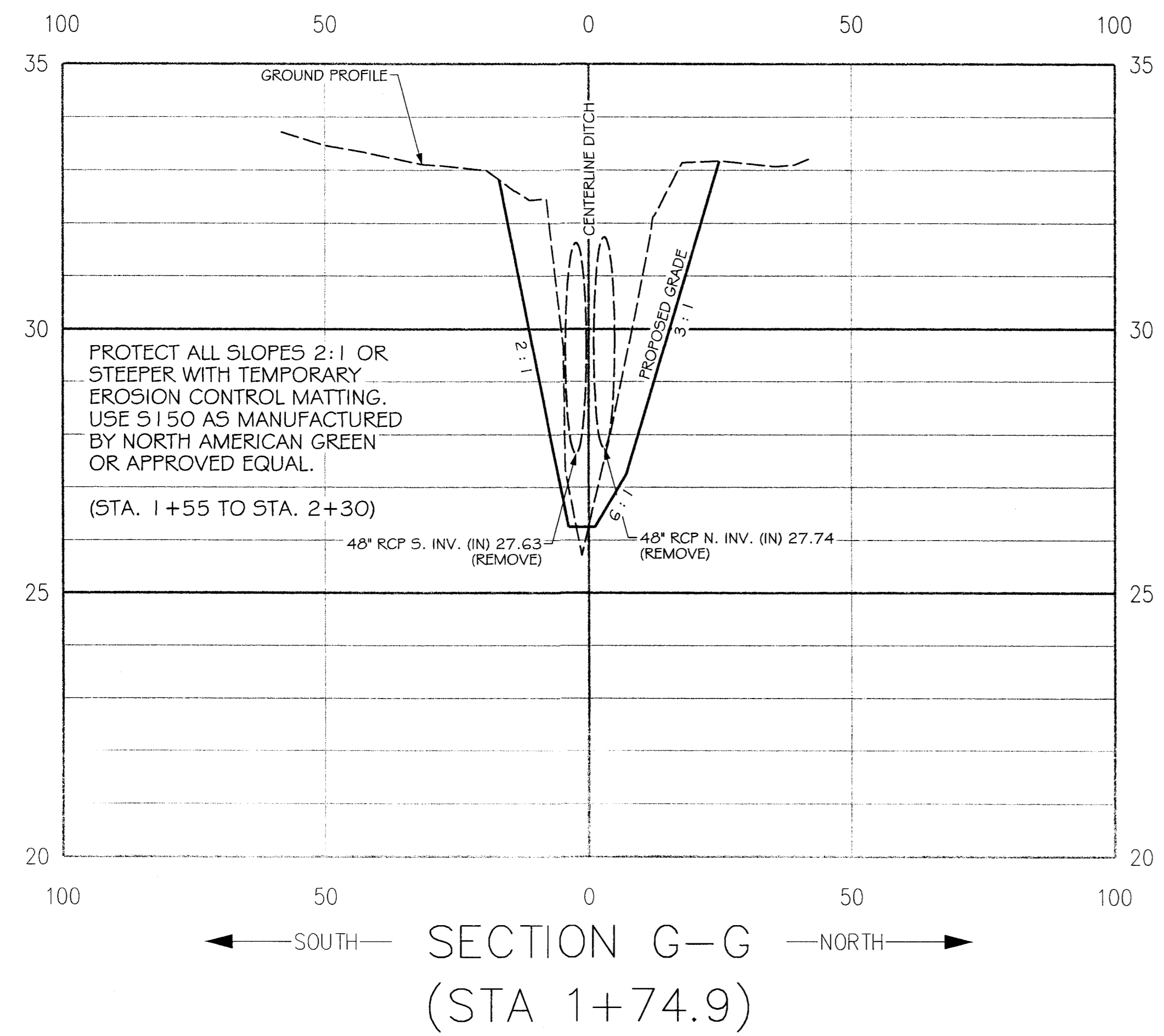
CROSS SECTIONS
CITY OF GREENVILLE
EASTBROOK DRIVE CULVERT REMOVAL
AND STREAM BANK IMPROVEMENTS
 CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA

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 8131 Falls of Neuse Road, Suite 300
 Raleigh, NC 27609 (919) 846-3347

SEAL
 17376
 3/25/14

Project Manager:	FDT
Project Engineer:	STA
Designed By:	KTW
Drawn By:	JHT
Checked By:	FDT
Project Number:	2012107
Drawing Number:	W-3458
Scale:	HOR: 1" = 20' - VER: 1" = 2'
Date:	SEPTEMBER 26, 2012



3/25/2014 W:\Private\Greenville, City of\2012 Ch-call\Engineering Services\Work Order #2 - Nichia Drive\Eastbrook.dgn

EROSION CONTROL PROVISIONS

- 1) NO PERSON MAY INITIATE A LAND DISTURBING ACTIVITY BEFORE NOTIFYING THE CITY OF GREENVILLE OF THE DATE THAT THE LAND DISTURBING ACTIVITY WILL BEGIN.
2) LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL APPROPRIATE EROSION CONTROL MAY NOT PROCEED UNTIL EROSION CONTROL MEASURES ARE INSPECTED AND APPROVED BY THE CITY.
3) SCHEDULING OF A PRE-CONSTRUCTION CONFERENCE WITH THE EROSION CONTROL INSPECTOR IS REQUIRED PRIOR TO INITIATING LAND DISTURBING ACTIVITIES. FOR INSPECTION CALL (252) 329-4467. 24 HOUR NOTICE IS REQUIRED.
4) INSTALL ROCK INLET SEDIMENT TRAPS AROUND ALL CATCH BASINS, DROP INLETS, AND YARD INLETS.
5) PROVIDE 20' X 50' X 6" STONE CONSTRUCTION ENTRANCES AS SHOWN ON PLAN.
6) SEED OR OTHERWISE PROVIDE GROUND COVER DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION FOR ALL EXPOSED SLOPES WITHIN 7 DAYS OF COMPLETION OF ANY PHASE OF GRADING ON PERIMETER AREAS AND SLOPES STEEPER THAN 3:1. ALL OTHER AREAS SHALL BE STABILIZED WITHIN 14 DAYS.
7) CONTRACTOR SHALL INSPECT AND MAINTAIN AS NEEDED ALL EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH MAJOR STORM EVENT. FAILURE TO KEEP ALL EROSION CONTROL DEVICES IN PROPER WORKING ORDER MAY RESULT IN A STOP WORK ORDER OR CIVIL PENALTIES UP TO \$5000.00 PER DAY OF VIOLATION.
8) THE CITY ENGINEER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES SHOULD THE PLAN OR ITS IMPLEMENTATION PROVE TO BE INADEQUATE.
9) ACCEPTANCE AND APPROVAL OF THIS PLAN IS CONDITIONED UPON YOUR COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY LAWS, REGULATION AND RULES. IN ADDITION LOCAL CITY AND COUNTY ORDINANCES OR RULES MAY ALSO APPLY TO THIS LAND DISTURBING ACTIVITY. APPROVAL BY THE CITY DOES NOT SUPERSEDE ANY OTHER PERMIT OR APPROVAL.
10) PLEASE BE ADVISED OF THE RULES TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATER COURSES IN THE NEUSE AND TAR RIVER BASINS. THESE RULES ARE ENFORCED BY THE DIVISION OF WATER QUALITY (DWQ). DIRECT ANY QUESTIONS ABOUT THE APPLICABILITY OF THESE RULES TO YOUR PROJECT TO THE REGIONAL WATER QUALITY SUPERVISOR, WASHINGTON REGIONAL OFFICE AT (252) 946-6481.

EROSION CONTROL MEASURES

- 1) ALL WORK WILL BE DONE IN ACCORDANCE WITH THE CITY OF GREENVILLE EROSION CONTROL ORDINANCE. NO LAND DISTURBING ACTIVITY BEYOND THAT REQUIRED TO INSTALL THE APPROPRIATE EROSION CONTROL MEASURES MAY PROCEED UNTIL MEASURES ARE INSPECTED AND APPROVED BY THE CITY OF GREENVILLE. CALL 329-4467 TO SCHEDULE AN INSPECTION.
2) FOLLOWING SITE CLEARING, ALL STORM DRAINAGE CULVERTS AND STRUCTURES SHALL BE INSTALLED. ROCK INLET SEDIMENT TRAPS SHALL BE PLACED AROUND ALL DRAINAGE STRUCTURES TO COLLECT SURFACE RUNOFF AND CONTROL SILTATION AND RELEASE WATER AT A GRADUAL RATE. ALL EASEMENTS OUTSIDE THE PARKING LOT WHERE STORM PIPES ARE INSTALLED WILL BE GRADED, SEEDED AND MULCHED.
3) PARKING LOTS SHALL HAVE STONE BASE PLACED ON THEM FOR STABILIZATION AND SHOULDERS SHALL BE SEEDED TO STABILIZE THE SOIL. SEED BED PREPARATION SHALL BE CONDUCTED ACCORDING TO NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (D.O.T.). THE GROUND SURFACE SHALL BE CLEAR OF STUMPS, STONES, ROOTS, CABLES, WIRE, GRADE STAKES, AND OTHER MATERIALS THAT MIGHT HINDER PROPER GRADING, TILLAGE, SEEDING OR SUBSEQUENT MAINTENANCE OPERATIONS. GRADES ON THE AREA TO BE SEEDED SHALL BE MAINTAINED IN A TRUE AND EVEN CONDITION. MAINTENANCE SHALL INCLUDE ANY NECESSARY REPAIRS TO PREVIOUSLY GRADED AREAS. ALL GRADED AREAS SHALL BE THOROUGHLY TILLED TO A DEPTH OF AT LEAST FOUR (4) INCHES BY PLOWING, DISKING, HARKING, OR OTHER APPROVED METHODS UNTIL THE CONDITION OF THE SOIL IS ACCEPTABLE. SITES WHERE SOIL CONDITIONS ARE SUCH THAT HIGH CLAY CONTENT AND EXCESSIVE COMPACTION CAUSE DIFFICULTY IN GETTING CLODS AND LUMPS EFFECTIVELY PULVERIZED, THE CONTRACTOR SHALL USE THE ROTARY TILLAGE MACHINERY UNTIL THE MIXING OF THE SOIL IS ACCEPTABLE AND NO CLODS OR CLUMPS REMAIN LARGER THAN 1 1/2 INCHES IN DIAMETER. A FIRM AND COMPACT SEED BED IS REQUIRED AND AFTER BEING GRADED, THE SEED BED SHALL BE LIGHTLY COMPACTED WITH A LAND ROLLER, SUCH AS A CULTIPACKER, BEFORE AND AFTER SEEDING. LIMESTONE SHALL BE DOLOMITIC GRAIN AND LIME SHALL BE UNIFORMELY APPLIED AT THE RATE OF 2 TONS PER ACRE. FERTILIZER SHALL BE UNIFORMELY APPLIED AT A RATE OF 500 POUNDS PER ACRE OF 10-20-20 ANALYSIS. THE FERTILIZER SHALL BE INCORPORATED INTO THE UPPER THREE OR FOUR INCHES OF PREPARED SEED BED JUST PRIOR TO THE LAST TILLAGE OPERATION, BUT IN NO CASE SHALL IT BE APPLIED MORE THAN THREE DAYS PRIOR TO SEEDING. FERTILIZER SHALL BE USED IMMEDIATELY AFTER DELIVERY OR STORED IN A MANNER THAT WILL NOT PERMIT IT TO HARDEN OR DESTROY ITS EFFECTIVENESS. WHEN HYDROSEEDING EQUIPMENT IS USED FOR SEEDING, FERTILIZER SHALL BE APPLIED SIMULTANEOUSLY WITH SEED, USING THE ABOVE RATES OF APPLICATION. SEED SHALL BE CERTIFIED SEED OR EQUIVALENT BASED ON NORTH CAROLINA SEED IMPROVEMENT ASSOCIATION REQUIREMENTS FOR CERTIFICATION. ALL SEED SHALL BE FURNISHED IN SEALED STANDARD CONTAINERS. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED PRIOR TO SEEDING WILL NOT BE ACCEPTABLE. SEEDING SHALL BE ACCOMPLISHED WITH HAND PLANTERS, POWER-DRAWN PLANTERS, HAND PACKERS, OR HYDROSEEDING EQUIPMENT AT THE FOLLOWING RATES:

PERMANENT SEEDING SCHEDULE (ENTIRE SITE)

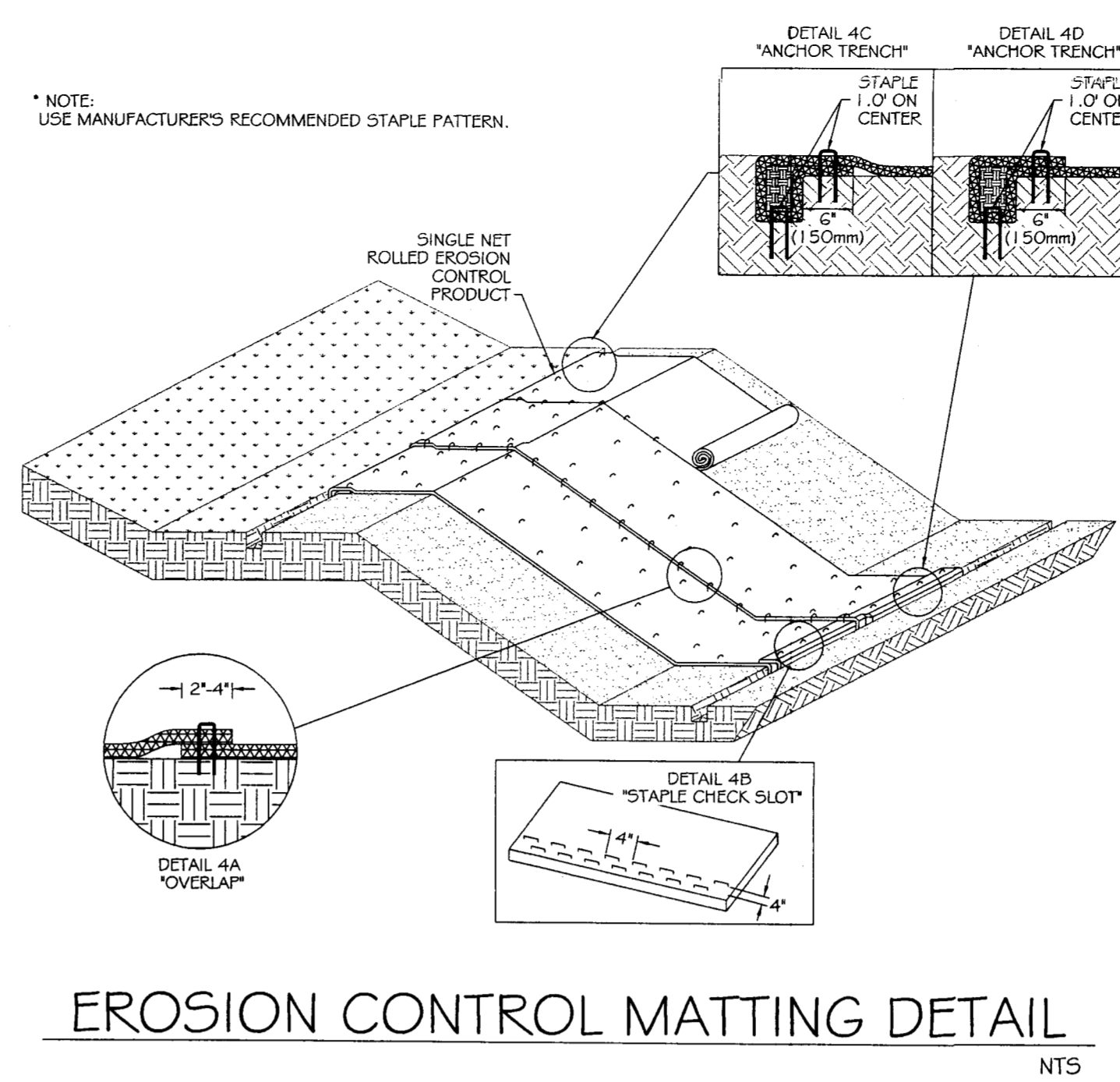
- SEED BED PREPARATION:
LIME - 2 TONS PER ACRE
FERTILIZER (10-20-20) - 500 POUNDS PER ACRE
SEEDING MIXTURE:
(JANUARY 1 - MARCH 31)
COMMON BERMUDA GRASS (UNHULLED) - 20 POUNDS PER ACRE
RYE (GRAIN) - 25 POUNDS PER ACRE
(APRIL 1 - JULY 31)
COMMON BERMUDAGRASS (HULLED) - 15 POUNDS PER ACRE
WEeping LOVEGRASS - 5 POUNDS PER ACRE
CENTIPEDE - 8 POUNDS PER ACRE
(AUGUST 1 - DECEMBER 31)
COMMON BERMUDA GRASS (UNHULLED) - 20 POUNDS PER ACRE
TALL FESCUE - 60 POUNDS PER ACRE
RYE (GRAIN) - 25 POUNDS PER ACRE
SEED BED PROTECTION:
STRAW MULCH - 2 TONS PER ACRE (VISUAL)
ASPHALT TACK - 0.03 GALLONS PER SQUARE YARD

- 4) GROUND STABILIZATION (PER NCGO 10000)
A) SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
I) ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
II) ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
B) CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:
I) EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
II) ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1. THE 7 DAY REQUIREMENT APPLIES.
III) ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.
IV) SLOPES 1'0" OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.
V) ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.
VI) FOR PORTIONS OF PROJECTS WITHIN ONE MILE AND DRAINING TO TROUPT WATERS AND HIGH QUALITY WATERS AS CLASSIFIED BY THE ENVIRONMENTAL MANAGEMENT COMMISSION, STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.
VII) FOR PORTIONS OF PROJECTS LOCATED IN OUTSTANDING RESOURCE WATERS WATERSHEDS AS CLASSIFIED BY THE ENVIRONMENTAL MANAGEMENT COMMISSION, STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT.
VIII) PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TO DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E66C PLAN OR ADDED BY THE PERMITTING AUTHORITY.

PERMANENT SEEDING SCHEDULE (ENTIRE SITE) CONTINUED

- 5) SELF INSPECTION AND REPORTING REQUIREMENTS (PER NCGO 10000) MINIMUM SELF INSPECTION AND REPORTING REQUIREMENTS ARE AS FOLLOWS UNLESS OTHERWISE APPROVED IN WRITING BY THE DIVISION OF WATER QUALITY:
A) A RAIN GAUGE SHALL BE MAINTAINED IN GOOD WORKING ORDER ON THE SITE UNLESS ANOTHER RAIN MONITORING DEVICE HAS BEEN APPROVED BY THE PERMITTING AUTHORITY.
B) A WRITTEN RECORD OF THE DAILY RAINFALL AMOUNTS SHALL BE RETAINED AND ALL RECORDS SHALL BE MADE AVAILABLE TO DWQ OR AUTHORIZED AGENT UPON REQUEST (NOTE: IF NO RAINFALL OCCURRED, THE PERMITTEE MUST RECORD "ZERO").
C) EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. INSPECTION RECORDS MUST BE MAINTAINED FOR EACH INSPECTION EVENT AND FOR EACH MEASURE. AT A MINIMUM, INSPECTION OF MEASURES MUST OCCUR AT THE FREQUENCY INDICATED BELOW:
I) ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
II) ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.50 INCHES OF RAIN PER 24 HOUR PERIOD.
III) TIMES WHEN A DETERMINATION THAT ADVERSE WEATHER CONDITIONS PREVENTED INSPECTIONS SHOULD BE DOCUMENTED ON THE INSPECTION RECORD.
D) ONCE LAND DISTURBANCE HAS BEGUN ON THE SITE, STORMWATER RUNOFF DISCHARGE OUTFALLS SHALL BE INSPECTED BY OBSERVATION FOR EROSION, SEDIMENTATION AND OTHER STORMWATER DISCHARGE CHARACTERISTICS SUCH AS CLARITY, FLOATING SOLIDS, AND OIL SHEENS. INSPECTIONS OF THE OUTFALLS SHALL BE MADE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.50 INCHES OF RAIN PER 24 HOUR PERIOD.
E) INSPECTIONS ARE ONLY REQUIRED TO BE MADE DURING NORMAL BUSINESS HOURS. WHEN ADVERSE WEATHER CONDITIONS CAUSE THE SAFETY OF THE INSPECTION PERSONNEL TO BE IN JEOPARDY, THE INSPECTION CAN BE DELAYED UNTIL IT IS DEEMED SAFE TO PERFORM THESE DUTIES. IF THE INSPECTION CANNOT BE DONE ON THAT DAY, IT MUST BE COMPLETED ON THE FOLLOWING BUSINESS DAY.
F) TWENTY-FOUR HOUR REPORTING FOR VISIBLE SEDIMENT DEPOSITION
I) THE PERMITTEE SHALL REPORT TO THE DIVISION OF WATER QUALITY CENTRAL OFFICE OR THE APPROPRIATE REGIONAL OFFICE ANY VISIBLE SEDIMENT BEING DEPOSITED IN ANY STREAM OR WETLAND OR ANY NONCOMPLIANCE WHICH MAY ENDANGER HEALTH OR THE ENVIRONMENT (SEE SECTION IX OF THIS PERMIT FOR CONTACT INFORMATION.) ANY INFORMATION SHALL BE PROVIDED ORALLY OR ELECTRONICALLY WITHIN 24 HOURS FROM THE TIME THE PERMITTEE BECAME AWARE OF THE CIRCUMSTANCES. VISIBLE DISCOLORATION OR SUSPENDED SOLIDS IN THE EFFLUENT SHOULD BE RECORDED ON THE INSPECTION RECORD AS PROVIDED BELOW.
II) A WRITTEN SUBMISSION SHALL BE PROVIDED TO THE APPROPRIATE REGIONAL OFFICE OF THE DWQ WITHIN 5 DAYS OF THE TIME THE PERMITTEE BECAME AWARE OF THE CIRCUMSTANCES. THE WRITTEN SUBMISSION SHALL CONTAIN A DESCRIPTION OF THE SEDIMENT DEPOSITION AND ACTIONS TAKEN TO ADDRESS THE CAUSE OF THE DEPOSITION. THE DIVISION OF WATER QUALITY STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS.
G) RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS 30 DAYS SHALL REMAIN ON THE SITE AND AVAILABLE FOR AGENCY INSPECTORS AT ALL TIMES DURING NORMAL WORKING HOURS, UNLESS THE PERMITTING AUTHORITY PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE THIS REQUIREMENT NOT PRACTICAL. OLDER RECORDS MUST BE MAINTAINED FOR A PERIOD OF ONE YEAR AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. THE RECORDS MUST PROVIDE THE DETAILS OF EACH INSPECTION INCLUDING OBSERVATIONS, AND ACTIONS TAKEN IN ACCORDANCE WITH THIS PERMIT. THE PERMITTEE SHALL RECORD THE REQUIRED RAINFALL AND MONITORING OBSERVATIONS ON THE "INSPECTION RECORD FOR ACTIVITIES UNDER STORMWATER GENERAL PERMIT NCGO 10000" FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT IS INCLUSIVE OF ALL OF THE ELEMENTS CONTAINED IN THE DIVISION'S FORM. THE ELECTRONIC STORAGE OF RECORDS WILL BE ALLOWED IF APPROVED BY THE PERMITTING AUTHORITY.
H) INSPECTION RECORDS MUST INCLUDE, AT A MINIMUM, THE FOLLOWING:
I) CONTROL MEASURE INSPECTIONS: INSPECTION RECORDS MUST INCLUDE AT A MINIMUM:
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) CORRECTIVE ACTIONS TAKEN AND
7) DATE OF ACTIONS TAKEN.
II) STORMWATER DISCHARGE INSPECTIONS: INSPECTION RECORDS MUST INCLUDE AT A MINIMUM:
1) IDENTIFICATION OF THE DISCHARGE OUTFALL 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) ACTIONS TAKEN TO CORRECT/PREVENT SEDIMENTATION AND
7) DATE OF ACTIONS TAKEN.
III) VISIBLE SEDIMENTATION FOUND OUTSIDE THE SITE LIMITS: INSPECTION RECORDS MUST INCLUDE:
1) AN EXPLANATION AS TO THE ACTIONS TAKEN TO CONTROL FUTURE RELEASES,
2) ACTIONS TAKEN TO CLEAN UP OR STABILIZE THE SEDIMENT THAT HAS LEFT THE SITE LIMITS AND
3) THE DATE OF ACTIONS TAKEN.
IV) VISIBLE SEDIMENTATION FOUND IN STREAMS OR WETLANDS: ALL INSPECTIONS SHOULD INCLUDE EVALUATION OF STREAMS OR WETLANDS ONSITE OR OFFSITE (WHERE ACCESSIBLE) TO DETERMINE IF VISIBLE SEDIMENTATION HAS OCCURRED.
V) VISIBLE STREAM TURBIDITY - IF THE DISCHARGE FROM A SITE RESULTS IN VISIBLE STREAM TURBIDITY, INSPECTION RECORDS MUST RECORD THAT EVIDENCE AND ACTIONS TAKEN TO REDUCE SEDIMENT CONTRIBUTIONS. SITES DISCHARGING TO STREAMS NAMED ON THE STATES 303(D) LIST AS IMPAIRED FOR SEDIMENT-RELATED CAUSES MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING. INSPECTIONS OR APPLICATION OF MORE-STRINGENT MANAGEMENT PRACTICES IF IT IS DETERMINED THAT THE ADDITIONAL REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS, IF A DISCHARGE COVERED BY THIS PERMIT ENTERS A STREAM SEGMENT THAT IS LISTED ON THE IMPAIRED STREAM LIST FOR SEDIMENT-RELATED CAUSES, AND A TOTAL MAXIMUM DAILY LOAD (TMDL) HAS BEEN PREPARED FOR THOSE POLLUTANTS, THE PERMITTEE MUST IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE SITE IS CONSISTENT WITH THE ASSUMPTIONS AND MEETS THE REQUIREMENTS OF THE APPROVED TMDL. THE DWQ 303(D) LIST CAN BE FOUND AT: HTTP://H2O.ENR.STATE.NC.US/TMDL/GENERAL_303D.HTM

- 6) ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL ALL SEEDING IS ESTABLISHED AND CONSTRUCTION AREAS HAVE BEEN STABILIZED.
7) TEMPORARY SEEDING - SEED IN ACCORDANCE WITH SOIL CONSERVATION SERVICE RECOMMENDATIONS WITH REGARD TO SEED TYPE, RATE OF APPLICATION, FERTILIZER, ETC.

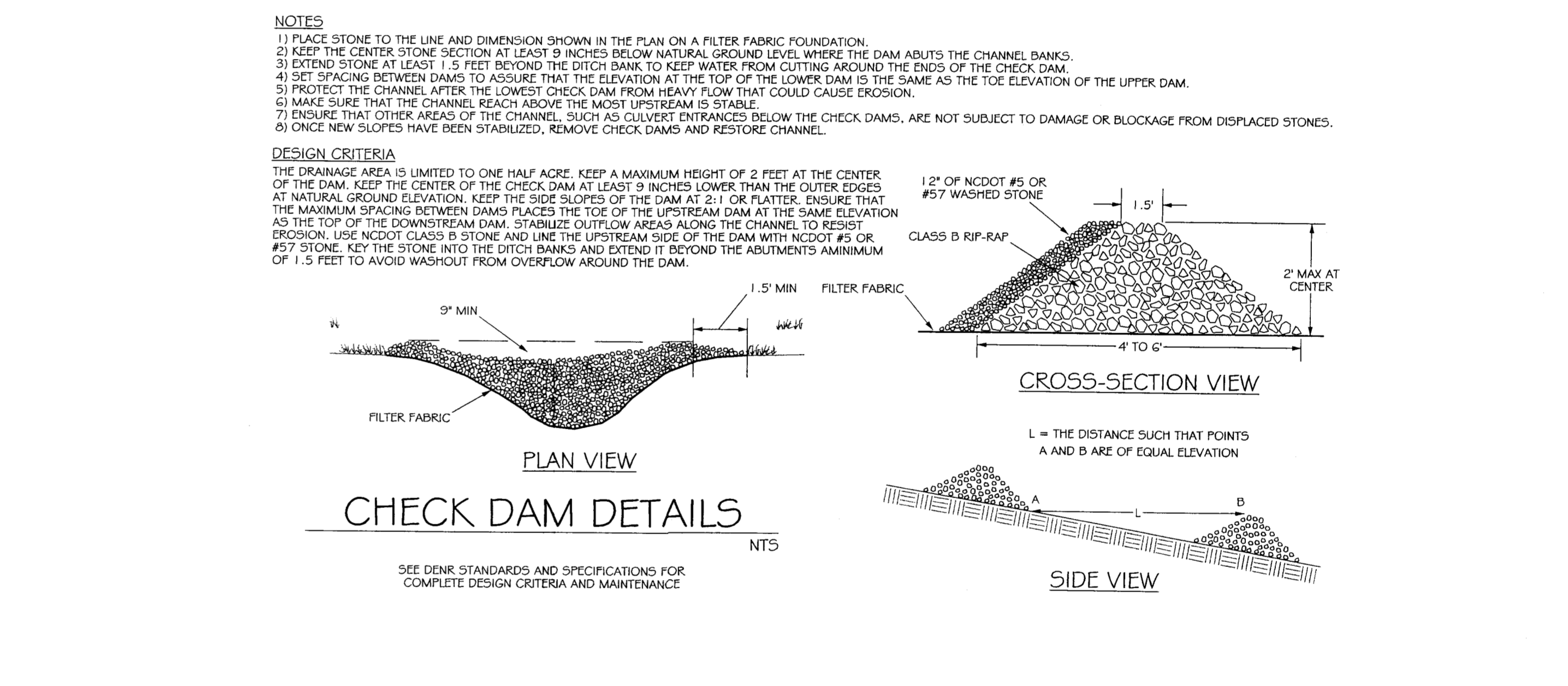


EROSION CONTROL MATTING DETAIL

Table with 3 columns: Planting Zone, Plantings, Spacing. Lists plantings for Aquatic Zone, Reed / Bank Zone, and Shrub / Tree Zone.

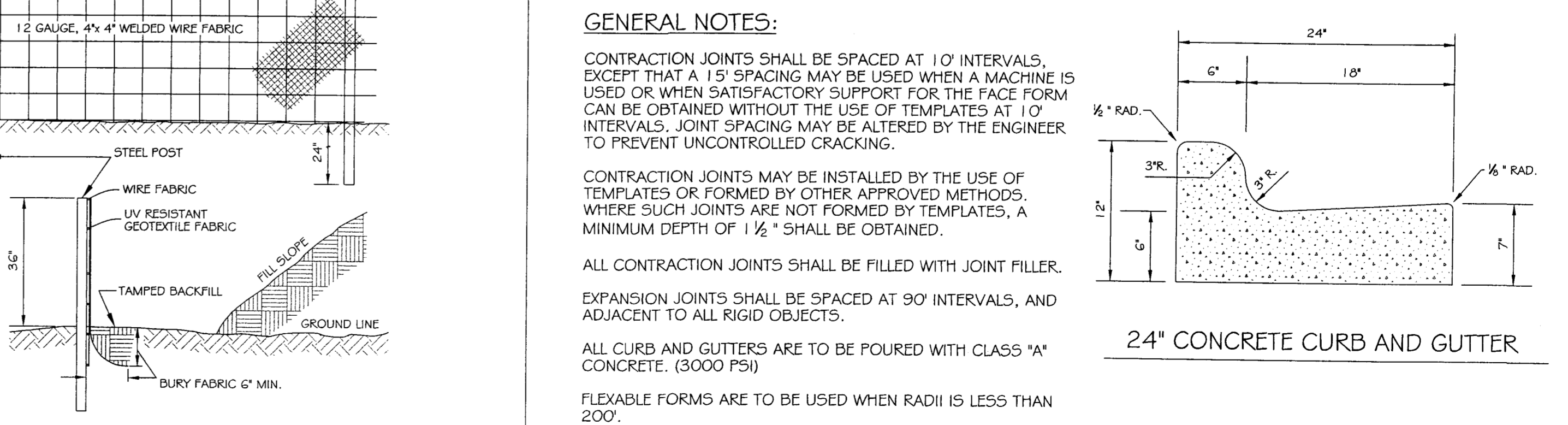
RESTORATION PLANTINGS

Notes: Restoration plantings shall be installed on the north side of the channel between STA 0+25 and STA 2+40.

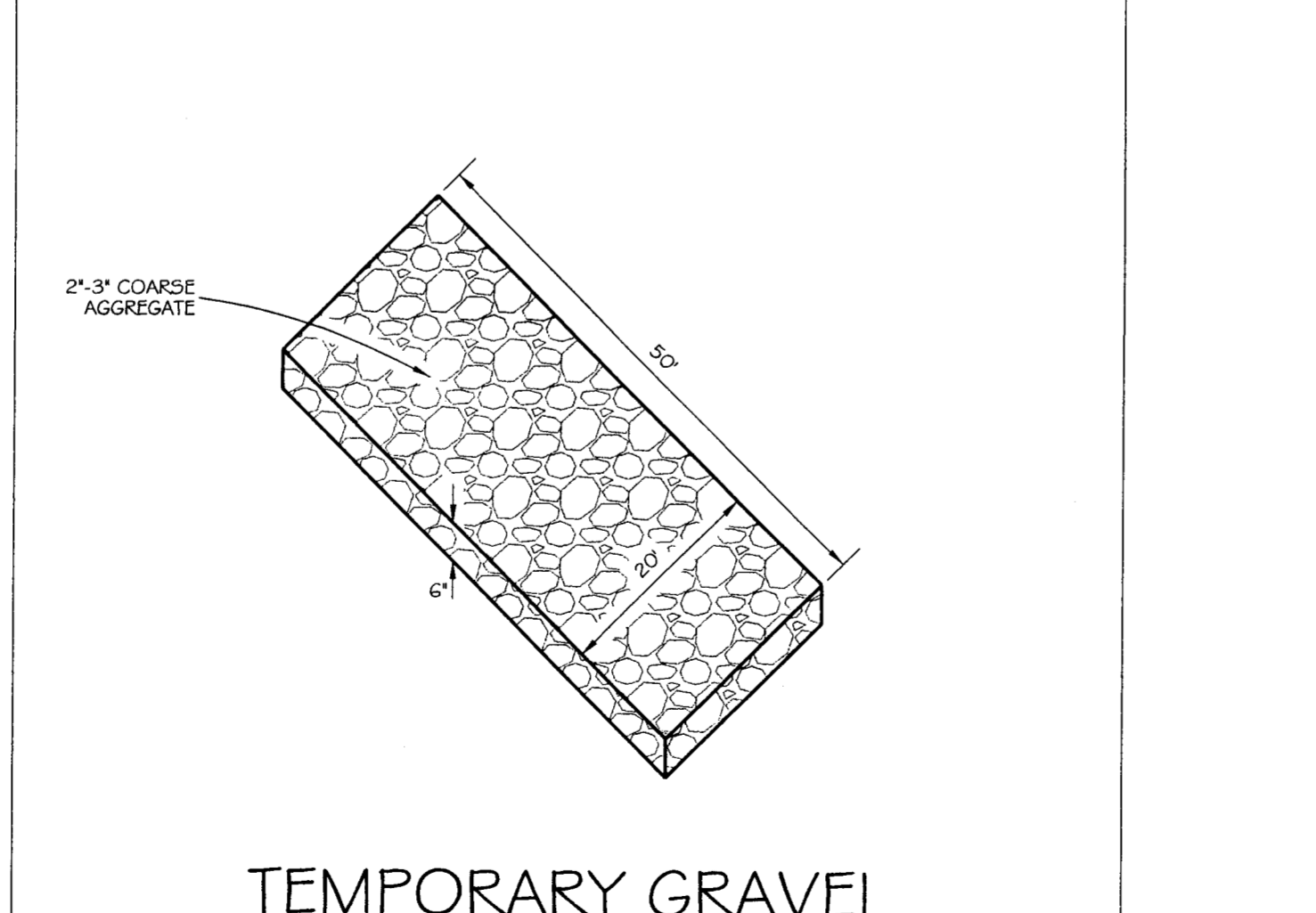


CHECK DAM DETAILS

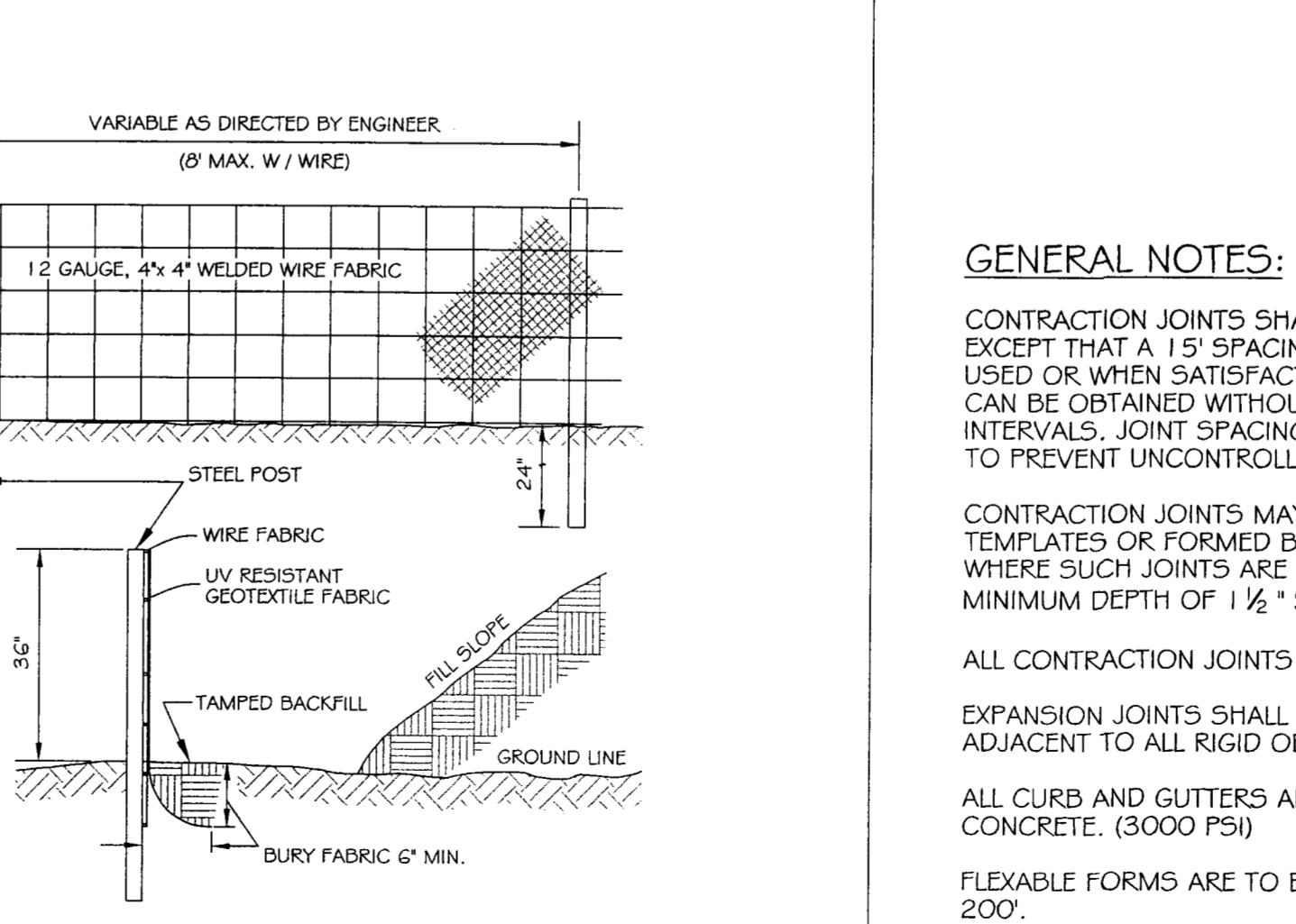
GENERAL NOTES: CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.



STANDARD 2'-0" CURB AND GUTTER



TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



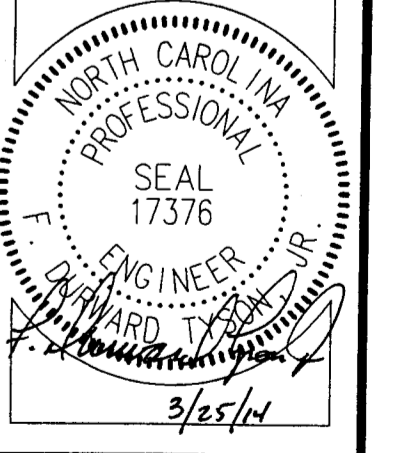
TEMPORARY SILT FENCE

REVISIONS table with columns for DATE, COMMENTS, and REVISION NUMBER.

CONSTRUCTION DETAILS CITY OF GREENVILLE EASTBROOK DRIVE CULVERT REMOVAL AND STREAM BANK IMPROVEMENTS CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA

Engineers Planners Surveyors Landscape Architects NC License F-03394

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Project Manager: FDT Project Engineer: STA Designated By: KTW Drawn By: JHT Checked By: FDT Project Number: 2012107 Drawing Number: W-3458 Scale: NOT TO SCALE Date: SEPTEMBER 28, 2012