APPLICATION

FOR

PERMIT TO CONSTRUCT

SOLID WASTE RECYCLE CENTER

HARDEE COUNTY, FLORIDA

Prepared By

Briley, Wild & Associates, Inc.

April, 1990

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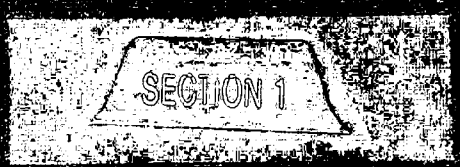

SECTION 1

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
4520 OAK FAIR BLVD.
TAMPA, FLORIDA 33610-9544
813-623-5561
SunCom—552-7612

APPLICATION FOR PERMIT TO CONSTRUCT [X]
OPERATE [ ]

A SOLID WASTE RESOURCE RECOVERY AND MANAGEMENT FACILITY

GENERAL REQUIREMENTS

SC25-179573

Solid Waste Resource Recovery and Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, and in accordance with Florida Administrative Code Rule 17-7. A minimum of six copies of the application shall be submitted to the Department District Office having jurisdiction over the facility. Complete appropriate sections for the type of facility for which application is made. Entries should be typed or printed in ink. All blanks should be filled in or marked not applicable. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to support the application is listed on the attached pages of this form.

Facility Type: Existing ___ Proposed X

Sanitary Landfill:
__ Class I,
__ Class II,
__ Class III: Trash/yard Trash
__ Class III: Yard Trash Composting

Volume Reduction:
__ Composting
__ Shredder
__ Incinerator/Trench Burner
X Resource Recovery:
__ Energy X Materials

Sludge Landspreading:
__ Grade I
__ Grade II
__ Grade III
__ Septage/Food Service

FACILITY NAME: Hardee County Solid Waste Recycle Center / DER ID Number

FACILITY LOCATION (main entrance): Airport Road North of SR 636

S 35 (section), T 33S (township), R 25E (range) / Latitude 27 ° 33 ' 30 " Longitude 81 ° 46 ' 50 "

Applicant Name (operating authority): Hardee County, Florida

Street Address & P. O. Box: 412 W. Orange Street, Wauchula, Hardee 33873-2831
City County Zip

Contact Person: J.R. Prestridge 813-773-3272 773-5089
Name Phone Number

~~Authorized Agent~~/Consultant: Briley, Wild & Assoc., Consulting Engineers 904-672-5660
Name Phone Number

Contact Person: John Cumming 607 904-672-5660
Name Street P. O. Box Phone Number

Ormond Beach Volusia Florida 32175
City County State Zip

Landowner (if different than applicant): same

Address of Landowner: N/A
Street, P. O. Box City State Zip

Cities, Towns and Areas to be Served: Hardee County, Bowling Green, Wauchula, Zolfo Springs

Current and Projected Population to Served: Current population-23,000. Project pop.-Yr. 2000-25,000

Acres within Waste Site Boundary: 5.0 Acres within Property Boundary: 98.3

Volume of Solid Waste to be received: 75 tons/day cu. yds/day tons/day gallons/day

Date Site Ready to Received Solid Waste: 12/31/90 Estimated Life of Facility 20 years

Estimated Cost of Construction, Total: $ 625,000 Estimated cost of Closing: $ N/A

Anticipated Construction Starting and Completion Dates
From: 6/1/90 To: 12/31/90

REQUIRED ATTACHEMENTS FOR CONSTRUCTION/OPERATION PERMIT FOR A RESOURCE RECOVERY AND MANAGEMENT FACILITY

GENERAL

Permit application and supporting information shall include the following (17-7.030(2), F.A.C.):

	Completeness Check
1. A letter of transmittal to the Department; (17-7.030(3)(a) F.A.C.)	X
2. A table of contents listing the main sections of the application: (17-7.030(3)(b), F.A.C.)	X
3. The permit fee specified in Florida Aministrative Code Rule 17-4.05 in check or money order payable to the Department: (17-7.030(3)(c), F.A.C.)	X
4. Six copies, at minimum, of the completed application form, all supporting data, and reports; (17-7.030(2), F.A.C.)	X
5. Engineer seal; (17-7.030(2)(d), F.A.C.)	X
6. Engineer's letter of appointment if applicable; (17-7.030(3)(e), F.A.C)	___
7. Copy of any lease agreement, transfer of property agreement with right of entry for long-term care, or any other agreement between operator and property owner by which the closing and long-term care of the facility may be affected; (17-7.030(3)(h)	N/A
8. Proof of publication of notice of application for the proposed activity in a newspaper of general circulation; (17-7.03(4), F.A.C)	___

SPECIFICATION ATTACHMENT ITEMS

The following information items must be included in the application or an explanation given if they are not applicable.

Construction Permits:

A. Landfills - Submit items 1, 2, 3, 4, 5, 6, 7, 8, 10.
B. Volume Reduction - Submit items 1, 2, 3, 4, 5, 6, 7, 9, 10.
C. Sludge Landspreading - Submit items 2, 3, 4, 5, 6, 8, 10.

Operation Permits:

A. Landfills - All the items above.
B. Volume Reduction - All the items above.
C. Sludge Landspreading - All the items above.

NOTE: For facilities that have been satisfactorily constructed in accordance with their construction permit the information required for A, B, and C type facilities does not have to be resubmitted for an operation permit if the information has not changed during the construction period.

1. A foundation analysis (17-7.050(2)(b), F.A.C.)	X
2. Evidence that the facility is in conformance with local zoning (17-7.050(2)(c)4, F.A.C)	X

3. Facility Design (17-7.050(3), F.A.C.:

NOTE: All maps, plan sheets, drawings, isometrics, cross-sections, or aerial photographs shall be legible; be signed and sealed by the registered professional engineer responsible for their preparation; be of appripriate scale to show clearly all required datails; be numbered, referenced to narrative, titled, have a legend of symbols used, contain horizontal and vertical scales (where applicable), and specify drafting or origination dates; and use uniform scales as much as possible, contain a north arrow, and use NGVD for all elevations.

Completeness Check

a. A map or aerial photograph of the area, no more than 1 year old, showing land use and zoning within 1 mile of the facility. (17-7.050(3)(a), F.A.C.) ___

b. Plot Plan (17-7.050(3)(b), F.A.C.) See Construction Drawings ___

NOTE: The plot plan on a scale not greater than 200 feet to the inch showing the following:

(1) Dimensions and Legal Description of the site ___

(2) Location and depth (NGVD) of soil borings ___

(3) Plan for trenching or disposal areas ___

(4) Fencing or other measures to restrict access ___

(5) Cross sections showing both original and propsed fill elevations ___

(6) Location, depth, and construction details of monitoring wells ___

c. Topographic Maps (17-7.050(3)(c), F.A.C.) See Construction Drawings ___

NOTE: The topographic maps, which may be combined with the plot plan (item 4b), on a scale not greater than 200 feet to the inch showing the following:

(1) Five foot contour intervals ___

(2) Proposed fill areas ___

(3) Borrow areas ___

(4) Access roads ___

(5) Grades required for proper drainage ___

(6) Typical cross sections of disposal site including lifts, borrow areas and drainage controls ___

(7) Special drainage devices ___

(8) Fencing ___

(9) Equipment facilities ___

(10) Other pertinent information based on intended use of facility ___

d. Report (17-7.050(3)(d), F.A.C.) See Narrative

(1) Estimated population and area served by the proposed site with basis for the estimate ___

(2) Anticipated type, annual quantity, and source of solid waste ___

(3) Anticipated life of site ___

(4) Source and characteristics of cover material ___

NA e. Ground Water Monitoring Plan (17-7.050(3)(e), F.A.C.) N/A

(1) Plan and hydrogeological survey, including foundation analysis, in accordance with 17-4.245(6), 17-7.030, and 17-7.050 F.A.C.; or ___

(2) A copy of a Department letter of approval of a previously submitted plan, if applicable. ___

	Completeness Check
4. Landfill Performance and Design Standards (17-7.050(4), F.A.C.)	
a. Liner performance (17-7.050(4)(a)(b), F.A.C.) N/A	___
(1) Material type (soil, synthetic, other)	___
(2) Adequate base support	___
(3) Planned installation adequate to cover all surrounding earth	___
(4) Equivalency to design standards	___
b. Liner quality control plan (17-7.050(4)(c), F.A.C.) N/A	___
(1) Specifications	___
(2) Construction/installation methods	___
(3) Sampling and testing	___
(4) Manufacturer's specifications and recommendations	___
c. Leachate control and removal system performance (17-7.050(4)(e), F.A.C.) N/A	___
(1) Construction materials	___
(2) Strength and thickness	___
(3) Measures to prevent clogging	___
(4) Central collection point for treatment and disposal	___
(5) Leachate depth not to exceed one foot	___
(6) Equivalency to design standards	___
d. Surface water management system performance (17-7.050(4)(g), F.A.C)	___
(1) Prevention of surface water flow onto waste-filled areas	N/A
(2) Stormwater run-off controls; retention, detention ponds	yes
(3) Equivalency to design standards	N/A
(4) Water management district approval	Requested
e. Gas control system performance (17-7.050(4)(i), F.A.C.) N/A	___
(1) Prevention of methane migration	___
(2) Prevention of damage to vegetation	___
(3) Prevention of objectionable odors off site	___
(4) Equivalency to design standards	___
5. Operations Plan (17-7.050(5)(b),(c)(d) & (e), F.A.C.) See Narrative	___
a. Designation of responsible person(s)	yes
b. Contingency operations	yes
c. Controlling the type of waste received at the site:	yes

	Completeness Check
d. Weighing or measuring incoming waste	yes
e. Vehicle traffic control and unloading	yes
f. Method and sequence of filling waste	N/A
g. Waste compaction and application of cover	N/A
h. Operations of gas, leachate, and storm water controls	N/A
i. Ground water monitoring	N/A
j. All weather access roads	yes
k. Effective barrier	N/A
l. Signs indicating name of operating authority, traffic flow, hours of operation, and charges for disposal (if any)	yes
m. Dust control methods	N/A
n. Litter control devices	N/A
o. Fire protection and fire fighting facilities	N/A
p. Attendant	yes
q. Communication facilities	yes
r. Adequate in-service and reserve equipment	N/A
s. Safety devices on equipment to shield and protect operators	yes

6. Water Quality Standards (17-7.050(5)(g) & (h), F.A.C.) See Narrative ___

   Describe how surface runoff and leachate will be handled to meet water quality standards of Florida Administrative Code Rules 17-3 and 17-4. ___

7. Closure (17-7.070(2), F.A.C.) N/A
   a. Closure plan (17-7.073, F.A.C.) ___
      (1) Design ___
      (2) Final use ___
      (3) Closure operations ___
      (4) Post-closure (17-7.075, F.A.C.) ___
      (5) Financial responsibility(17-7.071, F.A.C.) ___
   b. Closure plan schedule (17-7.071, F.A.C) ___

8. Solid Waste Disposal Facility Data Form Attached ___

9. Solid Waste-Volume Reduction and Resource Recovery Facility Data Form Attached ___

10. Certification by Applicant and Engineer or Public Officer Attached ___

SOLID WASTE DISPOSAL FACILITY DATA FORM

Date Form Completed: _____

Permit No.: _____ Issue Date: _____ Expires: _____

DER ACTION: ___ Add ___ Delete ___ Change ___ Deactivate Site

1. DER IDENTIFICATION NUMBER	2. SITE NAME Hardee County Recycle Center
3. COUNTY Hardee	4. FACILITY ADDRESS (Road, cross road, street) Airport Road off SR 636
4a. Facility Phone Number: 813-773-5089	4b. Facility Site Supervisor J.R. Prestridge
5a. 27 ° 33 ' 80 " (Latitude) 81 ° 46 ' 50 " (Longitude)	5b. 33S (Township) 25E (Range) 35 (Section)
6. Operating Authority Name Hardee County	8. Operating Authority Address 412 W. Orange Street Wauchula, Florida 33873-2831
7. Phone Number 813-773-6952	
9. Owner of Site Property (if different from operator) Same	11. Address of Owner 412 W. Orange Street Wauchula, Florida 33873-2831
10. Phone Number of Owner Same	

12. Facility Type
- __ Class I, Sanitary Landfill
- __ Class II, Sanitary Landfill
- __ Class III, Trash/Yard Trash
- __ Class III Yard trash comp.

Sludge Landspreading:
- __ Grade I
- __ Grade II
- __ Grade III
- __ Septage

Type
- X Other Facility
  Recycle/Separation

13. Month Year Begun Projected 1/1/91	14. Disposal Area N/A Acres	15. Population Served 23,000
16. Expected Useful Lifetime 20 Years	17. Weighing Scales X Yes __ No	18. Security to Prevent Unauthorized Used X Yes __ No
19. Depth of Water Table 2.5 - 3.5 Ft. (NGVD)	20. Quantity of Waste/Day 75 tons or Yd^3	21. Charge $50 Annually per single family home $ yd/ton

22. ~~Surrounding Land Use~~ Zoning
__ Residential __ None X Agricultural __ Commercial __ Industrial __ Other

23. Types of Waste Received

X Residential	__ Agricultural	__ Yard Trash/Trash	__ Other: _____
X Commercial	__ Septic Tank	__ Sewage Sludge	
__ Incinerator Residue	__ Industrial	__ Industrial Sludge	
__ Pathological/Infectious	__ Water/Air Treat Sludge	__ Hospital	

24. Number of Monitoring Wells N/A

25. Number of Surface Monitoring Points N/A

26. Gas Control / Recovery N/A __ Yes __ No / __ Yes __ No	27. Salvaging Permitted __ Yes X No	28. Attendant X Yes __ No

29. Leachate Control Method - Liner Type: N/A __ Natural __ Emplaced Clay __ Synthetic __ None __ Other_____		
Collection Mehtod: N/A __ Well Point __ Perimeter Ditch __ None __ Under Site Drains __ Other_____		
Treatment Method: N/A __ Oxidation __ Recirculated __ Chemical __ Advanced __ None __ Other_____		
30. Leachate Discharge __ Yes __ No N/A	Class of Receiving Water N/A	
31. Site Located in __ Floodplain __ Wetlands X Other:		
32. Surface Runoff Collected X Yes __ No	Type of Runoff Treatment Retention Pond	Class of Receiving Waters
33. Property Recoreded as a Solid waste Disposal Site in County Land Records __ Yes __ No		
34. Days of Operation 5	Days of Cover N/A	Hours of Operation 8
35. Name, Title and Phone Number of Person Completing Form John W. Cumming, County Engineer 904-672-5660		

NOTE: All blanks must be filled or marked as not applicable.

SOLID WASTE VOLUME REDUCTION AND RESOURCE RECOVERY FACILITY DATA FORM

Permit No.: _____ Issue Date: _____ Expires: _____

Facility No. (DER Identification): _____

DER ACTION: ☐ Add ☐ Delete ☐ Change ☐ Deactivate Site ☐ Other

1. County: Hardee	2. Site Name: Recycle/Separation Center
3. Date Form Completed:	4. Facility Address: Airport Road off SR 636
4a. Facility Phone No.: 813-773-5089	4b. Facility Site Supervisor: J.R. Prestridge
5a. 27 ° 33 ' 80 " Latitude; 81 ° 46 ' 50 " Longitude	5b. 33S Township; 25E Range; 35 Section
6. Operating Authority Name: Hardee County	8. Operating Authority Address: 412 W. Orange Street, Wauchula, Florida 33873-2831
7. Phone Number: 813-773-6952	
9. Owner of Site Property (if different from Operator): Same	11. Address of Owner: 412 W. Orange Street, Wauchula, Florida 33873-2831
10. Phone Number of Owner: Same	

12. Facility Type (check one or more)
- ☐ Incinerator Only
- ☐ Sludge Concentration
- ☐ Transfer Station
- ☐ Biomass Gas Production
- ☐ Baler (compactor)
- ☐ Waterwall Incinerator
- ☐ Pyrolysis
- ☐ Composting Plant
- ☐ Shredder (pulverizer)
- ☒ Other: Manual Separation

13. Month/Year Begun: Projected 1/1/90	14. Disposal Area: N/A Acres	15. Population Served: 23,000
16. Expected Useful Lifetime: 20 Years	17. Weighing Scales: ☒ Yes ☐ No	18. Waste Processed Per Operational Day: 75 tons/~~gal/yd~~
19. Charge/_____: $50 Annual per Residence	20. Days Operated: S (M) (T) (W) (T) (F) S	21. Hours/Day Operated: 8

22. Maximum Processing Rate _____ tons/day

23. Material Recovered, Tons/Week

15 Paper	0.75 Glass	Other: N/A	
1.50 Ferrous Metals	0.75 Non-Ferrous Metals		
0.75 Aluminum	3.75 Plastics		

24. Energy Recovery, in units shown N/A

_____ High Pressure Steam-lb/hr	_____ Chilled Water-gal/hr	_____ Gas-ft³/hr
_____ Low Pressure Steam-lb/hr	_____ Oil-gal/hr	_____ Gas-BTU/hr
_____ Electricity-kw/hr	_____ Oil-BTU/hr	Other:

25. Process Water Recycled N/A ☐ Yes ☐ No	Treatment Method Used N/A
Discharged to: ☐ Surface Waters ☐ Underground N/A	Class Receiving Water: N/A
26. Final Residue is _____ % of waste intake	Residue is disposed of at (Site Name) N/A

27. Supplementary Fuel Used N/A

Type: N/A	Quantity Used/Hour: N/A	
28. Estimated Operating Costs Material – Energy Revenue $ N/A	Total Cost/Ton $	Net Cost/Ton $

29. Number of Staff: 15	30. State Pollution Control Bond Financing Amount $ 0.00	31. Estimated Amount of Tax Exemptions that will be Requested $ N/A

32. Name and Title of Person Completing Form: John W. Cumming, P.E., County Engineer

Note: All blanks must be filled or marked as not applicable.

CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

A. Applicant

The undersigned applicant or authorized representative of Hardee County is aware that statements made in this form and attached information are an application for a materials separation facility construction Permit from the Florida Department of Environmental Regulation and certifies that the information in this application is true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and, the Department will be notified prior to the sale or legal transfer of the permitted facility.

Signature of Applicant or Agent

Benny W. Albritton, Commission Chairman
Name and Title

Date: April 6,1990

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

B. Professional Engineer Registered in Florida or Public Officer as Required in Section 403.707 and 403.7075, Florida Statutes

This is to certify that the engineering features of this resource reocvery and management facility have been designed/examined by me and found to conform to engineering principals applicable to such facilities. In my professional judgement, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

John W. Cumming
Signature

John W. Cumming, County Engineer
Name and title (please type)

9522
Florida Registration Number
(please affix seal)

Post Office Box 607
Mailing Address

Ormond Beach, Florida 32175
City, State, Zip Code

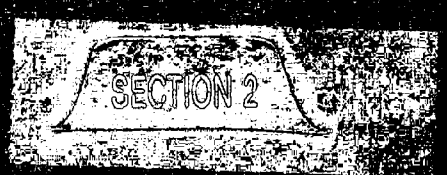
904-672-5660
Telephone Number

Date: 4-20-90

Construction Cost Estimate: $625,000

Permit Number: _____ Issue Date: _____

Review Date: _____ Expiration Date: _____


SECTION 2

Local Zoning

The recycle/separation center will be constructed on Hardee County's present landfill site. The site is zoned for Agricultural uses as are the neighboring properties.

SECTION 3

HARDEE COUNTY
BOARD OF COUNTY COMMISSIONERS
Room A-204, Courthouse Annex
412 West Orange Street
Wauchula, Florida 33873-2867
(813) 773-6952 or 773-9240

April 5, 1990

Department of Environmental
Regulations
Southwest District
4520 Oak Fair Boulevard
Tampa, Florida 33610-9544

Gentlemen:

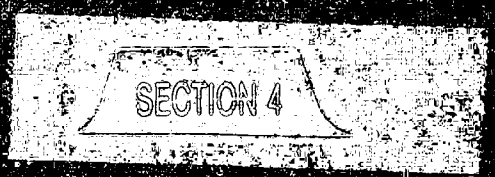
This is to affirm that Mr. John Cumming, P.E., has been authorized by Hardee County to prepare plans and the Construction Permit Application for the County's Solid Waste Recycle Center.

If you have any questions, please contact this office.

Sincerely,

Benny W. Albritton
Chairman
Board of County Commissioners
Hardee County, Florida

vt


SECTION 4

Foundation Analyses

The proposed recycled separation center is to be housed in a premanufactured building constructed on a concrete slab placed on compacted soils. Finished floor elevation will be 85.0.

A subsurface investigation was done by Ardaman & Associates and an allowable soil bearing pressure of 2500 psf was determined. Maximum soil pressures as a result of the building and equipment installed therein will not exceed this allowable load.

At the time of field exploration, the groundwater table in the six bore holes was 2.5 to 3.5 feet below grade.

For reference, the soils investigation performed by Ardaman is included herein.

BRILEY, WILD & ASSOCIATES
Report of
Geotechnical Exploration
Proposed Hardee County Recycle Center
Wauchula, Florida

Ardaman & Associates, Inc.

OFFICES

Orlando, 8008 S. Orange Avenue, P.O. Box 593003, Orlando, Florida 32859-3003, Phone (407) 855-3860
Bartow, 1987 S. Holland Parkway, P.O. Box 812, Bartow, Florida 33830, Phone (813) 533-0858
Bradenton, 209 A 6th Avenue East, P.O. Box 1335, Bradenton, Florida 33508, Phone (813) 748-3971
Cocoa, 1300 N. Cocoa Blvd., P.O. Box 3557, Cocoa, Florida 32924, Phone (407) 632-2503
Fort Myers, 2508 Rockfill Road, Fort Myers, Florida 33916, Phone (813) 337-1288
Miami, 2608 W. 84th Street, Hialeah, Florida 33016, Phone (305) 825-2683
Port St. Lucie, 1017 S.E. Holbrook Ct., P.O. Box 8687, Port St. Lucie, Florida 34985, Phone (407) 337-1200
Sarasota, 2500 Bee Ridge Road, P.O. Box 15008, Sarasota, Florida 34277, Phone (813) 922-3526
Tallahassee, 3175 West Tharpe Street, Tallahassee, Florida 32303, Phone (904) 576-6131
Tampa, 105 N. Faulkenburg Road, Suite D, P.O. Box 1506, Brandon, Florida 34299-1506, Phone (813) 654-2336
West Palm Beach, 2511 Westgate Avenue, Suite 10, West Palm Beach, Florida 33409, Phone (407) 687-8200

MEMBERS:
American Concrete Institute
American Society for Testing and Materials
American Consulting Engineers Council
Association of Soil and Foundation Engineers
Florida Institute of Consulting Engineers
Professional Engineers in Private Practice

Ardaman & Associates, Inc.

Consultants in Soils, Hydrogeology,
Foundations and Materials Testing

November 16, 1989
File Number 89-51-9340

Briley, Wild & Associates
P.O. Box 607
Ormond Beach, FL 32175

Attention: John A. Dillard

Subject: Report of Geotechnical Exploration, Proposed Hardee County Recycle Center, Wauchula, Florida

Gentlemen:

Pursuant to your authorization given on October 25, 1989, and in accordance with our verbal agreement, our firm has completed the exploration of subsurface soil conditions beneath the proposed recycle center building area at the referenced site. The purpose of this exploration was to determine the stratification and engineering properties of subsurface soils, and provide recommendations for foundation design and site preparation. This study covers foundation soils well within the influence of building loads, but does not cover deep soil or bedrock strata.

This report was prepared for the exclusive use of Briley, Wild & Associates and their consultants for use in the design of a foundation system for the proposed building, in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made.

SCOPE

The scope of our services has included the following items:

1. Performance of six (6) Standard Penetration Test (SPT) borings to determine the stratification and engineering properties of subsurface soils at the proposed building location.

2. Review of selected representative soil samples obtained in our field testing program, by a soils engineer in our laboratory, for verification of classification and assignment of laboratory tests, if required.

3. Analysis of the existing building site soil and groundwater conditions as they relate to the proposed construction.

4. Preparation of this report to document the results of our field testing program, engineering analysis, and foundation design and site earthwork recommendations.

SITE LOCATION AND CONDITIONS

The proposed building site is located within a tract of land situated in the northeast one-quarter of the northeast one-quarter of Section 35, Township 35 S., Range 25 E., Hardee County, and more specifically within the Hardee County Landfill site west of Airport Road, Wauchula, Florida.

The site of the proposed building was observed to be generally flat and was covered with grass and scattered trees. Surface drainage appears to be fair to good.

FIELD EXPLORATION

Our field operations consisted of conducting six (6) SPT borings using procedures similar to those outlined in ASTM D-1586, at the locations indicated on the attached Figure 1. Test locations and depths of the borings were specified by us and were performed to determine the stratification and engineering properties of the subsurface soils to a maximum depth of 15 feet below the existing ground surface. A continuous drilling and sampling procedure was performed within the upper 10.5 feet of the SPT borings to detect subtle changes in soil stratigraphy and pertinent engineering properties within this critical depth. Furthermore, borings were located in the field by our drilling crew by visual reckoning using a site plan having a scale of 1 inch = 50 feet, and by tape measurement from the existing site fence. Accuracy of the boring locations is that implied by the measurement method used. Upon completion, each borehole was filled in with local soil. A brief summary of the drilling and testing procedures utilized in the SPT boring is included in the attached appendix.

LABORATORY TESTING

The field soil boring logs and recovered soil samples were returned to our Bartow office. At which time, each soil sample was examined by a soils engineer in our soils laboratory to obtain an accurate definition of the soil profile and to assign pertinent laboratory tests. The visual classification of the samples was performed in accordance with the current Unified Soil Classification System (ASTM D-2487). Since the samples obtained were granular in nature, and readily identifiable, laboratory testing was deemed unnecessary at the time of our analysis.

SOIL CONDITIONS

Delineation of soil strata, engineering properties where applicable , and soil descriptions are given in the final soil boring logs illustrated on the attached Figure 2. The final logs were prepared by a geotechnical engineer after review of the field logs and visual classification of the recovered soil samples. The stratification lines shown are used to indicate a transition from one soil type to another; however, they are in no way intended to designate a depth of exact geological change. Furthermore, the recommendations contained in this report are based on the contents of the final logs. While the borings are representative of subsurface conditions at their respective locations and vertical reaches, local variations characteristic of the subsurface materials of the region may be encountered.

The subsurface soil profile, based on the data obtained from six (6) SPT borings, is generally described below:

DEPTH (Feet) From	To	SOIL DESCRIPTION
Surface	0.3	Dark grayish-brown, silty sand with roots - Topsoil (SM) Soil #1
0.3	2 - 2.5	Grayish-brown sand with roots (SP) Soil #2
2 - 2.5	5 - 6.5	Brown sand to sand with silt (SP to SP-SM) Soil #3 and #9
5 - 6.5	7.2 - 9.5	Dark brown, grayish-brown or light brown, clayey sand (SC) Soils #4, #7, and #10
7.2 - 9.5	9.5 - 12	Brown or very light, brownish-gray sand or sand with silt (SP) or (SP-SM) Soils #5, #6, and #9
9.5 - 12	12 - 13.5	Grayish-brown or brownish-gray, clayey sand (SC) Soils #7 and #11
12 - 13.5	Termination	Gray sand with phosphate (SP) Soil #8

GROUNDWATER CONDITIONS

The groundwater level readings were obtained in the borehole upon completion of testing, where possible. Such water level readings are plotted adjacent to the final logs. If a water table is not indicated, it does not necessarily mean that groundwater does not exist within the vertical reach of the borehole. It must be further noted that fluctuations in the groundwater level may occur due to variations in rainfall and other environmental or physical factors at the time measurements are made.

The measured borehole groundwater table level ranged from 2.5 to 3.5 feet below land surface at the time of the field exploration. We are presently at the beginning of the dry season, therefore, the indicated groundwater table may be below its seasonal high and subject to rise during the wet season.

EVALUATION AND RECOMMENDATIONS

Proposed Development

Based on information provided by you, it is our understanding that the proposed construction will consist of a single-story, pre-engineered metal building. The structure will be supported by steel frame and interior slab-on-grade. The wall loads are not anticipated to exceed 1 kip per linear foot, and are expected to be transmitted to the foundation soils by conventional concrete foundations. A boiler weighing up to 30 kips was considered in our analysis. Moreover, final floor grade placed several feet above existing grade was considered in our analysis.

Soil Evaluation

The SPT borings encountered a thin mantle of sod and topsoil, underlain by loose surficial native sand followed by loose to medium-dense sand with silt and loose clayey sand. It is our opinion that these soils will be capable of supporting the anticipated loads on a conventionally designed shallow foundation system after a program of site modification consisting of removal of Soil #1 and surficial mechanical compaction.

Site Preparation Recommendations

The existing natural surficial soils should be prepared prior to placement of engineered fill and foundation construction on the soils, in accordance with the following site preparation recommendations . The recommended procedures should be covered in the project specifications, and completed prior to construction of the foundation system.

1. The building area, plus a margin of 5 feet beyond the perimeter of the foundation system, should be cleared and grubbed of any vegetation, stumps, tree root systems, and sod. Organic topsoil should be excavated and removed. Strippings, debris, and organic soils should be disposed in accordance with the owner's instructions. Any hole larger than 3 feet in diameter resulting from the removal of any tree should be ramped to allow mechanical compaction of the bottom and sides with mechanical equipment prior to filling.

2. After clearing, grubbing and organic topsoil removal, the exposed soils within the construction area plus the margin, should be thoroughly saturated with an ample supply of water and compacted with a steel-wheeled, self-propelled vibratory roller having a minimum drum centrifugal force of 25,000 pounds, to a depth of 24 inches below stripped grade or to a depth of 24 inches below slab subgrade elevation, whichever is greater, to a minimum of 98 percent of the Standard Proctor (ASTM D-698) maximum dry density. This density level should be measured by a qualified soils technician using procedures described by ASTM D-2937 or approved equal, prior to commencement of subsequent procedures. In the event that initial rolling results in unstable, yielding or pumping conditions, the soils engineer shall be contacted to determine the cause of the problem and make recommendations for remediation. As a minimum, soft, yielding, excessively wet, or otherwise unsuitable material shall be cut out and replaced with compacted clean sand. In the event that applied water does not penetrate sufficiently deep into natural soils to act as a lubricant in the compaction process, it will be necessary to disk or otherwise break up the soils before and during application of water.

   The steel-wheeled vibratory roller should not be operated within 25 feet of any existing structure. In the event that occupants of neighboring buildings complain of noise and vibrations, a static method of site compaction shall be substituted at no extra charge to the owner.

3. After steps 1 and 2 are completed, fill necessary to raise the grade to finished floor subgrade, or any interim working grade, should then be placed in 1-foot thick layers, moisture-conditioned, and compacted to a minimum of 98 percent of the Standard Proctor maximum dry density. All fill should consist of clean sand which is free of roots and debris.

4. Continuous wall footing trenches and individual footing pits should be excavated to footing line and bottom grade. Foundation soils should be saturated with water and compacted with suitable mechanical equipment to achieve the specified level of density to the required depth. Foundation bottom grade should be tested to confirm that a minimum density of 98 percent of the Standard Proctor maximum dry density exists to a depth of 12 inches below footing bottom. If necessary, the bottom of the footing excavation shall be over-excavated, refilled, and recompacted with mechanical equipment to achieve the necessary minimum field density to the required depth.

5. Foundation backfill on sides of formed footings, and building slab subgrade fill should consist of clean sand, free of roots and debris, which is placed in 12-inch lifts and compacted to 98 percent of the Standard Proctor maximum dry density.

6. Ardaman & Associates, Inc., Bartow office, should be engaged by the owner prior to site preparation to provide field observation of site preparation steps, compaction operations on natural and fill soils, and conduct field in-place density testing to confirm that the specified requirements are met.

Foundation Recommendations

For foundations placed on the soils prepared as previously recommended, the foundations may be proportioned for a maximum net allowable soil bearing pressure of 2500 pounds per square foot. We anticipate the maximum settlement to be on the order of one-half inch for the continuous wall footings, and one-half inch for the individual pad footings. We also anticipate that the settlement would occur almost immediately as the loads are applied, due to the granular nature of the foundation soils.

A soil cover of 18 inches as measured from the bottom of the foundation system to lowest adjacent finished grade should be provided. Spread footings should be at least 2.5 feet wide. Also, for any continuous wall foundations, a minimum lateral dimension of 18 inches should be provided. The foundation should be designed for equal dead-load distribution in accordance with Standard Building Code requirements where applicable.

Pavement Areas

A minimum 6-inch thick, plant-mixed, soil-cement base compacted to 95 percent of the Standard Proctor maximum dry density (AASHTO T-99) and having a minimum laboratory design compressive strength of 450 psi in 7 days, should provide a suitable semi-rigid pavement base where the seasonal high water table is expected to exist from 0 to 2 feet below the bottom of the base, provided that clean, free draining sands lie below this type of base.

The term "soil-cement" applies to a type of base material that utilizes Portland cement mixed with a select soil to develop its strength. We recommend conducting a laboratory soil-cement design to determine the actual cement content necessary to achieve the design strength. Because of drying shrinkage, and cracking which normally occurs during and after hydration of a soil-cement base, we strongly recommend a curing time period of at least 14 days before applying the overlying asphaltic concrete wearing surface. An approved tack coat should be applied on a clean (swept) soil-cement surface to develop a sufficient bond before the paving begins. However, it should be expected that contraction cracks in the base will reflect through the asphaltic concrete surface.

Field Observations

Site preparation, including foundation bearing surfaces and compaction of any structural fill, should be observed by a soils engineer or his representative from Ardaman & Associates, Inc., to verify that conditions are as anticipated in the design and completed in accordance with the recommendations contained in this report.

Closure

The analyses and recommendations submitted in this report are based on the data obtained from six (6) SPT borings performed at the locations indicated on the attached Figure 1. This report does not reflect any variation which may occur in-between the borings. The nature and extent of variations may not become evident until during the course of construction. If variations then appear evident, it will be necessary for a re-evaluation of the recommendations of this report to be made after performing on-site observations during the construction period and noting the characteristics of any variations.

When the final design and specifications are completed, we would like the opportunity to review them in order to determine whether changes in the original concept may have affected the validity of our recommendations, and whether these recommendations have been implemented in the design and specifications.

The recovered soil samples are available for examination at our Bartow office. Unless otherwise instructed in writing, the soil samples will be discarded 60 days after the issuance of this report.

It has been a pleasure assisting you with this phase of your project. If there are any questions or when we may be of further assistance, please contact the undersigned at 813/533--0858.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.

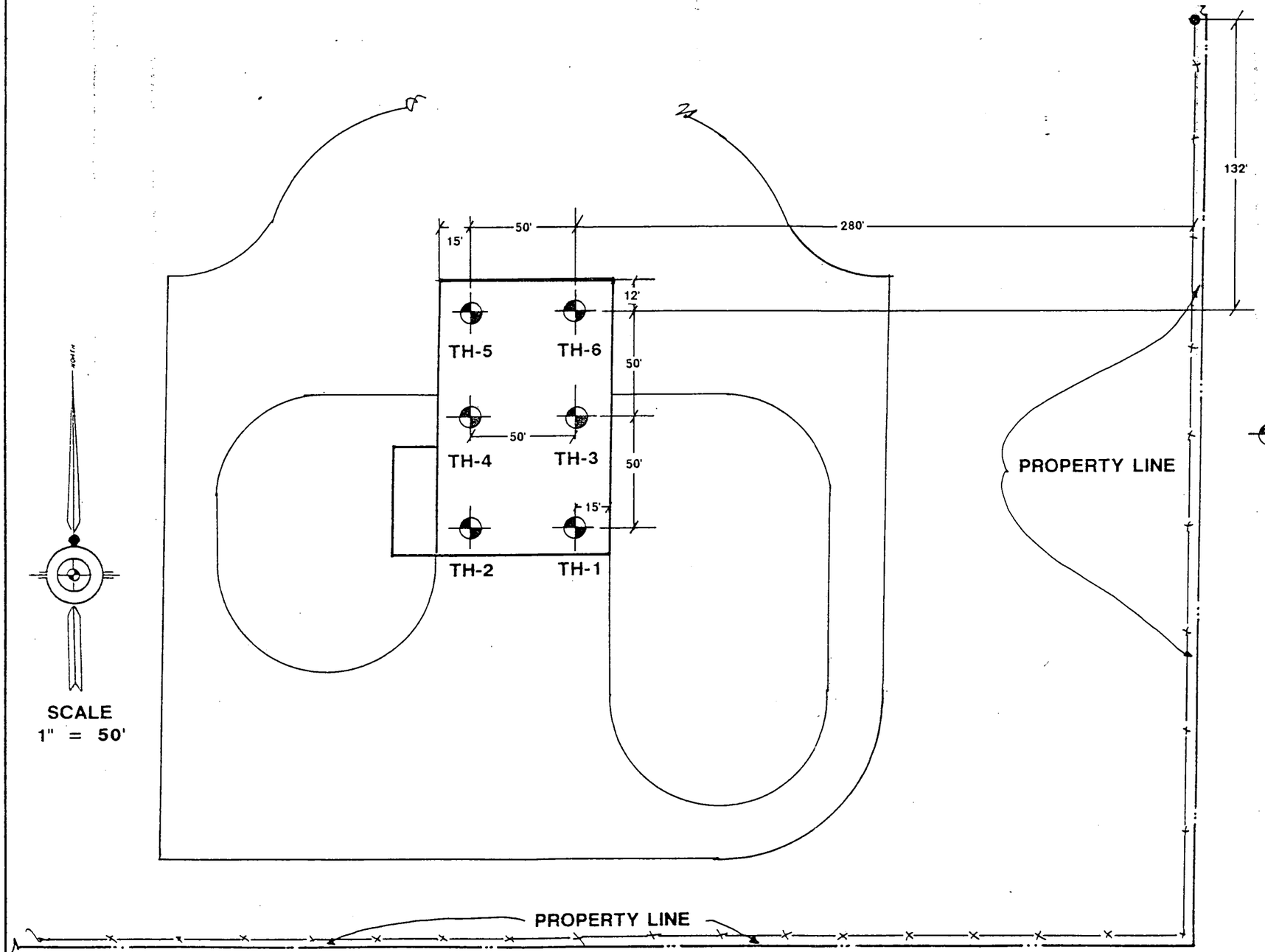
Dusan Jovanovic
Project Engineer

11-16-89

Thomas J. Leto, P.E.
Principal
Florida Registration No. 12458

TJL/DJ:mcj
Enclosures

A18/9-9340.sse



LEGEND

TH-1 STANDARD PENETRATION TEST BORING (ASTM D-1586)

"WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE UNCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATION AND ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES UNCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER SURFACE DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE UNCOUNTERED AT THESE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS."

DATE DRILLED: 11-3-89

SOIL BORING LOCATION PLAN

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

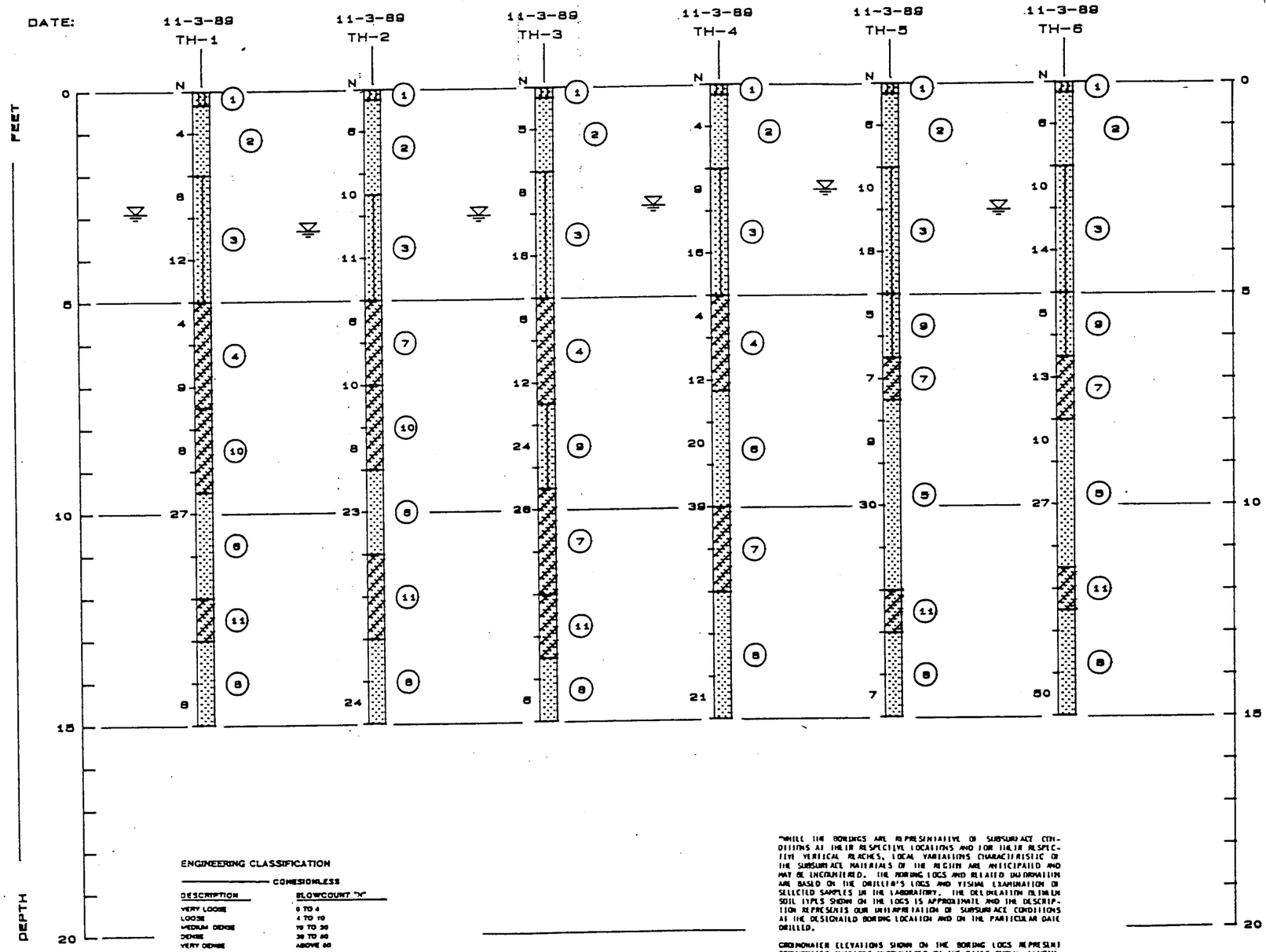
SOIL BORING LOCATION PLAN
PROPOSED
HARDEE COUNTY RECYCLE CENTER
HARDEE COUNTY, FLORIDA

DRAWN BY: NPJ	CHECKED BY:	DATE: 11-10-89
FILE NO. 89-9340	APPROVED BY:	

N24568

FIGURE 1

FINAL BORING LOG PROFILES



LEGEND

1. DARK GRAYISH-BROWN SILTY SAND WITH ROOTS - TOPSOIL - (SM)
2. GRAYISH-BROWN SAND WITH ROOTS (SP)
3. BROWN SAND TO SAND WITH SILT (SP TO SP-SM)
4. DARK BROWN; LIGHT BROWN AND GRAYISH-BROWN MOTTLED CLAYEY SAND (SC)
5. BROWN SAND (SP)
6. VERY LIGHT BROWNISH-GRAY SAND (SP)
7. BROWNISH-GRAY CLAYEY SAND (SC)
8. GRAY SAND WITH PHOSPHATE (SP)
9. BROWN SAND WITH SILT (SP-SM)
10. BROWN SAND WITH CLAY (SP-SC)
11. GRAYISH-BROWN CLAYEY SAND WITH PHOSPHATE (SC)

TH-1 STANDARD PENETRATION TEST BORING (ASTM D-1586)

N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT

50/5" 50 BLOWS PER 5" PENETRATION

▽ GROUNDWATER TABLE, OBSERVED ON DATE SHOWN (IF DIFFERENT FROM DATE OF BORING)

SP UNIFIED SOIL CLASSIFICATION SYMBOL

ENGINEERING CLASSIFICATION

COHESIONLESS

DESCRIPTION	BLOWCOUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	ABOVE 50

COHESIVE

DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH, T.S.F.	BLOW COUNT "N"
VERY SOFT	BELOW .25	0 TO 2
SOFT	.25 TO .50	2 TO 4
MEDIUM STIFF	.50 TO 1.0	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	ABOVE 4	ABOVE 30

"WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATION AND ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER SURFACE DATA ON CERTAIN BORINGS IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THESE LOCATIONS OR WITHIN THE VERTICAL REACHES OF THESE BORINGS."

DATE DRILLED: 11-3-89

Ardaman & Associates, Inc.
Consulting Engineers in Soils, Hydrogeology, Foundations, and Materials Testing

FINAL BORING LOG PROFILES
PROPOSED
HARDEE COUNTY RECYCLE CENTER
HARDEE COUNTY, FLORIDA

DRAWN BY: UPS | CHECKED BY: TO | DATE: 11-10-89
FILE NO. 89-9340 | APPROVED BY:

FIGURE 2

N24568

APPENDIX I

STANDARD PENETRATION TEST

The Standard Penetration Test is a widely accepted method of in-situ testing of foundation soils (ASTM D-1586). A two-foot long, two-inch outside diameter, split-barrel ("spoon") sampler, attached to the end of drilling rods, is driven 18 inches into the ground by successive blows of a 140pound hammer freely dropping 30 inches. The number of blows needed for each six inches of penetration is recorded. The sum of the blows required for penetration of the second and third six-inch increments of penetration constitutes the test result or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties allowing a conservative estimate of the behavior of soils under load.

The tests are usually performed at five-foot intervals. However, more frequent or continuous testing is done by our firm through depths where a more accurate definition of the soils is required. The test holes are advanced to the test elevations by rotary drilling with a cutting bit, using circulating fluid to remove the cuttings and hold the fine grains in suspension. Usually, the circulating fluid, which is a bentonite drilling mud, also serves to keep the hole open below the water table by maintaining an excess hydrostatic pressure inside the hole. In some soil deposits, particularly highly pervious ones, flush-coupled casing must be driven to just above the testing depth to keep the hole open and/or to prevent the loss of circulating fluid.

Representative split-spoon samples from soils at every five feet of drilled depth and from every different stratum are brought to our laboratory in air-tight jars for further evaluation and testing, if necessary. Samples not used in testing are stored for at least sixty (60) days prior to being discarded. After completion of a test boring, the hole is kept open until a steady state groundwater level is recorded. The hole is then sealed if necessary, and back-filled.

dw3/append/I

SECTION 5

Facility Design

A complete set of construction drawings, specifications and contract documents has been prepared for the project. They include area maps, a site plan and detailed drawings for construction of the structure and installation of necessary conveyor systems, balers and other equipment. A set of these documents is included with this submittal.

An aerial photograph of the site and surrounding area is included.

SECTION 6

NARRATIVE DESCRIPTION
HARDEE COUNTY RECYCLE/SEPARATION CENTER

Introduction

Hardee County is located approximately 50 miles from the Gulf of Mexico and covers an area of approximately 630 square miles. Principal towns are Wauchula, Bowling Green and Zolfo Springs. Population of the primarily agricultural County is slightly over 22,000 people.

As part of the County's program to comply with Florida's new solid waste volume reduction mandates, the County intends to construct a separation center for recyclable items. These materials will be manually separated and baled for sale.

Existing Solid Waste Facilities

At present, solid waste collected in Hardee County is disposed of at the County's Sanitary Landfill, located approximately two miles east of the City of Wauchula. This facility complies with current Florida Department of Environmental Regulation and Florida Administrative Code requirements governing disposal of solid waste. Improvements to the present landfill were completed in 1988.

The County owns 98 acres of land upon which the present landfill is located. Future landfill expansion and construction of related facilities such as the recycling center can be adequately accommodated on the County-owned lands.

Solid waste from the incorporated town of Zolfo Springs, Wauchula, Bowling Green, and from the unincorporated County areas is disposed of at the County Landfill. An estimated 60 to 75 tons per day of solid waste is delivered to the landfill. No separation of recyclable materials is done at curb side or at the landfill site at this time.

Need for Improvements

In 1988, the Florida State Legislature enacted legislation intended to reduce the volume of solid waste being placed in sanitary landfills. This legislation provided some incentives to local governments and set goals of 30% reduction of volume by 1994. Removal of recyclable materials (paper, cans, glass, plastics) from the solid waste prior to, or following collection, is one of the methods whereby volume reduction can be achieved.

Compliance with the State's volume reduction program and extension of the life of the present Hardee County Landfill are the two principal reasons for embarking on this program. Available volume in a permitted landfill is extremely valuable. Locating, permitting, and constructing a new landfill is a very costly and lengthy process. Hardee County has chosen to extend the life of its present landfill site by several means. Removal of recyclable goods is the prime method. As a part of this process, wastes to be disposed of in the landfill will be compressed into bales, further reducing waste volume.

Early in 1989, Hardee County and municipalities within the County began meeting to formulate a plan to meet the new state volume reduction goals. It was concluded by the local committee that removal of recyclable materials prior to pick-up (curb side separation) was not the best solution for rural Hardee County. The local committee recommended Hardee County pursue development of a facility at the County Landfill to remove recyclable materials after collection.

Proposed Improvements

Hardee County has authorized Briley, Wild & Associates, as their County Engineer, to develop plans for a facility to separate and bale recyclable materials. The facility will be located on the present landfill site near the scale house and landfill entrance. The site chosen is old pasture land, is well drained, and will require minimum clearing.

As planned, the facilities will consist of a building 80-feet by 120-feet to house the separation equipment and a shredder. Also included will be site improvements such as roadways, drainage system, water and sanitary systems, and a stormwater management system. The primary equipment to be included in the facility will be a conveyor system to move the waste as recyclables are manually removed, a baler for waste and recyclables, a glass crusher, a can separator, a forklift and small end loader to move materials.

The proposed separation facility will be built on County-owned land which is partially used for their present sanitary landfill. Approximately 5.01 acres have been reserved for the separation center. Utilization of the area is as follows:

Building Area	-	10,600	Sq. Ft.
Vehicular Use Area	-	76,000	Sq. Ft.
Open Space	-	114,386	Sq. Ft.
Retention Pond	-	17,250	Sq. Ft.

The building structure will be a pre-engineered metal structure on a concrete slab with a concrete block office, locker and shower attached to the primary structure. The elevated conveyor system will transport mixed waste to the sorting area where recylcable materials will be removed

and temporarily stored. A cross conveyor will transport materials to a compactor/baler or to a waste container. Materials not removed for sale will be compacted and baled before they are hauled to the landfill. Stored recylcables will be baled or otherwise packaged for later shipment.

Access to the tipping floor is by four 18-ft. wide doors on the north, east and west sides of the building. At the south end of the building are two more 18-ft. doors, one of which provides access to a loading dock. The other allows a roll-off container to be placed so as to receive waste should the baler be inoperative.

The entire concrete building floor will be sealed to facilitate maintenance and sanitation. The tipping floor area will be equipped with floor drains which drain to a pre-fab pumping station near the building. This station will pump "waste" waters to the leachate storage pond at the landfill site. The tipping floor and other building floors will be cleaned in a dry manner as much as practicable in order to minimize "waste" water production.

Amenities

Amenities at the facility include:

- Shower, Washdown and Toilet Facilities
- Potable Water
- Office
- Lunch Area
- First Aid Station
- Equipment Storage

Surface Water Quality

Surface water quality on the site will be protected by construction of a 18,500 sq. ft. retention pond and widened swales. Surface drainage from the building and surfaced areas will be stored in these facilities per the requirements of FAC 17-25. No mixing of surface water and water used to wash the tipping floor or otherwise coming into contact with solid waste, shall be allowed.

Access Control

Access to the facility shall be through the main County Landfill entry road which will be staffed at all times the center is in use. Weigh scales at the entry shall be used to insure proper record keeping. While the entire site is fenced, the separation facility structure will be secured when not in use by roll-up doors and six-foot chain link gates. Litter control will be provided by County forces and as the building is for the most part enclosed, this is not expected to be a problem. Surrounding lands are landfill site and unimproved pasture land.

Facility Operation

The prime purpose of the facility is removal and storage of saleable recyclable materials. To this end it will be staffed with approximately 15 persons whose job will be removal of those materials from the waste stream. Operation will be eight hours per day for five days per week.

It is expected that 60-75 tons per day of solid waste will be delivered to the site for separation. The tipping floor is adequate to store several days accumulation should equipment malfunction occur.

Trucks will enter from the north after passing over the landfill scales. Normally traffic will enter the northwest door to the tipping floor to dump. Waste will be pre-sorted on the tipping floor for removal of cardboard, large items such as furniture, tires or items prohibited from entering the landfill.

The conveyor pit will be loaded with waste by a small front-end loader such as a Bob Cat and materials will be moved up an incline conveyor to the elevated sorting conveyor. Pickers on either side will remove glass, plastic, cans, and paper. These materials will be temporarily stored in containers until sufficient quantities are available for packaging for shipment. A glass crusher and a can separator will be used prior to packaging glass, aluminum and ferrous cans.

Non recyclable materials will be carried to a cross conveyor that will normally deliver the material to a compactor/bales. Bales will be transported to the landfill. Should the baler be temporarily out of service the cross conveyor will deliver waste to a roll-off container which will be used to transport waste to the landfill.

Packaged recyclables will be stored in the building, on the loading dock or adjacent areas at the north of the building. Adequate space for dedicated trailers is available. Access for tractor-trailer rigs around the entire building is provided.

Fire Protection

Fire extinguishers and a moderate water supply provide protection against a minor fire in the waste or the building. Local fire protection is furnished by the Hardee County Fire Rescue Service.

Communication

Telephones are available at the facility.

Safety

Emergency first aid supplies will be available and County staff will be trained in proper First Aid care.

Records

Accurate records of materials processed will be maintained and available for examination.

Staff

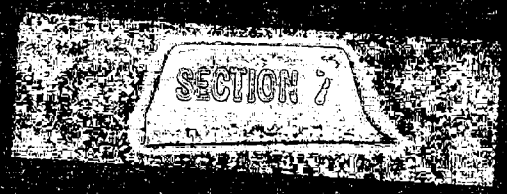
A staff of approximately 15 persons will provide supervision, equipment operation and labor to operate the facility. They will be adequately trained so as to safely and efficiently operate and maintain the center.

Compliance

The facility will be operated and maintained in compliance with applicable state and local codes governing such installations. Proper operation shall include unloading of materials so that hazardous or nuisance conditions are not created, cleaning of loose materials and litter on a daily basis and removal of solid waste materials within a 48 hour period.

Site Conditions

The present site is lightly wooded and was previously used as a pasture. The site is a relatively well drained grassy area. Sandy top soils occur and depth to water table is 2.5 to 3.5 feet. Soils will support loads of 2500 psf with proper compaction.


SECTION 7

1552175 (1)

35

0 200 400 600 800

SCALE 1" = 200'

PREPARED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION
FOR THE FLORIDA DEPARTMENT OF REVENUE

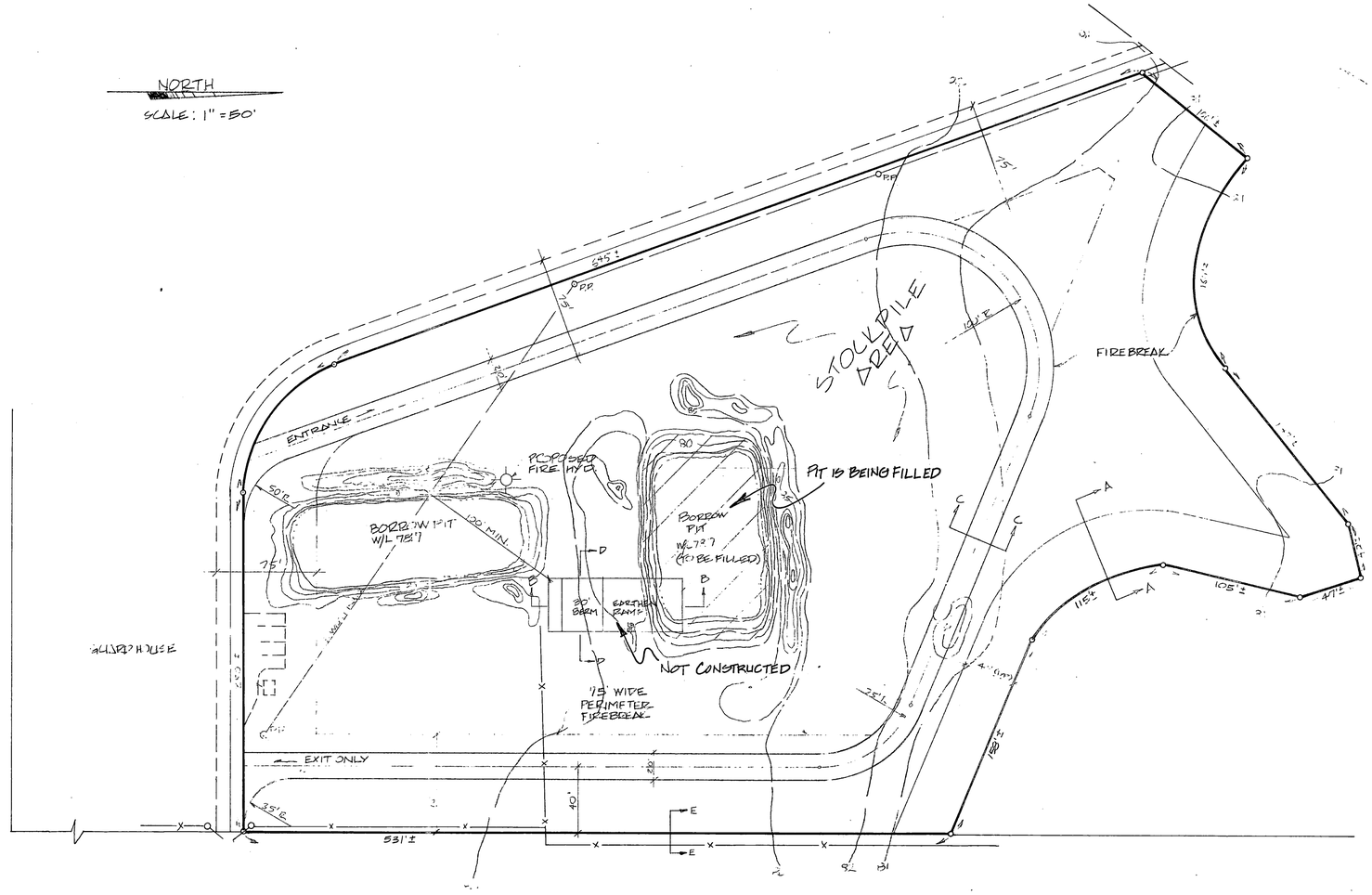
FOR ASSESSMENT PURPOSES ONLY

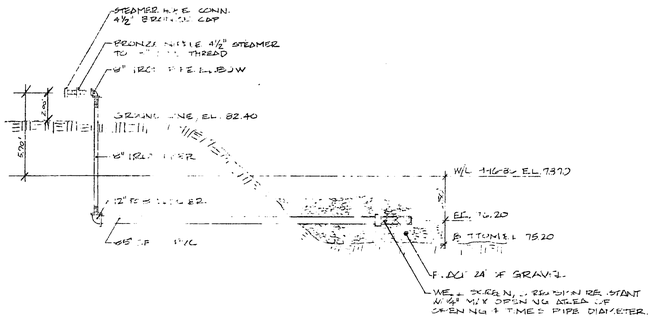
HARDEE COUNTY
FLORIDA

SCALE	1" = 200'	SECTION	TWP.	RANGE	SHEET NO.	MAP
PHOTO DATE	APR. 1988	35	33 S	25 E	91 C	
PHOTO NO.	PD-3715					

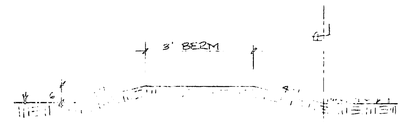
NORTH

SCALE: 1" = 50'

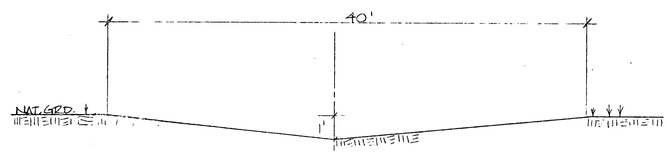




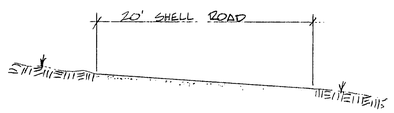
DRY HYDRANT DETAIL



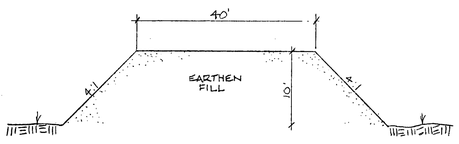
SECTION E-E



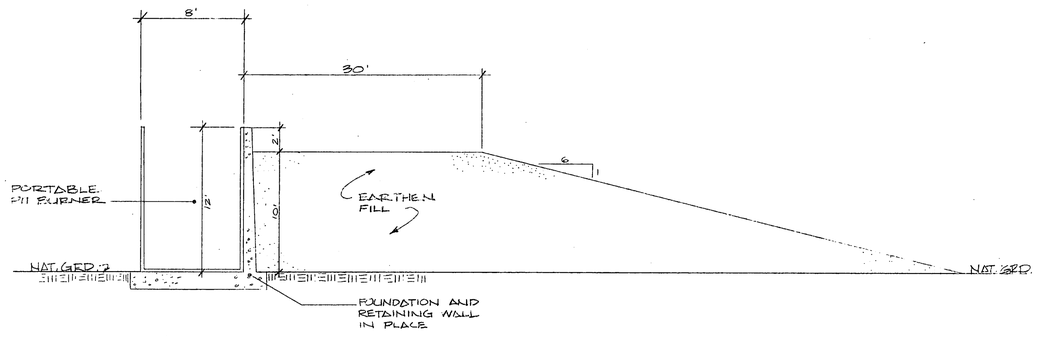
SECTION A-A



SECTION C-C
N.T.S.



SECTION D-D
N.T.S.



SECTION B-B

WATER QUALITY CALCULATIONS

RUNOFF = 7.2 ac × 43,560 = 313,632
313,632 × (½") 0.0417 = 13,078 CF

STORAGE = 20 SF × 744 LF = 14,880 CF

D. E. R.
APR 12 1989
SOUTHWEST DISTRICT TAMPA

H. L. BENNETT CERTIFICATE NO. 32534 STATE OF FLORIDA REGISTERED ENGINEER
H. L. Bennett # 32534
4/10/89

NOTE. SITE PLAN BASED ON INFORMATION PROVIDED BY OTHERS.

REVISIONS			
No.	By	Description	Date

AIM ENGINEERING & SURVEYING
331 So. Sixth Ave. (U. S. Hwy. 17)
P. O. Box 1657
Wauchula, FL. 33873
Phone: (813) 773-5931
(813) 773-6870

CLASS III LANDFILL (YARD TRASH) HARDEE COUNTY

DATE: 6-16-88	SCALE: AS SHOWN
DRAWN BY: [illegible]	CHECKED BY: E.D.L.
FIELD BOOK:	SEC. – TWP. – RGE.
PAGE:	
JOB NO.: 126-137-87	SHEET NO.: 1 OF 1

(3)

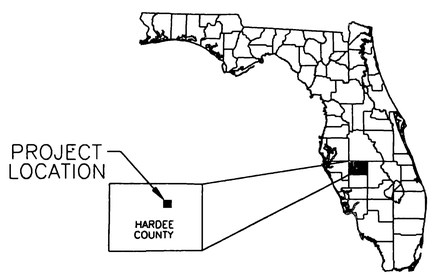
HARDEE COUNTY REGIONAL LANDFILL OPERATIONS PERMIT RENEWAL

PREPARED FOR

BOARD OF COUNTY COMMISSIONERS
HARDEE COUNTY, FLORIDA

MARCH 1997

LOCATION MAP



HARDEE COUNTY 19 21 FLORIDA

DRAWING INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	AERIAL
3	SITE PLAN
4	GAS MANAGEMENT SYSTEM AND MISCELLANEOUS DETAILS

PREPARED BY

PBSJ

POST, BUCKLEY, SCHUH & JERNIGAN INC.

ENGINEERING - PLANNING - ARCHITECTURE

L:\ENVCADD\WASTEMAN\HARDEE\PERMIT\HARCOVER.DWG
Mar 20, 1997 - 3:46pm
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Revised FILE

THOMAS EDWARD WILTON CERTIFICATE No. 46916 STATE OF FLORIDA REGISTERED ENGINEER

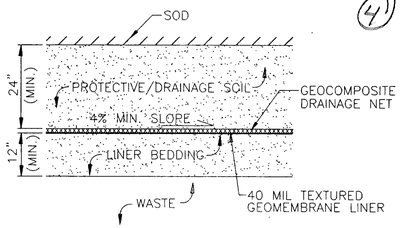
Charles

barb wire fence
GP-3
GP-2
GP-1
PROPOSED GAS PROBE 3/4
EXISTING SWALES
dirt road
MH #4
INV. 80.60
8" CSPE AT 0.2%
MH #3
INV. 79.12
110
121
129
133
137
140
GV-1
GV-2
GV-3
GV-4
GV-5
GV-6
GV-7
GV-8
GP-4
GP-5
GP-6
MH #5
INV. 78.20
PROPOSED PASSIVE GAS VENT 2/4
MH #2
INV. 77.32
EXISTING STORMWATER POND
top of bank
ELEV OF OUTFLOW STRUCTURE=82.03'
INVERT ELEV=85.53
INVERT ELEV=85.12
INVERT ELEV=80.86'
INVERT ELEV=80.78'
24" CMP
15" CMP
EXISTING SWALE
barb wire fence
INVERT ELEV=84.69
INVERT ELEV=83.84
EXISTING SWALES
EXISTING TOP OF SWALE (APPROXIMATE EL. 84.28)
EXISTING SWALE
PROPOSED CULVERT
MH #6
INV. 78.40
PROPOSED HIGHPOINT (SEE NOTE 1)
PROPOSED BERM
87
top of bank/toe of berm
EDGE OF BERM
8" PVC OUTFALL LINE
EXISTING DEWATERING DITCH
8" PVC OUTFALL LINE
MH #1
INV. 77.41
top of bank

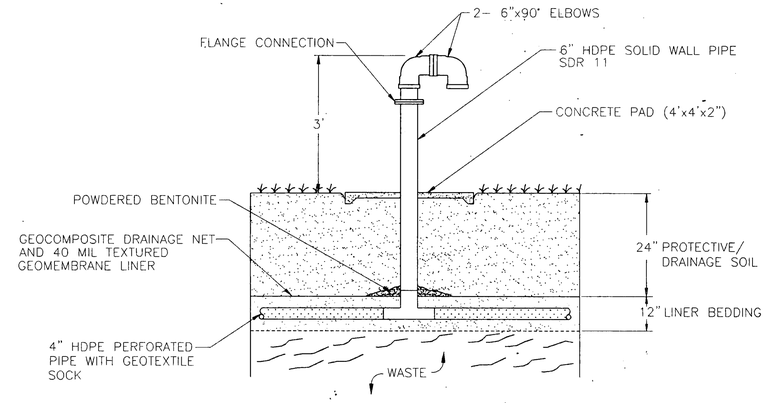
N O R T H

50' 25' 0 50'
GRAPHIC SCALE
SCALE: 1" = 50'

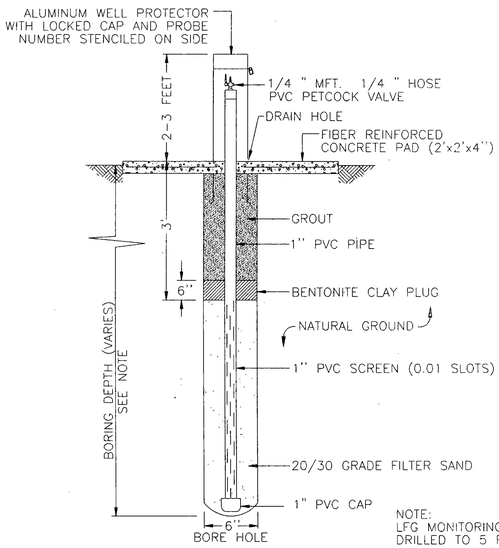
LEGEND:
- GV-1 PROPOSED PASSIVE GAS VENT
- PROPOSED HORIZONTAL GAS PIPELINE
- GP-1 PROPOSED GAS PROBE
- FINAL DESIGN CONTOURS
- EXISTING CONTOURS
- EXISTING ACCESS ROADS
- EXISTING FENCE



PROPOSED CLOSURE LINER SYSTEM 1/4
N.T.S.



PROPOSED PASSIVE GAS VENT 2/4
N.T.S.



NOTE:
LFG MONITORING WELLS TO BE DRILLED TO 5 FEET BELOW THE SURFACE OF THE GROUNDWATER TABLE.

PROPOSED GAS PROBE 3/4
N.T.S.

POST, BUCKLEY, SCHUH & JERNIGAN, INC.

CLIENT: HARDEE COUNTY BOARD OF COUNTY COMMISSIONERS
PROJECT: HARDEE COUNTY REGIONAL LANDFILL CLASS I LANDFILL
TASK: GAS MANAGEMENT SYSTEM AND MISCELLANEOUS DETAILS

ORIGINAL JAN. 1996
REVISIONS: 1 2 3 4 5 6 7 8 9 10 11 12

CHARLES EDWARD NELSON CERTIFICATE No. 46910 STATE OF FLORIDA REGISTERED ENGINEER

JOB NO. 07-862.31
DRAWN MM
DESIGN MM
CHECKED REM
Q.C. SBL
SHEET 4/4

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