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March 20, 2001

HAI #99-331.01
Phase I

Via Certified Mail
Certified Number 7000 1670 0000 3796 1472

Mr. Kim Ford, P.E.
Solid Waste Section
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Subject: **Request for Additional Information, dated January 10, 2001**
Sid Larkin & Son, Inc.
Enterprise Recycling and Disposal Facility, Class III Landfill
Pasco County, Florida
Pending Permit Numbers 177982-001-SC and 177982-002-SO

Dear Mr. Ford:

On behalf of Sid Larkin & Son, Inc. (SLS), Hartman & Associates, Inc. (HAI) is submitting for your review, responses to your request for additional information, dated January 10, 2001, for the above referenced facility based on our February 7, 2001 meeting. Your comments are stated first with our responses following.

Drilling efforts for the requested borings took approximately two (2) weeks longer than expected. HAI is requesting an additional two (2) week extension for responses to the hydrogeological comments related to the borings. We expect the FDEP to receive the responses by April 3, 2001.

Comments from Kim Ford:

Comment 1. Application Form 62-701.900(1), Part B – 8., 21., 22., 24., 25., and Part T. Clarification is needed for types of waste and sources of waste, type of liner, leachate collection, treatment and disposal. The applicant has not adequately demonstrated that no significant threat will result from Class III exemptions. Is the applicant an individual or business? If a business then it must be a corporation registered in the State of Florida.

Response: The application form has been revised to clarify the above concerns. The applicant is a business, Sid Larkin & Son, Inc., and is a corporation registered in the State of Florida. Please see the revised application pages. We are requesting an exemption from the liner and leachate collection requirements in accordance with 62-701.340(3)(d), FAC. Additional borings performed at the FDEP's request confirm the existence of a sandy clay/clay confining unit across the site. Additionally, quality assurance measures, as described in Section 3.15 of the Engineering Report, will be taken prior to construction completion of each cell. Finally, to help control the types of wastes entering the facility, Enterprise Recycling and Disposal Facility will use a video camera and a trained spotter at the gatehouse and will perform at least one (1) random load check per day. Therefore, we believe no significant threat will result from Class III exemptions at this facility.

Comment 2. 62-701.300(2)(b), (c), (g) and (8). An explanation to confirm that each of the prohibitions will not be violated for unimpeded discharge, distances to wells, stormwater pond design for "non-discharge", and special waste disposal, signed and sealed by a professional engineer.

Response: An explanation to confirm that the prohibitions will not be violated is provided in Section 3.2.1 of the Engineering Report. Please see the revised Site Plan, Figure 3-6, for verification of the 500-foot setback from potable wells. The permanent stormwater pond design will be revised to retain the 100-year storm event. HAI will send a copy of the modification request to the solid waste section.

Comment 3. 62-701.320(7)(f)5, and 62-701.330(4)(c) and (d). Site plans including boundary survey (to match legal descriptions), locations of wells and soil borings, grades to drain disposal areas, cross-sections of lifts, fencing, details of equipment, fueling and lubricant storage facilities. Cross-sections are requested north-south and east-west through each cell showing all lifts.

Response: Please see revised Site Plan, Figure 3-6 and the cross sections, Figures 3-24, 3-25, 3-26, and 3-27, of sequences 1 and 2, including lifts.

Comment 4. 62-701.400(3)(f)3. Procedures for testing in-situ soils.

Response: We do not recognize the applicability of this section of the rule (referring to testing of natural soil liners for a lined landfill) to the subject site. However, we have revised the Certification Section 3.15 of the Engineering Report to include testing of in-situ soils.

Comment 5. 62-701.400(9). Stormwater Management System permit.

Response: HAI has received a stormwater permit from the FDEP Tampa office for the current design, see enclosed copy. A modification to the stormwater management system permit will provide for retention of the 100-year storm event. This modification will be submitted in the next 30 days.

Comment 6. 62-701.400(10). The gas probe detail Figure 3-14 should be revised for at least 6" of separation between the bentonite and screen, and for clarification of slot size for screen.

Response: Please see the revised Figure 3-14.

Comment 7. 62-701.410(2). Additional information is needed to verify a continuous confining unit. Conclusions and recommendations are needed for each cell (disposal area). Additional soil borings are requested to confirm the presence of clay over limerock for each cell, with locations to be proposed to the Department prior to drilling, and a list of all special construction procedures, related professional monitoring and certifications of completion for each special site development activity. Site plans should include recommendations for preparation of each disposal area prior to acceptance of waste and any other recommendations to ensure site stability.

Response: An additional (15) borings were recently conducted by a mining company, Angelo's Aggregate Materials Inc., on the landfill site, see revised Figure 4 for locations. These borings further confirm the presence of the clay layer over limerock at the site (the raw logs, of Angelo's Geologist are attached). An additional 6 proposed borings across the site shown on Figure 4, also all confirmed the presence of a clay over limerock for each cell (full response to be submitted by April 3, 2001).

We have revised the certificate of construction, Section 3.15, of the Engineering Report to recognize observation of the in-situ clays at the base of the landfill and the testing of landfill soils to ensure stability, see Section 3.15. Notes have also been added to the Site Plan, Figure 3-6 referring to cell preparation and certification prior to waste acceptance.

Comment 8. 62-701.410(1) and .510. A response to each of Mr. John Morris's comments and concerns expressed in his January 10, 2001 memorandum, attached. You may call Mr. Morris to discuss items in his memorandum at (810) 744-6100, extension 336.

Response: Responses to most of the comments from John Morris will be included in our response by April 3, 2001.

Comment 9. 62-701.500. Operation plan including ... and recyclable materials. Clarification is requested regarding all procedures for recycling special wastes such as wood, screened soils and waste tires; source of material for weekly cover, weekly cover must not be removed; procedures for operating and maintaining the stormwater system; timeframe for delivery of reserve equipment; site plan details to show all related access roads, and disposal areas and lifts with bottom slopes and elevations to eliminate ponding and promote drainage, approved for stormwater management; and two complete sets of plans with new or revised sheets, including cross-sections of lifts with elevations, top of clean debris and top of sand layer, with related notes for clarification, signed and sealed by a professional engineer. The location and design details of the secured storage area for fuels and other maintenance materials; a detailed training plan to demonstrate continuous compliance with this rule, including list and schedule of those courses to be attended for continuing training; and a detailed recycling plan to demonstrate compliance. Figures 3-13 through 3-22 include the sequence of filling and should be included as part of the operation plan.

Response: As stated in Section 5.7 of the Operations Plan, recyclable items such as wood and waste tires will be removed from the waste stream if there is a sufficient amount to justify separation by the spotters. Please see the revised section, which has been modified to address recycling of these particular items.

The source of material used for weekly cover is on-site soils, as stated in Section 9.0 of the Operations Plan. Weekly cover will not be removed.

Operation and maintenance of the stormwater system has been addressed through the FDEP stormwater permit application. A copy of the permit is enclosed. Operation and maintenance of the stormwater management system is addressed in Sections 6.6 and 6.7 of the Stormwater Management Plan in the permit application. Please see the revised Section 10.3 of the Operations Plan, which has been modified to include operation and maintenance of this system.

Section 17.0 of the Operations Plan states that arrangements will be made to provide alternate equipment within 24 hours following a breakdown.

The entrance road, maintenance/perimeter road and disposal areas for the facility are indicated on the Site Plan, Figure 3-6. The location of the working face and interior access roads will continually change over the life of the facility; therefore, the interior roads are not shown. Lifts and elevations are shown on the cross sections, Figures 3-24 through 3-27. A typical section of the internal access road, drainage swale and bottom slope for the landfill cells in shown on Figure 3-12, General Notes and Sections. The FDEP stormwater design will be revised to retain the 100-year storm event.

Section 17.1 of the Operations Plan states that the site will have a secured equipment fueling facility, installed and registered in accordance with Rule 62-761, F.A.C. All virgin lubricants will be stored within the maintenance building. Waste oil and antifreeze will be stored in a secured containment area.

A detailed Training Plan that complies with 62-701.320(14), F.A.C. and 62-701.500(1), F.A.C., is located in Section 15.1 of the Operations Plan. It has been revised to reference a list of FDEP approved training courses. The frequency of continuing education courses complies with 62-701.730(8), F.A.C.

Figures 3-17 through 3-22 have been added to the Operations Plan as Appendix E.

Comment 10. Application Form 62-701.900(1), Parts N, O, P. A separate closure and long-term care application and fee is required for closure (180 days before first partial closure), therefore a review of related items is not included at this time.

Response: Noted.

Comment 11. Part Q and 62-701.630. Cost estimates for closure and long-term care and proof of financial assurance. A response to Ms. Susan Pelz's January 4, 2001 letter (attached) is required. You may call Ms. Pelz to discuss her letter at (813) 744-6100, extension 386.

Response: Responses to comments from Susan Pelz have been previously addressed and the cost estimates recently approved.

Comment 12. List of any other permits required for the site.

Response: In addition to the FDEP Solid Waste permit, permits from FDEP stormwater and Pasco County are required. Both of these permits have been obtained

Comments from John Morris:

Comment 1. G.9.a – Gas Control System. It is indicated in Section 3.10.1 of the Engineering Report (HAI, November 2000) that although the landfill is not expected to generate significant amounts of methane or other toxic gases, a passive gas control system is proposed for the referenced landfill. Please note that Rule 62-701.400(10)(a), F.A.C., requires a gas monitoring and control system for landfills that receive biodegradable wastes, therefore gas monitoring and control are not considered to be optional activities.

Response: The proposal of the passive gas control system was not intended to be optional. The gas control system in the permit application is "proposed" until Department approval is obtained.

Comment 2. G.9.d. – Gas Monitoring Program (Rule 62-701.400(10)(c), F.A.C.)

a. It is indicated in Section 3.10.1.2 of the Engineering Report that the gas probes shall be equipped with a PVC ball valve to accommodate gas monitoring with a portable gas meter. Please modify this section of the Engineering Report and Section 10.1.1 of the Operations Plan (HAI, November 2000) to indicate that the valves will be maintained in the closed position between gas monitoring events, and that pre-purge gas measurements shall be recorded at each probe. In the event that positive gas measurements are recorded, both pre-purge and post-purge gas measurements shall be required. Please submit a revised Gas Monitoring Survey Form (Operations Plan, Appendix D) to allow pre-purge and post-purge gas measurements to be recorded as necessary.

Response: Please see the revised Section 3.10.1.2 of the Engineering Report, Section 10.1.1 of the Operations Plan, and the Gas Monitoring Survey Form.

b. Please note the requirement of Rule 62-701.400(10)(c)3., F.A.C. that the Department be notified within seven days of discovery that gas measurements exceed the lower explosive limit of landfill gases. Please submit modifications to Section 3.10.1.4 of the Engineering Report and Section 10.1.2 of the Operations Plan that include Department notification.

Response: Please see the revised Section 3.10.1.4 of the Engineering Report and Section 10.1.2 of the Operations Plan.

Comment 3. H.1.b – Rate and Direction of Groundwater Flow (Rule 62-701.410(1)(a)1, F.A.C.)

a. It is indicated in Section 5.2.2 of the Hydrogeological Investigation (HAI, November 2000) that groundwater flow in the surficial aquifer is generally from the west to the east across the site, and that a steeper hydraulic gradient is present along the western half of the site. It appears that the steeper hydraulic gradient at the western half has been based on the lack of groundwater at piezometer P-1 (bottom elevation of screen about 94.6 feet) during March 2000. Groundwater contours for the western half of the site shown on Figures 9, 10, and 11 for March, May, and October 2000, respectively, are inferred and do not represent actual measurement of groundwater. Please provide the locations of proposed supplemental borings and piezometers to determine the uppermost aquifer at the western half of the site, to describe the hydraulic gradient across the site, and to verify the direction of groundwater flow.

Response: Please see our April 3, 2001 response.

b. It is indicated in Section 5.2.2 of the Hydrogeological Investigation that the water levels presented on Figures 9, 10, and 11 represent the surficial aquifer. Review of the cross sections, boring logs and piezometer construction details appears to indicate the screen may be partially or entirely open to limestone deposits at some of the piezometers. It is unclear if piezometers P-5 and P-6 represent surficial and/or Floridan aquifer water levels, and it appears that piezometers P-8 and P-9 represent Floridan aquifer water levels. Please evaluate the construction of the piezometers, indicate what hydrogeologic unit is monitored at each piezometer, and revise the discussion of surficial aquifer water levels, as appropriate.

Response: Our discussion of groundwater flow in Section 5.2.2 will be revised accordingly, in our April 3, 2001 submittal.

c. Please provide a description of how the slug tests were conducted. Please also provide the raw data recorded for each of the slug tests.

Response: The slug tests were performed by adding and/or removing a PVC slug from the piezometers, and recording water level changes using a pressure transducer and a continuous data logger. The Bouwer-Rice method was used to calculate the hydraulic conductivity values from these tests. The raw data from the slug tests is provided on the enclosed disk.

d. The straight line solutions provided for several of the slug tests included in appendix 5-C of the Hydrogeological Investigation do not appear to correlate with early time data for residual head values. Please indicate why the solutions provided for the tests run at the following piezometers are considered to be valid: P-2 – slug out; P-3 – slug in, slug out; P-3a – slug in; P-7 – slug in, slug out.

Response: The original match lines were fitted to the entire data set. To provide solutions based on early time data the match lines were modified for tests in P-2 (slug out), P-3 (slug in and slug out), P-3a (slug in), and P-7 (slug out). The modified graphs and solutions are attached. The match line for P-7 (slug in) was not modified because the initial water table drop, within the first few seconds of the test, is most likely the result of water infiltrated the unsaturated sand pack and not representative of the actual soil hydraulic conductivity.

e. Please indicate why a slug-out test was not conducted at piezometer P-5.

Response: A slug out test was performed at P-5, but the recorded data was erroneous so the data was not analyzed. The data showed an initial rise in water level, for a couple of seconds, before returning to the normal water level. Because the test was performed using the slug out method, the water level should have shown an initial drop with a gradual increase in water level. The raw data for this test is provided on the attached disk.

f. Please indicate why a geometric mean of the slug test results was used to obtain an average value for horizontal hydraulic conductivity.

Response: We typically use the geometric mean method to derive a better average between hydraulic conductivity test values that can often vary by orders of magnitude. However, the slug test values, except for P-3A, where fairly consistent, and thus the arimetic average of 1.69 ft/day would also be a good characterization in this case, but not significantly different from the geometric mean at 1.16 ft/day.

g. It is indicated in Section 5.2.2 of the Hydrogeologic Investigation that the horizontal hydraulic conductivity values obtained from the slug tests ranged from 1.03 to 2.62 ft/day, however, the values presented in Table 5-2 range from 0.25 to 2.62 ft/day. Please indicate if it was intended to exclude the results for piezometer P-3a in averaging horizontal hydraulic conductivity values, and revise as appropriate.

Response: Yes, the slug test at piezometer P-3A was intentionally excluded from the horizontal hydraulic conductivity value for the surficial since P-3A is screened within the clay confining layer and is not characteristic of the primary flow zone of the surficial aquifer. This is supported by it's order of magnitude lower K_H value of 0.25 ft/day.

h. As indicated in comment No. 3.b., it is unclear if all the piezometers are representative of the surficial aquifer. Please evaluate the locations where slug tests were conducted and indicate what aquifer is represented at each location.

Response: All slug tests were conducted on the surficial aquifer, except possibly the test at P-8, which is just at the top of the limerock, a silty limestone, only slightly more permeable that the shallower sediments at 2.62 ft/day.

i. In the absence of site-specific effective porosity values, it is considered more conservative to use a range of values in reference literature for sandy soils. Typical porosity values for sandy soils range from 25 to 40 percent (Groundwater and Wells) to 25 to 50 percent (Freeze and Cherry). Please use a range of porosity values that is considered to be representative of native soils and revise the groundwater flow velocity calculations as appropriate.

Response: A range of effective porosity for the surficial will be used to recalculate groundwater flow velocity, in our April 3, 2001 submittal.

j. The groundwater velocity calculations provided in Section 5.2.2 of the Hydrogeological Investigation will be reviewed when responses to comment Nos. 3.a. through 3.1. are received.

Response: Acknowledged.

Comment 4. H.1.c. – Background Water Quality (Rule 62-701.410(1)(a)2., F.A.C.) It is indicated in Section 5.2.2 of the Hydrogeological Investigation that the surficial aquifer provides generally good water quality while Section 3.2 of the Geotechnical Report indicates the surficial aquifer is non-potable. Please discuss this apparent inconsistency.

Response: The Geotechnical Report statement "considered not potable" is a general statement referring to the lack of sufficient quantity of groundwater in the surficial to be of potable benefit. It does not refer to water quality as does our statement in Section 5.2.2, see enclosed letter from Universal Engineering Sciences.

Comment 5. H.1.e. Site Statigraphy (Rule 62-701.410(1)(a)4., F.A.C.)

a. It is indicated in Section 5.1.4 of the Hydrogeological Investigation that site lithology was determined by the ten SPT borings and six auger borings completed at the site. Please provide boring logs and elevation data for the auger borings.

Response: The boring logs for the six auger borings were provided in Appendix 5-A, (cross-section of borings L-12 through L-17.). The estimated elevation of these borings is shown on the cross-sections.

b. Please describe the inconsistencies between the boring logs provided in the Geotechnical Report (Appendix B) and those provided in the Hydrogeological Investigation (Appendix 5-A) for boring Nos. B-1 through B-10. Please also provide the location of boring No. B-3A that is provided in the Geotechnical Report.

Response: Basically, the variations in the Geotechnical Report (UES) logs for B-1 through B-10 and our Hydrogeological Investigation (HAI) are based on differences in professional interpretaion of the samples. HAI's boring logs in Appendix 5-A are based on a Professional Geologist's interpretation of the boring log samples in the field and in our laboratory and are thus considered the official, or certified, logs for this project. The Geotechnical report logs are an Engineer's interpretation for determining soil stability and not geology; therefore, these logs are provided for geotechnical information only and should not be considered to represent site geology.

c. It appears that the discussion of site lithology provided in Section 5.1.4 of the Hydrogeological Investigation as reflected in the geologic cross sections (Figures 5 and 6) combined all the clayey sediments (clayey sand, sandy clay, clay) that occurred directly above the uppermost limestone deposits into a singular clay unit. This designation obscures the extensive clayey sand sediments that occurred at several boring locations (B-2, B-3, B-5, B-7, B-8, B-9, and B-10). Please revise the geologic cross sections to distinguish between clayey sand and sandy clay/clay sediments and Section 5.1.4 to reflect this requested change. Pending evaluation of the response provided to comment No. 5.b., the Department will use the boring logs provided in the Geotechnical Report as the basis for evaluating the cross sections.

Response: We will revise Figures 5 and 6 of Section 5 to distinguish clayey sand from sandy clay/clay sediments in our April 3, 2001 submittal.

HAI's Professional Geologists of record observed the drilling, prepared the logs, and prepared the Hydrogeological Investigation, that under FAC 62-701.410(1)(a) – "defines the landfill site geology". The Geotechnical Report defines soil engineering properties and not geological properties. HAI's logs and cross-sections in Section 5 are the representation of the site's geology.

d. Please provide supplemental geologic cross-sections oriented north to south to characterize lithology in the central and western portions of the site.

Response: The requested geological cross-sections will be provided in our April 3, 2001 submittal.

e. Please add the piezometers installed at the site on the cross sections described in comment Nos. 5.c. and 5.d., including the screened intervals of each piezometer.

Response: The piezometers will be added to all cross-sections as described above.

Comment 6. H.1.g/H/1/i – Inventory of Public and Private Wells (Rule 62-701.410(1)(b), F.A.C. The data provided in Section 5.2.5 of the Hydrogeological Investigation and on Figure 4-3 (Appendix 5-3) are noted. Please also note that compliance with Rule 62-701.300(2)(c), F.A.C., prohibits waste disposal within 500 feet of an existing or approved potable well. However, Figure 3-6, (Sheet C-1) of the Engineering Report references the distance between the three nearby residences and the disposal area. Please ascertain the location of the potable wells at the three residences and revise the site plan as appropriate.

Response: Please see the revised Site Plan, Figure 3-6, which has been modified to include the locations of the potable wells. These wells were located by our field survey for private potable wells. These wells were initially excluded in the plan because Pasco County requires a 500-foot setback from residences, which are closer to the site than the wells.

Comment 7. I.1.b. – Lineaments (Rule 62-701.410(2)(b), F.A.C.) Please discuss the differences between the lineament maps referenced in Section 3.4 of the Geotechnical Report (Appendix A) and Section 5.1.7 of the Hydrogeological Investigation (Figure 1).

Response: HAI disagrees with the inclusion of the two depressional features south of the site as a significant linement feature, since it does not even meet the definition of a fourth – order photo linear feature. Therefore, HAI's hydrogeological report, Figure 1 did not include the linement drawn on the Geotechnical Report Figure, Appendix A, see UES's letter enclosed.

Comment 8. L.1.c – Groundwater Monitoring (Rule 62-701.510(3), F.A.C.)

a. The appropriateness of the proposed locations of the background and downgradient wells in the surficial aquifer that are provided in Section 5.3.1 of the Hydrogeological Investigation will be reviewed when responses to comment Nos. 3.a. and 3.b. are received.

Response: Acknowledged. The locations of our proposed monitor wells may be revised based on further water level measurements, see our April 3, 2001 submittal.

b. It is indicated in Section 5.3.1 of the Hydrogeological Investigation that the Pasco County permit requires the installation one background well and two downgradient wells in the Floridan aquifer. Please note that with a north-northwest direction of flow in the Florida aquifer (Section 5.2.4 of the Hydrogeological Investigation) it appears that well MW-1B is downgradient of proposed disposal areas, and wells MW-5B and MW-8B are upgradient of proposed disposal areas.

Response: The site-specific flow direction of the Floridan aquifer may be re-evaluated based on further water levels from the deeper piezometers. It may turn out that the "regional" flow to the N-NW will preside, and that the monitor well's designations are reversed, see our April 3, 2001 submittal.

c. It is unclear if the piezometers installed at the site represent the surficial and/or Floridan aquifers. The appropriateness of the proposed surficial aquifer monitor well construction details provided in Section 5.3.2 and Figure 16 of the Hydrogeological Investigation will be reviewed when responses to comment Nos. 3.a.and 3.b. are received. Please note, the requirements of Rule 62-701.510(3)(d)4. F.A.C., that well screens shall be placed within the saturated thickness of the uppermost aquifer and that well screens shall not act as conduits through confining layers. Please describe the hydrogeologic zone (based on soil boring or cross section data) to be monitored for each proposed surficial aquifer monitor well location.

Response: This comment will be responded to following the proposed additional boring and piezometer installations, in our April 3, 2001 submittal.

d. Please provide the technical justification for 20 feet of well screen that is proposed for the surficial aquifer wells. For informational purposes it is noted that the Department typically does not approve surficial aquifer wells with more than 15 feet of screen to assure that the uppermost water-bearing unit is monitored.

Response: Our technical justification for 20-foot well screens was provided in Section 5.3.2.2 of the Hydrogeologic Report. Specifically, the historical water levels from the adjacent PASCO County landfill have shown a 10 to 15 foot water table, or surficial aquifer, water level fluctuation from 1993 through 1999, see Appendix 5-D. Therefore, 20-foot screens will insure that the wells do not dry out in drought periods and still intersect the water table in wet periods.

e. Please provide the technical justification for 20 feet of well screen that is proposed for the Floridan aquifer wells. For informational purposes it is noted that the Department typically does not approve Floridan aquifer wells with more than 10 feet of screen to assure that a discrete unit is monitored.

Response: The 20-foot screen length has been approved in other Districts; however, we will revise the Floridan well screens to a 10-foot screen.

f. Please revise Section 5.3.2.2 of the Hydrogeological Investigation to indicate how the proposed surficial aquifer monitor wells shall be developed.

Response: Section 5.3.2.2 will be revised to describe monitor well development using a submersible pump and possibly air-lifting for the Floridan wells, see April 3, 2001 submittal.

Comment 9. L.1.f. – Routine Sampling Frequency (Rule 62-701.510(6), F.A.C.)

a. Please note the requirements of Rules 62-701.510(6)(a)1 and (6)(a)2, F.A.C., that an initial sampling event shall be conducted at all wells for analysis of the parameters listed in Rule 62-701.519(8)(a) and (8)(d), F.A.C. Please revise Section 5.4.2 of the Hydrogeological Investigation accordingly.

Response: Please see the revised Section 5.4.2 of the Hydrogeological Investigation in April 3, 2001 submittal.

b. Please note that the frequency of routine groundwater sampling shall be determined on the basis of the site-specific groundwater velocity in the uppermost aquifer. It is noted that Rule 62-701.510(1)(c), F.A.C., indicates that the semi-annual sampling frequency that is presented in Rule 62-701.510(1)(a)2, F.A.C., represents the minimum standard for water quality monitoring. It is also noted that 62-

701.510(6)(c), F.A.C., requires lined landfills to be monitored at least semi-annually. Given the construction of the proposed landfill without a constructed liner and without leachate collection, routine groundwater sample collection provides the only method to determine potential releases to the environment. The appropriateness of the proposed semi-annual groundwater sampling frequency for parameters listed in Rule 62-701.519(8)(a), F.A.C., that is provided in Sections 5.2.2 and 5.4.3 of the Hydrogeological Investigation will be reviewed when responses to comment Nos. 3.a. through 3.j. are received.

Response: Noted.

c. Please note that the demonstration required by Rule 62-701.510(6), F.A.C., to support a request to delete specified parameters from routine monitoring (Hydrogeological Investigation, Section 5.4.3) is typically addressed by the nature and composition of the leachate generated at the site. It is unlikely that such a reduction would be approved during site operation without having the analytical results of leachate samples collected at the site to document potential releases to the environment.

Response: Noted.

Comment 10. L.1.h – Water Quality Monitoring Reports (Rule 62-701.510(9), F.A.C.) Please revise Section 5.4.5 of the Hydrogeological Investigation to reference the submittal of technical reports at two year intervals to comply with the requirements of Rule 62-701.510(9)(b), F.A.C.

Response: Please see the revised Section 5.4.5 of the Hydrogeological Investigation in our April 3, 2001 submittal.

Comments from Susan Pelz:

Comments from Ms. Pelz are being addressed in our January – 2001 submittal, separately.

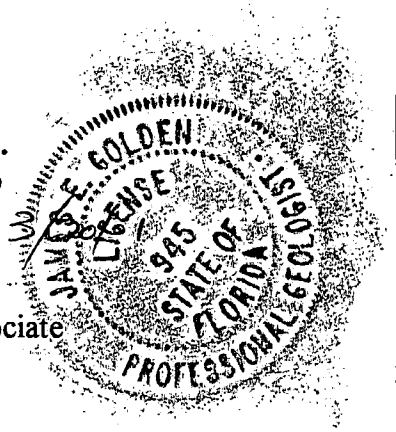
We trust that these revisions will satisfy the Department's concerns and together with our April 3, 2001 submittal will allow for the approval of the applicable construction and operation permits for the facility. Please call us if you have any questions regarding this submittal.

Very truly yours,

Hartman &Associates, Inc.

Jennifer L. Deal, E.I.
Engineer III

James E. Golden, P.G.
Senior Hydrogeologist/Associate



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Attachments

Addressee (2)
cc: Robert Butera, P.E., FDEP Tampa
Jon Larkin, SLS

ATTACHMENTS

ENTERPRISE RECYCLING AND DISPOSAL FACILITY
CLASS III LANDFILL PERMIT APPLICATION

LIST OF ATTACHMENTS

ENTERPRISE RECYCLING AND DISPOSAL FACILITY
CLASS III LANDFILL PERMIT APPLICATION

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FIGURES - SECTION 3

B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned by this application:

The proposed facility will be a Class I Mine that will be reclaimed as a Class III landfill.

2. Facility site supervisor: To be designated upon permit approval.

Title: To be provided Telephone: ( )To be provided

3. Disposal area: Total 160 acres; Used 0 acres; Available 111 acres

4. Weighing scales used: Yes [X] No [ ]

5. Security to prevent unauthorized use: Yes [X] No [ ]

6. Charge for waste received: 9.50 $/yds^3 _____ $/ton

7. Surrounding land use, zoning:

Residential	[ ]	Industrial	[ ]
Agricultural	[X]	None	[ ]
Commercial	[ ]	Other	[ ] _____

8. Types of waste received:

Residential	[ ]	C & D debris	[ ]
Commercial	[X]	Shredded/cut tires	[ ]
Incinerator / WTE ash	[ ]	Yard trash	[ ]
Treated biohazardous	[ ]	Septic tank	[ ]
Water treatment sludge	[ ]	Industrial	[ ]
Air treatment sludge	[ ]	Industrial sludge	[ ]
Agricultural	[ ]	Domestic sludge	[ ]
Asbestos	[ ]		
Other	[X]	Class III wastes, as defined in Chapter 62-701.340 (3)d), FAC	

9. Salvaging permitted: Yes [ ] No [X]

10. Attendant: Yes [X] No [ ] Trained operator: Yes [X] No [ ]

11. Spotters: Yes [X] No [ ] Number of spotters used: Minimum of 1

12. Site located in: Floodplain [ ] Wetlands [ ] Other [X] Above 100-yr floodplain

13. Property recorded as a Disposal Site in County Land Records: Yes [ ] No [X]

14. Days of operation: Monday through Friday; Saturday

15. Hours of operation: 7:00 a.m. to 6:00 p.m.; 7:00 a.m. to 2:00 p.m.

16. Days Working Face covered: Once per week

17. Elevation of water table: 61 TO 85 Ft. NGVD

18. Number of monitoring wells: Two upgradient, 14 downgradient

19. Number of surface monitoring points: None

20. Gas controls used: Yes [X] No [ ] Type controls: Active [ ] Passive[X]

Gas flaring: Yes [ ] No [X] Gas recovery: Yes [ ] No [X]

21. Landfill Unit - liner type: NA*

Natural soils	[ ]	Double geomembrane	[ ]
Single clay liner	[ ]	Geomembrane & composite	[ ]
Single geomembrane	[ ]	Double composite	[ ]
single composite	[ ]	None	[X]
Slurry wall	[ ]		
Other			

22. Leachate collection method:

Collection pipes	[ ]	Sand layer	[ ]
Geonets	[ ]	Gravel layer	[ ]
Well points	[ ]	Interceptor trench	[ ]
Perimeter ditch	[ ]	None	[X]
Other	[ ]		

23. Leachate storage method: NA

Tanks	[ ]	Surface impoundments	[ ]
Other	[ ]		

24. Leachate treatment method: NA

oxidation	[ ]	Chemical treatment	[ ]
Secondary	[ ]	Settling	[ ]
Advanced	[ ]	None	[X]
Other	[ ]		

25. Leachate disposal method: NA

Recirculated	[ ]	Pumped to WWTP	[ ]
Transported to WWTP	[ ]	Discharged to surface water	[ ]
Injection well	[ ]	Evaporation (ie: Perc Pond)	[ ]
Other	[ ]		

26. For leachate discharged to surface waters:

Name and Class of receiving water: NA

27. Storm Water:

Collected: Yes [X] No [ ] Type of treatment Retention

Name and Class of receiving water: Onsite stormwater ponds

28. Management and Storage of Surface Waters (MSSW) Permit number or status:

Permit #51-0172489-001 issued on 2/22/01

*Requesting liner exemption based on waste type controls and natural confining layer.

ENGINEERING REPORT

PREPARED FOR

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P.O. BOX 1747
DADE CITY, FL 33526

PREPARED BY

HARTMAN & ASSOCIATES, INC.
201 EAST PINE STREET, SUITE 1000
ORLANDO, FL 32801

REDUCED COPY

Roderick K. Cashe, P.E.
Fl. Reg. No. 45,169
Date: 3/20/01

RODERICK KENNETH CASHE * CERTIFICATE No. 045169 * STATE OF FLORIDA * PROFESSIONAL ENGINEER

James E. Golden, P.G.
Fl. Reg. No. 945
Date: 3/19/01

JAMES E. GOLDEN * LICENSE No. 945 * STATE OF FLORIDA * PROFESSIONAL GEOLOGIST

HAI #99-331.01
REVISED MARCH 2001

USDA soil type 72 - Orlando fine sands are found in a small area in the northeast portion of the property. These soils are nearly level to gently sloping and well drained. The water table is typically at a depth greater than 72 inches with permeability of the soil rapid throughout. The available water capacity is low in the surface layer and very low in the other layers.

3.6 LANDFILL SITE IMPROVEMENTS

The 160-acre proposed landfill site is currently being operated as orange groves and improved pastures. The following site improvements will be installed to meet landfill operational requirements.

3.6.1 Entrance Facilities

An office trailer (gatehouse) will be located onsite for the gate attendant. This trailer will have hand washing and toilet facilities. The trailer will be served via the on-site non-potable water supply well. Bottled water will be used for drinking water. Electric and telephone services will also be available to the trailer office. Proposed site entrance improvements also include an all-weather entrance roadway, scales and perimeter road as shown on the Site Plan provided as Figure 3-6. (C-1).

3.6.2 Roads

The primary haul route to reach the proposed Enterprise Recycling and Disposal Facility (RDF) entrance is from Clinton Avenue east across C.R.35A to east on Enterprise Road to the entrance. A secondary haul route would be from C.R.35A to Enterprise Road east to the Enterprise facility.

We plan to improve Enterprise Road to an all-weather access roadway from C.R.35A to the entrance of what will be the active portion of the proposed landfill. Enterprise RDF will maintain this access road to provide adequate access.

Access roads to the working face will be constructed from on-site soils and/or recovered materials such as concrete and asphalt. This will be done on an as needed basis.

Fill cells 1, 2, 3, & 4 one 10' lift (120').
Begin to close sides of 1, 2, 3 to 120'.

Sequence 3 Fill cells 9 & 10 one 15' lift and two 10' lifts (120').
Fill cell 11 one 15' lift and two 10' lifts (110').
Fill cells 6 & 7 one 10' lift (120').
Begin to close sides of 6, 9, 10 to 120'.

Sequence 4 Fill cell 12 one 15' lift and two 10' lifts (110').
Fill cells 13 & 14 three 10' lifts (110').
Fill cells 15 & 16 two 10' lifts (100').

Sequence 5 Fill cells 8, 5, 15, & 16 one 10' lift (110').
Fill cells 15, 16, 11, 12, 8, 13, 5 & 14 one 10' lift (120').
Fill cells 16 south to 2, then west to 130'.
Begin to close outer cells to 130'.

Sequence 6 Fill cells 12 south to 9, then east two 10' lifts (150').
Begin to close outer cells to 150'.

Sequence 7 Fill cells 16 south to 2, then west to final elevation – 3 feet.
Complete final closure of landfill.

Lift height includes cover material. Due to the landfill bottom elevation, some lifts may not be a full 10 feet in height.

As each sequence is active, the following procedures will be followed.

- The access road to the working face will be constructed and graded as necessary.
- Waste will be compacted as it is placed. General lift height will be 10 feet and will come within three (3) feet of the final elevation to provide for final cover.
- The working face will remain approximately 100 feet in length.

- Weekly cover of six (6) inches of soil will be placed on the working face.

- Intermediate cover of 12 inches of soil will be placed in areas that will not receive waste within 180 days. The cover may be removed immediately prior to placement of new waste.

- Stormwater will be diverted to the onsite temporary storage pond until the latter part of sequence four (4) when cells 15 & 16 begin to accept waste.

3.8.1 Vertical Expansion

The landfill is proposed to be completed from 125 to 170 feet NGVD. The final grading plan is shown on Figure 3-10 (C-5). The finished grade will extend the existing hill eastward. The interior temporary side slopes will be no greater than a 6H:1V slope and a series of swales and other stormwater conveyance will be used to prevent side slope erosion, see Section 6.

The top (30H:1V) and side slope (4H:1V) designs provide for proper drainage and minimize rainfall infiltration into the landfill surface.

3.8.2 Erosion Control

The landfill's cell construction plan calls for the excavation of the existing sand mine at 6H:1V sidewall slopes of the pit to a 2H:1V slope for the outer cell boundaries prior to landfilling each cell. This slope can be safely maintained as supported by the Slope Stability Analysis, in the Geotechnical Report, Section 4.0. The 2H:1V excavation would not be initiated until the cell is ready to receive waste materials, and then the outer edge slope will first receive waste. This will minimize the time frame that a 2H:1V slope is exposed to the elements. The following engineering controls will be used to minimize erosion:

- Regrade a maximum of 100 linear feet of the outer edge slopes at a time to 2H:1V. The purpose of this recommendation is that a relatively small area will be subjected to surface erosion at any given time.

- Construct a berm along the top of the slope during the regrading to redirect any rainfall runoff away from the face of the slope. The area along the berm should be graded so as to allow rapid runoff along the top of the slope. Ponding of water near the top of the slope should not be allowed, since seepage through the slope may initiate slope erosion.

- As soon as possible following the regrading of the slope, begin to fill against the 2H:1V slope with the landfill material. As a minimum, the fill should be placed to a height of one-half the vertical height of the slope and at a 3H:1V slope or flatter.

- When the 100 linear feet of slope is backfilled with landfill material to one-half the vertical height of the slope, the same procedure can be followed for another 100 linear feet until the landfill is complete.

See Geotechnical Report, Section 4.0 for more details.

If blowing sand becomes a problem, silt fences will be installed at the top of the 2H:1V side slope along the temporary berm/ditch.

3.8.3 Life Expectancy

Adequate soil stocks will be maintained to provide the soil cover material for closure activities (approximately 800,000 cyds). The calculated volume of each of the proposed landfill cells and sequencing is presented on the attached Table 1 of this submittal. At the proposed waste disposal rate, based on similar landfill's quarterly reports to the County, the landfill will dispose of approximately 459,000 cyds per year of non-compacted Class III materials; which corresponds to approximately 270,000 cyds of compacted wastes (1.7:1 ratio) as placed in the landfill. This calculates to roughly two (2) lifts across a cell per year or a maximum of approximately two, 6-acre, 10-foot, lifts per year. If this rate continues, we estimate that the life of each cell is approximately 2 years. Sequences 1 and 2 will be permitted first for landfilling.

Therefore, based upon the calculated volume of landfill space available, the landfill has an estimated life expectancy of 30 years at projected disposal volumes and compaction rates.

3.9 WASTE COMPACTION AND APPLICATION OF COVER

Waste received shall be segregated based on compatibility. Bulky, incompressible items shall be separated and reduced as appropriate by the chipper/crusher and disposed of or recycled. The remaining debris is disposed of in designated "cells" using onsite equipment to place the debris and a Rex 370-C Compactor, or equivalent, to weekly compact the waste. Initial cover material is planned to be excavated from onsite areas and placed weekly in approximately 6-inch layers on the compacted lifts to control vectors, reduce rain infiltration and provide a more stable working face area. The amount of weekly cover material required for the design life of the landfill is estimated to be approximately 400,000 cyds. An intermediate cover of one (1) foot of compacted soil will be applied if final cover or an additional lift is not to be applied within 180 days of cell completion (see Figure C-1 for an illustration of the cell closure sequence and Figure C-3 for final cover design of the Class III landfill site). Those landfill cells within the eastern half of the landfill will be temporarily closed until a second tier of cells are filled on top to planned grade, see Sheet C-5.

A final cover of three (3) feet of compacted soil will be placed upon closed cells, see Closure Plan, Section 7. Cell closure shall conform to the grades and lines specified in the grading plan. The grading plan shall conform to the rules and regulation specified in 62-701.600, Florida Administrative Code. Pesticides when deemed necessary to control rodents, insects and other vectors shall be used as specified by the Florida Department of Agriculture and Consumer Services. Uncontrolled and unauthorized scavenging shall not be permitted at the landfill site. Controlled recycling may be permitted by the Site Manager responsible for the operation of the landfill facility. Temporary storage of soil fill or recycling materials may be required in the closed cell areas.

3.10 DESIGN OF GAS, LEACHATE AND STORMWATER CONTROLS

3.10.1 Gas Monitoring and Control

The type of material to be disposed in the Class III Landfill is not expected to generate significant amounts of methane or other toxic gases since the landfill's design prevents groundwater contact. Therefore, no active gas control systems or venting is proposed. However, because biodegradable waste will be accepted, a passive gas control system is proposed, see section 3.10.1.5. The Enterprise RDF site Manager will conduct daily surveys of the landfill for

objectionable odors or gas and notify the County of any positive detection and immediately take corrective actions. Quarterly gas point monitoring is also proposed. The facility only accepts Class III debris for disposal and accepts no putrescible household wastes. Surface water and groundwater contact with the Class III wastes will be prevented by the proposed facility design. Other best management practices to prevent odors include: 1) closure of each cell as it is completed; 2) weekly soil cover application; and, 3) immediate corrective actions to abate any detected onsite odors.

3.10.1.1 Proposed Gas Probe Locations

Specifically, we propose to locate gas monitoring points spaced approximately 600 linear feet apart surrounding the landfill. Figure 3-13 presents these proposed locations of the gas probes surrounding the landfill.

After reviewing the sites' geology and topographic maps for any high permeability or low areas that might accumulate methane, we found no significant low areas, nor any geologic heterogeneities that would cause us to locate gas probes at potential accumulation locations surrounding the landfill or at closer spacing than proposed. Therefore, we are proposing a total of 16 gas monitoring probes throughout the subject landfill site. The gas probes are to be placed no farther than 25 feet from the toe of the landfill.

3.10.1.2 Gas Probe Design

Attached Figure 3-14 presents our gas probe design for the subject landfill site. These gas probes are designed to be surface sealed and to provide a greater permeability than the surrounding sediments to act as collector points for any methane gas, if present. Based on the landfill design, we have designed all of the gas probes to each be typically 20-foot in depth with an 18-foot open screen for the monitoring point. This depth will allow the screened interval to intercept the full cross-section of the landfilled waste that could potentially generate methane.

The groundwater table is approximately at a 50-foot depth below land surface (bls) across most of the site, so these gas probes are not designed to intercept the groundwater table. The polyvinyl chloride plastic pipe (PVC), Schedule-40 was selected at the material of choice for these wells since it is basically inert to any attack from landfill gases and most other landfilled materials. The PVC casing and screen will be flush-threaded and have a screen slot size large enough to

accommodate easy methane extraction from the monitoring point. The sand/bentonite slurry proposed for a surface seal shall be a blend of 4 parts of sand to one part of granular bentonite. The sand and the bentonite shall be mixed dry and hydrated immediately prior to placing it in the annular space of the borehole. The gas probe points are proposed to be installed by hollow-stem auger to construct an eight-inch borehole to be filled with pea gravel. The pea gravel shall meet the requirements of FDOT standard size No. 10 aggregate washed pea gravel. Each gas probe will be protected by a surface mounted well protector and locked for security purposes. Each gas probe will terminate at the surface with a PVC ball valve to accommodate easy monitoring of methane levels, with a portable meter. The ball valve will remain closed between monitoring events and pre-purge measurements will be recorded. In the event of a positive gas measurement, the post-purge measurement will also be recorded.

3.10.1.3 Methane Gas Measurement

In accordance with the subject landfill closure permits, methane gas levels will be monitored at each of the 16 gas monitoring points quarterly and submitted to the FDEP for review. A portable explosimeter, or lower explosive limit (LEL) meter will be used to measure methane levels from each of the gas probes. LEL meters, such as the MSA Model 260 or GEM 500 or equivalent, will be used to conduct this monitoring. These meters are capable of measuring percent volume of methane in air and the percent LEL level of the methane by volume. The meter shall be calibrated in accordance with manufacturer's specifications prior to each methane monitoring event. Appendix D, Operations Plan, presents the proposed gas monitoring probe survey form to be used to conduct the quarterly monitoring at the subject site. This form will document at the time of each gas probe reading, air temperature in degrees Fahrenheit, methane levels in percent volume in air and percent LEL. The reporting action level for methane in air will be considered 5 percent by volume in air as measured by the lower explosive limit. The results of each quarterly gas probe survey will be submitted to the Department on the presented form within two weeks of each monitoring event. These events are planned to be coordinated with the semi-annual groundwater monitoring at the subject site.

3.10.1.4 Gas Contingency Plan

The following Contingency Plan will be implemented if any of the measured gas monitoring points methane levels are detected above the LEL of greater than 5 percent methane in air. If this level of methane or greater is detected in any of the probes, the Enterprise RDF operator will institute

measurement of methane in nearby structures, i.e., stormwater collection points, or any maintenance or office buildings nearby the subject gas probe until these levels go below the 5 percent LEL at the subject probe. The monitoring report for any event that detects methane above the LEL will also report methane levels from any nearby structures and may include monthly monitoring measurements at the high methane gas probe points until the levels go below the methane LEL level or until corrective actions are conducted to reduce methane levels. The FDEP will be notified within seven days of any gas monitoring levels that exceed the LEL.

3.10.1.5 Passive Gas Vents

Within 90 days of closure of each landfill cell, a passive landfill gas vent will be installed at the highest point of the cell to prevent explosions, fires and damages to vegetation from methane gas buildup. Figure 3-15 shows the proposed location of the 16 gas vents and Figure 3-16 presents the design of a typical vent. The facility's gas emissions are expected to be far below the threshold of a Title V or an NSPS permit.

3.10.2 Leachate Control

Liquid disposal will not be permitted at the proposed Class III Landfill site. No liner or leachate control system is proposed for the Enterprise RDF Class III landfill based on an existing natural clay layer underlying the landfill. Since the Facility proposes to accept only those wastes described in 62-701.340(3)(d), FAC, it is not expected to produce a leachate that would pose a threat to public health or the environment. The proposed strict method of controlling type of wastes disposed of also supports the leachate and liner exemption, see Operations Plan, 5.0. The resulting seepage primarily will consist of rainwater runoff flowing through the fill material. The intervening soils are expected to attenuate and retard any pollutants generated prior to reaching the groundwater. Therefore, no leachate containment system is proposed.

Based on well inventory information from the Southwest Florida Water Management District, shallow residential wells in the area have a depth ranging from 75 to 190 feet. Potable wells normally withdraw water from limestone in the Floridan aquifer.

A consistent confining layer above the limestone has been identified across the site, as described in detail in the Hydrogeological Report. Additionally, Floridan aquifer monitor wells will be

installed on the site to ensure early detection of any exceeded groundwater parameters in this aquifer.

3.10.3 Stormwater Controls

The proposed Stormwater Management Plan for the landfill consists of "swales" and pond facilities constructed within the 200-foot landscape buffer zone to collect and contain stormwater runoff from the completed site. These stormwater facilities are designated to retain the 100-year, 24-hour storm volume as required by Pasco County and the FDEP. In the interim, stormwater will be controlled mainly by percolation into the soil or by overland flow to the temporary stormwater pond to be located in the northeast corner of the site. The site's topography generally slopes downward to the northeast thus facilitating stormwater collection. Refer to Section 6 for details of the Stormwater Management Plan.

3.11 EROSION CONTROL

The site's inherent design as an excavation pit will prevent stormwater from leaving the property. Stabilization by seeding and mulching of the final fill areas will occur as the fill operations progress from cell to cell, see Reclamation and Closure Plan (Section 7) for further details.

3.12 FINAL GRADE PLAN

Final grade plan of the facility is shown on the plans (Figure 3-10 (C-5)) and in the cross-sections (Figures 3-8 (C-3) and 3-9 (C-4)). The mined areas will be certified to the proposed Landfills bottom grade prior to accepting any waste material. The finished elevation after all fill material has been placed and final cover provided is designed to reclaim excavated areas.

3.13 SETBACKS AND VISUAL BUFFERS

The following setbacks (buffers) from the boundary lines of the site shall be used:

1. Minimum of 200 feet from boundary lines to landfill footprint.

2. Minimum of 500 feet setback from surrounding residential wells to landfill footprint.

Buffer areas are to be improved to maintain visual screening of the landfill by the following methods.

1. 8-foot high berms along the frontage of Enterprise and Auton roads.

2. Landscaping to provide visual buffers within setback areas are shown on attached Figure 3-11 (C-6) and will be completed within 6 months of permit issuance, or sooner, and will be in compliance with the Pasco County LDC.

3. Trees shall be planted in the specified buffers as required by the Pasco County and as shown on Landscaping Plan, Figure 3-11 (C-6).

4. Existing trees within the setbacks will be maintained.

All trees shall be nursery grown and meet the grades and standards established by the Florida Department of Agriculture for FL #1 materials. Trees shall be sound, healthy, vigorous species free from defects and fully developed without voids and open spaces.

The planting of trees on the site shall conform to the following landscape requirements in accordance with the County LDC, see notes on Figure 3-11 (C-6).

Planting shall be inspected at the completion of the project. Final acceptance shall subject the project to compliance with specified material and installation requirements.

3.14 FOUNDATION ANALYSIS

A Geotechnical evaluation was conducted on the proposed landfill site to estimate if the base and geologic setting are capable of providing structural support. Universal Engineering Sciences, Inc. completed the Geotechnical Report included as Section 4. The report states that the landfill base will adequately support the proposed Class III landfill wastes without excessive settlement. It also states that the potential for sinkhole development on the site is low. Soil boring logs used to support the foundation analysis are also in Section 4, Appendix B.

3.15 CERTIFICATION

Laboratory testing and observation of cell floor conditions during cell construction completion shall consist of the following:

- Percent fines of the cell floor in accordance with ASTM-D1140 will be determined at a minimum frequency of three tests per cell.
- Hydraulic conductivity testing of Shelby tube or drive cylinder samples of the compacted cell floor material will be performed at a minimum frequency of one test per cell, or one test per differing lithology encountered.
- Observance for unstable areas such as limestone, sink holes and soft ground will be performed for each cell.

If the test data from a well floor section does not meet the requirements of the anticipated conditions of the hydrologeological and geotechnical reports, additional random samples may be tested from that cell section. If the additional testing demonstrates that the hydraulic conductivity meets the requirements, the cell will be considered acceptable. If not, that cell will be reworked or reconstructed so that it will meet these requirements.

Upon completion of construction of the proposed disposal facility, the Engineer of Record shall certify to the FDEP on form 62-701.900(2) that the approved construction is complete and in accordance with the submitted plans. The operator will provide the completed form to the FDEP and arrange for an inspection prior to acceptance of Class III wastes into the proposed disposal area.

3.16 OPERATIONS PLAN

The proposed landfill's Operations Plan is included as Appendix 3-A.

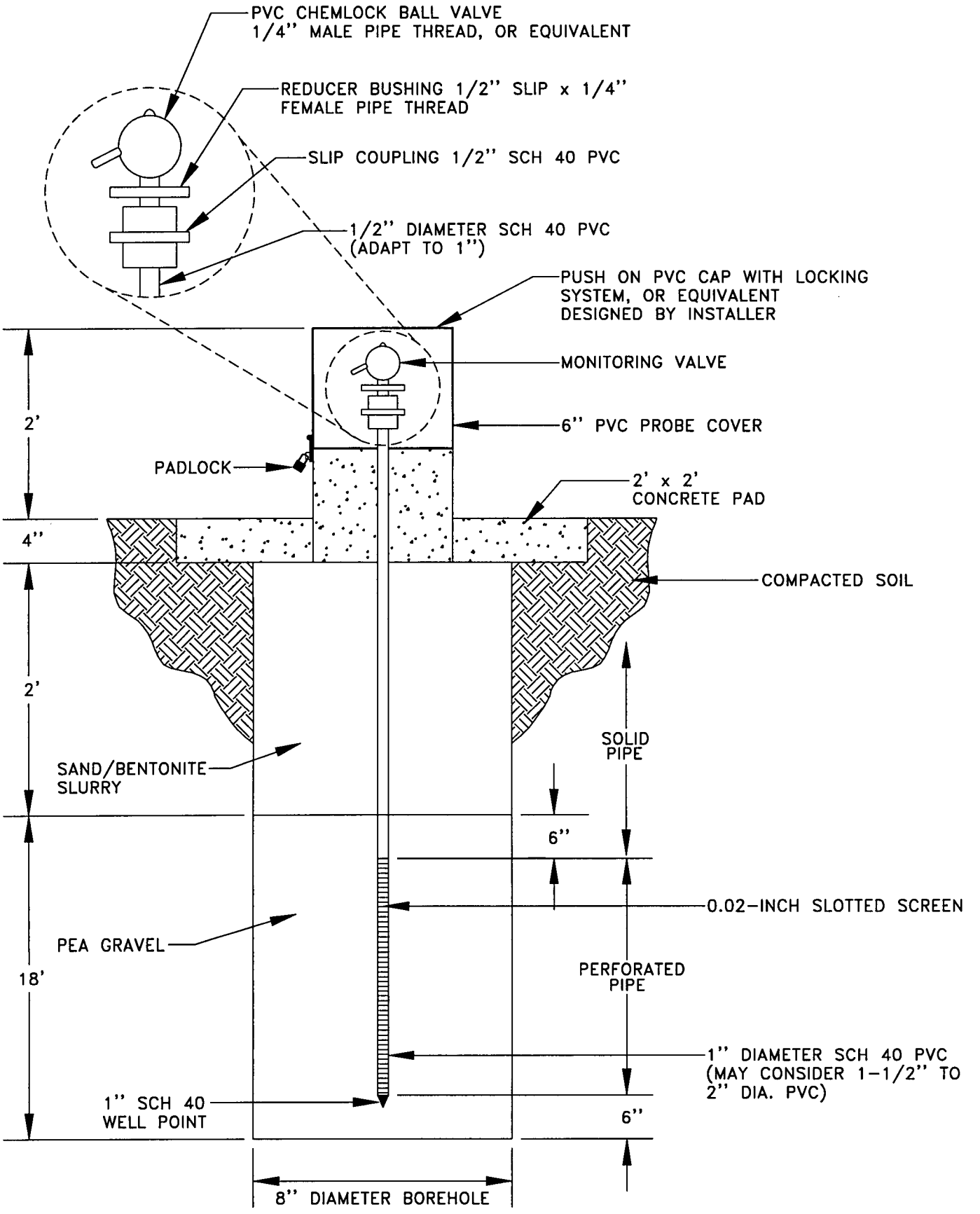
3.17 CONTINGENCY PLAN

The proposed landfill's Contingency Plan is included as Appendix 3-B.

FIGURE 3-6

SITE PLAN

FIGURE 3-14



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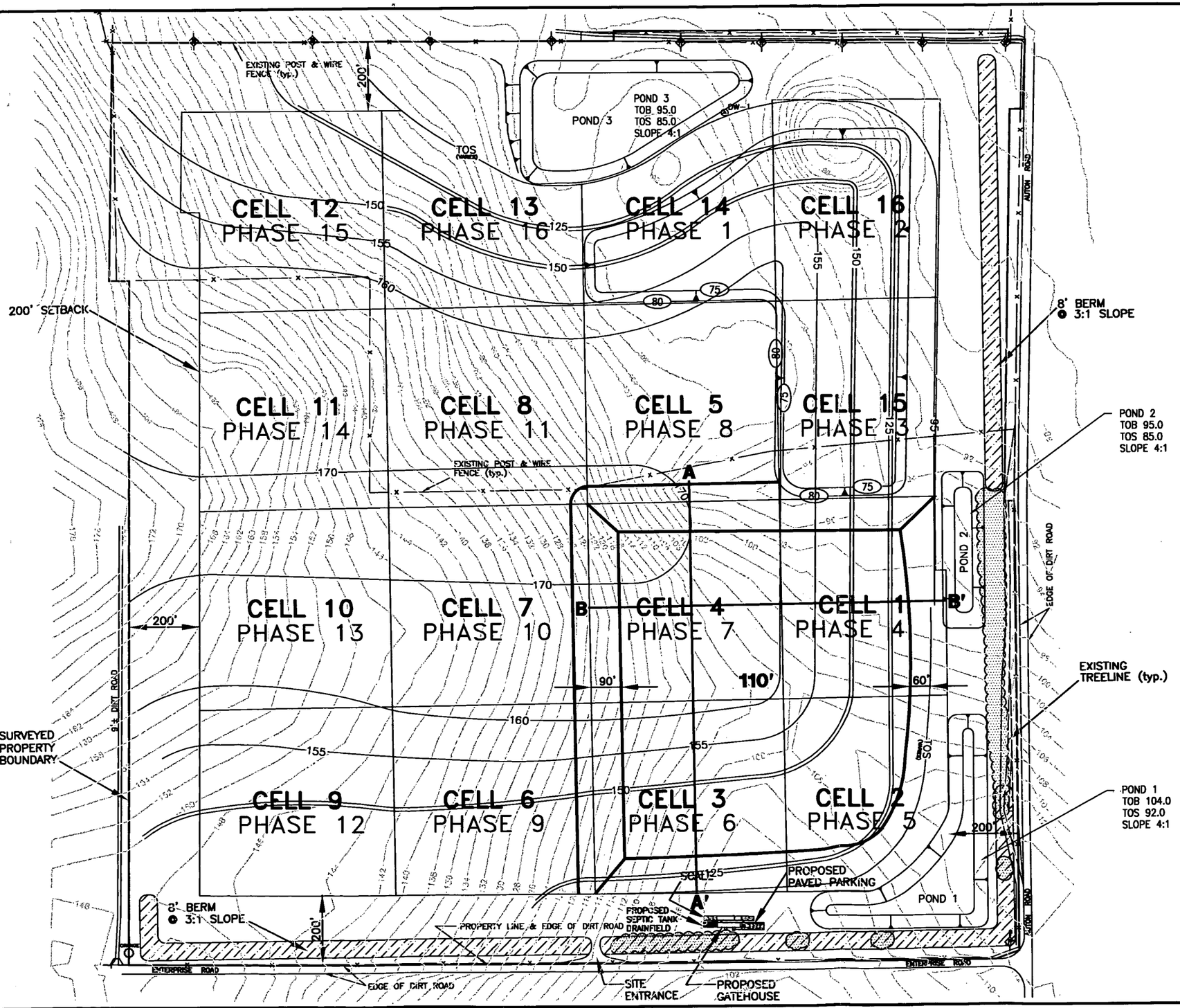
GAS PROBE CONSTRUCTION DETAIL
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-14



N

0 75 150 300
(feet)

LEGEND

——— –CELL SEQUENCE LINE

CELL 16 **–RECLAMATION/LANDFILL CELL**
PHASE 1 –MINE EXCAVATION PHASE IDENTIFICATION NUMBER

——160—— –PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)

110' –SEQUENCE ELEVATION, (ft. NGVD)

B ——— B' LINE OF CROSS SECTION

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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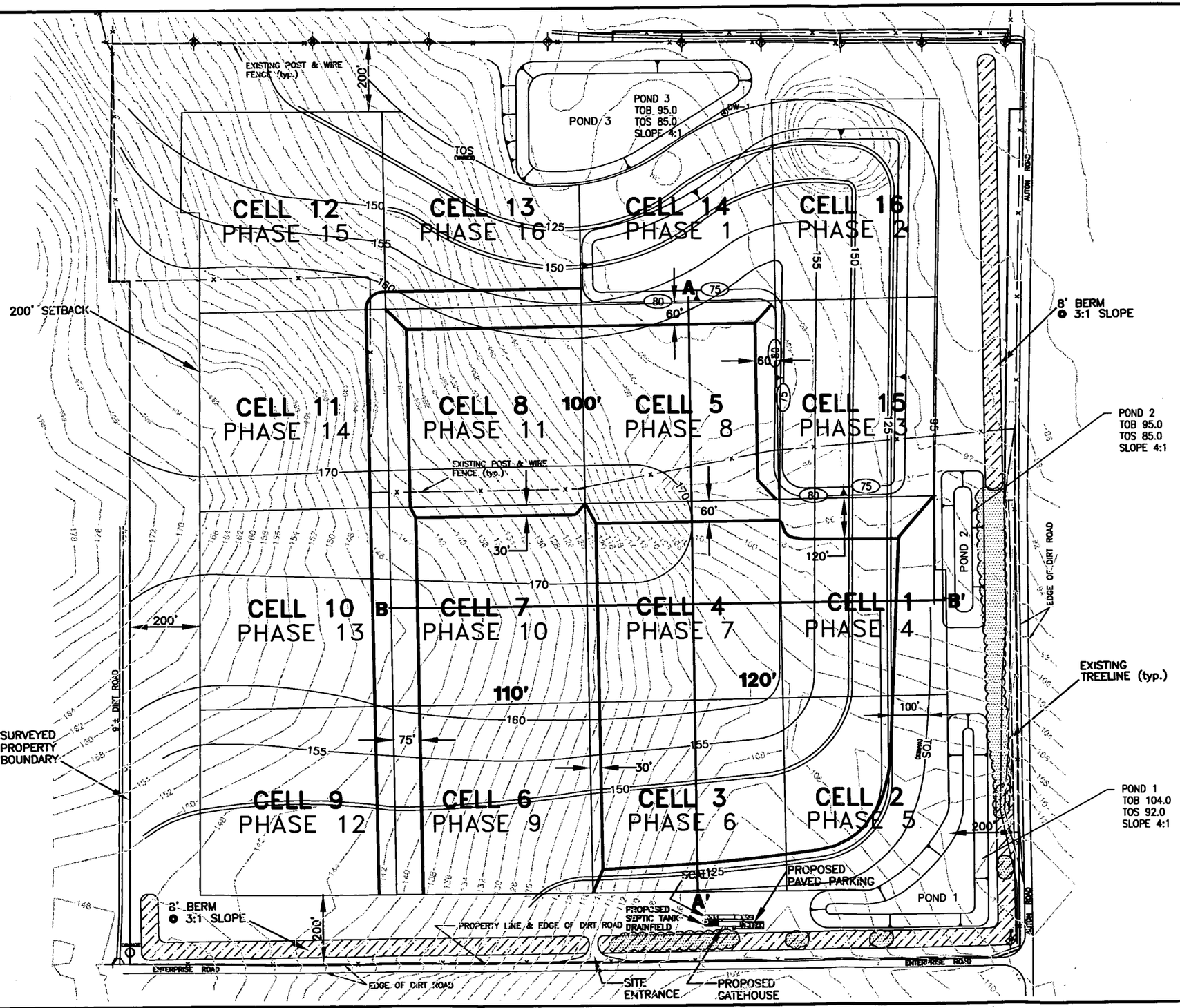
CELL SEQUENCING PLAN - SEQUENCE 1
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-17



N

0 75 150 300
(feet)

LEGEND

——— –CELL SEQUENCE LINE

CELL 16 **–RECLAMATION/LANDFILL CELL**
PHASE 1 –MINE EXCAVATION PHASE IDENTIFICATION NUMBER

——160—— –PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)

110' –SEQUENCE ELEVATION, (ft. NGVD)

B———**B'** LINE OF CROSS SECTION

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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CELL SEQUENCING PLAN - SEQUENCE 2
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-18

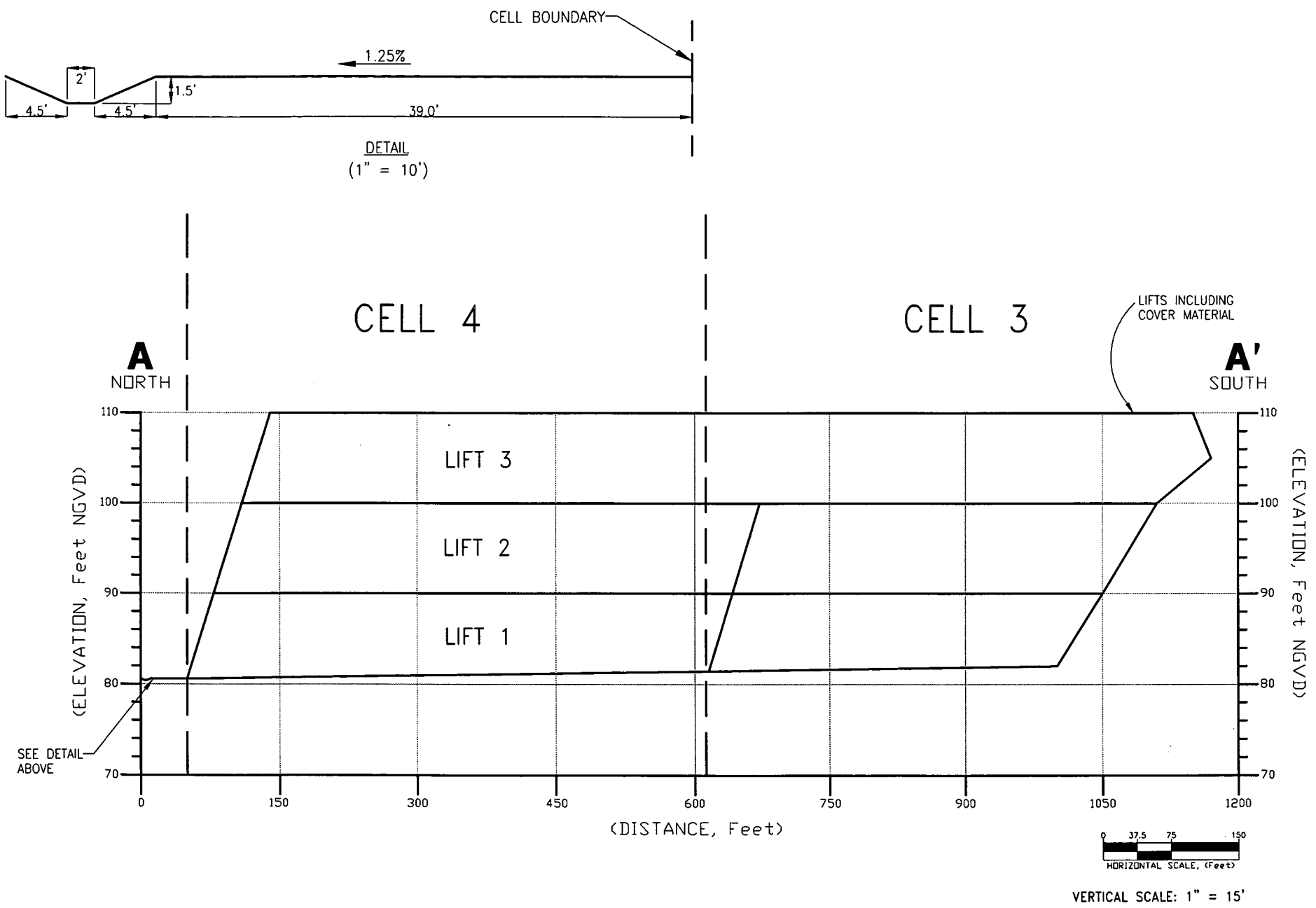

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FIGURE 3-24

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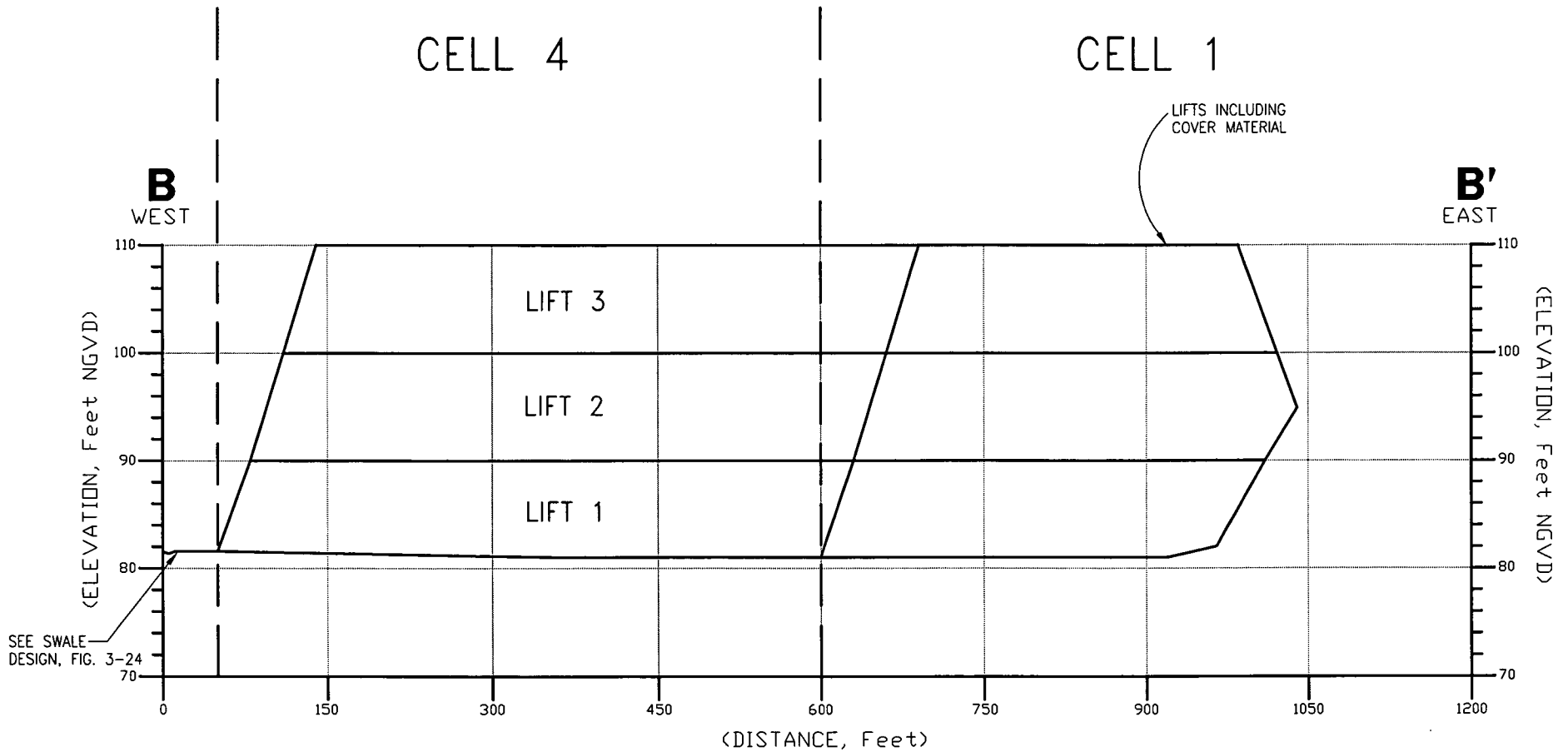
NORTH-SOUTH CROSS-SECTION SEQUENCE 1
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA



VERTICAL SCALE: 1" = 15'

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FIGURE 3-25

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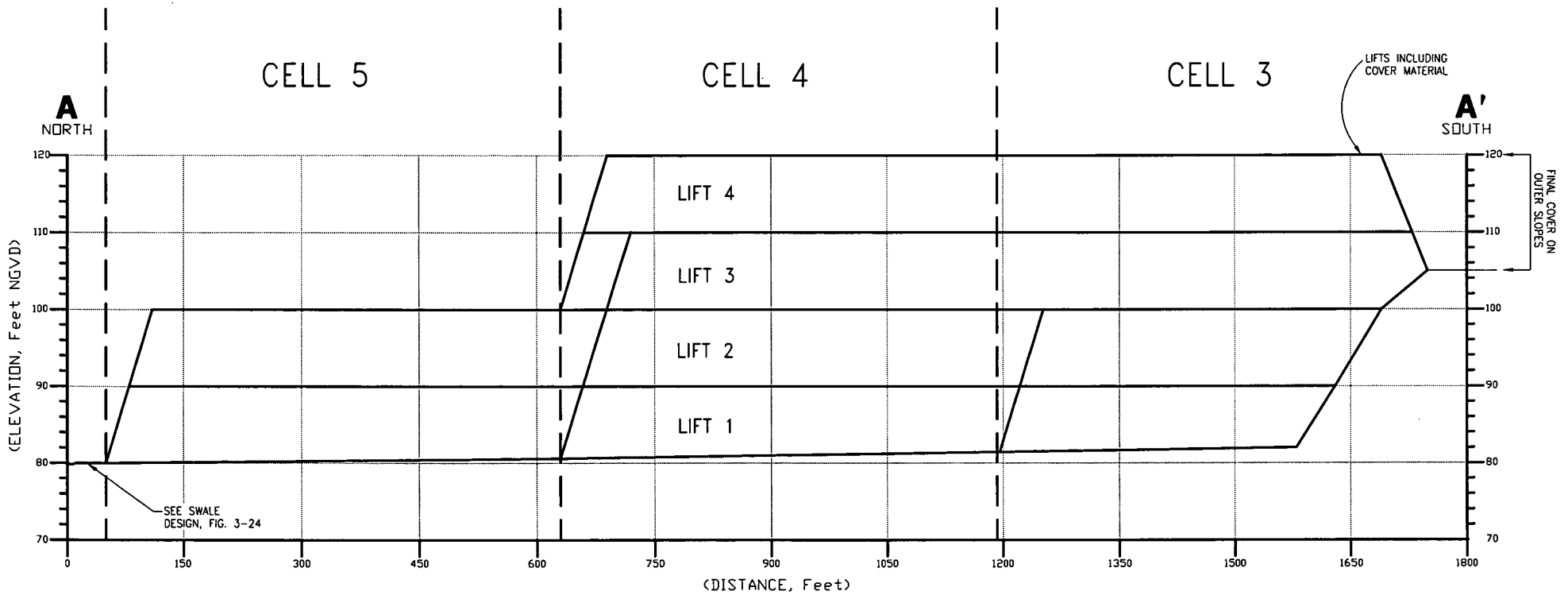
WEST-EAST CROSS-SECTION SEQUENCE 1
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA



0 50 100 200
HORIZONTAL SCALE, (Feet)

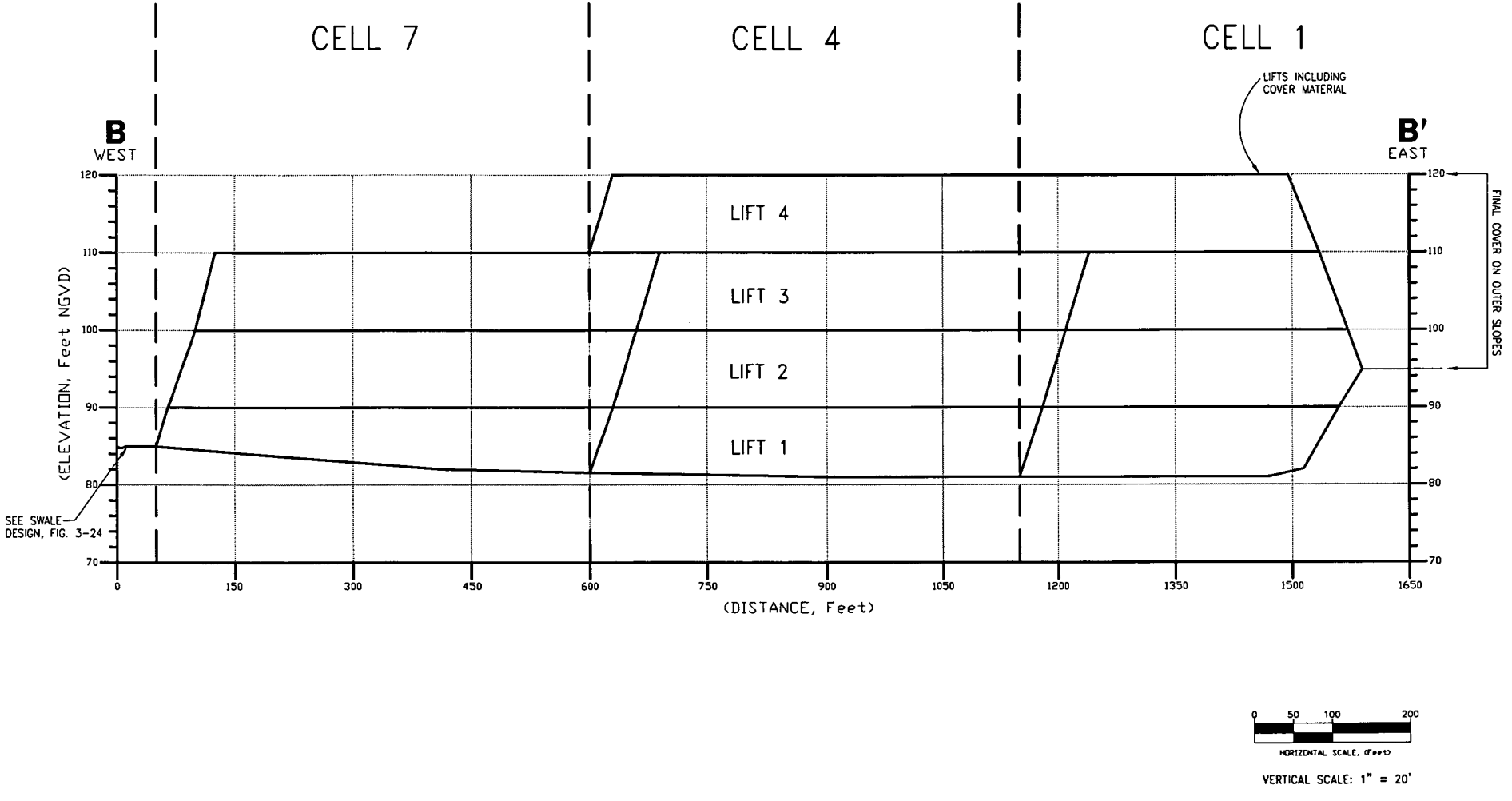
VERTICAL SCALE: 1" = 20'

N:\CAD\DWG\1999\99-331.01\PHASE1\3310140

FIGURE 3-26

HARTMAN & ASSOCIATES, INC.
engineers, hydrogeologists, surveyors & management consultants
201 EAST PINE STREET - SUITE 1000 - ORLANDO, FL 32801
TELEPHONE (407) 839-3955 - FAX (407) 839-3790

NORTH-SOUTH CROSS-SECTION SEQUENCE 2
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA



N:\CAD\DWG\1999\99-331.01\PHASE1\33101141

FIGURE 3-27

HARTMAN & ASSOCIATES, INC.
engineers, hydrogeologists, surveyors & management consultants
201 EAST PINE STREET – SUITE 1000 – ORLANDO, FL 32801
TELEPHONE (407) 839-3955 – FAX (407) 839-3790

WEST-EAST CROSS-SECTION SEQUENCE 2
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

APPENDICES

APPENDIX 3-A

OPERATIONS PLAN

ENTERPRISE RECYCLING AND DISPOSAL FACILITY

PREPARED FOR

SID JORDAN & SON, INC.
P.O. BOX 1747
DADE CITY, FL 33526
(813) 713-2704

PREPARED BY

HARTMAN & ASSOCIATES, INC.
201 EAST PINE STREET, SUITE 1000
ORLANDO, FL 32801

J. E. Golden, P.G.
Fl. Reg. No. 0943
Date: 3/29/01

HAI #99-331.01
REVISED MARCH 2001

OPERATIONS PLAN
ENTERPRISE RECYCLING AND DISPOSAL FACILTY
CLASS III LANDFILL APPLICATION

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OPERATIONS PLAN
ENTERPRISE RECYCLING AND DISPOSAL FACILITY
CLASS III LANDFILL APPLICATION

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OPERATIONS PLAN

1.0 DESIGNATION OF RESPONSIBLE PERSON(S)

The current designated responsible person for the proposed Enterprise Recycling and Disposal Class III facility is the Site Owner, Mr. Jon Larkin. All correspondence and inquiries concerning the proposed Enterprise RDF Class III Landfill permits and operation should be addressed to him at:

Mr. Jon Larkin, Owner
Sid Larkin & Son, Inc.
P.O. Box 1747
Dade City, Florida 33526
(352) 713-2704

2.0 LANDFILL SITE IMPROVEMENTS

The 160 acre proposed landfill site is also proposed to be a sand mine facility. The following site improvements will be installed, to operate the proposed Class III Landfill.

2.1 Facilities

An office trailer (gate house) will be located onsite for the gate attendant. This trailer will have handwashing and toilet facilities. The trailer will be served via the on-site non-potable water supply well. Bottled water will be used for drinking water. Electric and telephone services will also be available to the trailer office. Proposed site entrance improvements also include an all-weather entrance roadway, scales and perimeter road as shown on the Site Plan, Figure 3-6 (C-1).

2.2 Primary Haul Route

The primary haul route to reach the proposed Enterprise Recycling and Disposal Facility (RDF) entrance is from Clinton Avenue east across C.R.35A to east on Enterprise Road to the entrance. A secondary haul route would be from C.R.35A to Enterprise Road east to the Enterprise facility.

4.0 CONTINGENCY OPERATIONS

A natural disaster closing the facility would not cause a major impact on the surrounding communities. Debris originally destined for the proposed landfill would be rerouted to another permitted landfill site. In terms of equipment breakdown, there will be two working pieces of equipment for all stages of landfill operation. If both should breakdown, replacements can be rented or substituted from onsite or offsite within 24 hours.

If the site were to stay operational as a landfill to accept yard waste during and after a major storm, the excavation operations would cease and no soils would be removed from the site until waste receipt returned to normal levels.

The site access roads will be constructed to allow passage of vehicles under all expected weather conditions. See Appendix 3-B for the site's Contingency Plan.

5.0 WASTE STREAM QUALITY CONTROL PLAN

5.1 Visual Inspection

An estimated 1500 cubic yards of Class III waste material will be received at the facility daily. Materials brought onto the proposed Enterprise RDF site will be inspected three times before the truck is allowed to proceed and dispose on-site. The first inspection takes place at the site entrance. The site will only accept Class III debris; therefore, any vehicles hauling unacceptable waste can be turned away by the attendant at the ticket gate. The gate attendant will question all waste carriers as to the character of their wastes. A video camera is planned to be installed over the proposed scale location that will allow the gate attendant to visually screen all carrier loads prior to disposal.

The second inspection is a visual inspection that will occur at the disposal/working face. This landfill employee, the spotter, stationed at the working face will be responsible for spotting trucks bringing in disposal loads. The spotter will show the drivers where to unload, and will also inspect the trucks to make sure unacceptable materials are not unloaded. The spotter will have the authority to ensure that unacceptable materials are reloaded on the truck the material was brought in on.

The third inspection will occur as the waste is spread by the equipment operator. Any unacceptable wastes observed will be placed in the appropriate container located at the working face.

5.2 Documentation of Waste Received

Documentation includes recording the name of the company disposing, driver's signature, all vehicle identification numbers, quantity of waste (cubic yards/tons), and type of waste (to meet FDEP and Pasco County's requirements, all vehicles entering the landfill will be weighed). The type of material and location from which the waste was generated will be recorded. This provides a record for tracing ownership of individual loads. See Operating Record, Section 19.1 for more details.

5.3 Contingency for Unacceptable Materials

If unacceptable materials are delivered to the landfill, they will be refused entry at the gate, if identified as unacceptable at the ticket gate. If the unacceptable materials are observed by a spotter while unloading, they will be reloaded onto the delivery vehicle. Should the vehicle leave before the unaccepted waste has been discovered, Enterprise RDF will place the unacceptable material into an appropriate container located at the working face, as the unacceptable materials are found onsite. Enterprise RDF, or the transporter/generator will then pay a commercial hauler to transport the materials to a disposal facility permitted to accept that type of material. Inadvertently accepted Class I waste shall be stored in a leak proof container with a lid to prevent the generation of leachate and odor. The Class I container contents will be taken weekly for proper disposal at a FDEP permitted Class I Landfill. Other unacceptable nonputrescible, nonhazardous wastes that are inadvertently accepted will be stored in a roll-off container and will be removed for proper disposal within 30 days. Any batteries, paint, chemicals, thermostats or similar items observed will be stored in the secured maintenance building until they are taken for proper disposal. This plan should meet the inspection needs for the site to prevent disposal of unacceptable wastes.

If suspect regulated hazardous wastes are identified by operators or spotters by random load inspection or discovered deposited at the landfill, the FDEP will be notified promptly, as well as the hauler and generator of the wastes, if known. The area where the hazardous wastes are deposited will immediately be secured from public access. If the generator or hauler cannot be

identified, Enterprise RDF will assume the cleanup, transportation and disposal of the waste at a permitted hazardous waste management facility.

5.4 Acceptable and Unacceptable Waste

The Enterprise RDF Class III Landfill will accept only those solid wastes as defined in F.A.C., Chapter 62-701.340(3).

The following is a compilation of acceptable waste materials.

- Land clearing debris
- Demolition debris
- Glass
- Carpet
- Cardboard
- Asbestos
- Plastic
- Construction debris
- Non-Treated Wood Pallets
- Unpainted and untreated wood scraps from manufacturing
- Waste Tires (Shredded)
- Paper
- Furniture other than appliances
- Yard wastes

The following is a compilation of unacceptable waste materials:

- Putresible Household Waste
- Paint
- Any toxic or hazardous Materials (i.e., batteries, solvents, oils, etc.)
- Drums
- Refrigerators, freezers, air conditioners (white goods)
- Biomedical waste
- Automobiles or parts
- Septic tanks and pumping
- Whole waste tires
- Electronics

The proposed landfill site will have a visible sign at the site entrance on Enterprise Road. The sign depicting the accepted wastes, hours of operation, tipping fee, landfill classification, and site's 24-hour emergency contact and telephone number and posted prior to operation as a Class III Landfill, see proposed sign in Appendix A.

5.5 Random Load Inspection

On a random basis, one (1) load per day will be selected for inspection from the incoming loads. These loads will be selected by the site manager. Once a load has been selected, it will be temporarily isolated from all other incoming loads until the inspection has been completed.

The following procedures shall be followed when inspecting the load:

A. The load will be "broken apart" by both the spotter and equipment operator to allow for a thorough inspection.

B. The inspectors will be watching for any unauthorized waste contained in the load.

C. If the load contains any unauthorized materials, they shall immediately be reloaded onto the customer's vehicle for removal from the site. In the event that the transporter will not remove the unacceptable materials, the materials will be loaded into an appropriate container and removed from the site. The customer/ generator will be contacted and notified of the site policies as well as charged for the off-site disposal service.

D. In all cases, if unacceptable wastes are found during the inspection, the customer will be notified to provide immediate feedback to prevent future occurrences.

All inspection shall be documented on the site's "Random Load Inspection Form," signed by the inspector, and kept in a current Log Book, see Appendix B. Log books will be maintained at the landfill for at least 3 years. Inspections shall be performed by trained site personnel.

5.6 Asbestos Waste Disposal

Asbestos-containing materials (ACM's) will be accepted for disposal in accordance with 40 CFR Part 61.154. Arrangements for disposal of ACM's between Enterprise RDF and the waste generator/hauler will be recorded in the operations record as to the quantity and date of shipment to the landfill.

To ensure that all waste deposited in the Facility meets state and local requirements, all facility personnel shall receive training from their supervisor on the identification of unacceptable materials, which is any waste other than properly labeled and bagged ACM. Unregulated, non friable asbestos containing materials are not required to be bagged, but all other requirements are unchanged.

Each load of ACM arriving at the facility must be accompanied by a completed Waste Shipment Record (WSR) in accordance with 40 CFR 61.150. Each load will be inspected to insure that it is properly bagged, that bags are intact and properly sealed, and that the required warning labels and generator labels are affixed. Bags will not be opened prior to disposal.

Materials arriving at the Facility for disposal will be visually screened by facility personnel a minimum of two times. The first screening will be at the weigh scales, controlling access to the Facility, where the truck drivers will be questioned as to what they are transporting and shipping documents reviewed. The gate attendant will also make a cursory visual examination and direct the drivers to the appropriate disposal area. If this examination identifies acceptable materials, the gate attendant will direct the drivers to the appropriate disposal area. If this examination turns up unauthorized material the truck shall be denied access to the site.

The second screening will be at the working face where a trained inspector/spotter will again question the driver and make a visual examination of the load prior to dumping and as it is dumped. This examination shall insure the ACM is properly bagged, the bags are intact and properly sealed, and that the warning labels and generator labels are affixed.

Enterprise RDF personnel will direct the waste hauler to the designated ACM disposal location in each cell, to be determined by the Operator or Site Manager. The ACM will be covered with 6-inches of soil at the end of any day, ACM is accepted. This designated ACM location will be recorded and updated by the annual topographic survey in accordance with 40 CFR 61.154. ACM disposal records will be maintained for the life of the landfill and disposal locations documented in the Closure Report.

5.7 Recycling Operations

The proposed Class III landfill plans to recycle a portion of wastes received. In 1998, the State of Florida passed legislation that set a waste reduction/recycling goal of 30 percent by 1995. In 1992, yard trash was restricted from public Class I and II landfills which provides an opportunity for Class III landfills to segregate yard wastes for recycling. Other wastes planned to be recycled at the landfill are: metals, concrete rubble; paper/cardboard; wood wastes; and possibly waste tires. Enterprise's activities to recover and recycle these products will assist the State and County to meet their 30 percent goal and increase the life of the landfill. However, we believe that a Materials Recovery Facility permit will not be required for the proposed recycling area since the primary use of the landfill facility is disposal.

Trucks identified at the entrance as carrying primarily recyclable products, (i.e., concrete, metal, wood, paper) will be directed to the currently designated areas of the landfill with recovered material containers. The recovered material containers will be located at the working face.

At the working face, the spotter will direct the separation of mixed loads if the loads contain a sufficient amount of recoverable materials.

Wood wastes may be chipped for mulch, or be placed in roll-off containers for shipment to a wood recycler. Waste tires will be stored in a roll-off container and may be shipped to a recycler or reused on-site, depending on the quantity received.

5.7.1 Reports

A Recovered Materials report will be submitted quarterly by type of waste and tonnage to the Pasco County Solid Waste Department. These reports will also be compiled into an annual report to the FDEP.

6.0 WEIGHING OR MEASURING INCOMING WASTE

A scale system is proposed as shown on the Site Plan. The scale will be calibrated prior to use and every six (6) months, thereafter. Trucks will be weighed as entering the disposal site, and based upon the tare weight of the vehicle, the waste tonnage will be determined. Prior to

unloading debris, the tonnage of waste material disposed will be determined and the appropriate fee assessed.

6.1 Proposed Fee Schedule

The proposed fee schedule to be used by the public at the Enterprise RDF is as follows:

Waste Type	Unit	Fee per Unit
Class III	Cyds	$9.50

This fee schedule will be periodically revised according to the prevailing market for waste disposal. Enterprise RDF will notify Pasco County immediately in writing of any proposed fee schedule change.

7.0 VEHICLE TRAFFIC CONTROL AND UNLOADING

Generally, truck traffic will be controlled by first in - first out, as directed by the working face spotter when and where to dump. There will be adequate space for truck staging at the site's gate (7-8 trucks) to mitigate any backups toward and onto Enterprise Road. Enterprise RDF will discourage any truck staging prior to landfill opening. Signs will be posted at the entrance gate and on interior roads to guide mine truck traffic vs. landfill truck traffic to their appropriate areas of the site.

8.0 METHOD OF CELL SEQUENCE AND LIFE EXPECTANCY

8.1 Cell Sequence

The landfill operation will progress in a series of cells as shown on Figure 3-6 (C-1) (See Section 3 at Engineering Report). Cell No. 1 will begin at the east portion of the site with material placed against the east slope with the first lift consisting of 10 feet deep fill. Cell No. 1 will then continue to the south along the east bank and extend approximately 550 feet out from the west slope. Each lift will be compacted as the waste is placed in the cell. The access road will be relocated to provide access to the next cell. The cell landfilling will continue in similar fashion until the cell reaches final grade less 3 feet. Some areas of the cells may have partial lifts, based on the final cell elevations. The working face shall not exceed a slope of 3H:1V and a width of 100 feet along

the side slopes. Cell closure will commence immediately after cell completion. Within 120 days of Cell No. 1 completion, the final 3 feet cover of soil will be placed and compacted to a minimum of 1.5 feet barrier layer with 18 inches of topsoil and vegetated, see Closure Plan. The stormwater retention pond (Pond 1) will be constructed at this time, see SWMP Section 6. The north and west sides of completed Cell No. 1 stormwater will drain to the temporary pond, in the northeast corner of the site.

Cell #2 is the next 560-foot strip to the south of Cell #1. Cell sequencing will continue to the south (through Cell #2) and then move to the west and north portions of the landfill for cells 3 to 13. Completion of cells 14 to 16 will entail filling the northeast temporary retention pond once the floor of the pond has been built up with clean debris or clean fill to the landfill base elevation of 80 feet NGVD in this portion of the landfill. The ponds constructed for completed cells within the buffer areas will approximately replace the stormwater capacity of the northeast temporary pond.

The sequence of filling operations are as follows, (see Figures 3-17 through 3-22):

Sequence 1 Fill cells 1, 2, & 3 two 10' lifts (100').
Fill cells 1 & 2 one 10' lift (110').
Fill cell 4 two 10' lifts (100').
Fill cells 3 & 4 one 10' lift (110').

Sequence 2 Fill cell 5 two 10' lifts (100').
Fill cells 6 & 7 three 10' lifts (110').
Fill cell 8 two 10' lifts (100').
Fill cells 1, 2, 3, & 4 one 10' lift (120').
Begin to close sides of 1, 2, 3 to 120'.

Sequence 3 Fill cells 9 & 10 one 15' lift and two 10' lifts (120').
Fill cell 11 one 15' lift and two 10' lifts (110').
Fill cells 6 & 7 one 10' lift (120').
Begin to close sides of 6, 9, 10 to 120'.

Sequence 4 Fill cell 12 one 15' lift and two 10' lifts (110').
Fill cells 13 & 14 three 10' lifts (110').

Sequence 4 Fill cell 12 and one 15' lift two 10' lifts (110').
Fill cells 13 & 14 three 10' lifts (110').
Fill cells 15 & 16 two 10' lifts (100').

Sequence 5 Fill cells 8, 5, 15, & 16 one 10' lift (110').
Fill cells 15, 16, 11, 12, 8, 13, 5 & 14 one 10' lift (120').
Fill cells 16 south to 2, then west to 130'.
Begin to close outer cells to 130'.

Sequence 6 Fill cells 12 south to 9, then east two 10' lifts (150').
Begin to close outer cells to 150'.

Sequence 7 Fill cells 16 south to 2, then west to final elevation – 3 feet.
Complete final closure of landfill.

Lift height includes cover material. Due to the landfill bottom elevation some lifts may not be a full 10 feet in height.

As each sequence is active, the following procedures will be followed.

- The access road to the working face will be constructed and graded as necessary.

- Waste will be compacted as it is placed. General lift height will be 10 feet and will come within three (3) feet of the final elevation to provide for final cover.

- The working face will remain approximately 100 feet in length.

- Weekly cover of six (6) inches of soil will be placed on the working face.

- Intermediate cover of 12 inches of soil will be placed in areas that will not receive waste within 180 days. The cover may be removed immediately prior to placement of new waste.

- Stormwater will be diverted to the onsite temporary storage pond until the latter part of sequence four (4) when cells 15 & 16 begin to accept waste.

8.2 Erosion Control

The landfill's cell construction plan calls for the excavation of the existing sand mine at 6H:1V sidewall slopes of the pit to a 2H:1V for the outer cell boundaries slope prior to landfilling each cell. This slope can be safely maintained as supported by the Slope Stability Analysis, in the Geotechnical Report, Section 4.0. The 2H:1V excavation would not be initiated until the cell was ready to receive waste materials, and then only on the outer edge slope to first receive waste. This will minimize the time frame that a 2H:1V slope is exposed to the elements. The following engineering controls will be used to minimize erosion:

- Regrade a maximum of 100 linear feet of the outer edge slopes at a time to 2H:1V. The purpose of this recommendation is that a relatively small area will be subjected to surface erosion at any given time.

- Construct a berm along the top of the slope during the regrading to redirect any rainfall runoff away from the face of the slope. The area along the berm should be graded so as to allow rapid runoff along the top of the slope. Ponding of water near the top of the slope should not be allowed, since seepage through the slope may initiate slope erosion.

- As soon as possible following the regrading of the slope, begin to fill against the 2H:1V slope with the landfill material. As a minimum, the fill should be placed to a height of one-half the vertical height of the slope and at a 3H:1V slope or flatter.

- When the 100 linear feet of slope is backfilled with landfill material to one-half the vertical height of the slope, the same procedure can be followed for another 100 linear feet until the landfill is complete.

See Geotechnical Report, for more details.

If blowing sand becomes a problem, silt fences will be installed at the top of the 2H:1V side slope along the temporary berm/ditch.

8.3 Life Expectancy

Adequate soil stocks will be maintained to provide the soil cover material for closure activities (approximately 800,000 cyds). The calculated volume of each of the proposed landfill cells and sequencing is presented on the attached Section 7, Table 1 of this submittal. At the proposed waste disposal rate, based on similar landfill's quarterly reports to the County, the landfill will dispose of approximately 459,000 cyds per year of non-compacted Class III materials; which corresponds to approximately 270,000 cyds of compacted wastes (1.7:1 ratio) as placed in the landfill. This calculates to roughly two (2) lifts across a cell per year or a maximum of approximately two, 6- acre, 10-foot, lifts per year. If this rate continues, we estimate that the life of each cell is approximately 2 years. Sequences 1 and 2 will be permitted first for landfilling.

Therefore, based upon the calculated volume of landfill space available, the landfill has an estimated life expectancy of 30 years at projected disposal volumes and compaction rates.

9.0 WASTE COMPACTION AND APPLICATION OF COVER

Waste received shall be segregated based on compatibility. Bulky, incompressible items shall be separated and reduced as appropriate by the chipper/crusher and disposed of or recycled. The remaining debris is disposed of in designated "cells" using onsite equipment to place the debris and a Rex 370-C Compactor, or equivalent, to weekly compact the waste. Initial cover material is planned to be excavated from onsite areas and placed weekly in approximately 6-inch layers on the compacted lifts to control vectors, reduce rain infiltration and provide a more stable working face area. The amount of weekly cover material required for the design life of the landfill is estimated to be approximately 400,000 cyds. An intermediate cover of one (1) foot of compacted soil will be applied if final cover or an additional lift is not to be applied within 180 days of cell completion (see Figure 3-8 (C-3) for final cover design of the Class III landfill site). The proposed final grades are shown in Figure 3-10 (C-5).

A final cover of three (3) feet of compacted soil will be placed upon closed cells, see Closure Plan, Section 7. Cell closure shall conform to the grades and lines specified in the grading plan. The grading plan shall conform to the rules and regulation specified in 62-701.600, Florida Administrative Code. Pesticides when deemed necessary to control rodents, insects and other

vectors shall be used as specified by the Florida Department of Agriculture and Consumer Services. Uncontrolled and unauthorized scavenging shall not be permitted at the landfill site. Controlled recycling may be permitted by the Site Manager responsible for the operation of the landfill facility. Temporary storage of soil fill or recycling materials may be required in the closed cell areas.

10.0 OPERATION OF GAS, LEACHATE AND STORMWATER CONTROLS

10.1 Gas Monitoring and Control

The type of material to be disposed in the Class III Landfill is not expected to generate significant amounts of methane or other toxic gases since the landfill's design prevents groundwater contact. Therefore, a passive gas control system is proposed. The Enterprise RDF site Manager will conduct daily surveys of the landfill for objectionable odors or gas, record the results, and notify the County of any positive detection and immediately take corrective actions. Quarterly gas monitoring will also be performed. The facility only accepts Class III debris for disposal and accepts no putrescible household wastes. Surface water and groundwater contact with the Class III wastes will be prevented by the proposed facility design thus preventing possible odor operation. Other best management practices to prevent odors include: 1) closure of each cell as it is completed; 2) weekly soil cover application; and, 3) immediate corrective actions to abate any detected onsite odors.

However, since yard trash is an acceptable Class III waste, and it is biodegradable, we are proposing a system of gas probes surrounding the landfill to be used to monitor methane gas levels.

A system of passive gas vents are proposed to be used to prevent explosions and fires from possible gas generating from the biodegradable wastes (yard trash) in the landfill. The proposed location of the gas vents is shown on Figure 3-15. The proposed construction details of the vents are shown on Figure 3-16. The vents will be installed during the final closure and installation of the final cover over each landfill cell.

A system of 16 gas probes is proposed to monitor gas at the site, see Figure 3-13. The construction details a typical gas probe as shown on Figure 3-14.

Gas Monitoring Procedures

10.1.1 Methane Gas Measurement

In accordance with the subject landfill closure permits, methane gas levels will be monitored at each of the 16 gas monitoring points quarterly and submitted to the FDEP for review. See Figure 3-13. A portable explosimeter, or lower explosive limit (LEL) meter will be used to measure methane levels from each of the gas probes. LEL meters, such as the MSA Model 260 or GEM 500 or equivalent, will be used to conduct this monitoring. These meters are capable of measuring percent volume of methane in air and the percent LEL level of the methane by volume. The meter shall be calibrated in accordance with manufacturer's specifications prior to each methane monitoring event. Appendix D presents the proposed gas monitoring probe survey form to be used to conduct the quarterly monitoring at the subject site. This form will document at the time of each gas probe reading, air temperature in degrees Fahrenheit, methane levels in percent volume in air as measured by the lower explosive limit. The ball valve will remain closed between monitoring events and pre-purge measurements will be recorded. In the event of a positive gas measurement, the post-purge measurement will also be recorded. The results of each quarterly gas probe survey will be submitted to the Department on the presented form within two weeks of each monitoring event. These events are planned to be coordinated with the semi-annual groundwater monitoring at the subject site.

10.1.2 Gas Contingency Plan

The following Contingency Plan will be implemented if any of the measured gas monitoring points methane levels are detected above the LEL of greater than 5 percent methane in air. If this level of methane or greater is detected in any of the probes, the Enterprise RDF landfill operator will institute measurement of methane in nearby structures, i.e., stormwater collection points, or any maintenance or office buildings nearby the subject gas probe until these levels go below the 5 percent LEL at the subject probe. The monitoring report for any event that detects methane above the LEL will also report methane levels from any nearby structures and may include monthly monitoring measurements at the high methane gas probe points until the levels go below the methane LEL level or until corrective actions are conducted to reduce methane levels. The FDEP will be notified within seven days of any gas monitoring levels that exceed the LEL.

10.2 Leachate Control

Liquid disposal will not be permitted at the proposed Class III Landfill site. Based on the proposal method for controlling waste disposed of, types of waste received (Class III), and the naturally protective hydrogeological setting, the facility qualifies for a liner exemption. No liner system is proposed for the Class III landfill primarily based on an existing natural clay layer underlying the landfill, see Section 5. Stormwater runoff will be prevented from contacting the wastes by a system of swales and berms, see Section 6. Since the acceptable wastes are as described in Rule 62-701.340(3)(d), FAC, they are not expected to produce leachate which poses a threat to public health or the equivalent. The proposed strict method of controlling types of wastes disposed also supports the leachate and liner exemption, see Section 5.0 The resulting seepage primarily will consist of rainwater runoff flowing through the top of fill material. The intervening soils within the zone of discharge (ZOD) are expected to attenuate and retard any pollutants generated prior to reaching the groundwater, and/or the bottom of the ZOD. Therefore, no leachate containment system is proposed.

10.3 Stormwater Control

The proposed Stormwater Management Plan for the landfill consists of "swales" and pond facilities constructed within the 200-foot landscape buffer zone to collect and contain stormwater runoff from the completed site. These stormwater facilities are designated to retain the 100-year, 24-hour storm volume as required by the FDEP. In the interim, stormwater will be controlled mainly by percolation into the soil or by overland flow to the temporary stormwater pond to be located in the northeast corner of the site. The site's topography generally slopes downward to the northeast thus facilitating stormwater collection. Refer to Section 6 for details of the Stormwater Management Plan.

The site manager will perform monthly inspections of the stormwater management system. Any areas in need of maintenance will be repaired within seven days.

11.0 SIGNS

Signs will be posted at the entrance to the Enterprise RDF site which will list the following information:

The operating entity;
Charges for disposal;
Hours of operation;
No scavenging allowed;
No hazardous waste accepted;
List of acceptable and unacceptable waste; and,
24-hour phone number of emergency contact.

The gate attendant will direct each driver to the area appropriate to unload wastes. Signs will also be posted to direct trucks to either the borrow pit or the landfill working face.

12.0 DUST ABATEMENT PLAN

Enterprise RDF will provide a water tanker to water the proposed landfill access roads if and when dust becomes a problem. This will also be done whenever the County receives complaints about dust or when a dust problem is observed during a County or State inspection.

13.0 LITTER AND VECTOR CONTROL PLAN

The nature of the waste to be disposed in the landfill does not typically create litter and vector problems. Daily placement of waste and/or compaction will be the primary means utilized to control litter and vectors. If blowing litter becomes a problem, laborers shall patrol the site as needed and pick up blowing debris and dispose of it in appropriate containers and/or on site. In addition, the laborers shall weekly patrol the haul route west on Enterprise Road to C.R.35A for pick up of litter from vehicles hauling material to and from the site. Temporary fencing to contain litter at the working face of the landfill will be used as needed. These litter controls will also be implemented whenever the County or State receives a complaint from adjacent landowners or a litter problem is observed during an inspection.

14.0 FIRE PROTECTION AND FIRE FIGHTING FACILITIES

Fires that originate in landfills are primarily extinguished by soil application. Supplemental fire protection will be furnished by the Dade City Fire Department (Station No. 1). The Fire Department will be notified immediately of all landfill fires. An emergency contact sign will be

posted at the entrance so it is visible to emergency vehicles with a contact phone number available 24-hours.

Onsite fire prevention facilities will include:

- Fire extinguishers mounted in the cab of all heavy equipment and in the gatehouse;
- Radio communication to notify personnel of a fire; and
- Onsite equipment (dozer) and fill dirt to extinguish fires on working face.

Soil for fire fighting purposes will be borrowed from the closest unexcavated area of the site to the fire. Details of all fire fighting episodes will be recorded in the landfill operating record.

14.1 Hot Loads and Spills

Any hot load (of authorized material) found will be dumped on an area at least 500 feet away from the active working face. The load will immediately be covered with earth if a fire is imminent. The waste will not be disposed of until it has cooled completely, and the fire hazard has been mitigated.

Since liquid disposal is prohibited in a Class III landfill, spills from waste vehicles are not anticipated. In the case of a fuel spill or leak, the contaminated soil will be collected to the extent possible, contained in a drum or roll off container, and taken offsite within thirty (30) days for proper disposal or treatment.

15.0 LANDFILL PERSONNEL

The gate attendant and certified landfill operator shall be onsite during all operating hours. In addition, there shall be a minimum of one (1) other person (spotter) onsite, for a total of three (3). The state certified landfill operator will be assigned to manage the daily landfill operations. The personnel will be stationed at the landfill ticket gate and active disposal face. Additional personnel will be assigned to the proposed landfill operation as the demand necessitates.

At least one (1) spotter will be at the working face at all times the facility is accepting waste. The spotter will direct vehicle traffic around the working face and will direct drivers where to empty their vehicles. The loads will be inspected as described in Section 5.1. If the load is acceptable,

the waste will be spread and compacted as necessary. If the load is unacceptable, the spotter will direct the driver to reload the waste into the vehicle, if possible. The spotter will also discourage scavanging by the public.

A typical work schedule is as follows:

Day	Operating Hours	Gate Attendant	Certified Operator	Spotter(s)	Equipment Operator
M-F	7 am –6 pm	1 (7 am–6 pm)	1 (6 am -7 pm)	Min. 1 (7 am –6 pm) For 2 or more (7 am –4 pm), (12 pm –6pm)	Min. 1 (7 am –6 pm)
S	7 am – 2 pm	1 (7 am –2 pm)	1 (6 am –3 pm)	Min. 1 (7 am –2 pm)	Min. 1 (7 am –2 pm)

15.1 Training Plan

Enterprise RDF will implement an employee training plan to properly train their landfill operators and spotters to operate the landfill in accordance with this Operations Plan, state and local regulations, and accepted disposal practices and to properly manage any hazardous or prohibited materials which are received at the landfill.

A trained operator will be at the site during all times that the landfill receives waste. All facility operators will be trained at an approved FDEP training course. Each operator will submit proof of training and documentation to the FDEP upon receipt of their certificates.

Landfill operators must have at least one year of work experience in landfill operation and a high school diploma; or have at least two (2) years experience at a Class I, II, or III landfill. Each operator will complete at least 20 hours of initial training in an FDEP-approved training course. Fifteen (15) hours of continuing training will be completed within three (3) years of each operator's initial training from an approved course documented by the form in Appendix C. A list of FDEP approved training courses for operators and spotters is included in Appendix E.

Enterprise RDF landfill spotters will complete an initial FDEP-approved course and eight (8) hours of continuing training every three (3) years. Records documenting each employee's training course completion and schedule will be maintained and kept at the landfill office at all times.

In addition to FDEP required training, in-house training programs will be conducted by Enterprise RDF trained operators for interim operators, spotters and other employees in proper Class III landfill operations, unacceptable Class III waste material handling, asbestos handling, and facility maintenance. These in-house courses will be provided at least every six (6) months and be documented in a training log as shown in Appendix C.

16.0 COMMUNICATION FACILITIES

The proposed landfill gate house will have both telephone and facsimile facilities. In addition, all proposed landfill operating areas (gate house, working face, etc.) will have radio communication with the base station at the gate house.

17.0 EQUIPMENT INVENTORY

Equipment currently planned for use at the proposed landfill site includes:

A. D-8 Caterpillar bulldozer, Rex 370-C Compactor; two 2.5 cyd loaders, water truck, 590 John Deer backhoe, or equivalent are sufficient for adequate operation of the facility. A wood chipper/grinding machine (Hogzilla), or equivalent, will be moved to the site periodically to process wood wastes as needed. Additional equipment, such as a grader may be rented as needed.

B. Arrangements will be made to provide alternate equipment within 24 hours following an equipment breakdown.

C. There will be safety devices present on equipment to shield and protect the operators from potential hazards during operation.

17.1 Equipment Maintenance

Enterprise RDF proposes to conduct routine heavy equipment and vehicle maintenance onsite. Maintenance includes fueling of heavy equipment with diesel fuel, lubrication, oil changes and, antifreeze changes. Tire repairs will be handled by an outside service company.

A permanent equipment fueling facility will be installed and registered in accordance with FAC 62-761. Pasco County will be copied on the registration.

Oil and antifreeze changes will be contained by large drip pans to catch the waste oils. These wastes will then be transferred either to a 250-gallon waste oil skid tank or to a 55-gallon drum for waste antifreeze, which will be located in a containment area. Enterprise RDF plans to enter into contracts with licensed recyclers to periodically pick up the waste oil and antifreeze. Records of these pickups will be maintained by Enterprise RDF. All virgin lubricants will be stored within the proposed secured maintenance building. See the site plan for location.

18.0 SAFETY DEVICES

All proposed operating equipment which will be utilized at the proposed landfill site will be fitted with rollover protection and fire extinguishers. All landfill personnel will be required to wear safety helmets, safety shoes, eye protective glasses, gloves, and safety vests. The proposed onsite heavy equipment will meet OSHA safety requirements. First aid equipment will be kept in the office trailer and in the operating equipment.

19.0 RECORDS, PERMITS AND REPORTS

A copy of any Florida Department of Environmental Protection (FDEP) and Pasco County approved engineering drawings, permits and supporting information shall be kept at the facility for reference and inspections. Permits will be posted at site per ordinance. A waste type and quantity intake (in tons) log will be kept daily, compiled monthly and a report will be submitted quarterly to Pasco County and the FDEP.

An annual estimate of the remaining life and capacity in cyds of the landfill will be reported annually to the FDEP.

19.1 Water Quality Monitoring

Enterprise RDF will conduct the required initial and semi-annual groundwater monitoring at the sites' monitoring wells as described in the sites' Groundwater Monitoring Plan. Semi-annual reports of this monitoring will be submitted to Pasco County and FDEP in accordance with this plan. Quarterly monitoring will also be conducted and reported at specific wells per Pasco County conditions.

19.2 Landfill Operating Records

The operating record for the landfill will document daily as a minimum the following activities:

- Self inspections of landfill conditions, safety equipment and unacceptable waste received, any odor detected;
- Records used to develop permit applications;
- Change in construction, operation or closure permits and all supporting designs;
- Water quality sampling events, analytical reports, well installation or repair;
- Employee training;
- Facility construction, major maintenance, or demolition;
- Other activities that significantly affect facility operations.

The Operating Record will be kept at the landfill and be accessible to the landfill operators to maintain and for FDEP or Pasco County inspection at reasonable times.

Operational records will be maintained for the design life of the landfill. Water quality monitoring information, maintenance records, and permit reports will be maintained for a minimum of 10 years. Background water quality records will be maintained for the design period of the landfill.

20.0 EROSION CONTROL

The site's inherent design as an excavation pit will prevent stormwater from leaving the property. Stabilization by seeding and mulching of the final fill areas will occur as the fill operations progress from cell to cell, see Reclamation and Closure Plan (Section 7) for further details.

21.0 FINAL GRADE PLAN

Final grade plan of the facility is shown on the plans (Figure 3-10 (C-5)) and in the cross-sections (Figures 3-8 (C-3) and 3-9 (C-4)). The mixed areas will be brought to the proposed Landfills bottom grade prior to accepting any waste material. The finished elevation after all fill material has been placed and final cover provided is designed to reclaim excavated areas back to the grade which existed prior to the site being opened as a mine with allowance for positive drainage.

22.0 CLOSURE AND LONG TERM CARE

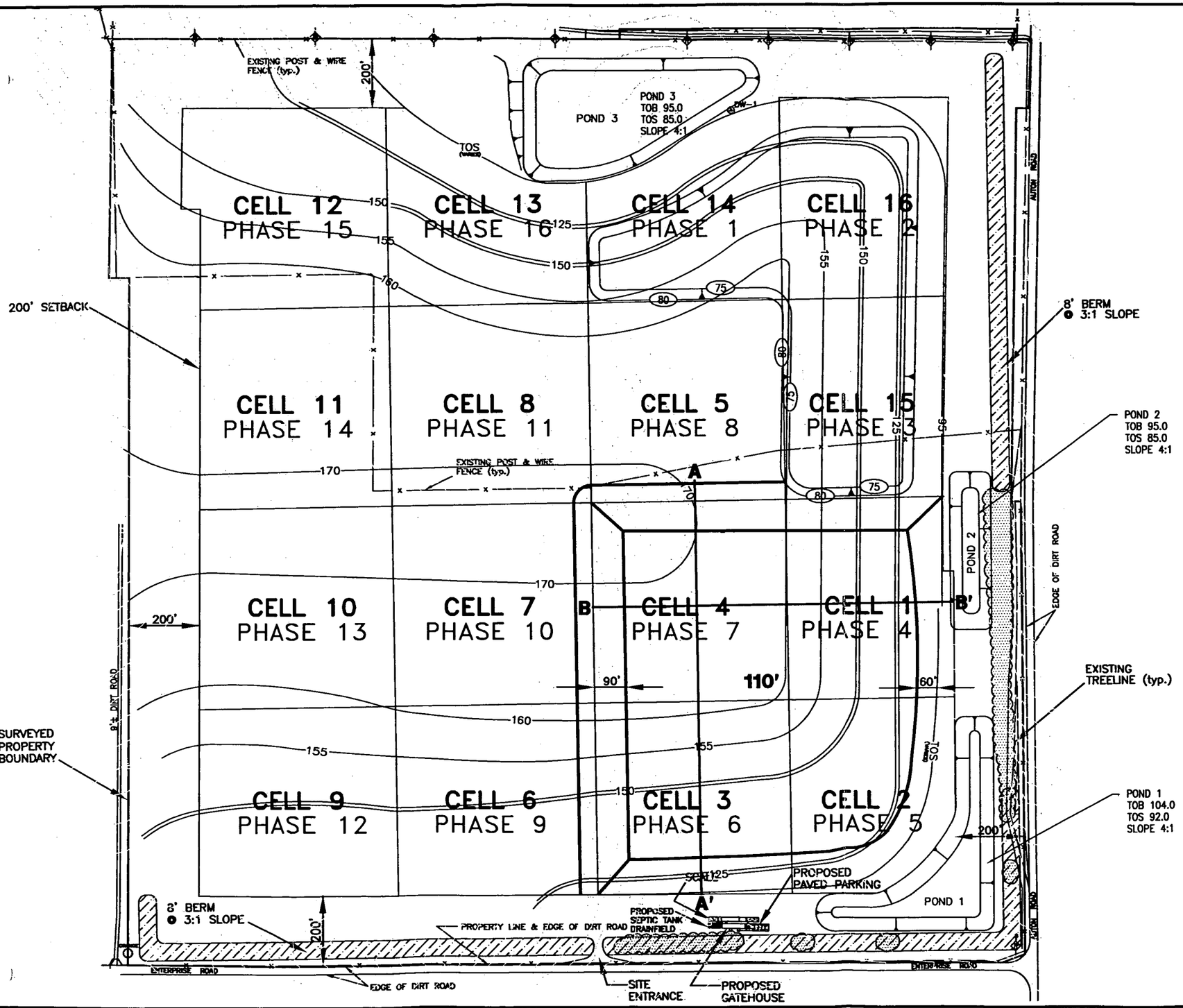
The site's Reclamation and Closure Plan details the procedures to properly close and maintain the landfill during the 30-year post-closure period. A Closure Report will be prepared for the landfill that details the site-specific limitations for land use based on geotechnical stability (settlement), potential gas migration, and site access. Long-term maintenance of erosion controls, stormwater controls and monitoring devices is discussed in the Closure Plan, Section 7.

APPENDIX D

LARKIN LANDFILL
GAS MONITORING SURVEY FORM

GAS PROBE NO.	TIME OF READING	AIR TEMP °F	METHANE LEVEL Pre-Purge Measurement		METHANE LEVEL Post-Purge Measurement	
			% by Vol.	% by LEL	% by Vol.	% by LEL
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

APPENDIX E



LEGEND

———	–CELL SEQUENCE LINE
CELL 16 PHASE 1	**–RECLAMATION/LANDFILL CELL** –MINE EXCAVATION PHASE IDENTIFICATION NUMBER
——160——	–PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)
110'	–SEQUENCE ELEVATION, (ft. NGVD)
B——B'	LINE OF CROSS SECTION

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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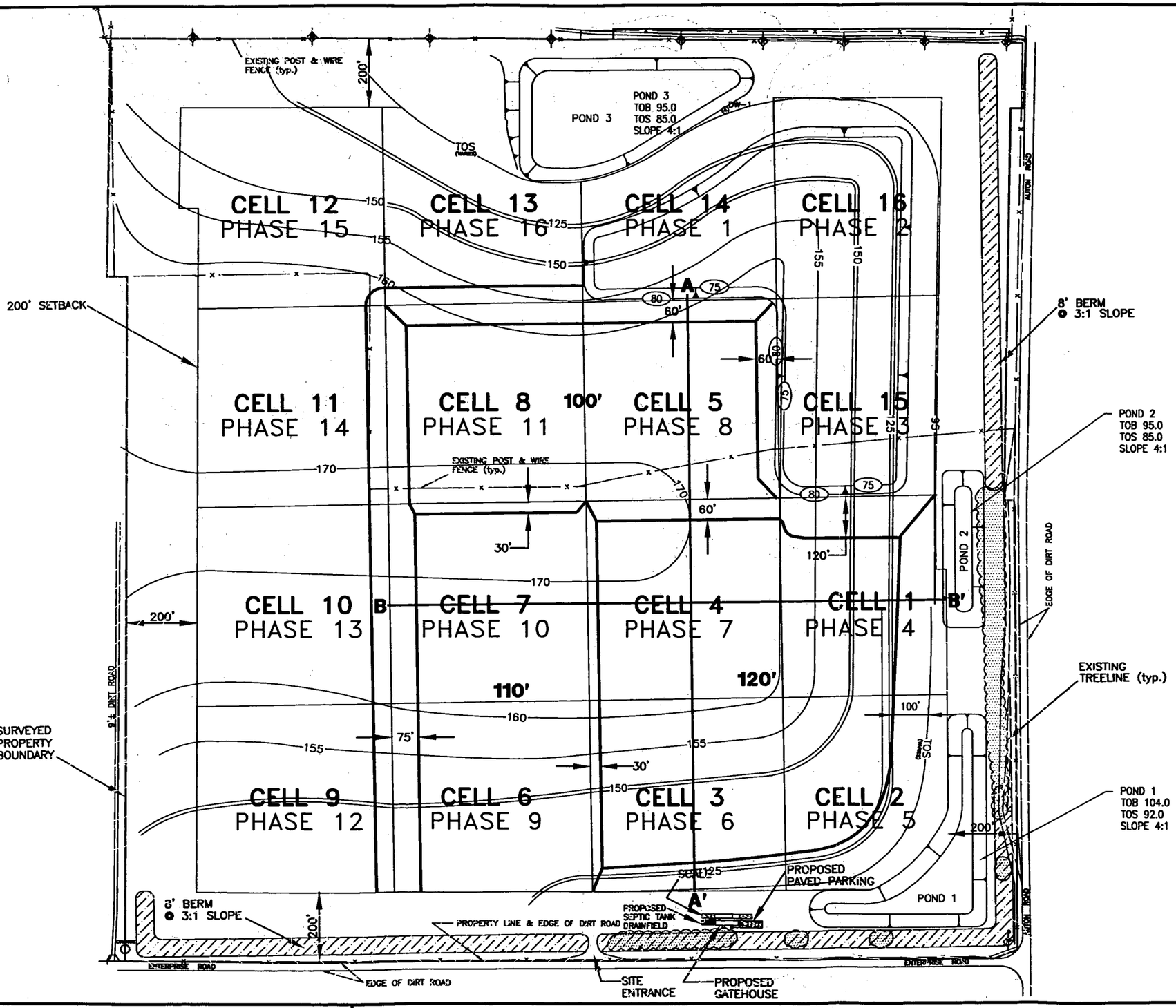
CELL SEQUENCING PLAN - SEQUENCE 1
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-17



N

0 75 150 300
(feet)

LEGEND

——— –CELL SEQUENCE LINE

CELL 16 **–RECLAMATION/LANDFILL CELL**
PHASE 1 –MINE EXCAVATION PHASE IDENTIFICATION NUMBER

——160—— –PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)

110' –SEQUENCE ELEVATION, (ft. NGVD)

B———**B'** LINE OF CROSS SECTION

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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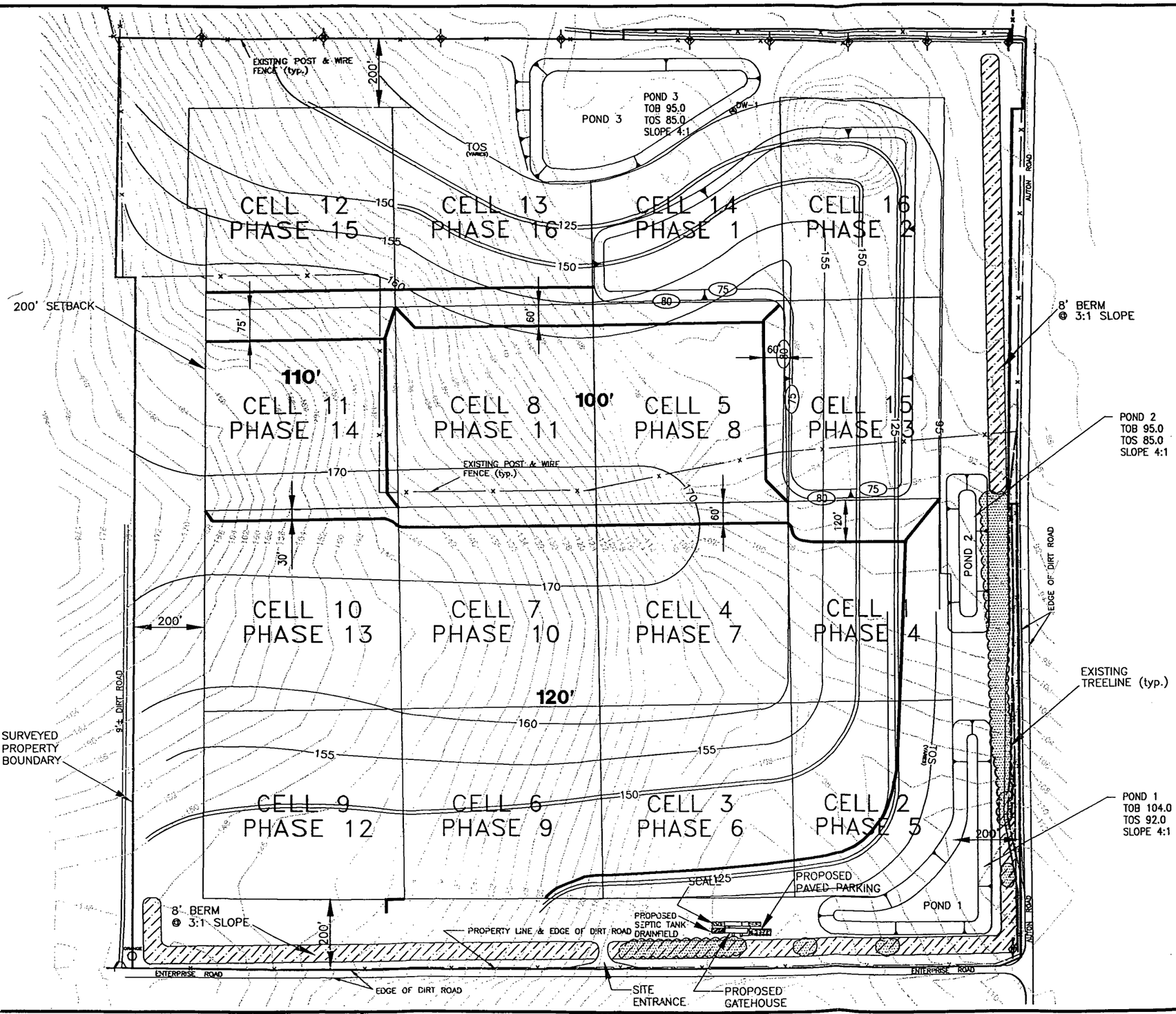
CELL SEQUENCING PLAN - SEQUENCE 2
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-18



LEGEND

- —CELL SEQUENCE LINE
- CELL 16 / PHASE 1 —RECLAMATION/LANDFILL CELL —MINE EXCAVATION PHASE IDENTIFICATION NUMBER
- ——160—— —PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)
- **120'** —SEQUENCE ELEVATION, (ft. NGVD)

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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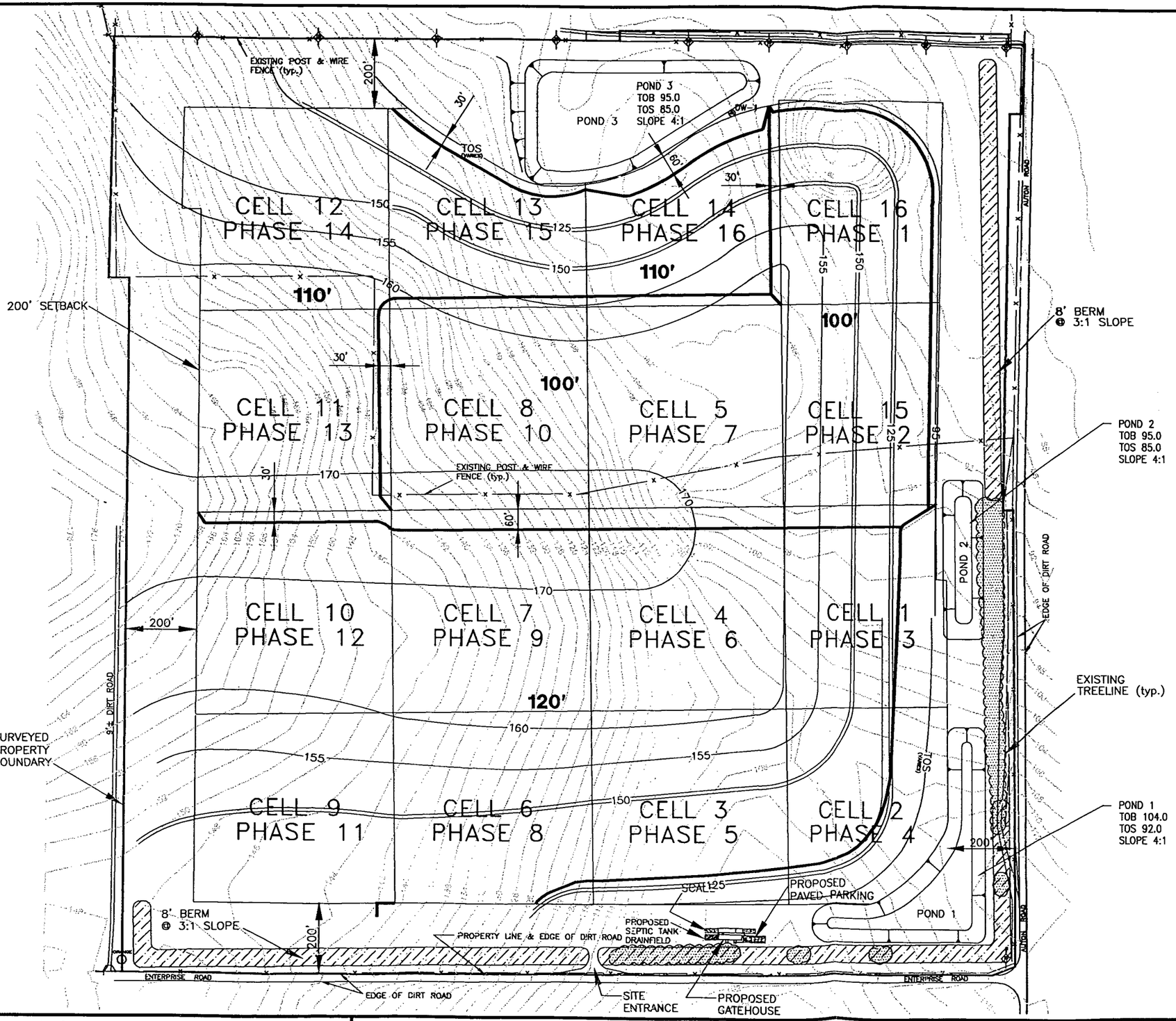
CELL SEQUENCING PLAN - SEQUENCE 3
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-19



N

0 75 150 300
(feet)

LEGEND

—— —CELL SEQUENCE LINE

CELL 16 / PHASE 1 —RECLAMATION/LANDFILL CELL
—MINE EXCAVATION PHASE IDENTIFICATION NUMBER

——160—— —PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)

120' —SEQUENCE ELEVATION, (ft. NGVD)

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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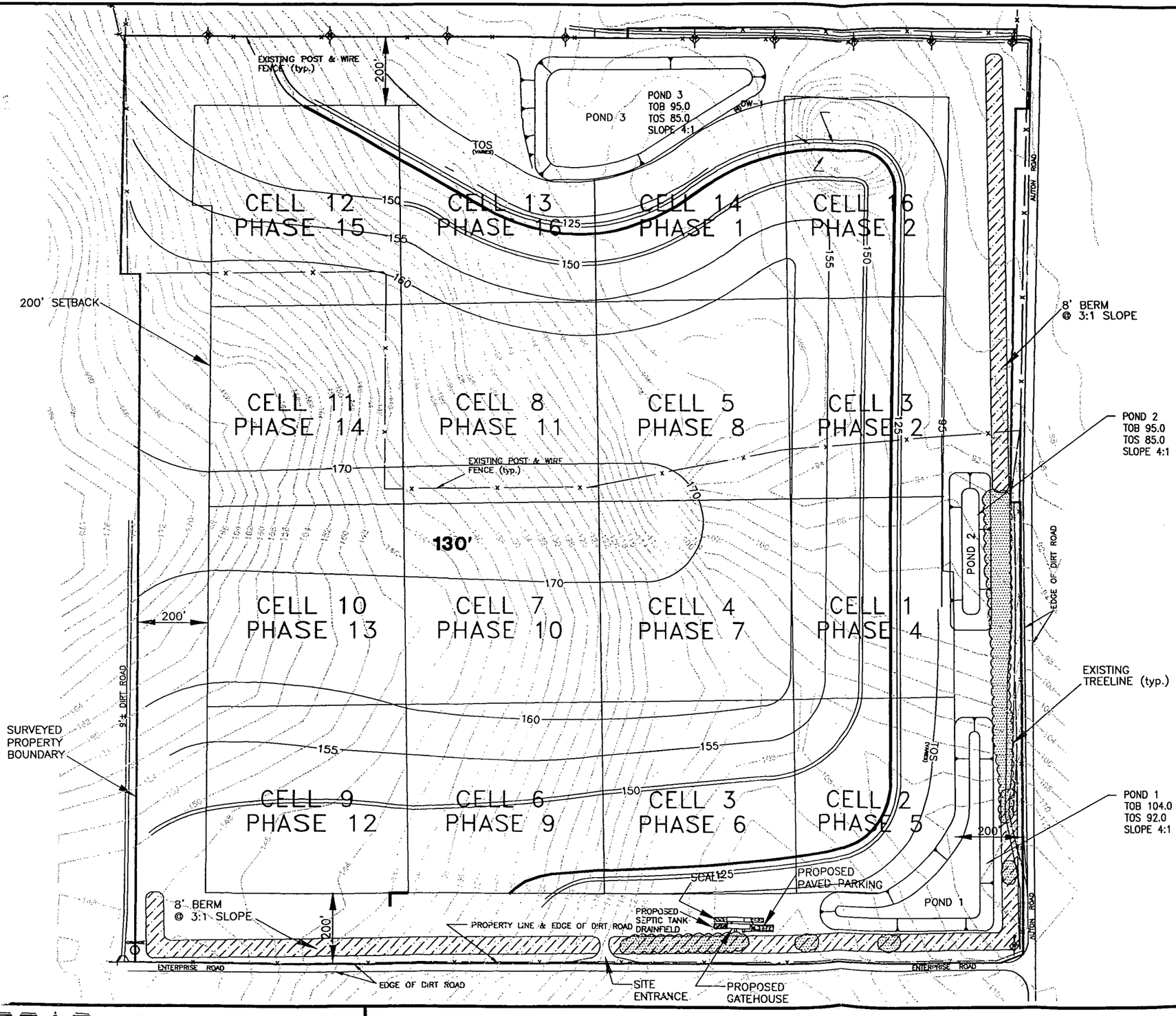
CELL SEQUENCING PLAN - SEQUENCE 4
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-20



LEGEND

———	–CELL SEQUENCE LINE
CELL 16 PHASE 1	–RECLAMATION/LANDFILL CELL –MINE EXCAVATION PHASE IDENTIFICATION NUMBER
——160——	–PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)
130'	–SEQUENCE ELEVATION, (ft. NGVD)

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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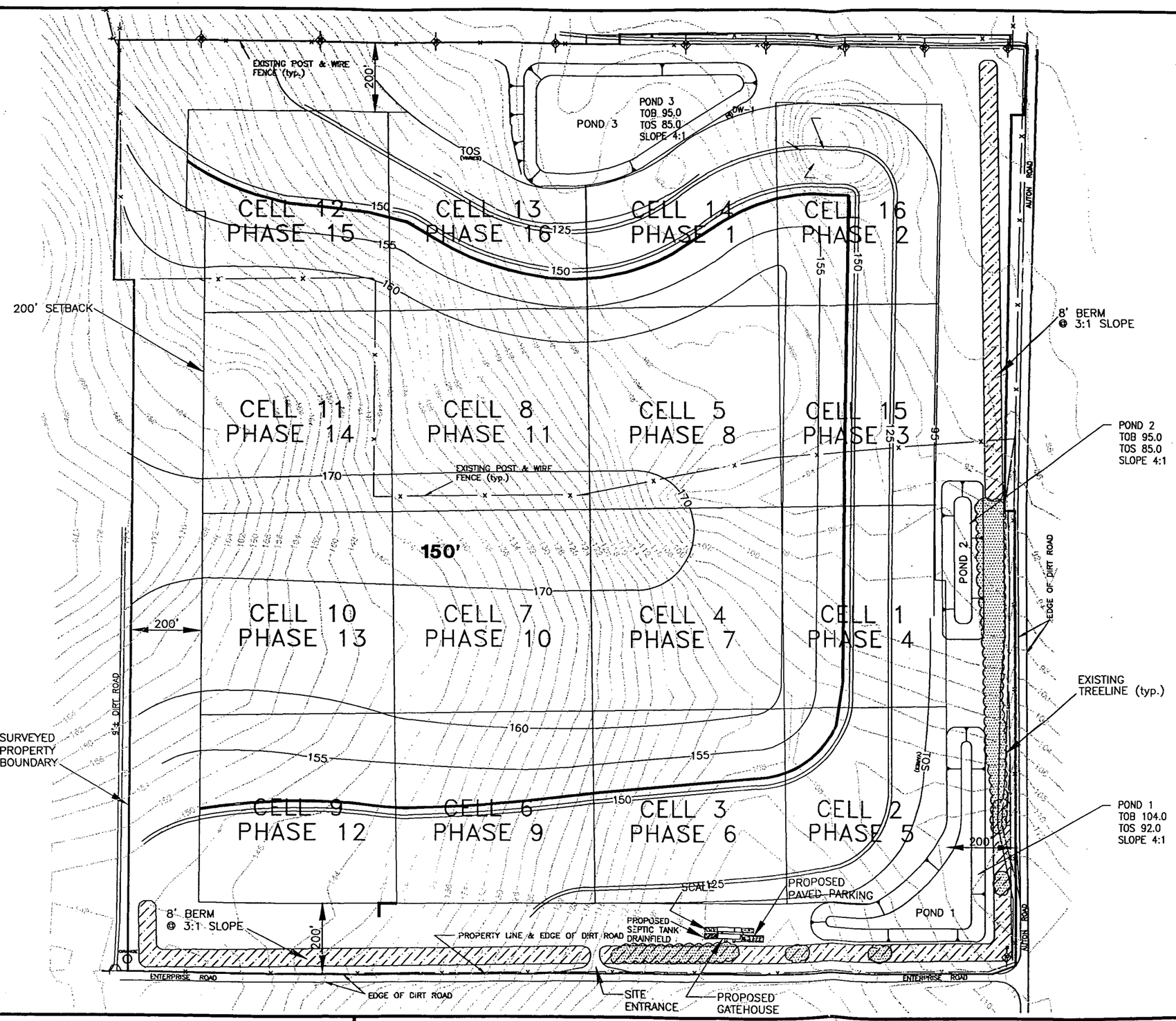
CELL SEQUENCING PLAN - SEQUENCE 5
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-21



N

0 75 150 300
(feet)

LEGEND

- —— –CELL SEQUENCE LINE
- CELL 16 / PHASE 1 –RECLAMATION/LANDFILL CELL; MINE EXCAVATION PHASE IDENTIFICATION NUMBER
- ——160—— –PROPOSED FINAL GRADE ELEVATION, (ft. NGVD)
- **150'** –SEQUENCE ELEVATION, (ft. NGVD)

NOTES:
1. Landfill base is 80–117 feet NGVD.
2. All working face slopes are 3H:1V.
3. Outer slopes are as indicated on the Final Grade Plan.
4. Elevations shown include cover material.

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CELL SEQUENCING PLAN - SEQUENCE 6
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

FIGURE 3-22

APPENDIX F

APPROVED LANDFILL OPERATORS CONTINUING EDUCATION COURSES

NUMBER		COURSE TITLE	PROVIDER	YEAR APPROVED	CONTACT HOURS
INITIAL TRAINING					
Landfill Operators					
30		*Manager of Landfill Operations Training Course [SWANA International Course]*	SWANA-Intl.	Apr 1994	
160		*Manager of Landfill Operations*	TREEO/SWANA-FL	Jan 2000	
138		*Solid Waste Facility Operations for Landfill Operators*	Kohl Training	June 1999	
28		*Solid Waste Landfills Correspondence Course (course # C240-A180)*	Univ Wisc	Apr 1994	
21		*Solid Waste Landfill: Operators Short School [no longer offered*	TREEO/SWANA-FL	Jan 1994	
Construction and Demolition Debri Operators (C & D)					
		(These courses can be taken as continuing education for Landfill Operators)			
80		*Construction and Demolition Debri Landfills - A Short Course for Operators*	TREEO/SWANA-FL	Feb 1997	20
139		*Solid Waste Facility Operations for Construction and Demolition Operators*	Kohl Training	June 1999	20
Construction and Demolition Debris Spotters					
		(These courses can be taken as continuing education for Landfill and C&D Operators)			
91		*Eight Hour Spotter Training for C&D Sites*	Kohl Training	May 1997	8
147		*Training for Spotters at Landfills, C&D Sites and Transfer Stations*	JEA	Sept 1999	8
36		*Waste Screening & Identification For Landfill Operators and Spotters*	SCS Eng	Nov 1994	8
CONTINUING EDUCATION					
71	▲ ●	*Asbestos Awareness Course for Landfill Operators*	TREEO	Dec 1996	4
145		*Avoiding OSHA Citations and Liabilities in Florida*	Lorman Educ	Sept 1999	6
143	▲ ●	*Basic Confined Space*	NF Env Services	Sept 1999	8
97	●	*Basic Landfill Operations*	Kohl Training	Sept 1997	8
72		*Bird and Wildlife Management at SW Mgmt Facilities*	TREEO	Dec 1996	7
12		*Chemistry for Non-Chemist*	TREEO	Mar 1993	8
18		*Confined Space Entry & Assessment*	TREEO	Mar 1993	20
103	▲ ●	*Construction and Demolition Waste Recycling*	TREEO	Feb 1998	7
14	●	*Debris Management G202*	FEMA/FL Div	Apr 1998	12
136		*Debris Management-Advanced Course (G202-Advanced)*	FDEP/FEMA	Apr 1999	8

All continuing education courses are approved for Class I,II,III Operators / ● Approved for C&D / ▲ Approved for Spotters / ☆ one-time approval

APPROVED LANDFILL OPERATORS CONTINUING EDUCATION COURSES

NUMBER		COURSE TITLE	PROVIDER	YEAR APPROVED	CONTACT HOURS
162	☆	Design of Lateral Drainage Systems for Landfills	Tenax	Mar 2000	5
108	●	Developing a Usable Operations Plan	Kohl Training	Feb 1998	4
130	▲	Eight Hour Confined Space Training Course	Charles Davis	Dec 1998	8
91	▲ ●	Eight Hour Spotter Training for C&D Sites	Kohl Training	May 1997	8
144		8-Hour HazWoper Refresher Training	Mraz	Sept 1999	4
168		8-Hour OSHA Refresher	FDEP/USL City Env	April 2000	4
100	●	Excavation, Trenching and Soil Mechanics	TREEO	Nov 1997	8
66		Exposure to Bloodborne and Waterborne Pathogens	TREEO	Oct 1996	8
135	☆	FDEP HHW & Conditionally Exempt SQG Waste Mgt Workshop-May 5-7, 1999 [Management credit]	FDEP	Apr 1999	5
167	☆	FDEP HHW & Conditionally Exempt SQG Waste Mgt Workshop-May 1-3, 2000 [Management credit]	FDEP	Apr 2000	5
134	☆	FDEP Annual SQG Assessment, Notification & Verification Program Workshop-May 3-5, 1999	FDEP	Apr 1999	5
110	▲ ●	Fires at Landfills	Kohl Training	Feb 1998	2
141		Florida SWANA Summer 1999 Conference	SWANA-FL	June 1999	4 -1 hour
163		Florida SWANA Spring Tri-State 2000 Conference	SWANA-FL	Mar 2000	4 -2 hour
119	▲ ●	Four Hour Spotter Training Refresher for C&D Sites	Kohl Training	Aug 1998	4
156	▲ ●	Four Hour Spotter Orientation for Class I, II, and III Landfills	Kohl Training	Feb 2000	4
155	▲ ●	Four Hour Spotter Orientation for Class I, II and III Supervisors	Kohl Training	Feb 2000	4
113	☆	Full Cost Accounting for Municipal Solid Waste Mgmt	Terra Tech	Apr 1999	6
120		Fundamentals of Operations for MRF Facilities Personnel	Kohl Training	Aug 1998	8
154		Geosynthetics for Advanced Solutions	GSE Lining Tech	Jan 2000	6
152	●	Groundwater Issues for Landfill Operators	TREEO	Dec 1999	6
46		Groundwater Monitoring/Leachate Mgmt	SWANA-Intl.	Mar 1996	8
101	▲ ●	Hazard Communications Course	Escambia Co	Nov 1997	4
102	▲ ●	Hazardous Materials in Construction & Demolition Waste	TREEO	Feb 1998	4
35		Hazardous Material and Site Investigations	EnSafe	Apr 1997	6

All continuing education courses are approved for Class I,II,III Operators / ● Approved for C&D / ▲ Approved for Spotters / ☆ one-time approval

APPROVED LANDFILL OPERATORS CONTINUING EDUCATION COURSES

NUMBER		COURSE TITLE	PROVIDER	YEAR APPROVED	CONTACT HOURS
,31		Hazardous Material Recognition Awareness Level Refresher	Citrus County	Jan1999	4
98		Hazardous Materials Transportation Seminar	City Env	Oct 1997	5
112	●	Hazardous Material / Waste Transportation	TREEO	Apr 1998	6
34		Hazardous Waste & Emergency Response	Applied Assoc	Nov 1994	8
99		Hazardous Waste Operations & Emergency Response	Sterling Fibers/ESP	Oct 1997	3
63		Hazardous Waste Regulations for Generators	TREEO	Aug 1996	4
115	●	HazWoper Material Control & Emergency Response	Air Safe	Apr 1998	8
94		Health & Safety at MSW Landfills	SWANA-Intl	Sept 1997	10
62		Health & Safety Training for Hazardous Materials: 8 hour OSHA Refresher	TREEO	Aug 1996	4
69		Health & Safety Training for Hazardous Materials: 40-Hour OSHA Compliance Course	TREEO	Nov 1996	8
149	▲ ●	Health and Safety Training for Landfill Operations	TREEO	Nov 1999	5
?9	▲	Inspector's Handbook for Construction Projects	Hillsborough Co	Nov 1998	7
151		Integrated Management Course Hurricane Recovery and Mitigation	FEMA/EMI	Nov 1999	7
37		Intro to Electrical Maintenance (Technical Credit)	TREEO	Nov 1994	7
124	▲ ●	Landfill Compaction Training School	Caterpillar	Oct 1998	5
75	▲ ●	Landfill Compliance Inspections	Kohl Training	Feb 1997	2
157		Landfill Design and Construction	TREEO	Feb 2000	28
49		Landfill Gas & Leachate Systems	SCS Eng	Apr 1996	8
89	☆	Landfill Gas: How to Profit From the New Mandates	FDEP	May 1997	7
111		Landfill Operations and Waste Screening for Class I, II & III Sites	Kohl Training	Feb 1998	8
169		Landfill Service School	EPG Companies	Apr 2000	7
159		Landfill Symposium 4th Annul (June 28-30, 1999) [continuous approval for future offerings]	SWANA-Intl	Jan 2000	18
118	▲ ●	Landfill Wildlife Training Course	ATM	Aug 1998	4
,58		Leachate and Gas Management System Design	TREEO	Feb 2000	12
125		Management of Leachate, Gas Stormwater and Odor	Kohl Training	Oct 1998	8

All continuing education courses are approved for Class I,II,III Operators / ● Approved for C&D / ▲ Approved for Spotters / ☆ one-time approval

APPROVED LANDFILL OPERATORS CONTINUING EDUCATION COURSES

NUMBER		COURSE TITLE	PROVIDER	YEAR APPROVED	CONTACT HOURS
		at Class I Landfills			
95		*Managing Landfill Gas at MSW Landfills*	*SWANA-Intl.*	*Sept 1997*	5
109	●	*Measurements and Calculations for Landfill Operators*	*Kohl Training*	*Feb 1998*	5
140		*Meeting the Challenges of Environmental Liability with Case Studies in Solid Waste*	*APWA/FL SWANA*	*June 1999*	4
128	▲ ●	*Methods of Erosion and Sedimentation Control for Construction Sites*	*FDEP/TREEO*	*Oct 1998*	6
93	●	*Operational Issues for Landfill Managers*	*SWANA-Intl.*	*June 1997*	17
142		*OSHA 8-Hour Refresher for Hazardous Waste Operations and Emergency Response*	*FDEP/Jamson*	*June 1999*	4
166		*OSHA 8-Hour Hazwoper Annual Refresher*	*UNF/Safety America*	*April 2000*	4
104	●	*Permit Required Confined Space Training*	*TREEO*	*Feb 1998*	7
45		*Principles of Managing IMSWM Systems [Certified Municipal Solid Waste Manager I]*	*SWANA-Intl.*	*Mar 1996*	24
153		*Pump Maintenance*	*Nat'l Tech Transfer*	*Jan 2000*	7
38		*Pumps and Pumping (Technical Credit)*	*TREEO*	*Nov 1994*	7
90	☆	*Recycling Coordinator Training Course 1997*	*TREEO*	*May 1997*	8
137	☆	*Recycling Coordinator Training Course 1999*	*TREEO*	*June 1999*	8
146	▲●☆	*Recycling Disaster Debris*	*UCF*	*Sept 1999*	6
39	●	*Stormwater Management for Landfills*	*TREEO*	*Feb 1995*	8
150		*Storm Water Management Training*	*S2Li*	*Nov 1999*	4
61		*Successfully Contracting Solid Waste Services*	*SCS Eng*	*Aug 1996*	4
164	☆	*SWANA 23rd Annual Landfill Gas Symposium*	*SWANA Int'l*	*Mar 2000*	15
116	●	*The Complete Ground-Water Monitoring Course*	*Nielsen Env*	*June 1998*	16
121	▲ ●	*Training for Personnel at C&D Materials Recovery Facilities*	*Kohl Training*	*Aug 1998*	8
147	▲ ●	*Training for Spotters at Landfills, C&D Sites and Transfer Stations*	*JEA*	*Sept 1999*	8
132		*Training Sanitary Landfill Operating Personnel*	*SWANA Int'l*	*Jan 1999*	5
42		*Transfer Station Design & Operations*	*SWANA*	*Jul 1995*	16
148	▲ ●	*2-Hour Landfill Spotter Refresher Training*	*Jea*	*Sept 1999*	2

All continuing education courses are approved for Class I,II,III Operators / ● Approved for C&D / ▲ Approved for Spotters / ☆ one-time approval

APPROVED LANDFILL OPERATORS CONTINUING EDUCATION COURSES

NUMBER		COURSE TITLE	PROVIDER	YEAR APPROVED	CONTACT HOURS
126	▲ ●	Waste Acceptability for Spotters, Equipment Operators and Scale House Personnel	Kohl Training	Oct 1998	2
36	▲ ●	Waste Screening & Identification For Landfill Operators and Spotters	SCS Eng	Nov 1994	8
122	▲ ●	Waste Screening and Operation Orientation for Transfer Station Personnel	Kohl Training	Feb 1998	8
9	▲ ●	Waste Screening at MSW Mgmt Facilities	SWANA-Intl.	Nov 1993	10
165	☆	Waste Tech 2000 March 6-7, 2000	NSWMA/EIA	April 2000	7
73	▲ ●	Wet Weather Operations	Kohl Training	Feb 1997	4
65	●	What Can I Accept & How Do I Keep It From Blowing Around	Kohl Training	Aug 1996	2
64	▲ ●	When it Rains, It Pours (And We Stay Open)	Kohl Training	Aug 1996	2

APPENDIX 3-B

ENTERPRISE RECYCLING AND DISPOSAL FACILITY
EMERGENCY AND CONTINGENCY OPERATIONS

Emergency conditions that may require a contingency operation plan at the Enterprise RDF landfill may be created by a natural disaster (i.e., hurricane, tornado, and/or flooding), or fire. During emergency conditions normal waste acceptance procedures will continue, as feasible. The following procedures are to be initiated at the onset of a site emergency or major storm:

Major Storm or Disaster

1. All personnel understand their role in an emergency situation. At least one office employee will monitor the telephone. Radio communication is provided between the office and all operating areas of the landfill at all times.

2. All lightweight signs and equipment are to be collected and stored in a secure area.

3. All depressed and eroded areas are to be protected and the stormwater management system is to be inspected and maintained, as necessary.

4. Work is to begin in dry areas only when operations are resumed; waste materials are not to be deposited in standing water.

5. On-site emergency equipment locations, such as first aid and eye wash stations, are shown on Site Plan.

Fire

1. In the event of a small fire, equipment operators will smother the fire using on-site soil.

2. In the event of a large fire, the following emergency phone numbers are provided:

- 911 – Fire/Police/Medical
- Dade City Fire Department – (352) 521-1492
- Dade City Police Department – (352) 521-1493
- Pasco County Hospital – Dade City – (352) 521-1100

Spills

In the event of a spill, the site manager will determine whether on site personnel are capable of the cleanup. For example, if oil is spilled while performing vehicle maintenance, the site manager will direct landfill personnel to use a sorbent material to cleanup the spill. The material will be placed in a drum for proper disposal. If unknown or hazardous chemicals are spilled, the site manager will contact the FDEP (813-744-6100) and Pasco County (727-847-2411) for direction.

Equipment Failure

Arrangements with equipment rental companies will be maintained in order to provide for additional equipment during unanticipated breakdowns.

Landfill Shutdown

1. If the landfill should need to be shut down, the FDEP will be notified and haulers will be directed to another properly permitted facility.

2. Initial cover of six (6) inches will be placed on all waste exposed areas.

The stormwater management system will allow for disposal operations to continue during periods of inclement weather. Temporary berms, ditches, and grading are to be used to drain stormwater away from the active face of the landfill.

The following actions should be taken at the landfill following a severe storm, hurricane, or other natural disaster:

- The FDEP and Pasco County are to be notified by telephone immediately should any need for emergency and contingency operations arise. The phone number for the FDEP Solid Waste Section is (813) 744-6100. The phone number for Pasco County is (727) 847-2411. The contact person is Ms. Cindy Jolly. The calls are to be confirmed by letter.

- Operational hours of the landfill may be extended at the landfill to meet the needs of the community. Pasco County and the FDEP will be consulted prior to changes in the hours of operation of the landfill.

- Necessary additional equipment, if required, will be rented. Arrangements are in place between the operator of the Landfill and equipment rental companies to facilitate this activity.

- If required, additional equipment operators and/or other personnel will be contracted. Arrangements are in place between the operator of the Landfill and temporary staffing companies to facilitate this activity.

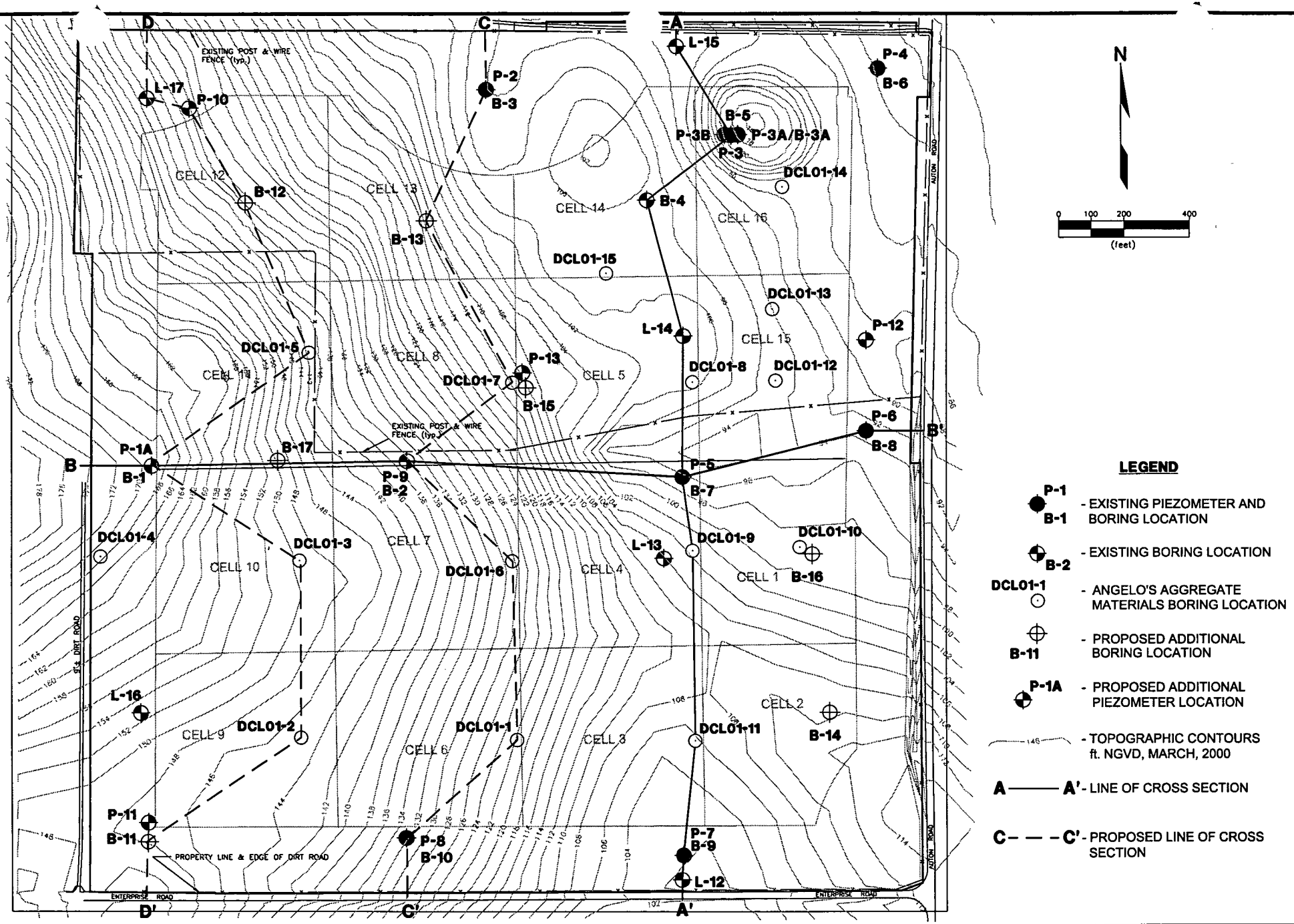
- Appropriate public notices will be issued, including notification of the landfill's customer's by telephone and other media.

- Contacts with local governmental bodies and local emergency agencies such as fire and rescue have been established in order to coordinate emergency activities. Fire and rescue personnel responsible for this district have visited the site in order to discuss emergency procedures.

- Site personnel will be trained in CPR and First Aid.

SECTION 5.0

FIGURE 4



R:\CAD\DWG\1999\99-331.01\Phase5\33101N03 3/16/01

FIGURE 4

HARTMAN & ASSOCIATES, INC.
engineers, hydrogeologists, surveyors & management consultants
201 EAST PINE STREET – SUITE 1000 – ORLANDO, FL 32801
TELEPHONE (407) 839-3955 – FAX (407) 839-3790

PIEZOMETER AND BORING LOCATION MAP
PROPOSED ENTERPRISE RECYCLING AND DISPOSAL FACILITY
DADE CITY, FLORIDA

SUPPORTING DOCUMENTATION

Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

FEB 22 2001

FEB 26 2001

Enterprise Recycling & Disposal
c/o James Golden, P.G.
Hartman & Associates, Inc.
201 E. Pine St., Suite 1000
Orlando, FL 32801

File No.: 51-0172489-001

Dear Mr. Golden:

Enclosed is Environmental Resource Permit, File No. 51-0172489-001, issued pursuant to Part IV of Chapter 373, Florida Statute and Chapter 40D-4, Florida Administrative Code.

Thank you for your interest and cooperation in the permit process and in managing and protecting the natural resources of the state of Florida. If you have any questions, please contact me at (813) 744-6100, extension 470. When referring to this project, please use the file number indicated.

Sincerely,

Randal R. Cooper, P.E.
Surface Water Engineer
Submerged Lands and Environmental Resources

enclosure

Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

SUBMERGED LANDS AND ENVIRONMENTAL RESOURCES
FINAL PERMIT
ENVIRONMENTAL RESOURCE INDIVIDUAL PERMIT

PERMITTEE/AUTHORIZED ENTITY:
Enterprise Recycling & Disposal
John Larkin
Sid Larkin & Son, Inc.
P.O. Box 1747
Dade City, FL 33526

AGENT:
James Golden, P.G.
Hartman & Associates, Inc.
201 E. Pine St., Suite 1000
Orlando, FL 32801

Permit/Authorization Number:
51-0172489-001

Date of Issue: FEB 22 2001

Expiration Date of Construction Phase:
FEB 22 2006

County: Pasco

Project: Surface water management system for a borrow pit operation and Class III landfill.

This permit is issued under the authority of Part IV of Chapter 373, F.S., 40D-4, and Title 62, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain an environmental resource permit. Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

This permit also constitutes certification compliance with water quality standards under Section 404 of the Clean Water Act, 33 U.S.C. 1344.

As staff to the Board of Trustees, the Department has reviewed the activity described below, and has determined the activity is not on state-owned submerged lands. Therefore, your project is exempt from the further requirements of Chapter 253, Florida Statutes.

A copy of this authorization also has been sent to the U.S. Army Corps of Engineers (USACOE) for review. The USACOE may require a separate permit. Failure to obtain this authorization prior to construction could subject you to enforcement action by that agency. You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. **This permit is subject to the limits, conditions, and locations**

of work shown in the attached drawings, and is also subject to the attached General Conditions and Specific Conditions, which are a binding part of this permit. You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities. Failure to comply with all drawings and conditions shall constitute grounds for revocation of the permit and appropriate enforcement action.

Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and with the general and specific conditions of this permit/certification/authorization, as specifically described below.

ACTIVITY DESCRIPTION:

The project involves construction of a surface water management system for a borrow pit operation and Class III landfill.

Runoff from the site is not expected to be a concern during operation as a borrow pit because of the general increase of basin storage through the excavation and removal of soil. An increase in surface water runoff is expected during landfilling operation and closure. DEP Solid Waste rules require that the landfill be operated in a manner that does not collect and allow runoff to contact waste material and require that the landfill be closed with final cover designed to minimize infiltration of rainfall.

The surface water management system for the landfill consists of three (3) water retention areas, each sized to contain the runoff volume from a 25 year, 24 hour design event.

Name	Area @ TOB (ac)	Containment Volume (ac-ft)
Pond 1	2.54	13.6
Pond 2	1.16	4.9
Pond 3	3.14	21.7

The surface water management system is intended to only serve the borrow pit and landfill, including entrance road and internal perimeter roads. No improvements to Enterprise Road are proposed or authorized by this Environmental Resource Permit.

Operation and maintenance of the surface water management system will be the responsibility of the applicant.

No wetlands will be impacted, no floodplain impacts are proposed, and there are no issues involving sovereign submerged lands.

The facility is as shown on the set of construction drawings and calculation booklet prepared by Hartman & Associates, Inc., and received at the Department on July 13, 2000, with additional information received on November 20, 2000.

The project area is located northwest of the intersection of Enterprise Road and Auton Road, in Sections 5 & 8, Township 25 South, Range 22 East, Pasco County.

SPECIFIC CONDITIONS:

1. All submittals required herein shall be directed to:

Department of Environmental Protection
Environmental Administrator
Submerged Lands & Environmental Resources
Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619

hereafter referred to as "the Department". Such submittals include, but are not limited to, record drawings, progress reports, mitigation monitoring reports and water quality monitoring reports.

All submittals shall include the permittee's name and permit number.

2. In the event that the permittee files for bankruptcy prior to completion of all work permitted and required by this permit, the permittee must notify the Department within 30 days of filing. The notification shall identify the bankruptcy court and case number and shall include a copy of the bankruptcy petition.

3. If the approved permit, drawings and the Specific Conditions contradict each other, then the Specific Conditions shall prevail.

4. The permittee shall notify the Department in writing within 14 days of any change in agents designated in the approved permit application.

5. The permittee is responsible for retaining a professional engineer registered in the State of Florida to certify that the construction of the project is in compliance with the approved permit plans.

6. All drawings, record drawings, land surveys and as-built surveys required herein shall be certified by a Professional Engineer or Registered Land Surveyor, as appropriate, registered in the State of Florida.

7. Progress reports for the project shall be submitted to the Department beginning twelve (12) months after permit issuance and shall continue to be submitted every twelve (12) months until all permitted construction of the project is completed. Progress reports must be submitted to the Department even if there is no ongoing construction. Reports shall include the current project status and the construction schedule for the following twelve month period.

8. Excavation of the retention ponds are limited to the permitted design elevation. If limestone bedrock is encountered during construction the Department shall be notified and construction in the affected area shall cease.

9. In addition to the forms required in General Condition #13, the permittee shall submit two copies of signed, dated and sealed as-built drawings to the Department within 30 days of completion of construction. The as-built drawings shall be based on the Department permitted construction drawings which shall be revised to reflect any changes made during construction. Both the original design and constructed elevation must be clearly shown. The plans must be clearly labeled as "as-built"

or "record" drawings. All surveyed dimensions and elevations required shall be verified and signed, dated and sealed by a Florida registered surveyor or engineer. Record drawings shall include the invert elevations of all culverts and controlling elevations of all permitted structures as shown in the permitted drawings.

10. The retention areas are intended to become dry within 72 hours after a rainfall event. A pond that is regularly wet will be considered as not in compliance with this permit and possible modifications to the system may be required.

11. The permittee shall construct the surface water management system prior to any land clearing or mining activity within the project area. During borrow pit activities, the permittee shall operate and maintain the retention areas to ensure that no adverse water quality or quantity impacts will occur to receiving waters and adjacent lands.

12. The Operation and Maintenance Entity shall submit inspection reports in the form required by the Department, FDEP Form # 62-343.900(6), *Inspection Certification*, 24 months after operation is authorized and every 24 months thereafter.

13. The surface water management system is intended to only serve the borrow pit and landfill, including entrance road and internal perimeter roads. No improvements to Enterprise Road are proposed or authorized by this Environmental Resource Permit.

14. The permitted surface water management system shall only be used for the purpose of controlling stormwater runoff and shall not be used to dispose of, store, or otherwise contain any C&DD material or for other operational aspects of the landfill.

15. The permittee shall construct the surface water management system prior to any land clearing, mining/borrow pit, or landfilling activity within the project area. During mining/borrow pit activities, the permittee shall operate and maintain the retention ponds in such a manner which will ensure that no adverse off-site wter quality impacts will occur.

16. The permittee shall be aware of and operate under #1 through #25 of the attached "General/Limiting Conditions for Environmental Standard General and Individual Permits". General/Limiting Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Bob Stetler

Bob Stetler
Environmental Administrator
Submerged Lands and
Environmental Resources

Copies furnished to:
John Larkin, Sid Larkin & Son, P.O. Box 1747, Dade City, FL 33526
Bob Butera, FDEP Solid Waste Section
ERP file

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit, including all copies were mailed before the close of business on 2/22, 2001, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

E Robinson 2/22/01

Clerk Date

Processed by: Randal R. Cooper, P.E., and James Fine, ES II.
Prepared by: Ernestine Robinson

ENVIRONMENTAL RESOURCE PERMIT APPLICATION

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

2379 BROAD STREET • BROOKSVILLE, FL 34609-6899
(352)796-7211 or FLORIDA WATS 1(800)423-1476

FOR AGENCY USE ONLY

ACOE Application # _____ DEP/WMD Application # _____

Date Received _____ Date Received _____

Proposed Project Lat. ___ ° ___ ' ___ " Fee Received $ _____

Proposed Project Long. ___ ° ___ ' ___ " Fee Receipt # _____

SECTION A

PART 1:

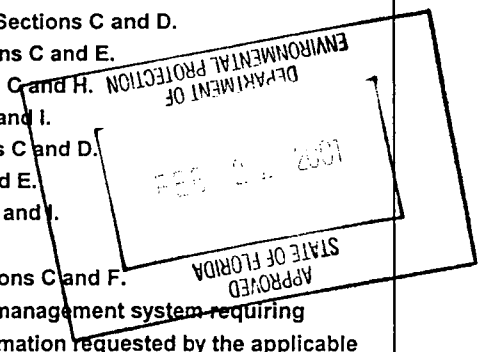
Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters?
☐ yes ☒ no

Is this application being filed by or on behalf of an entity eligible for a fee reduction ☐ yes ☒ no

PART 2:

A. Type of Environmental Resource Permit Requested (check at least one)

☐ Noticed General - include information requested in Section B
☐ Standard General (Single Family Dwelling) - include information requested in Sections C and D.
☐ Standard General (all other projects) - include information requested in Sections C and E.
☐ Standard General (minor systems) - include information requested in Sections C and H.
☐ Standard General (borrow pits) - include information requested in Sections C and I.
☐ Individual (Single Family Dwelling) - include information requested in Sections C and D.
☒ Individual (all other projects) - include information requested in Sections C and E.
☐ Individual General (borrow pits) - include information requested in Sections C and I.
☐ Conceptual - include information requested in Sections C and E.
☐ Mitigation Bank Permit (construction) - include information requested in Sections C and F. (If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section.)
☐ Mitigation Bank (conceptual) - include information requested in Sections C and F.



B. Type of activity for which you are applying (check at least one)

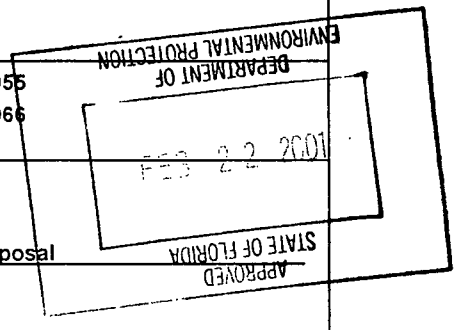
☒ Construction and operation of a new system ~~including dredging or filling in, on or over wetlands and other surface waters~~. (If reapplying for an expired, denied or withdrawn permit/application, please provide previous permit #_____.)
☐ Alteration and operation of an existing system which was not previously permitted by a SWFWMD or DEP.
☐ Modification of a system previously permitted by a SWFWMD or DEP. Provide previous permit numbers:#_____ and check applicable modification type.
☐ Alteration of a system ☐ Extension of permit duration ☐ Abandonment of a system
☐ Construction of additional phases of a system ☐ Removal of a system

C. Are you requesting authorization to use State Owned Submerged Lands? ☐ yes ☐ no
If yes, include the information requested in Section G.

D. For activities in, on or over wetlands or other surface waters, check type of federal dredge and fill and fill permit requested: N/A
☐ Individual ☐ Programmatic General ☐ General ☐ Nationwide ☐ Removal of a System

E. Are you claiming to qualify for an exemption? ☐ yes ☒ no
If yes, provide rule number if known _____.

PART 3: A. OWNER(S) OF LAND	B. APPLICANT (IF OTHER THAN OWNER)
NAME John Larkin	NAME
COMPANY AND TITLE Sid Larkin & Son, Inc.	COMPANY AND TITLE
ADDRESS PO Box 1747	ADDRESS
CITY, STATE, ZIP Dade City, FL 33526	CITY, STATE, ZIP
TELEPHONE ( ) FAX ( )	TELEPHONE ( ) FAX ( )
C. AGENT AUTHORIZED TO SECURE PERMIT (IF AN AGENT IS USED)	D. CONSULTANT (IF DIFFERENT FROM AGENT)
NAME	NAME James Golden, P.G.
COMPANY AND TITLE	COMPANY AND TITLE Hartman & Associates, Inc./Associate/Project Manager
ADDRESS	ADDRESS 201 E. Pine St., Suite 1000
CITY, STATE, ZIP	CITY, STATE, ZIP Orlando, FL 32801
TELEPHONE ( ) FAX ( )	TELEPHONE (407) 839-3955 FAX (407) 839-2066



PART 4: PROJECTION INFORMATION

A. Name of project, including phase if applicable: Enterprise Recycling & Disposal

B. Is this application for part of a multi-phase project? ☐ yes ☒ no

C. Total Applicant-owned area contiguous to the project: 155.1+ ac

D. Total project area for which a permit is sought: 155.1 ac

E. Impervious area for which a permit is sought: 5.4 ac

F. What is the total area (metric equivalent for Federally funded projects) of work in, on, or over wetlands or other surface waters? N/A acres OR ___ square feet (_____ hectares _____ square meters)

G. If a docking facility, the number of proposed new boat slips: N/A

PART 5: PROJECTION LOCATION (use additional sheets, if needed)

County(ies) Pasco

Section(s) 5, 8 Township(s) 25 Range(s) 22

Section(s) _____ Township(s) _____ Range(s) _____

Land Grant name, if applicable _____

Tax Parcel Identification Number _____

Street address, road, or other location Northwest Intersection of Enterprise Road and Auton

_____

City, Zip code if applicable _____

PART 6: DESCRIBE IN GENERAL TERMS THE PROPOSED PROJECT, SYSTEM, OR ACTIVITY

The proposed project involves the development of a Class III Landfill. The Environmental Resource Permit application is for the construction of a stormwater management system, for the excavation stage and for the final landfill cover stage. The excavation stage will have a temporary pond designed to hold the 100-year/24-hour storm event to avoid the stormwater mixing with the landfill waste. The landfill cover stage will have three (3) permanent ponds designed to hold the 50-year/24-hour storm event. All ponds are designed to have a freeboard of 1 to 3 ft.

PART 7:

A. If there have been any pre-application meetings for the proposed project, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives. **N/A**

Date(s)	Location(s)	Names

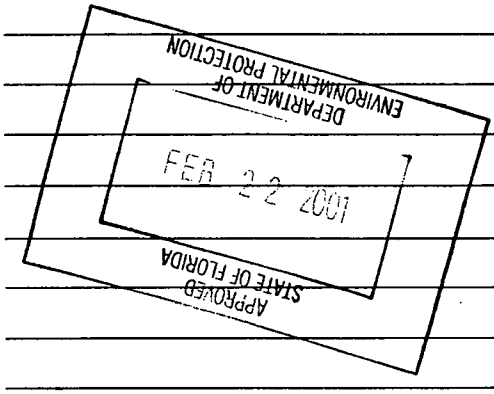
B. Please identify by number any MSSW/WRM (dredge & fill)/ERP/ACOE permits or applications pending, issued or denied and any related enforcement actions at the proposed project site. **N/A**

Agency	Date	Number/Type	Action Taken

C. Note: The following information is required for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit and/or authorization to use state owned submerged lands. Please provide the names, address and zip codes of property owners whose property directly adjoins the project (excluding applicant) and/or is located within a 500 foot radius of the project boundary (for proprietary authorizations, if any). Please provide a drawing identifying each owner and adjoining property lines. (Use additional sheets, if needed). **N/A**

1.

2.



3.

4.

5.

6.

PART 8:

A. By signing this application form, I am applying, or I am applying on behalf of the owner or applicant, for the permit and/or proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application, and represent that such information is true, complete and accurate. I understand that knowingly making any false statement or representation in the application is a violation of Section 373.430. F.S. and 18 U.S.C. Section 1001. I understand this is an application and not a permit and work prior to approval is a violation. I understand that this application and any permit or proprietary authorization issued pursuant thereto, does not relieve me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of the owner or applicant, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity.

John Larkin
Typed/Printed Name of Owner, Applicant or Agent — Corporate Title, if applicable

Signature of Owner, Applicant or Agent — Date 7-11-00

B. AN AGENT MAY SIGN ABOVE ONLY IF THE FOLLOWING IS COMPLETED.

I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirement which may be necessary to procure the permit or authorization indicated above.

Typed/Printed Name of Owner or Applicant — Corporate Title, if applicable

Signature of Owner or Applicant — Date

C. PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:

I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Southwest Florida Wastewater Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor authorized work if a permit is granted.

John Larkin
Typed/Printed Name — Corporate Title, if applicable

Signature — Date 7-11-00

D. I certify that the engineering features of this surface water management system have been designed by me or under my responsible charge and in my professional opinion conform with sound engineering principles and all applicable rules and specifications. I further agree that I or my engineering firm will furnish the applicant/permittee with a set of guidelines and schedules for maintenance and operation of the surface water management system.

By: Roderick Cashe
Signature of Engineer of Record — Name (please type) Roderick K. Cashe, P.E. #45,169 FL P.E. No.

• AFFIX SEAL

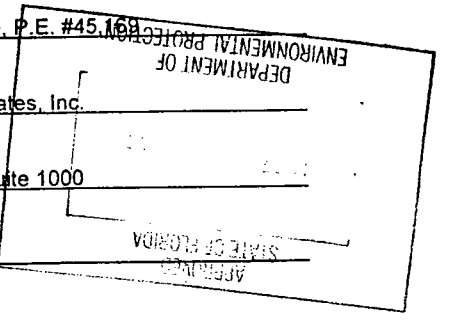
Hartman & Associates, Inc.
Company Name

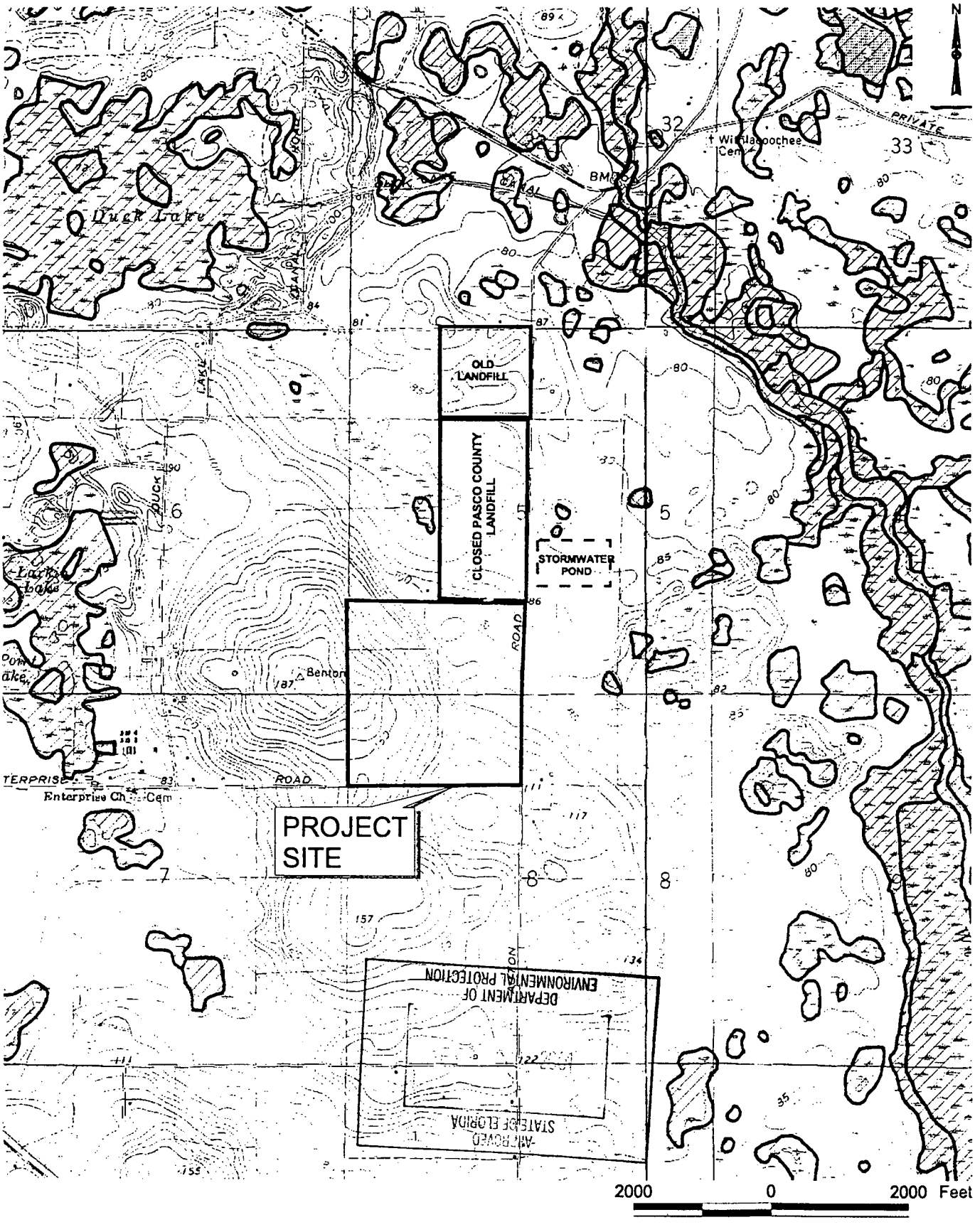
201 E. Pine St., Suite 1000
Company Address

Orlando, FL 32801
City, State, Zip

Date: 7/10/00

Phone: (407) 839-3955





Sources: 7.5 Minute USGS Quadrangles - Dade City and Branchborough

HARTMAN & ASSOCIATES, INC.
engineers, hydrogeologists, surveyors & management consultants
201 EAST PINE STREET - SUITE 1000 - ORLANDO, FL 32801
TELEPHONE (407) 839-3955 - FAX (407) 839-3790

NATIONAL WETLAND INVENTORY
PROPOSED CLASS III LANDFILL
DADE CITY, FLORIDA

FIGURE 4-4

GENERAL LIMITING CONDITIONS FOR ENVIRONMENTAL RESOURCE STANDARD GENERAL AND INDIVIDUAL PERMITS

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by Department staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of state water quality standards. The permittee shall implement best management practices for erosion and a pollution control to prevent violation of state water quality standards. Temporary erosion control shall be implemented prior to and during construction and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. Water quality data for the water discharged from the permittee's property or into the surface waters of the state shall be submitted to the Department as required by the permit. Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency. If water quality data are required, the permittee shall provide data as required on volumes of water discharged, including total volume discharged during the days of sampling and total monthly volume discharged from the property or into surface waters of the state.

5. Department staff must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in offsite discharge or sediment transport into wetlands or surface waters, a written dewatering plan must either have been submitted and approved with the permit application or submitted to the Department as a permit prior to the dewatering event as a permit modification. The permittee is advised that the rules of the Southwest Florida Water Management District state that a water use permit may be required prior to any use exceeding the thresholds in Chapter 40D-2, F.A.C.

6. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.

7. Off site discharges during construction and development shall be made only through the facilities authorized by this permit. Water discharged from the project shall be through structures having a mechanism suitable for regulating upstream stages. Stages may be subject to operation schedules satisfactory to the Department.

8. The permittee shall complete construction of all aspects of the surface water management system, including wetland compensation (grading mulching, planting), water quality treatment features, and discharge control facilities prior to beneficial occupancy or use of the development being served by this system.

9. The following shall be properly abandoned and/or removed in accordance with the applicable regulations:

a. Any existing wells in the path of construction shall be properly plugged and abandoned by a licensed well contractor.

b. Any existing septic tanks on site shall be abandoned at the beginning of construction.

c. Any existing fuel storage tanks and fuel pumps shall be removed at the beginning of construction.

10. All surface water management systems shall be operated to conserve water in order to maintain environmental quality and resource protection; to increase the efficiency of transport, application and use; to decrease waste; to minimize unnatural runoff from the property and to minimize dewatering of offsite property.

11. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the Department a written notification of commencement using an "Environmental Resource Permit Construction Commencement" notice (Form No. 62-343.900(3), F.A.C.) indicating the actual start date and the expected completion date.

12. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the occupation of the site or operation of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to a local government or other responsible entity.

13. Within 30 days after completion of construction of the permitted activity, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing the required "Environmental Resource Permit As-Built Certification by a Registered Professional" (Form No. 62-343.900(5), F.A.C.), and "Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase" (Form 62-343-900(7), F.A.C.). Additionally, if deviation from the approved drawings are discovered during the certification process the certification must be accompanied by a copy of the approved permit drawings with deviations noted.

14. This permit is valid only for the specific processes, operations and designs indicated on the approved drawings or exhibits submitted in support of the permit application. Any substantial deviation from the approved drawings, exhibits, specifications or permit conditions, including construction within the total land area but outside the approved project area(s), may constitute grounds for revocation or enforcement action by the Department, unless a modification has been applied for and approved. Examples of substantial

deviations include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

15. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of the conditions herein, the Department determines the system to be in compliance with the permitted plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system. The permit may not be transferred to the operation and maintenance entity approved by the Department until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the Department, the permittee shall request transfer of the permit to the responsible operation and maintenance entity approved by the Department, if different from the permittee. Until a transfer is approved by the Department pursuant to Section 62-343.110(1)(d), F.A.C., the permittee shall be liable for compliance with the terms of the permit.

16. Should any other regulatory agency require changes to the permitted system, the Department shall be notified of the changes prior to implementation so that a determination can be made whether a permit modification is required.

17. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations including a determination of the proposed activities' compliance with the applicable comprehensive plan prior to the start of any activity approved by this permit.

18. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40D-4 or Chapter 40D-40, F.A.C.

19. The permittee is hereby advised that Section 253.77, F.S., states that a person may not commence any excavation, construction, other activity involving the use of sovereign or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

20. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.

21. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.

22. The permittee shall notify the Department in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of section 62-343.130, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.

23. Upon reasonable notice to the permittee, Department authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with Department rules, regulations and conditions of the permits.

24. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the Department and the Florida Department of State, Division of Historical Resources.

25. The permittee shall immediately notify the Department in writing of any previously submitted information that is later discovered to be inaccurate.

Form #62-343.900(3), F.A.C.
Form Title: Construction Commencement Notice
Date: October 3, 1995

ENVIRONMENTAL RESOURCE PERMIT
Construction Commencement Notice

PROJECT:_____ PHASE:_____

I hereby notify the Department of Environmental Protection that the construction of the surface water management system authorized by Environmental Resource Permit No._____ has commenced / is expected to commence on _____ 199__, and will require a duration of approximately _____ months _____ weeks _____ days to complete. It is understood that should the construction term extend beyond one year, I am obligated to submit the Annual Status Report for Surface Water Management System Construction.

PLEASE NOTE: If the actual construction commencement date is not known, Department staff should be so notified in writing in order to satisfy permit conditions.

_____	_____	_____
Permittee or Authorized Agent	Title and Company	Date

_____	_____
Phone	Address

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
3804 COCONUT PALM DR.
TAMPA, FLORIDA 33619

Form #62-343.900(5), F.A.C.
Form Title: As-Built Certification by a Registered Professional
Date: October 3, 1995

ENVIRONMENTAL RESOURCE PERMIT
AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL

Permit Number: _____

Project Name: _____

I hereby certify that all components of this surface water management system have been built substantially in accordance with the approved plans and specifications and are ready for inspection. Any substantial deviations (noted below) from the approved plans and specifications will not prevent the system from functioning as designed when properly maintained and operated. These determinations are based upon on-site observation of the system conducted by me or by my designee under my direct supervision and/or my review of as-built plans certified by a registered professional or other appropriate individual as authorized by law.

_____
Name (please print)

_____
Company Name

_____
Company Address

_____
City, State, Zip Code

_____
Telephone Number

_____
Signature of Professional

_____
Florida Registration Number

_____
Date

(Affix Seal)

Substantial deviations from the approved plans and specifications:

_____

_____

_____

_____

(Note: attach two copies of as-built plans when there are substantial deviations)

Within 30 days of completion of the system, submit two copies of the form to:

~~STATE OF FLORIDA~~
DEPARTMENT OF ENVIRONMENTAL PROTECTION
~~3804 COCONUT PALM DR.~~
TAMPA, FLORIDA 33619

Form # 62-343.900(6), F.A.C.
Form Title: Inspection Certification
Date: October 3, 1995

ENVIRONMENTAL RESOURCE PERMIT
INSPECTION CERTIFICATION

Permit Number: _____

Project Name: _____

Inspection Date(s): _____

Inspection Results: (check one)

____I hearby certify that I or my designee under my direct supervision have inspected the system at the above referenced project and that the system appears to be functioning in accordance with the requirements of the permit and Chapter 373 F.S. (as applicable).

____The following necessary maintenance was conducted:

_____

_____

____I hearby certify that I or my designee under my direct supervision has inspected the system at the above referenced project and that the system does not appear to be functioning in accordance with the requirements of the permit and Chapter 373 F.S. (as applicable). I have informed the operation and maintenance entity of the following: (a) that the system does not appear to be functioning properly, (b) that maintenance is required to bring the system into compliance, and (c) if maintenance measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed subsequent to Department approval.

_____ Name (please print)

_____ Signature of Professional Engineer

_____ Company Name

_____ Florida Registration Number

_____ Company Address

_____ Date

_____ City, State, Zip Code

_____ Telephone Number

(Affix Seal)

Within 30 days of completion of the inspection, submit two copies of this form to the following Department Office:

Department of Environmental Protection

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
3804 COCONUT PALM DR.
TAMPA, FLORIDA 33619

Form #62-343.900(7), F.A.C.
Form Title: Request for Transfer to Operation Phase
Date: October 3, 1995

REQUEST FOR TRANSFER OF ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION PHASE TO OPERATION PHASE

(To be completed and submitted by the operating entity)

Florida Department of Environmental Protection

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
3804 COCONUT PALM DR.
TAMPA, FLORIDA 33619

It is requested that Department Permit No. _____ authorizing the construction and operation of a surface water management system for the below mentioned project be transferred from the construction phase permittee to the operation phase operating entity.

PROJECT:_____

FROM: Name:_____
Address:_____
City:_____ State:_____
Zipcode:_____

TO: Name:_____
Address:_____
City:_____ State:_____
Zipcode:_____

The surface water management facilities are hearby accepted for operation and maintenance in accordance with the engineers certification and as outlined in the restrictive covenants and articles of incorporation for the operating entity. Enclosed is a copy of the document transferring title of the operating entity for the common areas on which the surface water management system is located. Note that if the operating entity has not been previously approved, the applicant should contact the Department staff prior to filing for a permit transfer.

The undersigned hearby agrees that all terms and conditions of the permit and subsequent modifications, if any, have been reviewed, are understood and are hearby accepted. Any proposed modifications shall be applied for and obtained prior to such modification.

Operating Entity _____

Name _____ Title _____

Telephone _____

Enclosure:
( ) Copy of recorded transfer of title surface water management system
( ) Copy of plat(s)
( ) Copy of recorded restrictive covenants, articles of incorporation, and certificate of incorporation

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February 7, 2001

Mr. James Golden, P.G.
Hartman & Associates, Inc.
201 East Pine Street, Suite 1000
Orlando, Florida 32801

Reference: Response to FDEP Comments
Proposed Dade City Landfill, Pasco County, Florida
UES Project No. 80010-002-01

Dear Mr. Golden:

As requested, Universal Engineering Sciences has reviewed comments from FDEP regarding our geotechnical report. Our responses are outlined below:

1. The reference to the surficial "non-artesian" aquifer being considered non-potable is based on general geologic literature. It is not based on any site specific knowledge that we have that would indicate specific water quality at the site. The general literature description is most likely based on lack of available water yield rather than a water quality issue.

2. The lineament trace analyses is a subjective process. The minor splay we show south of the site in the depressional saddle could be an echelon type feature or an isolated weakness within the bedrock joint. In either case the feature does not, in our opinion, traverse the property.

Universal Engineering Sciences appreciates this opportunity respond to these comments. If you have any questions, please contact the undersigned.

Respectfully submitted,

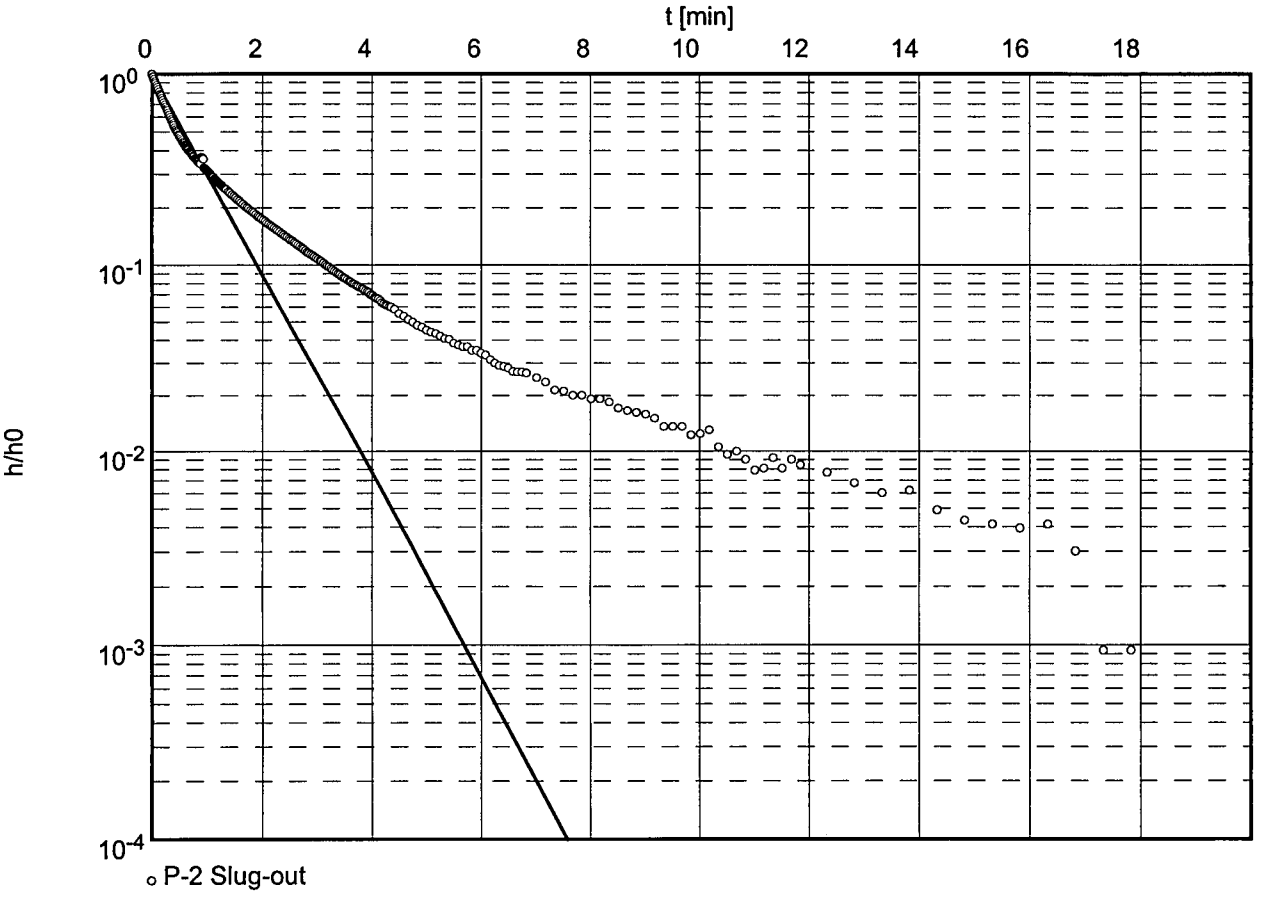
Universal Engineering Sciences

Wayne Pandorf, P.E.
Tampa Regional Manager
Florida Registration Number 30254

WP:df

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 2/2/01	Page 1
		Project: Larkin Property	
		Evaluated by: VCD	

Slug Test No.	Test conducted on: 03/27/00
P-2 Slug-out	



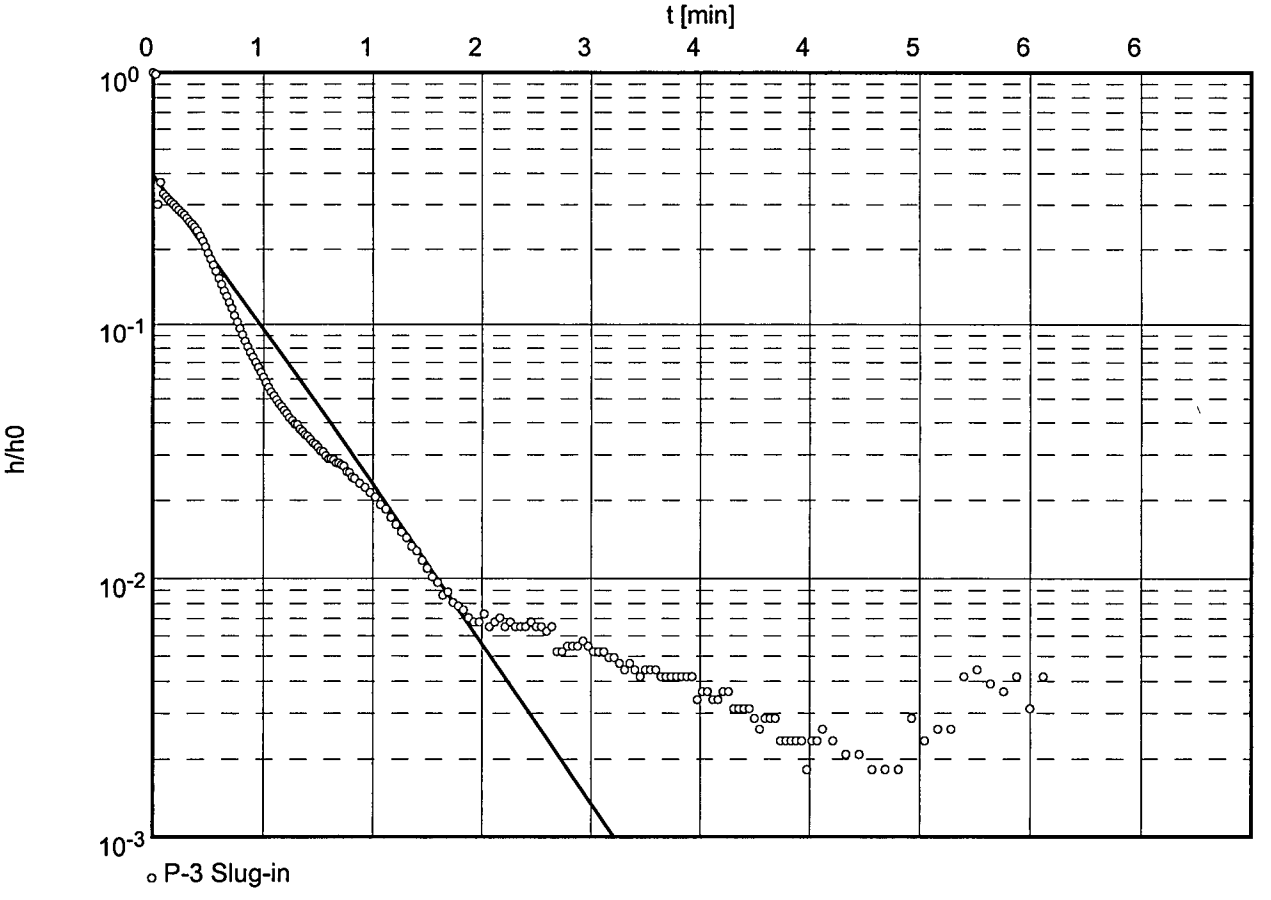
Hydraulic conductivity [ft/min]: 2.91×10^{-3}

4.19 ft/day

$\bar{x} = 2.88$ ft/d.

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 2/2/01	Page 1
		Project: Larkin Property	
		Evaluated by: VCD	

Slug Test No.	Test conducted on: 03/27/00
P-3 Slug-in	

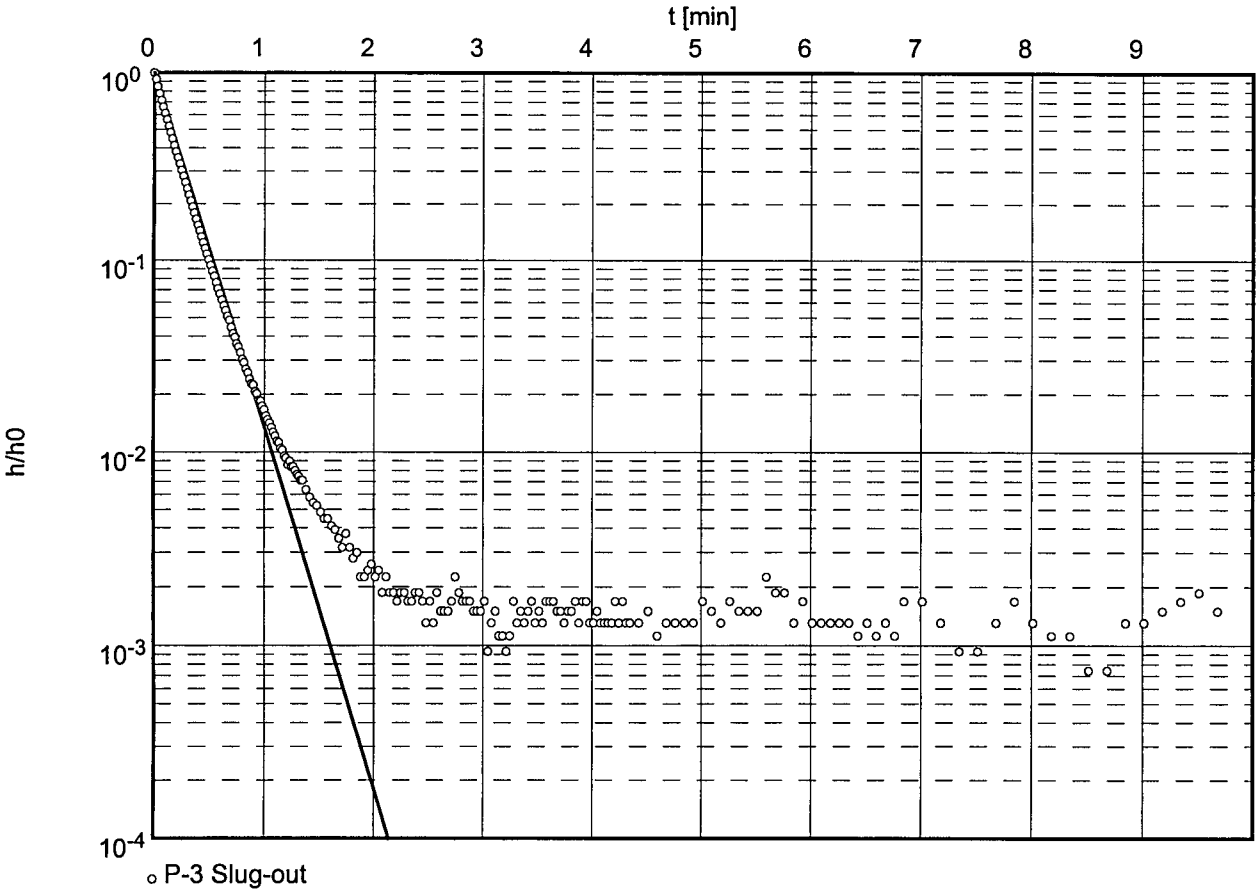


Hydraulic conductivity [ft/min]: 2.45×10^{-3}

3.53 ft/day

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 2/2/01	Page 1
		Project: Larkin Property	
		Evaluated by: VCD	

Slug Test No.	Test conducted on: 03/27/00
P-3 Slug-out	

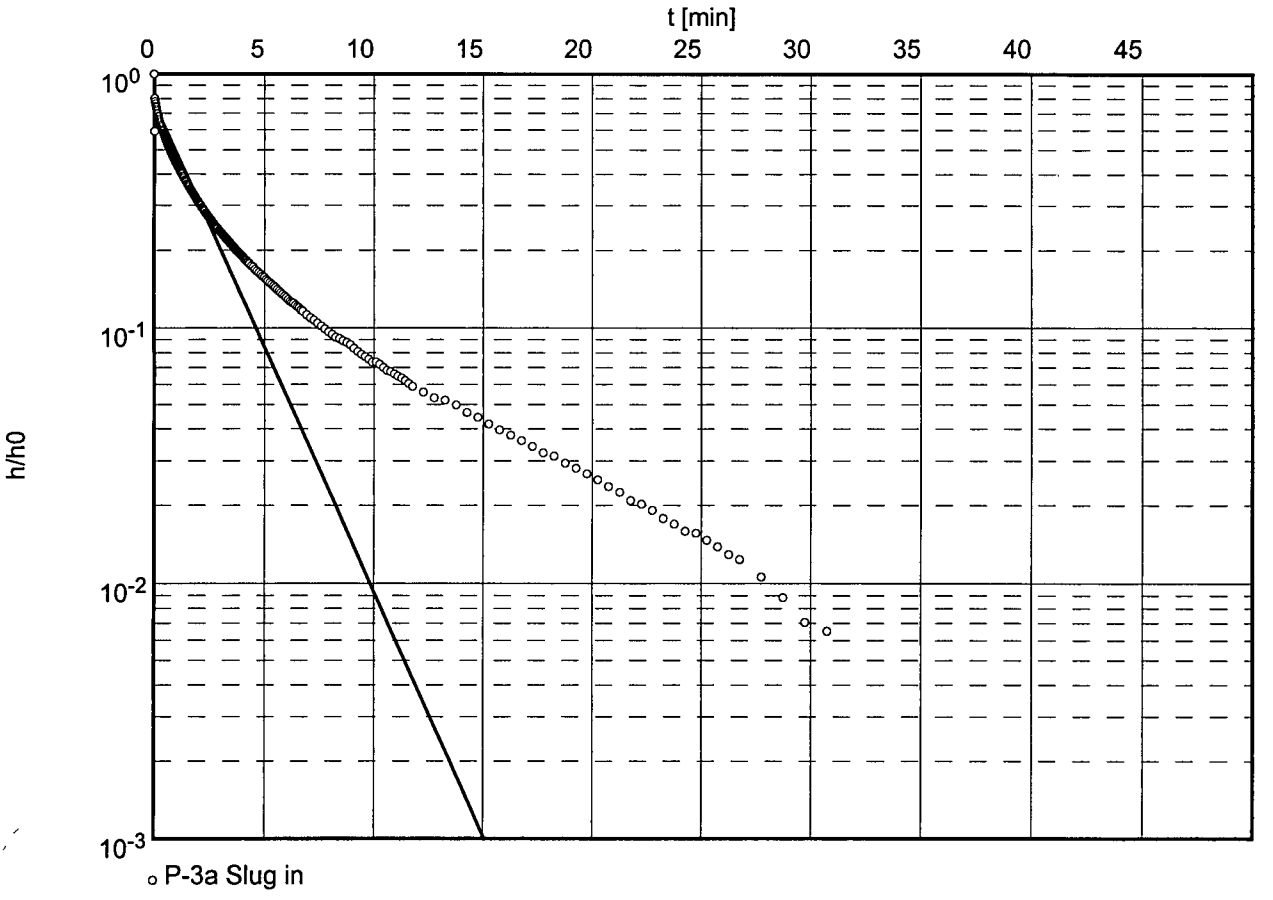


Hydraulic conductivity [ft/min]: 6.14×10^{-3}

8.84 ft/day

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 2/2/01	Page 1
		Project: Larkin Property	
		Evaluated by: VCD	

Slug Test No.	Test conducted on: 3/27/00
P-3a Slug in	



Hydraulic conductivity [ft/min]: 8.06×10^{-4} Slug out = 5.71×10^{-5}

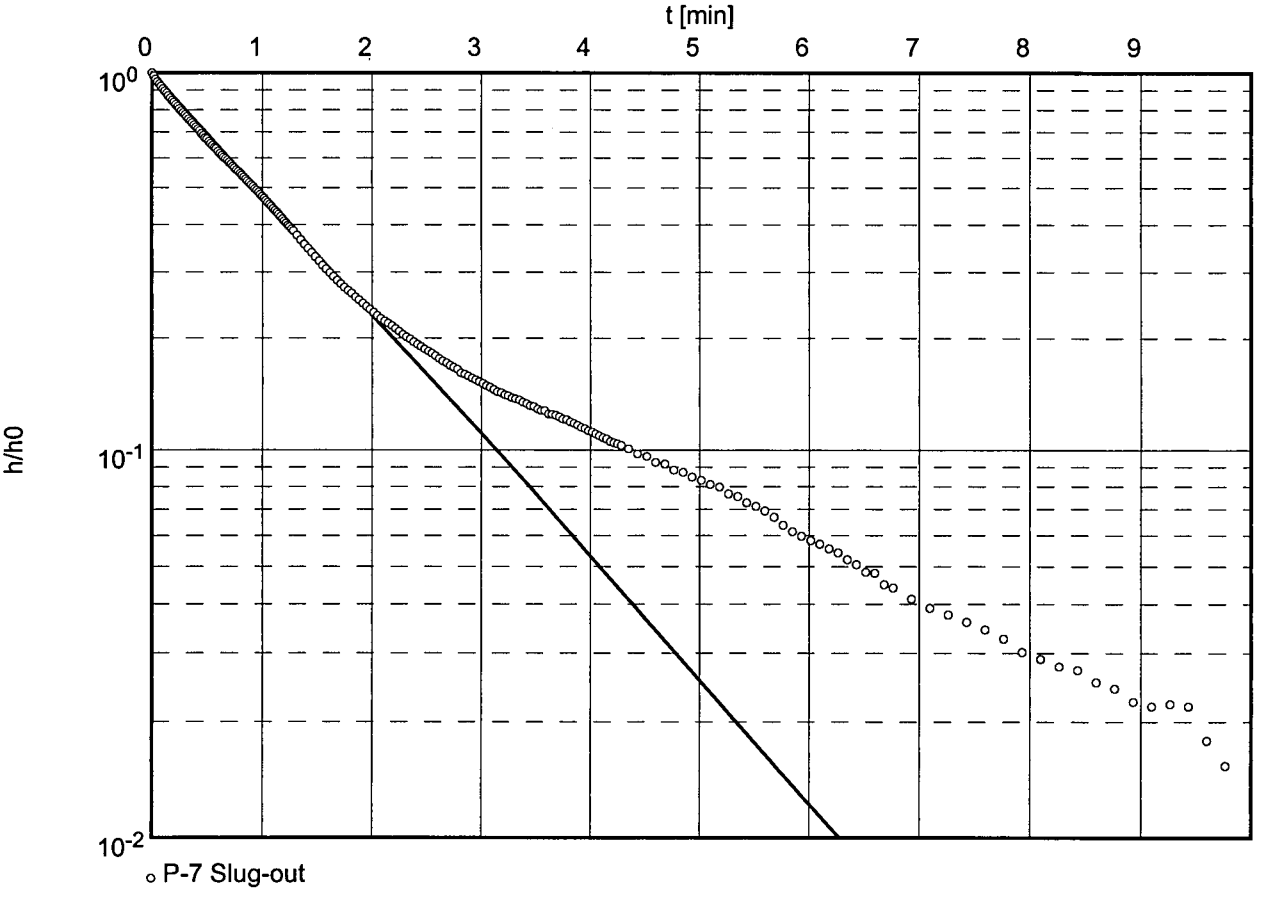
1.16 ft/day 0.16 ft/d.

$\bar{x}$ = 0.66 ft/d.

= 2.33×10^{-4} cm/sec

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 2/2/01	Page 1
		Project: Larkin Property	
		Evaluated by: VCD	

Slug Test No.	Test conducted on: 3/27/00
P-7	



Hydraulic conductivity [ft/min]: 2.56×10^{-3}

3.69 ft/day

$\bar{X} = 3.40$

Slug-in $= 1.10 \times 10^{-3}$

$= 3.12$ ft/d.