SW-11-014-2 33G 20030405 P-0

Permit:	33-G
Name:	City of Rocky Mount LCID Landfill
County:	Edgecombe
Shipped Date:	
Box:	SW-11-014
Document Type:	Other (O)
Document Date:	4/5/2003
Division:	Waste Management (WM)
Sub-Division:	Solid Waste (SW)
Document Category:	Facility (F)
Document Group:	Authorization or Permit (P)
Description:	Map: LCID LF, PTC, Phase VII. Maps in Roll: 10

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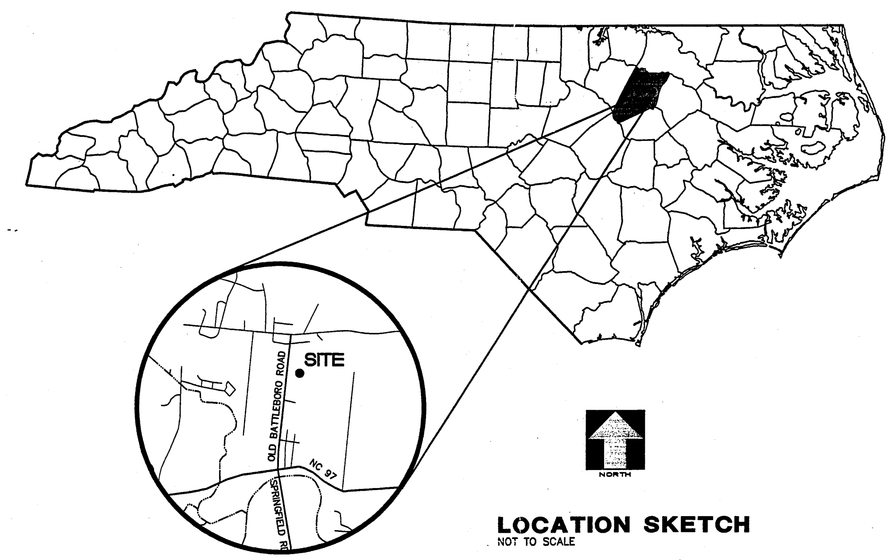
CITY OF ROCKY MOUNT
LCID LANDFILL

GENERAL NOTES

1. Location and topographical information was taken from an actual field survey performed by Joyner, Keeny & Associates dated January 3, 2005. Reference Datum is MSL.
2. Storm drainage pipe if shown, is to be Class III reinforced concrete meeting ASTM C-76, latest revision.
3. All materials, construction, workmanship shall meet the City of Rocky Mount Manual of Specifications, Standards and Design.
4. All concrete is to be minimum 3000 psi at 28 days, air entrained unless otherwise noted on the plans.
5. All signs, pavement markings, and other traffic control devices shall conform to the Manual on Uniform Traffic Control Devices, latest edition as amended, and are the Contractor's responsibility.
6. Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by AGC of America, Inc., and the Safety and Health Regulations for Construction issued by the U.S. Department of Labor.
7. Existing utility locations shown, if any, are approximate and shall be verified in the field prior to beginning work. Contractor shall contact NC One Call Center at 1-800-632-4949 for locations of existing utilities prior to beginning construction.
8. △1 Any relocation of existing electrical facilities will be at the owner's expense.
9. Property is not located in a FEMA mapped flood area or Flood Hazard zone.
10. Owner is responsible for determination or discovery of existing underground storage tanks (UST), septic tanks, abandoned utility lines, graves or cemeteries that may exist on the site.
11. Site disturbance is more than 1 acre therefore an erosion control permit has been applied for. No work shall begin on site until an approved copy of the erosion control permit has been obtained from the review agency. All additional erosion control items that are installed that are not shown on the plans, shall be approved by the local agency or the Engineer before installing in order to approve for payment. Items not approved will be installed at the contractor's expense.
12. This site is not located within a Watershed Protected Zone.
13. △1 The site has been delineated for 404 wetlands by a wetlands specialist from our office and the wetlands delineation confirmed by the US Army COE. All the wetlands, except for the area located in the existing ditch, is classified as non-jurisdictional by the US Army COE. Total disturbance of all wetlands is 0.99 acres.
14. Boundary information is shown for reference only. Consult Professional Land Surveyor for boundary data.
15. Unless noted otherwise, all trees not marked to be removed are not to be disturbed. They are to be protected from damage by equipment during construction.
16. The contractor shall be responsible for the repair of any pavement or existing utilities that may be damaged due to construction activity. Exercise caution.
17. It is common for revisions to occur to the sealed drawings during the permitting and bidding phase. As a result, only plans signed and dated by the Engineer of Record in the "Approved for Construction" certificate (in addition to the signature and date over the seal) and, if applicable, also bearing the signature and date of the applicable local government authority reviewing and approving the plans, will be considered the Approved Construction Drawings. These plans only are to be used for construction. Work either staked or constructed from plans stamped "Preliminary" or with the signature missing from the "Approved for Construction" certificate will be considered unacceptable for construction. The contractor shall be responsible for remediating and correcting all conflicts created by him, at his own expense, which may be at variance with the Approved Construction Drawings.



LOCATION SKETCH
NOT TO SCALE

INDEX

CE-1 LOCATION MAP
CE-2 GRADING PLAN
CE-3 SOLID WASTE PLAN
CE-4 PROFILE & CROSS SECTIONS
CE-5 CROSS SECTIONS (CON'T)
CE-6 CROSS SECTIONS (CON'T)
CE-7 EROSION CONTROL & SEDIMENT PLAN
CE-8 EROSION CONTROL NOTES & DETAILS
CE-9 EROSION CONTROL DETAILS

DEVELOPED BY:

CITY OF ROCKY MOUNT
P.O. BOX 1180
ROCKY MOUNT, NC 27802
252-972-1121

CONSULTANTS:

SURVEYING:
JOYNER, KEENY, & ASSOCIATES
ROCKY MOUNT, NC 27804
252-977-3124

JOYNER - KEENY & ASSOCIATES
PLANNING & LAND SURVEYING
ROCKY MOUNT, NORTH CAROLINA 27804
(919) 977 - 3124

SITE PLAN LEGEND

- EX. CURB & GUTTER TO REMAIN
- PRO. CURB & GUTTER
- PRO SPILL LIP
- EX .AREA LIGHT
- PROPOSED AREA LIGHT
- CONCRETE
- EX. ELEC. LINE
- PRO. UNDER-GROUND ELECTRIC
- EX. SANITARY SEWER
- EX. WATER MAIN
- 950 EXISTING CONTOUR
- 950 PROPOSED CONTOUR
- 950.00 EXISTING GRADE
- 950.00 PROPOSED FINISHED GRADE

UTILITY SYMBOLS

- DRAINAGE PIPE, FES (FLARED END SECTION) & RIP RAP.
- CATCH BASIN, DRAINAGE PIPE & JUNCTION BOX
- TEE, G.V. & FIRE HYDRANT W/BLOCKING
- 8" S.S. & MANHOLE
- TEE & G.V. W/BLOCKING
- DENOTES STOP SIGN LOCATION
- STREET NAME LOCATION

NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER ROBERT J. JOYNER
1 May 02

SITE INFO.

TRACT ACREAGE: 401.50 Ac.
ZONE: A-1
AREA DISTURBED 79.74 Ac.

Comments
4/5/03

REVISIONS				
NO. △	DATE:	DESCRIPTION:	BY:	CAD:
△	4-29-02	COMMENTS BASED ON CRM	PS	CH

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CIVIL, MUNICIPAL & STRUCTURAL ENGINEERS
COMPREHENSIVE ENVIRONMENTAL SERVICES

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 4/15/03 BY JKS

Received
Edgecombe County

APPIAN CONSULTING ENGINEERS, P.A.
Rocky Mount:
841 South Wesleyan Blvd. Rocky Mount, N.C. 27804
Phone: (252) 972-7703
Fax: (252) 972-7638
Email: admin@appianengineers.com
World Wide Web: www.appianengineers.com

CRM LANDFILL / J.N. 01-065 / D-
IM, 11100, PLOT BY CH
CITY OF ROCKY MOUNT LCID LANDFILL
PERMIT TO CONSTRUCT - PHASE VII
CENTRAL FILE COPY

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Certification by the Department of Planning and Development that this Construction plat was approved by the City Planning Board on _____ day of _____, _____

Director: _____

Certification by the City Engineering Department that this Construction Plat meets the appropriate City Standards.

City Engineer: _____ Date: _____

Certified by the director of planning and development and city engineer that this planned building group was approved by the planning board and/or technical review committee on: _____ (date) and meets the standard set forth in the zoning ordinance

City Engineer _____

Director of Planning & Development _____

BEFORE YOU DIG CALL TOLL FREE 1-800-632-4949 NORTH CAROLINA ONE-CALL CENTER

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Approved for Construction:

_____ Date: _____

RECORD DRAWINGS:
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By: _____ Date: _____

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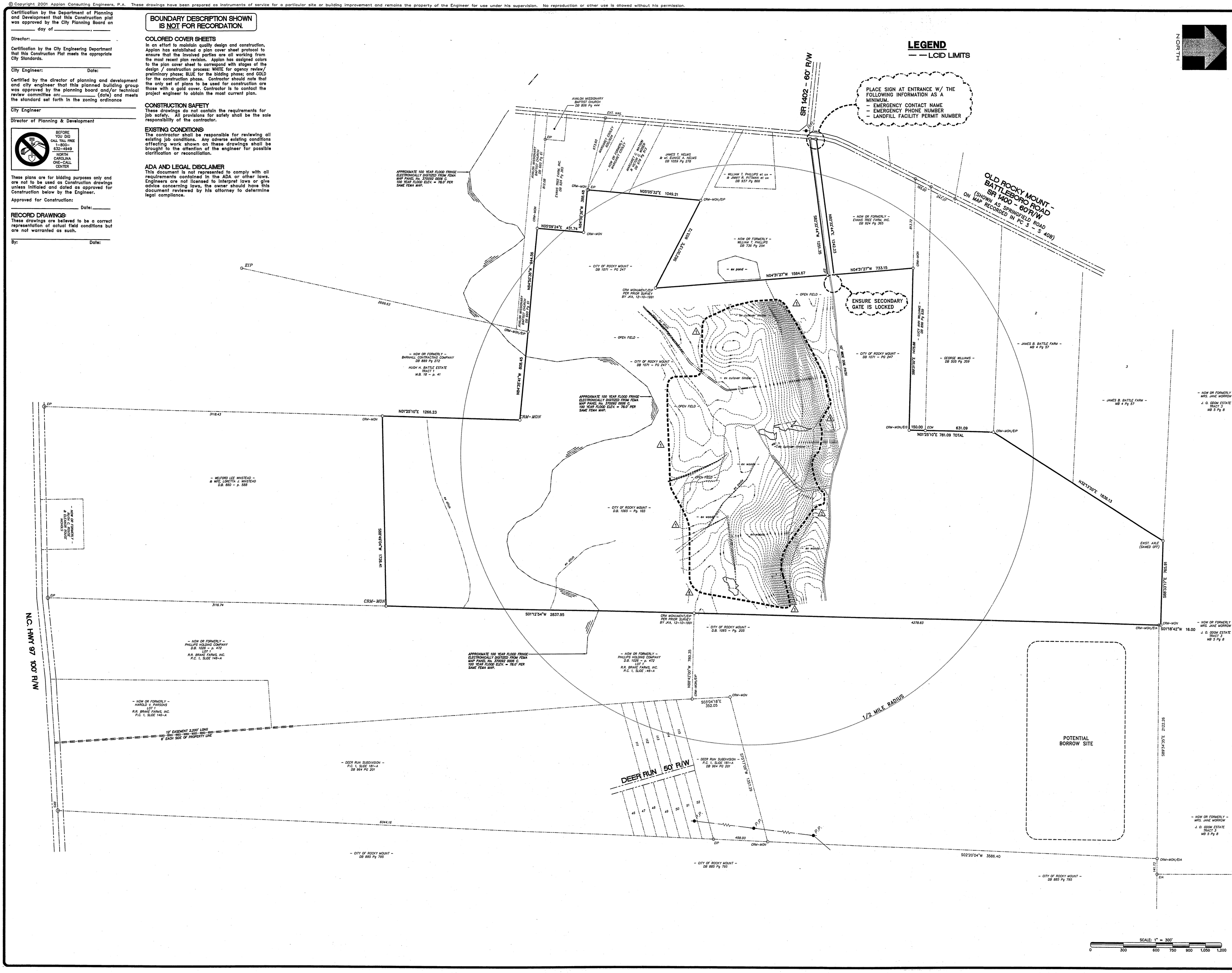

HOR. SCALE: 1" = 300'	DATE: March 8, 2002	ISSUED: Pete Soloviat	
VER. SCALE: AS NOTED	DRAWN BY: Chris Herron	CHKD: Bobby Joyner	

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CAD:
1	4-29-02	COMMENTS BASED ON CRM	PS	CH

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admin@appianengineers.com

NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER BOBBY L. JOYNER
9-26-02

LOCATION MAP for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065

D-

CE-1

C:\China\01065-CRM-LANDFILL\01065-S2.dwg, 09/26/02 08:17:22 AM, 1:300, PLOT BY CH

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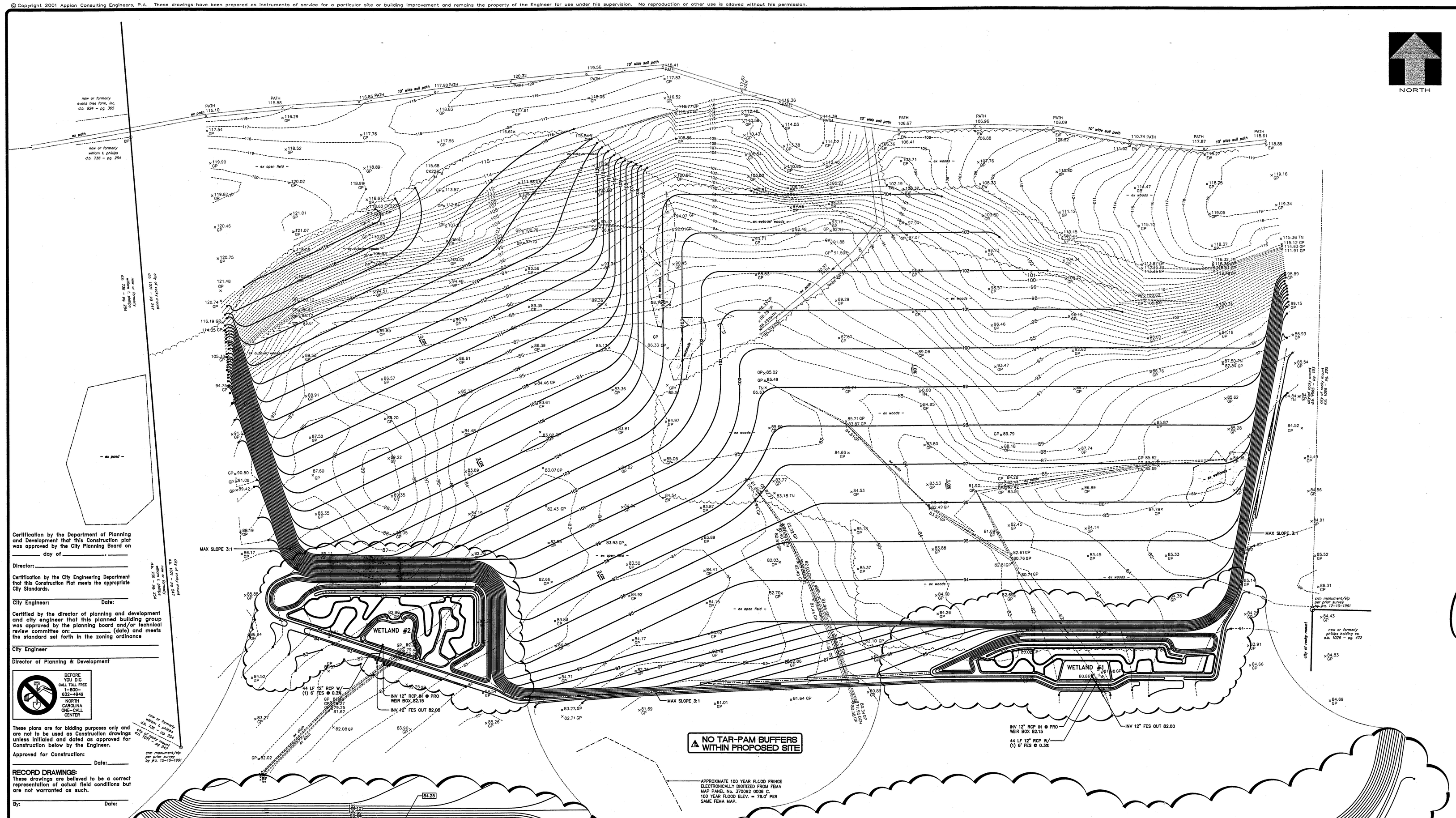
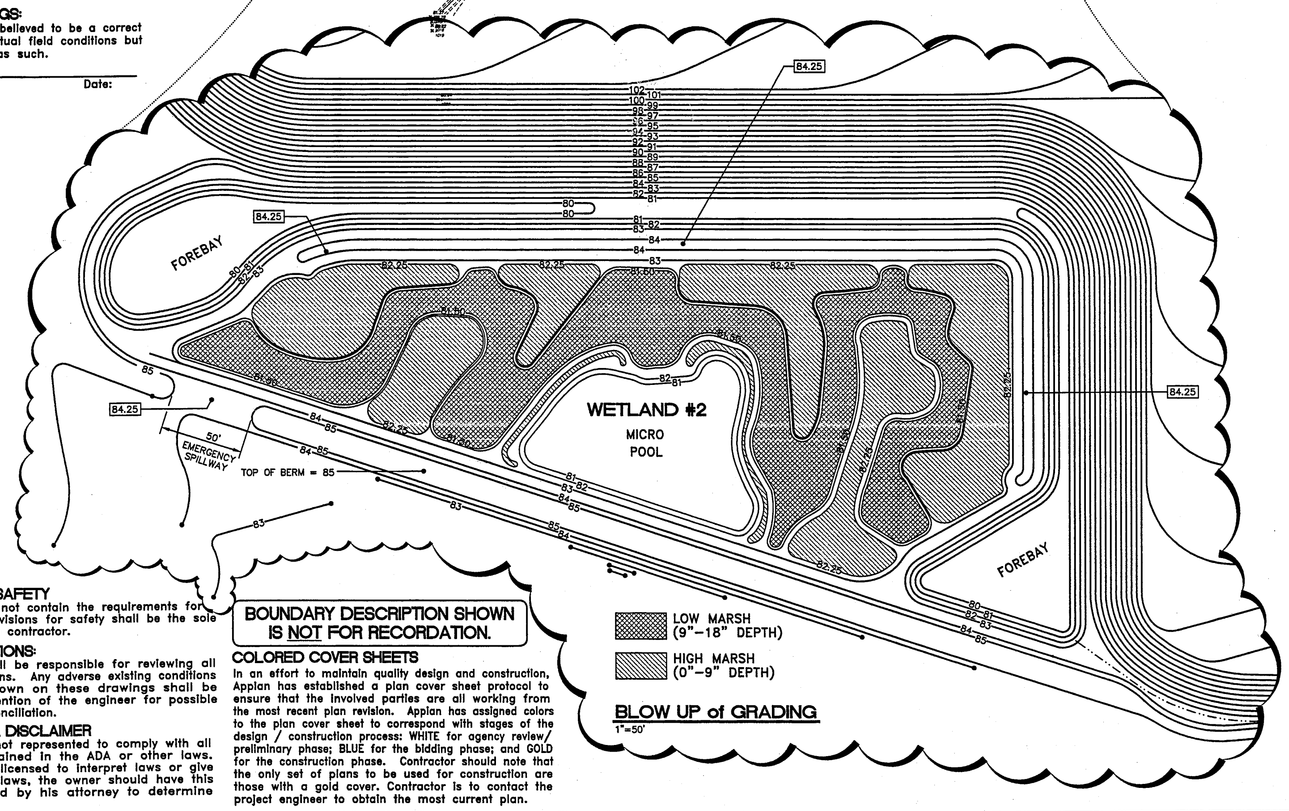
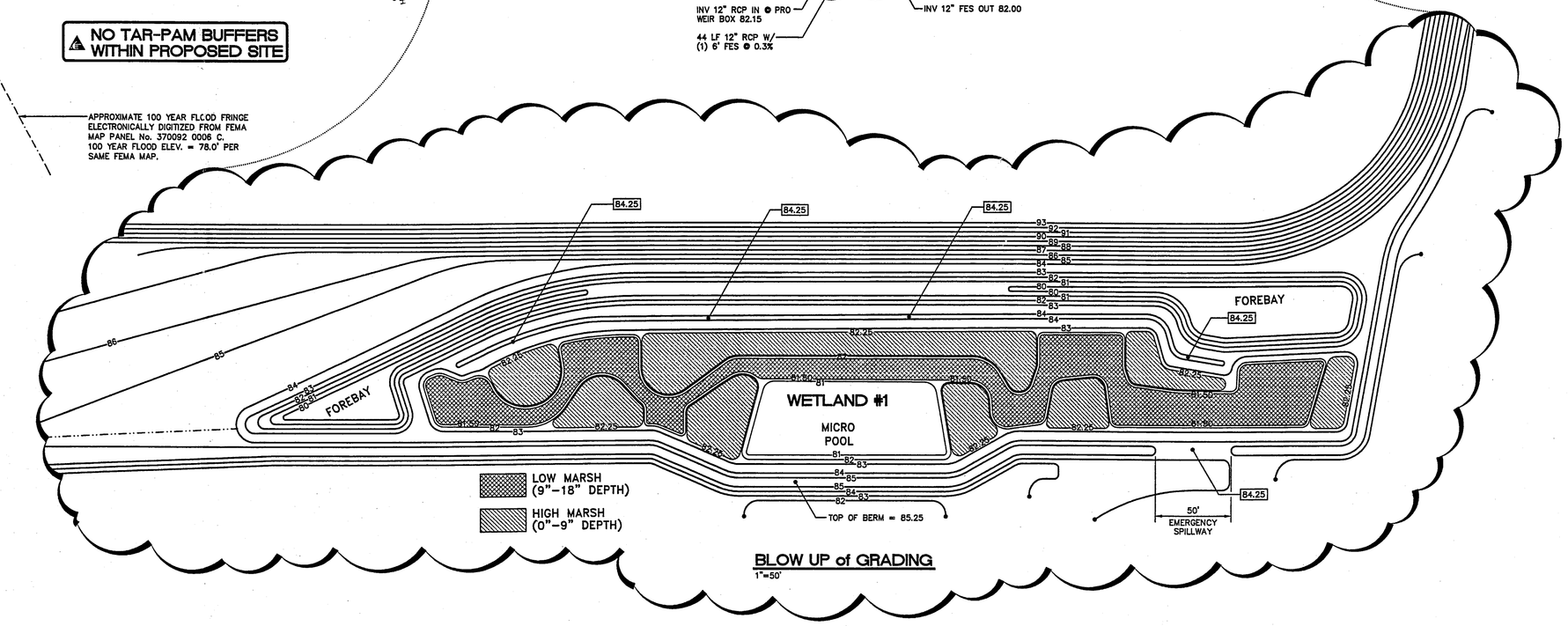




BLOW UP of GRADING
1"=50'



BLOW UP of GRADING
1"=50'

Certification by the Department of Planning and Development that this Construction plat was approved by the City Planning Board on _____ day of _____, _____

Director: _____

Certification by the City Engineering Department that this Construction Plat meets the appropriate City Standards.

City Engineer: _____ Date: _____

Certified by the director of planning and development and city engineer that this planned building group was approved by the planning board and/or technical review committee on: _____ (date) and meets the standard set forth in the zoning ordinance

City Engineer

Director of Planning & Development

BEFORE YOU DIG CALL TOLL FREE 1-800-632-4949 NORTH CAROLINA ONE-CALL CENTER

These plans are for bidding purposes only and are not to be used as Construction drawings unless initialed and dated as approved for Construction below by the Engineer.

Approved for Construction:

_____ Date: _____

RECORD DRAWINGS:
These drawings are believed to be a correct representation of actual field conditions but are not warranted as such.

By: _____ Date: _____

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PLANTING SCHEDULE

ZONE	PROPOSED PLANTED SPECIES	% COVER	WETLAND 1 AREA	WETLAND 2 AREA
PLANT ZONE A (0"-9" DEPTH)	SOFT STEM BULLRUSH (SCIRPUS VALIDUS)	33%	52024 SF	78770 SF
	SMARTWEED (POLYGONAUM SPP.)	33%		
	SOFTRUSH (JUNCUS EFFESUS)	33%		
PLANT ZONE B (9"-18" DEPTH)	COONTAIL (CERATOPHYLLUM DWOERSOM)	33%	52024 SF	78770 SF
	DUCKWEED (LEMMA SPP.)	33%		
	WILD CELERY (VALISNERIA AMERICAN)	33%		

SCALE: 1" = 100'
0 100 200 250 300 350 400

HOR. SCALE:	1" = 100'
VER. SCALE:	AS NOTED
DATE:	January 9, 2002
DRAWN BY:	Chris Herron
DESIGN:	Pete Sokolski
CHKD:	Bobby Joyner

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CHKD:	CAD:
1	4-29-02	COMMENTS BASED ON CRM	PS	CH	
2	9-16-02	CHANGES PER NCDENR	PS	CH	

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8421 BOBBY JOYNER
9.26.02

GRADING PLAN for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065
D-
CE-2

C:\Cmha\01065-CRM-LANDFILL\01065-S1.dwg, 09/26/02 04:09:35 PM, 1:1:00, PLOT BY CH

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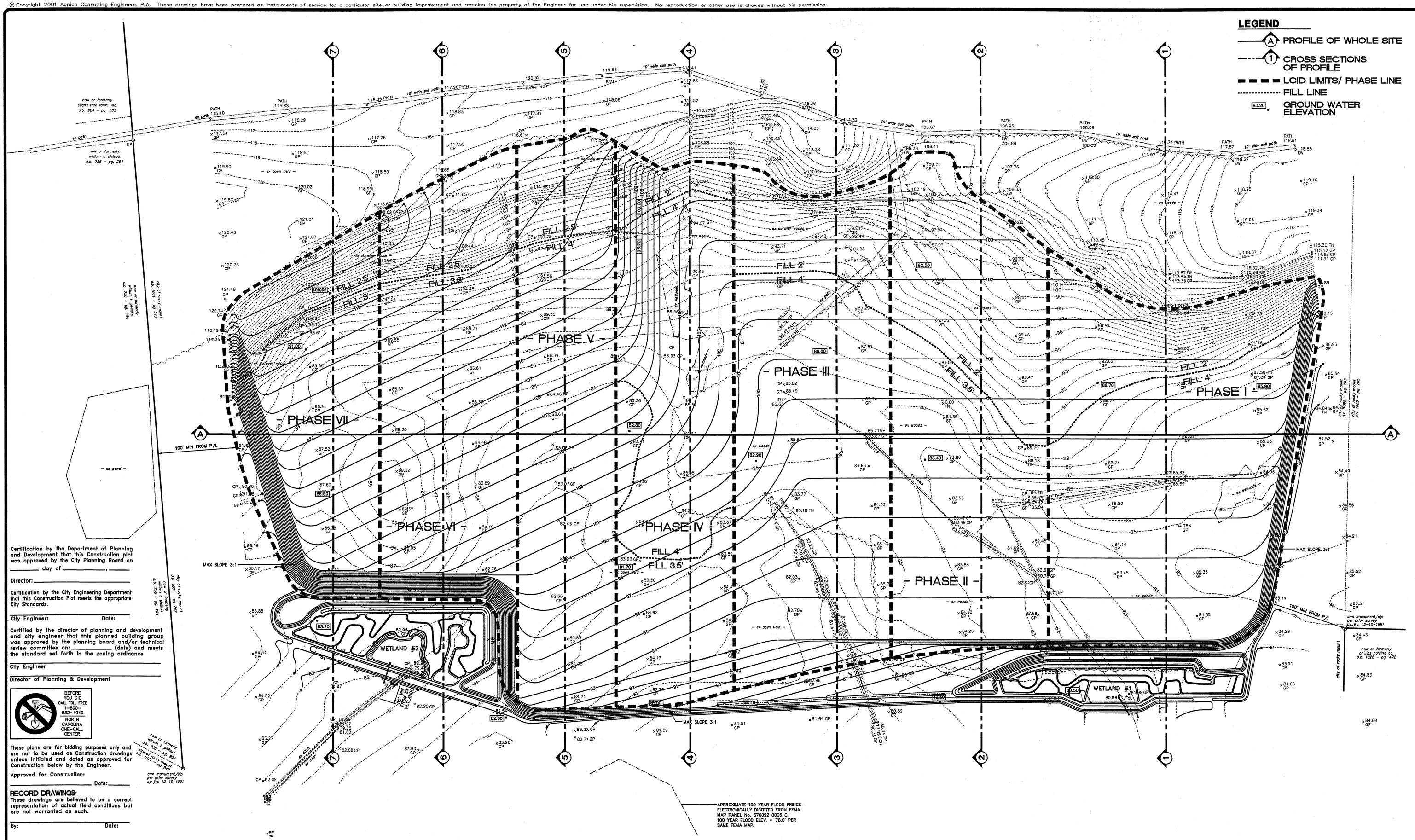

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Director: _____

Certification by the City Engineering Department that this Construction Plat meets the appropriate City Standards.

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Director of Planning & Development _____

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Approved for Construction: _____ Date: _____

RECORD DRAWINGS:
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By: _____ Date: _____

PHASES	FILL AMOUNT
I	99,000 CY
II	109,630 CY
III	108,766 CY
IV	137,564 CY
V	160,200 CY
VI	172,226 CY
VII	153,342 CY

TOTAL ISOLATED WETLANDS TO BE FILLED (TBF) = 0.77 Ac.

SCALE: 1" = 100'
0 100 200 250 300 350 400

SPECIFIC NOTES

1. The City of Rocky Mount LCID Landfill shall comply fully with all requirements set forth under rule .0564 applied by the North Carolina Department of Environment, and Natural Resources, Solid Waste Management Division, Solid Waste Section.
2. The facility shall be operated for the disposal of land clearing waste, inert debris, untreated wood, and yard trash. All materials shall be inspected for compliance with acceptance regulations before being placed in the landfill.
3. No endangered or threatened species nor any habitat of an endangered or threatened species will be destroyed nor modified by the operation of this landfill.
4. There are no archeological or historical sites within the property.
5. The property is currently zoned A-1 (Agricultural). The operation of the LCID Landfill will be in compliance with the local zoning ordinance. The local unit of government with zoning authority is the City of Rocky Mount, North Carolina.
6. Proposed LCID material shall not be placed closer than 50 feet from all surface waters as defined in G.S. 143-212.
7. Proposed LCID material shall not be placed closer than 100 feet from property lines, residential dwellings, commercial or public buildings, and wells.
8. Proposed LCID material shall be placed outside of the 100-year floodplain as shown.
9. No location for stockpiling topsoil cover has been shown because cover material is to be provided off-site as needed by the City of Rocky Mount.
10. The City of Rocky Mount is to maintain existing dirt entrance path.
11. There is an existing entrance gate, lock, and sign at the entrance to the proposed LCID landfill. The existing access gate serving the property shall be locked during non-operating hours.

CONSTRUCTION SAFETY
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NOR. SCALE:	1" = 100'	DATE: January 9, 2002	DESIGN: Pete Solecki
VER. SCALE:	AS NOTED	DRAWN BY: Chris Herron	DES: Bobby Joyner

REVISIONS:

NO.	DATE:	DESCRIPTION:	BY:	CAD:
1	4-29-02	COMMENTS BASED ON CRM	PS	CH
2	9-16-02	CHANGES PER MODNR	PS	CH
3				

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FAX: (252) 972-7638
— WORLD WIDE WEB: —
www.applanengineers.com
admin@applanengineers.com

NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER BOBBY L. JOYNER
9.26.02

SOLID WASTE PLAN for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065
D-
CE-3

C:\Chris\01065-CRM-LANDFILL\01065-S1.dwg, 09/26/02 08:17:56 AM, 1:100, PLOT BY CH

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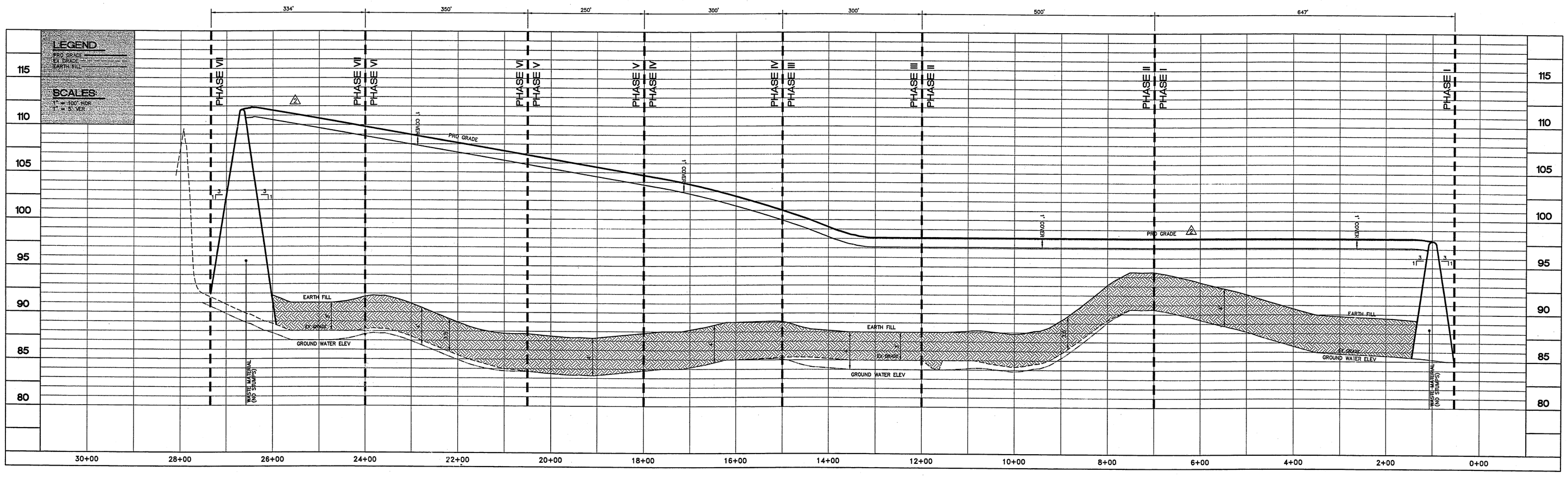
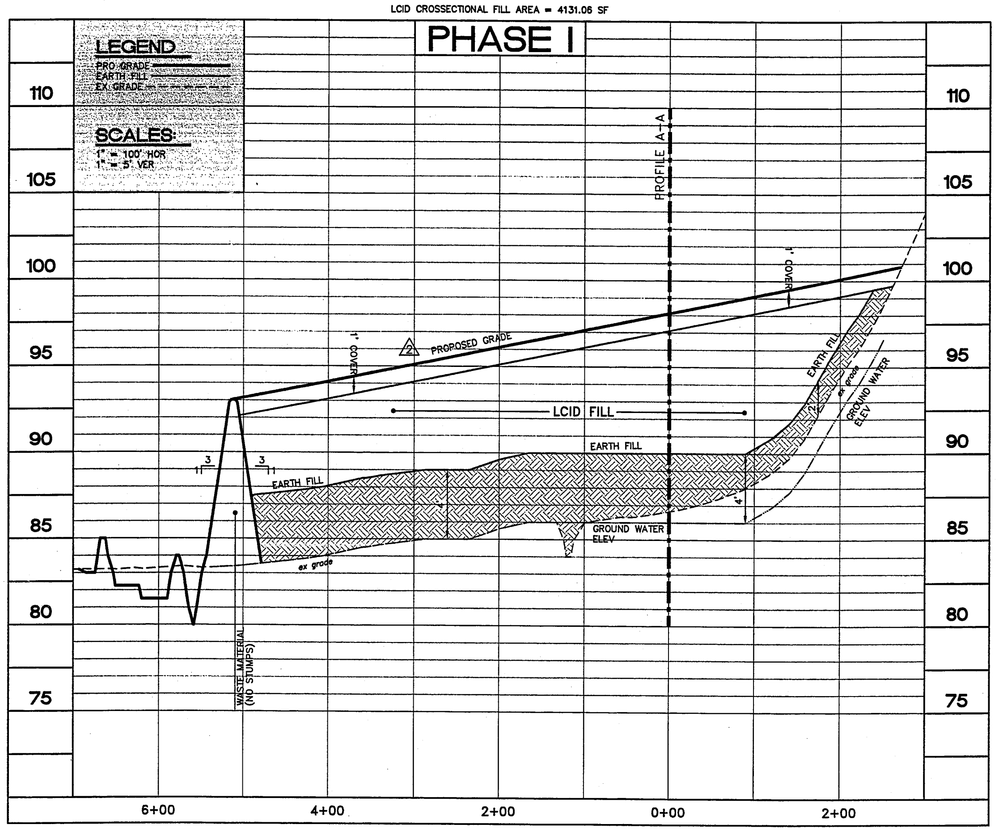
PROFILE A-A
STA 0+00 thru STA 27+34.24



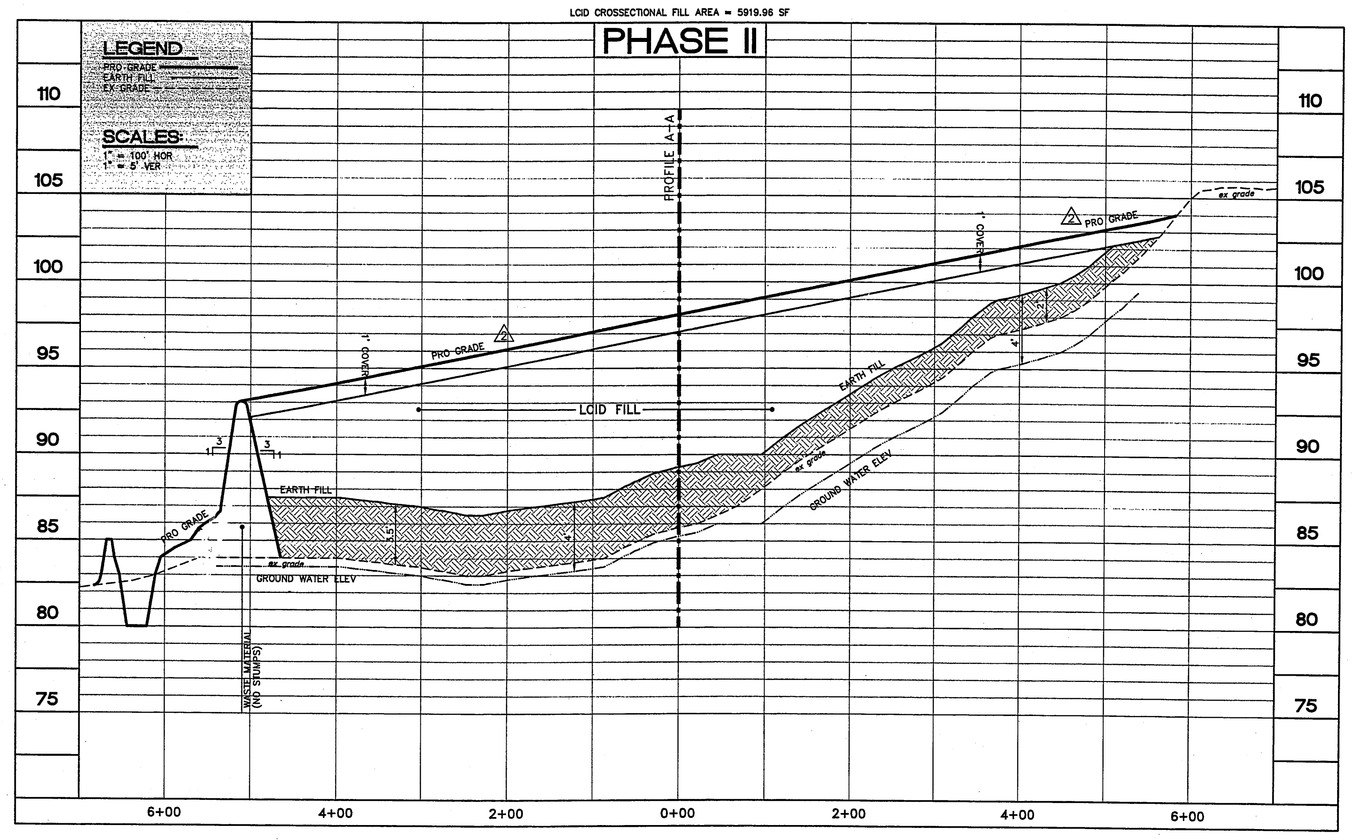
CROSS SECTION 1-1 STA 4+00

LCID CROSSECTIONAL FILL AREA = 4131.06 SF



CROSS SECTION 2-2 STA 9+00

LCID CROSSECTIONAL FILL AREA = 5919.96 SF



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HOR. SCALE: AS NOTED | DATE: March 6, 2002 | DESIGN: Pete Sokolski
VER. SCALE: AS NOTED | DRAWN BY: Chris Herron | CHKD: Bobby Joyner

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CHKD.
1	4-29-02	COMMENTS BASED ON CRM	PS	CH
2	9-24-02	CHANGES PER NCDENR	PS	CH

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NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER BOBBY L. JOYNER
9.24.02

APPIAN

PROFILE & CROSS SECTIONS for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065
D-
CE-4

C:\Chris\01065-CRM-LANDFILL\01065-P1.dwg, 09/26/02 08:16:24 AM, 1:100, PLOT BY: CH

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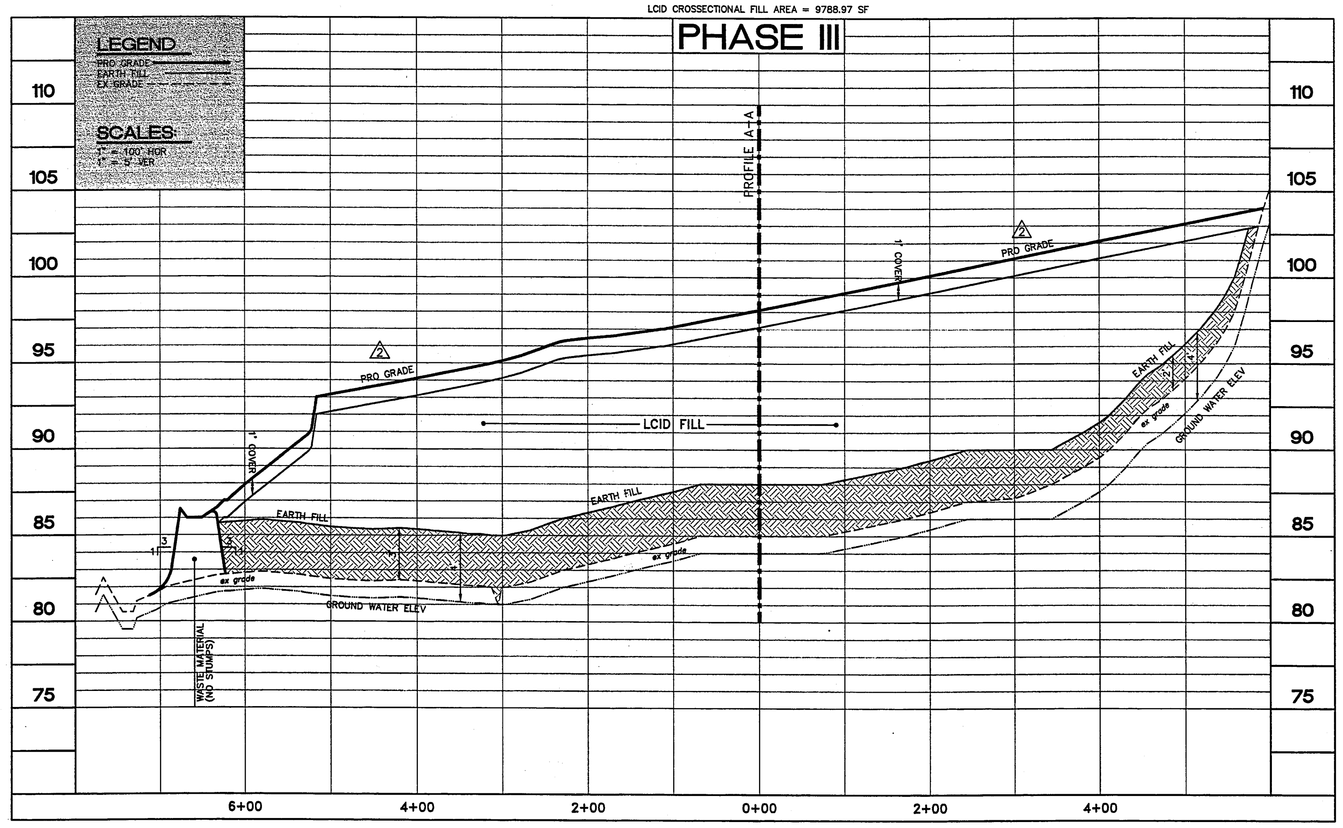
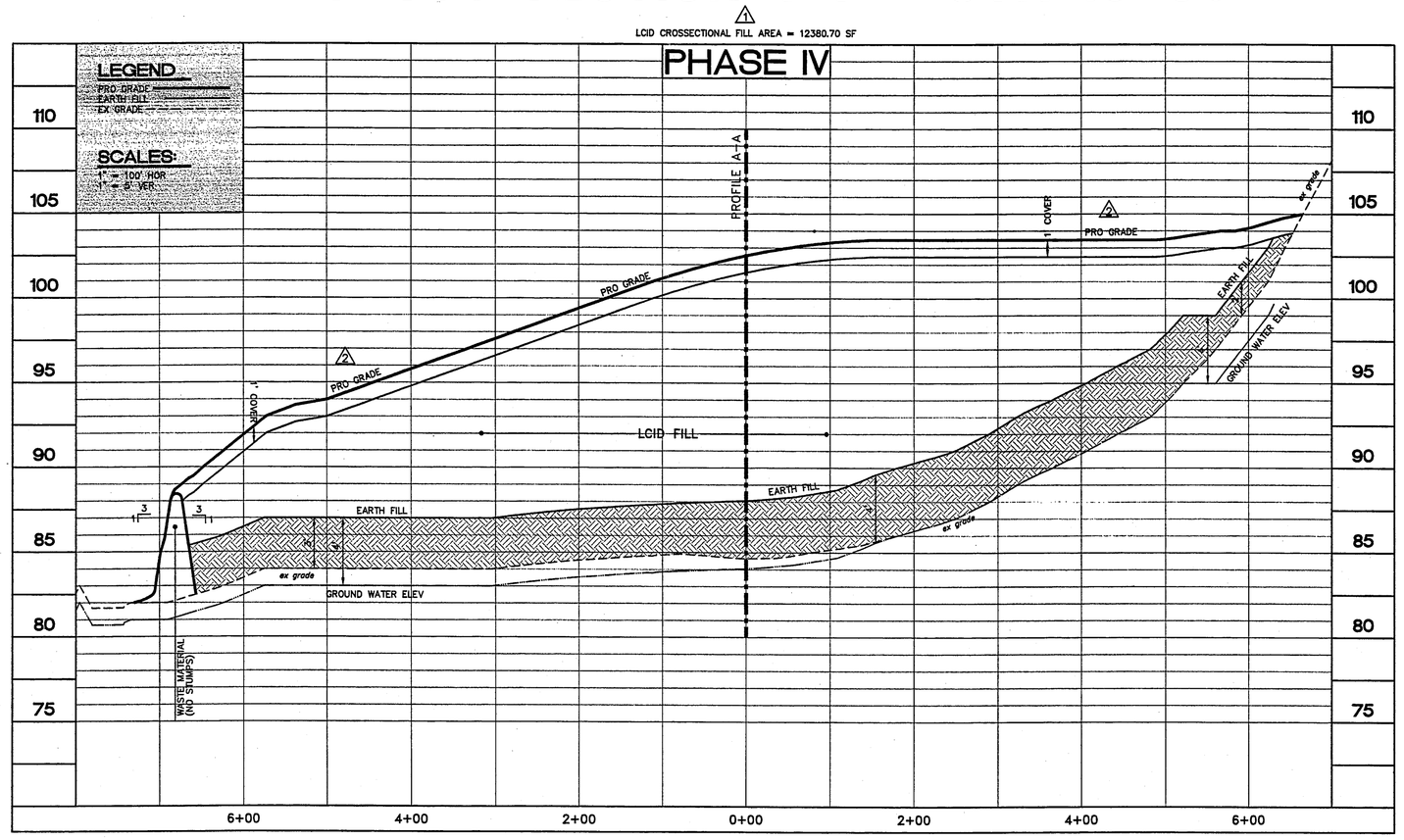
CROSS SECTION 3-3 STA 13+00

LCID CROSSECTIONAL FILL AREA = 9788.97 SF



CROSS SECTION 4-4 STA 16+50

LCID CROSSECTIONAL FILL AREA = 12380.70 SF



HOR. SCALE: AS NOTED	DATE: March 6, 2002	DESIGN: Pete Salalski	
VER. SCALE: AS NOTED	DRAWN BY: Chris Herron	CHKD: Bobby Joyner	
REVISIONS:			
NO.	DATE:	DESCRIPTION:	BY:
1			

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ROCKY MOUNT, N.C. 27804
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www.appianengineers.com
admin@appianengineers.com

NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER ROBERT L. JOYNER

9.26.02

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_____ Date: _____

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By: Date:

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APPIAN

CROSS SECTIONS for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065
D-
CE-5

C:\Chris\01065-CRN-LANDFILL\01065-P1.dwg, 09/25/02 10:20:46 AM, 1:100, PLOT BY CH

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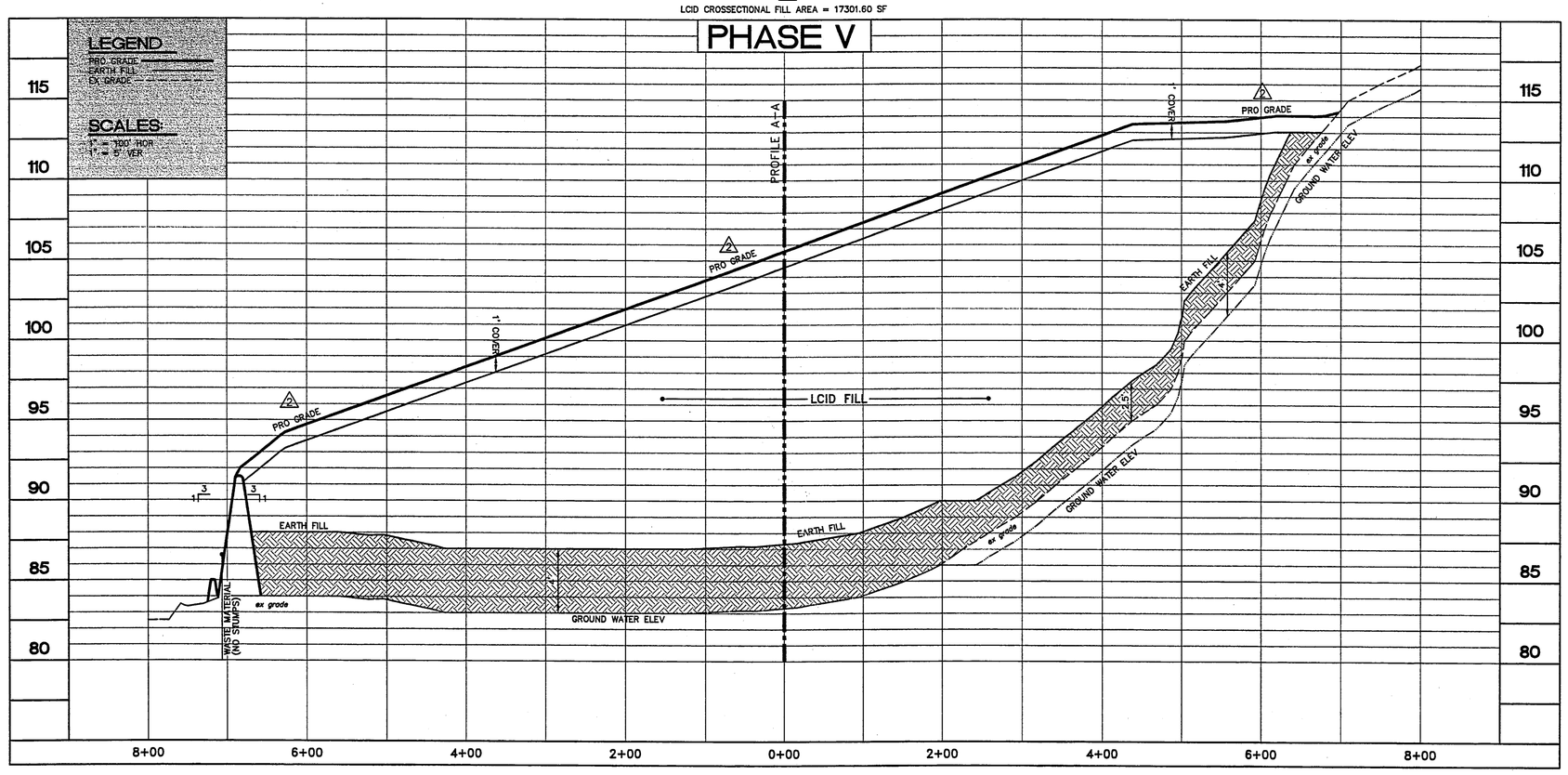
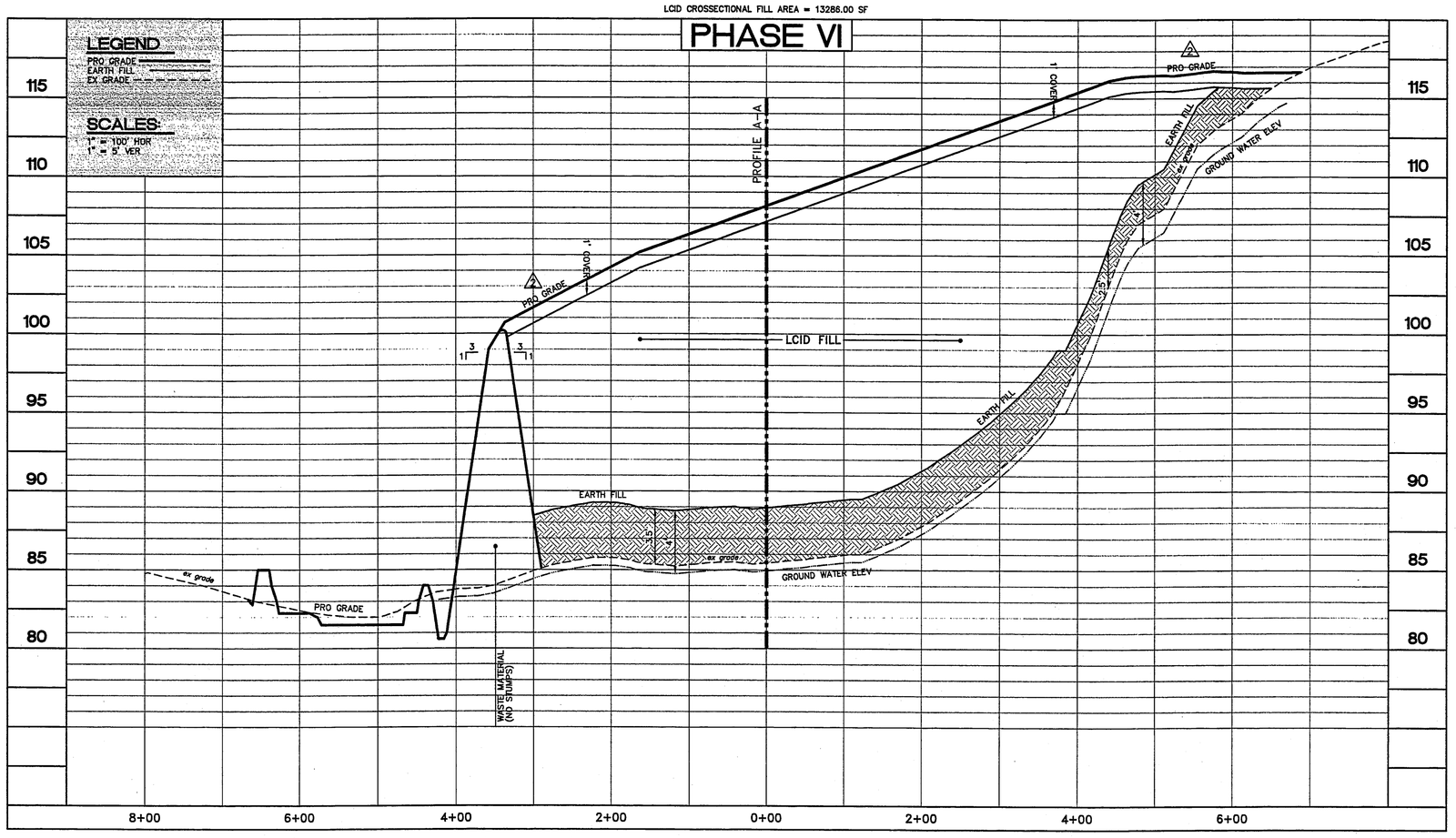
CROSS SECTION 5-5 STA 19+00

LCID CROSSECTIONAL FILL AREA = 17301.60 SF



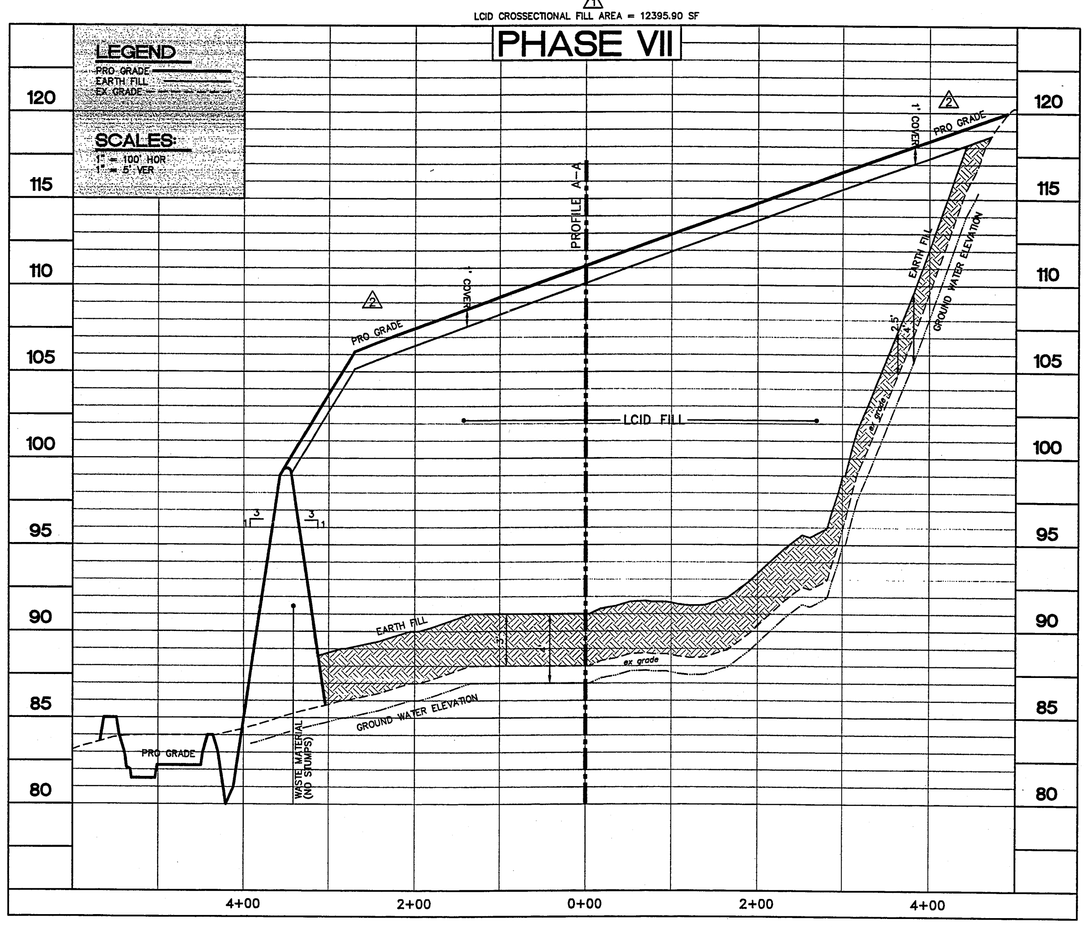
CROSS SECTION 6-6 STA 22+00

LCID CROSSECTIONAL FILL AREA = 13286.00 SF



CROSS SECTION 7-7 STA 25+50

LCID CROSSECTIONAL FILL AREA = 12395.90 SF



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HOR. SCALE: AS NOTED	DATE: March 6, 2002	DESIGN: Pete Sokalski	
VER. SCALE: AS NOTED	DRAWN BY: Chris Herron	CHKD: Bobby Joyner	
REVISIONS			
NO.	DATE:	DESCRIPTION:	BY: CAD:

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NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER BOBBY L. JOYNER

9.26.02

APPIAN

CROSS SECTIONS for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065
D-
CE-6

C:\Chris\01065-CRM-LANDFILL\01065-P1.dwg, 09/24/02 02:45:06 PM, 1:100, PLOT BY CH

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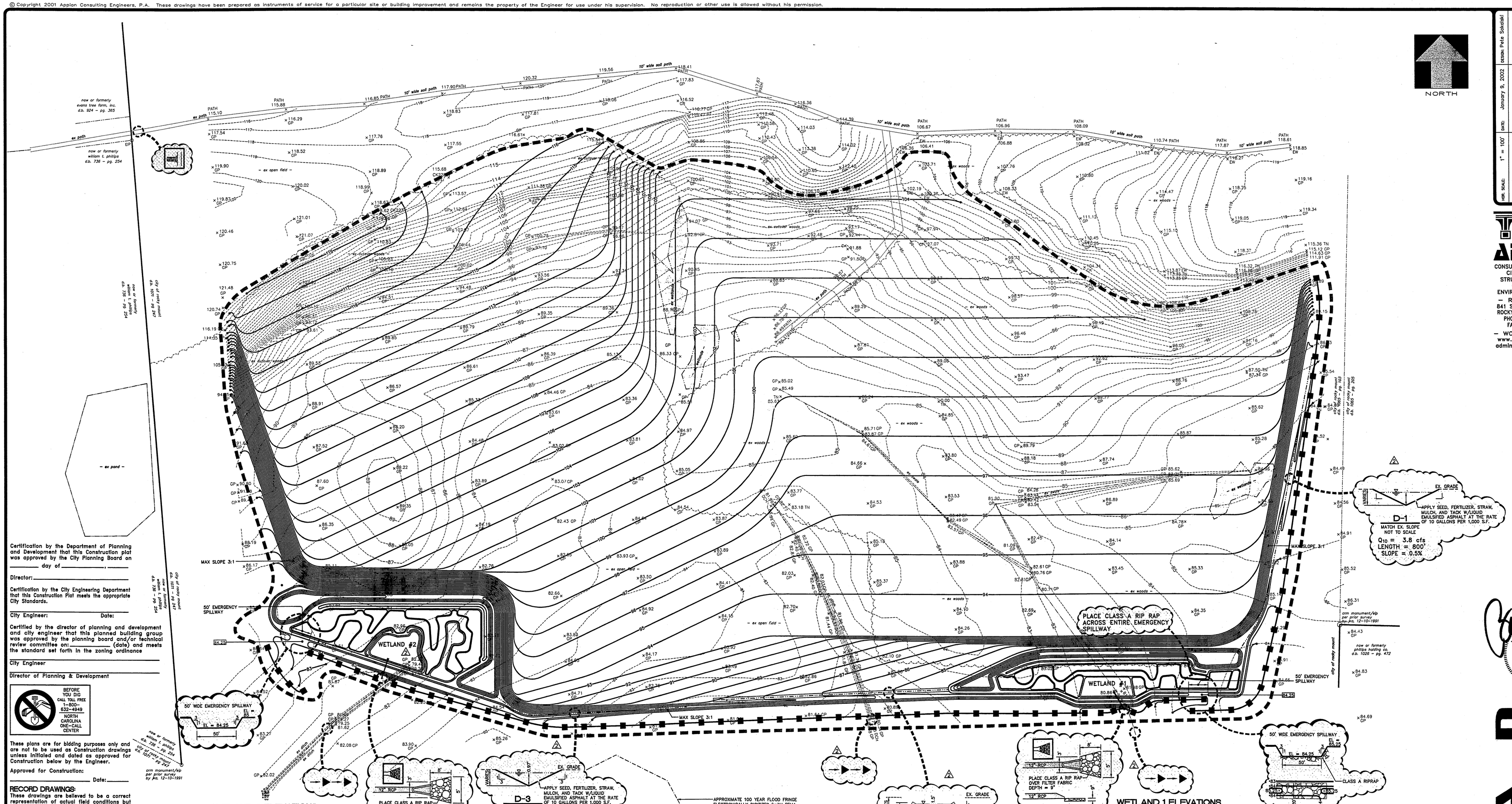

Certification by the Department of Planning and Development that this Construction plat was approved by the City Planning Board on _____ day of _____, _____.

Director: _____

Certification by the City Engineering Department that this Construction Plat meets the appropriate City Standards.

City Engineer: _____ Date: _____

Certified by the director of planning and development and city engineer that this planned building group was approved by the planning board and/or technical review committee on: _____ (date) and meets the standard set forth in the zoning ordinance

City Engineer _____

Director of Planning & Development _____

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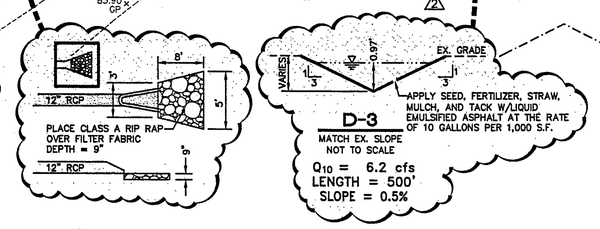
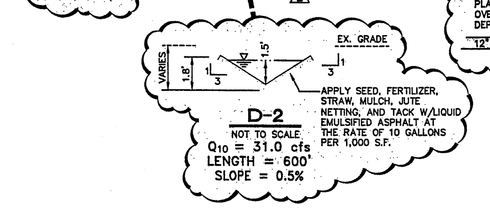
By: _____ Date: _____

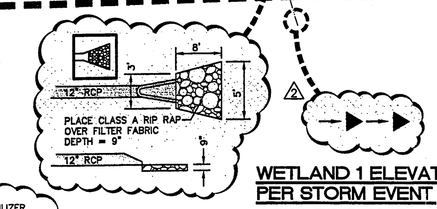
WETLAND 2 ELEVATIONS PER STORM EVENT

1 INCH EVENT: 83.08'
10 YR – 5 MIN: 83.08'
100 YR – 5 MIN: 83.18'

NOTE:
1. WATER WILL NOT TOP SPILLWAY ELEVATION AT Q100, 5 MIN. STORM.
2. SPILLWAY TO BE GRASS LINED



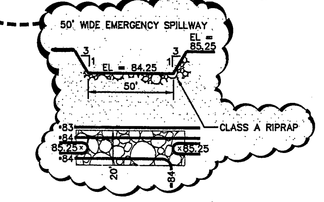




WETLAND 1 ELEVATIONS PER STORM EVENT

1 INCH EVENT: 83.17'
10 YR – 30 MIN: 83.47'
100 YR – 30 MIN: 84.10'

NOTE:
1. WATER WILL NOT TOP SPILLWAY ELEVATION AT Q100, 30 MIN. STORM.
2. SPILLWAY TO BE LINED W/CLASS A RIPRAP OVER FILTER FABRIC AT DEPTH = 9"



LEGEND

- 101.01
- 104.01
- 105.01
- 106.01
- TD 103.07
- GL 103.09
- LIMITS OF DISTURBANCE

GENERAL NOTES - EXTENDED DETENTION WETLANDS

1. Wetland detention basin shall be seeded and stabilized within 14 days of completion of construction. This might be in the form of final vegetation, or a temporary means of providing stabilization till the vegetation becomes established.
2. If the wetland basin is used as a temporary means to hold sediment during construction by the contractor, the sediment must be cleaned out, graded, and vegetated within 14 days of completion of construction.
3. Contractor shall take special precaution to protect inlet to forebay and outlet from scour during large storm events during construction.
4. A 15' drainage and access easement has been added for access for cleaning out extended detention wetland area by equipment.
5. Extended detention wetland will be maintained by the owner. Refer to operation and maintenance agreement.

TOTAL AREA DISTURBED = 79.74 AC.

CONSTRUCTION SEQUENCE AND OPERATIONAL REQUIREMENTS

1. Obtain copy of the final approved plans and erosion control permit prior to land disturbance activity exceeding one acre. Retain copy of approved permits on-site.
2. A sign at the entrance to the City of Rocky Mount property shall be placed at the entrance to show the contact name and number in case of emergencies. The permit number for the proposed LCID landfill is to be written on the entrance sign.
3. The existing access gate at the entrance to the City of Rocky Mount property is be locked during non-operating hours. An attendant shall be on duty at all times while the landfill is open for public use to assure compliance with operational requirements and to prevent acceptance of unauthorized waste.
4. Install silt fence and rock check dams at the wetland #1 location. Clear the area for wetland #1 and install/construct the wetland as shown on plans prior to any fill operations.
5. Clear and grub the remaining woods within the Phase I to Phase IV areas of the landfill. Place cover as specified on plan over the existing ground to ensure that waste shall be four feet above the seasonal high water table.
6. Begin fill operations within Phase I as shown on plans. The landfill shall accept only land clearing waste, inert debris, untreated wood, and yard trash. Solid waste (approximately 6") shall be compacted as densely as practical into cells. Adequate soil cover shall be applied monthly, or when the active area reaches one acre in size, whichever occurs first. Install drainage ditches as shown on plans (D-1 & D-2).
7. If the area for each phase is close to being filled prior to the expiration of the permit for that phase or if the permit expires, permission from NCDENR, Solid Waste Management Division, Solid Waste Section must be obtained and a new permit in hand prior to continuing fill into a new phase.
8. Clear the area for wetland #2 and install/construct the wetland as shown on plans prior to any fill operations for Phase V.
9. Install diversion ditches as necessary.
10. Inspect all erosion control devices weekly and after each rainfall event. Make repairs immediately as necessary.
11. 120 calendar days after completion of any phase of disposal operations, or upon revocation of a permit, the disposal area shall be covered with a minimum of one foot of suitable soil cover sloped to allow surface water runoff in a controlled manner. The site shall be left in a condition, which is safe to the public and the community.
12. The operator is to complete a yearly inspection of the perimeter of the site to check for any indications of methane or other gas disturbances due to the landfill. The concentration of explosive gases generated by the facility shall not exceed twenty five (25) percent of the lower explosive limit for the gases in facility structures nor shall it exceed the lower explosive limit for the gases at the property boundary.
13. No surface water is to be impounded over the waste area. All surface runoff is to be diverted to flow to its original course.
14. Ensure that no waste is disposed of into existing waters (wetlands that will will be filled). The Division of Solid Waste reserves the right to require ground water or surface water monitoring, or both should they deem them necessary under sections L0601 and .0602 of Solid Waste Management Rules.
15. Open burning of solid waste is prohibited. Fires shall be controlled by smothering with earth & soil. Stockpile soil adjacent to active area for fire prevention. Operator is to ensure proper erosion control measures area taken for stockpile.
16. Access roads shall be of all-weather construction and properly maintained.
17. Omit
18. Permanently seed all disturbed areas once at grade and soil cover is placed. Do not remove protection devices until an adequate ground cover is achieved.
19. After the site is stabilized and the project complete, remove all temporary measures and permanently seed the disturbed areas. Notify the Project Engineer prior to removing any temporary erosion control measure.
20. The projected land use after completion of the landfill is pasture land.

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HOR. SCALE:	1" = 100'	DATE:	REVISIONS	BY:	CAD:
VER. SCALE:	AS NOTED	4-29-02	COMMENTS BASED ON CRM	PS	CH
DATE: January 9, 2002	DRAWN BY: Chris Herron	5-15-02	CHANGES PER NCDENR	PS	CH
DESIGN: Pete Sokolski	CHKD: Bobby Joyner				

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NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER BOBBY L. JOYNER
9.16.02

EROSION CONTROL PLAN for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

01-065
D-
CE-7

SCALE: 1" = 100'
0 100 200 250 300 350 400

C:\Chris\01065-CRM-LANDFILL\01065-S1.dwg, 09/26/02 11:06:02 AM, 1:100, PLOT BY CH

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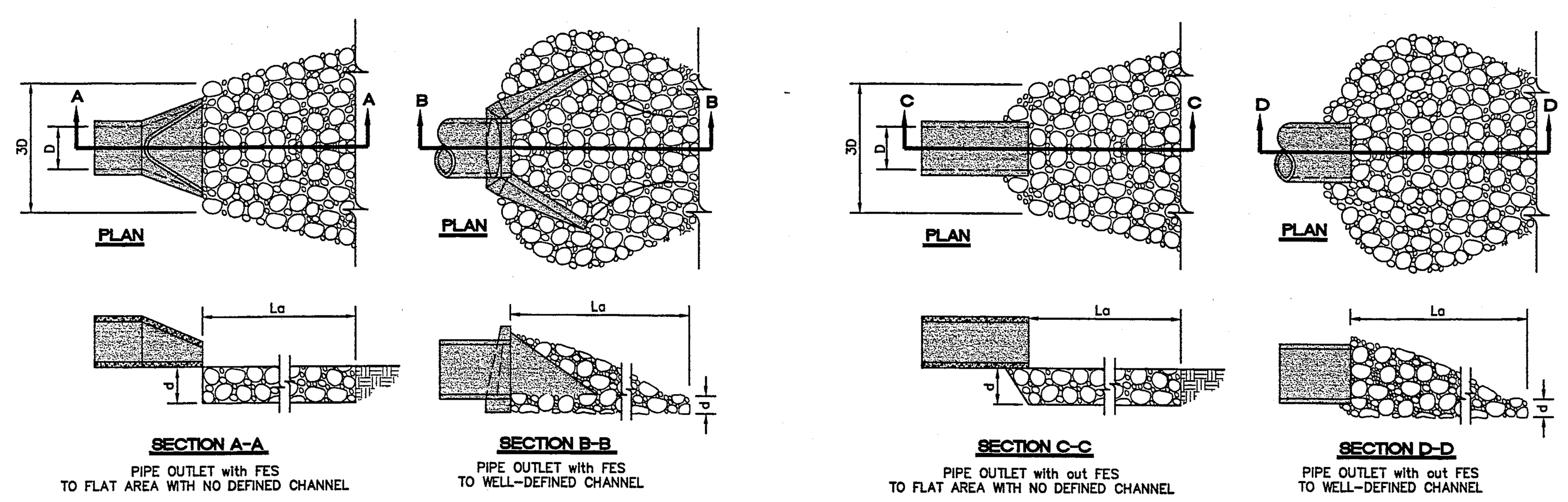


NOTES

1. APRON LINING MAY BE RIP RAP, GROUTED RIP RAP.
2. La IS THE LENGTH OF THE RIP RAP APRON AS CALCULATED. SEE PLANS FOR LENGTH.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6 INCHES.
4. PROVIDE NON-WOVEN FILTER FABRIC BELOW STONE.

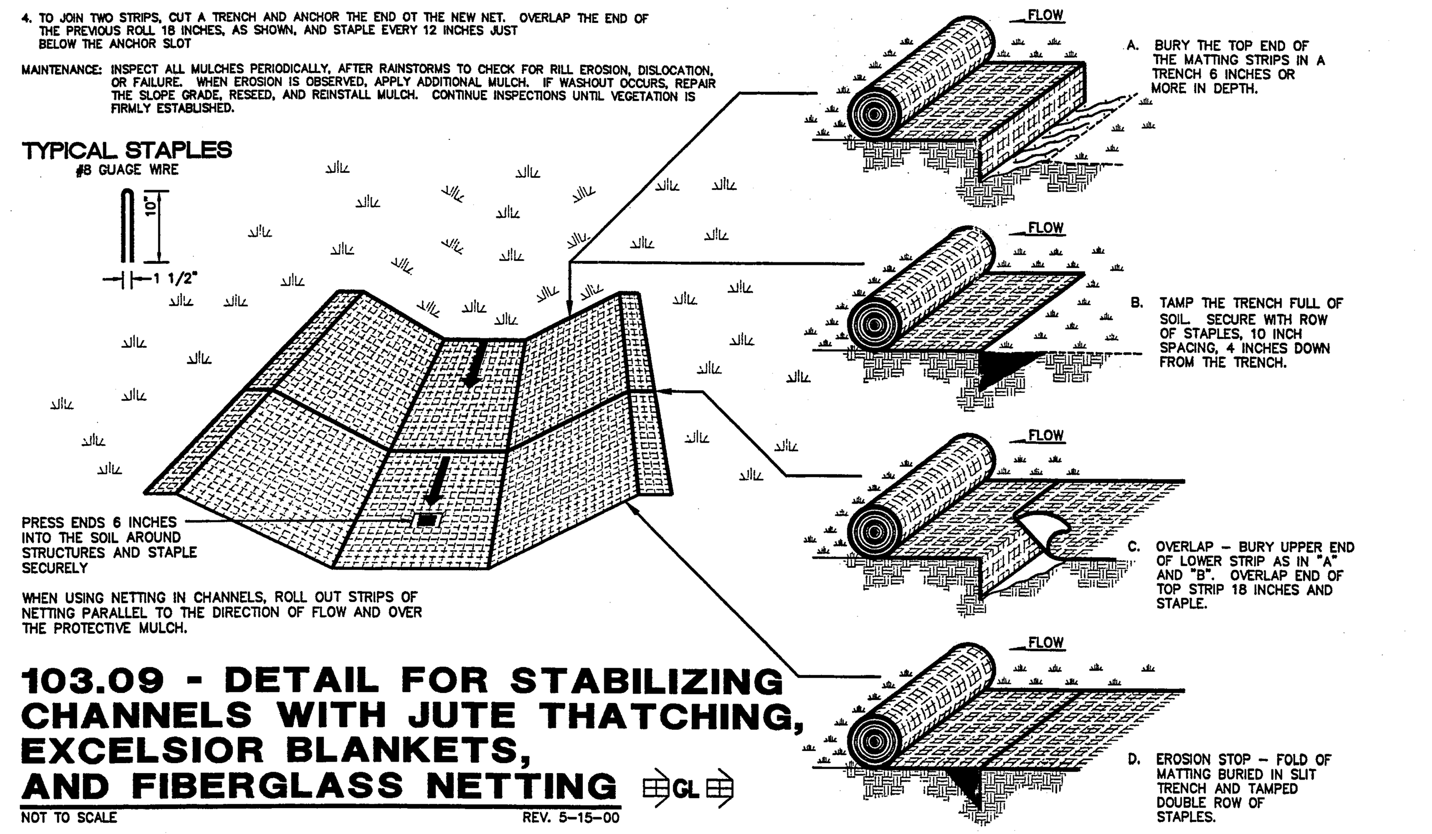
d	MATERIAL	FILTER FABRIC
9"	NCDOT CLASS A RIP RAP	MIRAFI 140N
22"	NCDOT CLASS B RIP RAP	AMOCO 4510
6"	SURGE PILE STONE	MIRAFI 140N
18"	NCDOT CLASS I RIP RAP	AMOCO 4510
26"	NCDOT CLASS II RIP RAP	AMOCO 4510

105.01 - PIPE OUTLET PROTECTION

NOT TO SCALE REV. 8-15-01

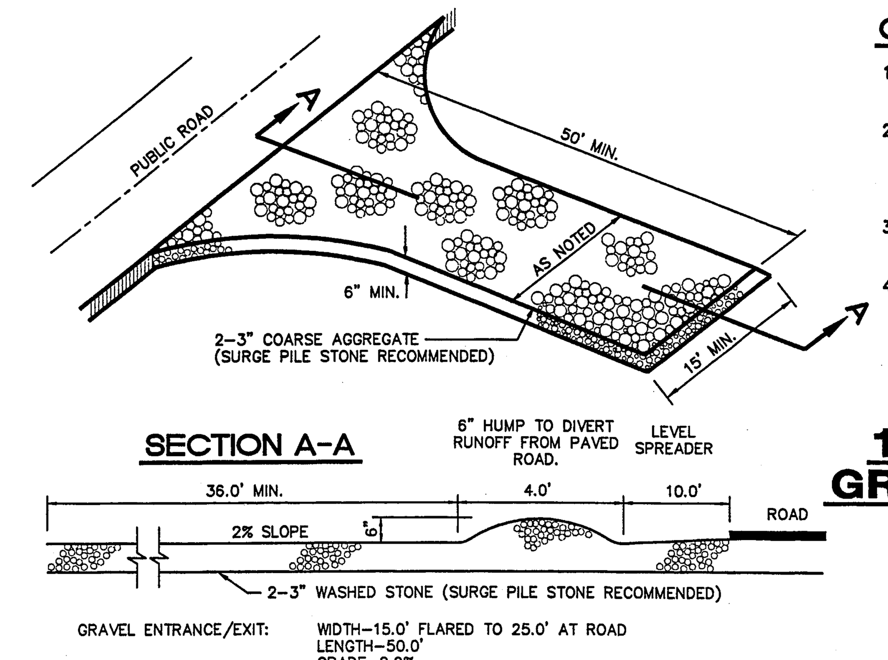
1. APPLY LIME, FERTILIZER AND SEED BEFORE LAYING THE NET OR MAT.
2. START LAYING THE NET FROM THE TOP OF THE CHANNEL OR SLOPE AND UNROLL IT DOWN THE GRADE. ALLOW NETTING TO LAY LOOSELY ON THE SOIL BUT WITHOUT WRINKLES – DO NOT STRETCH. MAT OR BLANKET – TYPE PRODUCT SHOULD PROVIDE AT LEAST 30% COVERAGE OF THE SURFACE WHERE IT IS APPLIED.
3. TO SECURE THE NET, BURY THE UPSLOPE END IN A SLOT OR TRENCH NO LESS THAN 6 INCHES DEEP, COVER WITH SOIL, AND TAMP FIRMLY AS SHOWN. STAPLE THE NET EVERY 12 INCHES ACROSS THE TOP END AND EVERY 3 FOOT AROUND THE EDGES AND BOTTOM. WHERE 2 STRIPS OF NET ARE LAYED SIDE BY SIDE, THE ADJACENT EDGES SHOULD BE OVERLAPPED 3 INCHES AND STAPLED TOGETHER. EACH STRIP OF NETTING SHOULD ALSO BE STAPLED DOWN THE CENTER, EVERY 3 FOOT. DO NOT STRETCH THE NET WHEN APPLYING STAPLES.
4. TO JOIN TWO STRIPS, CUT A TRENCH AND ANCHOR THE END OT THE NEW NET. OVERLAP THE END OF THE PREVIOUS ROLL 18 INCHES, AS SHOWN, AND STAPLE EVERY 12 INCHES JUST BELOW THE ANCHOR SLOT

MAINTENANCE: INSPECT ALL MULCHES PERIODICALLY, AFTER RAINSTORMS TO CHECK FOR RILL EROSION, DISLOCATION, OR FAILURE. WHEN EROSION IS OBSERVED, APPLY ADDITIONAL MULCH. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED, AND REINSTALL MULCH. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.



103.09 - DETAIL FOR STABILIZING CHANNELS WITH JUTE THATCHING, EXCELSIOR BLANKETS, AND FIBERGLASS NETTING

NOT TO SCALE REV. 5-15-00



GRAVEL ENTRANCE/EXIT: WIDTH–15.0' FLARED TO 25.0' AT ROAD
LENGTH–50.0'
GRADE–2.0%

CONSTRUCTION SPECIFICATIONS:

1. CLEAR THE ENTRANCE/EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
2. GRADE THE ROAD FOUNDATION SO THAT THE ENTRANCE/EXIT WILL HAVE A CROSS SLOPE TO THE SOUTH AND ALL RUNOFF WILL DRAIN TO THE BLOCK AND GRAVEL DROP INLET PROTECTION STRUCTURE.
3. PLACE STONE TO THE DIMENSIONS, GRADE AND ELEVATION SHOWN.
4. USE WASHED STONE 2" TO 3" IN SIZE.

NOTE: MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. SHOULD MUD BE TRACKED OR WASHED ONTO ROAD, IT MUST BE REMOVED IMMEDIATELY.

106.01 - TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

NOT TO SCALE REV. 5-15-00

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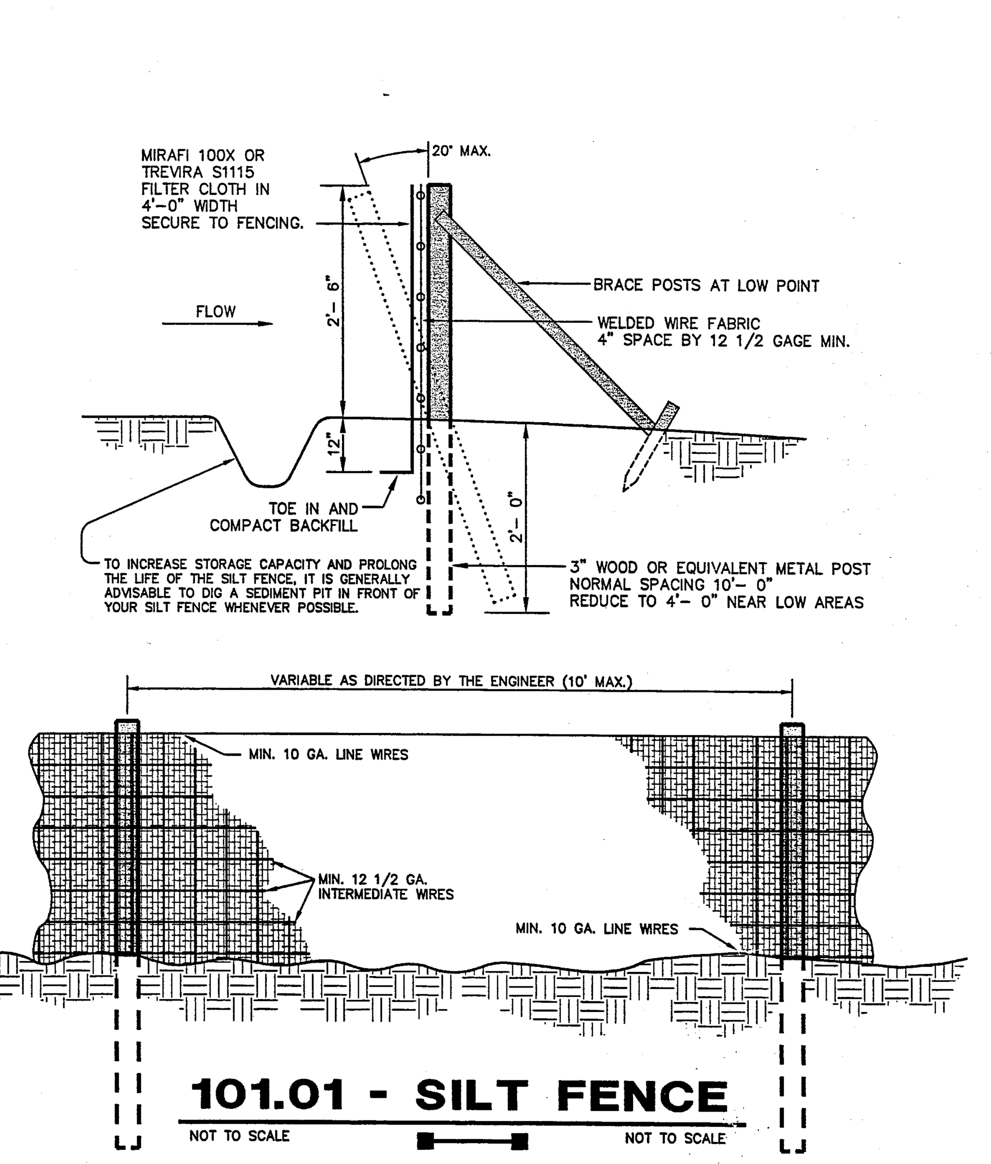
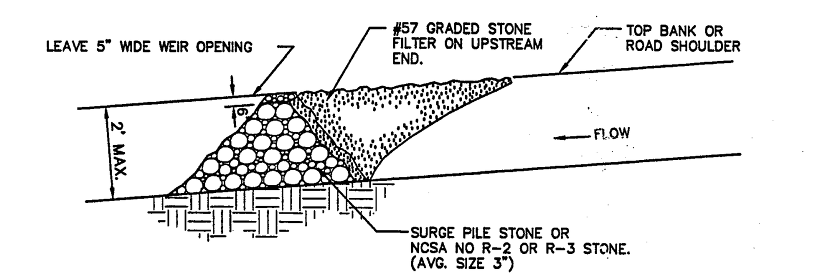


101.01 - SILT FENCE

NOT TO SCALE NOT TO SCALE

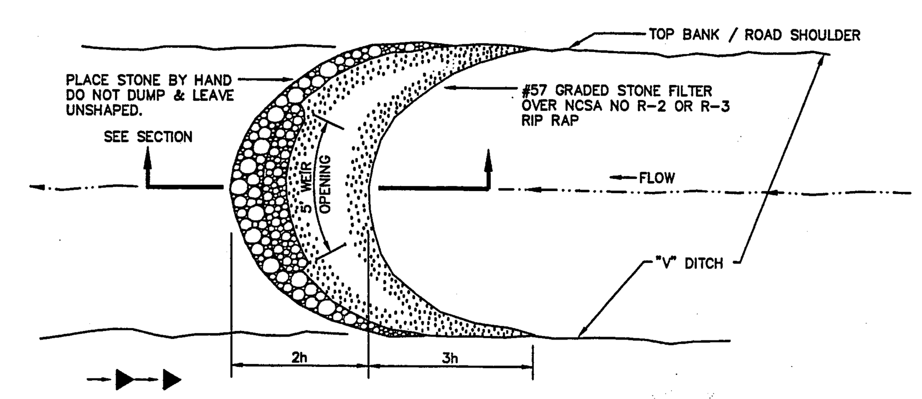
GENERAL NOTES:

1. FENCE FABRIC SHALL BE MIN. 32" WIDTH & SHALL HAVE A MIN. OF 6 LINE WIRES W/12" STAY SPACING.
2. BURLAP SHALL BE 7 1/2 OZ. WEIGHT & A MIN. OF 32" IN WIDTH. BURLAP SHALL BE FASTENED ADEQUATELY TO THE FABRIC AS DIRECTED BY THE ENGINEER. MIRAFI 100X OR EQUIVALENT MAY ALSO BE USED.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT & BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. WOOD POST SHALL BE 6 TO 7 FEET IN HEIGHT & 3 – 4 INCHES IN DIA. WIRE FABRIC SHALL BE FASTENED TO WOODEN POST WITH NOT LESS THAN 9 WIRE STAPLES 1 1/2" LONG.
5. TOTAL DRAINAGE AREA FLOWING TO SILT FENCE MAY NOT EXCEED 1 ACRE.
6. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (CREEKS, DITCHLINES, SWALES ETC.)



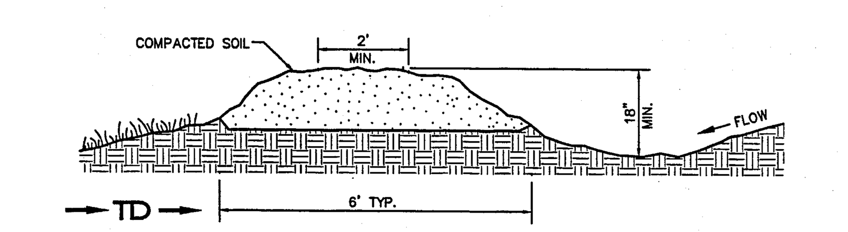
SECTION VIEW

FOR MAX FLOWS OF 5 CFS



104.01 - HORSESHOE RIP RAP/ GRAVEL SILT CHECK DAM

NOT TO SCALE REV. 5-15-00



103.07 - TEMPORARY DIVERSION RIDGE OR CHANNEL

NOT TO SCALE REV. 5-15-00

EROSION AND SEDIMENTATION CONTROL NARRATIVE

I. PROJECT DESCRIPTION

The purpose of this project is the construction of a Landscape, Construction, Inert Debris (LCID) Landfill. The facility is owned by the City of Rocky Mount. The LCID Landfill is located on parcels of land totaling approximately 401.5 acres and is located within Edgecombe County. Approximately 79.74 acres will be disturbed during construction. The maximum fill will be 23 ft.

Phase I is scheduled to begin construction in April 2002 with Phase I completion and final stabilization by April 2007. Each phase is scheduled to last 5 years with seven phases to complete the entire project. The final projected date of completion for the entire project (all seven phases) is April 2037. The erosion and sediment control program for this project will include the installation of a suitable construction entrance, diversion ditches, temporary to permanent sediment basins, silt fencing, outlet protection, with temporary seeding and permanent seeding of the site.

II. EXISTING SITE CONDITIONS

The proposed site is currently agricultural and zoned A-1. The site drains south of the property and ultimately drains into the Tar River.

III. ADJACENT PROPERTY

All adjacent property lines and property Owners are shown on the site plan.

IV. SOILS

The soil at this site consists of sandy loam with loamy sand as the main soil type.

V. EROSION AND SEDIMENT CONTROL MEASURES

All vegetative and structural erosion and sediment control practices shall be constructed and maintained by the Contractor according to these plans and specifications and the minimum standards of the Dept. of Environmental Management, Land Quality Section. The Contractor shall also follow any additional requirements as outlined by the Project Engineer.

A. Structural Practices
1. Vehicle wheels shall be clean when leaving the site to prevent the tracking of mud on paved roads.
2. Construction Road Stabilization: Construction traffic shall be limited to stabilized areas. At a minimum, a temporary gravel construction entrance shall be provided as shown on this drawing.
3. Silt Fence: Silt fences shall be provided where shown and as needed on the site plan. These barriers shall be used to contain sediment.
4. Slope Surface Roughening: On all slopes designated, surface roughening shall be employed by dozer tracking in the direction of top to bottom to aid in preventing rutting, rivlets, etc. Landscaping shall then be done on the roughened surface.
5. Temporary Slope Drains: Temporary slope drains shall be installed as part of the grading operation where applicable, and adjusted as directed by the Engineer.

An earth berm at the top of cut and fill sections shall be constructed to channel water into the slope drain and to prevent collected water from spilling over the edge of the slope. Temporary slope drains may be removed or left in place, as directed by the Engineer. If removed, they will become the property of the Contractor and may be used again at other temporary locations providing they are in a condition acceptable to the Engineer. Upon removal, the Contractor shall dress the area to give a pleasing appearance, and shall then seed and mulch the area.

B. Vegetative Practice
1. Temporary Seeding: All denuded area or areas to be graded during the construction phases that are not to be brought to final grade within 30 days shall receive temporary seeding within 15 days of completing initial earthwork. Graded slopes and fills shall receive temporary or permanent seeding within 15 working days or 30 calendar days, whichever period is shorter, after completion of any phase of grading. Temporary seeding shall also be used to stabilize finished grade areas if the time of year is outside the specified permanent seeding periods. Temporary seeding shall be in accordance with paragraph V D below.

C. Management Strategies
1. Perimeter measures are to be installed prior to grubbing or grading.
2. Tail Ditches shall be stabilized immediately following their construction. As an alternate, rock check dams may be provided at their outlets and/or the terminal downstream end of disturbance until ground cover is implemented.
3. Stock pile and/or waste areas must be maintained within the limits of the areas protected by the proposed measures and otherwise temporarily seeded if to be left stockpiled over 30 days.
4. Construction shall be planned so that grading operations can begin and end as quickly as possible.
5. Silt Fences shall also be installed prior to or as a first step in construction.
6. The Contractor shall be responsible for the installation and maintenance of all erosion and sediment control practices.

D. Vegetative Ground Cover

Immediately following grading, all areas shall receive either permanent or temporary seeding, as applicable, as follows:

	Feb–May	June–Oct	Nov–Jan
Permanent Seed:	K-31 Fescue @ 5#/1000 SF	K-31 Fescue @ 5#/1000 SF plus Brown Top Millet @ 35#/Ac	K-31 Fescue @ 5#/1000 SF plus Winter Rye Grain @ 25#/AC
Temporary Seed:	K-31 Fescue @ 2#/1000 SF plus Winter Rye @ 25#/Ac	K-31 Fescue @ 5#/1000 SF	Winter Rye@ 50#/Ac

Fertilizer: 10-10-10 @ 25#/1000 SF
Lime: 100#/1000 SF
Mulch: Straw @ 75#/1000 SF
Tack: 200 gallons/Ac on all mulching

E. Maintenance
1. Reseed and mulch bare spots larger than 9 square feet (limited to 5% maximum of site area.)
2. Maintain all seeded areas until uniform stand is acceptable.
3. If growth is not established by final project inspection, continue specified attention until the stand is acceptable.
4. Correct and repair all undue settling and erosion within 1 year after final inspection.
5. Remove from the site, all erosion control structures after complete stabilization at end of construction period.
6. Remove silt from sediment pits and from behind check dams when silt is within half depth of the pit or spillway. Dispose of in an area where silt cannot re-enter pit/trap.
7. Place rock from rock check dams and gravel/rip rap filter basins in ditch line as armor protection. Do not dispose of rock. All stone armor protection is to fit contour of channel. Do not dump but handspread.

F. Calculations

The practice utilized for the proposed site did require formal calculations. Calculations have been provided.

VI. OWNERS ADDRESS
City of Rocky Mount
Attn: Doug Roberson
P.O. Box 1180
Rocky Mount, NC 27802

NOTES for NPDES MONITORING, CONTROLS, AND LIMITATIONS FOR PERMITTED DISCHARGES

It is the Contractors responsibility to periodically monitor the Stormwater Discharge Outfall points at the specified frequency and maintain reports as outlined in these notes.

A. FINAL LIMITATIONS AND CONTROLS FOR STORMWATER DISCHARGES

During the period beginning on the effective date of the permit and lasting until expiration, the Owner is allowed and authorized to discharge stormwater associated with construction activity. Such discharges shall be controlled, limited and monitored as specified below.

1. The Contractor shall implement the Erosion & Sedimentation Control plan, which has been approved by the approval authority. The approved plan is considered a requirement or condition of the general NPDES permit. Deviation from the approved plan, or approved amendment to the plan, shall constitute a violation of the terms and conditions of this general permit except that deviation from the approved plan will be allowed:
   a. To correct an emergency situation where sediments are being discharged off the site, or
   b. When minor modifications have been made for the purpose of improving the performance of the erosion and sedimentation control measures and notification of the minor modification has been made to the Division of Land Resources (or approved local program). Such a deviation from the approved plan shall be noted on the approved plan maintained at the job site. During active construction, a copy of the approved plan shall be maintained on the site.
2. Equipment utilized during the construction activity on a site must be operated and maintained in such a manner as to prevent the potential or actual pollution of the surface or ground waters of the state. Fuels, lubricants, coolants, and hydraulic fluids, or any other petroleum products, shall not be discharged onto the ground or into surface waters. Spent fluids shall be disposed of in a manner so as not to enter the waters, surface or ground, of the state and in accordance with applicable state and federal disposal regulations. Any spilled fluids shall be cleaned up to the extent practicable and disposed of in a manner so as not to allow their entry into the waters, surface or ground, of the state.
3. Herbicide, pesticide, and fertilizer usage during the construction activity shall be consistent with the Federal Insecticide, Fungicide, and Rodenticide Act and shall be in accordance with label restrictions.
4. All wastes composed of building materials shall be disposed of in accordance with North Carolina General Statutes, Chapter 130A, Article 9 – Solid Waste Management, and rules governing the disposal of solid waste (North Carolina Administrative Code Section 15A NCAC 13B).
5. The Permittee shall control the management and disposal of litter and sanitary waste from the site such that no adverse impacts to water quality occur.

B. MINIMUM MONITORING AND REPORTING REQUIREMENTS

Minimum monitoring and reporting requirements are as follows unless otherwise approved in writing by the Director of the Division of Water Quality.

1. All erosion and sedimentation control facilities shall be inspected by or under the direction of the permittee (the Owner). However, the responsibility for inspection is herein delegated by the Owner to the Contractor as part of this project. Inspections shall be made:
   a. At least once every seven calendar days (at least twice every seven days for those facilities discharging to waters of the State listed on the latest EPA approved 303(d) list for construction related indicators of impairment such as turbidity or sedimentation),
   b. And within 24 hours after any storm event of greater than 0.5 inches of rain per 24-hour period.

   A rain gauge shall be maintained on the site by the contractor and a record of the rainfall amounts and dates shall be kept by the contractor.

   (** The latest approved list may be obtained from the Division of Water Quality, or from the following website location: http://h2o.enr.state.nc.us/su/construction303d).
2. Once land disturbance has begun on the site, stormwater runoff discharges shall be inspected by observation for stormwater discharge characteristics as defined below at the frequency in stated above to evaluate the effectiveness of the pollution control facilities or practices. If any visible sedimentation is leaving the disturbed limits of the site, corrective action shall be taken immediately to control the discharge of sediments outside the disturbed limits.

STORMWATER DISCHARGE CHARACTERISTICS	MONITORING TYPE (1)	MONITORING LOCATION (2)
CLARITY	.	SDO
FLOATING SOLIDS	.	SDO
SUSPENDED SOLIDS	.	SDO
OIL SHEEN	.	SDO
OTHER OBVIOUS INDICATORS OF STORMWATER POLLUTION	.	SDO

Footnotes:
1. Monitoring Type: The monitoring requires a qualitative observation of each stormwater outfall. No analytical testing or sampling is required.
2. Sample (observation) location: SDO= Stormwater Discharge Outfall

3. The operator (Contractor) shall keep a record of inspections and forward copies of these reports to the Engineer. Visible sedimentation found outside of the disturbed limits shall be recorded and a brief explanation kept with the records as to the measures taken to control future releases. Any measures taken to clean up the sediment that has left the disturbed limits shall also be recorded. These records shall also be made available to DWQ or an authorized agent upon request. If the Engineer or his representative discovers sedimentation outside the limits of disturbance, the contractor will be notified in writing and requested to remediate the situation.
4. All records of monitoring shall be turned over to Appian along with the "red lined" record water and/or sewer drawings.

C. SCHEDULE OF COMPLIANCE

1. The permittee shall comply with Final Limitations and Controls specified for stormwater discharges once disturbance has begun on the site and until completion of construction or development and the establishment of a permanent ground cover.
2. During construction and until the completion of a construction or development and the establishment of a permanent ground cover, the permittee shall provide the operation and maintenance necessary to operate the stormwater controls at optimum efficiency.

HOR. SCALE: AS NOTED	DATE: March 5, 2002	DESIGN: Pete Sokolski
VER. SCALE: AS NOTED	DRAWN BY: Chris Herron	CHKD: Bobby Joyner

REVISIONS

NO. △	DATE:	DESCRIPTION:	BY:	CAD:
△	.	.	.	.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 8421 BOBBY L. JOYNER
9.26.02

EROSION CONTROL NOTES & DETAILS
City of Rocky Mount Landfill
Rocky Mount, North Carolina

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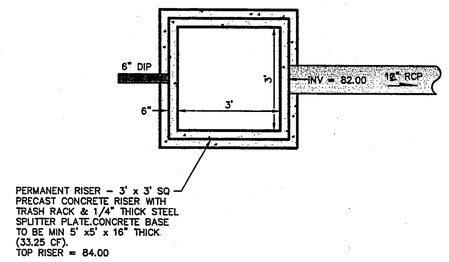
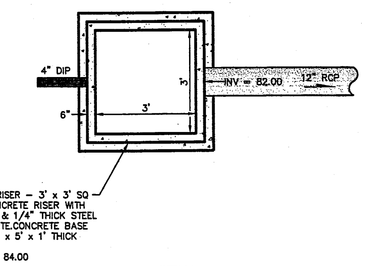


PLAN VIEW
NTS

WETLAND #1
NTS



PLAN VIEW
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WETLAND #2
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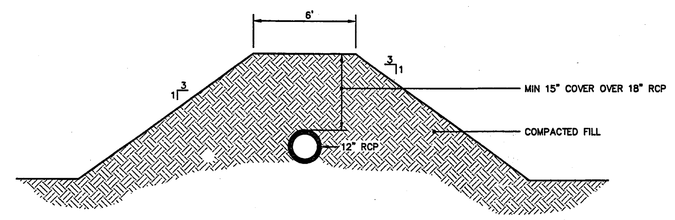

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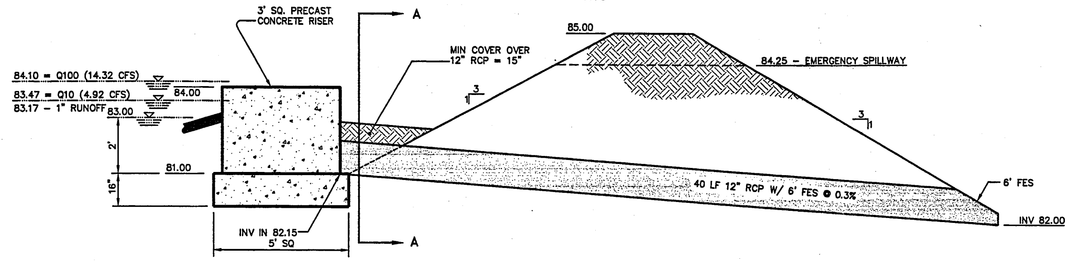

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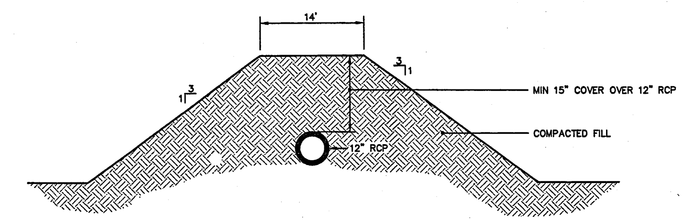

SECTION A-A
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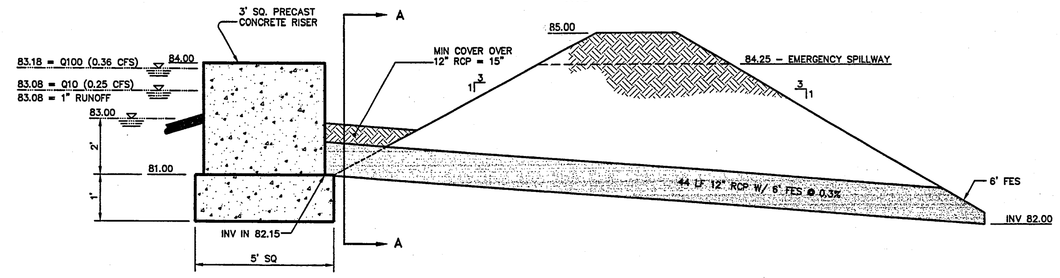

WETLAND #2
NTS

BEFORE YOU DIG CALL TOLL FREE 1-800-632-4949 NORTH CAROLINA ONE-CALL CENTER

These plans are for bidding purposes only and are not to be used as Construction drawings unless initialed and dated as approved for Construction below by the Engineer.

Approved for Construction:

_____ Date:_____

RECORD DRAWINGS:
These drawings are believed to be a correct representation of actual field conditions but are not warranted as such.

By: _____ Date: _____

BOUNDARY DESCRIPTION SHOWN IS NOT FOR RECORDATION.

COLORED COVER SHEETS
In an effort to maintain quality design and construction, Applan has established a plan cover sheet protocol to ensure that the involved parties are all working from the most recent plan revision. Applan has assigned colors to the plan cover sheet to correspond with stages of the design / construction process: WHITE for agency review/ preliminary phase; BLUE for the bidding phase; and GOLD for the construction phase. Contractor should note that the only set of plans to be used for construction are those with a gold cover. Contractor is to contact the project engineer to obtain the most current plan.

CONSTRUCTION SAFETY
These drawings do not contain the requirements for job safety. All provisions for safety shall be the sole responsibility of the contractor.

EXISTING CONDITIONS:
The contractor shall be responsible for reviewing all existing job conditions. Any adverse existing conditions affecting work shown on these drawings shall be brought to the attention of the engineer for possible clarification or reconciliation.

ADA AND LEGAL DISCLAIMER
This document is not represented to comply with all requirements contained in the ADA or other laws. Engineers are not licensed to interpret laws or give advice concerning laws, the owner should have this document reviewed by his attorney to determine legal compliance.

HOR. SCALE: AS NOTED | DATE: March 5, 2002 | DESIGN: Pete Soloski
VER. SCALE: AS NOTED | DRAWN BY: Chris Herron | CHKD: Bobby Joyner

REVISIONS

NO.	DATE:	DESCRIPTION:	BY:	CHKD:
1	9-16-02	CHANGES PER NCDENR	PS	CH

APPLAN
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NORTH CAROLINA PROFESSIONAL SEAL 8421 ENGINEER BOBBY L. JOYNER
9.17.02

EROSION CONTROL DETAILS for City of Rocky Mount LCID Landfill Rocky Mount, North Carolina

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