

324PRLFSF548



DocumentID NCD980502900

SITENAME CUMBERLAND COUNTY/CLIFFDALE LF

DocumentType Correspondence (C)

RptSegment 1

DocDate 1/31/2005

DocRcvd 1/31/2005

Box SF548

AccessLevel Public

Division Waste Management

Section Superfund

Program IHS (IHS)

DocCat Facility



Site Name: CUMBERLAND CO/CLIFFDALE LF
ID Number: NCD980502900
Site Address: CLIFFDALE RD(SR)
City: FAYETTEVILLE

In IHS Inventory? Yes
Other Agency Lead SWS
NFA or NFA-Restricted Use? No
Unable to Locate

State Plane X:

Latitude: 35.0585

State Plane Y:

Longitude: -79.0455

Directions: CLIFFDALE RD(SR 1402) & SR1400



LDFL Size (Acres): 42	Present Within 1000 ft of Ldfi		
Property Size (Acres): 42	Church	No	Residence On Ldfi? No
Date Open:	School	No	Potable Well Within 500 ft? No
Date Closed: 1983	Day Care	No	Adjoins Perennial SW? No
	Residential	No	

Notes: CREOSOTE SALTS FROM CLARK & PROCTOR TURP CO IN FAYETTEVILLE. OWNED BY CUMBERLAND CO AS OF 2/2000..

(End Site Record)

Cumberland Co.

Pine Trees across street



English Saddle Dr

Judy Dr

Bugle Call Dr

Frenchom Ln

Foxhunt Ln

Old Hunt Pl

Foxhound Ct

Deertrout Rd

Oak Meadow

Grouse Run Ln

Levi Rd

Martha Ct

Harris Rd

Ssssssstine Rd

Gooder

Rim Rd

Castle Falls Cir

Mounta

Cellner Dr

Patrick Dr

High Kite Pl

Nan St

Shumont Dr

Beverly Dr

Blackford Dr

Fox Fern Dr

Stitch St

Cliffdale
Sanitary Landfill
71st township site
SR-1406

October 30, 1978

Cliffdale Quad.

out

Mr. Rodney M. Honeycutt, P. E.
County Engineer
Cumberland County Joint Planning Board
801 Arsenal Avenue
Post Office Box 3005
Fayetteville, North Carolina 28305

Dear Mr. Honeycutt:

JW VC

RE: Addendum to Order of Approval for the
Cliffdale Sanitary Landfill Expansion

The approved plan for the Cliffdale Sanitary Landfill Expansion includes the following required modifications and recommendations:

Required modifications:

1. Soil borings were terminated at elevations of 169 feet to 173 feet; therefore, maximum excavation limits for solid waste disposal shall be terminated at elevations of 179 feet to 183 feet.
2. Surface drainage for the area enclosed by the 200 foot contour line, located on the south perimeter of the present operational phase, must be maintained by excavation below 195 feet in the proposed south perimeter drainage ditch on the expansion phase.

Recommendations:

1. Lateral movement of sub-surface water from off site sources, particularly from the south, toward the proposed expansion may be a potential problem. It is recommended that the south perimeter drainage ditch be excavated to, and channel bottom terminated in, the upper SC or other impermeable soil layers. The upper impermeable soil layers should perch laterally moving water and discharge this water into the south perimeter drainage ditch.
2. Soil borings indicate stratified permeable and impermeable earth material layers on the expansion phase. These layers are tilted from the horizontal in such a manner that highly permeable layers with a gradient to the groundwater table, may be exposed during excavation. If maximum excavation limits are terminated in SM, or particularly SP materials, then any mobile contaminants resulting

Mr. Honeycutt
Page 2
October 30, 1978

from landfill activity could be a potential source of discharge to groundwater. To minimize this potential, it is recommended that 24-inch and 48-foot compacted blankets of SC, SC-SM, CL materials be placed over exposed SM and SP lenses respectively. Compaction with a Rex 350 in successive 6-inch layers to 95 percent standard Proctor (ASTM D698, AASHO T99) should be sufficient.

3. Rip-rap may not be sufficient to prevent cutting of discharge area from drainage ditch to sedimentation basin.
4. Consideration should be given to stabilization devices, such as piping, for movement of surface water from the finished landfill face to the toe of perimeter dikes.

If I can be of any assistance to you, please contact me.

Respectfully,

William L. Meyer
Environmental Engineer
Solid Waste & Vector Control Branch
Sanitary Engineering Section

WLM/wss

cc: Mr. Terry F. Dover

October 17, 1978

Mr. Rodney M. Honeycutt, P. E.
County Engineer
Cumberland County Joint Planning Board
801 Arsenal Avenue
Post Office Box 3005
Fayetteville, North Carolina 28305

Dear Mr. Honeycutt:

The plan for the Cliffdale Landfill Expansion, located in Cumberland County, has been reviewed and approved with the following conditions:

1. The site be operated in accordance with the approved plan and in accordance with the Division of Health Services' "Rules for Solid Waste Management".
2. The Order of Approval be recorded with the Cumberland County Register of Deeds.

Sincerely,

O. W. Strickland, Supervisor
Solid Waste Management Unit
Solid Waste & Vector Control Branch
Sanitary Engineering Section

OWS/wss

cc: Mr. Terry F. Dover
Mr. C. L. Twine

Enclosure

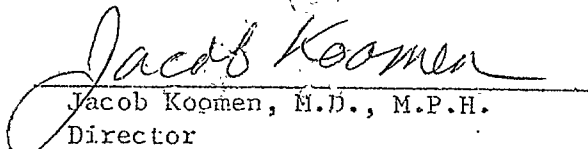
N. C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
SOLID WASTE & VECTOR CONTROL BRANCH
P. O. BOX 2091
RALEIGH, NORTH CAROLINA 27602

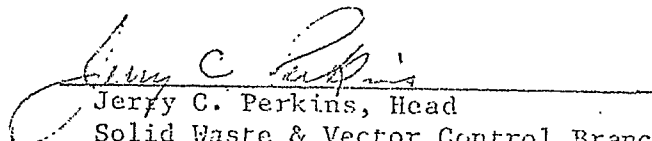
Wake County
Raleigh, NC

ORDER OF APPROVAL
for
Cliffdale Landfill
Cumberland County :

- I. Order of Approval Issued to C. L. Twine
on October 17, 19 78.
- II. Required information for evaluating proposed site and operational plans for a sanitary landfill on the below described property has been submitted for review in compliance with the "Solid Waste Management Rules". Those plans are hereby approved for operation with a complete set of the approved plans being returned to the applicant.
- III. Description of Property:
BEGINNING at a twin poplar, a common corner with Cumberland County (Book 2319, page 567), a line running South 67 degrees 17 minutes East 1,499.42 feet to a new iron pipe, a common corner with David F. McInnis Heirs property; thence with the McInnis line South 69 degrees 27 minutes West 1,000.00 feet to a new iron pipe, a common corner with David F. McInnis Heirs property; thence North 26 degrees 33 minutes West 81.84 feet to a new iron pipe; thence due West 770.34 feet to a new iron pipe, a common corner with Cumberland County property; thence with the Cumberland County line North 22 degrees 49 minutes East 929.50 feet to the beginning, a twin poplar, containing 19.387 acres, more or less, being the same land described in a deed to Alex Bethune (Book 436, page 104) dated December 26, 1941.
- IV. Effective Date: This approval is not effective until the applicant has recorded this document with the Register of Deeds in the county where the sanitary landfill is located. (G.S. 130-166.21)

This is to certify that this is an exact and true copy of the above order of approval.


Jacob Koomen, M.D., M.P.H.
Director
Division of Health Services


Jerry C. Perkins, Head
Solid Waste & Vector Control Branch
Sanitary Engineering Section

CUMBERLAND COUNTY JOINT PLANNING BOARD

801 Arsenal Avenue • P. O. Box 3005



Fayetteville, North Carolina

Telephone (919) 483-8131



October 3, 1978

North Carolina Department of Human
Resources
Division of Health Services
Solid Waste and Vector Control Branch
Sanitary Engineering Section
P. O. Box 2091
Raleigh, North Carolina 27602

Attention: Mr. O. W. Strickland


Re: Cliffdale Landfill Expansion
Cumberland County, North Carolina

Dear Sirs:

Please find enclosed three (3) copies each of the description of
the Cliffdale Landfill Expansion property.

Let me know if additional information is required.

Yours truly,


RODNEY M. HONEYCUTT
County Engineer
Cumberland County Joint Planning Board

RMH/bjc

cc: Mr. Carter Twine
County Manager

DESCRIPTION

Cumberland County Property

For

Cliffdale Landfill Expansion

Beginning at a twin poplar, a common corner with Cumberland County (Book 2319, page 567), a line running South 67 degrees 17 minutes East 1,499.42 feet to a new iron pipe, a common corner with David F. McInnis Heirs property; thence with the McInnis line South 69 degrees 27 minutes West 1,000.00 feet to a new iron pipe, a common corner with David F. McInnis Heirs property; thence North 26 degrees 33 minutes West 81.84 feet to a new iron pipe; thence due West 770.34 feet to a new iron pipe, a common corner with Cumberland County property; thence with the Cumberland County line North 22 degrees 49 minutes East 929.50 feet to the beginning, a twin poplar, containing 19.387 acres, more or less, being the same land described in a deed to Alex Bethune (Book 436, page 104) dated December 26, 1941.

DIVISION OF ENVIRONMENTAL MANAGEMENT

September 21, 1978

MEMORANDUM TO: R. A. Carter, Coordinator
Wastewater Management

FROM: Dennis R. Ramsey, Regional Supervisor *DRR*
Fayetteville Regional Office

SUBJECT: Proposed Expansion
Cumberland County (Cliffdale) Landfill
Cumberland County



On September 1, 1978, I received a request from Mr. O. W. Strickland, Supervisor, Solid Waste Management Unit, Department of Human Resources for my comments on the subject expansion. As a result of a staff evaluation plus a site visit by myself and Mr. Bill Bright (Groundwater Hydrologist, Fayetteville Regional Office), the following facts were established.

1. The existing Cliffdale Landfill became operational in 1971.
2. In 1977, the City of Fayetteville began using this landfill.
3. The existing landfill contains 42.01 acres.
4. The proposed landfill site is directly adjacent to the existing landfill and contains 19.39 acres. Of this 19.39 acres only about one half is proposed for use. The rest was not usable due to a small stream that runs through it. This stream is Middle Creek (Class C) and it is the headwaters for Lake Rim.
5. The entire landfill is surrounded by a natural buffer area of trees and brush.
6. No houses are located within 1,000 feet of the proposed site.
7. Four soil borings were made on the proposed site by the Soil Conservation Service. The soil was found to contain layers of silts, silty sand, clayey sand and clay in random patterns.
8. The area filling method will be utilized at the proposed landfill site. There will be a minimum of four (4) feet of undisturbed earth between the lowest excavation and the ground water table.
9. All runoff from this site will be routed through a sediment basin before draining into Middle Creek.
10. Lab analysis run on an existing surface water holding pond at the existing landfill on May 23, 1978, failed to show any signs of chemical pollution. No biological data was available.

Memo to Mr. Carter
Page 2
September 21, 1978

11. The existing Cliffdale landfill is projected to be filled in approximately two (2) months.
12. The proposed landfill is only a temporary operation to allow for the establishment of a larger landfill. It is expected to be filled in one year.
13. Mr. Bill Bright has advised me that the proposed site appears to be acceptable (see attached memo).
14. The existing landfill appears to be well operated.

Due to the above facts, it is my recommendation that Mr. Strickland be advised that our office has no objection to the proposed expansion.

If any additional information or clarification is needed, please advise.

DRR/fbc

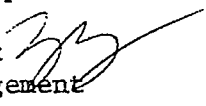
Attachment

DIVISION OF ENVIRONMENTAL MANAGEMENT

September 21, 1978

M E M O R A N D U M

TO: Dennis Ramsey
Regional Supervisor

FROM: Bill Bright 
Water Management

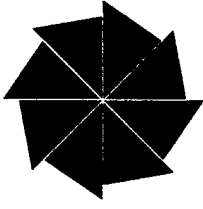
SUBJECT: Cumberland County (Cliffdale) Landfill

An on-site investigation was made of subject landfill on September 19, 1978. The investigation revealed a clay-rich environment and a water table that is at least 30-35 feet below land surface. Further, the present landfill is merely going to be extended and allowances have been made for a suitable buffer.

Therefore, from the standpoint of the groundwater resources of the general area, there is no opposition to extending the landfill.

BB/lr





North Carolina Department of Natural Resources & Community Development

James B. Hunt, Jr., Governor

Howard N. Lee, Secretary

September 12, 1978



Mr. W. O. Strickland
Solid Waste and Vector Control Branch
Sanitary Engineering Section
North Carolina Department of Human Resources
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602

RE: Cliffdale Landfill Expansion
Cumberland County

Dear Mr. Strickland:

The Land Quality Section has completed a review of the aforementioned project and we are satisfied that it meets the requirements of the Sedimentation Pollution Control Act of 1973. The erosion control measures indicated on sheet 4 of 8 of the plans and the seeding specifications described on page B-2 of the narrative should adequately control erosion for the site. It will be of utmost importance that these erosion control measures be installed as early as possible and also that all areas such as dikes, slopes, etc., that are brought to final grade, be seeded within 30 days after the grading is completed.

I would like to thank you for the opportunity to review the plan and offer our comments before construction is to begin. If you have any questions, please feel free to contact this office.

Sincerely,

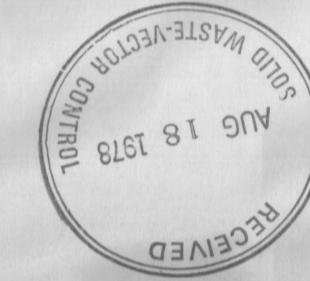
Joe Glass
Regional Engineer
Land Quality Section

JG:gc

PROPOSED LANDFILL EXPANSION

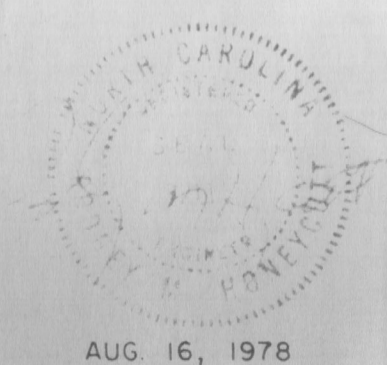
CLIFFDALE SITE

CUMBERLAND COUNTY, NORTH CAROLINA



PREPARED BY

CUMBERLAND COUNTY JOINT PLANNING BOARD





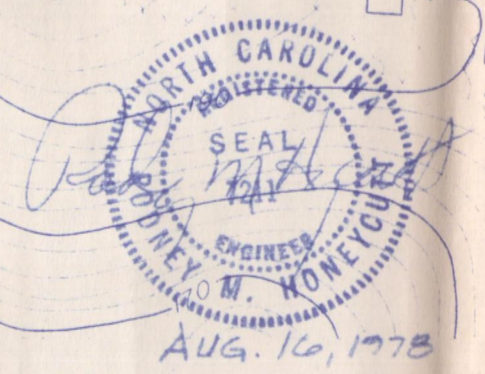
INDEX

SHEET No.	TITLE
1	COVER SHEET
2	LOCATION MAP & INDEX
3	ORIGINAL TOPOGRAPHY & BORING LOCATION
4	FINAL TOPOGRAPHY & EROSION-SEDIMENTATION CONTROL PLAN
5	LANDFILL CROSS SECTIONS
6	MISCELLANEOUS PROFILES - CROSS SECTIONS
7	RECORDATION MAP
8	PROPOSED LAND USE AFTER COMPLETION OF SANITARY LANDFILL

**CUMBERLAND COUNTY
PLANNING DEPARTMENT**

CUMBERLAND COUNTY
PROPOSED CLIFFDALE LANDFILL EXPANSION
LOCATION MAP
& INDEX

SCALE 1" = 2 MILES DATE JUG. 78



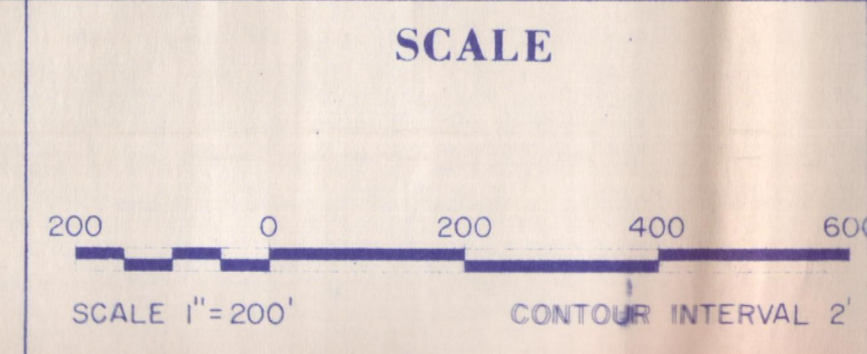
LEGEND		ROADS		CULVERT		TRANSMISSION TOWERS
		COUNTY		SWAMP		CONTOURS
		U.S.		DAM		VERTICAL CONTROL
		STATE		WATER		HORIZONTAL CONTROL
		TRAIL		STREAM		COUNTY LINE
		RAILROAD		RIVER		MUNICIPAL LINE
		FENCE		MINE		STRUCTURES
		WALL				UNDER CONSTRUCTION

TOPOGRAPHIC MAP

CUMBERLAND COUNTY

NORTH CAROLINA

COMPILED BY PHOTOGRAMMETRIC SERVICES INC. FROM AERIAL PHOTOGRAPHY, FLOWN IN THE SPRING OF 1971, IN ACCORDANCE WITH CONTRACT WITH BOARD OF COMMISSIONERS OF CUMBERLAND COUNTY AND ADMINISTERED BY THE CUMBERLAND COUNTY JOINT PLANNING BOARD



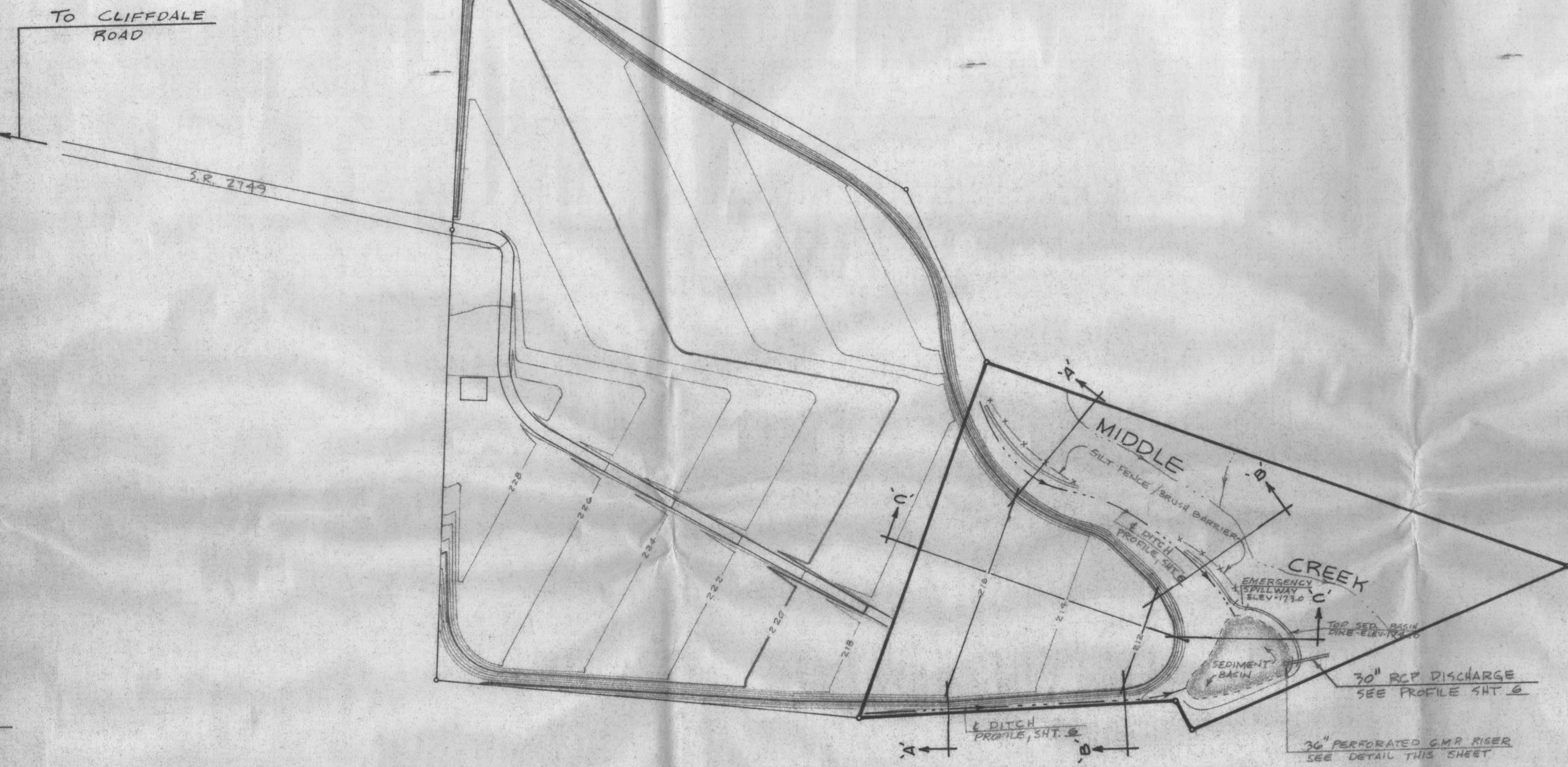
**CUMBERLAND COUNTY
PLANNING DEPARTMENT**

CUMBERLAND COUNTY

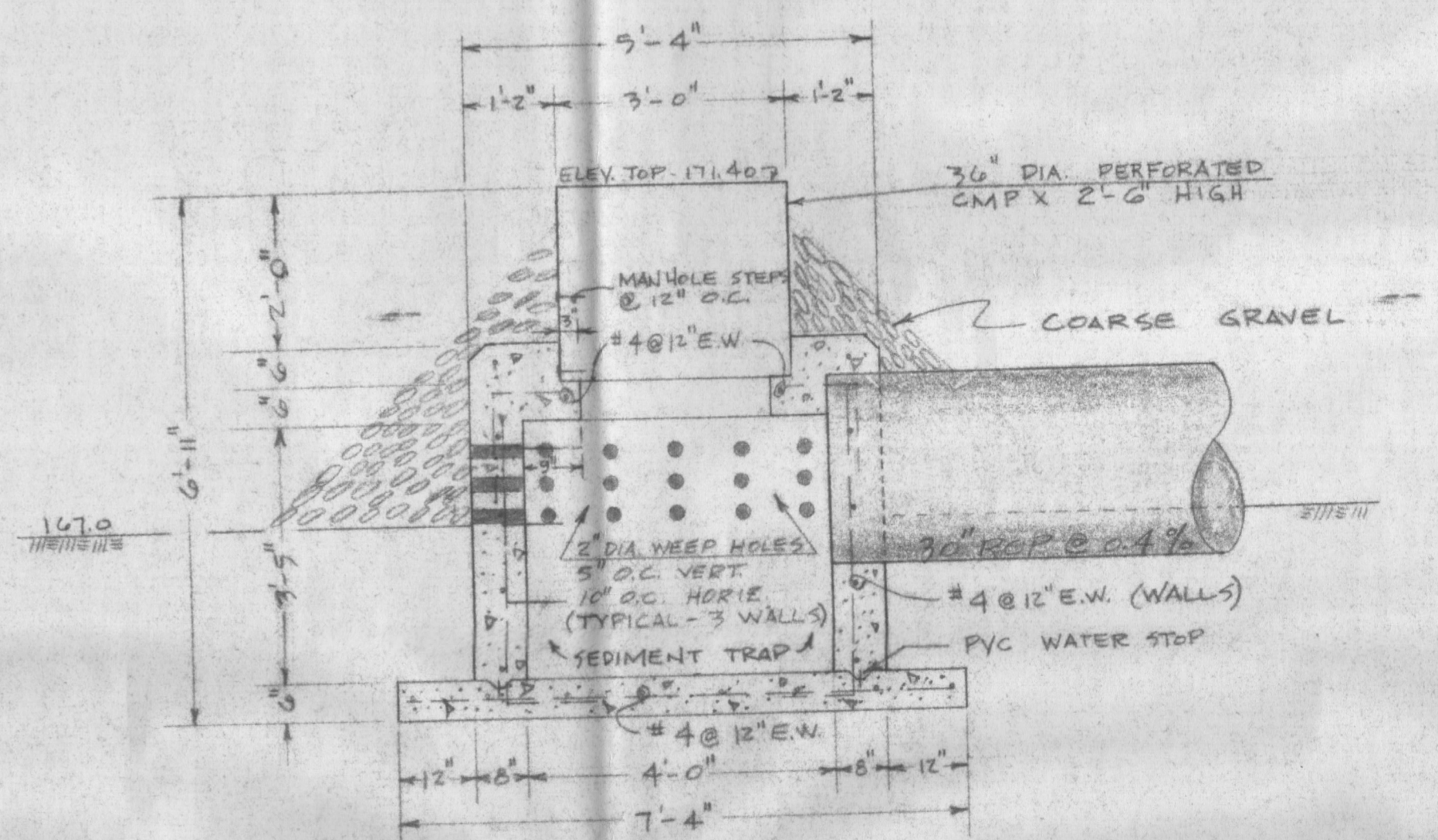
PROPOSED CLIFFDALE LANDFILL EXPANSION

ORIGINAL TOPOGRAPHY
& BORING LOCATION

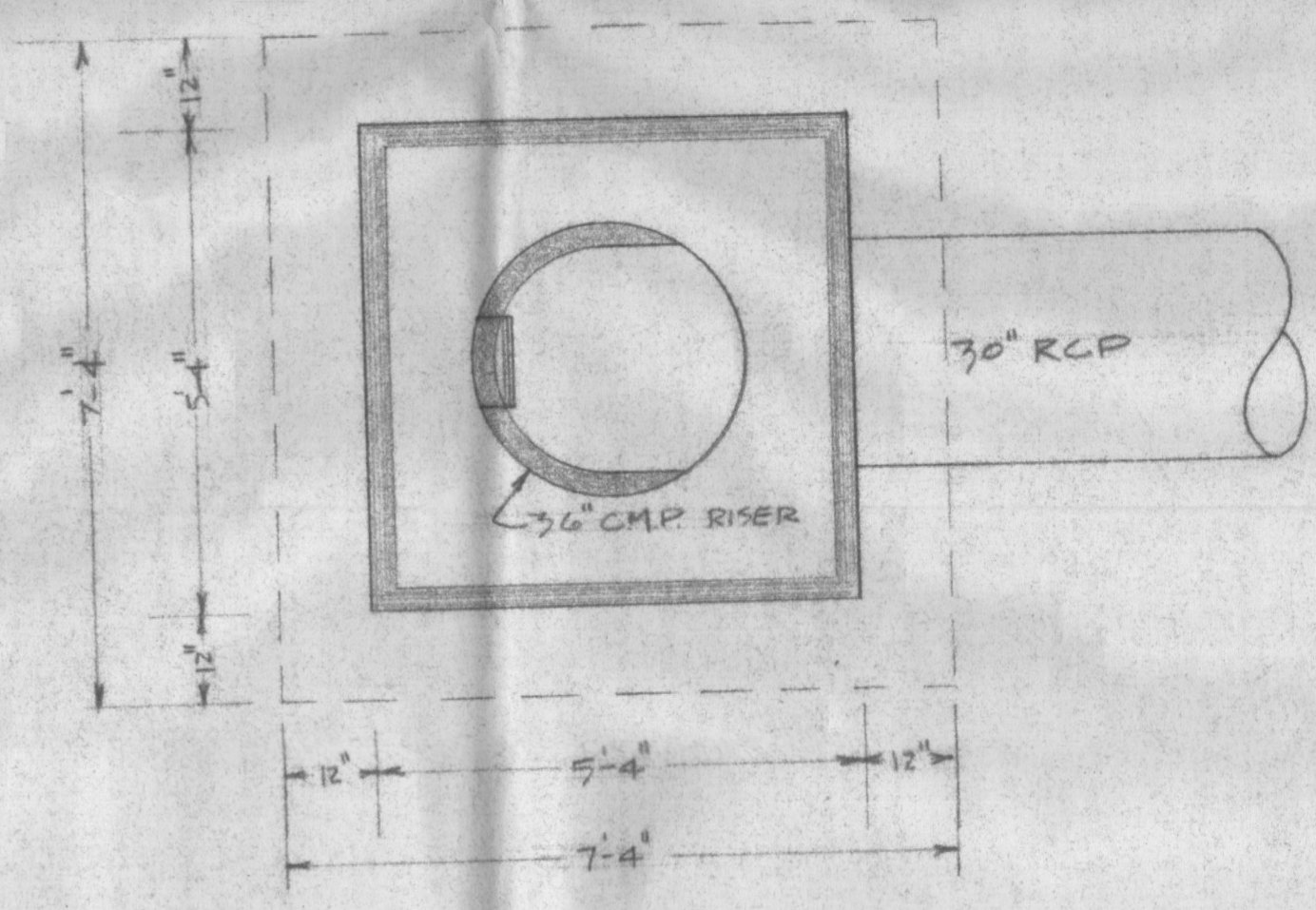
SCALE 1"=200' DATE AUG. 78



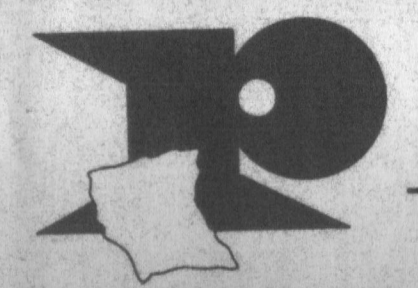
SCALE: 1" = 200'



PLAN VIEW
PERFORATED CMP RISER DETAIL
SCALE: 1/2" = 1'-0"



TOP VIEW
PERFORATED CMP RISER DETAIL
SCALE: 1/2" = 1'-0"



CUMBERLAND COUNTY JOINT PLANNING BOARD
801 ARSENAL AVE. FAYETTEVILLE, N.C.

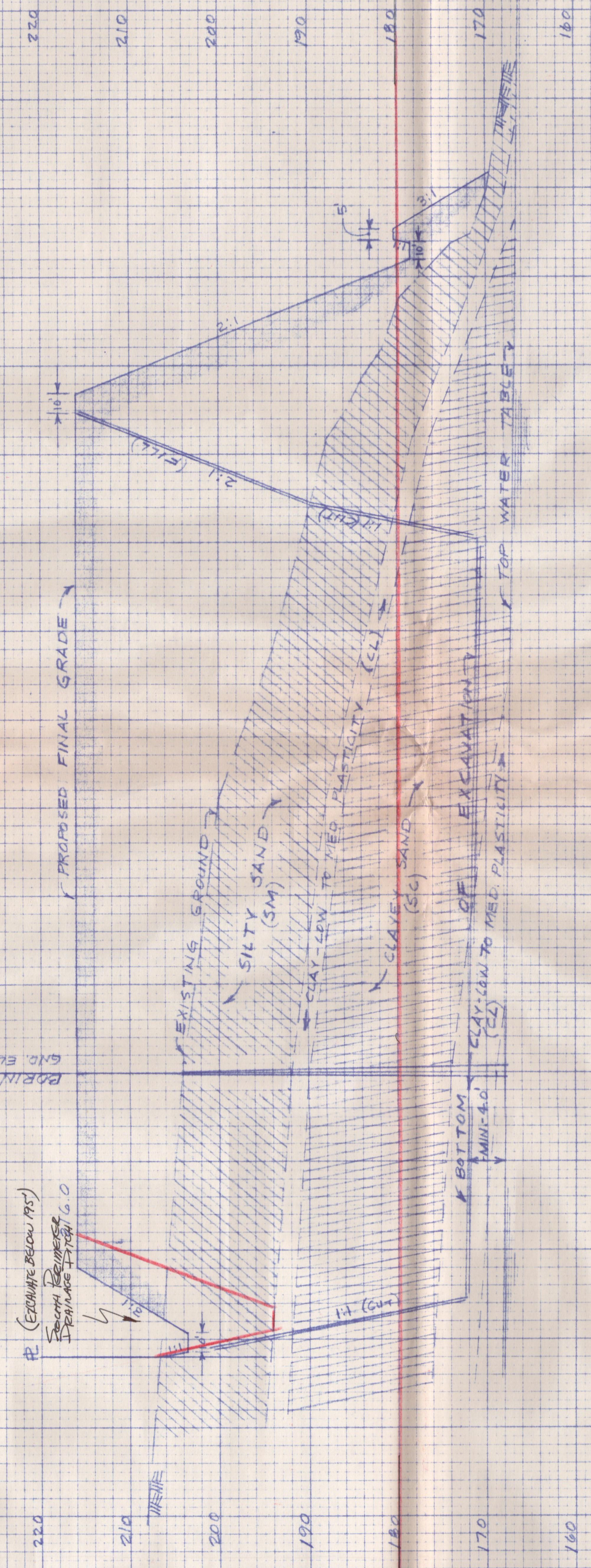
CUMBERLAND COUNTY, N.C.
PROPOSED CLIFFDALE LANDFILL EXPANSION

FINAL TOPOGRAPHY
EROSION-SEDIMENTATION CONTROL PLAN

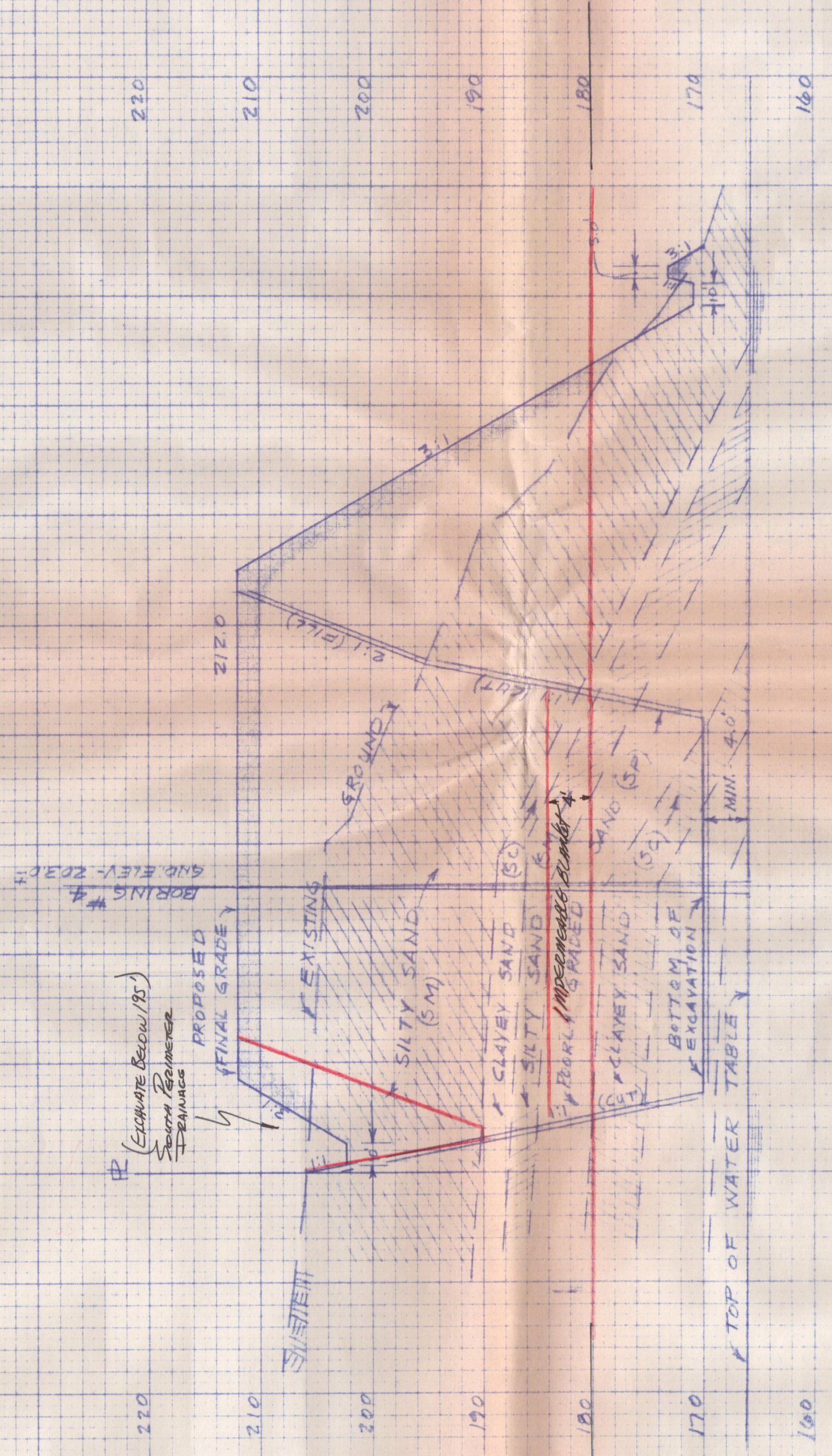
DATE AUG, '78	DRAFTSMAN RMH	SHEET NO. 4
SCALE As Shown	JOB NUMBER	OF 8

ORIGINAL SURVEYED BY DATE
 SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. DATE
 AREAS CHECKED: NO.

FINAL SURVEY BY DATE
 SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. DATE
 AREAS CHECKED: NO.



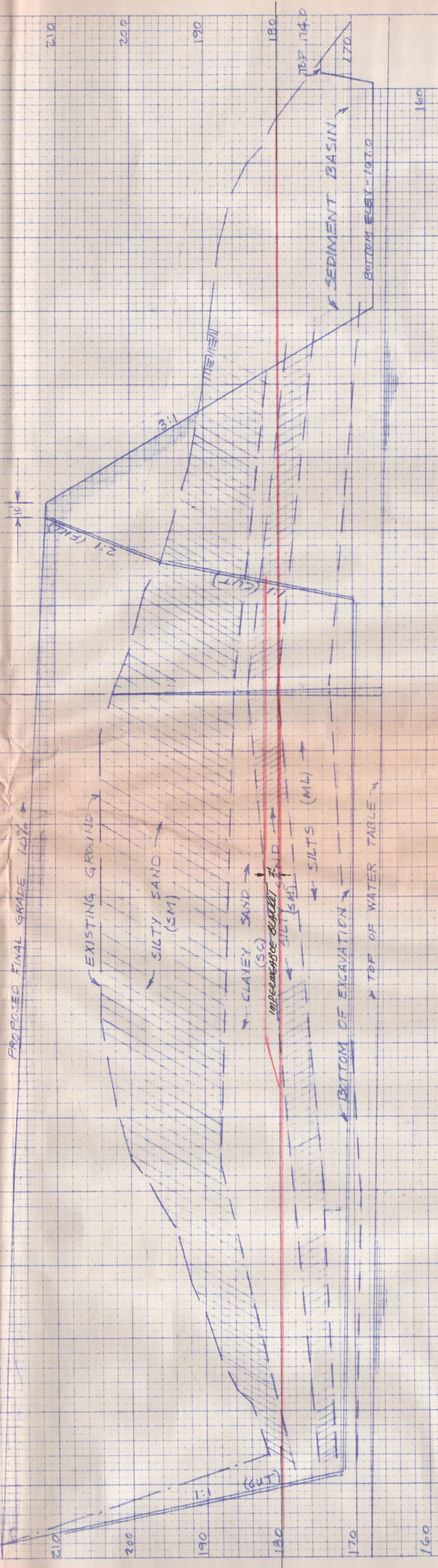
SECTION A-A



SECTION B-B

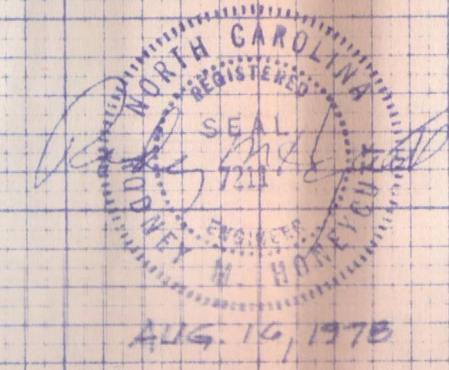
NOTE: THESE LEVELS WERE NOT RECORDED (RESUMES TO BE STARTED AT SLIGHT GRADIENT TO STREAM)
 NOTE: WATER LEVEL APPROX. 15'-20" IN STREAM AND TIDE, WATER TABLE CONTROL BY WATER LEVEL IN CREEK.
 NO DRAINAGE METHOD OF REMOVAL OF SURFACE RUNOFF FROM FINISHED LANDFILL TO TOP OF EXCAVATION DIRT
 TOTAL VOLUME OF RUNOFF FROM CREEK NOT RECORDED. VOLUME OF OFF-DIKE SURFACE DRAINAGE TO DOWN-DIKE DRAINAGE SHOULD BE INCLUDED IN STORAGE CAPACITY. (SEWER BASIN COORDINATED)

BORING # 3
 GND. ELEV. 202.0 ft



SECTION C-C

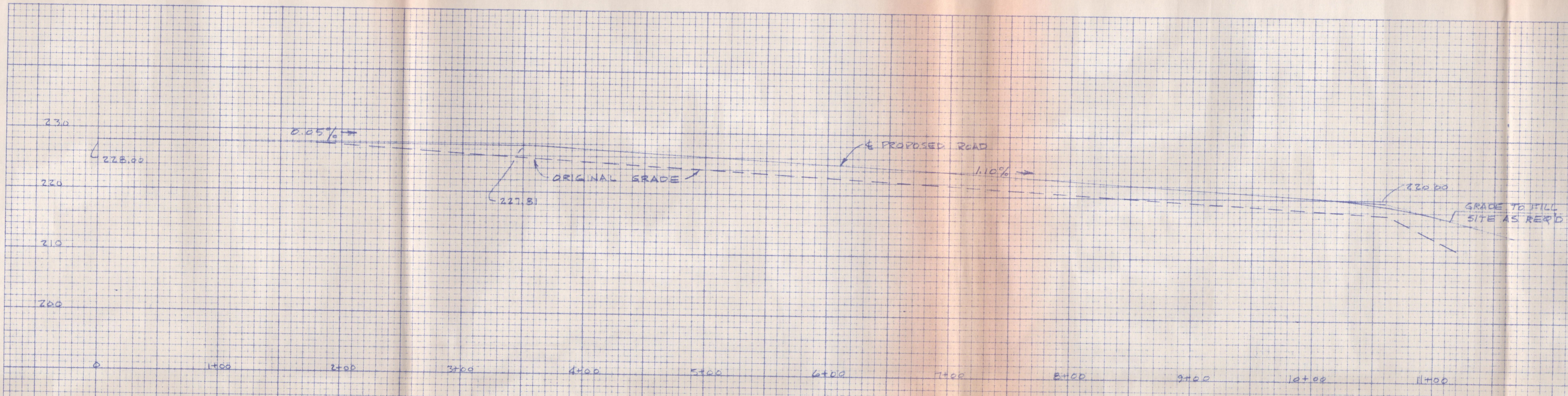
NOTE: TO MAINTAIN EXCAVATION LIMITS 180' - SITE EXCAVATED TO BE BELOW 180'
 (a) SURFACE DRAINAGE DITCH SHALL BE 10' WIDE AT TOP OF EXCAVATION TO BE BELOW 180'
 TO BE OPEN TO MAINTAIN SURFACE DRAINAGE TO CREEK
 (b) SURFACE DRAINAGE DITCH SHALL BE 10' WIDE AT TOP OF EXCAVATION TO BE BELOW 180'
 TO INTERCEPT SURFACE DRAINAGE TO MAINTAIN SURFACE DRAINAGE TO CREEK
 (c) SURFACE DRAINAGE DITCH SHALL BE 10' WIDE AT TOP OF EXCAVATION TO BE BELOW 180'
 TO INTERCEPT SURFACE DRAINAGE TO MAINTAIN SURFACE DRAINAGE TO CREEK
 (d) SURFACE DRAINAGE DITCH SHALL BE 10' WIDE AT TOP OF EXCAVATION TO BE BELOW 180'
 TO INTERCEPT SURFACE DRAINAGE TO MAINTAIN SURFACE DRAINAGE TO CREEK



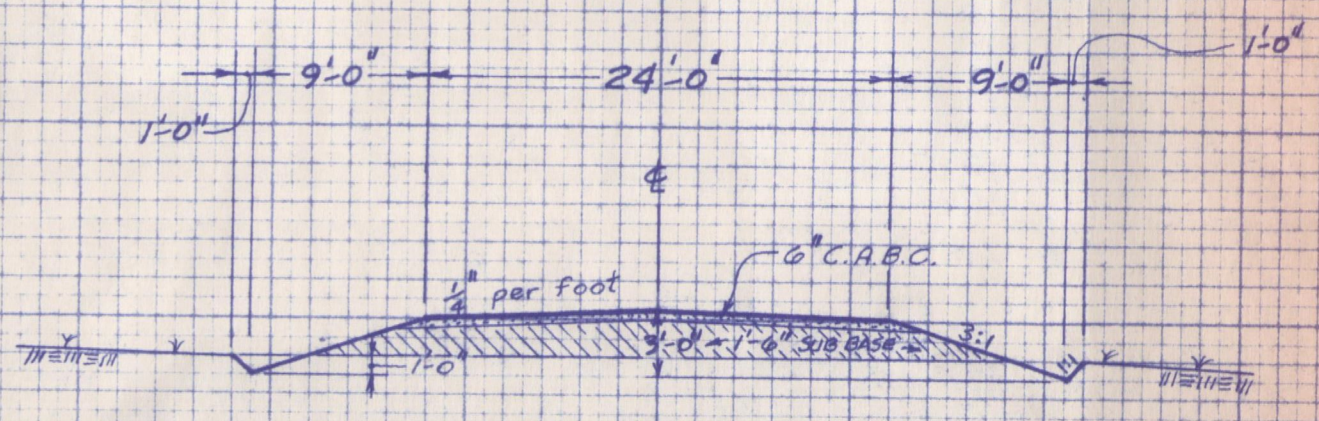
CUMBERLAND COUNTY PLANNING DEPARTMENT
 CUMBERLAND COUNTY, N.C.
 PROPOSED CLIFFDALE LANDFILL EXPANSION
 CROSS SECTIONS
 SCALE: VERT. 1" = 10', HORIZ. 1" = 50'
 DATE: July 78

FINAL SURVEY BY DATE
SURVEYED PLOTTED
NOTE BOOK TEMPLATE
NO. 108 AREAS CHECKED

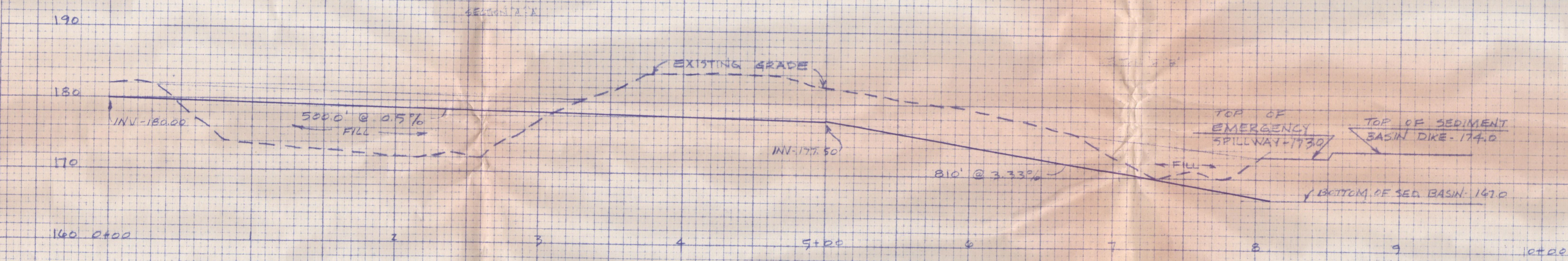
ORIGINAL SURVEY BY DATE
SURVEYED PLOTTED
NOTE BOOK TEMPLATE
NO. 108 AREAS CHECKED



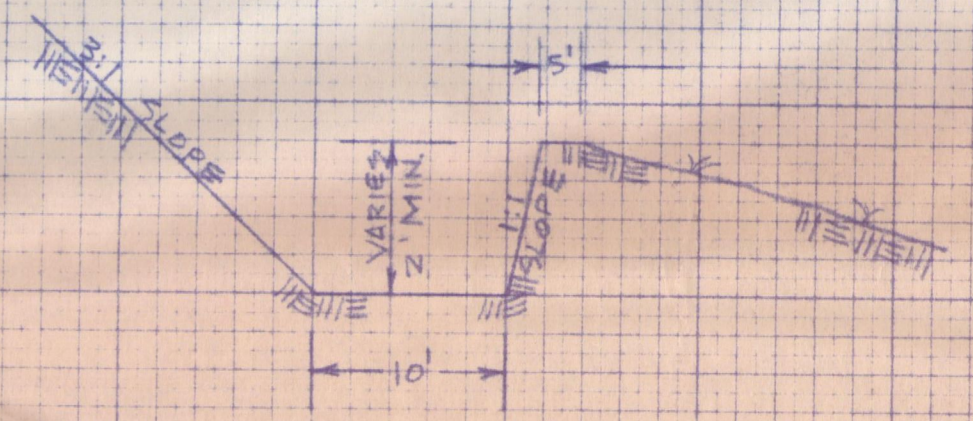
PROFILE
PROPOSED CLIFFDALE LANDFILL EXPANSION ACCESS ROAD
SCALE: VERT. 1"=10'; HORIZ. 1"=50'



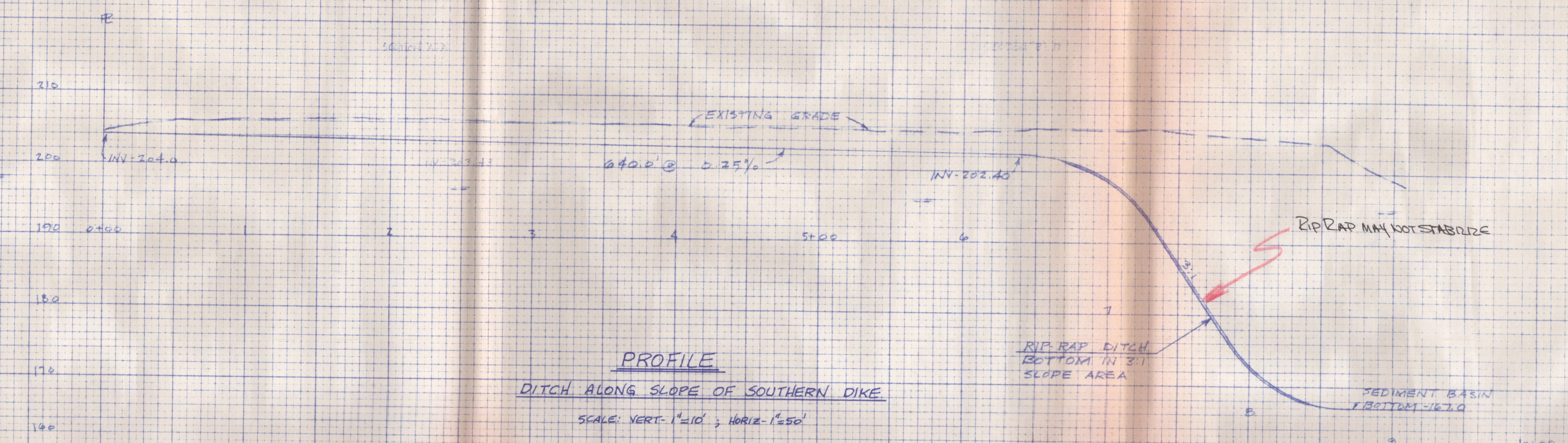
TYPICAL CROSS SECTION
PROPOSED ACCESS ROAD
NO SCALE



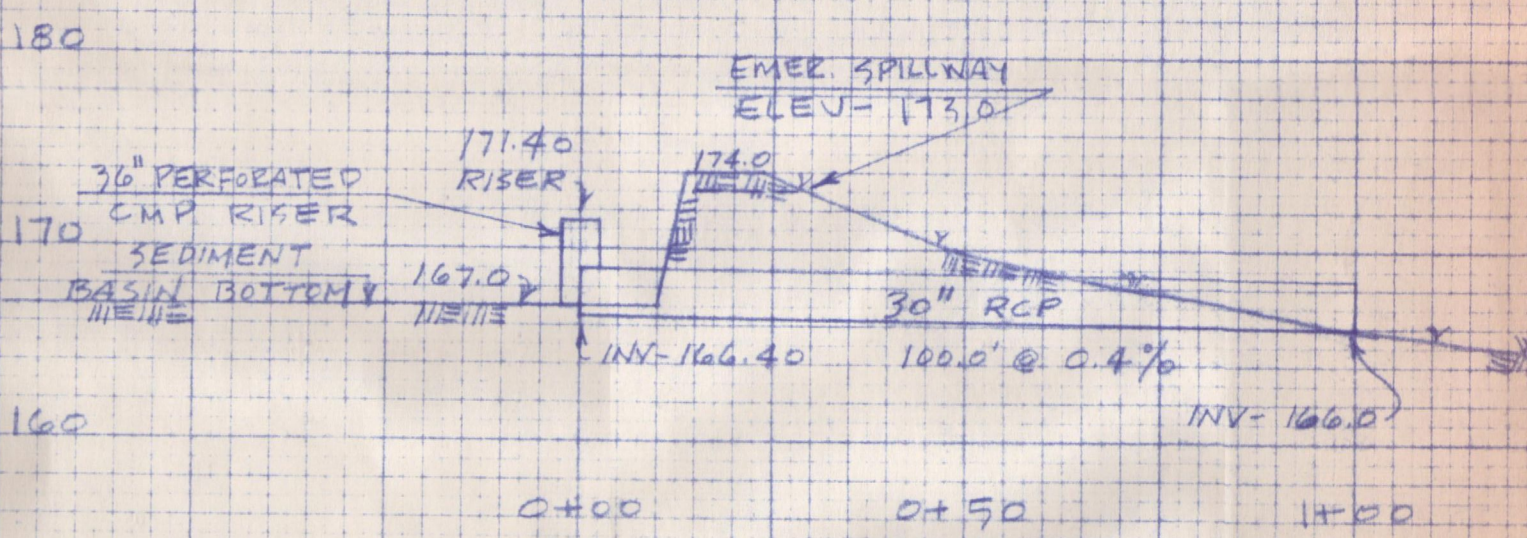
PROFILE
DITCH ALONG SLOPE OF NORTHERN DIKE
SCALE: VERT. 1"=10'; HORIZ. 1"=50'



CROSS SECTION
TYPICAL DRAINAGE DITCH
NO SCALE



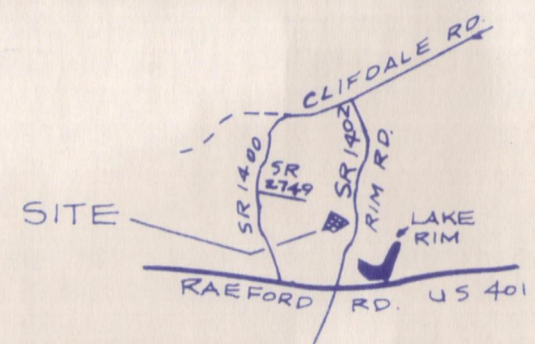
PROFILE
DITCH ALONG SLOPE OF SOUTHERN DIKE
SCALE: VERT. 1"=10'; HORIZ. 1"=50'



PROFILE
SEDIMENT BASIN DISCHARGE PIPE
SCALE: VERT. 1"=10'; HORIZ. 1"=25'

Professional Engineer Seal: M. H. DODD, No. 2198, State of North Carolina, August 12, 1975

CUMBERLAND COUNTY PLANNING DEPARTMENT
CUMBERLAND COUNTY
PROPOSED CLIFFDALE LANDFILL EXPANSION
PROFILES-CROSS SECTIONS AS NOTED
SCALE AS NOTED DATE AUG. '75



VICINITY MAP
1" = 1 MILE (APPROX)

WADDELL HOLLIDAY
Book 489, PAGE 78

I, _____, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION, THAT THE ERROR OF CLOSURE AS CALCULATED BY LATITUDES AND DEPARTURES IS 1/15,000, THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY HAND AND SEAL THIS _____ DAY OF _____, A.D., 1978.

CUMBERLAND COUNTY
Book 2319, PAGE 567

CUMBERLAND CO. DEED NORTH

TWIN
POPLARS

19.387 ACRES

DAVID F. McINNIS (DECEASED)
Book 549, PAGE 147

EXIST
CONC
MON

NIP

WEST

770.34'

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

NIP

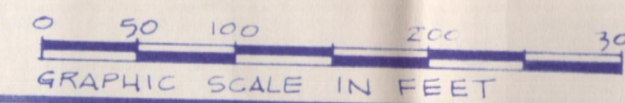
NIP

NIP

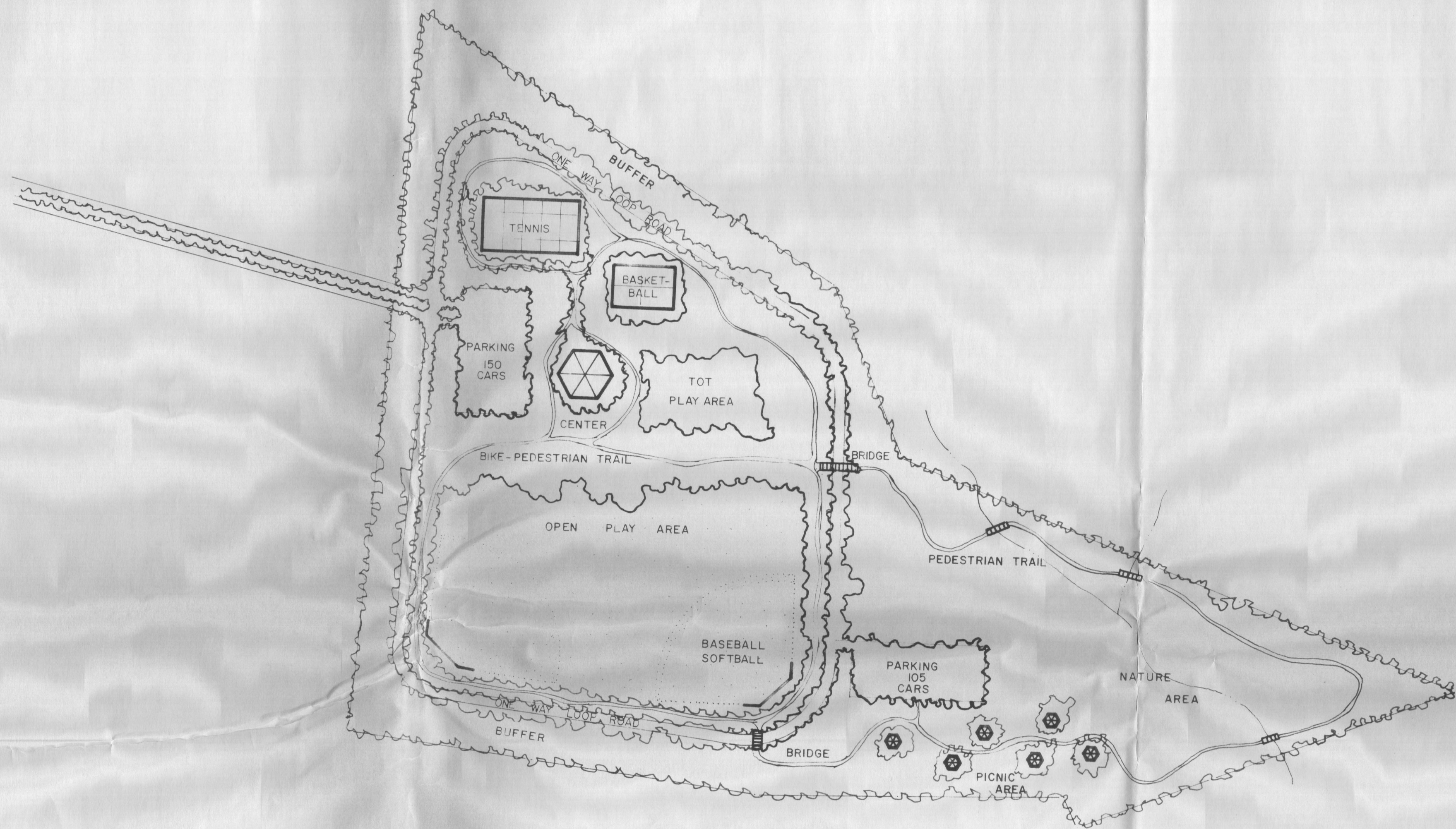
NIP


NIP

GORDAN B NEWTON



CUMBERLAND COUNTY
PLANNING DEPARTMENT
CUMBERLAND COUNTY, N. C.
PROPOSED CLIFDALE LANDFILL EXP.
RECORDATION MAP
SCALE: 1" = 100' DATE: AUG, '78
SHEET 7 OF 8




 AUG 16, 1978

CUMBERLAND COUNTY PLANNING DEPARTMENT	
PROPOSED LAND USE AFTER COMPLETION OF SANITARY LANDFILL.	
CUMBERLAND COUNTY SCALE 1" = 200'	DATE AUG. 78



REPORT
PROPOSED

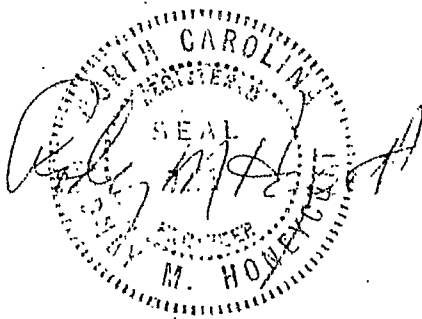
LANDFILL EXPANSION
CLIFFDALE SITE

CUMBERLAND COUNTY, NORTH CAROLINA

Prepared By

Cumberland County Planning Department

August, 1978



August 16, 1978

TABLE OF CONTENTS

- I. SITE DATA
 - A. Land Use and Zoning
 - B. Buffer
 - C. Adjacent Structures

- II. SUBSURFACE EVALUATION
 - A. General
 - B. Soil Borings

- III. DRAINAGE

- IV. OPERATIONAL PLANS
 - A. Site Facilities
 - B. Disposal Method
 - C. Erosion-Sedimentation Control

- V. RECORDATION

- VI. OTHER PERTINENT INFORMATION
 - A. Population - Area Served
 - B. Material Disposed
 - C. Equipment
 - D. Operational Responsibility
 - E. Future Land Use
 - F. Life Expectancy

I. SITE DATA

A. Land Use and Zoning

All zoning within one-fourth ($\frac{1}{4}$) mile of the property purchased for the proposed Cliffdale Landfill expansion is Rural Residential except one residential area to the Northwest zoned R6A. The R6A classification denotes an area consisting of a mix of single and multi-family dwellings and permitting the use of trailer houses. This area is located as shown on plan sheet 3 of 8 approximated 1,150 feet from the landfill property line. Due to topography, this section of county property is not acceptable for sanitary landfill use at this time; therefore all zoning is rural residential within one-fourth ($\frac{1}{4}$) mile of the actual landfill area boundary.

B. Buffer

The entire landfill is surrounded by a natural buffer consisting of mostly tall pines with medium to thick under brush.

C. Adjacent Structures

The only buildings located within ($\frac{1}{4}$) mile of the landfill boundary are three (3) rural residents located approximately 1,000-1,200 feet to the southwest. These homes are separated from the landfill by a ridge line and a pine forest with medium under brush.

II. SUBSURFACE EVALUATION

A. General

The proposed landfill site is located adjacent to the existing landfill. The soil conditions and water table in the proposed landfill are generally the same types and locations as in the existing landfill.

B. Soil Borings

Soil borings at the proposed landfill site were made by the Cumberland County Health Department assisted by Soil Scientists from the United States Department of Agriculture, Soil Conservation Service. The following table lists the soil classification, depth and elevation of each soil boring.

Boring #1

top gnd. elev. = 204

<u>Depth</u>	<u>Classification</u>
0-12	SM
12-14	CL
14-30	SC
30-35	CL

Boring #2

top gnd. elev. = 205

<u>Depth</u>	<u>Classification</u>
0-15	SM
15-24	SC
24-35	SM

Boring #3

top gnd. elev. = 202

<u>Depth</u>	<u>Classification</u>
0-16	SM
16-18	SC
18-22	SM
22-29	ML

Boring #4

top gnd. elev. = 203

<u>Depth</u>	<u>Classification</u>
0-14	SM
14-17	SC
17-19	SM
19-23	SP
23-29	SC
29-35	CL

Refer to attachment "A" for further information concerning these soil borings.

A permanent bench mark has been established on the southwest corner of the landfill expansion property. The bench mark is a railroad spike in the base of a twelve inch (12") pine tree, elevation 203.69 (sea level elevation). Each soil boring has been located relative to the land fill boundary and the ground elevation of each boring has been established from the permanent bench mark.

III. DRAINAGE

Middle Creek divides the county property purchased for the proposed landfill expansion. The creek is located in a swamp ranging from 200-500 feet wide. Middle Creek drains the entire landfill expansion property and is headwaters for Lake Rim.

IV. OPERATIONAL PLANS

A. Site Facilities

The office, garage and sanitary facilities at the existing landfill site will remain for the landfill expansion area.

B. Disposal Method

The area filling method will be utilized at the proposed landfill site. There will be a minimum of four (4) feet of undisturbed earth between the lowest excavation and the ground water table.

C. Erosion-Sedimentation Control

An erosion and sedimentation plan is included on the final topo map, plan sheet 4 of 8. All runoff including runoff from dike slopes will be routed through a sediment basin before draining into Middle Creek. All calculations necessary for the erosion-sedimentation control plan are included as attachment "B".

V. RECORDATION

A preliminary recordation map is included in the plans. See plan sheet 7 of 8.

VI. OTHER PERTINENT INFORMATION

A. Population-Area Served

The entire county will be served by the landfill including all municipalities. The estimated population to be served is 243,573.

B. Material Disposed

The primary use of the landfill will be for disposing of household, commercial and industrial refuse and rubble.

C. Equipment

Following is a list of equipment available at the landfill site.

1. 250-C Loader
2. Dragline
3. Two Rex 350 Compactors
4. 444 Pan
5. Bulldozer
6. Pickup Truck
7. Five Roll-off container truck
8. Van

D. Operational Responsibility

Roy Washington is responsible for operation and maintenance at the existing and proposed landfill site expansion. The landfill will be operated in accordance with the North Carolina Solid Waste Management Rules as prepared by the Department of Human Resources, Division of Health Services, Sanitary Engineering Section to the best of Mr. Washington's knowledge and abilities.

E. Future Use

A county recreational area is planned for the completed sanitary landfill. See plan sheet 8 of 8 for the preliminary plan.

F. Life Expectancy

The anticipated life time of the landfill expansion is
12 months.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

P. O. Box 64337, Fayetteville, N. C. 28306

June 14, 1978

Mr. Joe P. Gladden
County Sanitarian
Cumberland County Health Dept.
P. O. Box 470
Fayetteville, N. C. 28302

Dear Mr. Gladden:

On December 22, 1977, Soil Scientists Berman Hudson and Albert Mills assisted County Health Department personnel in boring and recording soils information for a proposed land fill site on Cliffdale Road in Cumberland County.

Six borings were made. Four holes were 35 feet deep, one was 29 feet deep, and one was 14 feet deep. The water table was not evident in any of the holes bored.

Attached are data logged from these borings. Texture classes are presented in the unified system, with a legend attached explaining the symbols used. These data indicate that most of the subject area consists of from 6 to about 15 feet of sandy material underlain by clayey sands and low plasticity clays.

Sincerely yours,

Berman D. Hudson

Berman D. Hudson
Soil Scientist

Attachments

Hole # 1

<u>Depth (ft.)</u>	<u>Texture</u>
0-12	SM
12-14	CL
14-30	SC
30-35	CL

Hole # 2

<u>Depth (ft.)</u>	<u>Texture</u>
0-15	SM
15-24	SC
24-35	SM

Hole # 3

<u>Depth (ft.)</u>	<u>Texture</u>
0-16	SM
16-18	SC
18-22	SM
22-29	ML

Hole # 4

<u>Depth (ft.)</u>	<u>Texture</u>
0-14	SM
14-17	SC
17-19	SM
19-23	SP
23-29	SC
29-35	CL

Hole # 5

<u>Depth (ft.)</u>	<u>Texture</u>
0-6	SM
6-8	SC
8-15	SM-SC
12-30	SC
30-32	SM-SC
32-35	SP

Hole # 6

<u>Depth (ft.)</u>	<u>Texture</u>
0-6	SM
6-8	SC
8-11	CL
11-14	SC-CL

A-

TYPES OF MATERIAL ENCOUNTERED IN BORINGS
(Use one of systems below)

UNIFIED CLASSIFICATION

- GW - Well graded gravels; gravel, sand mix
- GP - Poorly graded gravels
- GM - Silty gravels; gravel-sand-silt mix
- GC - Clayey gravels; gravel-sand-clay mix
- SW - Well graded sands; sand-gravel mix
- SP - Poorly graded sands
- SM - Silty sand
- SC - Clayey sands; sand-clay mixtures
- ML - Silts; silty, v. fine sands; sandy or clayey silt
- CL - Clays of low to medium plasticity
- CH - Inorganic clays of high plasticity
- MH - Elastic silts
- OL - Organic silts and silty clays, low plasticity
- OH - Organic clays, medium to high plasticity

USDA CLASSIFICATION

- g - gravel
- s - sand
- vfs - very fine sand
- sl - sandy loam
- fsl - fine sandy loam
- l - loam
- gl - gravelly loam
- si - silt
- sil - silt loam
- cl - clay loam
- sicl - silty clay loam
- scl - sandy clay loam
- sic - silty clay
- c - clay

1. Suitable material for embankment is available Yes No (Indicate where located on the sketch on reverse side)

REMARKS:

2. Explain hazards requiring special attention in design. (Seepage, spring, rock etc.)

GENERAL REMARKS:

PROPOSED CLIFFDALE LANDFILL EXPANSIONErosion-Sedimentation Control
Including Runoff Calculations1. KNOWN DATA

- a. Soil type - Lucy 1s - Hydrologic group A
Wagram 1s - Hydrologic group A
- b. Drainage Area - 35 Acres (Maximum)
- c. 2 year - 24 hour rainfall - 3.8 inches
10 year - 24 hour rainfall - 5.8 inches
25 year - 24 hour rainfall - 6.8 inches
- d. Pasture or range poor (for design) condition
Use curve number 49
- e. Slope - 1% - use correction factor 1.00 on ES sheet labeled flat for peak flow.

2. PEAK DISCHARGE

2 year	-	6.5	cfs	these figures are high
10 year	-	22.0	cfs	since CN of 49 is not
25 year	-	31.0	cfs	available-using CN 60

3. DESIGN

- a. use 10 year flow
22.0 cfs @ 0.4% slope
use 30" RCP - cap. approx. 26.0 cfs
- b. use 36" perforated rise pipe w/ anti vortexing device at entrance
- c. Max discharge Velocity - 5.2 + fps
10 year storm discharge velocity - 5.1 + fps
2 year storm discharge velocity - 3.7 + fps
- d. Since drainage is into a swamp immediately ahead of Lake Rim, velocity will not cause an erosion problem (due to Lake - Swamp stilling effect). But should erosion become a problem due to velocity, rip rap will be installed along effluent channel.

- e. Upon completion of dike, slopes will be immediately seeded and mulched as follows:

(assumed seeded in fall)

50# tall fescue grass per acre

Mulch - 1½ tons straw per acre

1000# 10-10-10 fertilizer per acre

2 tons agriculture lime per acre

- f. Upon completion of landfill or any area thereof, it will be seeded the same as (e) immediately.

CUMBERLAND COUNTY JOINT PLANNING BOARD

801 Arsenal Avenue • P. O. Box 3005



Telephone (919) 483-8131

Fayetteville, North Carolina 28305



August 16, 1978

North Carolina Department of Human
Resources
Division of Health Services
Solid Waste & Vector Control Branch
Sanitary Engineering Section
P. O. Box 2091
Raleigh, North Carolina 27602

Re: Cliffdale Landfill Expansion
Cumberland County, North Carolina

Dear Sirs:

We are enclosing three (3) copies each of the plans and report for the proposed expansion of the Cliffdale Landfill Site. Please review these items at your earliest convenience.

Let us know if we can provide you with additional information.

Yours truly,

Rodney M. Honeycutt, P.E.
County Engineer

RMB/bjc

cc: Mr. Carter Twine, County Manager
w/Enclosure

Mr. Joe Glass w/Enclosure

7/11

NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES

DIVISION OF HEALTH SERVICES
SOUTH CENTRAL REGIONAL OFFICE
225 GREEN STREET
WACHOVIA BUILDING — SUITE 506
FAYETTEVILLE, NORTH CAROLINA 28301



April 10, 1978

Mr. Lacy Williams, Jr., R. S.
Director of Environmental Health
✓ Cumberland County Health Department
Post Office Box 470
Fayetteville, North Carolina 28302

JTK
Dear Mr. Williams:

Mr. Joe Gladden and myself made a site evaluation on the 32 acre tract of property located adjacent to the present Cliffdale landfill Friday, April 7, 1978.

I foresee no problems in developing this site into an additional phase for your present landfill operation. My only stipulation would be that a 100 foot buffer be required between the creek and any part of the landfill development.

If you have any further questions or if I may be of assistance to you, please do not hesitate to contact me.

Sincerely,

Terry F. Dover
Terry F. Dover
District Sanitarian
Solid Waste & Vector Control Branch

TFD:jbr
cc: Mr. O. W. Strickland

NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES

DIVISION OF HEALTH SERVICES
SOUTH CENTRAL REGIONAL OFFICE
225 GREEN STREET
WACHOVIA BUILDING — SUITE 506
FAYETTEVILLE, NORTH CAROLINA 28301

August 29, 1977

Mr. Carter L. Twine, County Manager
County of Cumberland
Post Office Drawer 1829
Fayetteville, North Carolina 28301

Dear Mr. Twine:

This letter is to inform you of the conditions found at the Cliffdale-Cumberland County landfill on my routine inspection of August 25, 1977. Accompanying me on my inspection was Mr. John Johnson, Regional Engineer, Land Quality Section, Department of Natural and Economic Resources. Mr. Johnson's concern is sedimentation and erosion control of which he is making evaluations of all sanitary landfills within the southeastern region.

As you may or may not be aware, Mr. Johnson's office becomes concerned with erosion problems when the sedimentation from said erosion either (1) enters a flowing stream, or (2) erodes onto adjacent property. We have both of these problems at the Cliffdale landfill. These problems have been developing over the last eight months and they have been duly noted on the last three inspection reports. To correct the problems we must rework silt fences and regrade and reseed all dyke slopes.

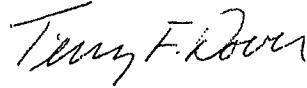
Concerning the day-to-day operation of the landfill, I was most disappointed. The morning of the inspection all landfill equipment was inoperative. Waste was spread out over at least one acre of ground with the necessary compaction and coverage with earth nonexistent. As I stated to you in our meeting, Cumberland County-Cliffdale landfill volumewise is one of the ten largest landfills in this state. You are grossly underequipped to handle the volume of waste and operate a good solid waste disposal site. This office must insist that improvements be made in the daily operation.

We would be happy to give you all the assistance possible in helping to eliminate the problems.

Mr. Carter L. Twine, County Manager
Page Two
August 29, 1977

If you have any questions or if we can be of further assistance to you, please do not hesitate to contact us.

Sincerely,



Terry F. Dover
District Sanitarian
Solid Waste & Vector Control Branch

TFD:jbr

cc: Mr. O. W. Strickland
Mr. Lacy Williams, Jr.

March 7, 1977

Mr. Lucy Williams, Jr.
Director, Environment & Health
Cumberland County Health Department
515 Person Street JWR
Fayetteville, North Carolina 28302

Dear Mr. Williams:

Your request for review and approval of the revised plans for the Cumberland County sanitary landfill located near Cliffdale has been received. The proposed revisions have been found to be acceptable and are hereby approved with the following conditions:

1. The operations are to conform to the requirements of the Department of Natural Resources, Division of Health Services "Solid Waste Management Rules".
2. Operating conditions specified in prior approvals are a part of this approval.

This site having been originally approved in May, 1972, has not had the documents prepared for site recordation. At your option, these documents can be prepared upon receipt of the site description in narrative form.

If this office can be of further assistance, do not hesitate to call.

Yours truly,

Jerry G. Forline, Head
Solid Waste & Vector Control Branch
Sanitary Engineering Section

JCF:bn

cc: Mr. Terry F. Dover

112

NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

OFFICE MEMORANDUM

2-15-77

DATE

TO: Mr. Perkins
FROM: T.F.D.
RE: Enclosed plans

Please find enclosed proposed changes in the final elevations at the Cumberland Co. Clift Dale Landfill. I discussed the changes with Mr. Williams and feel they are appropriate to eliminate excess cover material.



Health Department

County of Cumberland

Fayetteville, N.C. 28302

February 10, 1977



Mr. Terry F. Dover, District Sanitarian
Solid Waste & Vector Control Branch
Division of Health Services
South Central Regional Office
Wachovia Bank Building, Suite 506
225 Green Street
Fayetteville, North Carolina 28301

Dear Mr. Dover:

As per your instructions a few days ago please find revised plans for Cliffdale or Cumberland County, North Carolina, landfill for your review and for your colleagues' review and approval.

As you know, due to the amount of excavation that remains to be done in the area to be filled and use of the excess dirt that will come from these excavations including the existing enormous stock pile of dirt on the completed area, we respectfully request these proposed changes. I trust that these are in keeping with your comments expressed recently.

1. Using Cross Section Line "B" (see plans) as the dividing line for Cliffdale landfill, the area to the south of this line will be raised eight feet more than the original plans. This will be done with approximately six feet of garbage and two feet of earth cap.
2. The area to the north of Section Line "B" has been filled and capped. This area will have an additional two feet of dirt distributed over it. We propose to make the lift beginning at Section Line "B" at finished grade as shown on the plans. We will then have a one-foot rise in every 15.5 feet. This will peak approximately 100 feet south of Section line "B". We will then maintain a slope of not more than one per cent. The finished grade will slope to the south and to the east.

If we can be of further assistance, please let us know. However, it is hoped at this time that the information submitted as an addendum to this section will suffice.

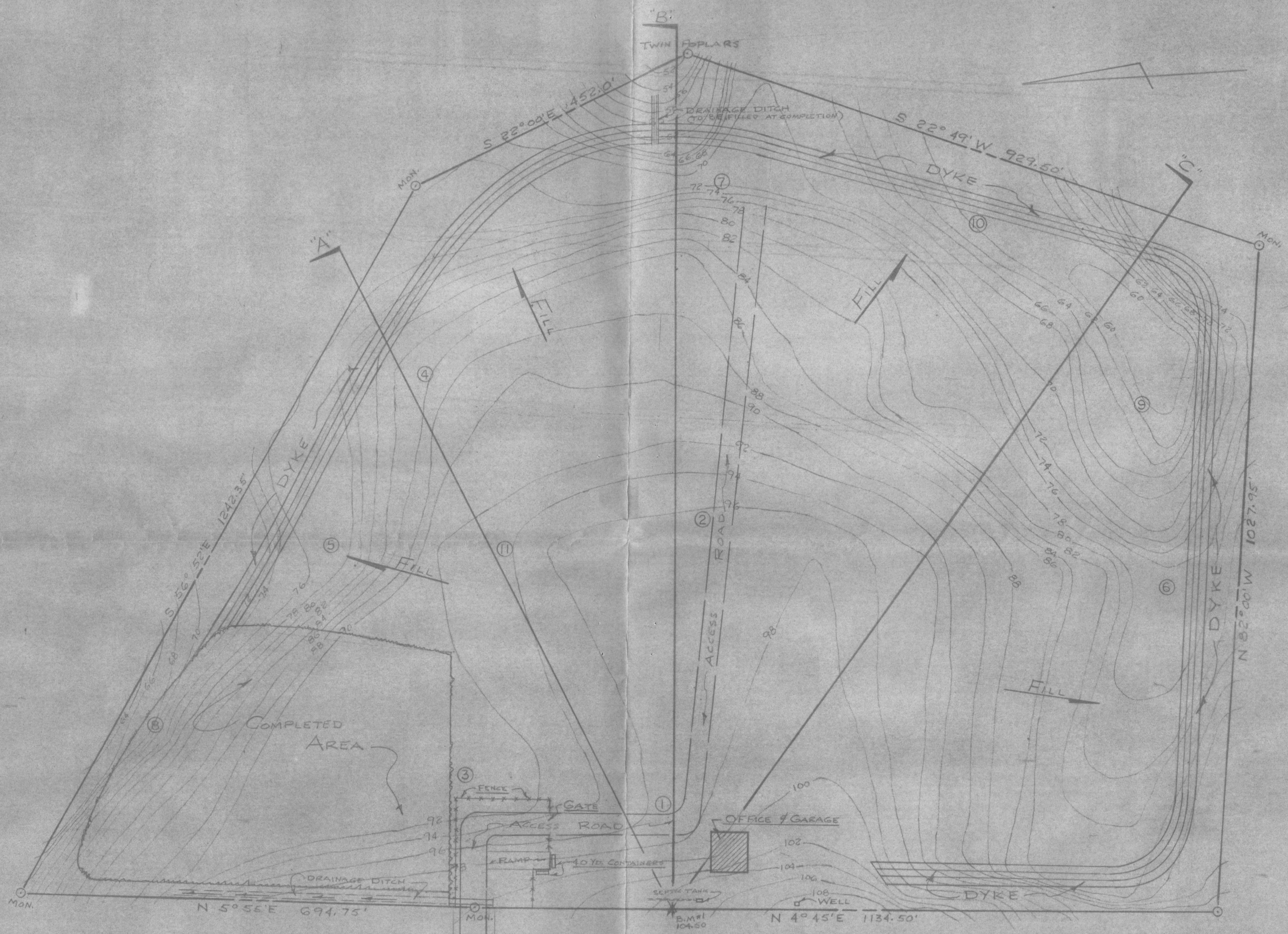
Very truly yours,

A handwritten signature in cursive script that reads "Lacy Williams, Jr.".

Lacy Williams, Jr., R. S.
Director of Environmental Health

Enclosures

cc: Joseph S. Canady



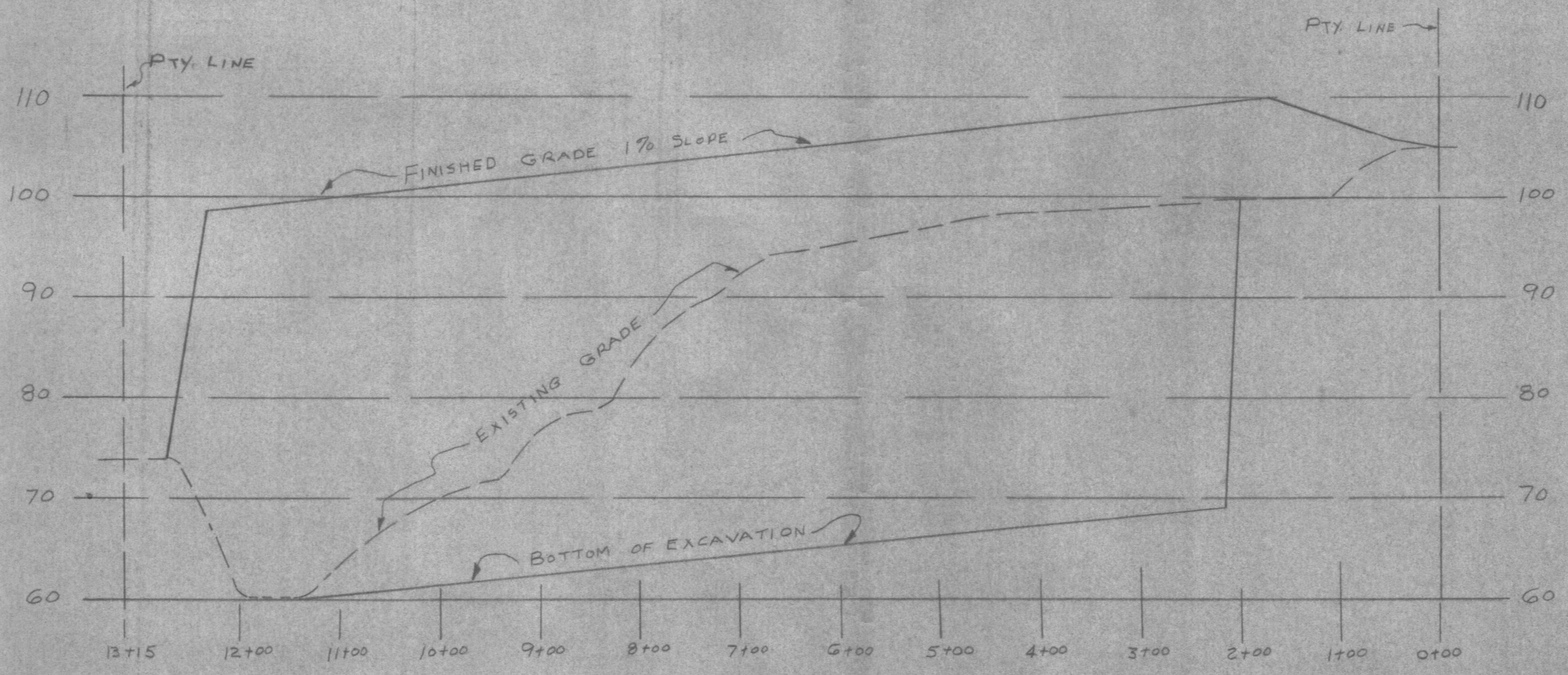
⑤ = TEST HOLES

PLOT PLAN
CLIFFDALE LANDFILL
 71st TOWNSHIP CUMBERLAND COUNTY, NC
 DATE: NOV. 1974
 SCALE: 1"=100'

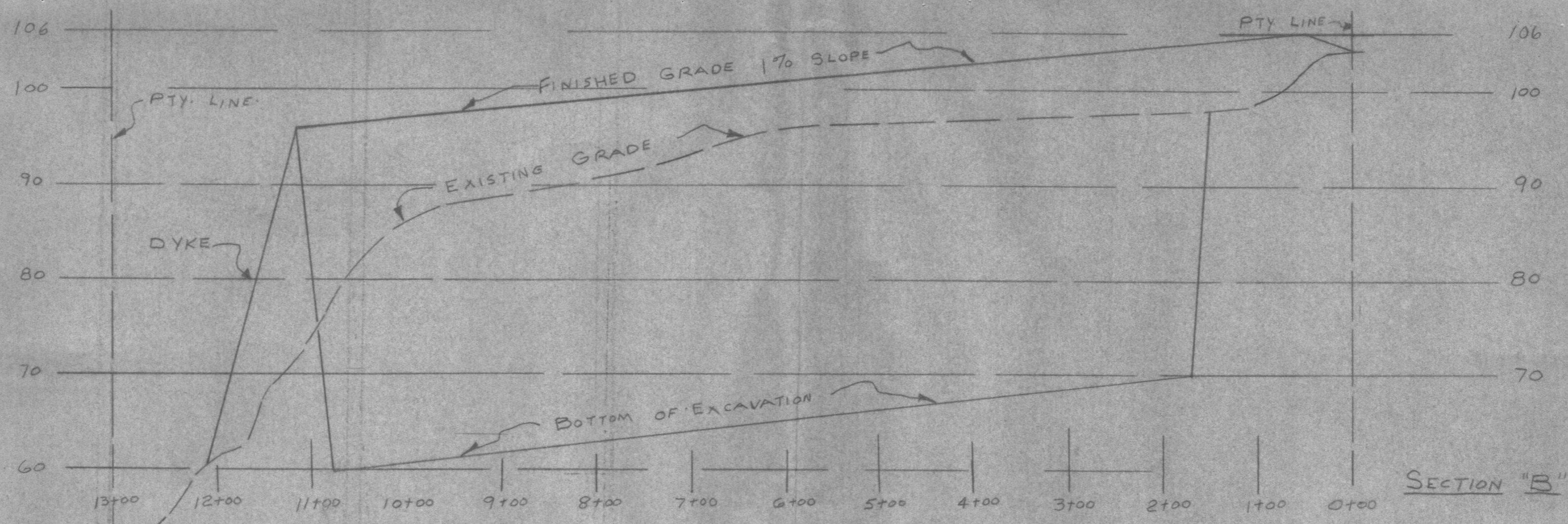
PLOT PLAN

S. R. 2749 60 R/W

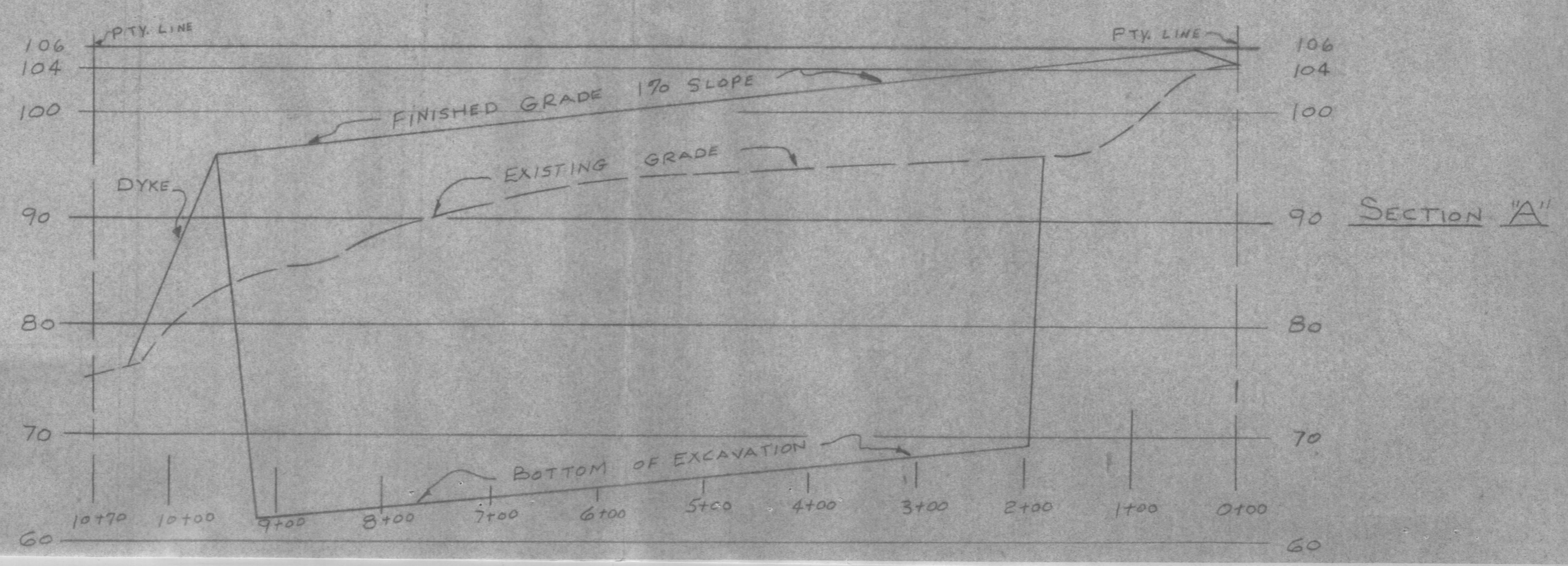
CROSS SECTIONS
CLIFFDALE LANDFILL
 71ST TWSR CUMBERLAND CO.
 DATE JAN. 1977
 SCALE: HORIZ 1"=100' VERT. 1"=10'



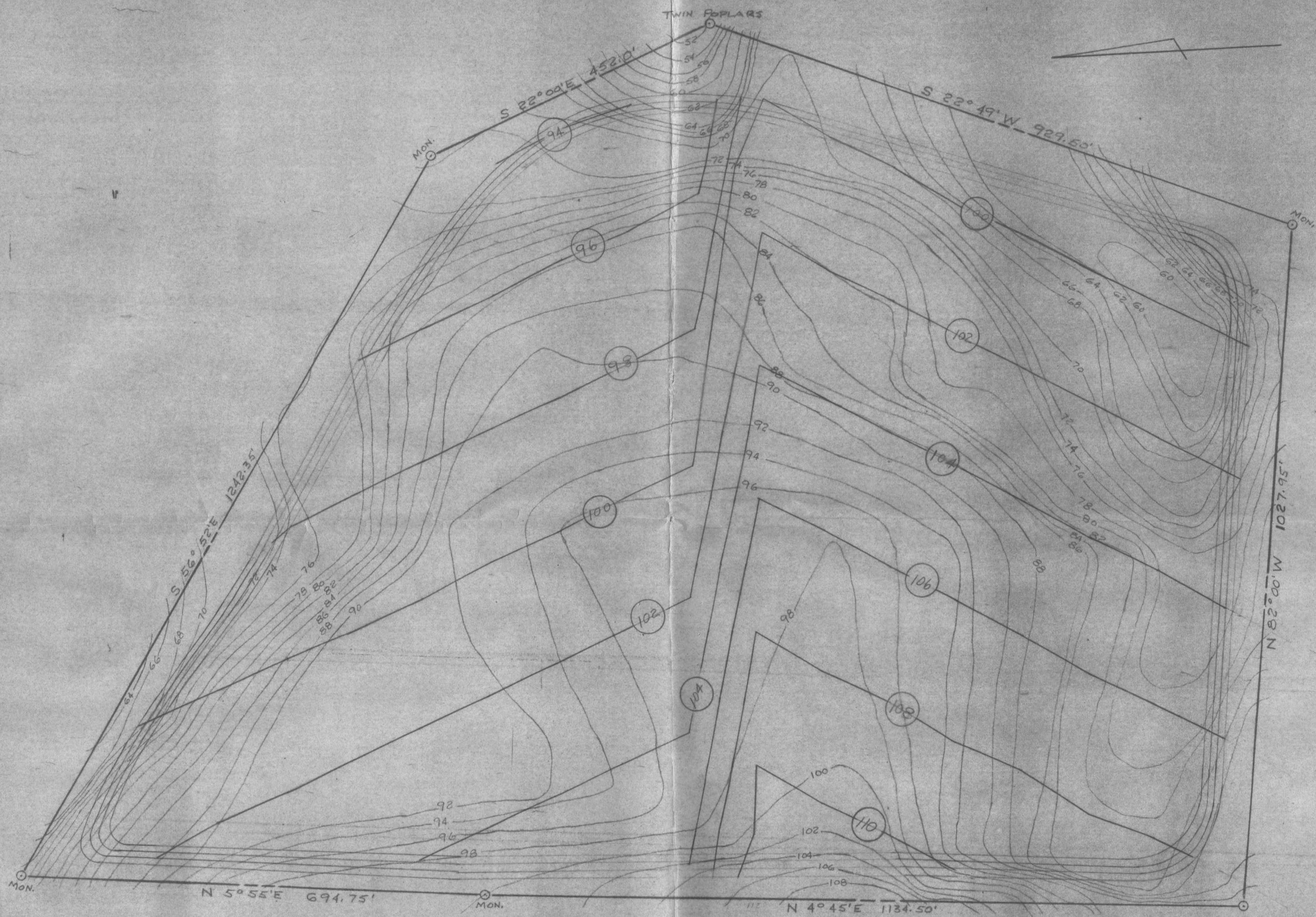
SECTION "C"



SECTION "B"



SECTION "A"



100 FINISHED ELEVATIONS

CLIFFDALE LANDFILL

71ST TOWNSHIP CUMBERLAND COUNTY, N.C.
 DATE: JAN. 1977
 SCALE: 1"=100'

diff/dale

December 19, 1974

Mr. Lacy Williams, Jr., R. S.
Director of Environmental Health
Cumberland County Health Department
Fayetteville, N. C. 28302

Dear Mr. Williams:

The revised operational plans for the Cumberland County Sanitary Landfill off S.R. 1400 have been reviewed and the following applies:

1. The plans are hereby approved for operations meeting the requirements of the N. C. Department of Human Resources, Division of Health Services "Rules and Regulations Providing Standards for Solid Waste Disposal."
2. As referenced in the original approval, a separation distance of at least three feet is to be maintained between waste placed in excavated areas and the site's ground water table.
3. Although 1% finished grades have been designated, it is recommended that diversion berms for surface water control be developed as the site development progresses. Also step-down facilities, such as drop boxes with inlet and outlet pipe or paved spillways should be considered for surface water and erosion control where major portions of the surface water spill over the completed dike.

If this office can be of further assistance, do not hesitate to call.

Yours truly,

Jerry C. Perkins, Assistant Head
Solid Waste & Vector Control Branch
Sanitary Engineering Section

JCP/ct
Enclosure

cc: Mr. Terry Dover

Health Department

County of Cumberland

Fayetteville, N. C. 28302

December 11, 1974



Department of Human Resources
Division of Health Services
Sanitary Engineering Division
Solid Waste and Vector Control
Post Office Box 2091
Raleigh, North Carolina 27602

RE: Cliffdale Sanitary Landfill
(Formerly 71st Area Landfill)

Gentlemen:

In accordance with instructions outlined in the State Board of Health Bulletin Number 411, dated March 11, 1971, we are enclosing three copies each of the following proposed changes in the operation of subject landfill. Original plans and operational procedures approved by your office on May 23, 1972.

- A. Plat plan (sheet no. 1) indicating property boundaries, dimensions, existing elevations, service roads, fences, gates, buildings, well, septic tank and bulk roll-off containers, also diversion drainage ditch, dyke and location of cross section cuts. Plan also shows area completed with final cover and seeded. Sheet number two indicates cross section of cuts, existing grades, excavations and finished grade. Sheet number three indicates finished elevations of completed site.
- B. Pertinent information regarding proposed operational changes are as follow:
 1. Population and area served;
 - a. 152,000 estimated total.
 - b. Rural Cumberland County including towns of Spring Lake, Hope Mills and Stedman.
 2. Anticipated type, quantity and source of material to be disposed of at site: household, commercial and industrial solid waste, estimated 2,000⁺ plus cubic yards per day.
- C. Plans for development of entire remaining portion of property utilizing area method of disposal.
- D. Daily maintenance will be performed by Cumberland County using the following listed equipment: one Rex 350 Trashmaster Compactor, one International 250 front-end loader; one International 22 cubic yard scraper pan and one Allis-Chalmers 7-G front end loader.

Department of Human Resources

Page 2

December 11, 1974

- E. All other aspects will remain the same as previously approved by your office with the exception of the hours of operation of landfill proper. Operational hours to be in accordance with needs and demands of public as posted at entrance gate.

- F. To the best of my knowledge at this time the sanitary landfill site will be operated in accordance with the rules and regulations and standards for solid waste disposal as set forth by the North Carolina State Board of Health.

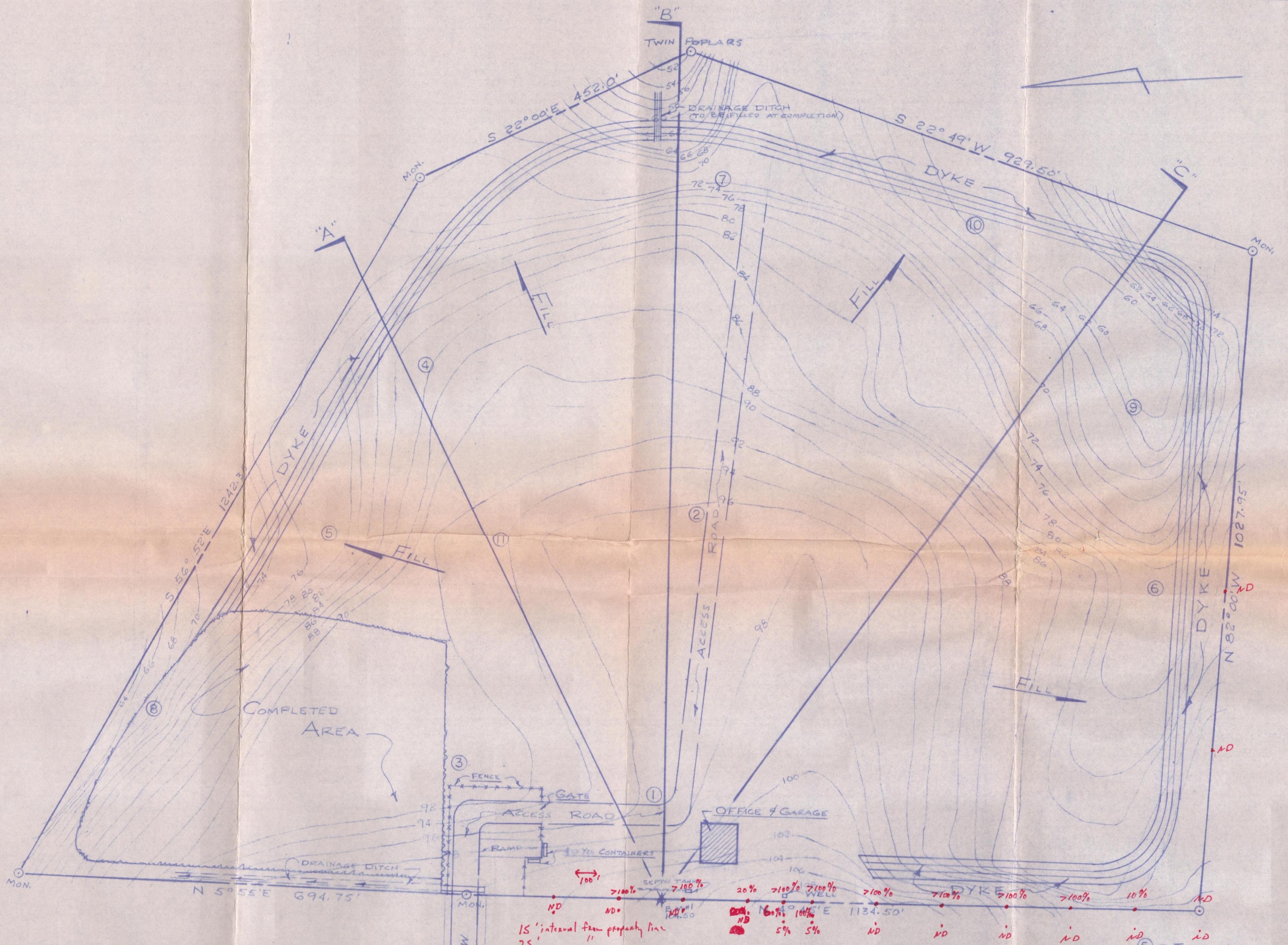
Very truly yours,



Lacy Williams, Jr., R. S.
Director of Environmental Health

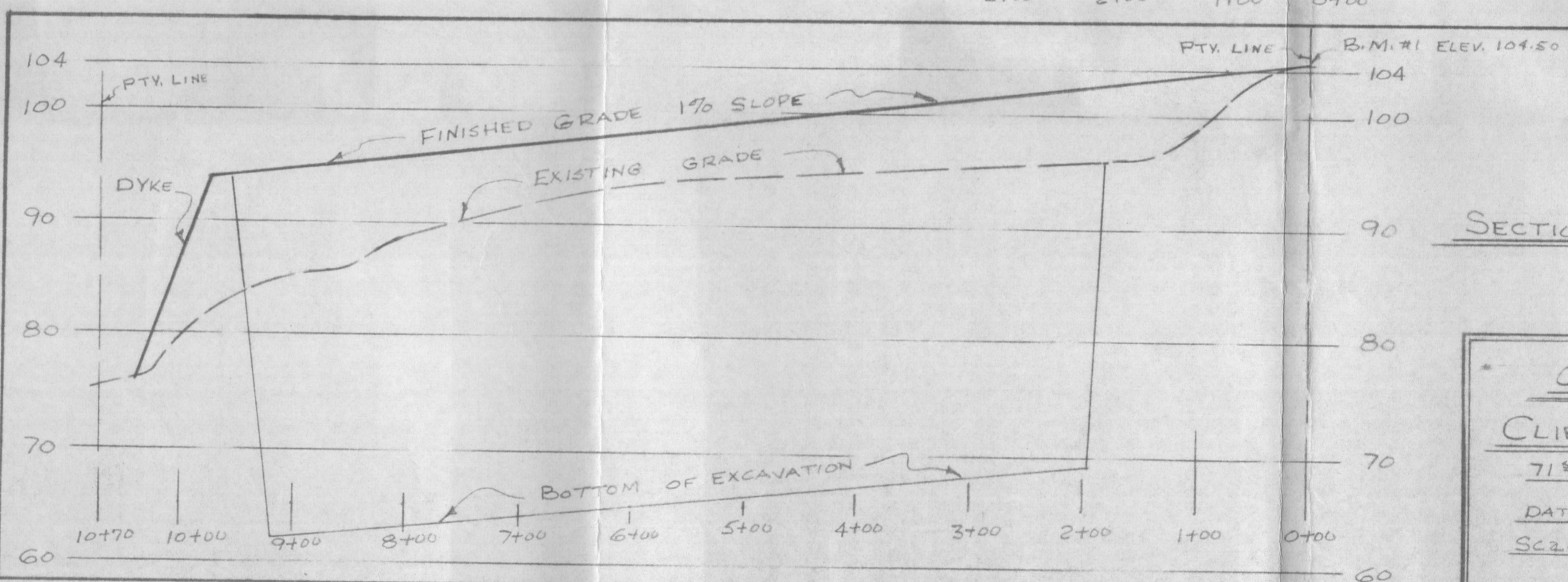
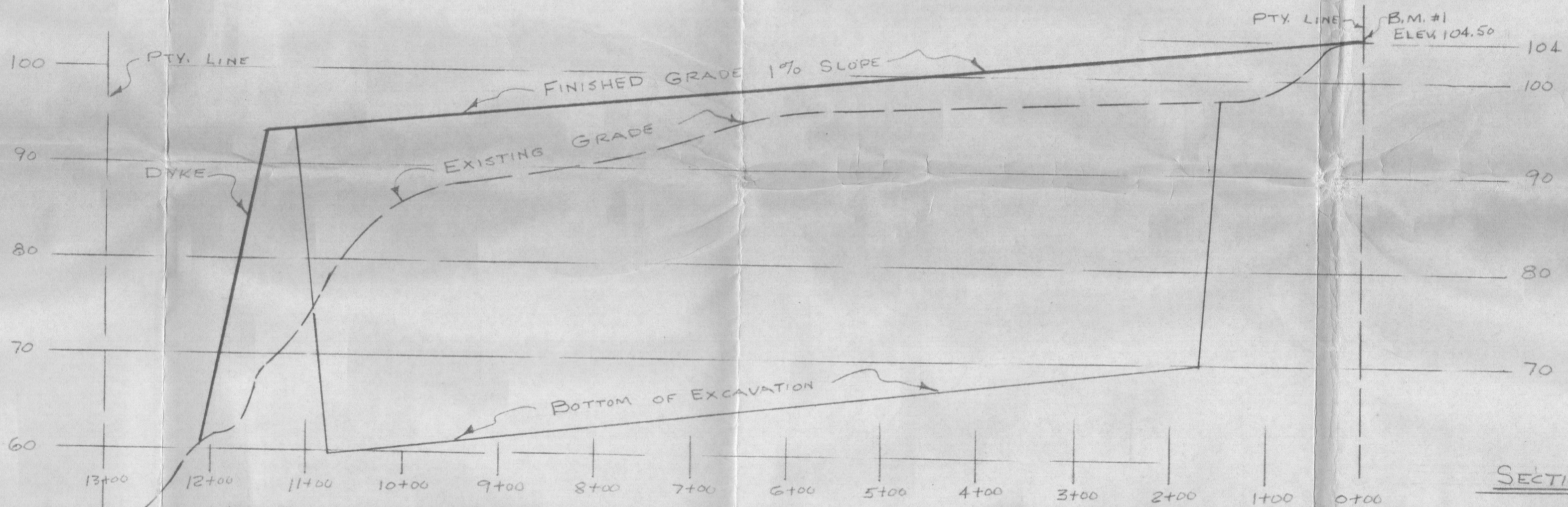
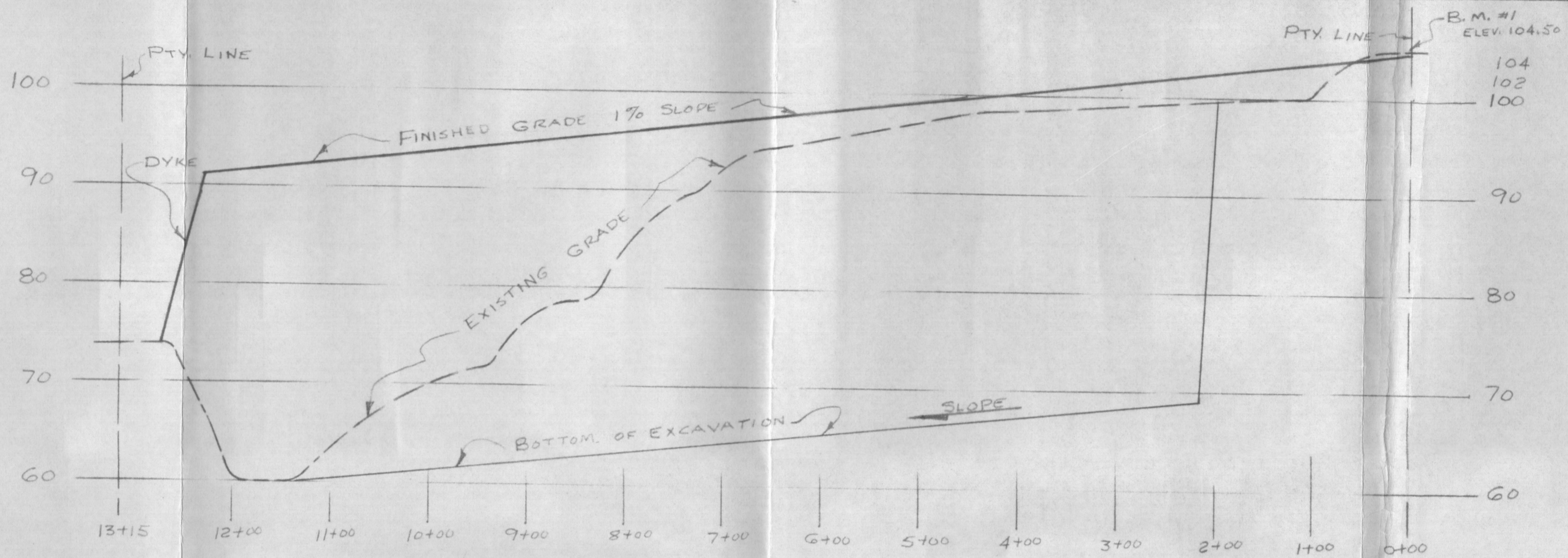
cc: Mr. Terry Dover

Enclosures: 3

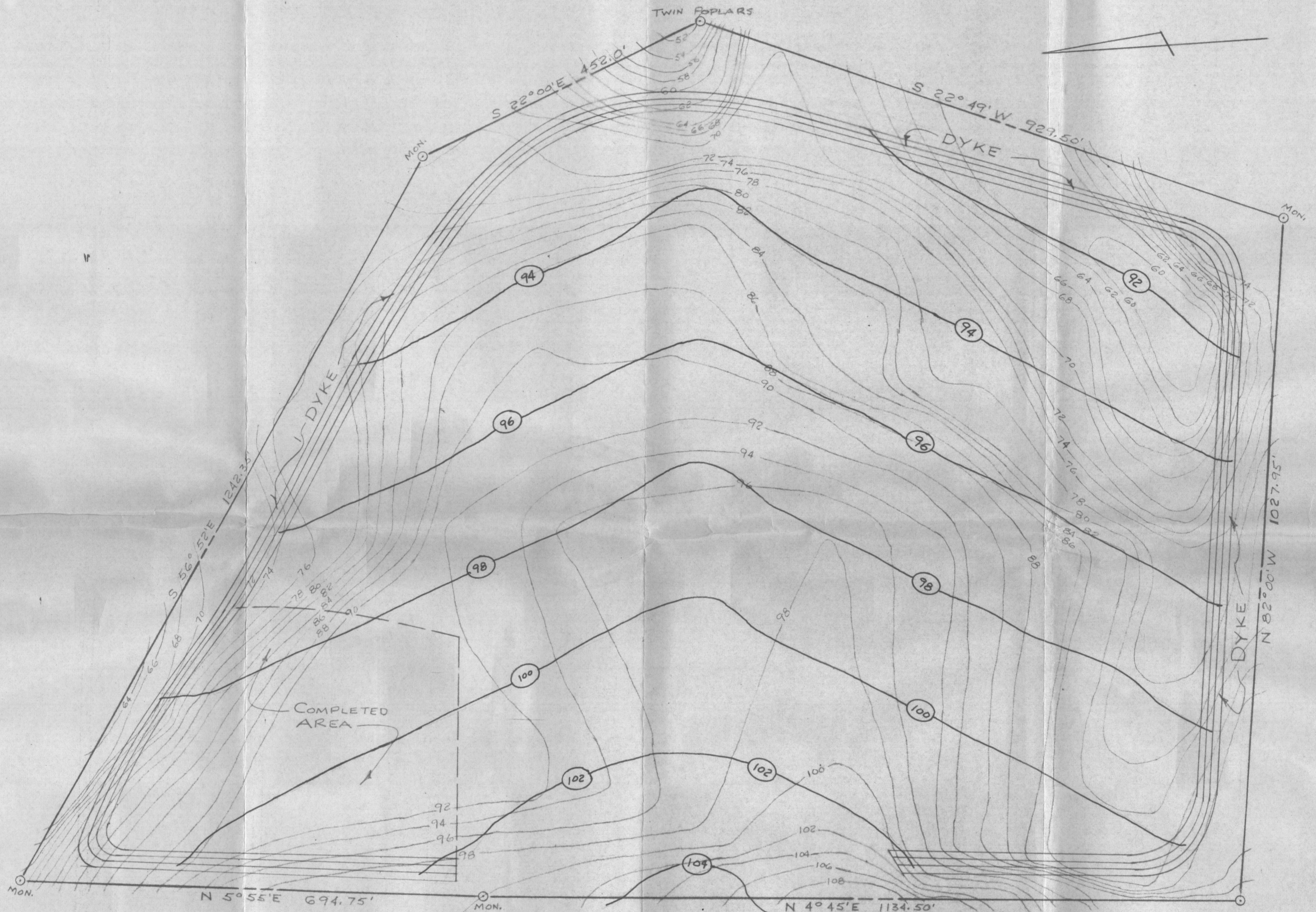


PLOT PLAN
CLIFFDALE LANDFILL
 71ST TOWNSHIP CUMBERLAND COUNTY, NC
 DATE: Nov. 1974
 SCALE: 1"=100'

PLOT PLAN



CROSS SECTIONS
CLIFFDALE LANDFILL
 71ST TWSB, CUMBERLAND CO.
 DATE: NOV. 1974
 SCALE: HORIZ. 1"=100' VERT. 1"=10'
 SHEET 2 OF 3
 G.F.



100 - FINISHED ELEVATIONS

CLIFFDALE LANDFILL

71ST TOWNSHIP CUMBERLAND COUNTY, NC
 DATE: NOV. 1974
 SCALE: 1"=100'

FINISHED ELEVATIONS

May 23, 1972

Mr. Lacy Williams, Jr., R.S.
Director of Environmental Health
Cumberland County Health Department
P. O. Box 470
Fayetteville, North Carolina 28302

JWR

Dear Mr. Williams:

The required information for site appraisal concerning the proposed sanitary landfill site off SR 1400 in the Lake Rim area has been reviewed and the site found suitable for sanitary landfill operations.

Information required for the operational plan appraisal has been reviewed for work Phase I and is hereby approved for operations meeting the requirements of the N. C. State Board of Health "Rules and Regulations Providing Standards for Solid Waste Disposal." A separation distance of at least three feet is to be maintained at all times between trench excavated bottom and the ground water table.

It is suggested that a provision in the trench preparation include leaving three feet of the earth material to be excavated from the trench bottom to be scooped for daily and final cover. This feature should reduce trench preparation cost and provide cover material at the immediate working face of the trench.

Prior to operations in the work Phase II area, submit the required information for operational plan review.

Sincerely,



Sidney H. Usry, Chief
Solid Waste & Vector Control Section
Sanitary Engineering Division

JCP: jp

Enclosure

cc: Mr. Fred Wood

N. C. STATE BOARD OF HEALTH
CHECK-OFF SHEET FOR PROPOSED SANITARY LANDFILL SITES

COUNTY CUMBERLAND LOCATION LAKEVIEW AREA (SR 1700) ACRES 40

PROPERTY OWNER CUMBERLAND CO PROPOSED OPERATOR CUMBERLAND CO
LEWIS SANITATION SERVICES

1. Is this site within the boundaries of a public water supply watershed? Watershed _____ YES OK NO
2. Does any portion of this site contain floodplain areas? YES NO _____
3. Are there public or private wells nearby that could be affected? YES _____ NO
Nearest well in feet _____ (Elaborate in Comments Section)
4. Are there springs present on the site? Number _____ YES _____ NO
5. Will this site require dyking? YES NO _____
6. Will this site require piping of surface drainage? YES _____ NO
7. Not precluding required boring information, does this site have adequate cover material for the sanitary landfill development? YES NO _____
8. Will this site require diversion of surface water? YES _____ NO
Receiving stream for surface drainage from site LITTLE ROCKFISH CREEK
9. Will this site require extensive preparation, such as clearing? YES NO _____
(Elaborate in Comments Section)
10. Will this site require a new all-weather access road? YES NO _____
(Elaborate in Comments Section)
11. Evaluate the following:

	POOR	GOOD	EXCELLENT
A. Surface soil conditions as related to cover requirements.	_____	<input checked="" type="checkbox"/>	_____
B. Location as related to population density	_____	<input checked="" type="checkbox"/>	_____
C. Accessibility to users	_____	<input checked="" type="checkbox"/>	_____
12. Based on the observations made above and otherwise, do you recommend that the requestor proceed with the requirements of Section IX of the North Carolina State Board of Health "Rules and Regulations Providing Standards for Solid Waste Disposal"? YES NO _____
13. COMMENTS: (Include any requirements noted by you for the sanitary landfill development and operation)

2. VERY MINOR PER. CONTAMIN.

5. CORE SECTIONS @ END OF PROPOSED TRENCHES

9. HEAVY GROWTH OF SMALL TREES, BACKPACK,

PRUNE

10. TO BE BUILT BY N.C. HIGHWAY DEPT.
14. Number of borings recommended for a representative sampling of the site 12
15. Percent of usable land 95%. Include sketch of site on back of this form.

17 May 1972
(DATE)

A. C. Pickett
N. C. State Board of Health
District Sanitarian for Solid Waste
or
Sanitary Engineer

1400

DWELLING

Proposed access



2200

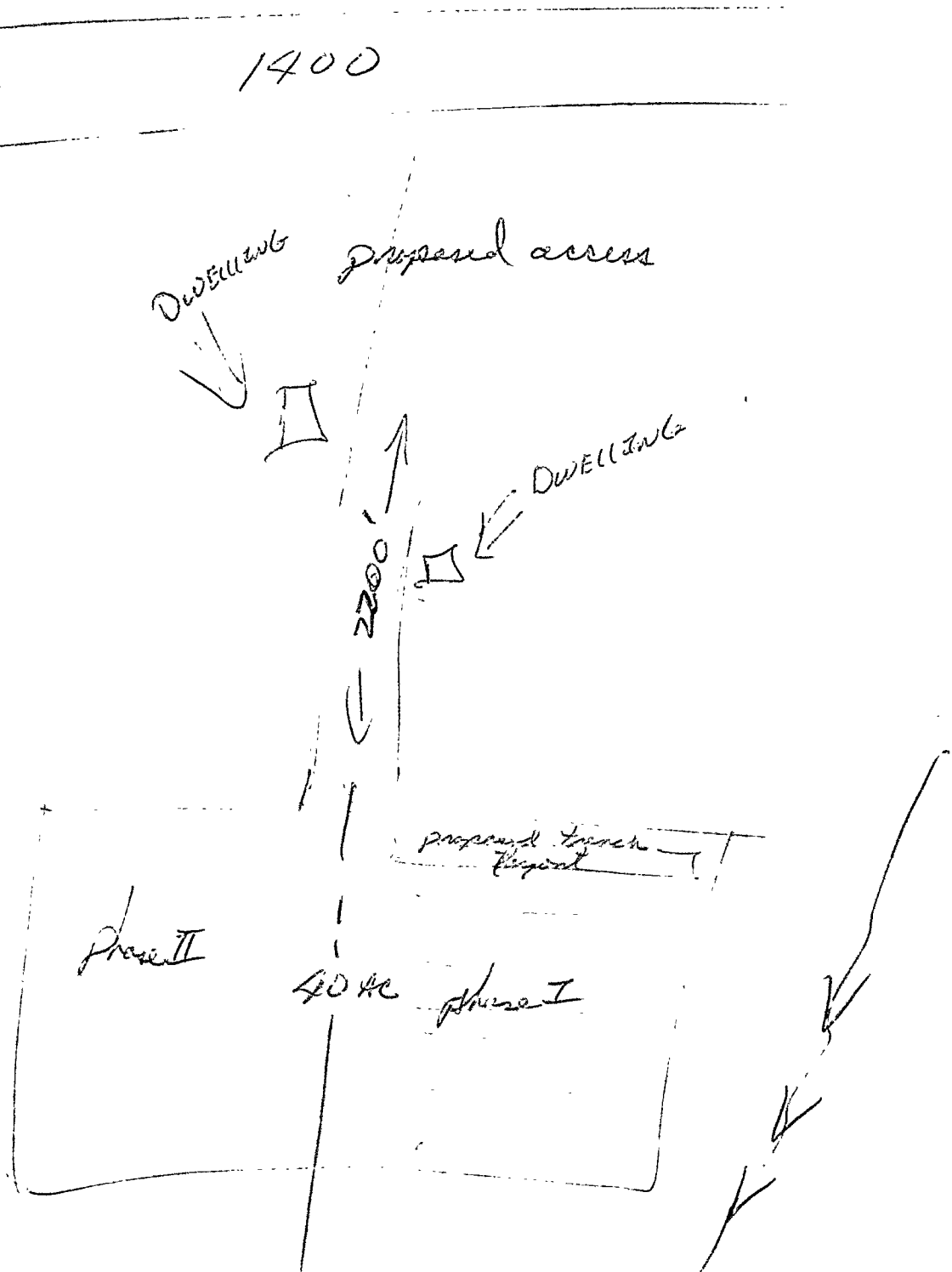
DWELLING

Proposed trench layout

Phase II

40 AC

Phase I



RECEIVED
60
MAY

N. C. STATE BOARD OF HEALTH
CHECK-OFF SHEET FOR PROPOSED SANITARY LANDFILL SITES

SANITARY ENGINEERING
DIVISION
ACRES 6.2

COUNTY Cumberland LOCATION Lakerim Area
PROPERTY OWNER Mr. M.D. Williams PROPOSED OPERATOR Lewis Sanitation Service

1. Is this site within the boundaries of a public water supply watershed? Watershed _____ YES _____ NO
2. Does any portion of this site contain floodplain areas? YES _____ NO
3. Are there public or private wells nearby that could be affected? YES _____ NO
Nearest well in feet 1200 (Elaborate in Comments Section)
4. Are there springs present on the site? Number _____ YES _____ NO
5. Will this site require dyking? YES NO _____
6. Will this site require piping of surface drainage? YES _____ NO
7. Not precluding required boring information, does this site have adequate cover material for the sanitary landfill development? YES NO _____
8. Will this site require diversion of surface water? YES NO _____
Receiving stream for surface drainage from site Little Rock Fish Creek
9. Will this site require extensive preparation, such as clearing? YES NO _____
(Elaborate in Comments Section)
10. Will this site require a new all-weather access road? YES NO _____
(Elaborate in Comments Section)
11. Evaluate the following:

	POOR	GOOD	EXCELLENT
A. Surface soil conditions as related to cover requirements.	_____	<input checked="" type="checkbox"/>	_____
B. Location as related to population density	_____	<input checked="" type="checkbox"/>	_____
C. Accessibility to users	_____	<input checked="" type="checkbox"/>	_____
12. Based on the observations made above and otherwise, do you recommend that the requestor proceed with the requirements of Section IX of the North Carolina State Board of Health "Rules and Regulations Providing Standards for Solid Waste Disposal"? YES NO _____
13. COMMENTS: (Include any requirements noted by you for the sanitary landfill development and operation) This site joins a lake owned by the state wildlife commission. Mr Williams is going to contact the wildlife people and get their reaction.
14. Number of borings recommended for a representative sampling of the site 5
15. Percent of usable land 75%. Include sketch of site on back of this form.

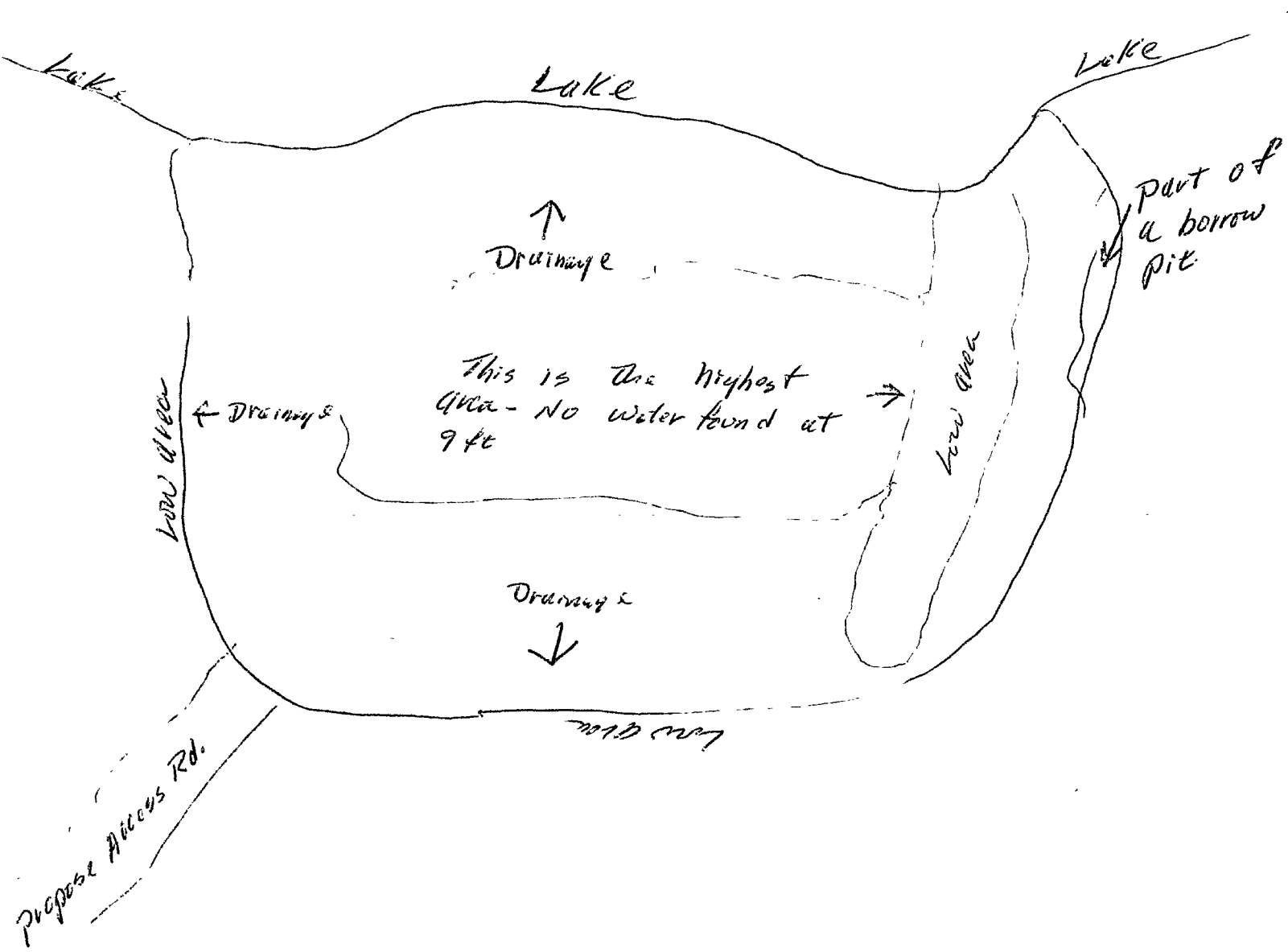
March 25 1972
(DATE)

[Signature]
N. C. State Board of Health
District Sanitarian for Solid Waste
or
Sanitary Engineer

I believe the biggest problem will be wind blowing paper in the lake.

This site is on a knoll will drainage in all directions

Before this site can be approved the wildlife people will have to be consulted.



N. C. STATE BOARD OF HEALTH
CHECK-OFF SHEET FOR PROPOSED SANITARY LANDFILL SITES

71st Site
Files
70

COUNTY Cumberland Co LOCATION Lake Rim area SR1400 ACRES 41.5

PROPERTY OWNER Lowell E. Harris PROPOSED OPERATOR Lewis Sanitation Service
County owned property

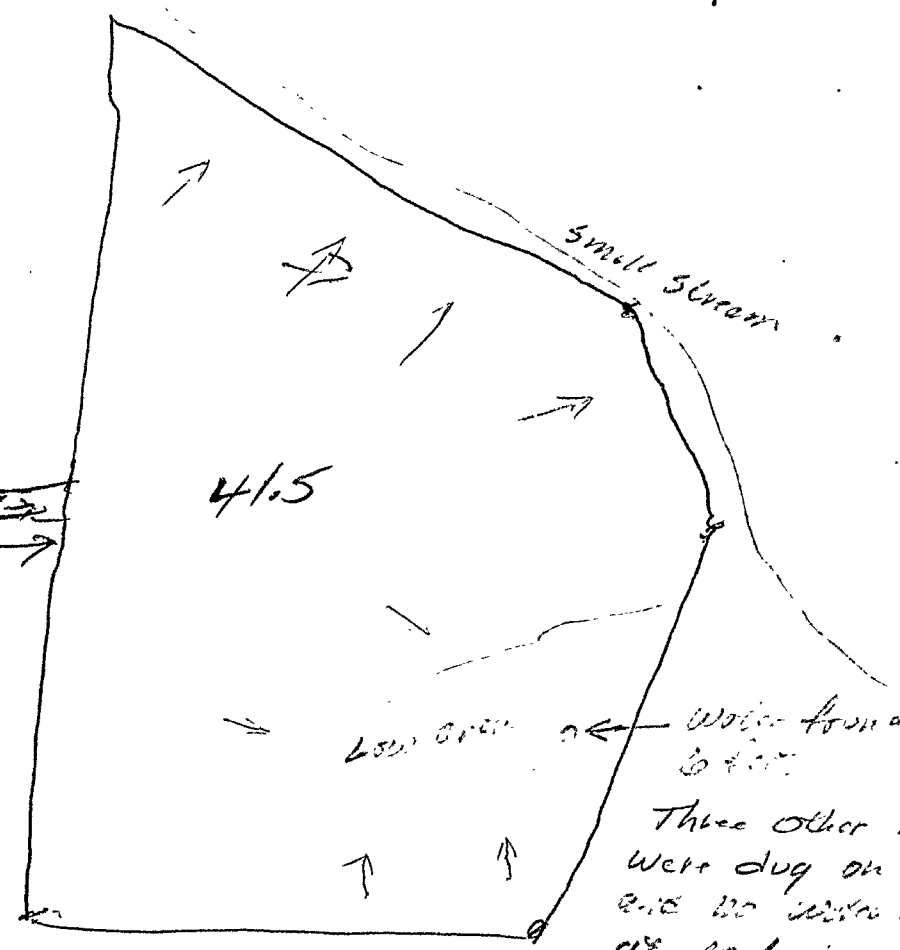
1. Is this site within the boundaries of a public water supply watershed? Watershed _____ YES _____ NO
2. Does any portion of this site contain floodplain areas? YES _____ NO
3. Are there public or private wells nearby that could be affected? YES _____ NO
Nearest well in feet 700 (Elaborate in Comments Section)
4. Are there springs present on the site? Number _____ YES _____ NO
5. Will this site require dyking? YES _____ NO
6. Will this site require piping of surface drainage? YES _____ NO
7. Not precluding required boring information, does this site have adequate cover material for the sanitary landfill development? YES NO _____
8. Will this site require diversion of surface water? YES NO _____
Receiving stream for surface drainage from site _____
9. Will this site require extensive preparation, such as clearing? YES NO _____
(Elaborate in Comments Section)
10. Will this site require a new all-weather access road? YES NO _____
(Elaborate in Comments Section)
11. Evaluate the following:

	POOR	GOOD	EXCELLENT
A. Surface soil conditions as related to cover requirements.	_____	_____	<input checked="" type="checkbox"/>
B. Location as related to population density	_____	<input checked="" type="checkbox"/>	_____
C. Accessibility to users	_____	<input checked="" type="checkbox"/>	_____
12. Based on the observations made above and otherwise, do you recommend that the requestor proceed with the requirements of Section IX of the North Carolina State Board of Health "Rules and Regulations Providing Standards for Solid Waste Disposal"? YES NO _____
13. COMMENTS: (Include any requirements noted by you for the sanitary landfill development and operation) This looks like a very good site

14. Number of borings recommended for a representative sampling of the site 5
15. Percent of usable land 100%. Include sketch of site on back of this form.

April 6 1972
(DATE)

J. J. G. Wood
N. C. State Board of Health
District Sanitarian for Solid Waste
or
Sanitary Engineer



House
↓
□

8000 Rd 1600'

41.5

Small stream

Low area

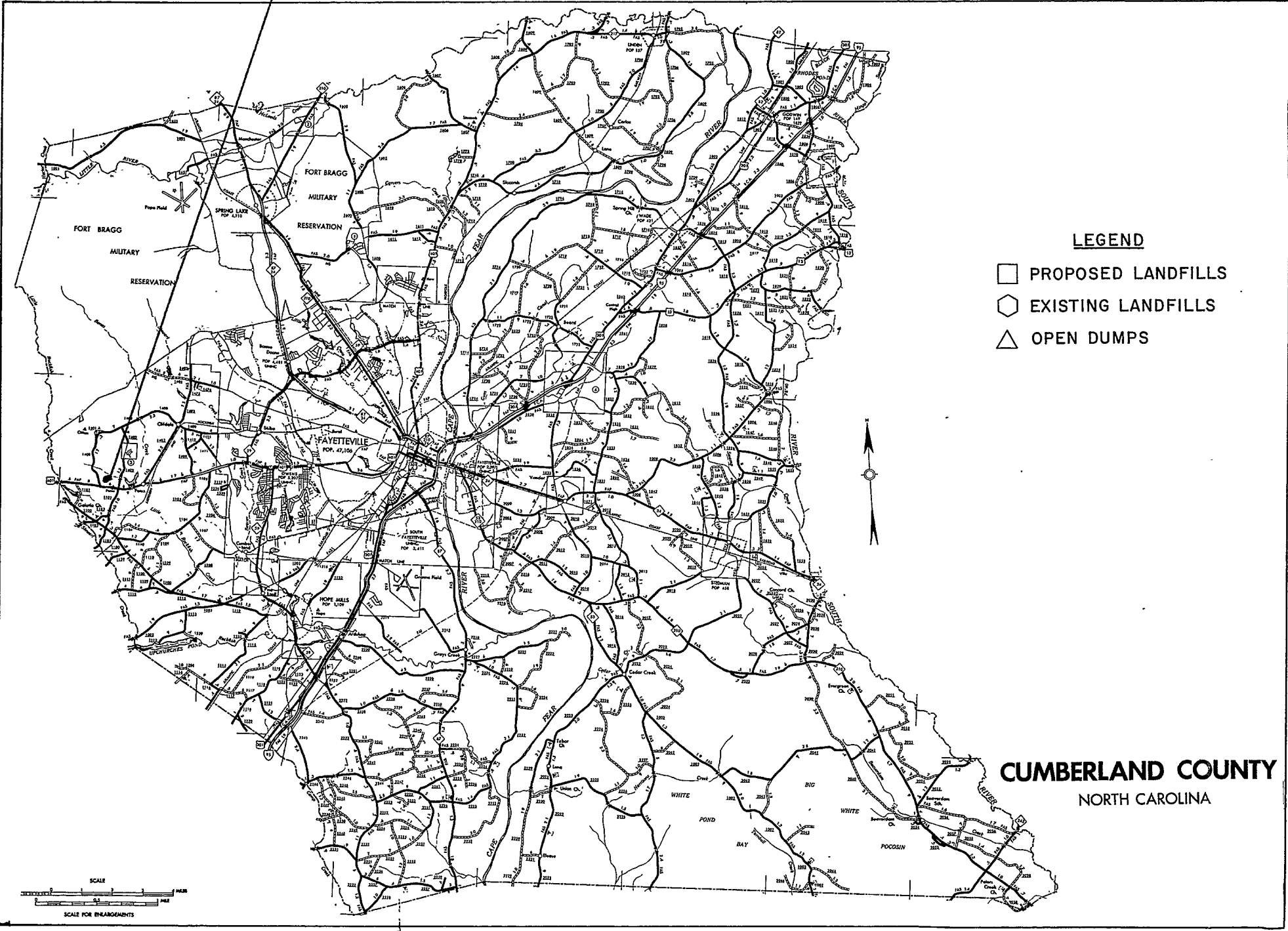
Water found at 10 feet

Three other holes were dug on the side and no water was found at 10 feet

401 Foundation →

SR 1400

Harris property



LEGEND

- PROPOSED LANDFILLS
- ⬡ EXISTING LANDFILLS
- △ OPEN DUMPS



CUMBERLAND COUNTY
NORTH CAROLINA





SOIL AND WATER CONSERVATION DISTRICT

P. O. Box 4323
Fayetteville, N. C. 28306

April 6, 1972

Mr. Terry Dover
Cumberland County Health Dept.
P. O. Box 470
Fayetteville, N. C. 28302

Dear Mr. Dover:

This is in reply to your request for soils information on proposed landfill site in Seventy-First township.

On the basis of the latest information that is available from the Soil Conservation Service, we submit the attached information.

Sincerely yours,

Clifton McNeill
Chairman

CM/ja

Attachment

RECEIVED

APR 7 1972

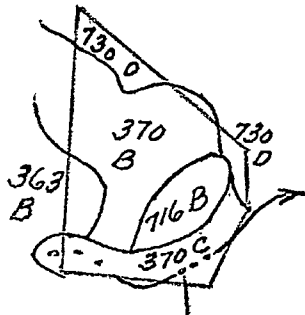
**ENVIRONMENTAL HEALTH
DIVISION**

Cumberland County Health Department
Proposed Landfill Site
Approximate Scale 1" = 1320'
Soil Conservation Service

Soils:

- 370B Wagram loamy sand, 0-6% slopes
- 363B Lucy loamy sand, 0-6% slopes
- 716B Wakulla sand, 0-6% slopes
- 370C Wagram loamy sand, 6-10% slopes
- 730D Troup sand, 8-15% slopes

Degree of soil limitation for landfill site.

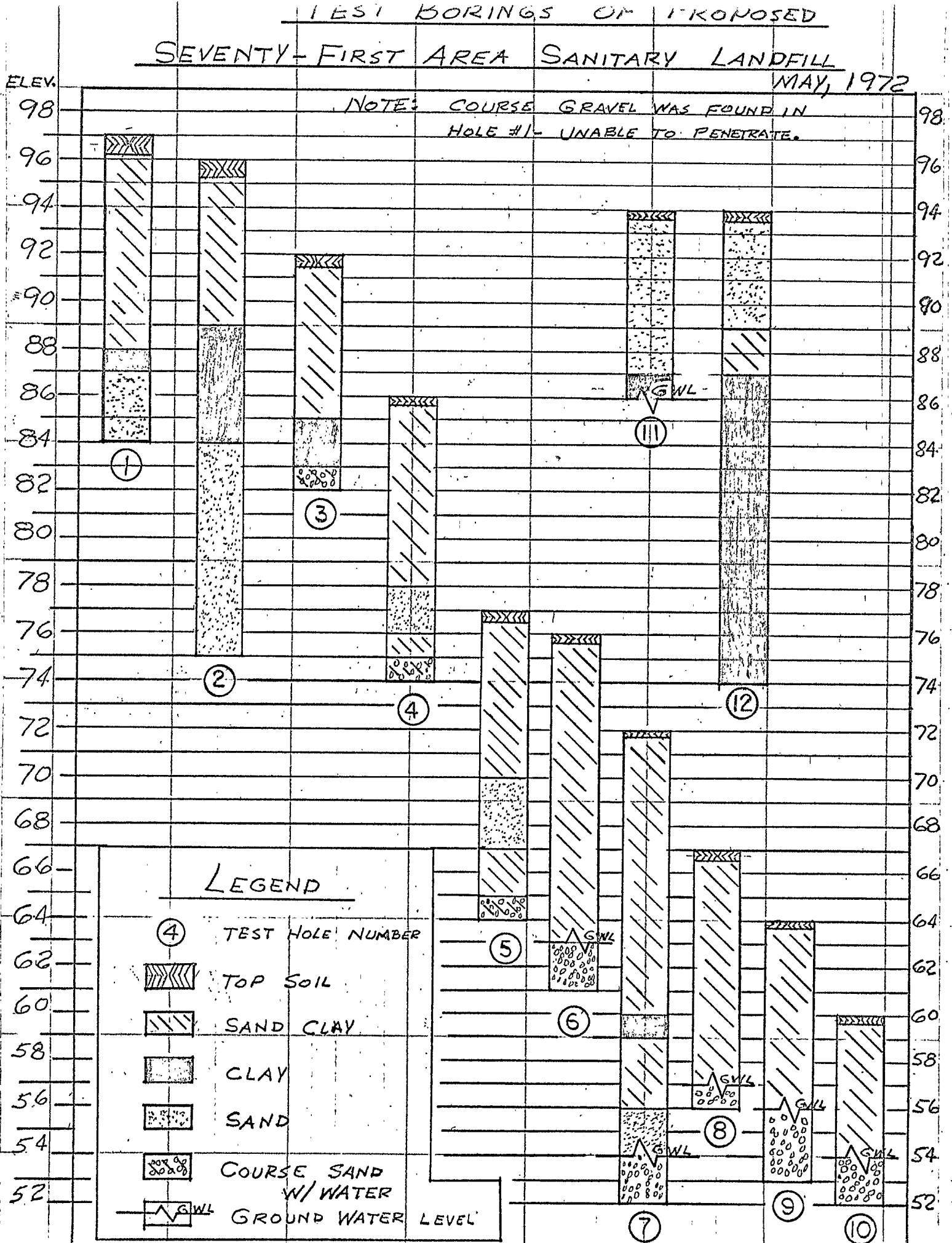


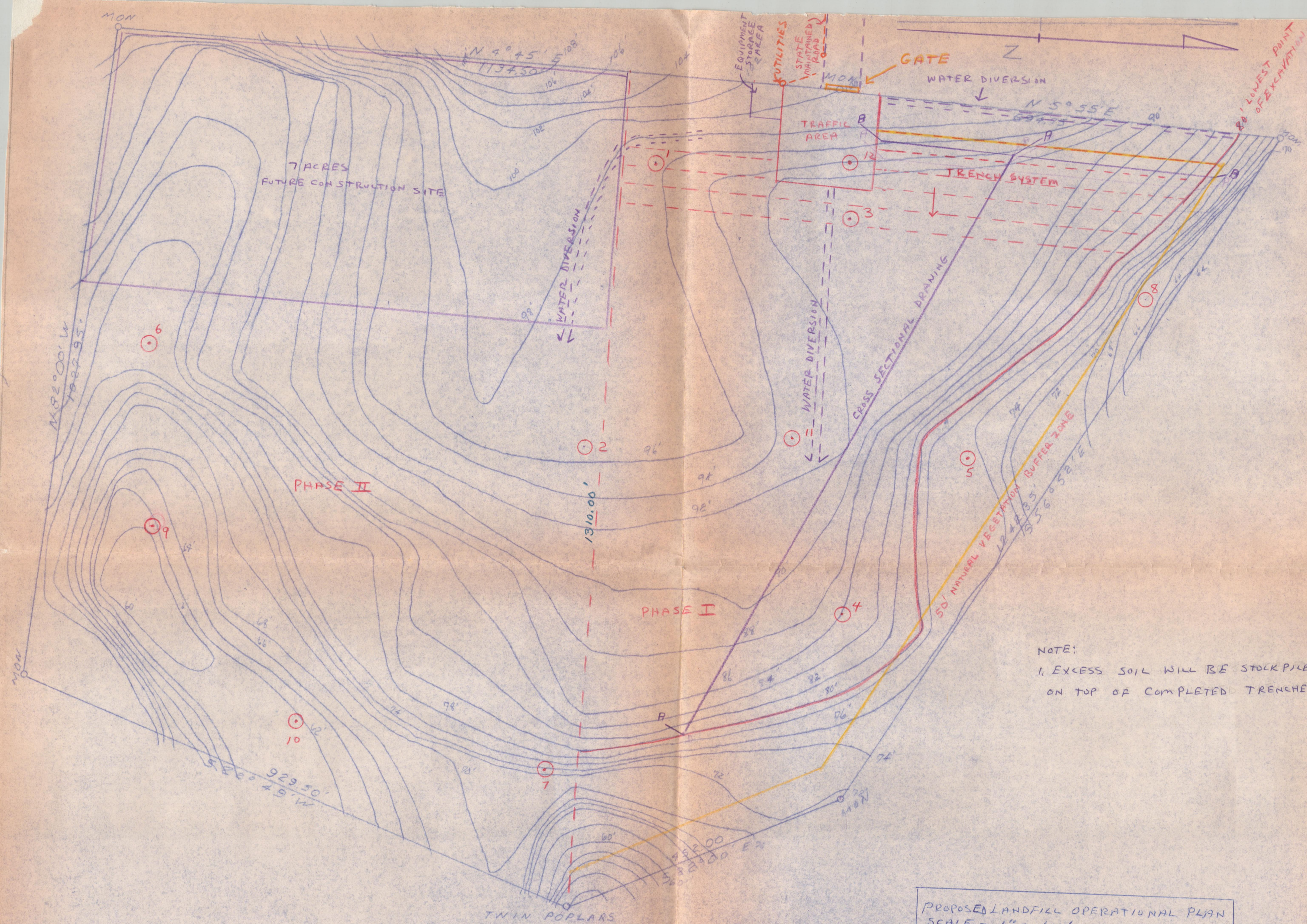
- 370B Slight limitation
- 370C Slight limitation
- 363B Slight limitation
- 730D Moderate limitation due to moderately rapid permeability which affects ability of soil to retard movement of landfill leachate.
- 176B Severe limitation due to rapid permeability which affects ability of soil to retard movement of landfill leachate.

TEST BORINGS OF PROPOSED SEVENTY-FIRST AREA SANITARY LANDFILL

MAY, 1972

NOTE: COURSE SAND WAS FOUND IN
HOLE #1 - UNABLE TO PENETRATE.





PROPOSED LANDFILL OPERATIONAL PLAN
SCALE - 1" = 100'
71ST AREA, CUMBERLAND COUNTY, N.C.
MAY 16, 1972

Health Department

County of Cumberland

Fayetteville, North Carolina 28302

May 17, 1972

RECEIVED

North Carolina State Board of Health
Sanitary Engineering Division
Solid Waste and Vector Control Section
Raleigh, North Carolina

MAY 18 1972

SUBJECT: 71st Area Landfill
Cumberland County, North Carolina

SANITARY ENGINEERING
DIVISION

Gentlemen:

In accordance with instructions outlined in the State Board of Health Bulletin Number 411 dated March 11, 1971, we are enclosing three copies each of the following for the proposed landfill.


- I. Topographic maps, one inch equals 100 feet with 2 feet contour intervals showing boundaries of property owned by County of Cumberland.
 - A. Proposed area for a county operated landfill with dimensions.
 - B. Locations of soil borings.
 - C. Access and entrance roads to the site.
 - D. Location of cross section made on drawing.
 - E. Proposed direction for trenching operations.
 - F. Proposed location of equipment storage.
 - G. Proposed location of ditches for diversion of upland drainage.
- II. Aerial photographs (scale 1" = 400')
 - A. Landfill location.
 - B. Dwellings.
 - C. Private water supplies.
 - D. Streams.
 - E. Lakes.
- III. Soil report from U. S. Soil Conservation Service.
- IV. Test boring results.

- V. Cross sectional drawings.
 - A. Vertical and horizontal view.
 - B. Present land elevations.
 - C. Proposed fill (finished) elevations.

- VI. Pertinent information for the proposed landfill and its operation is as follows:
 - A. Population and area served:
 - 1. 35,000 estimated total.
 - a. Louis Sanitation Company is presently serving approximately 25,000 persons.
 - b. It is estimated that 10,000 people will be served by depositing individually at the site.
 - 2. General area to be served will be Seventy-First Township, Cumberland County.
 - B. Anticipated type, quantity and source of material to be disposed of at site: household, commercial and industrial refuse, estimated 400 cubic yards per day.
 - C.
 - 1. Initial plan for development of approximately twenty acres, or one-half of total site, beginning on the N. W. side of the property.
 - 2. Utilizing a trench method of disposal.
 - 3. The trenches shall be approximately 25 feet in width at the base and a maximum of 10 feet in depth with sloped sides, bottom of trench sloped to drain.
 - 4. Refuse cells shall be constructed in an orderly manner, maximum depth being no greater than 8 feet compacted as densely as practical and covered after each day of operation with a compacted layer of at least 6 inches of suitable cover. All completed cells shall be covered with at least 2 feet of compacted earth, sloped no greater than 1 percent to allow surface water run-off.
 - 5. Surface water shall be diverted from working area of landfill by diversion ditches.
 - D. Initial preparation of landfill will be performed by dragline and bulldozer. Daily maintenance operation will be performed by 32,000 pound tracked loader, or necessary equivalent machine.

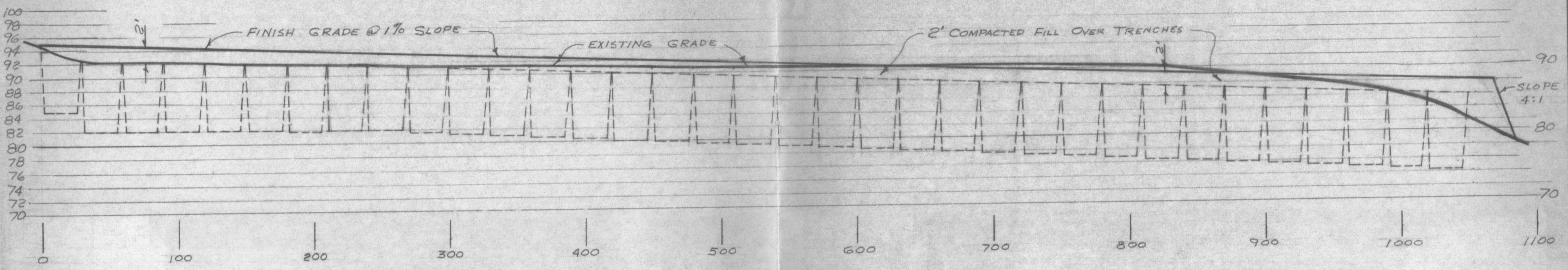
- E. At the present time, Louis Sanitation Company is charged with the responsibility of daily maintenance as per franchised agreement between Cumberland County and said company. In the event changes are made regarding this phase of responsibility, State Board of Health will be notified.
- F. Sanitary landfill site is intended for use as a county recreation area after completion.
- G. Anticipated lifetime of project will be approximately three and one-half years for phase I.
- H. Landfill operational hours will be 9:00 a. m. to 5:00 p. m., Monday through Friday, and 9:00 a. m. to 1:00 p. m., Saturday. Landfill to be closed on Sunday. Operational hours as set forth by local board of health regulations. Instructional signs posted at the site entrance shall include: hours of operation, other instructions and general information.
- I. An attendant will be on duty at the site at all times when it is open for public use.
- J. An approved pit privy will be installed on the site for proper sewage disposal.
- K. The sanitary landfill site will be operated in accordance to the rules and regulations and standards for solid waste disposal as set forth by the North Carolina State Board of Health.

Very truly yours,

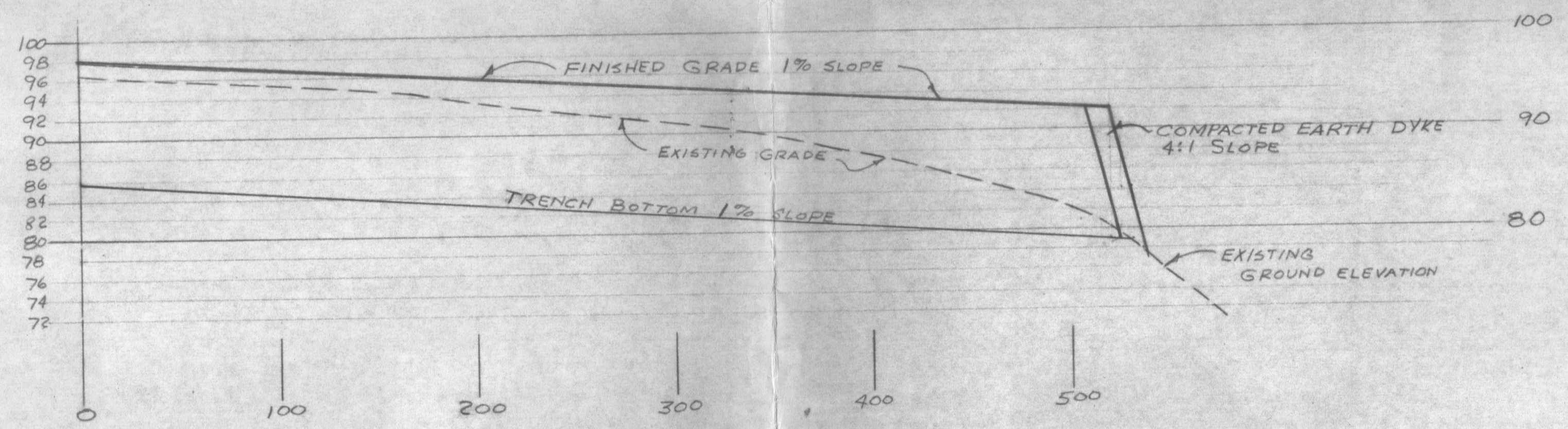

Lacy Williams, Jr., R. S.
Director of Environmental Health

LWJr:jbr
Enclosures

NOTE:
 WASTE TO BE 3' ABOVE
 GROUND WATER LEVEL
 AT ALL TIMES.



CROSS SECTION A-A Scale: HORIZ. 1"=50' VERT. 1"=10'



CROSS SECTION B-B Scale: HORIZ. 1"=50' VERT. 1"=10'

CROSS SECTIONS
PROPOSED 71ST AREA LANDFILL
CUMBERLAND COUNTY, N.C.
MAY, 1972