FILE

Operation Plan
Phases I-VI and
Sections 7 and 8 Capacity Expansion

Southeast County Landfill
Hillsborough County, Florida

SCS ENGINEERS

Prepared for:

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August 17, 2005

SOUTHEAST COUNTY LANDFILL

OPERATION PLAN

PHASES I-VI AND SECTIONS 7 AND 8 CAPACITY EXPANSION

HILLSBOROUGH COUNTY, FLORIDA

Prepared for:

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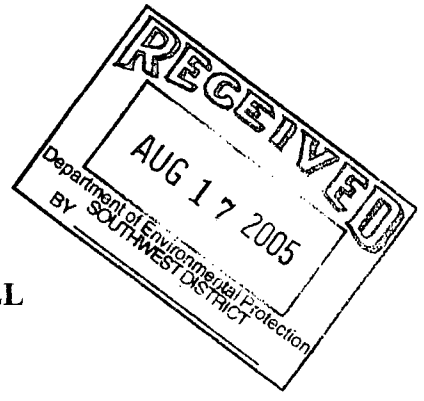

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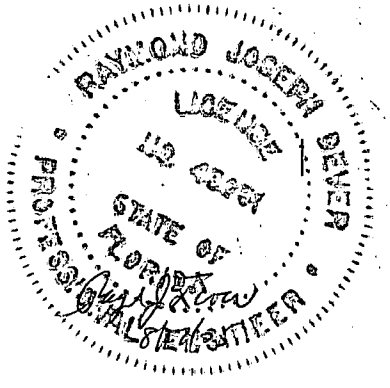

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TABLE OF CONTENTS

TABLE OF CONTENTS

CONTENTS (Continued)

CONTENTS (Continued)

SECTION L

The Southeast County Facility (Facility) includes the Southeast County Landfill (SCLF), which is permitted by the Florida Department of Environmental Protection (FDEP) as a Class I landfill for Phases I-VI and the Capacity Expansion Area, which encompasses 147 acres in 10 sections (7 through 16). This Operations Plan includes Phases I-VI and Sections 7 and 8 of the Capacity Expansion Area.

The Facility is the final depository for municipal solid waste (MSW) ash residues, non-processables, and bypass wastes from the Solid Waste Management System of Unincorporated Hillsborough County. The Facility also receives solid waste from the cities of Temple Terrace and Tampa, as well as MSW ash residues and bypass wastes from the Waste-to-Energy Incinerator Facility of the City of Tampa. Hazardous waste will not be accepted at the Facility.

This operations plan was prepared in conjunction with an operation permit application as such, the format follows the requirements of Part L of the permit application form.

L.1 TRAINING

In accordance with Rule 62-701.500(1), Florida Administrative Code (FAC), key supervisory staff at the Facility has received Landfill Operator Certification training. Operator training includes a 24-hour initial course and 16 hours of continuing education every 3 years. Spotter training includes an 8-hour initial course and 4 hours of continuing education every three years. Operator and Spotter training courses will be attended as offered by the University of Florida Center for Training, Research and Education for Environmental Occupations (TREEO) and through other FDEP approved sources. A listing of TREEO training courses and schedule is presented in Appendix A-1. The listing is also available at www.treeo.ufl.edu. Documentation which demonstrates that the facility operators and spotters have received the continuing training is presented in Appendix A-2.

As required by Rule 62-701.500(1), FAC, a certified Landfill Operator will be on site when waste is received for disposal at the landfill, and a trained spotter will be on site during all times when waste is deposited at the landfill working face to detect any unauthorized wastes. In addition, the equipment operators have sufficient training and knowledge to move waste and soil, and to develop the site in accordance with the design and operational standards described in the operation permit application.

L.2 LANDFILL OPERATION PLAN

L.2.a SWMD Organization and Responsibilities

Hillsborough County owns the Facility and is the applicant for the operation permit. A Landfill Contractor (Contractor) will operate and maintain the Facility pursuant to the permit conditions under the contract that exists between the County and the Contractor.

The Hillsborough County Solid Waste Management Department (SWMD) and Contractor personnel currently responsible for the operations at this Facility are:

- Larry E. Ruiz, General Manager (SWMD)
- Ernest Ely, District Landfill Manager (Contractor)

In addition to the above, the following positions are maintained at the Facility: scale house clerks (SWMD), waste monitors (SWMD), equipment operators (Contractor), spotters (Contractor), laborers (Contractor), security personnel (Contractor), and mechanic (Contractor). At least one trained operator familiar with the landfill operations will be on site at all times while the Facility is open in accordance with Rules 62-701.320(15) and 62-701.500(1), FAC.

L.2.b Contingency Plan

The contingency plan for the Facility is based upon addressing two potential emergencies. These are:

- Equipment failure.
- Large influx of material resulting from a natural disaster such as a hurricane, fire, or from a breakdown at local resource recovery facilities.

Sufficient backup equipment will be provided on site for equipment breakdowns and downtime for normal routine equipment maintenance. In the case of failure of the primary and backup major equipment (i.e., landfill compactor or bulldozer), the following procedures will be followed:

- Prearrangements with contractors and rental equipment dealers are in place to furnish rental equipment on a short-term notice (Appendix B).
- Prearrangements with other County agencies to furnish equipment will be established.

The Contractor will be responsible to provide equipment and a working force of adequate size and skills to maintain the landfill operation in compliance with all applicable federal, state, and local regulations. In cases where sufficient local personnel are not available, the Contractor will relocate from other facilities sufficient personnel with the proper skills to maintain operations.

Hillsborough County's existing Comprehensive Emergency Management Plan provides policies and procedures necessary to prepare and respond to natural disasters (Appendix C). Under an unforeseen condition of a large influx of waste, the same procedures discussed above would also apply. However, in a natural disaster other heavy equipment may not be available. Given that a large volume of wastes requiring disposal from a natural disaster is non-putrescible, it can be stored on site temporarily and landfilled after the state of emergency has ended.

In the case of a large fire, bomb threat, or other unforeseen condition requiring specialized emergency response personnel, 911 will be called for the local Fire Department or Sheriff Department. Waste handling will be suspended and the affected area will be evacuated, if necessary. The landfill will be temporarily closed until the responding Department determines that the landfill is safe for re-entry. If the Facility will remain closed for more than 48 hours, the incoming waste will be diverted to an alternate Facility in an adjacent County.

In case of an accidental spill of oil, fuel, leachate, or chemicals, the spill will be minimized by controlling the source immediately (e.g., by closing valve, turning-off switch, or taking any other necessary action). The affected area will be controlled by diverting vehicular traffic. Building a berm, plugging drain or ditch, or adding absorbent material will control runoff from the affected area. The affected area will be cleaned, and the effectiveness of the cleanup confirmed by sampling, as needed depending on the nature of the spilled material. For spill countermeasures of secondary containment at the Leachate Treatment and Reclamation Facility (LTRF) refer to Section 7.1 of the Leachate Monitoring Plan (LMP).

L.2.c Waste Type Control

The automated accounting system, clerks at the scalehouse, and the site security fence help discourage unauthorized entry and uncontrolled disposal of unauthorized waste. A sign located at the entrance states the general regulations including the types of prohibited solid waste.

A minimum of three random load inspections of solid waste per week will be conducted at the active landfill (See Section L.6 and Appendix D). As an additional control, the SWMD has one waste monitor and the Contractor has at least one trained spotter at the working face to visually inspect each load of waste as it is unloaded and deposited. If any unauthorized special waste (i.e., lead-acid batteries, used oil, yard trash, white goods, and whole tires) is found at the working face, as part of routine operations, the waste will be segregated and removed from the site for recycling or other processing in accordance with FDEP regulations. Items that may contain liquids or gases will be stored upright, undamaged, and in a container as appropriate. The maximum on-site storage will be as follows:

- 50batteries in a secondary containment covered tray.
- 20 gallons of used oil placed upright in undamaged container.
- 40 cubic yards (cy) yard trash in one 40 cy roll-off container.
- 75 white goods, and lawnmowers, will be placed upright (on the ground) until all liquids, CFC's, and freon are removed. After the metal recycling contractor removes all liquids, CFC's, and freon, the white goods are marked with spray paint to indicate that they are ready to be placed in the scrap metal containers.
- Scrap metal in two 40 cy roll-off containers (including processed white goods).

These special wastes will be stored adjacent to the working face and removed from the site within 30 days.

Whole tires will be shredded on-site and may be used as initial cover. Lead-acid batteries will be collected by the SWMD's contracted battery recycler. Scrap metal, including white goods and lawnmowers, will be collected and processed by the SWMD's metals recycling contractor. Propane tanks will be collected by the recycling contractor. Used-oil and yard trash will be rejected, required to be reloaded, and directed to be taken to the South County Transfer Station.

If unauthorized waste (i.e., hazardous, PCBs, untreated biomedical, or free liquid) are found at the working face, the waste will be isolated and the landfill manager will be immediately notified. The landfill manager is trained in the proper procedure to follow including notification to the FDEP. Similarly, if suspect waste is found, the waste will be isolated and the landfill manager notified. The landfill manager will prepare a suspect waste report and ensure that the waste is properly managed (Appendix D). If hazardous wastes are found, the FDEP will be notified immediately and the waste will be isolated and restricted from access until it is removed from the landfill by a qualified hazardous waste contractor. Hazardous wastes will be removed from the Facility within 24 hours.

L.2.c.(1) Special Waste

The SWMD has established policies, procedures, and guidelines for the management of special waste to comply with Federal, State, and Local Regulations for the purpose of minimizing risks to the environment, public health, and employees by non-hazardous and unregulated waste. Appendix E presents the SWMD Special Waste Program, which includes guidelines and procedures for the acceptance and evaluation of special waste. Appendix E presents the current policies and management procedures for asbestos, empty containers, ash, soil, poly-chlorinated bi-phenols (PCBs), tires, industrial waste, yard waste, chemical waste, used motor oil, construction and demolition debris, white goods, waste tires, household batteries, other batteries, paint, bio-hazardous, and household hazardous waste. The objectives of the special waste program are to:

- Preclude the entry and disposal of hazardous waste into the Facility.
- Preclude leachate developing hazardous waste characteristics.
- Protect the landfill liner.
- Prevent objectionable odors from becoming a problem.
- Insure that delivered materials can be handled safely.

L.2.c.(2) Motor Vehicles

Motor vehicle bodies will be accepted for disposal in the landfill at the active working face if they cannot be recycled. Before landfilling all fluids and batteries will be removed from the vehicles and they will be compacted to minimize voids in the landfill.

L.2.c.(3) Shredded Waste

The Facility will accept shredded tires from the on-site tire shredding Facility. The SWMD uses shredded tires for initial cover. Shredded tires have been an effective initial cover for controlling disease, vectors, odors, litter, and scavenging. This practice benefits the County by conserving valuable landfill space and recycling materials.

L.2.c.(4) Asbestos Waste

Asbestos waste will be accepted at the Facility. The entire footprint of Phases I-VI and the Capacity Expansion will be designated as an asbestos disposal area. Prior to landfilling the material must be wetted and placed in a leak tight wrapping. The bags will be placed in a prepared trench at the working face. Materials such as transite paneling and pipe insulation must be wrapped sufficiently as to maintain its integrity during disposal. After placement the bags will be immediately covered with 6-inches of asbestos free material (i.e., soil or select waste without large or sharp objects that may damage the asbestos packaging). Copies of the asbestos waste shipment records, which comply with 40 CFR 61-Subpart M, will be maintained on-site.

L.2.d Weighing Incoming Waste

All incoming waste will be weighed prior to disposal in the landfill. The existing scales are fully automated and computerized with the capability for data storage and retrieval for daily record keeping and reporting. All customers are issued receipts upon exiting the Facility.

L.2.e Vehicle Traffic Control

The area of the working face is the most equipment-intensive area of operation for the Facility. In this area, solid waste transportation vehicles arrive, turn around, back up to the working face, and unload the solid waste. Landfill operation equipment will continually spread and compact the solid waste as it is received. During normal operating conditions, only one working face will be active at any given time, with the solid waste at all other areas within the landfill secured by a minimum of six inches of initial cover. The working face will move in alternating months from Phases I-VI to the active cells at the Capacity Expansion (may not be consecutive alternating months). However, during the initial placement of selected waste in Section 8 Lift 1 Cell A, a temporary working face will be maintained at Phases I-VI for the placement of large rigid objects and construction demolition debris.

The approach to the working face will be maintained in an accessible condition such that two or more vehicles may safely unload simultaneously side by side. Upon completion of the unloading operation, the vehicles will immediately leave the working face area. Entrance and exit haul roads will be provided (both temporary and permanent) and maintained to facilitate unloading operations in the future. Contractor personnel will direct traffic as necessary to expedite safe movement of vehicles and to ensure that all waste transport vehicles dump within the designated area.

L.2.f Method and Sequence of Filling Waste

L.2.f.(1) Phases I-VI

Each phase will be landfilled as shown in the Operating Sequence Plans. The lifts in each of the several Phases are shown on one sheet to minimize the number of sheets, but each lift is independent from the others.

One working face approximately 150 feet wide will be maintained, which should be adequate for the anticipated traffic maneuvering during waste fill operations. Typical lifts consist of two lifts 8 to 10 feet high, to reach the maximum elevation shown on the operating sequence drawings including daily and intermediate cover. Because of the Phases I-VI phosphatic clay liner stability, at no time shall a lift exceed the maximum height shown on the operating sequence drawings. Solid waste has been placed in Phases I through VI. The cells will be placed as shown on the operating sequence drawings and will be filled moving from west to east across Phase I to the line dividing Phase I from Phase II. Phase II will be filled beginning in the west side of Phase II proceeding from west to east across Phase II to the line dividing Phase II from Phase III. The filling of cells in Phase III will begin in the eastside of Phase III proceeding from east to west across Phase III to the line dividing Phase III from Phases I, IV, V and VI.

The cells in Phase IV will be filled from the center of the site (eastside of Phase IV) against Phases I and III, proceeding from east to west across Phase IV to the western perimeter of the landfill. The filling of cells in Phases V and VI will proceed in a counterclockwise direction from the northeast corner against Phase III around across Phases V and VI to the southwest corner of the landfill against Phase I. The Contractor will prepare filling plans in accordance with the sequence drawings 45 days prior to the development of a new lift. Subsequently, grades for the new lift will be set on grade stakes by a registered engineer, land-surveyor, or by an authorized agent.

Refer to Table 1- Southeast Landfill Filling Sequence for Phase I-VI and Project Disposal Rate Diversion to Expansion, provided in Appendix H.

L.2.f.(2) Section 7 Capacity Expansion

The proposed filling sequence for Section 7 is presented in the Section 7 Operating Sequence drawings prepared by SCS. A separation berm divides Section 7 into two fill areas to facilitate the collection and handling of stormwater separate from leachate from each area. During waste filling in Lifts 1A and 1B, the LCRS separation valve will be closed and the stormwater on the eastern side of the interior separation berm will be pumped to the stormwater Basin C. Prior to filling in Lift 1C, the LCRS separation valve will be opened and all the liquid within Section 7 will be managed as leachate. Crest elevations noted below refer to the elevation of the refuse at the break in slope around the perimeter of the site. Crest elevations refer to the maximum elevation achieved during a given lift.

In general, filling will begin in the northwest corner in (Lift 1A) and move southwest toward Lift 1B. A temporary haul road will be constructed leading from the existing paved road at the south of the capacity expansion area to Lift 1A. Access roads leading to the actual working face will be temporary and will be modified as filling progresses. Initial waste placement will proceed in a generally west-to-east direction, creating a mound with sideslopes no steeper than three feet horizontal to one foot vertical (3H:1V). Typically, the working face will be approximately 150 feet wide, which will be adequate for the anticipated traffic maneuvering during waste filling operations. Daily lifts of waste will be no thicker than 8 to 12 feet, including cover soils.

Waste placement will continue in a back-and-forth pattern in Lifts 1A and 1B until the waste reaches an approximate crest elevation of 159 feet NGVD. The LCRS separation valve will be opened prior to the beginning of Lift 1C. Filling will continue with Lift 1C on the northeast corner and move southwest toward Lift 1D. Lifts 1C and 1D will overlap onto the eastern slopes of Lifts 1A and 1B. Filling will continue in a similar pattern for Lifts 2A and 2B beginning at the southwest corner of Section 7 and progressing towards the northeast. Once Lifts 2A and 2B are filled to the crest height of approximate elevation 160 feet NGVD, waste placement will continue in Lift 2C. Filling will proceed in a northeastern direction towards Lift to reach an approximate crest elevation of 160 feet NGVD. Vehicle traffic will continue to access the landfill by the temporary haul road previously constructed.

Waste filling will continue in a similar pattern for Lifts 3A and 3B until the waste reaches a crest elevation of 190 feet NGVD. The final Lift 3B consists of waste filling on the top area of Section 7 and will be constructed with a slope of 20H:1V (5 percent) from elevation 190 to 197 feet NGVD.

As of June 2005, the temporary filling in Section 7 is complete. The outer sideslopes have not reached their final design 3H:1V slope. The temporary sideslopes of Section 7 will be filled to reach their maximum design slope of 3H:1V upon construction of the Section 8 and future cells.

L.2.f.(3) Section 8 Capacity Expansion

The proposed filling sequence for Sections 7 and 8 is presented in the landfill drawings in Attachment E1 contained in the Permit Application. Crest elevations refer to the maximum elevation achieved during a given lift.

Waste disposal vehicles will travel along the paved access road, located south of Section 7, and proceed along the existing access road located on the west side of Section 7. Access to Section 8 is provided by a temporary access road located in the southwest corner of the Section 8-disposal area. As an alternative access route to Section 8 a temporary service road will be constructed on the north west corner of Section 9. This service access road to Section 8 should only be used when Section 9 is under construction or as needed to maintain access to Section 8.

Initial Waste Placement

In general, the initial waste placement will begin in the southwest corner and proceed northeast until it reaches the temporary stormwater separation berm. Refer to Section L7.b for requirements of the first layer of waste. Waste placement will continue up to a crest elevation of 150.8 feet NGVD with exterior sideslopes no steeper than four feet horizontal to one foot vertical (4H:1V). Typically the working face will be approximately 150 feet wide, which will be adequate for the anticipated traffic maneuvering during waste filling operations. Cover soil will be brought from the existing borrow area north of the Section 8 area. Daily lifts of the waste will be no thicker than 8 to 12 feet including cover soils.

Two temporary stormwater separation berms will be used to separate leachate from stormwater in the interior of the Section 8. The middle and eastern leachate collection pipes in Section 8 will be plugged with a removable air ball plug. Stormwater, which has not come in contact with waste material, will be pumped into the perimeter stormwater ditch located on the eastside of Section 8. The stormwater in the ditch will then conveyed to the stormwater Basin "C".

A RAIN TARP WILL BE USED TO COVER THE SIDESLOPES OF THE SECTION 8 AREA IN ORDER TO MINIMIZE EROSION AND WASHOUT OF THE SLOPES. PRIOR TO PLACEMENT OF WASTE, ALL RAIN TARPS WILL BE REMOVED FROM THE SIDESLOPES.

PRIOR TO PLACEMENT OF WASTE IN THE MIDDLE AND EASTERN PORTIONS OF SECTION 8, THE AIR BALL PLUG WILL BE REMOVED FROM THE LEACHATE COLLECTION PIPE.

Filling of Lift 1

Access to the Section 8 area will continue from the southwest corner for Lift 1. Filling in this area will begin in the southwest corner and will continue in a back-and-forth pattern in Lift 1A. The waste in Lift 1A will be placed against the previously placed waste in Section 7 and moving northeast until it reaches the temporary perimeter ditch located on the north and west side of Section 8. Filling will continue in a similar pattern for Lifts 1B and 1C beginning at the southwest corner of each cell, overlapping the slopes of Section 7, and progressing towards the northeast until it reaches the temporary perimeter ditch. The entire filling of Section 8 will be filled and raised so stormwater can sheet flow to the perimeter ditch. Lift 1 will eventually be raised to a crest elevation of 156 feet NGVD.

A RAIN TARP WILL BE USED TO COVER THE SIDESLOPES OF THE SECTION 8 AREA IN ORDER TO MINIMIZE EROSION AND WASHOUT OF THE SLOPES. PRIOR TO PLACEMENT OF WASTE, ALL RAIN TARPS WILL BE REMOVED FROM THE SIDESLOPES.

PRIOR TO PLACEMENT OF WASTE IN THE MIDDLE AND EASTERN PORTIONS OF SECTION 8, THE AIR BALL PLUG WILL BE REMOVED FROM THE LEACHATE COLLECTION PIPE.

Stormwater runoff west of the crest will sheet flow into the perimeter ditch located north of the expansion area to basin "C". As filling progresses to the east, stormwater collected east of the temporary stormwater separation berms will be considered stormwater and pumped in the perimeter ditch east of Section 7. The temporary stormwater separation berms will be used to separate leachate from stormwater. Once waste material has been placed east of the temporary stormwater separation berms or if stormwater comes in contact with waste material then the stormwater in this area will be considered leachate.

Upon completion of filling the entire base of Section 8, stormwater runoff from the west and north slopes of the fill area will sheet flow into the perimeter ditch located north of the cell to basin "C".

SPECIAL SECTION 7 and 8 CELL CONNECTION

Prior to filling across the leachate collection lines in Cell A of the initial lift and Cell B of Lift 1, the east-west separation berm between Sections 7 and 8, will be removed (only in the immediate area of the leachate collection pipe) to provide additional redundancy should the leachate pipe become clogged or collapse. The removal of the berm will allow leachate to flow freely from Section 8 into Section 7. Refer to Figures of the berm removal contained at the end of this Operations Plan.

Filling of Lift 2

Filling in Lift 2 will proceed beginning in Lift 2D at the southwest corner. Lift 2D will be placed against the previously placed waste in Section 7. Lift 2D, 2E and 2F will proceed from the southwest to the northeast, reaching a crest elevation of approximately 175 feet NGVD with 4H:1V exterior sideslopes and a 20H:1V top slope. Vehicle traffic will continue to access the landfill by the temporary haul road previously constructed. As an alternative access route to the Section 8 area, a second temporary access road will be constructed on the south side of Section 7. Traveling across the top of Section 7 will access section 8.

Stormwater for Lift 2 will drain from the crest to the temporary sideslope stormwater swale installed at approximately elevation 165 feet NGVD. Stormwater for the Lift 2 area will be conveyed to the north east corner where a temporary stormwater downchute will be constructed. Stormwater conveyed in the temporary stormwater downchute will discharge in the perimeter ditch that leads to Basin "C".

Filling of Lift 3

Waste filling will continue in Lift 3 beginning in the southwest corner with Lift 3G. Lift 3G will continue from the crest elevation of 165 feet NGVD moving north until it reaches grade elevation 190 feet NGVD. Lift 3G will progress toward the northeast reaching an approximate crest elevation of 190 feet NGVD. Lifts 3G will consist of waste filling overlapping the top area of Section 7 and will be graded to 4H:1V sideslopes. Filling will continue on the upper portion of Sections 7 and 8 with a final 20H:1V top slope. Sections 7 and 8 will be filled to a final elevation of 196 feet NGVD.

Stormwater for Lift 3 will drain from the crest to the temporary sideslope stormwater swale installed at approximately elevation 190 feet NGVD. Stormwater for this Lift area will be conveyed to the northeast corner where the temporary downchute from Lift 2 will be extended to Lift 3. Stormwater conveyed in the temporary stormwater downchute will discharge in the perimeter ditch that leads to Basin "C".

L.2.g Waste Compaction and Application of Cover

Waste will be placed at the top or bottom of the working face and spread toward the bottom or top, respectively. Waste will be spread in approximately 2-foot thick layers and compacted with a minimum of three to five passes of the landfill compactor. The spreading and compacting is intended to be a continuous operation. A minimum in-place waste density of 1,000 pounds/cubic yard (lb/cy) will be achieved.

A minimum of six inches of compacted initial cover will be placed over the waste at the end of each operation day. Before moving the working face between landfills, the area that will remain inactive will be covered with compacted initial cover, soil or a mixture of 50 percent unscreened wood mulch and 50 percent soil (no ash), with sufficient thickness (minimum 6-inches) to prevent erosion and the mixing of leachate with stormwater. A minimum of one foot in depth intermediate cover, in addition to the six-inch initial cover, will be applied and maintained within seven days of cell completion if additional solid waste will not be deposited within 180 days of cell completion.

When landfilling operations begin again in areas with intermediate cover, the intermediate cover (free of waste) will be stripped from the surface (upper twelve inches) and reused over other areas needing intermediate cover. The stripped intermediate cover will be pushed ahead and used as perimeter berms around the active working face area. The intermediate areas are graded to promote drainage (minimum 2 percent slope) and seeded to prevent erosion.

L.2.h Operation of Leachate, Gas and Stormwater Controls

See Sections L.8, L.9, and L.10 for each, respectively.

L.2.i Water Quality Monitoring

L.2.i.(1) Phases I-VI

Groundwater and surface water monitoring is included in Section 2 of the Groundwater Monitoring Plan. Leachate monitoring is included in Section 6.2, the effluent monitoring is included in Section 6.3 and the biosolids monitoring is included in Section 6.4 of the Leachate Management Plan.

L.2.i.(2) Capacity Expansion

Water quality monitoring for Sections 7 and 8 is included in Section M of the Permit Application. The proposed monitoring plan is designed to be consistent with the conceptual sequencing plan for build out of the Capacity Expansion area.

L.2.j Leachate Collection and Removal System Maintenance

See Section L.8.b.

L.3 OPERATING RECORD

The operating record will be maintained on site in the administration building or at the SWMD office. The operating record will be accessible to the Facility operation personnel and will be available for inspection by FDEP. The records include:

- Waste Reports
- Operation Permits
- Construction and closure permits including any modifications
- Monitoring results, such as water quality testing
- Notifications to FDEP
- Engineering drawings
- Training certifications as required by Chapter 62-701.320(15), FAC

L.4 WASTE RECORDS

The amount of solid waste received at the landfill will be weighed and recorded in tons per day in accordance with Rule 62-701.500(4), FAC. Waste reports will be compiled monthly and kept onsite with the operating record. Waste will be listed by the following types and the amount of tons received will be recorded:

- Processable, to include:
  - Household waste
  - Treated biomedical waste

- Non-processable, to include:
    - Industrial waste
    - Industrial sludge
    - Air/water treatment sludge
    - Commercial waste
    - Incinerator by-pass waste
    - Agricultural waste
- Ash
- Waste tires
- Construction and demolition debris
- Asbestos
- Yard trash

All records will be retained at the SWMD administration office. Report types include daily, month-to-date and year-to-date totals of waste received from the various haulers. The records will be available to the FDEP for review.

L.5 ACCESS CONTROLS

The perimeter fence and berms around the Facility serve to prevent the entry of livestock, protect the public from exposure to potential health and safety hazards, and discourage unauthorized entry or uncontrolled disposal of unauthorized materials. 'No trespassing' signs are also posted along the perimeter fence. The SWMD and Contractor personnel will inspect the premises on a daily basis. The gate at the Facility entrance and all other gates will be kept locked at all times the landfill is closed, and the Contractor will provide security personnel to guard the Facility during non-operating hours.

L.6 LOAD CHECKING PROGRAM

The SWMD has an established random load checking program as referenced in Section L.2.c, to detect and prevent disposal of unauthorized wastes into the landfill. In addition, site access control discourages the disposal of unauthorized and hazardous wastes. A sign is located at the entrance of the Facility that explains the types of waste prohibited at the landfill.

In accordance with Rule 62-701.500(6)(a), FAC, a minimum of three random loads will be checked at the active working face(s) each week. The selected driver will be directed to discharge his/her load at a designated location adjacent to the working face. If any unauthorized special waste (i.e., lead-acid batteries, used oil, yard trash, white goods, and whole tires) is found by the random inspection, or as part of routine operations, the waste will be segregated and removed from the site for recycling as described in Section L.2.c. These special wastes will be stored adjacent to the working face and removed from the site within 30 days.

If an unauthorized waste (i.e., hazardous, PCBs, untreated biomedical, or free liquid) is found, the generator of the waste, if known by the driver, will be contacted to determine the waste source. Either the hauling company or the generator will be directed to remove the unauthorized waste. The random load inspections will be documented on a report form which includes the date and time, name of the hauling company and the driver of the vehicle, the vehicle license number, the source of the waste or generator, and any observations or notes made by the inspector (Appendix D). **The inspector will identify and note all unauthorized waste found during the random load inspection, estimated quantity, and the action taken. The inspector will sign the inspection form that will be retained at the Facility.**

In the event the waste owner cannot be identified, the waste will be evaluated by Contractor personnel in charge. The waste will be isolated, contained, and will not be moved until it has been determined that the waste is acceptable. In the event it is determined that the waste is not suitable for disposal, the SWMD will be notified for additional assessment and testing of the waste. Subsequently, a record of the decision will be placed into the daily operations file for the Facility.

If any regulated hazardous waste is discovered in a random load check or is identified by an operator or spotter to be disposed, the landfill manager and the FDEP will be notified immediately, as well as the generator or hauler, if known. The landfill manager is trained in the proper procedure to follow including notifications. If generator or hauler is not known, then the SWMD will be responsible for the disposal of the hazardous waste at a properly permitted Facility. The hazardous waste will be isolated and restricted from access until it is removed from the landfill by a qualified hazardous waste contractor. Hazardous wastes will be removed from the site within 24 hours.

As required in Rule 62-701.320(15), FAC, inspectors, scale house attendants, equipment operators, and landfill spotters will receive training in the identification of unacceptable wastes and hazardous wastes. Available training courses are presented in Appendix A.

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L.7 SPREADING AND COMPACTING WASTE

All incoming loads into the Facility, including small volume unloading containers, will be delivered to the working face on a daily basis. In order to preserve the prepared base area, and to protect the leachate collection system traffic will be prohibited directly on the chipped tires that are overlying the drainage layer. Traffic will only be allowed to maneuver on top of the compacted and covered waste. Therefore, the initial lift of all new disposal areas will be accessed by vehicles from the top of the working face. The waste will be spread and compacted from the top, keeping all heavy equipment off the prepared base.

For all subsequent lifts, the waste placement will vary depending on field conditions. Some lifts will be built from the bottom of the active working face, and at the discretion of the operator, waste also will be placed from the top of the active working face and spread toward the bottom. Waste will be placed against the covered working face of the previous day's waste. The first cell will act as a means of access and a berm to provide a guide for the placement of waste for the remaining cells. For waste compaction, see Section L.2.g.

The following guidelines will provide an efficient and environmentally sound method of operation for the Facility.

- Portable litter fencing will be placed at the working face where needed to reduce windblown litter.

- Cracks or eroded sections in the surface of any filled and covered area will be repaired and a regular maintenance program will be followed to eliminate pockets or depressions that may develop as waste settles.

- If 12 inches of intermediate cover (free of waste) has been placed over a partially filled area, it will be removed, reused, and stockpiled for later use prior to the placement of a new lift.

- Tire chips, ash residue from incinerated municipal solid waste (MSW), tarps, soil, or a mixture of soil/mulch may be used for initial cover. Stormwater runoff will not be allowed from waste filled areas covered with tire chips, ash, or tarp. Runoff from outside of the bermed working face area will be considered stormwater only if the flow passes over areas that have no exposed waste and have been adequately covered with at least 6 inches of compacted soil (or a mixture of soil/mulch), free of waste and stabilized to control erosion.

- Sufficient cover material will be stockpiled near the working face to provide an adequate supply for initial cover operations. In some areas, daily stockpiling may not be necessary because of the proximity of the borrow area.

L.7.a Waste Layer Thickness and Compaction Frequencies

Landfill personnel will direct all incoming waste to be unloaded at the toe or top of the working face. Waste will be spread in layers of approximately two feet in thickness and compacted with a minimum of three to five passes of the landfill compactors. The spreading and compacting is intended to be a continuous operation and waste will not be placed in a layer until the previous layer is compacted.

L.7.b First Layer Thickness

For Phases I-VI, the initial waste layer has been placed. In order to protect the integrity of the leachate collection system of the landfill, traffic and heavy equipment directly on the sand drainage layer was not allowed.

The procedure for filling and compacting the first layer of waste for the permitted Sections at the Capacity Expansion Area will protect the integrity of the liner and leachate collection system. Traffic directly on the chipped tires will be prohibited, and the first lift will be accessed by vehicles from the top of the working face. An initial lift of selected waste 4 feet in thickness will be placed over the protective layer (i.e. chipped tires). The selected waste will be municipal solid waste and ash not containing large rigid objects and will be spread and compacted from the top of the working face.

L.7.c Slopes and Lift Depth

The working face slope will be maintained at a slope no steeper than 3H:1V. Each cell will be constructed in a horizontal lift to an approximate height of 8 to 12 feet, with the maximum height as shown on the Drawings (Attachment E-1 of permit Application).

L.7.d Working Face

Cells will be constructed with slopes no steeper than 3H:1V and a working face not greater than 150 feet in width to provide unhindered vehicle access to the working face while minimizing exposed areas and unnecessary use of cover material. The working face will operate in alternating months between the Facility and permitted cells at the Capacity Expansion (may not be consecutive alternating months). The working face will be bermed with soil or a mixture of 50 percent unscreened wood mulch and 50 percent soil (no ash) to prevent the mixing of leachate with stormwater.

L.7.e Initial Cover Controls

At the end of each working day, the waste will be covered with a 6-inch lift of compacted cover material such as: soil; a mixture of 50 percent unscreened wood mulch and 50 percent soil (or ash); ash; chipped tires; or tarps. These cover materials will provide vector control and mitigate windblown litter and fire potential. The cover materials will also help reduce odors and moisture infiltration into the waste. The initial cover material will be spread over the exposed waste and, with the exception of tarps, compacted by the equipment used to spread the cover (likely a bulldozer or scraper). The initial cover material will not be removed prior to placement of successive lifts of waste, with the exception of tarps, which would be removed prior to placement of successive lifts. Any remaining litter and cleanings from equipment will be placed at the bottom of the completed cell and covered.

Before moving the working face between landfills, the area that will remain inactive will be covered with compacted cover (free of waste), soil or a mixture of 50 percent unscreened wood mulch and 50 percent soil (no ash), with sufficient thickness (minimum 6-inches) to prevent erosion and the mixing of leachate with stormwater.

L.7.f Initial Cover Frequency

At the end of each day's operation the active landfill working face will be thoroughly compacted, and cover material will be spread and compacted to a depth of 6 inches over the day's entire working face and sideslopes. Initial cover material will be as discussed in Section L.7.e. Time will be allowed at the end of each day to move the portable barriers that define the working face, if needed. These will be moved to the positions required to define the next day's operation.

The Facility is equipped to excavate and haul cover materials from on-site borrow areas to the working face. Normally, an elevating scraper is used to excavate and haul cover material from the borrow area to the working face where it can be spread by a scraper or bulldozer.

L.7.g Intermediate Cover

Intermediate cover will be placed and maintained over cells which will not receive additional solid waste or final cover within 180 days as required in Rule 62-701.500(7)(f), FAC. The working face will be bermed to reduce stormwater impacts. Sideslopes will be well maintained to minimize erosion. Intermediate cover material will be placed over the landfill surface within 7 days of cell completion if additional waste will not be placed within 180 days. Intermediate cover will be placed to a minimum compacted thickness of 12 inches ($K \leq 1 \times 10^{-5}$ cm/sec) on top of the 6 inches of compacted initial cover. On-site material, free from organic matter, roots, and branches will be used for intermediate cover. Specifically, phosphatic waste clays available on-site will be mixed with sand and used for intermediate cover.

To conserve the soil/clay mix, a portion of the intermediate cover will be removed immediately before placement of additional solid waste on top of the lift or before placement of additional waste. The soil/clay mix (free of waste) will be stripped and reused as intermediate cover material. The stripped intermediate cover will be pushed ahead as needed for the perimeter interceptor berms constructed around the active working face area. The intermediate cover areas will be graded to promote drainage (minimum 2 percent slope) and seeded to prevent erosion.

L.7.h Final Cover

When portions of the Facility are brought to design grades, final cover will be placed over the areas that have attained final elevation within 180 days in accordance with Rule 62-701.500(7)(g), FAC. Vegetative cover of Bahia grass (variety Pensacola) or St. Augustine grass will be applied. The final cover system and sequence for final cover placement will be submitted with the application for closure at least 90 days prior to the partial closure of the sideslopes.

L.7.i Scavenging and Salvaging

Except for such operations that are conducted as part of a recycling program, scavenging and salvaging are not permitted at the Facility.

L.7.j Litter Policing

If necessary, portable litter fences will be placed downwind of the immediate working area to confine most of the windblown material. Litter around the site and the entrance roadways will be collected on a regular basis and picked up within 24 hours, per Rule 62-701.500(7)(i), FAC. In addition, the Contractor maintains a litter crew to provide litter control on State Road (SR) 39 from the Lithia-Pinecrest intersection to CR 672 and on CR 672 to Balm-Boyette Road.

L.7.k Erosion Control Procedures

The Facilityfill sequence and the drainage facilities have been designed to minimize erosion of landfill sideslopes and washout of adjacent areas. The landfill surface will be inspected daily for cracks, eroded areas, and depressions in the landfill surface. Corrective action will be implemented within 7 days of detection. In areas where standing water develops, the area will be filled, compacted, and graded to provide positive drainage. Where this problem cannot be corrected by proper grading, temporary drainage ditches will be constructed to drain off the standing water. For intermediately covered areas, or other areas that discharge to the stormwater management system, which exhibit significant erosion, will be repaired as follows:

- If greater than 50 percent of the soil cover material has eroded, then the area will be repaired within 7 days.

- If waste or liner is exposed, then the area will be repaired by the end of the next working day.

L.8 LEACHATE MANAGEMENT

For Phase I-VI, the current FDEP approved LMP prepared by SCS is part of the current operation permit. The LMP is included under separate cover and contains the leachate management procedures and goals for Phases I-VI. Leachate Generation is addressed in Sections 2 and 5 of the LMP. The leachate management system components are described in Section 3 of the LMP.

The design of the leachate management systems for Sections 7 and 8 of the Capacity Expansion area includes a system of collection pipes and drainage geocomposites that lead to a sideslope sump. The collection pipes and drainage geocomposites from the Section 7 cell will extend into Section 8, thus all the leachate from Section 8 will flow into Section 7. The sideslope sump is located at the low-point at the southwest corner of the Section 7 area.. The low-point acts as the sump for both the collection and detection systems. For leachate removal, the collection riser and the leak detection riser will include submersible pumps. Leachate from Sections 7 and 8 will be pumped to the existing main leachate pump station (MLPS). Leachate is also pumped from Phases I through VI to the MLPS. Leachate from the MLPS is then pumped to the Leachate Treatment and Reclamation Facility (LTRF). Effluent from the LTRF will either be hauled off-site or used as irrigation on the Phases I to VI. The main components of the Sections 7 and 8 leachate management system include the following:

- Geocomposite drainage layer with rock filled leachate collection trenches and perforated pipes leading to a main header pipe.

- Collection sump system including collection riser, leak detection riser, and submersible pumps for leachate removal.

- Valve vault containing control and check valves, sample port, and electromagnetic flowmeter.

- Control panel including pump controls and remote flowmeter head, including telemetry relay to the computer monitoring system at the LTRF office.

- Connection to influent line to the existing MLPS and underground high-density polyethylene piping force main.

L.8.a Leachate Monitoring and Sampling

The Phases I-VI leachate monitoring is addresses in Section 6 of the LMP. The leachate collection and removal system (LCRS) was designed to meet FDEP requirements for limiting the leachate head to a maximum of one foot above the geomembrane during routine landfill operations after placement of the initial cover. Calculations indicating the maximum hydraulic head over liner and adequate flow capacity in trenches were presented in Attachment H-2 and H-2A of the Section 8 Construction Permit Application submitted, and approved, by FDEP in 2004.

The leachate management system includes a control panel, telemetry, and flowmeter operation. Status of pumping and flow rate along with flow totalizer information can be readily accessed at the control panel located adjacent to the sideslope riser. Leachate from the Section 7 area will be sampled on an annual basis from sample port No.007 located at the sideslope riser (see Figure 1). Using the applicable FDEP Standard Operating Procedures for field sampling, leachate will be collected and analyzed for the parameters listed in Rule 62-701.510(8)(c) and 8(d). The results of the leachate analyses will be reviewed and submitted to the FDEP.

L.8.a.(1) Leak Detection System Monitoring

The purpose of monitoring the rate of leakage in the leachate detection system (LDS) is to provide a method for evaluating the flow rates and conveyance capacity of the geocomposite materials within the LDS. An Action Leakage Rate (ALR) is a measurement that can be made in the field and based upon those measurements appropriate actions can be implemented.

The ALR is defined in 40 CFR 265.302 as the maximum design flow rate that the leak detection system (LDS) can remove without the leachate head on the bottom of the linear exceeding 1-foot. Per Rule 62-701.400(3)(c)2, F.A.C., the LDS should be designed to limit the head in the LDS to less than 1 inch of head or the thickness of the geocomposite. For the Section 7 cell, the maximum Action Leakage Rate (ALR_{max} – defined as the maximum rate of flow that the geocomposite can convey without flooding) was estimated to be approximately 550 gallons per day (gpd) for one side of one detection trench. Since both sides of the trench can potentially contribute leachate, approximately 1,100 gpd (i.e., 550 gpd * 2) could possibly be contributing from each trench within the Section 7 cell and be measured as flow at the LDS pump. There are four leachate detection system trenches for the Section 7 cell. Thus, a maximum ALR before all

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The Section 7 cell LDS geocomposite was constructed with a lower flow capacity bi-planar geocomposite materials than the Section 8 cell. The Section 8 cell was constructed with a high flow tri-planar geocomposite. Based upon the construction, the Section 8 LDS is connected with the Section 7 LDS and thus the Section 7 cell would be the limiting constraint on leachate flow in the LDS (this is conservative since Section 8 will also be contributing a base flow to the LDS).

Based upon conversations with FDEP, the general guideline for establishing an initial ALR for operations is approximately 100 gpd per acre of disposal. An initial response ALR of 1,930 gpd (19.3 acres * 100 gpd per acre) will be used for the flow rate measured from the Section 7 LDS pump. Therefore, an initial ALR will allow for action to be taken prior to the LDS becoming flooded. Based upon that guideline, the total estimated area for both Sections 7 and 8 is approximately 19.3 acres. This initial ALR would provide a factor

of safety of ~~2.3~~ 1.2 (ALR_{max} / ALR). The initial ALR will be measured at the flow meter from the LDS submersible pump located in the southeast corner of Section 7.

Initial ALR actions would include:

- Checking the pump and flow meter at the LDS sideslope riser for proper operation.
- Increasing the pumping rate from the LDS, to lower the stored levels of leachate. A pocket or slug of leachate may have been conveyed to the LDS riser. Upon further pumping, the levels or flow rates may be lowered below the ALR.
- Check the cover or capping systems over the Section to reduce infiltration into the LDS.
- Continue monitoring the flow rates out of the LDS, based upon the above recommendations to determine further action, if needed.

The SWMD will notify the FDEP and EPC within 48 hours of discovery. Within seven days of the discovery, an evaluation report will be submitted to FDEP and EPC. The written report will include an assessment and demonstrate whether the double liner containment system will continue to function adequately and still keep the containment system operating within the regulations. If the containment system cannot be kept within compliance then a corrective action plan and schedule for implementation will be provided in the evaluation report.

L.8.b Operation and Maintenance of the Leachate Collection and Removal System

Maintenance of the Leachate Collection and Removal System (LCRS) will be conducted on a routine and as-needed basis. The design of the leachate collection system includes components that require minimum operator attention. Phases I-VI routine maintenance is described in Section 3.3 of the LMP. Section 7 routine maintenance will be performed following the schedule in Table L-1.

TABLE L-1. SCHEDULE FOR ROUTINE MAINTENANCE

Component	Frequency	Performance Criteria	Corrective Action
Section 7 Pump	Semi-annual.	If pumping rate is less than 75 gpm, conduct drawdown or pressure test. Inspect for sediment in sump.	Pump with reduced performance will be removed and repaired. Replacement pump will be installed within 8 hours.
Leachate collection and removal system	Twice during permit period	Water pressure clean or video inspect at the existing cleanout locations.	If any component is not performing adequately, the SWMD will submit to the FDEP and EPC an evaluation report with proposed remedy.

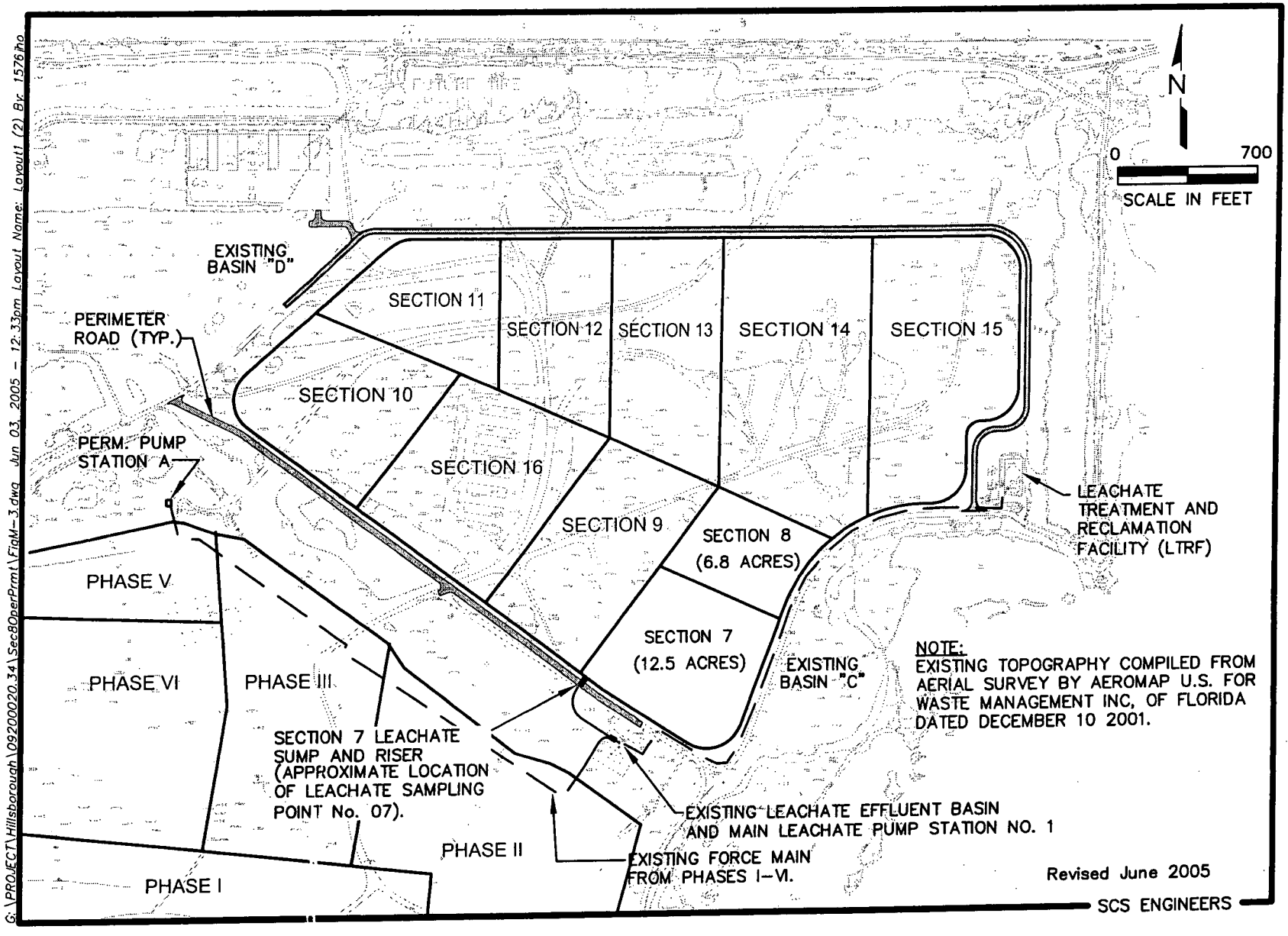


Figure 1. Location of Sections 7 & 8 Leachate Sampling.

L.8.c Procedures for Managing Leachate Upon Regulation Changes

If the annual analysis indicates that a contaminant listed in 40 CFR Part 261.24 exceeds the regulatory level then the monthly leachate sampling and notification requirements will be followed in accordance with ~~Chapter~~ Rule 62-701.510(6)(c)2, FAC. In the unlikely event that leachate is classified as a hazardous waste, it will be managed in accordance with Chapter 62-730, FAC entitled "Hazardous Waste".

L.8.d Off-site Discharge and Treatment of Leachate

The leachate disposal options used at the Facility are described in Section 3.2 of the LMP and the on-site LTRF is described in Section 4.5 of the LMP. The existing permit for the LTRF includes pump stations, and controls; a 575,000-gallon capacity leachate storage tank, the treatment Facility, two lined basins for effluent storage and a spray irrigation system. The leachate from the permitted Sections at the Capacity Expansion will be pumped to the LTRF for treatment, as is the leachate from the Facility. Once the leachate is treated, it is pumped to the effluent storage basins and subsequently used for irrigation on areas over Phases I-VI as described in the LMP. Spray irrigation of effluent will not be conducted on Sections 7 and 8.

Leachate may also be disposed off-site at a County-owned wastewater treatment plant (WWTP). Agreements exist with two of Hillsborough County's wastewater treatment plants for leachate disposal. Hillsborough County and private contract fleets are used to haul the leachate to the WWTP. Leachate will continue to be measured by a flow meter as the tanker trucks are loaded at the truck loading station at the LTRF.

L.8.e Contingency Plan

As noted above, several options exist for off-site discharge and treatment of leachate.

L.8.f Recording Leachate Generation

For Phases I-VI, the leachate quantity will be recorded by a flow meter at Pump Station A (PS-A). SWMD personnel will record flow meter readings each day the Facility is open and the quantities will be reported to the FDEP.

Leachate from Sections 7 and 8 will be collected from the sump riser located in the southwest corner of Section 7. The leachate quantity from Sections 7 and 8 will be recorded by a flow meter prior to the flow joining the existing force main. SWMD personnel will record flow meter readings each day the Facility is open and the quantities will be reported to the FDEP. Sample leachate reporting forms are included in Appendix G.

L.8.g Precipitation and Leachate Comparison

Site-specific precipitation data is gathered from six rainfall gauges that are in place at various locations at the Facility. This data is recorded and used by the SWMD in preparing the leachate balance reports; these reports are submitted to the FDEP. For monitoring forms, refer to Attachments A and B of the LMP. The SWMD will continue to monitor the rainfall gauges and incorporate the data into the leachate balance reports.

The HELP model runs that were used to estimate leachate generation rates are calibrated based upon earlier site analysis of the relationship between rainfall and leachate generation rates, which were specific to the site.

L.8.h Inspecting Leachate Collection Systems

The Facility will be inspected daily. The existing leachate collection and removal systems will be water pressure cleaned or video inspected twice during the permit duration.

L.9 GAS MONITORING PROGRAM

Quarterly LFG monitoring is conducted by SWMD personnel at the perimeter LFG monitoring wells and in the administration, LTRF, and maintenance buildings. The location of the existing monitoring points for LFG is included in Appendix F. The ambient air and areas with slab penetration (areas with plumbing for water and drains) will be monitored inside these structures. The monitoring will be conducted for the Lower Explosive Limit (LEL) of methane. A GEM-500 Infrared Landfill Gas Analyzer (or equivalent) will be used. At the landfill perimeter monitoring points, no purging of the probe will be done. Once the GEM is connected to the sampling port, the valve will be opened and the GEM pump will be started. The GEM reading will be observed, and the value will be recorded.

When entering confined spaces or areas where dangerous gases may be present, the SWMD will follow the requirements in the "Code of Federal Regulations Title 29, Part 1910.146 OSHA" and the safety guidelines outlined in "A Compilation of Landfill Gas and Field Practices and Procedures" prepared by the SWANA Landfill Gas Division Health and Safety Task Force.

If methane is detected in concentrations greater than the regulatory limit (100 percent of the lower explosive limit at the property boundary or 25 percent of the lower explosive limit within structures), the SWMD will evaluate potential measures to correct the exceedances. Should an unacceptable concentration of methane be detected in a monitoring location (i.e. a well or an on-site structure), the SWMD will immediately take appropriate actions to protect human health. The SWMD will notify FDEP, and will re-monitor the location during each of the next three days. During this time, the SWMD will evaluate potential causes of the exceedance and will implement procedures to remedy the situation if exceedances persist after the third day. Within seven days of the initial exceedance, the SWMD will submit a remediation plan to FDEP in accordance with Rule 62-701.530(3)(a).

As described in Section L.7, the SWMD has a program for the placement of cover, which is effective for controlling disease, vectors, objectionable odors, and litter. No objectionable odors have been detected or reported by adjacent property owners. At least quarterly, or more frequently if necessary, qualified personnel from the SWMD will assess the presence of ambient objectionable odors at the location of the perimeter monitoring points shown in Appendix F. If objectionable odors are detected at the property line, the SWMD will implement an odor monitoring program as required by Rule 62-701.530(3)(b) FAC.

Passive flares connected to the leachate collection system cleanouts of the access pipes to Pump Station B (PS-B) will reduce pressure buildup inside the leachate collection pipes and provide a path of least resistance for the landfill gas (LFG) to vent. The passive flares will also reduce the potential for LFG to accumulate in PS-A and the pump control panel (see Figures F-5 and F-6 in Appendix F).

L.10 STORMWATER MANAGEMENT SYSTEM

L.10.a Phases I-VI

The Phases I-VI stormwater collection and conveyance system directs stormwater runoff off the landfill and surrounding subshed areas, and into seven existing stormwater detention basins. Five filtration basins (A through E) and three sedimentation basins (Basins F through H) exist for stormwater treatment of the entire site.

A detailed description of the stormwater management system with supporting calculations is presented in Section 3.6 of the 1994 Permit Application.

L.10.b Capacity Expansion

The capacity expansion utilizes the existing surface and stormwater management system. The system was designed to prevent intrusion of stormwater runoff into areas containing MSW. The stormwater management system of Sections 7 and 8 was designed to avoid mixing of stormwater with leachate. In addition, the designs maintain conformance with the site's Southwest Florida Water Management District Permit, which was submitted in Volume 3, Attachment A of the Construction Permit Application for Section 7.

The stormwater conveyances were designed to attenuate the maximum expected flows from a 24-hour, 25-year rainfall event. The stormwater conveyances will be maintained in good condition, with the proper slopes, and free from obstructions. Erosion control measures and corrective action will be as described in Section L.7.k. The major components design and operations is as follows:

- Interior Stormwater Separation berm; generally designed to be three feet in height and three feet in width across the top with sideslopes of 3H:1V. The separation berms

divide the Sections into areas to facilitate the collection and handling of stormwater separate from leachate.

- Sideslopeswales were designed to convey stormwater flow from the sideslopes to the downchutes as shown on the drawings. Sideslope swales will be constructed where needed and as shown on the sequence drawings.

- Downchutes; The downchutes will convey stormwater flow to the perimeter ditch.

- Perimeter Ditch and Diversion Channel; The perimeter ditch manages surface water runoff around the site, prevents off-site drainage from entering the landfill area, and conveys the runoff to stormwater Basin C.

L.11 EQUIPMENT AND OPERATION

Landfill operation was discussed in Section L.2.

L.11.a Operating Equipment

The landfill is currently operated with the following on-site equipment:

- Two steel-wheeled compactors.
- Two bulldozers.
- One self-propelled scraper.
- One water tank truck.
- One motor grader.
- One excavator.
- Several pickup trucks.
- Other miscellaneous construction and maintenance equipment.

Where appropriate, equipment is fitted with safety cabs and fire extinguisher. The Contractor is required to have back-up equipment available within 24 hours.

L.11.b Reserve Equipment

Sufficient backup equipment will be provided on site for equipment breakdowns and downtime for normal routine equipment maintenance. Pre-arrangements with contractors and rental equipment dealers will be made to furnish equipment on a short-term notice in the case of a major equipment failure. The Reserve Equipment Agreement is presented in Appendix B.

L.11.c Communications Equipment and Personnel Facilities

Telephones are located at the Administrative and Maintenance Buildings for use in emergencies. Cellular telephones and two-way radios are also used. The Administration Building is equipped with water supply, toilet facilities, emergency first-aid supplies, and electricity. The building also provides shelter for employees in case of inclement weather. The Maintenance Building is equipped with spare parts, tools, equipment, and electrical services for operations and repair.

L.11.d Dust Control

L.11.d.(1) Phases I-VI

Dust control outside of the landfill will be provided by applying water sprayed from a water tank truck and will be applied to the unpaved access roads as required to control dust generation. Dust control inside of the landfill will be provided by applying small quantities of leachate as described in Section 3.2.2 of the LMP.

L.11.d.(2) Capacity Expansion

Dust control outside of the landfill will be provided by applying water sprayed from a water tank truck and will be applied to the unpaved access roads as required to control dust generation.

Dust control inside the active waste disposal areas will be provided by applying small quantities of leachate from a spray bar mounted on the rear of a tank truck. Leachate will be sprayed onto the active fill areas of the Capacity Expansion, including the working face, and areas with the required 6 inches of initial cover as required to control dust generation.

Leachate used as dust control reduces the quantity of fresh pond water that would otherwise be sprayed from tanker trucks to control dust on the active fill areas and provides for leachate evaporation. Leachate quantities used for dust control will continue to be reported in the leachate balance report submitted to the FDEP.

The SWMD will monitor the rate of application, soil moisture conditions, and the specific landfill areas used so that this leachate disposal method does not generate runoff. Spray bar leachate spraying will be applied under the following conditions:

- Leachate will only be sprayed on active-fill areas, including the working face, and areas with the required 6 inches of compacted initial cover.

- Leachate will not be sprayed on areas with intermediate or final cover, seeded or unseeded.

- The maximum grade leachate will be sprayed on is 10H:1V slope. Areas within 150 feet of a 4H:1V or steeper sideslope will not be sprayed on. At all times, areas receiving leachate will be controlled to prevent leachate runoff from entering the stormwater system.

- Leachate will not be sprayed during a rainfall event.

- The tank truck spray bar method maximizes evaporation. The application rate of leachate will be such that leachate does not accumulate on the landfill surface, nor infiltrate quickly into the covered refuse. It is evaporation that is the main goal of this leachate disposal method, rather than recirculation of leachate.

- Leachate will not be sprayed at the end of the day on the initial cover of the working face or other areas. Spraying should be done early in the morning after any dew evaporates and continue until early afternoon or until all available areas have been utilized.

L.11.e Fire Protection and Chemical Fires

A charged fire extinguisher is kept at the scalehouse, Administration building, Maintenance Building, and with all landfill equipment all times. Excavated soil will be used for fire control at the working face.

In the event that a load of municipal type waste is delivered to the site, which is smoking or on fire, landfill personnel direct the load to the "hot spot" area (An area within the landfill footprint with at least 12-inches of soil cover) where appropriate fire fighting procedures are followed.

Water for fire protection will be supplied from the fire hydrant and intake structure located east of Phase II. A second fire hydrant and intake structure is located south of the LTRF. In the event of a small fire at the working face, waste handling will continue on an alternate working face until the fire is suppressed. In the event that a fire cannot be controlled using materials and personnel already on site, the Fire Department will be immediately contacted and the emergency response plan will be followed as described in Section L.2.b. For spills and containment of contaminated water such as from fire fighting see Section L.2.b.

No chemicals will be accepted at the landfill. All waste coming through the scale house will be observed to eliminate unwanted chemicals capable of starting a fire. In the event a chemical accident does occur, the following steps will be taken:

- Call local Fire Department (911).

- Contain fire in small area until Fire Department arrives. To eliminate inhalation of potentially toxic fumes, fight fire from upwind side.

- Stay with fire until out and cover with sand.

L.11.f Litter Control Devices

See Section L.7.j of this Operations Plan.

L.11.g Signs

A sign indicating the hours of operation is located at the Facility entrance. Signs indicating the name of the operating authority, charges for disposal, and a sign indicating asbestos disposal site are located near the scalehouse area. Traffic flow and speed limit signs are located at various points along the landfill access road.

L.12 ALL-WEATHER ACCESS ROAD

The access roadway enters the site from CR 672. An asphalt paved road travels north through citrus groves and turns east into the Facility. The access road location was selected to minimize impacts to residential and agricultural areas along CR 672. There is a gate on the access roadway at CR 672 and fencing to prevent unauthorized access.

The main access road is a 40-foot wide roadway with a 24-foot wide asphalt paved section and 8-foot wide shoulders constructed within the 100-foot wide right-of-way. The main access road is paved and extends into the Facility through the property entrance, then runs along the south side of the site, and turns north along the east side of the Facility area.
Other on-site roadways will be required on a temporary and permanent basis to service the borrow area and for maintenance and services of on-site facilities. A stockpile of materials to construct all-weather roads is available on site for use in maintaining roadways to the active working face during inclement weather.

L.13 ADDITIONAL RECORDKEEPING

Operation records, such as permits, plans, inspections and others, are maintained at the Facility and at the SWMD office. The active area of Phases I-VI will be surveyed monthly and the active area of the Capacity Expansion will be surveyed twice each year to calculate the volume used and to estimate the in-place density.

L.13.a Permit Application Development

The SWMD keeps all information including site investigations, construction records, operation records, inspections, and permits.

L.13.b Monitoring Information and Background Water Quality

The SWMD also keeps all monitoring records on groundwater, surface water, weather, and landfill gas. Copies are submitted to the FDEP and the Environmental Protection Commission of Hillsborough County (EPC) on a regular basis.

L.13.c Remaining Site Life Estimates

An estimate of the remaining site life for the permitted area will be prepared annually for submission to the FDEP.

L.13.d Archiving and Retrieving Records

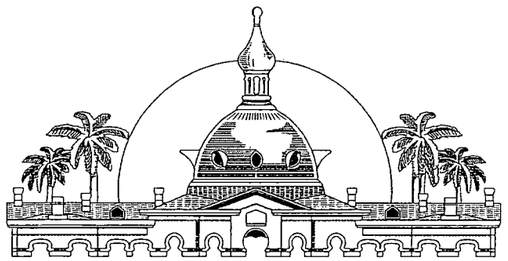
Records of the landfill that are more than three years old will be available at the County's offices, 601 E. Kennedy Blvd., 24th Floor, in Tampa.

Da-

SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE

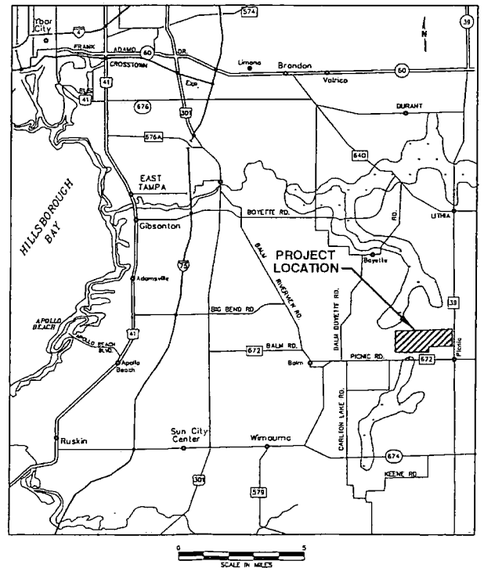
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

TAMPA, FLORIDA



BOARD OF COUNTY COMMISSIONERS

KATHY CASTOR, Commissioner
KEN HAGAN, Commissioner
THOMAS SCOTT, Commissioner
RONDA STORMS, Commissioner
JIM NORMAN, Commissioner
BRIAN BLAIR, Commissioner
MARK SHARPE, Commissioner



LOCATION MAP

DRAWING NO.	DRAWING TITLE
1	COVER SHEET
2	FACILITY SITE PLAN AND EXSITING TOPOGRAPHY
3	INITIAL LIFT SEQUENCING PLAN
4	LIFT 1 FILL SEQUENCING PLAN
5	LIFT 2 FILL SEQUENCING PLAN
6	LIFT 3 FILL SEQUENCING PLAN
7	SECTIONS - 1
8	SECTIONS - 2
9	DETAILS - 1
10	DETAILS - 2
11	DETAILS - 3

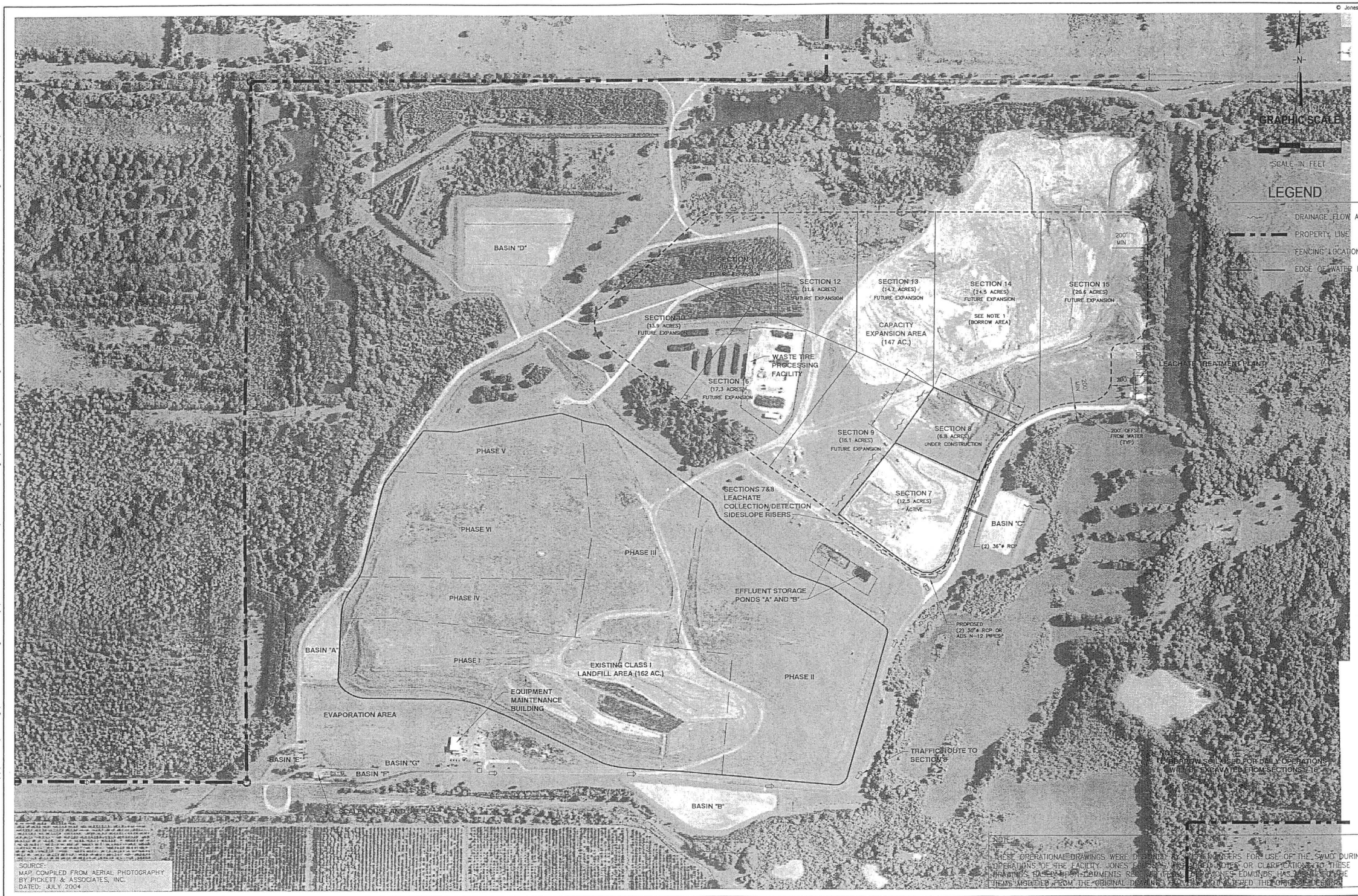
NOTE:

THESE OPERATIONAL DRAWINGS WERE DESIGNED BY SCS ENGINEERS FOR USE OF THE SWMD DURING OPERATIONS OF THE FACILITY. JONES EDMUNDS HAS ADDED NOTES OR CLARIFICATIONS TO THESE DRAWINGS BASED UPON COMMENTS RECEIVED FROM FDEP. JONES EDMUNDS HAS IDENTIFIED THE ITEMS MODIFIED FROM THE ORIGINAL DRAWINGS BUT HAS NOT ALTERED THE ORIGINAL DESIGN.

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

CERTIFICATE OF AUTHORIZATION #1841

REVISED APRIL 2006 JONES EDMUNDS
ORIGINAL DECEMBER 2005 JONES EDMUNDS
ORIGINAL AUGUST 2005 (SCS ENGINEERS)



SOURCE:
MAP COMPILED FROM AERIAL PHOTOGRAPHY BY PICKETT & ASSOCIATES, INC.
DATED: JULY 2004

NOTE:
THESE OPERATIONAL DRAWINGS WERE DESIGNED BY THE ENGINEERS FOR USE OF THE SWMD DURING OPERATIONS OF THE FACILITY. JONES EDMUNDS, PROPOSED NOTES OR CLARIFICATIONS TO THESE DRAWINGS EASILY UPON COMMENTS RECEIVED FROM THE JONES EDMUNDS HAS DESIGNED THE ITEMS MODIFIED FROM THE ORIGINAL DRAWINGS AND THEY HAVE NOT ALTERED THE ORIGINAL DESIGN.

LTR.	DATE	REVISIONS	BY	APPRD.

DESIGNED JHO
DRAWN PEU
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

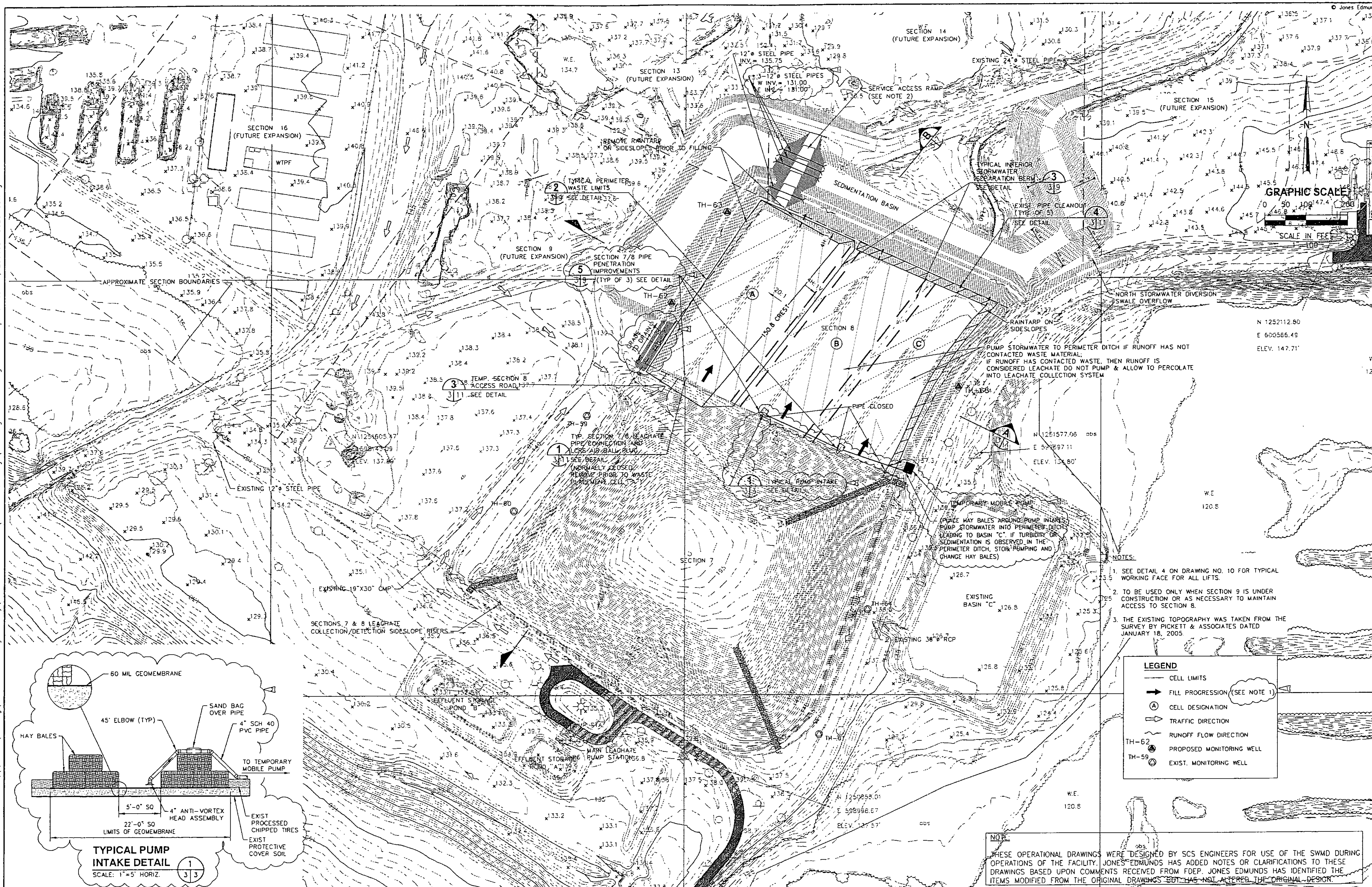
SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

FACILITY SITE PLAN AND EXISTING TOPOGRAPHY

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

DATE: DEC 2005
SCALE: 1"=300'
PROJECT NO.: 08449-020-01
DWG. NO.: 2

Edited: 01/26/06 15:50 JWilliams \\Tpa-srv\Drafting\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 2006\08449020-02.dwg Plotted: 4/19/06 2:35pm RDemint


© Jones Edmunds 2436
SECTION 16 (FUTURE EXPANSION)
SECTION 13 (FUTURE EXPANSION)
SECTION 14 (FUTURE EXPANSION)
SECTION 15 (FUTURE EXPANSION)
SECTION 9 (FUTURE EXPANSION)
SECTION 8
SECTION 7
SEDIMENTATION BASIN
EXISTING BASIN "C"
APPROXIMATE SECTION BOUNDARIES
GRAPHIC SCALE
SCALE IN FEET 1"=100'
NORTH STORMWATER DIVERSION SWALE OVERFLOW
RAINTARP ON SIDESLOPES
PUMP STORMWATER TO PERIMETER DITCH IF RUNOFF HAS NOT CONTACTED WASTE MATERIAL; IF RUNOFF HAS CONTACTED WASTE, THEN RUNOFF IS CONSIDERED LEACHATE DO NOT PUMP & ALLOW TO PERCOLATE INTO LEACHATE COLLECTION SYSTEM
TEMPORARY MOBILE PUMP (PLACE HAY BALES AROUND PUMP INTAKES, PUMP STORMWATER INTO PERIMETER DITCH LEADING TO BASIN "C". IF TURBIDITY OR SEDIMENTATION IS OBSERVED IN THE PERIMETER DITCH, STOP PUMPING AND CHANGE HAY BALES)
PIPE CLOSED
EXISTING 12"ø STEEL PIPE
EXISTING 19"X30" CMP
EXISTING 38"ø RCP
EXISTING 24"ø STEEL PIPE
SECTIONS 7 & 8 LEACHATE COLLECTION/DETECTION SIDESLOPE RISERS
EFFLUENT STORAGE POND "B"
EFFLUENT STORAGE POND "A"
MAIN LEACHATE PUMP STATION
SERVICE ACCESS RAMP (SEE NOTE 2)
REMOVE RAINTARP OR SIDESLOPES PRIOR TO FILLING
TYPICAL PUMP INTAKE DETAIL
SCALE: 1"=5' HORIZ.
60 MIL GEOMEMBRANE
HAY BALES
45° ELBOW (TYP)
SAND BAG OVER PIPE
4" SCH 40 PVC PIPE
TO TEMPORARY MOBILE PUMP
4" ANTI-VORTEX HEAD ASSEMBLY
5'-0" SQ
22'-0" SQ LIMITS OF GEOMEMBRANE
EXIST PROCESSED CHIPPED TIRES
EXIST PROTECTIVE COVER SOIL

NOTES:

1. SEE DETAIL 4 ON DRAWING NO. 10 FOR TYPICAL WORKING FACE FOR ALL LIFTS.
2. TO BE USED ONLY WHEN SECTION 9 IS UNDER CONSTRUCTION OR AS NECESSARY TO MAINTAIN ACCESS TO SECTION 8.
3. THE EXISTING TOPOGRAPHY WAS TAKEN FROM THE SURVEY BY PICKETT & ASSOCIATES DATED JANUARY 18, 2005.

LEGEND

- CELL LIMITS
- FILL PROGRESSION (SEE NOTE 1)
- (A) CELL DESIGNATION
- TRAFFIC DIRECTION
- RUNOFF FLOW DIRECTION
- TH-62 PROPOSED MONITORING WELL
- TH-59 EXIST. MONITORING WELL

NOTE:

THESE OPERATIONAL DRAWINGS WERE DESIGNED BY SCS ENGINEERS FOR USE OF THE SWMD DURING OPERATIONS OF THE FACILITY. JONES EDMUNDS HAS ADDED NOTES OR CLARIFICATIONS TO THESE DRAWINGS BASED UPON COMMENTS RECEIVED FROM FDEP. JONES EDMUNDS HAS IDENTIFIED THE ITEMS MODIFIED FROM THE ORIGINAL DRAWINGS BUT HAS NOT ALTERED THE ORIGINAL DESIGN.

LTR.	DATE	REVISIONS	BY	APPRO.
3	1/14/05	RAI NO. 3 - PUMP INTAKE AND DITCH	JHO	
2	1/30/06	RAI NO. 2	JHO	
1	9/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

INITIAL LIFT SEQUENCING PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

DATE	PROJECT NO.
DEC 2005	08449-020-01
SCALE	DWG. NO.
1"=100'	3

Edited: 01/26/06 15:48 JWilliams \\Tpa-srv\Drafting\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 200608449020-03.dwg

Plotted: 4/26/06 10:14am JVance

Edited: 01/26/06 13:26 JWilliams N:\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 2006\08449020-04.dwg

SECTION 16 (FUTURE EXPANSION)

WTPF

SECTION 13 (FUTURE EXPANSION)

SECTION 14 (FUTURE EXPANSION)

SECTION 15 (FUTURE EXPANSION)

SECTION 9 (FUTURE EXPANSION)

SECTION 7/8 PIPE PENETRATION IMPROVEMENTS (TYP OF 3) SEE DETAIL 5 4/9

BORROW AREA

12"ø STEEL PIPE INV = 135.75

3-12"ø STEEL PIPES W INV = 131.00 E INV = 131.00

EXISTING 24"ø STEEL PIPE

SERVICE ACCESS RAMP (SEE NOTE 2)

SEDIMENTATION BASIN

TH-63

TH-62

TH-61

TH-60

TH-59

TH-64

NORTH STORMWATER DIVERSION SWALE OVERFLOW

N 1252112.80
E 600566.48
ELEV. 147.71'

SECTION 8

REMOVE RAINTARP ON SIDESLOPES PRIOR TO FILLING

N 1251577.06 obs
E 598897.11
ELEV. 136.80'

TYPICAL PERIMETER WASTE LIMITS SEE DETAIL 2 4/3

TYP. SECTION 8 TEMPORARY ACCESS ROAD 3 4/1.1 SEE DETAIL

SEE NOTE 4

TYP. SECTION 7/8 LEACHATE COLLECTION PIPE AND LCRS AIR BALL PLUG 1 4/1.1 SEE DETAIL (NORMALLY CLOSED) REMOVE PRIOR TO WASTE PLACEMENT CELL 7 OR 8

LCRS AIR BALL PLUGS NORMALLY CLOSED REMOVE PRIOR TO WASTE PLACEMENT CELL 7 OR 8

EXISTING 12"ø STEEL PIPE

EXISTING 19"X30" CMP

SECTIONS 7 & 8 LEACHATE COLLECTION/DETECTION SIDESLOPE RISERS

SECTION 7

EXISTING BASIN "C"

EXISTING 36"ø RCP

GRADE SWALE TO FLOW INTO DOWNCHUTE

EFFLUENT STORAGE POND "B"

MAIN LEACHATE PUMP STATION

EFFLUENT STORAGE POND "A"

N 1250855.01
E 598898.67
ELEV. 137.57'

GRAPHIC SCALE
0 50 100
SCALE IN FEET

NOTES:

1. SEE DETAIL 4 ON DRAWING NO. 10 FOR TYPICAL WORKING FACE FOR ALL LIFTS.
2. TO BE USED ONLY WHEN SECTION 9 IS UNDER CONSTRUCTION OR AS NECESSARY TO MAINTAIN ACCESS TO SECTION 8.
3. THE EXISTING TOPOGRAPHY WAS TAKEN FROM THE SURVEY BY PICKETT & ASSOCIATES DATED JANUARY 18, 2005.
4. MONITOR AREA FOR EROSION. USE TEMPORARY EROSION CONTROL BLANKETS OR SOD TO STABILIZE.
5. IF DURING FILLING CELLS A, B AND C WASTE PLACEMENT IS TO CEASE COVER WASTE WITH A MIN. OF 6 INCHES (18 INCHES IF OVER 180 DAYS) AND GRADE (1.0% MIN) TO PROMOTE RUNOFF.

LEGEND

- CELL LIMITS
- FILL PROGRESSION (SEE NOTE 1)
- (A) CELL DESIGNATION
- TRAFFIC DIRECTION
- RUNOFF FLOW DIRECTION

TIME TO FILL
CELLS A, B AND C
176,000 CY
APPROXIMATELY 2.5 MONTHS
(CONTINUOUS FILLING)

NOTE:

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LTR.	DATE	REVISIONS	BY	APPRD.
2	9/14/06	RAI NO. 3 - SECTION 7/8 BERM, ADDED NOTES	JHD	
1	9/30/06	RAI NO. 2	JHD	
0	9/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

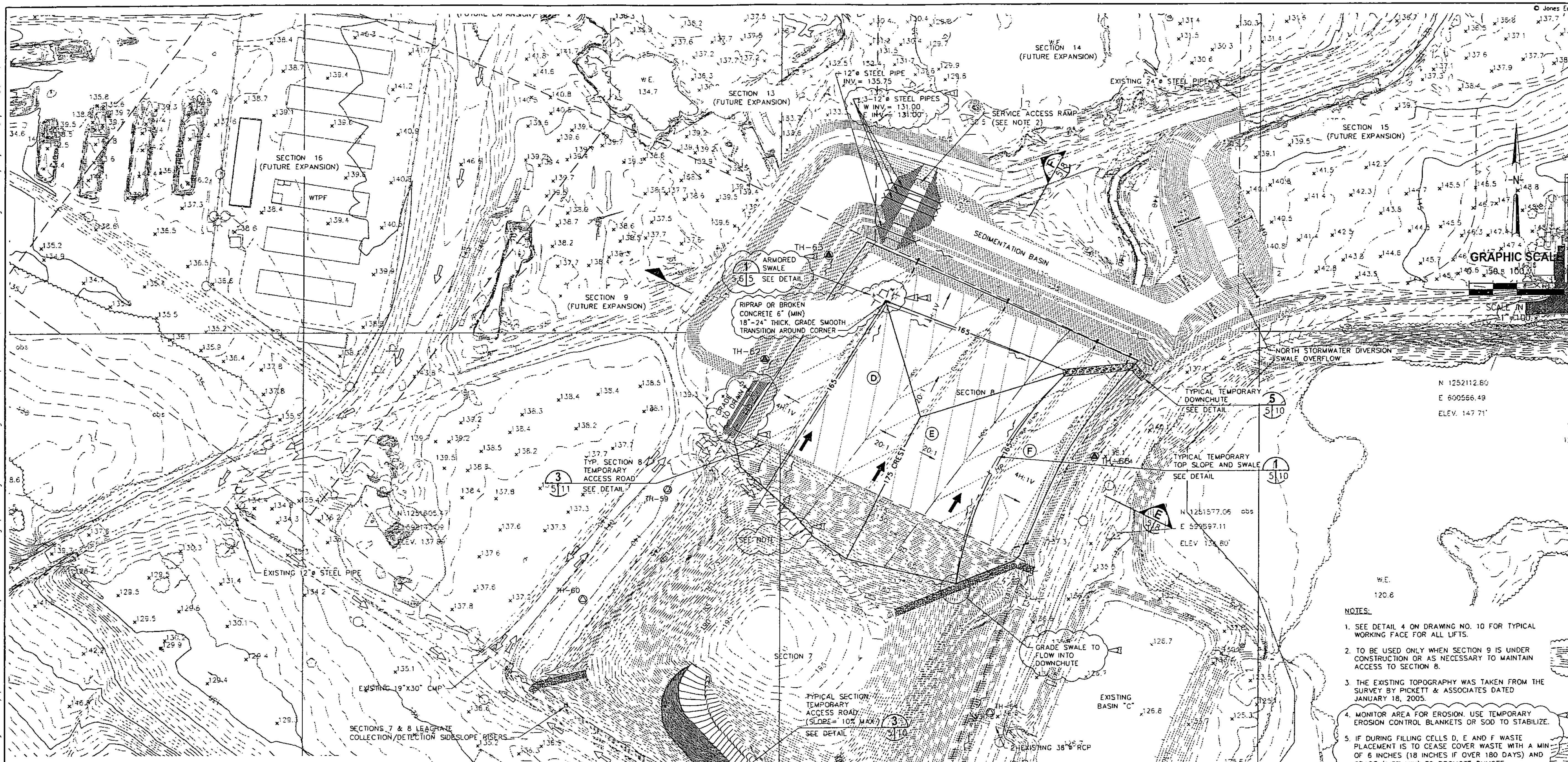
JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

LIFT 1 FILL SEQUENCING PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

DATE: DEC 2005
SCALE: 1"=100'
PROJECT NO.: 08449-020-01
DWG. NO.: 4


SECTION 16 (FUTURE EXPANSION)
SECTION 13 (FUTURE EXPANSION)
SECTION 14 (FUTURE EXPANSION)
SECTION 15 (FUTURE EXPANSION)
SECTION 9 (FUTURE EXPANSION)
SECTION 8
SECTION 7
SEDIMENTATION BASIN
EXISTING BASIN "C"
WTPF
12"ø STEEL PIPE INV.= 135.75
2-12"ø STEEL PIPES W INV.= 131.00 E INV.= 131.00
SERVICE ACCESS RAMP (SEE NOTE 2)
EXISTING 24"ø STEEL PIPE
ARMORED SWALE SEE DETAIL
RIPRAP OR BROKEN CONCRETE 6" (MIN) 18"-24" THICK, GRADE SMOOTH TRANSITION AROUND CORNER
NORTH STORMWATER DIVERSION SWALE OVERFLOW
TYPICAL TEMPORARY DOWNCHUTE SEE DETAIL
TYPICAL TEMPORARY TOP SLOPE AND SWALE SEE DETAIL
TYP. SECTION 8 TEMPORARY ACCESS ROAD SEE DETAIL
EXISTING 12"ø STEEL PIPE
EXISTING 19"X30" CMP
SECTIONS 7 & 8 LEACHATE COLLECTION/DETECTION SIDESLOPE RISERS
TYPICAL SECTION TEMPORARY ACCESS ROAD (SLOPE= 10% MAX) SEE DETAIL
GRADE SWALE TO FLOW INTO DOWNCHUTE
2-EXISTING 38"ø RCP
EFFLUENT STORAGE POND "B"
EFFLUENT STORAGE POND "A"
MAIN LEACHATE PUMP STATION
JUNCTION BOX (FOOT INDEX 201)
THICK SHELL ROCK ROAD
2-110 LF 30"ø RCP (CLASS III) OR 2-30"ø ADS M-12 PIPES WITH 45° WINGED HEADWALLS PER FOOT INDEX NO. 266 (FOR PIPE INSTALLATION SEE DETAIL 5 ON DRAWING 11)
N 1252112.80 E 600566.49 ELEV. 147.71'
N 1251577.06 E 599597.11
GRAPHIC SCALE
SCALE IN 1" = 100'
175 CREST
20:1
4H:1V
165

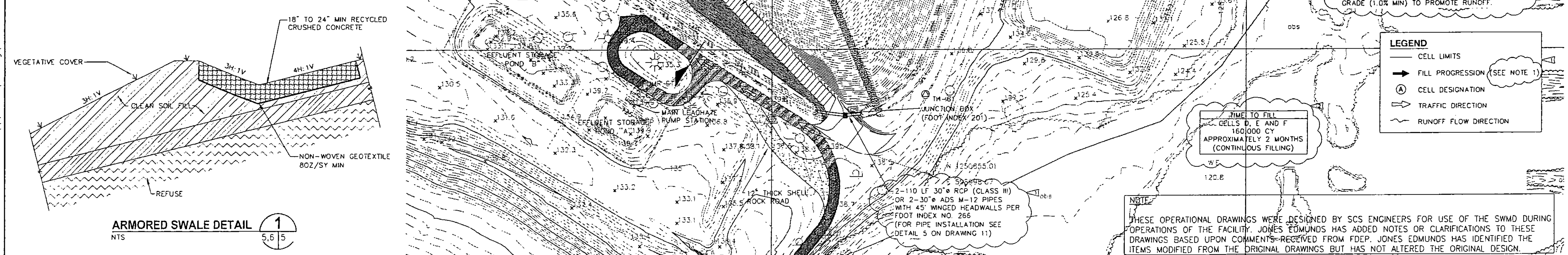
NOTES:

1. SEE DETAIL 4 ON DRAWING NO. 10 FOR TYPICAL WORKING FACE FOR ALL LIFTS.
2. TO BE USED ONLY WHEN SECTION 9 IS UNDER CONSTRUCTION OR AS NECESSARY TO MAINTAIN ACCESS TO SECTION 8.
3. THE EXISTING TOPOGRAPHY WAS TAKEN FROM THE SURVEY BY PICKETT & ASSOCIATES DATED JANUARY 18, 2005.
4. MONITOR AREA FOR EROSION. USE TEMPORARY EROSION CONTROL BLANKETS OR SOD TO STABILIZE.
5. IF DURING FILLING CELLS D, E AND F WASTE PLACEMENT IS TO CEASE COVER WASTE WITH A MIN OF 6 INCHES (18 INCHES IF OVER 180 DAYS) AND GRADE (1.0% MIN) TO PROMOTE RUNOFF.

LEGEND

- CELL LIMITS
- FILL PROGRESSION (SEE NOTE 1)
- Ⓐ CELL DESIGNATION
- TRAFFIC DIRECTION
- RUNOFF FLOW DIRECTION

TIME TO FILL CELLS D, E AND F 160,000 CY APPROXIMATELY 2 MONTHS (CONTINUOUS FILLING)



ARMORED SWALE DETAIL (1 / 5,6 | 5)
NTS

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LTR.	DATE	REVISIONS	BY	APPRD.
3	4/14/06	RAI NO. 3	JHO	
2	1/30/06	RAI NO. 2	JHO	
1	9/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

LIFT 2 FILL SEQUENCING PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY JOSEPH H. O'NEILL P.E. # 52049
DATE DEC 2005
SCALE 1"=100'
PROJECT NO. 08449-020-01
DWG. NO. 5

(FUTURE EXPANSION)

SECTION 16 (FUTURE EXPANSION)

WTPF

SECTION 13 (FUTURE EXPANSION)

W.E. 134.7

SECTION 14 (FUTURE EXPANSION)

12"ø STEEL PIPE INV.= 135.75

3-12"ø STEEL PIPES W INV.= 131.00 E INV.= 131.00

SERVICE ACCESS RAMP (SEE NOTE 2)

EXISTING 24"ø STEEL PIPE

SECTION 15 (FUTURE EXPANSION)

SECTION 9 (FUTURE EXPANSION)

TH-65

1 / 6|5 ARMORED SWALE SEE DETAIL

SEDIMENTATION BASIN

I.E.= 164.00

RIPRAP OR BROKEN CONCRETE 6" (MIN) 18"-24" THICK, GRADE SMOOTH TRANSITION AROUND CORNER

TH-62

I.E.= 189.00

I.E.= 163.00

SECTION 8

NORTH STORMWATER DIVERSION SWALE OVERFLOW

N 1252112.80
E 600566.49
ELEV. 147.71'

RAMP TO DRAIN

TYPICAL TEMPORARY DOWNCHUTE SEE DETAIL 5 / 6|10

I.E.= 188.00

TYPICAL TEMPORARY TOP SLOPE AND SWALE SEE DETAIL 1 / 6|10

TH-64

N 1251577.06 obs
E 599897.11
ELEV. 134.80'

TH-59

I.E.= 166.00

I.E.= 189.00

I.E.= 164.00

SEE NOTE 4

I.E.= 191.00

TH-60

I.E.= 163.00

I.E.= 188.00

EXISTING 12"ø STEEL PIPE

SECTION 7

GRADE SWALES TO FLOW INTO DOWNCHUTE

EXISTING 19"X30" CMP

TYPICAL SECTION 7 TEMPORARY ACCESS ROAD (SLOPE= 10% MAX.) 3 / 6|10 SEE DETAIL

EXISTING BASIN "C"

TH-61

2-EXISTING 36"ø RCP

SECTIONS 7 & 8 LEACHATE COLLECTION/DETECTION SIDESLOPE RISERS

EFFLUENT STORAGE POND "B"

MAIN LEACHATE PUMP STATION

EFFLUENT STORAGE POND "A"

TH-63

N 1250655.01
E 599998.67
ELEV. 127.57

12" THICK SHELL ROCK ROAD

GRAPHIC SCALE
0 50 100 200
SCALE: 1"=100'

NOTES:

1. SEE DETAIL 4 ON DRAWING NO. 10 FOR TYPICAL WORKING FACE FOR ALL LIFTS.
2. TO BE USED ONLY WHEN SECTION 9 IS UNDER CONSTRUCTION OR AS NECESSARY TO MAINTAIN ACCESS TO SECTION 8.
3. THE EXISTING TOPOGRAPHY WAS TAKEN FROM THE SURVEY BY PICKETT & ASSOCIATES DATED JANUARY 18, 2005.
4. MONITOR AREA FOR EROSION. USE TEMPORARY EROSION CONTROL BLANKETS OR SOD TO STABILIZE.
5. IF DURING FILLING CELL G WASTE PLACEMENT IS TO CEASE COVER WASTE WITH A MIN OF 6 INCHES (18 INCHES IF OVER 180 DAYS) AND GRADE (1.0% MIN) TO PROMOTE RUNOFF.

LEGEND

- CELL LIMITS
- FILL PROGRESSION (SEE NOTE 1)
- (A) CELL DESIGNATION
- TRAFFIC DIRECTION
- RUNOFF FLOW DIRECTION

TIME TO FILL CELL G 110,000 CY APPROXIMATELY 1.5 MONTHS (CONTINUOUS FILLING)

NOTE:

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LTR.	DATE	REVISIONS	BY	APPRD.
2	4/14/06	RAI NO. 3 - DITCH / EROSION	JHO	
1	3/30/06	RAI NO. 2	JHO	
	3/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

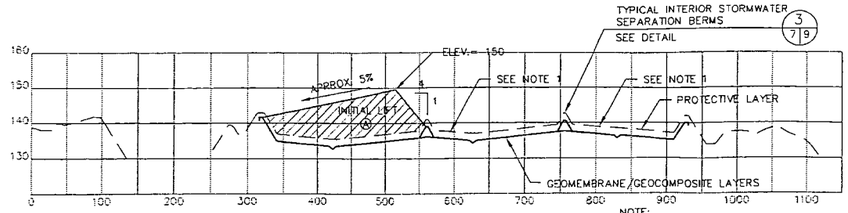
SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

LIFT 3 FILL SEQUENCE PLAN

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

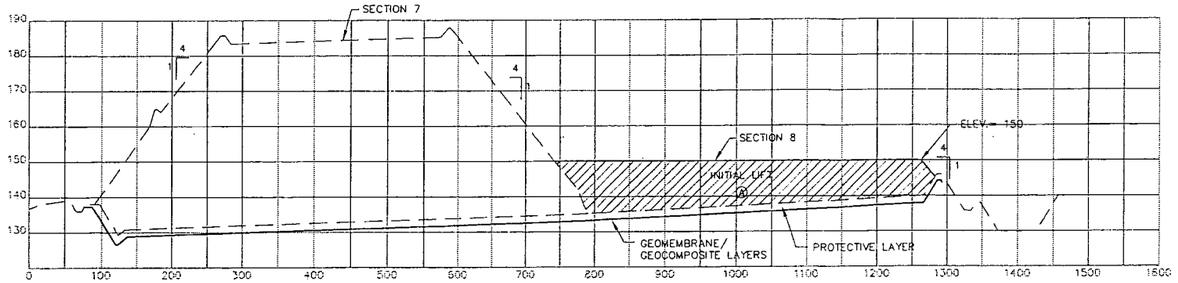
DATE: DEC 2005
PROJECT NO.: 08449-020-01
SCALE: 1"=100'
DWG. NO.: 6

Edited: 01/26/06 16:02 JWilliams \\tpa-srv\Drafting\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 2006\08449020-06.dwg Plotted: 4/19/06 3:27pm RDemint



SECTION A (3 | 7)
SCALE: 1"=100' HORIZ.
SCALE: 1"=20' VERT.

NOTE:
1. STORMWATER RUNOFF IN THESE AREAS CAN BE PUMPED TO PERIMETER DITCH IF RUNOFF DOES NOT CONTACT WASTE MATERIAL. IF RUNOFF HAS CONTACTED WASTE MATERIAL THEN RUNOFF IS CONSIDERED LEACHATE AND SHOULD BE ALLOWED TO DRAIN IN TO LEACHATE COLLECTION SYSTEM.



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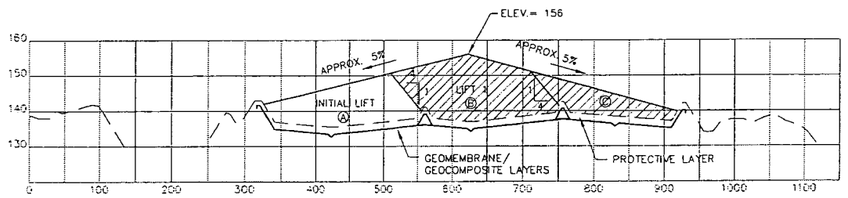
SCALE: 1"=20' VERT.



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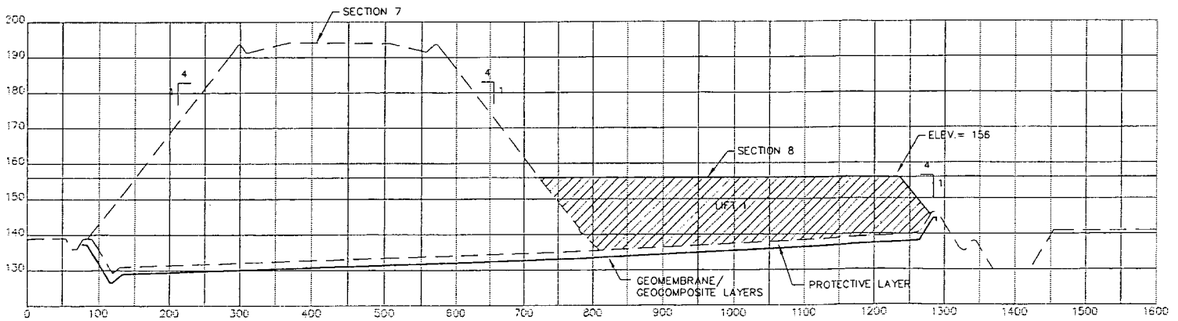

SECTION D (4 | 7)
SCALE: 1"=100' HORIZ.
SCALE: 1"=20' VERT.

NOTE:

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LTR.	DATE	REVISIONS	BY	APPRD.
	9/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
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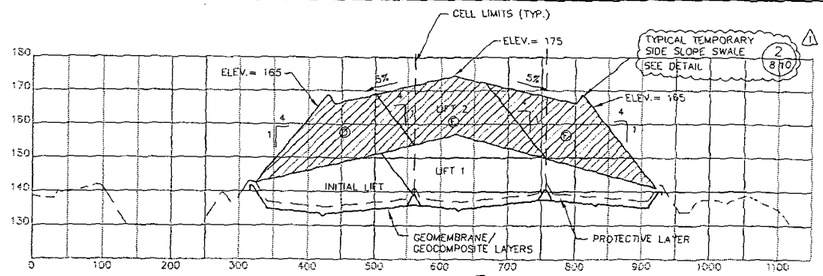
SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

SECTIONS - 1

CERTIFICATE OF AUTHORIZATION # 1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

DATE: DEC 2005
PROJECT NO.: 08449-020-01
SCALE: 1"= 100'H 1"= 20'V
DWG. NO.: 7

Edited: 01/26/06 16:07 JWilliams \\tpa-srv\Drafting\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 2006\08449020-07.dwg Plotted: 4/19/06 3:35pm RDemint



SECTION E (5|8)
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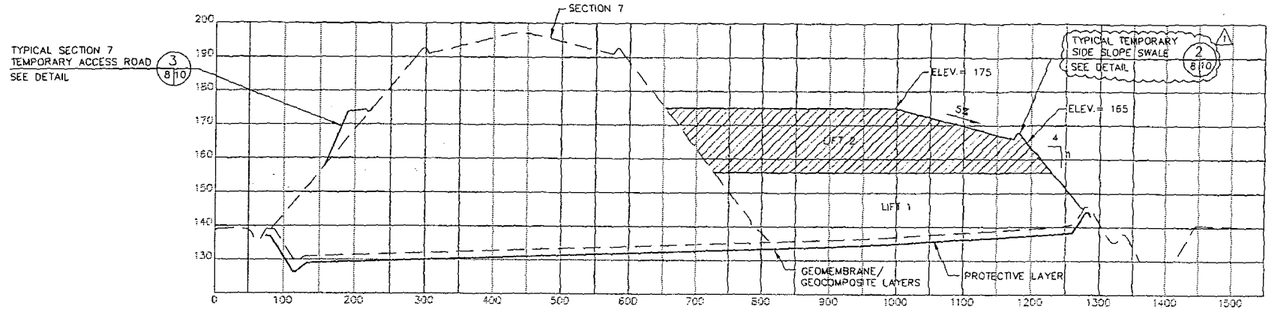

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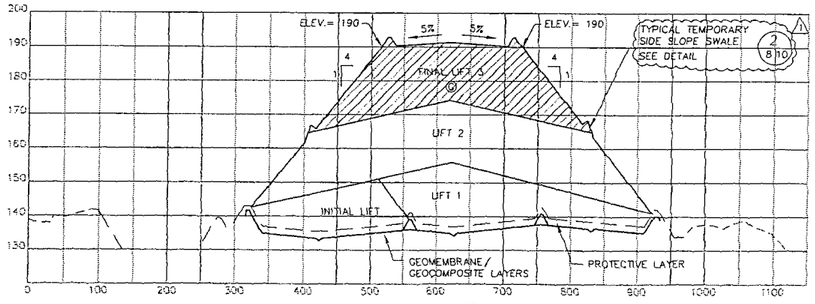
SCALE: 1"=20' VERT.



SECTION G (6|8)
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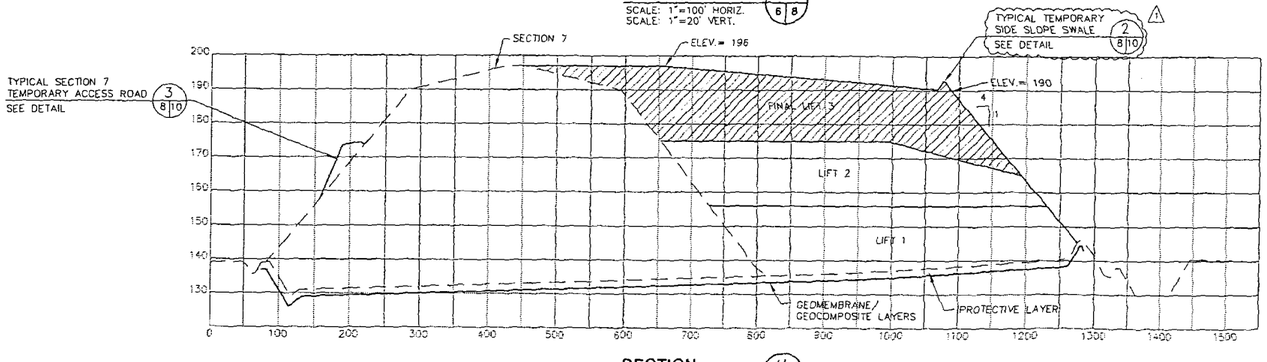
SCALE: 1"=20' VERT.



SECTION H (6|8)
SCALE: 1"=100' HORIZ.
SCALE: 1"=20' VERT.

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	9/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

JONES EDMUNDS
730 NE WALDO ROAD, GAINESVILLE, FLORIDA 32641 / (352) 377-5821
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SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

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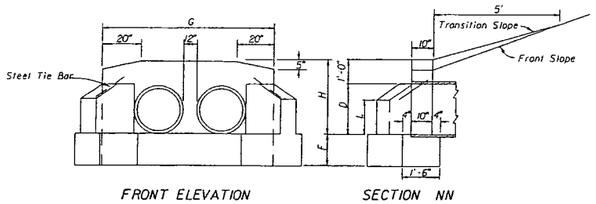
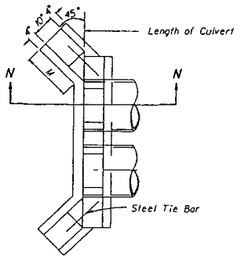
JOSEPH H. O'NEILL
P.E. # 52049

DATE: DEC 2005
PROJECT NO.: 08449-020-01
SCALE: 1"= 100'H, 1"= 20'V
DWG. NO.: 8

Edited: 01/26/06 13:30 JWilliams \\Tpa-srv\Drafting\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 2006\08449020-08.dwg Plotted: 4/19/06 3:35pm RDennint



FRONT ELEVATION SECTION NN



PLAN

CONCRETE ENDWALL WITH 45° WINGS FOR PIPE CULVERTS

MODIFIED FDOT INDEX 266 PIPE HEADWALL 4
NTS 5 9

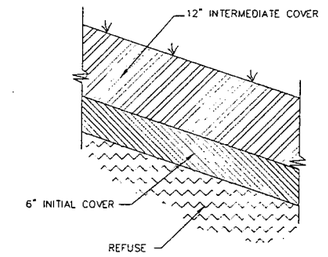
TABLE OF DIMENSIONS AND ESTIMATED QUANTITIES
PIPE CULVERT ENDWALLS WITH 45° WINGS

DIMENSIONS							QUANTITIES IN ONE ENDWALL			
Opening		Wall				Footing	Concrete, Class I			Steel Tie Bars
D	Area Sq.Ft.	H	G	L	M	F	Total Cu. Yds.			
							Conc. Pipe	C.M. Pipe	C.I. Pipe	
18"	1.8	2'-6"	3'-10"	1'-2"	1'-7"	1'-3"	0.74	0.77	0.77	none
24"	3.1	3'-0"	4'-4"	1'-5"	2'-1"	1'-4"	1.01	1.06	1.06	2 - #3 @ 2'-0"
30"	4.9	3'-6"	8'-10"	1'-9"	2'-5"	1'-6"	2.11	-	-	2 - #3 @ 2'-0"
36"	7.1	4'-0"	5'-4"	2'-0"	2'-11"	1'-8"	1.72	1.83	1.82	2 - #3 @ 3'-0"
42"	9.6	4'-6"	5'-10"	2'-3"	3'-6"	2'-0"	2.34	2.47		2 - #3 @ 3'-0"
48"	12.6	5'-0"	6'-4"	2'-6"	4'-0"	2'-0"	2.74	2.90		2 - #3 @ 3'-0"
15"	1.2	2'-3"	3'-7"	1'-0"	1'-3"	1'-3"	0.56	0.59	0.59	none

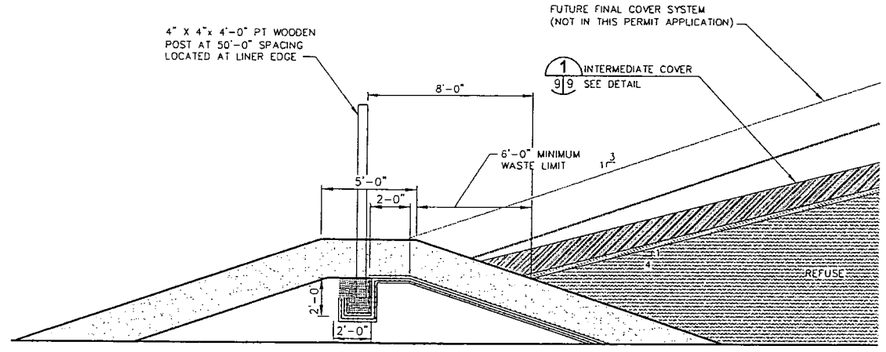
* MODIFIED FOR MULTIPLE PIPE OPENINGS.

GENERAL NOTES

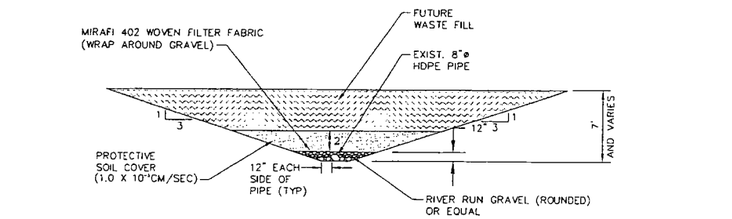
1. Chamfer all exposed edges 3/4".
2. Concrete meeting the requirements of ASTM C-478 (4000 psi) may be used in lieu of Class I concrete in precast units manufactured in plants which are under the Standard Operating Procedures for the inspection of precast drainage products.
3. Endwall to be paid for under the contract unit price for Class I Concrete (Endwalls) CY. Cost of steel tie bars to be included in the contract unit price for Class I Concrete.
4. Sodding to be in accordance with Index No. 281, and paid for under the contract unit price for Sodding Sy.



INTERMEDIATE COVER DETAIL 1
1"=1' 9. 10 9



TYPICAL PERIMETER WASTE LIMITS 2
NTS 3. 4 9



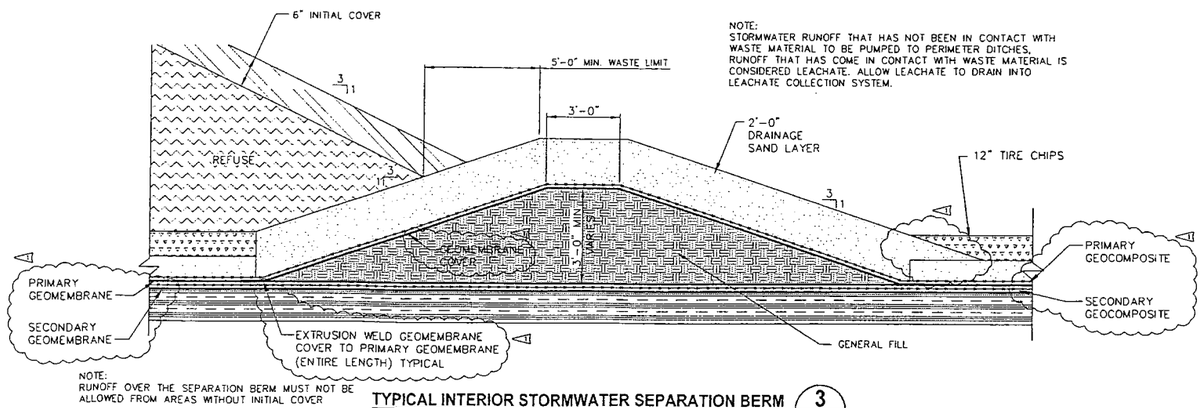
NOT TO SCALE

SECTION 7/8 PIPE PENETRATION IMPROVEMENT DETAIL 5
NTS 3. 4 9

NOTE:
EXCAVATION TO BE MONITORED FOR LFG, H2S, O2, CO2 LEVELS.

NOT TO SCALE

GRAVEL PACK WRAP DETAIL 6
NTS 9 9



NOTE:
RUNOFF OVER THE SEPARATION BERM MUST NOT BE ALLOWED FROM AREAS WITHOUT INITIAL COVER

TYPICAL INTERIOR STORMWATER SEPARATION BERM 3
NTS 3. 7 9

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1	9/30/05	RAI NO. 1 (BY SCS)		

DESIGNED JHO
DRAWN PEU
CHECKED JHO

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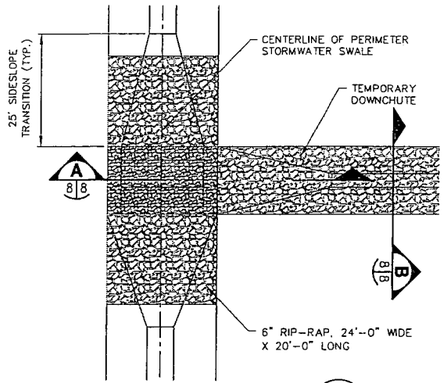
324 S HYDE PARK AVE, TAMPA, FLORIDA 33606 / (813) 258-0703

SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

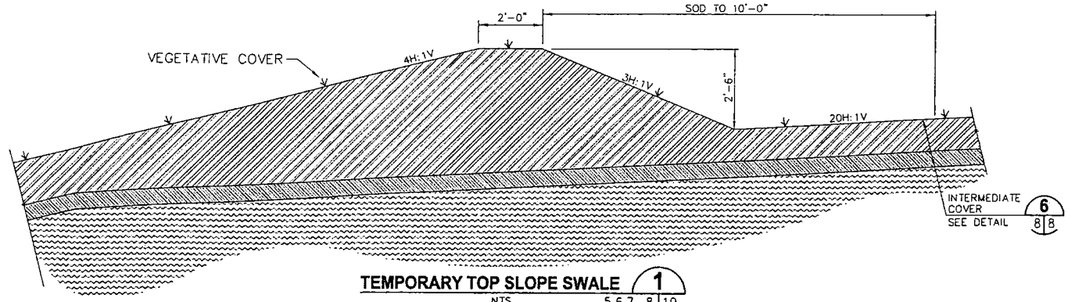
DETAILS - 1

CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

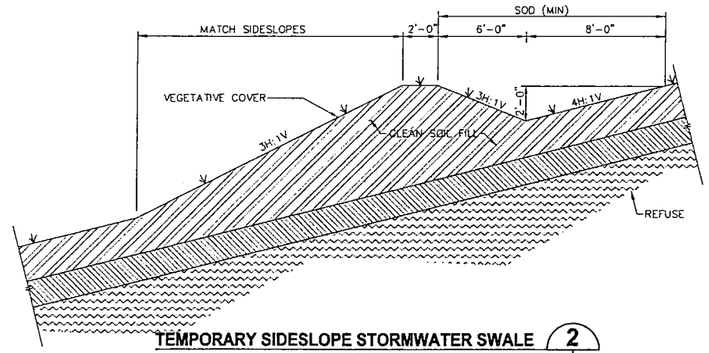
DATE DEC 2005
PROJECT NO. 08449-020-01
SCALE AS NOTED
DWG. NO. 9



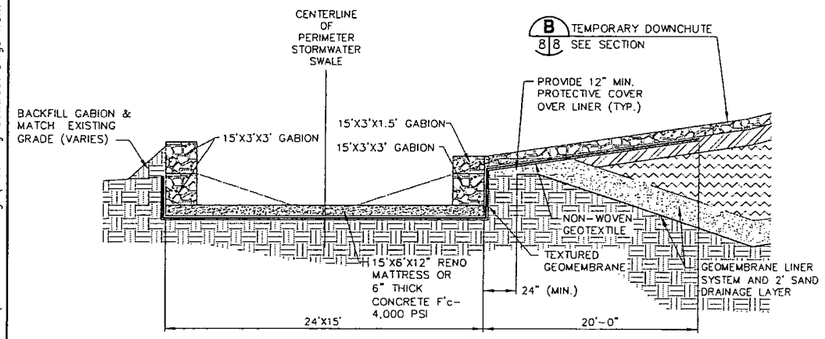
TEMPORARY DOUWCHUTE 5
NTS 5, 6 | 10

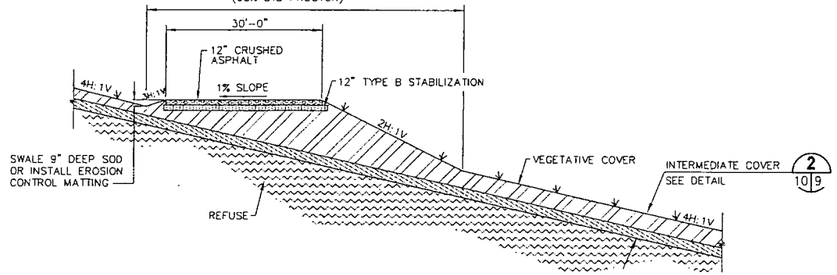


TEMPORARY TOP SLOPE SWALE 1
NTS 5,6,7, 8 | 10

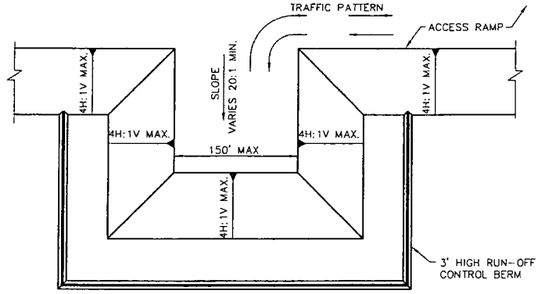


TEMPORARY SIDESLOPE STORMWATER SWALE 2
NTS 8 | 10



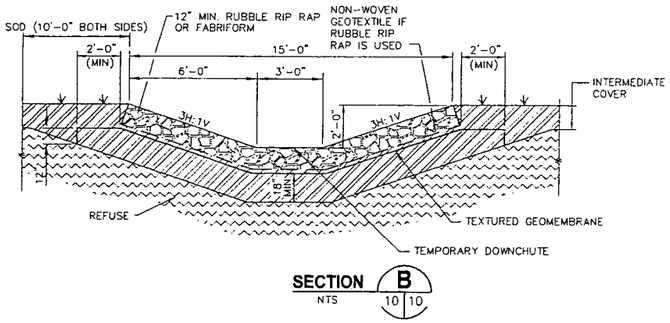


TYPICAL SECTION 7 ACCESS ROAD 3
NTS 5,6, 8 | 10



TYPICAL WORKING FACE DETAIL 4
NTS 3,4,5, 6 | 10

NOTE:
THE TYPICAL WORKING FACE DETAIL IS A GENERAL LAYOUT PLAN THAT MOVES WITHIN THE PROGRESSION OF THE FILLING



SECTION B
NTS 10 | 10

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3	9/30/05	RAI NO. 1 (BY SCS)		

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DRAWN PEU
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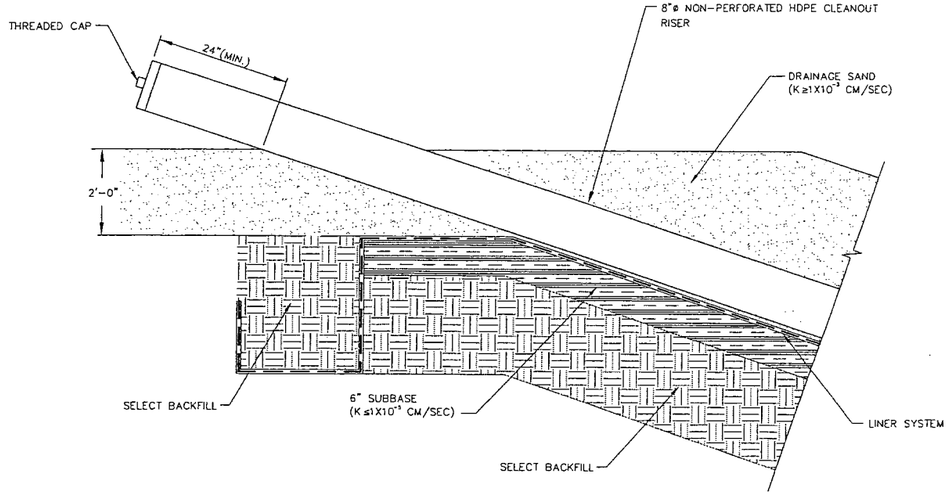
SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION SECTION 8 OPERATING SEQUENCE
HILLSBOROUGH COUNTY, FLORIDA

DETAILS - 2

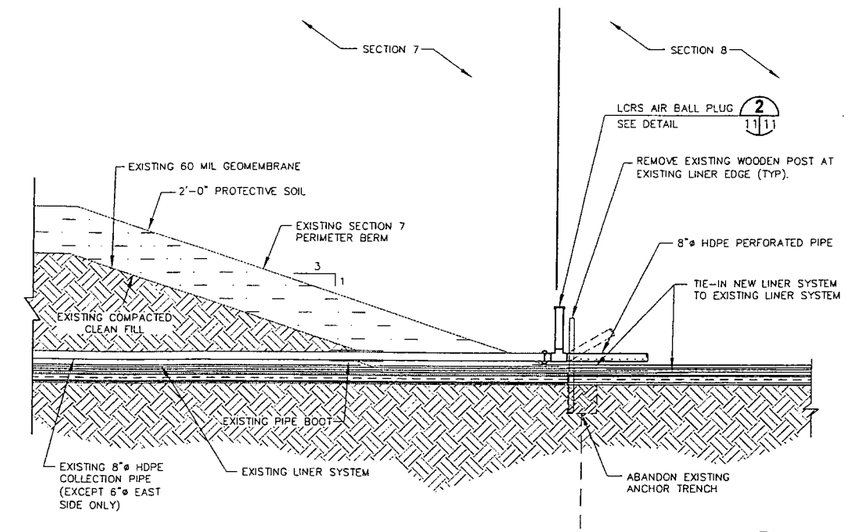
CERTIFICATE OF AUTHORIZATION #1841
APPROVED BY
JOSEPH H. O'NEILL
P.E. # 52049

DATE: DEC 2005
PROJECT NO.: 08449-020-01
SCALE: AS NOTED
DWG. NO.: 10

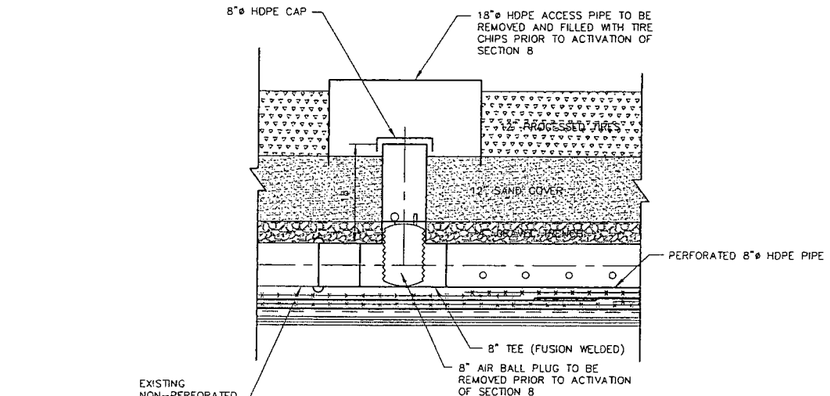
Edited: 01/26/06 16:11 JWilliams \\Tpa-srv\Drafting\08449 Hillsborough County\020-SELF Section 8\Contract Drawings\Incoming Contract Dwgs from Tampa on Jan. 4, 2006\08449020-10.dwgPlotted: 4/19/06 3:32pm RDemint



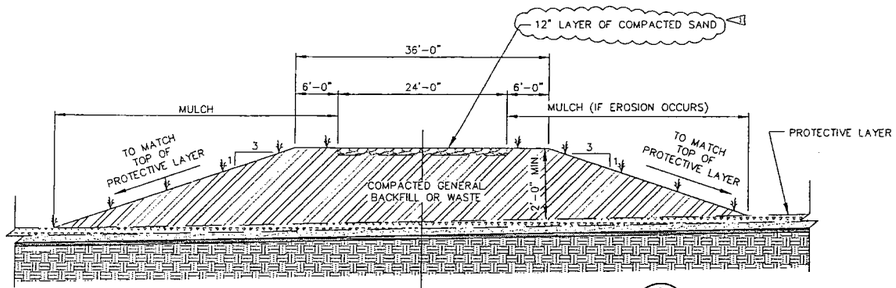
TYPICAL PIPE CLEANOUT DETAIL 4 (3|11)
NTS



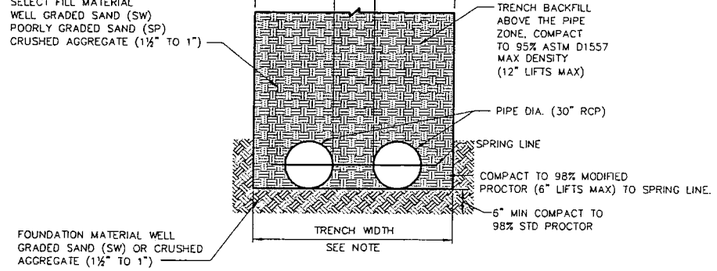
TYPICAL SECTION 7/8 LEACHATE PIPE CONNECTION DETAIL 1 (3, 4|11)
NTS



LCRS AIR BALL PLUG DETAIL 2 (11|11)
NTS



TYPICAL SECTION 8 TEMPORARY ACCESS ROAD DETAIL 3 (3,4, 5|11)
NTS



NOTE:
TRENCH WIDTH DEPENDENT UPON METHOD OF EXCAVATION SELECTED BY THE CONTRACTOR. EXCAVATION SHORING AND/OR SIDESLOPE STABILIZATION SHALL COMPLY WITH TRENCH SAFETY ACT AND/OR LOCAL EXCAVATION GUIDELINES.

PIPE INSTALLATION DETAIL 5 (5|11)
NTS

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SOUTHEAST COUNTY LANDFILL
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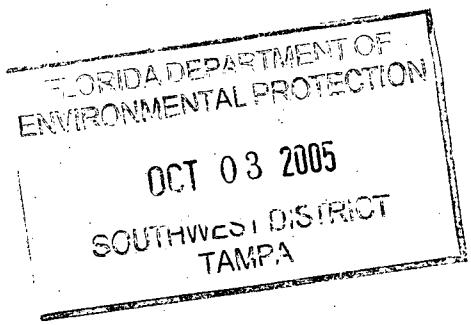
P.E. # 52049

DATE: DEC 2005
PROJECT NO.: 08449-020-01
SCALE: AS NOTED
DWG. NO.: 11



APPENDIX A-1

TRAINING COURSES

Florida's Solid Waste Management Facility Operator and Spotter Approved Initial and Continuing Education Courses

Last updated 6/24/03

Initial training courses can be taken for continuing education credit if the course was not taken as the initial training course. The initial course can be retaken as continuing education credit during the second three-year training period. Courses taken prior to your initial training does not count toward continuing education.

Class I, II, III Landfill Operators [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
30	SWANA - Manager of Landfill Operations Training Course [MOLO®]	SWANA	30				
160	SWANA - Manager of Landfill Operations [MOLO®]	SWANA-FL / UF TREEO	30	30			
195	24-Hour Initial Training Course for Landfill Operators (Class I, II and III and C&D Sites)	Kohl Consulting, Inc.	24				

Construction and Demolition Debris Operators [C & D] [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
200	Construction and Demolition Debris Landfills - A Short Course for Operators-24 hours	SWANA-FL / UF TREEO		24			
195	24-Hour Initial Training Course for Landfill Operators (Class I, II and III and C&D Sites)	Kohl Consulting, Inc	24	24			

Transfer Stations [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc			16		
225	19-Hour Initial Training for Transfer Station and MRF Operators	Kohl Consulting, Inc			19	19	
42	Transfer Station Design & Operations	SWANA			16		
222	SWANA - Managing MSW Transfer Station Systems	Solid Waste Association of North America SWANA			16		

Materials Recovery Facilities [MRF] [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
225	19-Hour Initial Training for Transfer Station and MRF Operators	Kohl Consulting, Inc			19	19	
197	16-Hour Initial Training Course for Materials Recovery Facilities [MRFs]	Kohl Consulting, Inc				16	

http://www.treeo.ufl.edu/sw/brochures/courses%20approved%20for%20swana%20ceus.pdf

Spotters [*Initial Training*]

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
203	8 Hour Initial Training for Spotters at Class I, II, III Landfills, Waste Processing Facilities, and C&D Sites	Kohl Consulting, Inc.	8	8	8	8	8
219	8-Hour Initial Training for Spotters	Consolidated Resource Recovery, Inc.	8	8	8	8	8
97	Basic Landfill Operations	Kohl Consulting, Inc.	8	8	8	8	8
91	Eight Hour Spotter Training for C&D Sites	Kohl Consulting, Inc.	8	8	8	8	8
121	Eight-Hour Training for Personnel at C&D Materials Recovery Facilities	Kohl Consulting, Inc.	8	8	8	8	8
111	Landfill Operations and Waste Screening for Class I, II & III Sites	Kohl Consulting, Inc.	8	8	8	8	8
257	Spotter Training Course – 8 Hours Initial Training	Hewitt Contracting Company, Inc.	8	8	8	8	8
248	Spotter Training for Solid Waste Facilities	UF TREEO	8	8	8	8	8
214	Spotter Training Plan for Land Clearing Debris Site	Wetland Solutions	8	8	8	8	8
147	Training for Spotters at Landfills, C&D Sites and Transfer Stations	JEA/TREEO	8	8	8	8	8
36	Waste Screening & Identification For Landfill Operators and Spotters	TREEO	8	8	8	8	8
122	Waste Screening and Operation Orientation for Transfer Station Personnel	Kohl Consulting, Inc.	8	8	8	8	8
9	Waste Screening at MSW Management Facilities {On-site Delivery}	SWANA	10	10	10	10	10

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
204	1-Hour Overview of Health & Safety Issues at Solid Waste Facilities	Kohl Consulting, Inc	1	1	1	1	
105	11th Annual SE Recycling Conference & Trade Show [3/1-4/98]	SE Recycling	8	8			
197	16-Hour Initial Training Course for Materials Recovery Facility (MFR) Operators	Kohl Consulting, Inc.	10	10	8	8	
196	16-Hour Initial Training Course for Transfer Station Operators	Kohl Consulting, Inc.	10	10	8	8	
52	17-701 & 17-703 Update [6/17/94]	SWANA - FL	4				
225	19-Hour Initial Training Course for Transfer Station and MRF Operators	Kohl Consulting, Inc	10	10	8	8	
282	24-Hour HazWoper Technician Training	Safety Training & Consulting	6	6	6	6	
195	24-Hour Initial Training Course for Landfill Operators (Class I, II, III, and C&D Sites)	Kohl Consulting, Inc.	16	16			
169	40-hour Train-the-Trainer Program for Hazardous Waste Operations and Emergency Response Program	Chinn Training	8	8	8	8	
283	8-Hour DOT HM-126 Training	Safety Training & Consulting	4	4	4	4	
167	8-Hour HazWoper OSHA Refresher	FDEP / All Pro	4	4	4	4	
144	8-Hour HazWoper Refresher Training	Stephen Mraz	4	4	4	4	
203	8-Hour Initial Training Course for Spotters at Class I, II, III Facilities, Waste Processing Facilities, and C&D Facilities	Kohl Consulting, Inc.	8	8	8	8	8
219	8-Hour Initial Training for Spotters	Consolidated Resource Recovery, Inc.	8	8	8	8	8
270	Advanced Topics in Compost Utilization	UF IFAS Extension Office	2	2		2	2
182	Air Compliance and LGF System Operation [11/9-10/00]	SCS Engineers	16				
288	A Little is Enough: Reducing Man-Made mercury Impacts	UF TREEO Center	2	2	2	2	2
171	An Overview of Solid Waste Technologies and Waste Screening Review	Kohl Consulting, Inc.	2	2	2	2	2
71	Asbestos Awareness Course for Landfill Operators	UF TREEO Center	4	4	4	4	4
127	Asbestos Awareness Refresher Course for Landfill Operators	UF TREEO Center	2	2	2	2	2
236	Authorized Entrant for Permit – Required Confined Spaces	UF TREEO Center	16				
145	Avoiding OSHA Citations and Liabilities in Florida [6/29/99]	Lorman Education Services	6				
143	Basic Confined Space [8/17/99]	North Florida Environmental Services	8	8	8	8	8
97	Basic Landfill Operations	Kohl Consulting, Inc.	8	8	8	8	8
253	Basic Math for Water and Wastewater Operations at FW&PCOA Annual or Regional Short School	Michael Switzer	5	5	5	5	
72	Bird and Wildlife Management at Solid Waste Mgmt Facilities	UF TREEO Center	8	8	8		
206	Bird Management at Solid Waste Facilities	UF TREEO Center	4	4	4		
285	Chemical Compatibility and Storage	UF TREEO Center	4	4	4	4	4
233	Chemicals That You Work With	Charlotte County	2	2	2	2	2
12	Chemistry for Environmental Professionals	UF TREEO Center	8	8	8	8	8
16	Complete Preventative Maintenance: Using New Technologies *[No longer offered]*	UF TREEO Center	13				
278	Compost Tour and Hands-On Training [5/20/03]	UF – IFAS Extension Office	3				
35	Confined Space Entry & Assessment	Applied Associates International	8	8	8	8	
18	Confined Space Entry & Assessment *[no longer offered]*	UF TREEO Center	20				
29	Confined Space Entry & Rescue	South Tech Fire Academy	40	40	40	40	
181	Confined Space for Private Industry	Sarasota Co. Tech	24	24	24	24	
80	Construction and Demolition Debris Landfills - A Short Course for Operators *[no longer offered] (See #200)*	UF TREEO Center/ SWANA – FL	20	20			
200	Construction and Demolition Debris Landfills - A Short Course for Operators - 24 hours	UF TREEO Center/ SWANA – FL	16	16			
103	Construction and Demolition Waste Recycling	UF TREEO Center	7	7		7	7
114	Debris Management G202	FEMA/FL Div	12	12	12	12	12

Continuing Education							
No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
136	Debris Management-Advanced Course (G202-Advanced)	FDEP/FEMA	8	8	8	8	8
161	Design of Lateral Drainage Systems for Landfills [3/14/00]	Tenax	5				
108	Developing a Usable Operations Plan	Kohl Consulting, Inc.	4	4	4	4	4
130	Eight Hour Confined Space Training Course	Charles Davis	8	8	8	8	8
91	Eight Hour Spotter Training for Construction & Demolition Sites	Kohl Consulting, Inc.	8	8	8	8	8
287	Emergency Response Operations for Incident Command	UF TREEO Center	4	4	4	4	
40	Environmental Drilling, Well Installation & Sampling	Nielson Environmental Field School, Inc.	16	16			
271	Environmental Management Systems - Introduction	UF TREEO Center	2	2	2	2	
175	Environmental Management Systems - Overview	UF TREEO Center	4	4	4	4	
176	Environmental Management Systems Internal Audit Procedures	UF TREEO Center	4	4	4	4	
43	Environmental Sampling Laboratory & Data Analysis [12/12-12/94]	Executive Enterprises, Inc.	12				
100	Excavation, Trenching: Competent Person Training	UF TREEO Center	8	8			
284	Excavation, Trenching: Competent Person Training 16-Hour	UF TREEO Center	16	16			
66	Exposure to Bloodborne and Waterborne Pathogens *[No longer offered]*	UF TREEO Center	8				
167	FDEP 8-Hour HazWoper OSHA Refresher [5/3/00]	FDEP / All Pro	4	4	4	4	
199	FDEP 8 Hour HazWoper OSHA Refresher [5/1/01]	FDEP	4	4	4	4	
228	FDEP 8 Hour HazWoper OSHA Refresher [5/22/02]	FDEP / Kenton Brown	4	4	4	4	
232	FDEP 8 Hour HazWoper OSHA Refresher [5/22/02]	FDEP [Bottcher/Knox]	4	4	4	4	
266	FDEP 8 Hour HazWoper OSHA Refresher [5/5/03, 5/9/03]	FDEP	4	4	4	4	
48	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [4/30/96]	FDEP	5				
88	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/5-7/97]	FDEP	5				
107	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/4-6/98]	FDEP	7	7	7	7	
134	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/3-5/99]	FDEP	5	5	5	5	
226	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/20-21/02]	FDEP	5	5	5	5	
264	FDEP Annual SQG Assessment, Notification & Verification Program Workshop [5/6-7/03]	FDEP	5	5	5	5	
267	FDEP DOT 4 Hour Awareness Training [5/5/03, 5/9/03]	FDEP	2	2	2	2	2
268	FDEP HHW Facility Design [5/9/03]	FDEP	4	4	4	4	4
54	FDEP HHW & Conditionally Exempt SQG [5/3-5/95]	FDEP	14				
59	FDEP HHW & Conditionally Exempt SQG [5/1/96]	FDEP	5				
84	FDEP HHW & Conditionally Exempt SQG [5/5-7/97]	FDEP	5				
106	FDEP HHW & Conditionally Exempt SQG [5/6-8/98]	FDEP	5	5	5	5	
135	FDEP HHW & Conditionally Exempt SQG [5/5-7/99]	FDEP	5	5	5	5	
166	FDEP HHW & Conditionally Exempt SQG [5/1-3/00]	FDEP	5	5	5	5	
198	FDEP HHW & Conditionally Exempt SQG [4/30-5/1/01]	FDEP	5	5	5	5	
227	FDEP HHW & Conditionally Exempt SQG [5/22-24/02]	FDEP	5	5	5	5	
227	FDEP HHW & Conditionally Exempt SQG [5/7-8/03]	FDEP	5	5	5	5	5
32	Field Sampling Short School [7/22-24/91]	Environmental Technology Center	22				
110	Fires at Landfills	Kohl Consulting, Inc.	2	2		2	
289	Florida Stormwater and Erosion Control and Sedimentation Inspector Training Program	METRA-North	12	12	8	4	
273	Florida Master Naturalist Program – Florida Freshwater Wetlands Systems	UF IFAS Extension Office	4	4	4	4	
155	Four Hour Spotter Orientation for Class I, II and III Supervisors	Kohl Consulting, Inc.	4	4	4	4	4
156	Four Hour Spotter Orientation for Class I, II, and III Landfills	Kohl Consulting, Inc.	4	4	4	4	4

Continuing Education							
No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
119	Four Hour Spotter Training Refresher for Construction & Demolition Sites	Kohl Consulting, Inc.	4	4	4	4	4
113	Full Cost Accounting for Municipal Solid Waste Management [2/17/98]	Terra Tech EM Inc	6				
120	Fundamentals of Operations for MRF Facilities Personnel	Kohl Consulting, Inc.	8			8	
274	Fundamentals of Slope Stability	UF TREEO Center	16	16			
271	General Environmental Workshop [Feb-Mar 2003]	METRA	4	4	4	4	4
154	Geosynthetics for Advanced Solutions [11/4/99]	GSE Lining Tech	6				
152	Groundwater Issues for Landfill Operators	UF TREEO Center	6	6			
17	Groundwater Monitoring, Analysis and Data Interpretation	UF TREEO Center	12	12			
76	Groundwater Monitoring, Requirements and Techniques for Landfills	Kohl Consulting, Inc.	2	2			
101	Hazard Communications Course	Escambia County Emergency Prep	4	4	4	4	4
85	Hazardous Material and Site Investigations	EnSafe	6	6	6	6	6
82	Hazardous Material Chemistry for Non-Chemist [1/18/95]	St. Petersburg Junior College	7				
286	Hazardous Material Chemistry for Non-Chemist	UF TREEO Center					
131	Hazardous Material Recognition Awareness Level Refresher [3/1/96]	Citrus County	4				
81	Hazardous Material Transportation *[no longer offered]*	UF TREEO Center	4				
50	Hazardous Materials Awareness Training [1/25/94]	Citrus County	8				
102	Hazardous Materials in Construction & Demolition Waste	UF TREEO Center	4	4			
224	Hazardous Materials in Construction & Demolition Waste OnLine	UF TREEO Center	4	4			
86	Hazardous Materials Incident Awareness Level Training [2/5/97]	Escambia County Emergency Prep	8	8	8	8	8
70	Hazardous Materials Management Conference [11/6-9/96]	International City & County Mgmt Associate	12				
98	Hazardous Materials Transportation Seminar [5/7-8/97]	City Environmental Services, Inc of Florida	5	5	5		
34	Hazardous Waste & Emergency Response	Applied Associates International	8	8	8	8	8
53	Hazardous Waste Management for Government Employees [9/95, 10/95]	UF TREEO Center	6				
60	Hazardous Waste Mgmt 40 CFR 261-265 [4/17/96]	Occupational Safety Training, Inc.	8				
99	Hazardous Waste Operations & Emergency Response	Sterling Fibers/ESP	3	3	3		
188	Hazardous Waste Operations Emergency Response Refresher	Orange Co. Environmental Protection Division	4	4	4	4	
63	Hazardous Waste Regulations for Generators	UF TREEO Center	4	4	4	4	4
20	Hazardous Waste Training for Solid Waste Managers [7/16/93]	SWANA – FL	5				
217	HazWoper 24-Hour Moderate Risk Online	UF TREEO Center	6	6	6	6	3
216	HazWoper 40-Hour OSHA Health & Safety Online	UF TREEO Center	8	8	8	8	
218	HazWoper 8-Hour Refresher Online	UF TREEO Center	4	4	4	4	4
269	HazWoper 8 Hour OSHA Refresher	Gulf Coast Industrial Services Inc.	4	4	4	4	4
115	HazWoper Material Control & Emergency Response	Air Safe	8	8	8	8	4
170	Health & Safety Issues for Solid Waste Management Facilities	Kohl Consulting, Inc.	8	8	8	8	4
281	Health and Safety for Solid Waste Workers	UF TREEO Center	8	8	8	8	8
69	Health and Safety Training for Hazardous Materials: 40-Hour OSHA Compliance Course	UF TREEO Center	8	8	8	8	
62	Health and Safety Training for Hazardous Materials: 8 hour OSHA Refresher	UF TREEO Center	4	4	4	4	2
223	Health and Safety Training for Landfill Operations OnLine	UF TREEO Center	5	5	5	5	2
149	Health and Safety Training for Landfill Operations	UF TREEO Center	5	5	5	5	2
201	Hiring and Retaining Good Employees	UF TREEO Center	2	2	2	2	
33	Household Hazardous Waste [6/30/94]	Care Environmental Corp.	4				
209	Hurricane Preparedness and Post Disaster Recovery Workshop [8/10/01]	Dewberry & Davis LLC	8	8	8	8	8

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
19	Hydrogeology: Applications of Fundamental Concepts & Field Techniques to Florida Groundwater Investigations *[No longer offered]*	UF TREEO Center	20	20			
11	Inspection Procedures for Agri-chemical Containers offered for Recycling *[No longer offered]*	Dept. of Agriculture & Consumer Services	1				
44	Inspection Procedures for Agri-chemical Containers offered for Recycling [Pesticide] *[No longer offered]*	Institute of Food & Agriculture Science [IFAS]	1				
129	Inspector's Handbook for Construction Projects	Hillsborough County Solid Waste	7				
151	Integrated Management Course: Hurricane Recovery and Mitigation	FEMA/EMI	7	7	7	7	
37	Introduction to Electrical Maintenance *[prior to 1/1/02]*	UF TREEO Center	7				
212	Introduction to Electrical Maintenance *[taken after 1/1/02]*	UF TREEO Center	16	16	16	16	
14	Introduction to Groundwater: Contamination, Investigation, & Remediation Assessment	UF TREEO Center	13	13			
124	Landfill Compaction Training School *[prior to 1/1/02]*	Caterpillar & Ringhaver Equipment	5	5			
229	Landfill Compaction Training School - 8 hours *[taken after 1/1/02]*	Caterpillar & Ringhaver Equipment	8	8			
75	Landfill Compliance Inspections	Kohl Consulting, Inc.	2	2			2
157	Landfill Design and Construction [3/27-30/00]	UF TREEO Center	28				
4	Landfill Design: Cell Design & Construction [3/9/92]	UF TREEO Center	14.5				
6	Landfill Design: Closure & Long Term Care [5/19/92]	UF TREEO Center	15				
2	Landfill Design: Conceptual Design Operations & Monitoring [1/12/92]	UF TREEO Center	14.5				
78	Landfill Design: Landfill Design and Construction [5/5-9/97]	UF TREEO Center	28				
5	Landfill Design: Leachate & Gas Management [3/11/92]	UF TREEO Center	15				
79	Landfill Design: Leachate and Gas Management System Design [6/10-12/97]	UF TREEO Center	21				
3	Landfill Design: Liner Systems Materials Installation & Quality Assurance [2/11/92]	UF TREEO Center	14				
1	Landfill Design: Planning & Permitting [1/21/92]	UF TREEO Center	14				
77	Landfill Design: Planning and Permitting for Solid Waste Management [4/8-9/97]	UF TREEO Center	16				
179	Landfill Gas & Energy: Alternative Uses [9/25-27/00]	CDM, Inc.	8				
49	Landfill Gas & Leachate Systems	UF TREEO Center / SCS Engineers	8	8			
172	Landfill Gas Collection and Control Systems [8/19-20/99]	CDM, Inc.	8				
276	Landfill Gas Collection and Control Systems Operator Training [9/2002]	Waste Management.	12				
83	Landfill Gas NSPS Workshop [7/15/96]	FDEP	6				
67	Landfill Gas NSPS Workshop [7/9/96]	SWANA - FL	4				
57	Landfill Gas System Design- A Practical Approach [6/14-15/94]	Landfill Control Technologies	8				
89	Landfill Gas: How to Profit From the New Mandates [6/17/97]	FDEP	7				
194	Landfill Operating Issues for Class I, II, III and C&D Sites	Kohl Consulting, Inc.	8	8			8
260	Landfill Operation Online	UF TREEO Center	16	16			
261	Landfill Operation	UF TREEO Center	16	16			
111	Landfill Operations and Waste Screening for Class I, II & III Sites	Kohl Consulting, Inc.	8				8
58	Landfill Operator Education (Landfill Mining and Landfill Gas and Leachate Mgmt) [3/22/96]	SWANA - FL	4				
168	Landfill Service School (Leachate Pumps and Controls School) [3/25-26/99]	EPG Companies	7	7			
118	Landfill Wildlife Training Course	Applied Technology & Management, Inc – ATM/UF TREEO Center	4	4			
277	Laws and Rules for Florida Engineers - *only for PEs	UF TREEO Center	4				
158	Leachate and Gas Management System Design [5/9-10/00]	UF TREEO Center	12				

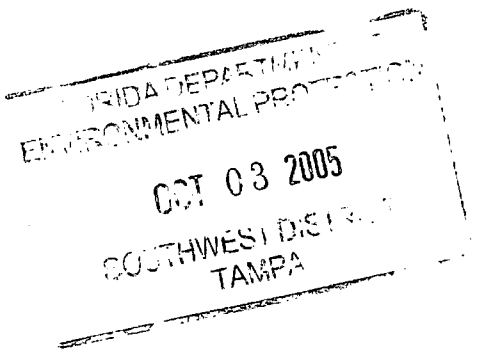
Continuing Education							
No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
125	Management of Leachate, Gas, Stormwater and Odor at Class I, II, III Landfills	Kohl Consulting, Inc.	8	8			
249	Management of Special Waste for SWM Facility Operators	Kohl Consulting, Inc.	4	4	4	4	4
109	Measurements and Calculations for Landfill Operators	Kohl Consulting, Inc.	5	5			
38	Mechanical Maintenance (Pumps and Pumping) *(prior to 1/1/02)* (see #213)	UF TREEO Center	7				
140	Meeting the Challenges of Environmental Liability with Case Studies in Solid Waste [6/16/99]	SWANA - FL	4				
128	Methods of Erosion and Sedimentation Control for Construction Sites	UF TREEO Center/FDEP	6	6			
208	NPDES Phase II Inspector Certification Course	University of Florida – T2 Center	12	12	8	4	
180	NUCA Competent Person Training	Sarasota Co. Tech	8	8			
10	On Site Operations Personnel [11/91]	SWANA - FL					
177	OSHA 40-Hour Course	R. Cooey	8	8	8	8	
165	OSHA 8-Hour HazWoper Annual Refresher [8/25/00]	University of North Florida Safety America	4	4	4	4	2
142	OSHA 8-Hour Refresher for Hazardous Waste Operations and Emergency Response	FDEP/Jamson	4	4	4	4	2
68	OSHA Update Seminar [8/7/96]	J.J. Keller & Associates, Inc.	6				
183	Overview of Class I Landfill Operations and Waste Screening	Kohl Consulting, Inc.	3	3			3
92	Overview of Solid Waste Management Technologies	Kohl Consulting, Inc.	3				
184	Overview of Transfer Stations Operations and Waste Screening Review	Kohl Consulting, Inc.			3	3	3
15	Overview Understanding the Planning & Training Requirements of Big 3:OSHA, EPA, DOT (Regulatory Overview)	UF TREEO Center	7				
192	Pedestrian, Vehicles and Equipment Safety at Transfer Stations	Kohl Consulting, Inc.			2	2	2
186	Pedestrian, Vehicles and Equipment Safely in the Landfill	Kohl Consulting, Inc.	2	2			2
104	Permit Required Confined Space Training	UF TREEO Center	8	8	8	8	
96	Personnel Law Up-date [12/11-12/96]	Council on Education in Management	5				
239	Pollution Prevention and Environmental Essentials Conference	UF TREEO Center	5	1	5	5	
230	Proper Maintenance of Heavy Equipment and Safety	Caterpillar & Ringhaver Equipment	3	3	3	3	3
153	Pump Maintenance [4/13-14/00]	National Tech Transfer	7				
213	Pumps and Pumping *(taken after 1/2/02)*	UF TREEO Center	16	16	16	16	
237	Recycle Organics 2002	University of Florida - IFAS	4	4	4	4	
280	RecycledFlorida Today 10th Annual Conference [6/3-6/03]	RecycledFlorida Today	5	4	5	5	
90	Recycling Coordinator Training Course 1997 (Basic Recycling Training) [5/19-21/97]	UF TREEO Center	8	8			
137	Recycling Coordinator Training Course 1999	UF TREEO Center	8	8			
205	Recycling Coordinators Training Course 2001 [8/2--24/01]	SWANA - FL					
146	Recycling Disaster Debris [8/6/99]	University of Central Florida / Engineering	6	6	6	6	6
193	Safe Operating Issues for Transfer Stations	Kohl Consulting, Inc.			2	2	
123	School/University Advanced Recycler Training Course [10/20-21/98]	UF TREEO Center	7	7			
7	Site Monitoring at Solid Waste Facilities	SWANA - FL	10				
139	Solid Waste Facility Operations for Construction and Demolition Operators *[No longer offered]* (See #196)	Kohl Consulting, Inc.		20			
138	Solid Waste Facility Operations for Landfill Operators *[No longer offered]* (See #196)	Kohl Consulting, Inc.	20				
41	Solid Waste in Florida's Small Counties Workshop	Florida Counties Foundation & the Florida Institute of Government	4				
21	Solid Waste Landfill Operators Short School *[No longer offered]*	UF TREEO Center/SWANA - FL	20				
28	Solid Waste Landfills Correspondence Course (course # C240-A180)	University of Wisconsin	20	20			

Continuing Education			I, II, III	C&D	Transfer	MRF	Spotter
No.	COURSE TITLE	PROVIDED BY					
22	Solid Waste Management: Managing Special Waste [5/19/92]	UF TREEO Center	6				
55	Solid Waste Regulatory Review Workshop [3/10/95]	SWANA - FL	3				
257	Spotter Training Course – 8 Hours Initial Training	Hewitt Contracting Company, Inc.	8	8	8	8	8
263	Spotter Training for Solid Waste Facilities Refresher	UF TREEO Center	4	4	4	4	4
248	Spotter Training for Solid Waste Facilities	UF TREEO Center	8	8	8	8	8
214	Spotter Training Plan for Land Clearing Debris Site	Wetland Solutions	8	8	8	8	8
150	Storm Water Management Training	S2Li	4				
202	Stormwater Inspector Certification Course	Sarasota Co. Tech	12	12	8	4	
39	Stormwater Management for Landfills *[No longer offered]*	UF TREEO Center	8				
56	Successfully Contracting for Solid Waste Services [7/14/95]	SWANA - FL	4				
61	Successfully Contracting Solid Waste Services	UF TREEO Center / SCS Engineers	4				
215	SWANA - 2001 Special Waste Conference [12/3-4/01]	SWANA	10	9	10	8	
258	SWANA - 2002 Special Waste Conference [12/5-6/02]	SWANA	10	9	9	9	
242	SWANA - Business Planning, Marketing and Communications for the Solid Waste Industry	SWANA	8	8	4	4	
252	SWANA - FEMA's Debris Management	SWANA	8	8	8	8	8
250	SWANA - Construction and Demolition Debris Course	SWANA	22	22	22	22	8
47	SWANA - Financing Integrated MSW Management Systems [5/14/96]	SWANA	8				
46	SWANA - Groundwater Monitoring/Leachate Mgmt	SWANA	8	8			
94	SWANA - Health & Safety at MSW Landfills	SWANA	10	10			
238	SWANA - Household Hazardous Waste & CESQG Facility Operations 24 hour Training	SWANA / SWANA - FL	15	15	15	15	15
26	SWANA - International Meeting [8/11-13/91]	SWANA	20				
245	SWANA - Leadership Skill Development for Solid Waste Professionals	SWANA	8	8	4	4	
244	SWANA - Landfill Gas Basics	SWANA	8	8			
27	SWANA - Landfill Gas Management (Spring Seminar 1994) [3/4/94]	SWANA	4				
133	SWANA - Landfill Gas Symposium 22nd Annual [3/22-25/99]	SWANA	15				
163	SWANA - Landfill Gas Symposium 23rd Annual [3/22-30/00]	SWANA	15				
190	SWANA - Landfill Gas Symposium 24th Annual [3/19-23/01]	SWANA	18				
262	SWANA - Landfill Gas Symposium 26th Annual [3/25-27/03]	SWANA	15				
231	SWANA - Landfill Gas System Operation and Maintenance	SWANA	20	20			
93	SWANA - Landfill Operational Issues	SWANA	8	8			
74	SWANA - Landfill Symposium 1st Annual [11/4-6/96]	SWANA	17				
87	SWANA - Landfill Symposium 2nd Annual [2/4-6/97]	SWANA	18				
117	SWANA - Landfill Symposium 3rd Annual [7/22-24/98]	SWANA	18				
159	SWANA - Landfill Symposium 4th Annual [6/28-30/99]	SWANA	16				
211	SWANA - Landfill Symposium 6th Annual [6/18-20/01]	SWANA	18				
275	SWANA - Landfill Symposium 8th Annual [6/17-19/03]	SWANA	13				
245	SWANA - Leadership Skill Development for Solid Waste Professionals	SWANA	8	8	4	4	
8	SWANA - Managing Landfill Gas at MSW Landfills	SWANA	10	10	10	10	10
95	SWANA - Managing Landfill Gas at MSW Landfills [1997] *Onsite Delivery*	SWANA	5	5			
30	SWANA - Manager of Landfill Operations	SWANA	16	16			4
160	SWANA - Manager of Landfill Operations [MOLO®]	UF TREEO Center/SWANA - FL	16	16	8	8	
000	SWANA - Manager of Landfill Operations [MOLO®] Exam Only	SWANA/ SWANA - FL	0				
243	SWANA - Managing Composting Programs	SWANA	10	10			
251	SWANA - Managing MSW Collection Systems	SWANA	8		8	8	
246	SWANA - Managing MSW and Recyclables Collection Efficiency Workshop	SWANA	8	8	4	4	
234	SWANA - Managing MSW Recycling Systems	SWANA / SWANA - FL	7	7	7	7	
001	SWANA - Managing MSW Recycling Systems Exam Only	SWANA/ SWANA - FL	0				

Continuing Education

No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
222	SWANA - Managing Transfer Station Systems	SWANA			8	8	
247	SWANA - Outsourcing Decisions and Contracting Strategies: Risk and Rewards	SWANA	8	8	4	4	
178	SWANA - Paying for your MSW Management Systems-Revenue Generation & Cost Accounting [10/24/00] [10/14/01]	SWANA	7				
174	SWANA - Principles of Managing Integrated Municipal Solid Waste Management Systems	SWANA	7				
45	SWANA - Principles of Managing IMSWM Systems [Certified Municipal Solid Waste Manager I]	SWANA	24				
132	SWANA - Training Sanitary Landfill Operating Personnel	SWANA	5				
216	SWANA - Transfer Station Design & Operations [*course taken after 1/1/2002*]	SWANA			8	8	4
42	SWANA - Transfer Station Design & Operations [*course taken prior to 1/1/2002*]	SWANA	16		16		
191	SWANA - Waste Con 2000 [10/23-26/00]	SWANA	13		13		
221	SWANA - Waste Con 2001 [10/15-18/01]	SWANA	8	2			
254	SWANA - Waste Con 2002 [10/15-18/02	SWANA	6	6	6	6	
259	SWANA - Waste Reduction, Recycling and Composting 14th Annual Symposium [2/24-3/1/2003]	SWANA	7	7	15	15	
9	SWANA - Waste Screening at MSW Mgmt Facilities [On-site Delivery]	SWANA	10	10	10	10	10
141	SWANA-Florida 1999 Summer Conference [8/3-5/99]	SWANA - FL	4				
162	SWANA-Florida 2000 Spring Tri-State Conference [4/3-5/00]	SWANA - FL	3				
173	SWANA-Florida 2000 Summer Conference [8/10-11/00]	SWANA - FL	6	6			
189	SWANA-Florida 2001 Spring Conference [3/29-31/01]	SWANA - FL	3	3			
207	SWANA-Florida 2001Summer Conference	SWANA - FL	5	5	5	5	1
220	SWANA-Florida 2002 Spring Tri-State Conference [4/7-10/02]	SWANA - FL	6	6	6	6	
235	SWANA-Florida 2002 Summer Conference [7/24-26/02]	SWANA - FL	4	4	2	1	
255	SWANA-Florida 2003 Spring Conference [4/7-12/03]	SWANA - FL	6	6	5	5	3
116	The Complete Ground-Water Monitoring Course	Nielson Environmental Field School, Inc.	16	16			
241	The Old Landfill Seminar	UF TREEO Center / SCS Engineers	5	5			
187	Traffic and Equipment Safety at Landfills	Kohl Consulting, Inc.	2	2			2
13	Train-The-Trainer for Environmental Occupations (Management Credit ONLY)	UF TREEO Center	7				
121	Training for Personnel at Construction & Demolition Materials Recovery Facilities	Kohl Consulting, Inc.	8			8	
147	Training for Spotters at Landfills, Construction & Demolition Sites and Transfer Stations	JEA, Inc. / UF TREEO Center	8	8	8	8	8
148	Two-Hour Landfill Spotter Refresher Training Online	JEA, Inc.	2	2	2	2	2
112	US DOT Hazardous Material / Waste Transportation	UF TREEO Center	6	6	6	6	
23	Utility Management Certification: Financial Management [*No longer offered*]	UF TREEO Center	7				
24	Utility Management Certification: Management & Supervision [*No longer offered*]	UF TREEO Center	7				
25	Utility Management Certification: Personnel Management [*No longer offered*]	UF TREEO Center	7				
126	Waste Acceptability for Spotters, Equipment Operators and Scale House Personnel	Kohl Consulting, Inc.	2	2	2	2	2
210	Waste Control and Spotter Safety Awareness	Kohl Consulting, Inc.	2	2	2	2	2
31	Waste Management of North America (Landfill University) *(no longer offered)*	Landfill University	20				
36	Waste Screening & Identification For Landfill Operators and Spotters	UF TREEO Center / SCS Engineers	8	8	8	8	8
256	Waste Screening & Identification For Landfill Operators and Spotters Refresher	Citrus County – Hazardous Waste Section	4	4	4	4	4

Continuing Education							
No.	COURSE TITLE	PROVIDED BY	I, II, III	C&D	Transfer	MRF	Spotter
122	Waste Screening and Operation Orientation for Transfer Station Personnel	Kohl Consulting, Inc.	8		8		
51	Waste Screening at Municipal Solid Waste [5/23/94]	SWANA - FL	6				
164	Waste Tech 2000 [3/5-8/00]	Waste Tech	7				
185	Weighmaster Orientation and Waste Screening Review	Kohl Consulting, Inc.	2	2	2	2	2
73	Wet Weather Operations	Kohl Consulting, Inc.	4	4			
65	What Can I Accept & How Do I Keep It From Blowing Around	Kohl Consulting, Inc.	2				
64	When it Rains, It Pours (And We Stay Open)	Kohl Consulting, Inc	2	2			
279	Wildlife and Wetland Training for Solid Waste Facilities	UF TREEO Center	8	8			
240	WMI Odor School [5/29/02]	WMI / St. Croix Sensory, Inc.	7	7	7	7	7



APPENDIX A-2

TRAINING CERTIFICATES

UNIVERSITY OF FLORIDA

TREEO CENTER

Center for Training, Research and Education for Environmental Occupations

certifies that

Rodney T. Milligan

attended

Spotter Training for Solid Waste Facilities

March 23, 2005

and is awarded this

Certificate of Attendance

Date issued: **03/23/05**
CEUs: **0.8**
FBPE PDHs (EXP00074): **8.0**
Solid Waste I II III/C&D/TS/MRF/Spotter: **8.0**

William T. Engel, Jr., Ph.D.
Director

University of Florida TREEO Center • 3900 SW 63rd Boulevard • Gainesville, FL 32608-3800 • 352/392-9570 • www.treeo.ufl.edu

UNIVERSITY OF FLORIDA

TREEO CENTER

Center for Training, Research and Education for Environmental Occupations

certifies that

Rodney T. Milligan

attended

Spotter Training for Solid Waste Facilities

March 23, 2005

and is awarded this

Certificate of Attendance

Date issued: **03/23/05**
CEUs: **0.8**
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William T. Engel, Jr., Ph.D.
Director

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UNIVERSITY OF FLORIDA

TREEO CENTER

Center for Training, Research and Education for Environmental Occupations

certifies that

Johnny Aarron Cook

attended

24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)

July 13-15, 2005

and is awarded this

Certificate of Attendance

Date Issued: **July 15, 2005**
CEU: **2.4**
FBPE PDH (EXP00074): **24.0**
Solid Waste I II III/C&D: **16.0**
SWANA CEU: **20.0**

William T. Engel, Jr., Ph.D.
Director

Passed Exam with 70% or Higher Proficiency

University of Florida TREEO Center • 3900 SW 63rd Boulevard • Gainesville, FL 32608-3800 • www.treeo.ufl.edu

UNIVERSITY OF FLORIDA

TREEO CENTER

Center for Training, Research and Education for Environmental Occupations

certifies that

Jeff Burgher

attended

24-Hour Initial Training Course for Landfill Operators (Class I, II, III and C&D Sites)

July 13-15, 2005

and is awarded this

Certificate of Attendance

Date Issued: **July 15, 2005**
CEU: **2.4**
FBPE PDH (EXP00074): **24.0**
Solid Waste I II III/C&D: **16.0**
SWANA CEU: **20.0**

Passed Exam with 70% or Higher Proficiency

William T. Engel, Jr., Ph.D.
Director

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Kohl Consulting Inc.

Is Proud to Certify That

Cliff Hurley

Has Successfully Completed the 24 Hour Initial Training Course for Solid Waste Management Facility Operators Entitled :

24 Hour Initial Training for Landfill Operators (#195)

August 2nd, 3rd and 4th, 2005

And Has Successfully Completed the Required Examination in Accordance with the Training Requirements for Landfill Operators in Florida

Signed this 19th Day of August, 2005

Chris S. Kohl

Chris S. Kohl

President

KOHL CONSULTING, INC. SOLID WASTE OPERATORS TRAINING

APPENDIX B

RESERVE EQUIPMENT AGREEMENT

December 7, 2000

Mr. Lee Smith
Landfill Manager
Waste Management
Southeast Landfill
P.O. Box 627
Balm, Florida 33503-0997

Dear Mr. Smith:

Per our recent conversation, Ringhaver Equipment Co. will make replacement machines available to the landfill on a daily rental basis. A rental rate chart is attached.

Ringhaver will provide Southeast Landfill with equipment needed for emergency situations within 24 hours. We have transports available to transport this equipment.

Regards,

Timothy R. Maguire
General Sales Manager
Vice President

TRM/j
Enclosure

CC: Steve O'Neil, Sales Representative

APPENDIX C

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

HILLSBOROUGH COUNTY

SOLID WASTE MANAGEMENT DEPARTMENT

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN (CEMP)

A. General

Hillsborough County is vulnerable to a wide variety of natural disasters. This plan will provide the Solid Waste Management Department (SWMD) policies and procedures to be incorporated in the Hillsborough County Comprehensive Emergency Management Plan.

B. Purpose

To provide the Solid Waste Management Department employees with uniform policies and procedures for the effective coordination of actions necessary to prepare for, and respond to, a variety of natural disasters which might affect the health, safety or general welfare of the residents in Hillsborough County.

C. Scope

The Solid Waste Peacetime Emergency Plan is designed for use in all natural and man made disasters. It does not address the effects or impacts of wartime actions. The Plan includes the following.

1. Procedures for pre-disaster phase.
2. Procedures for disaster phase.
3. Procedures for recovery phase.
4. Procedures for financial cost tracking.

D. Priority or Emergency Communications Notification Procedures ADMINISTRATIVE DIRECTIVE # 167

Key contact and alternate personnel

1.	Key contact	Ed Tapia, Interim Director
2.	Alternate contact	Thomas Smith, Manager

1. **PRE-DISASTER PHASE**

a. SWMD Director and assistant will not be located at the Emergency Operations Center until the recovery phase.

b. Managers will obtain the employee recall roster from the Administrative Office of the SWMD. This roster will be used to inform employees, by phone, of any reporting instructions for the Recovery Phase. Employee site assignment will be indicated on this roster.

c. To the extent possible, SWMD sites will secure all equipment to protect it from flying debris or from becoming flying debris.

d. Solid Waste equipment will be dispersed in the following manner.

(1) Northwest County Facility semi-tractor trailers will remain at the Facility.

(2) Northwest County Facility will furnish two (2) semi-tractors and drivers to pickup refrigeration trailers for Emergency Services to be transported to a specified location.

(3) Small equipment for Landfill Services at Northwest County Facility will be stored in the storage building.

(4) South County Facility will furnish two (2) semi-tractors and trailers to Fleet Management

(5) South County semi-tractors will be transported to the Southeast Landfill.

(6) Front-end loaders and small equipment at the Northwest and South County Facilities will be stored in the tipping buildings.

(7) Small equipment at Hillsborough Heights will be stored in the shop building at Hillsborough Heights.

(8) Administrative Office cars and pickup trucks will be removed from downtown locations and will be stored at their normal location or other special assignment.

(9) Computers and electronic equipment in the County Center that are near windows will be moved to conference room B or another location as determined by the Fiscal Section if Conference Room B is unavailable.

(10) As much as possible, computers and electronic equipment at all other sites will be secured in a high and dry location.

e. All gasoline powered equipment must be topped off with fuel.

f. All employees must carry their employee I. D. cards with them so that they may meet security requirements for travel over County roads.

g. All SWMD employees' regularly assigned cellular telephones will keep their telephones with them for on-going communication with the Emergency Command Center and other employees. Employees should also keep their battery chargers so as to maintain telephone service during the event.

h. Employees who may be required to evacuate and know the telephone number at their evacuation location should provide their supervisor with that telephone number.

i. All supervisors will instruct their employees to listen to the **Emergency Alert System (EAS) WMTX 100.7 MHz (FM)** for information and any reporting instructions.

j. Employee compensation during this Phase will be in accordance with the County "Disaster/Disaster Recovery Policy – Compensation".

2. **DISASTER PHASE**

a. All SWMD employees will insure the safety and welfare of their families and follow all evacuation instructions.

b. All SWMD employees' regularly assigned cellular telephones will keep their telephones with them for on-going communication with the Emergency Command Center and other employees. Employees should also keep their battery chargers so as to maintain telephone service during the event.

3. **RECOVERY PHASE**

a. All employees must listen to the **Emergency Alert System (EAS) WMTX 100.7 MHz (FM)** for recall information and any reporting instructions.

b. All employees must carry their employee I. D. cards with them so that they may meet security requirements for travel over County roads.

c. The Hillsborough Heights SWMD Site, located 2 mile north of I-4 an CR 579, will be the Solid Waste Management Department's Administrative Emergency Command Center (ECC), depending upon storm impacts. The ESF 3 Netpark Command Center can also be utilized to a limited extent as the SWMD's Administrative Emergency Command Center.

d. Reporting Assignments

(1) Upon receiving the recall notice, **all employees** must report to the locations identified below in accordance with the County A Disaster/Disaster Recovery Policy - Work Assignments. If the designated location is not accessible, employees must report to the ECC (Hillsborough Heights Facility).

(2) Unless identified otherwise below, all employees will report to their normal work location.

(3) SWMD Director and assistant will be located at the Emergency Operations Center during recovery phase.

(4) CCCs will be closed until the facilities can be safely operated. Alderman Ford and Wimauma CCC Attendants will report to the South County Facility. All other CCC Attendants will report to their designated sites.

(5) Manager assignments are as follows.

(a) Doug DeArmond - Northwest County Facility

(b) Bobby Caswell - South County Facility

(c) Patty Berry - Hillsborough Heights or Southeast County Facility

(d) Tom Smith – Netpark EOC or Resource Recovery Facility

(e) Richard Mims – Emergency Operation Center

(f) Nate Johnson - County Center

(g) Bryant Johnson – Netpark EOC or Resource Recovery Facility

(g) Chris Snow – Netpark EOC

e. Employee compensation during this Phase will be in accordance with the County "Disaster/Disaster Recovery Policy – Compensation".

f. For recovery phase, Managers will utilize the recall roster to inform employees, by phone, of any reporting instructions for the recovery phase.

g. Designated site Managers and Crew Leaders will secure the sites and direct any clearing of debris so as to open the facilities as soon as possible.

h. Managers and Crew Leaders will schedules employees on shifts to allow the sites to operate on a 12-hour schedule or as needed to accept storm debris at all facilities.

i. To the extent possible, solid waste will be managed in the following manner during the recovery phase.

(1) Every effort must be made to ensure that the solid waste delivered to the Solid Waste Management System is separated into:

processable;

yard waste; and

non-processable/construction and demolition debris.

(2) Customers will be asked if the solid waste is storm debris or solid waste generated from normal activities.

(3) Customers delivering solid waste generated from normal activities should be directed to the normal SWMD facilities where the accounting and billing structure is in place. Solid waste delivered to the normal SWMD facilities will be accounted for and billed in accordance with normal operating procedures, unless the solid waste is clearly identified as storm debris.

(4) The transfer stations and the Resource Recovery Facility should only receive processable solid waste generated from normal activities. The yard waste processing facilities should only receive yard waste generated from normal activities. Yard waste storm debris from residential sources should be directed to the maximum extent possible to the Parks Department yard waste drop off sites. The ability to do this will be evaluated and alternative procedures may be established. To the extent possible, yard waste must be separated from processable solid waste.

(5) Customers delivering storm debris should be encouraged to place their material at the curb for collection by the debris contractors. To the extent possible, the yard waste should be stored separately from the construction and demolition debris. If processable solid waste is included in the load, the customer should separate it from the other solid waste so that it can be immediately removed from the site.

(6) During the Recovery Phase, all solid waste received by the SWMD must be properly accounted for. The charge for the disposal of storm debris will be in accordance with charges established by Board Resolution or by an appropriate action by the County Administrator during the declared State of Emergency.

(7) A receipt ticket will be prepared for each vehicle entering a SWMD facility (except for the CCCs) as well as the emergency sites. Each ticket must include, but not be limited to, the following information:

date and time;

delivery location;

origin of the debris;

person/company delivering the debris;

estimated volume delivered; and

certification that it is storm debris.

During times of disaster, traffic control at the Resource Recovery Facility, Northwest County Facility and South County Facility is important due to the large volumes of yard waste being delivered to the processing site. Temporary traffic controllers are needed during time of disaster. Ed Tapia, Interim Director and Richard Mims, Special Projects Manager, will be able to provide information needed to bring temporary traffic controllers on board when/if needed.

5. FINANCIAL COST TRACKING

a. Each Section Manager will keep adequate records showing details of all expenses which can be directly attributed to the preparation for, during and following the disaster event. These records will show what, why, when and the costs which requires reimbursement from FEMA. Reference exhibit-A for the Disaster Expense Costs Tracking Form.

b. Fiscal Services is responsible for the development, maintenance and administering the SWMD Disaster Expense Cost Tracking System/Form to ensure the accuracy and integrity of the financial data that is complied, complies with FEMA requirements for reimbursement.

c. Fiscal Services will work closely with the Department of Management and Budget to ensure that this same data is consistent with and is reconciled to our internal financial systems.

d. Fiscal Services will ensure the database and all records are retained for a period of three (3) years from the date of the final settlement of all claims.

e. Staff must continue using the form until after the cleanup for the declared disaster is complete and advised through the Department Director.

f. Once use of the disaster reporting forms is discontinued, all sections will revert back to standard SWMD practices.

6. NORMAL DISPOSAL FACILITIES

a. Processable solid waste

1. Northwest Transfer Station
8001 West Linebaugh Avenue
Tampa, Florida
Phone: 264-3816
Location: East of Sheldon road on north side of Linebaugh Avenue

2. South County Transfer Station
13000 US 41 South
Gibsonton, Florida
Phone: 671-7611
Location: 1/4 mile north of Big Bend Road on east side of highway 41

3. Southeast County Landfill
CR 672
Picnic, Florida
Phone: 671-7675
Location: 8 miles east of Highway 301, 2 miles west of Highway 39, entrance to landfill off of CR 672

4. Resource Recovery Facility
350 Falkenburg Rd
Brandon, Florida
Phone: 744-5599
Location: 1 mile north of Highway 60, entrance of Falkenburg Rd.

b. Yard Waste

1. Northwest County Facility
8001 West Linebaugh Ave
Tampa Florida
Phone: 264-3816
Location: East of Sheldon road on north side of Linebaugh Avenue

2. Falkenburg Yard Waste Facility
350 Falkenburg Rd
Brandon, Florida
Phone: 744-5599
Location: 1 mile north of Highway 60, entrance of Falkenburg Rd..

3. South County Yard Waste Facility
13,000 S U.S. HWY 41
Gibsonton, Florida
Phone: 671-7611
Location: 1/4 mile north of Big Bend Road on east side of highway 41

c. Non-processable/construction and demolition debris

1. Southeast County Facility
CR 672
Picnic Florida
Phone: 671-7675
Location: 8 miles east of Highway 301, 2 miles west of Highway 39, entrance to landfill off of CR 672

7. TEMPORARY DEBRIS STORAGE AND REDUCTION SITES

Countywide

Southeast County Facility – 15960 C.R. 672, Picnic – Solid Waste Management
Latitude 27 Degrees 47' 10.7250563" Longitude -81 degrees -41' –43.1970858"
Latitude 27.78631252 Longitude –81.69533252
TRS – 31-21-14 Folio #88551.000
400 acres
Contact: Patty Berry, SWMD 276-2908, cell 335-8675
Larry Ruiz SWMD 671-7707, cell 503-6671

Northwest Area

1. Northwest Equestrian Trail Property – 1 mile west of Gunn Highway and South Mobley Road
Parks and Recreation Department
Latitude 28 degrees 5' 12.8829661 Longitude –82 degrees –6' –31.5825744
Latitude 28.0869114 Latitude –82.10877294
TRS – 27-17-34
Folio #2737.000
100 acres with 50 available
Contact: Steve Shephard, P&RD 744-5502

2. Northwest Wastewater Treatment Plant Property – 10880 South Mobley Road – (9599 Exposition Drive)
Water Department
Latitude 28 degrees 4' 15.7359375" Longitude –82 degrees –7' –25.7711566"
Latitude 28.07103776 Longitude –82.12382532
TRS – 28-17-9
Folio #3543.000 and 3535.000
1500 acres with approximately 80 – 100 acres available
Contact: Dwayne Wills, WD 272-5977 ext. 2237, cell 334-6499

Central Area

1. Owens Pass Park – 1318 (1122) Sydney Dover Road
Parks and Recreation Department
Latitude 27 degrees 57' 33.2381326" Longitude –81 degrees –43' –27.0143329"
Latitude 27.95923281 Longitude –81.72417065
TRS - 29-21-16
Folio #85365.000
238 acres with 100 acres available
Contact: Steve Shephard, P&RD 744-5502

2. Vacant Parks Department Property – 78th Street
Parks, Recreation and Conservation Department
Latitude 27.8949589870143 Longitude -82.368938517831
TRS – 30-19-11
Folio #48882.0000 and 48887.0000
110 acres
Contact: Jeff Mauch, P&RD 744-5815, cell 927-6586

3. Vacant Water Department Property – 410 Kingsway
Water Department
Latitude 28 degrees 0' 0.8008853" Longitude –81 degrees –47' –38.8570983"
Latitude 28.00022247 Longitude –81.79412695
TRS –28-20-35
Folio #63532.000
24.68 acres available
Contact: Dwayne Wills, Water Department 272-5977 ext. 2337, cell 334-6499

South County

1. South County Facility – 13001 U.S. Hwy 41 South
Solid Waste Management Department
Latitude 27 degrees 48' 3.4619220" Longitude –81 degrees –53' –56.5659820

Latitude 27.80096164 Longitude –81.89904611
TRS – 31-19-11
Folio #51494.000
20 acres available
Contact: Chris Snow, SWMD 276-8408, cell 690-1508

2. Bullfrog Creek Scrub – Hwy 301, 2 miles south of Big Bend Road
ELAPP
1,620 acres with 100 acres available
Latitude 27 degrees 45' 46.2583493" Longitude –81 degrees –51' –10.9388861
Latitude 27.76284954 Longitude –81.85303858
TRS – 31-19-11
Folio #77954.000
Contact: Steve Shepherd, P&RD 744-5502

3. Triple Creek Property
Parks, Conservation and Recreation Department
Latitude 27.8083942142204 Longitude -82.2373918447637
TRS – 31-21-6
Folio # 88497.0100
95 acres
Contact: Jeff Mauch, , P&RD 744-5815, cell 927-6586

8. ENGINEERING SERVICES

FOR HILLSBOROUGH COUNTY

COUNTYWIDE EMERGENCY DEBRIS MANAGEMENT

The following Scope of Services is provided by Camp Dresser & McKee Inc. (CDM) and SCS to the Hillsborough County Solid Waste Department (OWNER) to assist the County in reponding to a disaster ("EVENT"), by providing assistance for countywide emergency debris cleanup and management. The OWNER may request CDM and/or SCS to provide professional services to prepare for, respond to, and recover from, a natural or manmade disaster by authorizing CDM and/or SCS to proceed with, Disaster Recovery Services, as described in their respective Agreements between Hillsborough County Florida and CDM and SCS.

The OWNER will alert CDM and/or SCS of the probability of activating the contract as soon as a threat of a situation that could result in the declaration of a disaster ("EVENT") is evident. CDM and SCS agree to respond to the activation of this contract with appropriate resources and schedule, as outlined, in the Scope of Services or developed to meet unforeseen conditions.

PROJECT UNDERSTANDING

CDM and/or SCS shall provide professionals upon request by OWNER to prepare for, respond to, and recover from an EVENT. The professionals will be brought together with OWNER employees as an Emergency Debris Management Team (EDMT). An EVENT is any hurricane, tornado, flood, earthquake, or any other manmade or natural disaster that is beyond OWNER's ability to respond. An EVENT may also be the preparation/training for the condition. The following services may be activated by OWNER in response to an EVENT:

Professionals may be supplied as fulltime, contract, or subcontract employees. Regardless of the status of a professional with CDM or SCS, they will be considered part of the EDMT in terms of this agreement.

OWNER will activate work under the terms of this agreement by contacting CDM's primary contact person or their alternate. OWNER will identify task assignments that are to be activated. CDM and/or SCS will recommend staffing assignments to meet the task requirements. OWNER will authorize CDM and/or SCS to proceed with task assignments.

SCOPE OF SERVICE

1.0 Pre-Storm Actions

1.1 OWNER will notify CDM and/or SCS upon notice of a Category 1 or above hurricane or other situation that could generate large volumes of debris and cause damage to OWNER's infrastructure.

1.2 CDM and/or SCS will establish presence and coordinate with the OWNER should the situation dictate to proceed with task assignments. CDM and/or SCS will initially locate at the OWNER's Emergency Operations Center, and will work directly with OWNER's employees. The EDMT may relocate to the Debris Management Center (DMC) upon activation.

1.3 CDM and/or SCS will notify all EDMT members and place them on alert status to be prepared to move into the Hillsborough County area within 12 hours after receipt of a notice-to-proceed from OWNER.

2.0 Call-Down Procedures

2.1 OWNER will contact CDM and/or SCS and advise of the need for actual or possible deployment to the EDMT. CDM and/or SCS will provide office, cell telephone, fax and pager numbers of the contact person and an alternate.

2.2 CDM and/or SCS will contact pre-identified personnel to assemble the EDMT staff. Information on possible staff members will be kept current.

2.3 The actual deployment of personnel to staff the EDMT will be coordinated between OWNER and CDM and/or SCS. Deployments will not be made until task assignments are made and the notice-to-proceed is given by OWNER.

3.0 Post-Storm Actions

3.1 CDM and/or SCS will provide overall supervision of the EDMT. A Team Manager will exercise daily operational control of the EDMT staff.

3.2 The EDMT staff will recommend assignment of Disaster Debris Removal and Disposal Contractors based on OWNER's Debris Management Plan.

3.3 CDM and/or SCS will provide staff to administer and provide oversight of the Disaster Debris Removal and Disposal Contractors' efforts. Specific actions will include the following:

- Baseline data collection from designated emergency debris management sites. This includes physical features documentation, and soil and groundwater sampling and analysis. This information is essential to document conditions of the land before it is used as a process, storage, and/or burn site, as follows:

  a) Install shallow up gradient and down gradient wells for groundwater monitoring.

  b) Thoroughly videotape and/or photograph (ground or aerial) each site before any activities begins.

  c) Periodically update video and photographic documentation to track site evolution.

  d) Note the location and condition of existing structures, fences, culverts, and irrigation systems.

  e) Take random soil and groundwater samples prior to volume reduction activities.

  f) Conduct continuous groundwater sampling after operations commence.

  g) Sample designated household hazardous wastes, ash, and fuels storage areas prior to site setup.

  h) Contact County and State environmental agencies to establish:

  - Regulatory requirements
  - Chain of custody requirements

- Acceptable sample collection methods
- Certified laboratories
- Test Parameters

- Assist the County in obtaining permits for TDSRS
- Plan debris management sites inspection, quality control, and other contract administration functions
- Provide inspectors to monitor debris removal and to distribute load tickets on each load to invoice areas assigned
- Receive and review all county disposal site Inspector's verified debris load tickets
- Make recommendations on OWNER and debris removal contractor work assignments and priorities based on OWNER's Debris Management Plan
- Report on progress and prepare status briefings
- Provide input to the Public Information Officer (PIO) on debris removal and disposal activities

3.4 CDM and/or SCS will coordinate with OWNER's Purchasing Agent on all contracting questions.

3.5 CDM and/or SCS will have a qualified Hazardous Materials Specialist available with extensive experience in post-disaster cleanup of hazardous household waste, and facilities with lead-based paint and/or asbestos if required.

3.6 CDM and/or SCS will provide the Field Inspection Teams to ensure requirements stated in the contracts are met.

3.7 CDM and/or SCS will provide on-site training for Load Site Inspectors and Disposal Site Inspectors to ensure that accurate load quantities are being properly recorded on pre-printed load tickets.

3.8 CDM and/or SCS will provide a Contract Specialist to support OWNER with respect to reporting requirements and ongoing contract matters. CDM staff will assist field personnel with respect to reconciling contractor load tickets against load.

3.9 CDM and/or SCS will provide technical assistance in performing preliminary damage assessments, Damage Survey Report (DSR) preparation, preparation of plans and specifications, construction administration, and project closeout on OWNER's facilities, which have been damaged as a result of an EVENT.

3.10 CDM and/or SCS will review schedules prepared by contractors and prepare press releases for the OWNER.

4.0 Training Actions

4.1 This Agreement may be activated by OWNER to participate in an annual workshop or training with Hillsborough County staff. The purpose of the workshop is to review the Debris Management Plan procedures and to ensure that the EDMT operation works smoothly. Items of discussion will include:

- Review of the Hurricane Plan and Debris Management Plan
- Roles and responsibility of the EDMT
- Mobilization sites
- Logistical support
- Pre-storm mobilization
- Procedures for call-up of contractor personnel and equipment
- Haul routing
- Contractor vehicle identification and registration
- Debris hauling load ticket administration
- Mobilization and operation of the debris management sites
- Contractor payment request submission, review, and verification
- Special procedures for household hazardous waste
- Debris management site closure requirements

Fuel Through Fleet Management

Fleet Management stated that they will take the following action concerning departments and their fuel needs during major storms.

-Will send out notice for all vehicles to "top off" with fuel.
-will attempt to set up portable fuel units at the State Fair Grounds

Fuel & Storm Category

-Fleet Management states that depending on the category of the storm, it may take 3-10 days before cars/trucks can fuel up
-If storm is a category three (3) or greater, Fleet will attempt to establish fuel tankers at various sites around the County

Fuel On P-Card

-Fleet Management states that if they are under water and there are no other County means of obtaining fuel, then staff would need to use their P-Cards at any available gas station

Fuel Sites

-Craig Putnam (744-5557 x 127) will provide a list of all possible fuel sites in the County
-Normal fuel sites can be found on COIN

Fleet Management stated that if a "great storm" shutdown the Port of Tampa, the County will be limited to the amount of fuel we can receive (if any).

Fleet Management Contracted Tires/Service

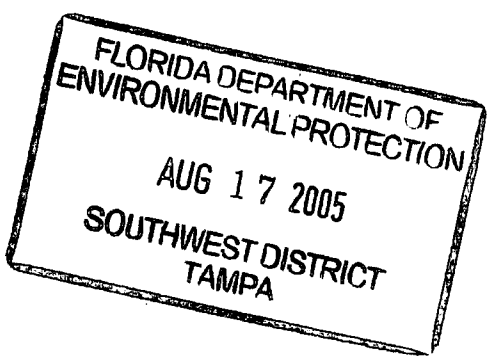
Since Fleet Management anticipates that due to debris in the roads, there will be a great need for tires, Fleet Management has contracted with Good/Year for tires of all types during a category storm.

-Solid Waste Management Department should provide Fleet Management with a list of <u>all</u> tire sizes that may be needed in case of an emergency/storm

-Fleet Management contract with Good/Year includes the changing of County tires
-All County departments/staff must go through Fleet (Craig Putnam 744-5557 x 127) for all tire service during emergencies/storms

APPENDIX D

RANDOM INSPECTION AND VIOLATION REPORT



SOLID WASTE FACILITY INSPECTION / VIOLATION REPORT

REPORT TYPE: ☐ INSPECTION ☐ VIOLATION ☐ LF RANDOM INSPECTION

LOCATION: _____ DATE: _____ TIME: _____

DELIVERING COMPANY: FRANCHISE COLLECTOR: ☐ WMI ☐ EB ☐ KR
OTHER: _____

DRIVER NAME: _____ VEHICLE #: _____

VEHICLE TYPE ☐ FEL ☐ RO ☐ RL ☐ SL ☐ SEMI ☐ DUMP
OTHER: _____

CUSTOMER / GENERATOR: _____ TRANSACTION #: _____

TYPE OF WASTE:

☐ YARD WASTE	☐ INDUSTRIAL	☐ AUTO PARTS	☐ BY PASS WASTE
☐ C & DD	☐ INSULATION	☐ ASH RESIDUE	☐ ANIMAL WASTE
☐ FURNITURE	☐ AG WASTE	☐ ROOFING	☐ SPECIAL WASTE
☐ CARDBOARD	☐ FIELD PLASTIC	☐ METALS	
☐ COMMERCIAL WASTE	☐ HOUSEHOLD GARBAGE		
☐ OTHER: _____			

TYPE OF VIOLATION: ☐ FACILITY ☐ LOAD ☐ SAFETY ☐ CONTAINER

DETAILS: _____

DRIVER COMMENTS: _____

RESULTS: ☐ ACCEPTED ☐ REJECTED ☐ RELOAD ☐ ALREADY IN PIT

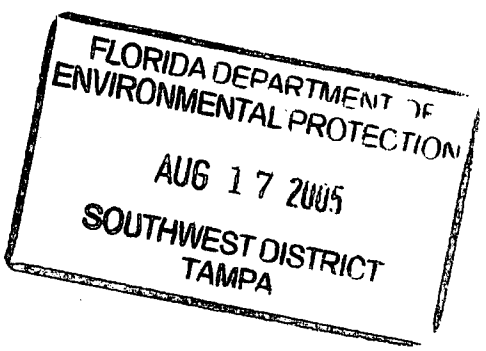
INSPECTOR'S SIGNATURE: _____

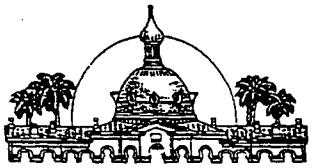
ADDITIONAL COMMENTS: _____

inspect White Copy: Customer Yellow Copy: Inspector Pink Copy: Office

APPENDIX E

SPECIAL WASTE PROGRAM





Hillsborough County
Florida

COUNTYWIDE SOLID WASTE PROFILE PROGRAM

GUIDELINES AND PROCEDURES

SPECIAL & GENERAL WASTE

Prepared By
Solid Waste Management Department
Management & Environmental Services Section
Revised August 2001

TABLE OF CONTENTS

COUNTYWIDE SOLID WASTE PROFILE PROGRAM GUIDELINES AND PROCEDURES

COUNTYWIDE SOLID WASTE PROFILE PROGRAM

GUIDELINES & PROCEDURES

I. INTRODUCTION

The Hillsborough County Solid Waste Management Department ("Department") has established the following Guidelines & Procedures to enhance the effectiveness of the new Countywide Solid Waste Profile Program (Program). The Program is designed to identify all non-residential (including residential rental property, ie: condo associations, apartment complexes, manufactured housing communities, etc.) and residential "Special" (ie: asbestos) waste streams delivered to the Solid Waste Management system and to pre-screen materials prior to acceptance.

II. PURPOSE AND OBJECTIVES

The purpose of the Countywide Solid Waste Profile Program is to identify all non-residential solid and residential "Special" waste streams delivered to the Solid Waste Management System ("System"). The program is designed to pre-screen all non-residential solid waste prior to acceptance for disposal in the system. All commercial and/or industrial solid waste generators must receive Solid Waste Management Department (SWMD) approval to dispose of their solid waste streams into the system. Franchise Solid Waste Collectors may not collect and dispose of non-residential solid waste into the county's system unless the generator has prior approval.

The objectives of the Solid Waste Profile Program are to:

- preclude entry of hazardous or harmful waste into the Solid Waste Management System
- preclude leachate from becoming a hazardous waste
- prevent objectionable odors and vectors from becoming a nuisance problem
- ensure that delivered materials can be handled safely by County staff
- ensure reusable materials or prohibited materials are diverted to reclamation facilities.
- identify generator waste types and volumes coming into management system.

The objective of knowing what is going into the system is especially important when the health and welfare of the community is at stake. Therefore, the expansible development of this type of program should vigorously enhance waste disposal awareness to the general public and private sectors.

In 1988, the Federal Government mandated that Industrial type waste streams be laboratory tested using the Toxicity Characteristic Leaching Procedure (TCLP) thereby requiring the Solid Waste Management Department to review each waste profile application and pre-screen certain solid waste materials (See Florida fact sheet attachment for TCLP Rule and regulatory levels).

In Hillsborough County, a Solid Waste Management Department Waste Profile Committee (made up of 6 County staff personnel) was formed to assist in the expansion, management and administration of the Waste Profile Program.

The Countywide Solid Waste Profile Program requires careful analysis of a much wider range of non-residential materials deemed necessary for pre-screening by the SWMD's Waste Profile Committee. Frequent telephone conferences with other regional government agencies may at times be necessary in many cases. Occasionally, there are disposal requests for undesirable waste streams which will be considered unacceptable for disposal in the Solid Waste Management System, such as hazardous material, infectious or biomedical waste, contaminated waste, oily wastes from automotive sources and out-of-County wastes. There is a Hillsborough County policy not to accept soils (treated, untreated or clean-fill) and a zero tolerance for PCBs. Applications will not be reviewed until all supporting documentation (test analyses, MSDS, site descriptions, photos) have been submitted and placed with the application.

Countywide Solid Waste Profile applications determined by the SWMD to be acceptable for disposal in the County's System will received disposal approval for a minimum term of one (1) year. The SWMD, however, reserves the right to cancel disposal privileges if it is determined that the Countywide Waste Profile application is no longer representative of the waste stream actually delivered to the County's Waste Management System.

III. FRANCHISED SOLID WASTE COLLECTORS' RESPONSIBILITIES:

1. Prior to any disposal, forward a Countywide Solid Waste Profile Application, sample and cover letter to each non-residential solid waste commercial/industrial generator (customer). An original Solid Waste Profile must be completed for all waste streams.

   A. New Customers:
      - Distribute Countywide Solid Waste Profile form to new customers.
      - Application must be received, reviewed and approved by Department prior to acceptance in the system, i.e., collector may NOT dispose in system until Department issues approval of the solid waste stream.

   B. Existing Customers (previously approved, but adding a different waste stream):
      - Complete and submit a Countywide Solid Waste Profile for the new waste stream.
      - Application must be received, reviewed and approved by Department prior to acceptance in the system, i.e., collector may NOT dispose in system until Department issues approval of the solid waste stream.
      - Complete a Change of Information (COI) for changes in service, change of address, ownership, or collector.

2. Should completed forms be returned to the Collector, upon review for completion by the collector, each form must be immediately forwarded to the SWMD for review

3. Franchise Hauler must provide a listing of their customers to the SWMD as needed.

Please see "General/Special Waste and Franchise Hauler Waste Profile Guidelines".

IV. CASH AND COMMERCIAL (CHARGE) ACCOUNT CUSTOMERS:

1. Commercial generators/ Self Haulers wishing to dispose of their own waste ("Self Hauler") must complete a Countywide Solid Waste Profile Application prior to any disposal for each waste stream. Commercial generators wishing to establish a Commercial (Charge) account must complete a Countywide Solid Waste Profile Application. A cover letter requesting a Commercial (Charge) account must be attached to the Countywide Solid Waste Profile Application

2. Determine what waste category the waste stream is in (based on application information received) and provide the supporting documentation needed. (Test analysis, MSDS, photos, etc.)
3. Return Waste Profile application and supporting documentation to the SWMD.

V. WASTE PROFILE ADMINISTRATIVE ACTIVITIES:

1. As waste profile applications are received by the SWMD, the Waste Profile Coordinator (WPC) shall compile, review, computer input application tracking data, produce generator instructions letter, pre-screen materials (site inspection) and file application packages.

2. Computer Tracking Document Information:
   - date received
   - waste profile form number
   - generator name and address
   - approval/rejection status
   - application review processing time

3. Review Application for Completeness:
   - Determine Category of Waste Streams (see Application Review Process -item 1)
   - Ensure all applicable items on form are completed.
   - Verify generator Sign-off of form by Company Representative
   - Obtain supporting documentation

4. Review Processing Time - respond in approximately 1-30 working days from the time application is received by the Department. (Depending upon the nature of the waste stream.)

5. During the review process, All generator waste streams must be place in categories **A**, **B**, or **C**: **(Please refer to pages with supplemental information for waste categorization).**

   Category A waste - requires laboratory analysis and MSDS, must verify necessary data attached and must be routed for committee review/comments. Includes, but not limited to, such materials as, any industrial sludges, alum process residue, diatomatious earth (filter cake), black beauty sand blast grit, incinerator ash, excavated landfill debris, and barricade batteries.

   Category B wastes -may or may not require laboratory analysis, will require MSDS, however, some of these waste materials may require special handling and be routed for committee review. Includes, but not limited to, such materials as: asbestos, empty containers, inert materials, ceramic saddles, damaged foodstuffs, oil filters, veterinarian waste (animal cadavers), pharmaceuticals and artificial potting media.

   Category C wastes - all other materials that do not require any testing or specific requirements prior to disposal (acceptable as is). Includes but not limited to; construction & demolition debris (C&DD), yard waste, office trash, vermiculite,.

6. During the review process, determine applicability of a site visit (on-site inspection) of waste materials.
   - Contact waste Generator to schedule visit.
   - Upon arrival at waste site, interview environmental coordinator.
   - Request permission to photograph material, if necessary.
   - Prepare Memo.
7. Route all **Category A** applications (packets) and **Category B**, if necessary, through the Waste Profile Committee for review/comment. **Category C** waste will be handled as described in the attached Waste Profile Guidelines and Instructions.

   A. The Waste Profile Committee consists of 5 staff members and the Department Director.

   B. The Waste Profile Committee will determine the appropriate disposal facility.
      - processable - Resource Recovery Facility
      - non-processable - Southeast Landfill

8. Upon completion of the Committee's review a letter of acceptance/rejection is prepared.
9. The Letter is sent to the Director for final decision and signature.
10. Upon return to the Committee the letter of acceptance/rejection is sent to the generator. A copy of application package is mailed to the Collector, Disposal Facility, and to Local and State Environmental agencies.
11. The Computer data base tracking document will be updated and the hard copy will be placed on file.

VI. APPLICATION RENEWALS AND EXTENSIONS:

1. Renewals (2 options)

   A. Franchised Collector (General/Special Waste)
      1. A computer generated list of all Countywide Solid Waste Profile Applications due to expire will be sent to the Collector to review 45 days before expiration.
      2. The Collector is to review this information for accuracy and return it to the SWMD within 15 days
      3. The Waste Profile Coordinator (WPC) will review the Countywide Solid Waste Profile Applications, make corrections to the database, and generate renewal letters.
      4. The Franchised Collector, the Solid Waste Management Department disposal facility, and all other parties will receive a copy of the renewal letter.

   B. Special Waste and "Self Hauler"
      1. The generator or Franchised Hauler is contacted 30-45 days prior to expiration.
      2. The WPC will review the application, request updates on testing, etc.
      3. Extensions for disposal privileges will be granted on a case-by-case basis.

NOTE: Please see the following supplemental attachment pages.

VII. GENERAL/SPECIAL WASTE AND FRANCHISED HAULER WASTE PROFILE GUIDELINES
(Additional Information)
HILLSBOROUGH COUNTY
SOLID WASTE PROFILE PROCEDURE

All COMMERCIAL customers of the Franchised Haulers must be approved for disposal at the Hillsborough County's facilities. Service should not be scheduled until a completed Waste Profile has been approved by the Solid Waste Management Department. This includes Curbside/Residential type service, construction sites, one time disposals, special waste disposal, and temporary residential C&D containers. Franchised Hauler customers' waste **will not** be accepted at any of Hillsborough County's facilities unless an approved Waste Profile is on record.

ALL Franchise commercial customers must complete an **original** Waste Profile form for each separate waste stream (see Franchise Agreement Attachment), unless previously approved (see below). **No faxed or photocopies will be accepted.** The Generator (Business) should complete the form....**not** the Franchise Hauler (The Franchise may assist) or a 3rd party management company. General Waste approvals/rejections will be faxed to the Hauler upon review, generally within 48 hours. Final approval/rejection notification will be in the form of a copy of the letter. Special Waste Profiles will be handled in the manner mentioned in the Special Waste section, **Section V**, above. Approval/Rejection letters will include instructions in the proper disposal of the waste stream and the facility where the waste is to be taken. (See Franchise Hauler Agreement, below.)

The completed form should be reviewed by the Franchise Hauler before forwarding to the SWMD. If information has been omitted by the customer, the Franchise Hauler can complete the form. Please insure that the information is correct before forwarding to the SWMD. Incomplete or inaccurate information will delay the approval process and the forms will be returned to the Franchised Hauler. The Franchise Hauler should return the corrected information to the SWMD within 48 hours in order to facilitate processing of the waste profile application. The SWMD will keep a log of all Waste Profiles not returned to the SWMD. This log will be turned over to the SWMD Franchise Coordinator for further action.

Previously Approved or Change of Information

It is suggested that the Franchise Hauler ask new customers if they were previously serviced by another hauler. A copy of the SWMD data base will be provided to the Hauler several times a year and must be used **ONLY** for the Waste Profile program. If previously profiled, a **Change of Information (COI)** form should be completed with the profile number and expiration date noted, as provided by the SWMD. This form may be faxed to the SWMD. It is suggested that the Franchise supply photocopies of a Change of Information to their Customer Service Department and Sales Force for this purpose.

The above procedure will also apply to previously approved Franchise customers who have changed the business' name, address, ownership, or service (frequency or container size). Change of ownership requires a signature. **Changes in or additional waste streams/service require that a new Solid Waste Profile form be completed with a note attached explaining same.**

Franchise Haulers must supply the SWMD with current updates of new and cancelled customers (with the reason, if known) as the changes occur so that the SWMD may have a current and accurate database. This may be done daily by fax, but Franchised Haulers MUST notify the SWMD by fax WEEKLY, by noon Monday, of new customers, canceled customers, change of service addresses, etc.

The Franchised Hauler must provide the SWMD with a copy of their Commercial Customer database when requested. This should be in Excel format and include the name of the Business, the service address, the waste stream being serviced, the disposal facility, and a customer ID number. This will assist the county in keeping an accurate data base and ensuring compliance with the Franchise Collector contract.

Commercial Customers receiving Residential/Curbside Service

Commercial Customers receiving Residential/Curbside Service must also be profiled. This includes Manufactured Housing Communities. The SWMD will endeavor to assist the Franchised Collector in profiling these customers.

Construction Site/Temporary (One Time) Containers

All containers/service for non-reclaimable waste going into the "System" must be profiled. A "T" should be placed in the upper right hand corner of the Waste Profile form (next to the SWMD number) with the proposed length of time for disposal noted in Part C-3. This procedure is to be used for ALL short-term disposal for periods of less than 6 months. Office Trailer (Site Office) waste is restricted to Office Waste and the container must not exceed 4 yards.

Service can NOT begin until the Waste Profile has been reviewed and approved by the SWMD. Servicing accounts WITHOUT county approval is a violation of the Franchised Collector's contract with the county. (See Franchise Collector's Contract)

See Attachments for additional Information.

VIII.

ATTACHMENTS & SAMPLES

COUNTYWIDE SOLID WASTE PROFILE PROGRAM
CATEGORIES AND DESCRIPTION OF MATERIAL
(AS DEFINED IN SECTION V (5))

CATEGORY "A" WASTES

1. **Industrial Process & Manufacture** - Waste produced from industrial sources that can be disposed of at the Southeast County Landfill, may include but is not limited to:

   Black Beauty Sand Blast
   Filter Cake/Clay
   Paint Sludge
   Alum Residue
   Metal Slag
   Alar Sludge
   Celite - (Diatomatious Earth)
   Incinerator Ash
   Barricade Batteries (6 vlt & 12 vlt) (Green/Environmentally Friendly)
   Sludges (from wastewater treatment)
   Spent Lime Dust
   Solidified sulphur
   Plastics & Fiberglass Residue
   Creosote Treated Waste (Railroad Ties, Electric Poles, other Wood products, etc.,)
   Note: At present, this material can only be disposed of at the Resource Recovery Facility. The Florida Department of Environmental Protection (FDEP) is currently reviewing the proper disposal procedures for this waste.

2. **Dry Cleaning/ Laundry Establishments** - The generator must indicate whether this material is a solid, liquid or mud-consistency. This would include:

   Wastewater Sludges from commercial Laundries/Laundromats sources

CATEGORY" B" WASTES

1. **Asbestos Containing Materials** - These materials may be generated from residential as well as industrial sources and will require special handling. They include such wastes as:

   Ceiling Tiles
   Floor Coverings
   Wall board (siding, paneling)
   Roofing Shingles
   Walls/Ceiling Spray Covering
   Fibrous Pipe Insulation

2. **Medical/ Veterinary/Pharmaceutical** - This waste includes materials produced by medical practitioner, medical clinics, nursing homes, Hospitals, medical testing laboratories and Veterinary hospitals and their test labs. Untreated biomedical waste and medical *"sharps"* will not knowingly be accepted in the Solid Waste Management System. This waste includes but is not limited to:

   Used Diapers
   Outdated Medicines
   Animal Feces (Manure)
   Animal Cadavers
   Test Tubes
   Dried Gauzes / Q-tips
   Specimen Cups
   Throat Cultures

3. **Automotive Service** - Petroleum contaminated material must not be co-mingled with processable or non-processable waste streams. The Solid Waste Management Department will not knowingly accept Oil or *"Oily wastes"* in its waste management system. Acceptable materials include but are not limited to:

   Oil Filters (drained) - may be co-mingled with other processable materials (paper rags, plastic, etc.).
   Empty Containers
   Auto parts & Equipment (free of petroleum)
   Abandon Vehicles
   Air Filters
   Brake Linings
   Used Tires & Tubes

4. **Agricultural/Nursery Retail** - Soil (dirt) must be separated from these types of waste streams. **NO soil (dirt) will be accepted.** This waste includes but is not limited to:

   Artificial Potting Media
   Plants/Vegetation
   Plastic Potting
   Trees
   Plastic Mulch (Farming)
   Vermiculite

5. **Photo Film Processing** - Hazardous photo processing chemicals (liquids) must be separated from this type of waste stream. Examples of this waste are:

   Inked Paper
   Empty Fixer Developer (rinsed container)
   Replenisher Cartridges
   Xray Film
   Printing Process Stabilizer

6. **Outdated Beverages & Foodstuffs** - The following waste types may require special handling:

   Beer
   Wine
   Alcohol Drink Mixes
   Coffee
   Seafood (shrimp hulls, breaded fish)
   Frozen Fish Product

CATEGORY "C" WASTES

1. **Construction Demolition Debris** - Soil (dirt) will **not** be accepted in the Solid Waste Management System. The generator will be responsible for separating all soil. This waste includes but is not limited to:

   Drywall & Finishing Compound
   Treated (painted) Wood & Metal Framing
   Cement Solids
   Rock & Gravel
   Tar Paper
   Brick
   Sheetrock (wall board)
   PVC Pipe
   Asphalt

2. **Retail/Office** - Recycling and Waste Reduction must be a part of the focus when dealing with these waste types. Examples of this are:

   Office Paper
   Plastic Items
   Damaged & Outdated Foodstuffs
   Empty Containers
   Grease (from food service grease traps)
   Produce (spoiled)
   Cardboard Boxes

NON-ACCEPTABLE WASTES

The following materials are considered *unacceptable* in the Solid Waste Management System.

Hazardous Wastes (substances ignitable/flammable, corrosive, reactive or toxic)
Out-of-County Waste Streams
Soil (dirt)
Polychlorinated Biphenols (PCBs)
Liquid Wastes (including but not limited to paints, solvent, fuels and water based materials).
Radioactive Materials
Bio-hazardous (Biomedical) Wastes (infectious/red bag wastes)
Street Sweepings (Containing Soil)
Shredder Fluff (shredded or graded materials from the Automotive Scrap Industry)
Crankcase Oil (Petroleum Contaminated-Oily waste)
Explosives (ammunition, flares, chemicals, etc.)
Toxic Substances containing concentrations of **Heavy Metals**
55 gal. Drums (sealed, unidentified/unknown Materials)
Office Computer Equipment (from commercial sources)
Cathode Ray Tubes (television picture tubes)
Fluorescent Lamps
Heavy Metals

WASTE PROFILE APPLICATION SUPPLEMENTAL INFORMATION

DEFINITIONS:

- ***Hazardous Waste*** – any substance that may exhibit ignitability, corrosivity, reactivity or toxicity characteristics as defined in 40 CFR PART 261.
- ***RCRA*** – (Resource Conservation and Recovery Act) – was enacted in 1976 to address the problems of how to safely dispose of large volumes of municipal and industrial waste.
- ***D.O.T.*** – (Department of Transportation) regulates the transportation of hazardous materials by all modes (rail, highway, air, and pipeline).
- ***Industrial Solid Waste*** – means solid waste generated by manufacturing or industrial process that is not a hazardous waste. Such waste may include, but is not limited to waste resulting from the following manufacturing process: electric power generation; fertilizer/agricultural chemicals; food and related products and inorganic chemicals.
- ***Biohazardous (Biomedical) Waste*** – means any solid or liquid waste that may present a threat of infection to humans. Examples include laboratory and veterinarian waste which contain human disease-causing agents; discarded sharps; blood; blood products and body fluids from humans and primates.
- ***Processable Waste (Incinerator)*** – any combustible (burnable) solid waste including household garbage, cardboard, paper, plastic and wood products.
- ***Non-Processable Waste (Landfill)*** – non-combustible (non-burnable) solid waste included Construction & Demolition Debris (C&D) such as steel, concrete, brick, asphalt roofing material and ash.

II. ACCEPTABLE WASTE STREAMS *(*Some Materials may Require Analytical Testing)*

The following wastes are some of the materials that may be considered to be acceptable for disposal in the Solid Waste Management System.

Landfill	Resource Recovery Facility
*Filter Cake Sludge (diatomatious earth)	Office Paper
*Black Beauty Sand Blast Grit	Empty Containers (Plastic)
*Incinerator Ash	Cardboard
*Asbestos Containing Material (ACM)	Incidental Wood Products
Dead Animals	Pharmaceuticals
Empty Containers (metal)	Household Garbage
Used Tires	Rags
C & DD (rocks, plastic, gravel, etc.)	Creosote Treated Products (small qty. 4ft)
*Wastewater Residuals (no liquids or soil)	
Plastic Mulch (Farming)	

III. UNACCEPTABLE WASTE STREAMS

The following wastes are some of the materials considered to be unacceptable for disposal in the Solid Waste Management System:

Hazardous Wastes
Fluorescent Bulbs
Batteries- containing heavy metals such as mercury, cadmium, lead, etc.
Computer/Electronic Components (all)
Biomedical Waste (Bio-hazardous) Waste (infectious, red-bagged, sharps, needles, etc.
Liquid Wastes (free liquid sludges, paints, solvents, fuels, water, photo processing chemicals, etc.
Soil (dirt, mud, sod, etc.)
Materials containing Polychlorinated Biphenols (PCBs)
Petroleum contaminated products (Oily waste)

TOXICITY CHARACTERISTIC RULE

The compounds that are now covered by the Toxicity Characteristic Rule and their regulatory level are listed below. If you do not find the chemical name on the list of ingredients, check for the CAS No. found on the Material Safety Data Sheet (MSDS).

EPA HW No.		Regulatory level mg/l	CAS No.
	SOLVENTS		
D018	Benzene	0.5	71-43-2
D019	Carbon Tetrachloride	0.5	56-23-5
D021	Chlorobenzene	100	108-90-7
D022	Chloroform	6	67-66-3
D023	o-Cresol	200	95-48-7
D024	m-Cresol	200	108-39-4
D025	p-Cresol	200	106-44-5
D026	Cresols	200	
D027	1,4-Dichlorobenzene	7.5	106-46-7
D028	1,2-Dichlorethane	0.5	107-06-2
D029	1,1-Dichloroethylene	0.7	75-35-4
D030	2,4-Dinitrotoluene	0.13	121-14-2
D032	Hexachlorobenzene	0.13	118-74-1
D034	Hexachloroethane	3	67-72-1
D035	Methyl Ethyl Ketone	200	78-93-3
D036	Nitrobenzene	2	98-95-3
D038	Pyridine	5	110-86-1
D039	Tetrachloroethylene	0.7	127-18-4
D040	Trichloroethylene	0.5	79-01-6
	METALS		
D004	Arsenic	5	7440-38-2
D005	Barium	100	7440-39-3
D006	Cadmium	1	7440-43-9
D007	Chromium	5	7440-47-3
D008	Lead	5	7439-92-1
D009	Mercury	0.2	7439-97-6
D010	Selenium	1	7782-49-2
D011	Silver	5	7440-22-4
	PESTICIDES and other organic compounds		
D012	Endrin	0.02	72-20-8
D013	Lindane	0.4	58-89-9
D014	Methoxychlor	10	72-43-5
D015	Toxaphene	0.5	8001-35-2
D016	2,4-D	10	94-75-7
D017	2,3,5-TP (Silvex	1	93-72-1
D020	Chlordane	0.03	57-74-8
D031	Heptachlor (and its hydroxide)	0.008	76-44-8
D033	Hexachloro-1,3-butadiene	0.5	87-68-3
D037	Pentachlorophenal	100	87-86-5
D041	2,4,5-Trichlorophenol	400	95-95-4
D042	2,4,6-Trichlorophenol	2	88-06-2
D043	Vinyl Chloride	0.2	75-01-4

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

NOTICE

EFFECTIVE OCTOBER 1, 1997

COUNTYWIDE SOLID WASTE PROFILE PROGRAM

The Hillsborough County Solid Waste Management Department (SWMD) has developed a Countywide Solid Waste Profile (Program) that will assist in identifying *all* non-residential solid waste streams generated in Hillsborough County and delivered to the Solid Waste Management System (System).

The purpose of this "Notice" is to inform you of the Program's requirement that a Countywide Solid Waste Profile application must be completed and returned to the SWMD prior to waste disposal in the System. The SWMD may require waste generators to provide additional back-up information (Laboratory analysis, MSDS, certification letters, etc.) to support their application..

Upon receipt of the completed application, the SWMD Waste Profile Committee will review each application on a case-by-case basis and make recommendations to the Department Director for approval or rejection of the request for solid waste disposal.

The Program is designed to pre-screen *all* non-residential solid waste prior to acceptance for disposal. An on-site inspection by SWMD personnel may be necessary to verify the Applicant's waste generation process and/or the waste materials. The generator will be contacted to schedule a site inspection if required.

Countywide Solid Waste Profile Applications determined to be acceptable will receive disposal approval for a minimum term of one (1) year. The SWMD, however, reserves the right to cancel disposal privileges if it is determined that the Countywide Solid Waste Profile application is no longer representative of the material delivered to the System.

Franchised Solid Waste Collectors under contract to Hillsborough County must have *all* non-residential customers complete a Countywide Solid Waste Profile application. *Franchise Collectors may not collect and dispose of non-residential solid waste unless the generator has approval from the SWMD to utilize the system.*

Should you have any questions regarding this program, please contact Ernie Mayes at **276-2930.**

11.2 Waste Profile Program

Section 11.2.1 The Franchise Collector shall be responsible for complying with all aspects of the County's Waste Profile Program which will be implemented at the start of the new collection services on October 1, 1997.

Section 11.2.2 The Franchise Collector shall insure that all Commercial customers have a valid Waste Profile Approval from the County prior to providing commercial collection service.

Section 11.2.3 Should a commercial customer not have a Waste Profile approval from the County, the Franchise Collector shall be required to secure a completed Waste Profile Form from the Commercial Customer. The Franchise Collector shall submit the completed Waste Profile Form to the County for approval. Commercial Collection Services shall not be provided until the Commercial Customer receives County approval.

SECTION 5 DESCRIPTION OF COMMERCIAL COLLECTION SERVICE

5.1.1 Commercial Collection Service, which generally applies to front-end or roll-off type collection service, shall be provided to those Commercial Establishments and Residential Units which request this type of service. Commercial Collection Service shall include Processable collection, Non-Processable collection, and Yard Waste collection.

5.1.3 The Franchise Collector shall collect Yard Waste separate from other Solid Waste.

5.1.4 The Franchise Collector shall collect Non-Processable Solid Waste separate from other Solid Waste.

COMPLETING A COUNTYWIDE WASTE PROFILE FORM

Franchise Haulers should provide a copy of the sample with each Waste Profile form.

PART A GENERAL INFORMATION

1. **BUSINESS NAME:** Give the name of the facility/site where the waste is generated. *This is the name that appears on the business location, not a management company or a commercial property owner (other than residential). Example: World One handles the accounts for Windway Property Mgmt. who owns the office complex known as Tampa Gardens . Windway has an account with World One who has the account with the Franchised Hauler. World One is a 3rd party and has nothing to do with the generation of the waste stream. Tampa Gardens* ***must*** *appear on the waste profile form as this is the name of the property/site. You can include Windway in the business name.*
2. **SIC CODE:** This is the 4-digit Standard Industrial Classification Code for the facility/site.
3. **TYPE OF BUSINESS:** The nature of the business, *ie: Hotel, Office Complex, Auto Repair, etc.* **If multi-purpose/multi-tenant a list of tenants must be attached.**
4. **BUSINESS LOCATION:** The complete physical address of the business including street number, street, city, state, and zip. *Do* ***NOT*** *use something like "the south corner of HWY 60 and Dover Rd".*
5. **DIRECTIONS TO THE FACILITY:** *The directions to the business/site shown in line 1. The nearest cross street may be used.*
6. **TECHNICAL CONTACT:** The first and last name of the person at the business/site who has technical knowledge of the waste being generated and who can be contacted by the County should there be a problem.
7. **PHONE NUMBER:** The phone number for the Technical Contact above.
8. **COLLECTOR'S NAME:** The Franchised Hauler OR the company responsible for hauling the waste.
9. **PHONE/FAX:** The fax number of the business/site.
10. **GENERATOR MAILING ADDRESS:** *This is the mailing address of the Technical Contact. (Not necessarily the Billing Address and NOT the mgmt. company/3rd party.)*

B. WHAT IS THE GENERAL NATURE OF THE WASTE (check all that apply)

This is the **type** of waste being generated, ie: A nursery/farm may generate agriculture type waste, ie: plant clippings, pots, packaging, etc. (1.) and Residential waste (8.) If the business is a doctor's office the general nature of the waste should be Retail/Office (7.), by checking #5 the customer would be saying that he is disposing of medical waste and could delay the approval process. If a multi-use complex with an auto mechanic, an office, a convenience store, etc. #'s 2 & 7 should be checked. **A list of Tenants MUST be attached to the Waste Profile for all multiple use and multiple tenant customers.**

C. SOLID WASTE CHARACTERIZATION

This section is for additional information pertaining to the waste generated.

1. **NAME OF WASTE:** Describe the waste being generated (what is being put into the container.) **This must be completed by the Customer/Generator. Do not use Generic terms, ie: General Waste, Solid Waste, etc. List what will be going into the container. The Franchised Hauler may assist the customer.**
2. **CURRENT METHOD OF DISPOSAL:** How was the waste previously disposed of, ie: self hauling, curbside pickup, etc.
3. **FREQUENCY OF DISPOSAL:** The number of times waste is being picked up per week, or month, or year.
4. **QUANTITY GENERATED:** The size of the container(s) or the amount of waste being disposed of. (size of container times the Disposal Frequency)
5. **PHYSICAL STATE:** Check the physical state that most closely describes the waste stream.
6. **EMPTY CONTAINER TYPE:** Provide the type and number of containers being disposed off if the nature of the business is one that disposes of containers on a regular basis. An example would be a paint company with paint cans and cardboard boxes making up a portion of the waste stream.
7. **IS THIS A RCRA or D.O.T. HAZARDOUS WASTE?** Yes or No? (RCRA – Resource Conservation Recovery Act or D.O.T. – Department of Transportation)
8. **ARE THERE ANY FREE LIQUIDS PRESENT?** Answer YES or NO (Indicate Test Method.) **Part 7 & 8 generally refers to Special Waste. This is not for most waste streams generated by most commercial businesses.**

PART D: SAMPLING CRITERIA

Industrial and commercial solid waste will normally require testing to determine acceptability of the waste. MSDS may also be required. **This will not usually apply to most commercial waste. This section is generally for Special Waste. Write NA (Not Applicable) across the section.**

PART E: GENERATOR'S CERTIFICATION

By signing the Countywide Solid Waste Profile Form, the waste generator certifies that the statements in items 1, 2, 3, and 4 of the form, are true and accurate with respect to the waste listed. **Waste Generator MUST complete this section in its entirety**. Should a Customer/Generator alter this section, the Waste Profile will be rejected and disposal will be denied.

1.-6. Franchise customer must attest to the conditions of the waste stream.

7. SIGNATURE: An **authorized** employee or representative of the waste generator must sign the form. This should be someone who is authorized to make decisions for the business (not a busboy, a part-time worker, etc.)
8. TITLE: The above's job title.
9. NAME: Legibly print or type this person's name (First, MI, Last)
10. DATE: Enter the date the form was signed.

Hillsborough County Solid Waste Management Department
COUNTYWIDE SOLID WASTE PROFILE FORM

SWMD[ ]

PLEASE RETURN FORM TO:
[redacted]borough County Solid Waste Management Department
P.O. BOX 1110
TAMPA, Fl, 33601-1110
ATTN: Management and Environmental Services Section

COUNTY USE ONLY
Approved _____ Rejected _____
Disposal Facility _____
Expiration Date _____
Special Instructions _____
Reviewed By _____

PART A. GENERAL

1. Business Name (NAME OF BUSINESS GENERATING WASTE. NOT A MGMT CO OR THIRD PARTY CO.)
2. SIC Code (STANDARD INDUSTRIAL CLASSIFICATION CODE. CODE ASSIGNED BY STATE FOR THE BUSINESS)
3. Type of Business (GENERAL DESCRIPTION OF BUSINESS. AN EXAMPLE WOULD BE A SHOPPING/BUSINESS CENTER)
4. Business Location (COMPLETE PHYSICAL ADDRESS OF BUSINESS) IE: 100-144 MAIN ST.
   (Street) (City) (State) (Zip Code)
5. Directions to Facility (DIRECTIONS FROM NEAREST CROSS STREET/INTERSECTION)
6. Technical Contact Person (FULL NAME OF A *LOCAL* PERSON TO CONTACT IN CASE OF A PROBLEM) 7. Phone (CONTACT'S LOCAL #)
8. Collector's Name (Hauler) (NAME OF COMPANY HAULING WASTE) 9. Phone/Fax (CONTACT'S FAX #)
10. Generator's Mailing Address (LOCAL MAILING ADDRESS FOR TECHNICAL CONTACT. NOT NECESSARILY THE BILLING ADDRESS)

PART B. What is the general nature of your waste (Check all that apply): NOT SAME AS TYPE OF BUSINESS

1. ___ Agricultural/Nursery Retail
2. ___ Automotive Service
3. ___ Dry Cleaning/Laundry Establishments
4. ___ Industrial Process/Manufacturing
5. ___ Medical/Veterinary/Pharmaceutical (CHECK ONLY IF WASTE IS OTHER THAN OFFICE WASTE.)
6. ___ Photo Film Processing
7. ___ Retail/Office
8. ___ Other IE: RESTAURANT, CONSTRUCTION SITE (Describe)

PART C. SOLID WASTE CHARACTERIZATION: (Please complete a separate form for each type of

1. Name of Waste (BE SPECIFIC: PAPER, PLASTIC, FOODSTUFFS, ETC.) (NON-PROCESSIBLE AND YARDWASTE NEED SEPARATE FORM)
2. Current Method of Disposal (HOW WAS WASTE PREVIOUSLY DISPOSED OF?)
3. [redacted]requency of Disposal (TIMES SERVICED/PICKED UP BY COLLECTOR PER SERVICE CONTRACT)
   [redacted]uantity Generated (SIZE OF CONTAINER/DUMPSTER) Per Week (#3 X's #4) Month _____ Year _____
5. Physical State _____ Solid _____ Liquid _____ Semi-Solid _____ Other (Describe) _____
6. Empty Container Types (PAINT CANS, ETC.) How Many? (Per Week, Month, Year) _____
7. Is this a RCRA or D.O.T. hazardous material? (As defined in USEPA 40 CFR PART 260.10) _____YES _____NO
8. Are there any Free Liquids present? _____YES _____NO

(#6, 7, 8 DO NOT NORMALLY APPLY TO MOST WASTE STREAMS. FILL IN ONLY WHEN WASTE IS OF A POSSIBLE HAZARDOUS NATURE.)

PART D. SAMPLING CRITERIA

Some industrial/commercial wastes require analytical testing data to determine if they are acceptable for disposal in the Solid Waste Management System. The Hillsborough County Solid Waste Management Department (HCSWMD) may require additional information on your waste stream. (Please see instruction sheet.) The HCSWMD reserves the right to require additional analysis of waste prior to, or subsequent to acceptance for disposal.

(USE NA (NOT APPLICABLE) UNLESS WASTE IS OF THIS NATURE.)

1. Indicate current method used to determine the physical and chemical composition of the waste.
   _____ TCLP _____ OTHER (Describe): _____
2. A copy of current test results are to be submitted with this form. Attached? Yes _____ No_____

PART E. GENERATOR CERTIFICATION By signing this form, generator certifies that, unless clearly stated above:

1. This waste is not hazardous waste (as defined by the USEPA 40 CFR Part 260.10) Federal Regulation or other State and Local Regulations.
2. This waste does not contain any levels of Polychlorinated Biphenols (PCBs).
3. This waste does not contain any infectious, biomedical, or biohazardous waste materials.
4. This waste does not contain any soil (dirt) material.
5. This form contains a true and accurate description of the waste material to be disposed.
6. All relevant information regarding known or suspect hazards in possession of the generator has been disclosed.

[redacted]OTE: Should any changes occur in the character of the solid waste, the generator shall immediately notify the Hillsborough [redacted]ounty Solid Waste Management Department.

7. _____ Signature
8. TITLE OF PERSON DESIGNATED BY BUSINESS AS ITS REPRESENTIVE _____ Title
9. PRINT OR TYPE NAME OF SIGNER _____ Name (Type or Print)
10. DATE SIGNED _____ Date

REV. AUG 2001
HCSWMD 027.1 8/97
CANARY - Collector

Hillsborough County

Hillsborough County Solid Waste Management Department
WASTE PROFILE CHANGE OF INFORMATION REPORT

☆ MUST BE COMPLETED BY CUSTOMER

1. APPROVED WASTE PROFILE #: _____

2. GENERATOR/BUSINESS NAME (as approved):

_____

3. SERVICE ADDRESS (as approved):

_____

4. TYPE OF CHANGE:

OWNERSHIP ☐ ADDRESS ☐ NAME ☐ HAULER ☐ OTHER ☐ _____

NEW INFORMATION:

5. GENERATOR NAME: _____

6. HAULER: _____

7. SERVICE ADDRESS: _____

☆ 8. TECHNICAL CONTACT: _____ PHONE #: _____

☆ 9. MAILING ADDRESS (**NOT** Billing address, 3rd Party, etc.)

_____

_____

10. CONTAINER SIZE: _____ DISPOSAL FREQUENCY: _____

☆ 11. DESCRIBE WASTE (BE SPECIFIC) _____

_____

☆ **12. REQUIRED IF NEW OWNERSHIP**

_____ _____

SIGNATURE TITLE

_____ _____

PRINTED NAME DATE

COUNTY USE ONLY

APPROVE ☐ REJECTED ☐ _____

DISPOSAL FACILITY _____

SPECIAL INSTRUCTIONS _____

EXPIRATION DATE: _____ REVIEWED BY: _____

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

January 12, 2000

Mrs. Debbie Taylor
Humane Society of Tampa Bay
3607 N. Armenia Ave.
Tampa, Florida 33607

Dear Mrs. Taylor:

The Hillsborough County Solid Waste Management Department (SWMD) has received and reviewed your **Countywide Solid Waste Profile Form** and supporting documentation for **Humane Society of Tampa Bay.** The SWMD approves the renewal for solid waste disposal at the **Southeast County Landfill.**

Application No: **SWMD 10050-1** Type Waste: **Dead Animals (mostly Cats & Dogs)**

Disposition: **APPROVED** Expiration Date: **1-31-2002**

This approval is subject to the following conditions:

NO INFECTIOUS MATERIALS WILL BE ACCEPTED. DEAD ANIMALS MUST BE WRAPPED AND SEALED IN HEAVY PLASTIC AND MUST BE EITHER FROZEN OR PARTIALLY FROZEN PRIOR TO DELIVERY. SPECIAL HANDLING IS ADVISED TO AVOID NUISANCE ODORS AND VECTORS. THE GENERATOR MUST NOTIFY THE LANDFILL AT LEAST ONE (1) HOUR PRIOR TO TRANSPORTING THE WASTE IN AN ENCLOSED DUMPSTER. THE GENERATOR MUST BRING INDEMNIFICATION FORM TO DISPOSAL SITE.

Should you have any questions, please contact Ernie Mayes at 276-2930.

Sincerely,

Daryl Smith, Director
Solid Waste Management Department

DHS/em
cx: Matt Matthews, Senior Eng. SWMD
Chester McKinney, WMI, Southeast County Landfill

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

ANIMAL CADAVER INFECTIOUS WASTE
CERTIFICATION LETTER

_____
Profile No.

Solid Waste Management Department
Waste Profile Committee
PO Box 1110
Tampa, FL 33601

Dear Sirs:

This is to certify that no known infectious animal cadavers will be delivered to the Solid Waste Management System from this establishment.

I also certify that no sharps, Bio-Hazardous waste (red bags) or other types of medical waste will be placed in the bags with animal cadavers and parts for disposal in the Solid Waste Management System.

I further certify that I have read and fully understand all special handling requirements for disposal of dead animal waste and will adhere specifically to these requirements. (See attachment.)

_____
Signed By:

_____
Print name:

_____
Title:

_____
Company Name:

_____
Date:

NOTE: Please return this letter to the above address.

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

SAMPLE

SPECIAL HANDLING REQUIREMENTS FOR DEAD ANIMAL WASTE

1. The Generator (you) is required to certify that no animal remains are known to be infectious, by signing a certification letter prior to delivery to the Solid Waste Management System.

2. The Generator is also required to complete a Countywide Solid Waste Profile From and submit it to the Solid Waste Management Department (SWMD). The Form can be obtained from the Southeast County Landfill or the SWMD's Administrative office at 601 E. Kennedy Blvd., Tampa FL 33601.

3. Animal waste must be wrapped in 6 mil. Plastic and must be either frozen or partially frozen prior to delivery.

4. It is recommended that animal waste loads be delivered to the landfill each day prior to 10:00 AM.

5. It is necessary that animal waste be covered daily as soon as it is delivered to the landfill. Therefore, an advanced notice of one (1) hour is required prior to delivery.

6. All Animal Waste must be transported in such a manner that leakage or spillage from the delivery vehicle will be prevented.

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

SAMPLE

NOTICE TO GENERATOR

PLEASE COMPLETE THE ATTACHED FORM WITH AN ORIGINAL SIGNATURE PRIOR TO DELIVERY OF WASTE. **DO "NOT" RETURN THIS FORM TO THIS DEPARTMENT**. THIS FORM MUST ACCOMPANY **EACH** LOAD DELIVERED AND MUST BE PRESENTED TO THE LANDFILL INSPECTOR. PLEASE PROVIDE YOURSELF WITH AS MANY COPIES AS YOU NEED.

REMEMBER !!!!!

PRESENT THIS FORM WITH EACH LOAD DELIVERED.

REV. AUG 2001

SAMPLE

_____
WASTE PROFILE NUMBER

Verified By: _____

_____
EXPIRATION DATE

Verified By: _____

SOLID WASTE MANAGEMENT INDEMNIFICATION
DISPOSAL AGREEMENT

_____ (Generator) certifies that the material identified and directed to the Hillsborough County Disposal Facilities for disposal purposes contains no hazardous materials; PCBs, mercury containing devices, contaminated soils and other materials prohibited in the solid waste Management System as defined by the Federal, State and Local laws.

NAME OF WASTE	QUANTITY	UNIT
_____	_____	_____
_____	_____	_____

_____
Generator's Signature Date

_____
Print Name Title

Note: Waste material must be verified by Disposal Facility personnel prior to disposal.

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

June 12, 2001

Richard Rakestraw
Residence Property Owner
4104 North Ola Avenue #3
Tampa, Florida 33603

Dear Mr. Rakestraw:

The Hillsborough County Solid Waste Management Department (SWMD) has received and reviewed your **Countywide Solid Waste Profile Form** for **Richard Rakestraw/Residence Property Owner.** The SWMD approves the solid waste for disposal at the **Southeast County Landfill.**

Application No: **SWMD 26021**

Type Waste: **Asbestos Containing Siding**

Disposition: **APPROVED**

Expiration Date: **A ONE TIME DISPOSAL. (Appro. 2 loads)**

This approval is subject to the following conditions:

MATERIAL MUST BE WETTED DOWN AND PLACED IN A "BURLAP BAG" (OR ANOTHER STRONGER MATERIAL) AND INSERTED INTO A 6 MIL PLASTIC BAG PRIOR TO DISPOSAL. THE GENERATOR MUST ENSURE THAT OTHER TYPES OF WASTE SUCH AS CONSTRUCTION DEBRIS, PERTOLEUM CONTAINING PRODUCTS, ETC. ARE NOT MIXED IN WITH THIS WASTE STREAM. MATERIAL MUST ALSO BE LABELED AND TRANSPORTED IN AN ENCLOSED VEHICLE FOR DISPOSAL. THE GENERATOR MUST BRING INDEMNIFICATION FORM TO DISPOSAL SITE.

Should you have any questions, please contact Ernie Mayes at 276-2930.

Sincerely,

Daryl Smith, Director
Solid Waste Management Department

DHS/em
xc: Matt Matthews, Senior Eng., SWMD
Chester McKinney, WMI, Southeast County Landfill

PACKAGING INSTRUCTIONS

The Generator must insure that the material, friable or non-friable, is bagged or wrapped in burlap and plastic in such a manner that the packaging will not lose it's integrity during transport, unloading or handling at the Landfill.

Any bag or load losing its integrity while being processed at the Landfill could result in the EPC, OSHA, and the FDER being notified of a NESHAP violation.

Any bag or load losing its integrity while being processed at the Landfill could result in the Contractor and/or the Waste Hauler losing all future Landfill privileges at the Southeast County Landfill.

The Hillsborough County Solid Waste Management Department requires that asbestos-containing materials be packed in "burlap bags" and placed in plastic bags no larger that 85 gallons. **The generator must notify the Landfill at least one (1) hour prior to disposal.**

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

SAMPLE

*** *NOTICE TO GENERATORS/RESIDENTS* ***

NON-ASBESTOS CONTAINING MATERIALS

YOU ARE REQUIRED TO COMPLETE THE ATTACHED FORM WITH YOUR ORIGINAL SIGNATURE PRIOR TO DELIVERY OF **NON-ASBESTOS CONTAINING MATERIALS. "DO NOT" RETURN THIS FORM TO THIS OFFICE-** THIS FORM MUST ACCOMPANY EACH LOAD OF MATERIALS DELIVERED AND MUST BE PRESENTED TO THE LANDFILL INSPECTOR. PLEASE PROVIDE YOURSELF WITH AS MANY COPIES AS YOU NEED.

REMEMBER !!!!!

YOU MUST PRESENT THIS FORM WITH <u>EACH</u> LOAD DELIVERED.

Hillsborough County
Florida

SAMPLE

County Use Only
_____
Verified By:

SOLID WASTE MANAGEMENT DEPARTMENT
RESIDENTIAL NON-ASBESTOS DISPOSAL
INDEMNIFICATION AGREEMENT

I, _____ (Generator), certify that, to the best of my knowledge, the material identified and directed to the Hillsborough County Southeast County Landfill for disposal ***contains no Asbestos Containing Materials.***

NAME OF WASTE	QUANTITY	UNIT
_____	_____	_____

ORIGIN OF WASTE: _____
Street Address

_____
Generator's Signature Date

_____
Print Name Title

Note: Waste material must be verified by Disposal Facility personnel prior to disposal. Hillsborough County does not accept hazardous materials or other materials within its Solid Waste Managment System prohibited by Federal, State or local Laws.

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

February 6, 2001

Ms. Beverly Schmit
Tampa Electric Company (Gannon Station)
Environmental Planning P-5
P.O. Box 111
Tampa, Florida 33601-0111

Dear Ms. Schmit:

The Hillsborough County Solid Waste Management Department (SWMD) has received and reviewed your **Countywide Solid Waste Profile Form** and supporting documentation for **TECO (Gannon Station).** The SWMD approves the solid waste for disposal at the **Southeast County Landfill** by **Waste Management of Tampa.**

Application No: **SWMD 10143** Type Waste: **Sand Blast Grit**

Disposition: **APPROVED** Expiration Date: **2-28-2003**

This approval is subject to the following conditions:

NO LIQUIDS WILL KNOWINGLY BE ACCEPTED. THE GENERATOR MUST ENSURE THAT NUISANCE DUST IS CONTROLLED. MATERIAL MUST BE TARPED AND TRANSPORTED IN AN ENCLOSED DUMPSTER FOR DISPOSAL. OTHER WASTE STREAMS MUST NOT BE MIXED WITH THIS MATERIAL. THE GENERATOR MUST NOTIFY THE LANDFILL WITHIN ONE HOUR OF DELIVERY. THE GENERATOR MUST PRESENT INDEMNIFICATION FORM AT THE DISPOSAL SITE.

Should you have any questions, please contact Ernie Mayes at 276-2930.

Sincerely,

Daryl Smith, Director
Solid Waste Management Department

DHS/em
xc: Matt Matthews, Senior Eng. Tech., Department of Solid Waste
Chester Mckinney, WMI, Southeast County Landfill
Waste Management of Tampa

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

February 6, 2001

Allan Smith
AS Landscaping Service
1234 Broad St.
Tampa, FL 33619

Dear Mr. Smith:

The Hillsborough County Solid Waste Management Department (SWMD) has received and reviewed your **Countywide Solid Waste Profile Form** and supporting documentation for **AS Landscaping Service.** The SWMD approves the solid waste for disposal at **Resource Recovery facility** by **Waste Management of Tampa.**

Application No: **SWMD 10143**

Type Waste: **Office Waste: paper, plastics, foodstuffs, etc.**

Disposition: **APPROVED**

Expiration Date: **2-28-2003**

This approval is subject to the following conditions:

NO DIRT/SOIL WILL BE ACCEPTED. YARDWASTE MUST NOT BE CO-MINGLED WITH THIS WASTE STREAM BUT SHOULD BE TRANSPORTED TO ANY OF HILLSBOROUGH COUNTY'S YARD WASTE PROCESSING FACILITIES. NO LIQUIDS WILL KNOWINGLY BE ACCEPTED. OUT-OF-COUNTY WASTE WILL NOT BE ACCEPTED.

Should you have any questions, please contact Ernie Mayes at 276-2930.

Sincerely,

Daryl Smith, Director
Solid Waste Management Department

DHS/em
xc: Matt Matthews, Senior Eng. Tech., Department of Solid Waste
Glenn Hoag, Covanta
Waste Management of Tampa

Hillsborough County
Florida

Office of the County Administrator
Daniel A. Kleman

June 7, 2001

Mike Nichols
Woodruff & Sons
1502 North 50th Street
Tampa, Florida 33619

Dear Mr. Nichols:

The Hillsborough County Solid Waste Management Department (SWMD) has received and reviewed your **Countywide Solid Waste Profile Form** for **Hillsborough County Water Department/South County Wastewater Treatment Plant.** The SWMD **rejects** the solid waste for disposal in the Solid Waste Management System.

Application No: **SWMD 26490**

Type Waste: **GRIT-SLUDGE (dirt)**

Disposition: **REJECTED**

Expiration Date: **N/A**

This waste is rejected for the following reasons:

THE HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT PROHIBITS THE DISPOSAL OF DIRT (SOIL, MUD etc.) OR ANY OTHER MATERIAL SATURATED IN DIRT, IN THE SOLID WASTE MANAGEMENT SYSTEM. DIRT MUST BE SEPARATED FROM WASTE MATERIALS PRIOR TO ANY DISPOSAL.

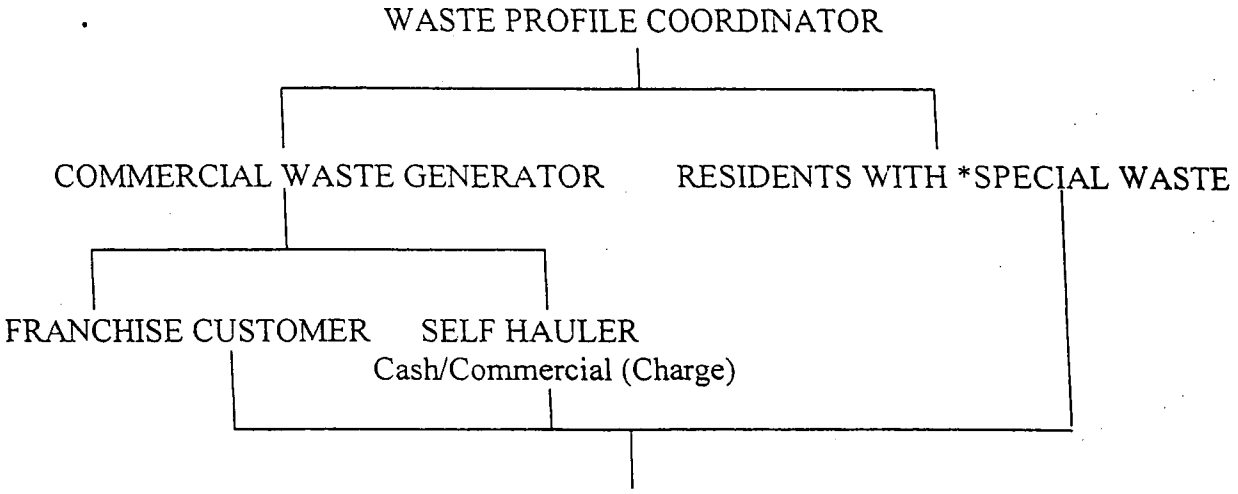
Should you have any questions, please contact Ernie Mayes at 276-2930.

Sincerely,

Daryl H. Smith, Director
Solid Waste Management Department

DHS/em
xc: Matt Matthews, Senior Eng. Tech., SWM
Chester McKinney, WMI, Southeast County Landfill
Kelly Boatwright, Environmental Protection Commission
Hillsborough County Water Department
REV. AUG 2001

COUNTYWIDE WASTE PROFILE FORM
FLOW CHART



WASTE PROFILE COORDINATOR
(Review, site visit, etc.)

WASTE PROFILE COMMITTEE

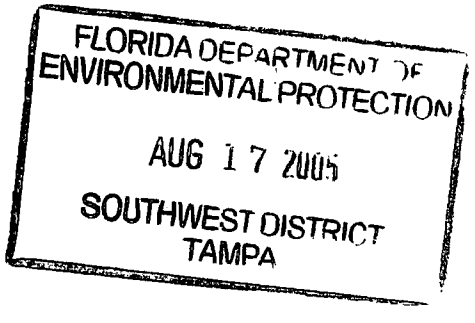
DEPARTMENT DIRECTOR
(Final Decision)

WASTE PROFILE COORDINATOR
(Mail out decision, Data Entry, File Request Package, Mail copies to Franchise Hauler, SWMD Facilities

*Residents with Special Waste, ie: Asbestos Containing Materials, Animal Waste, etc.

APPENDIX F

LANDFILL GAS MONITORING POINTS



HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT
SOUTHEAST COUNTY LANDFILL /LFG READINGS

ADMINISTRATION BUILDING

	METHANE GAS	L.E.L.	CARBON DIOXIDE	OXYGEN	BALANCE GAS
SP-1					
SP-2					
SP-3					
SP-4					
SP-5					
SP-6					
SP-7					
SP-8					
SP-9					

MAINTENANCE BUILDING

	METHANE GAS	L.E.L.	CARBON DIOXIDE	OXYGEN	BALANCE GAS
SP-10					
SP-11					
SP-12					
SP-13					

LTRF OFFICE

	METHANE GAS	L.E.L.	CARBON DIOXIDE	OXYGEN	BALANCE GAS
SP-14					
SP-15					
SP-16					

LANDFILL GAS PERIMETER MONITORING POINT

WELL	METHANE GAS	L.E.L.	CARBON DIOXIDE	OXYGEN	BALANCE GAS	OBJECTIONAL AMBIENT ODOR (Y/N)
LFG-1						
LFG-2						
LFG-3						
LFG-4						

TECHNICIAN SIGNATURE_____

SUPERVISOR SIGNATURE_____

DATE_____

COMMENTS_____

_____

_____

_____

LEGEND SP= AMBIENT SAMPLE POINT

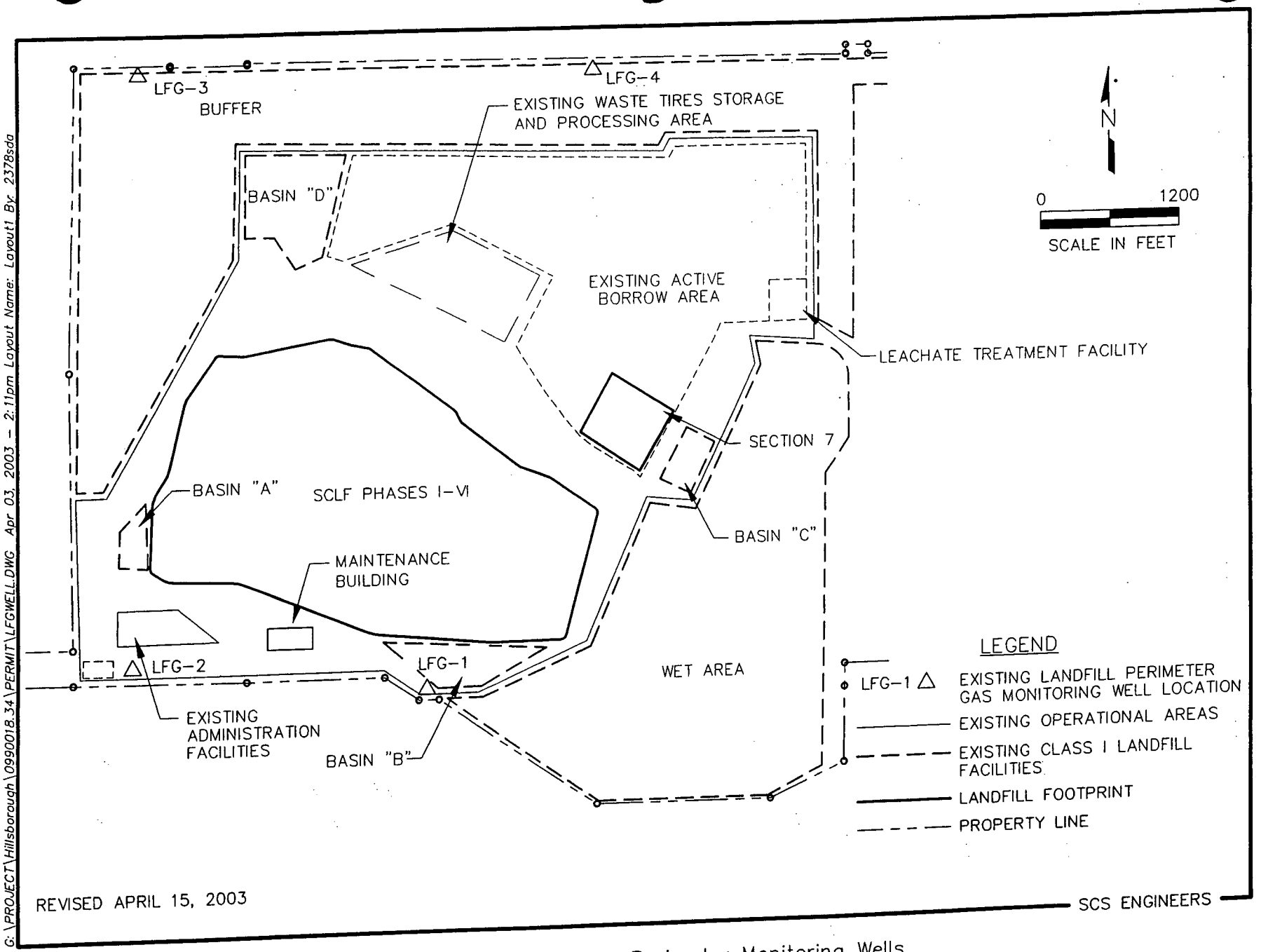


Figure F-1. Landfill Gas Perimeter Monitoring Wells

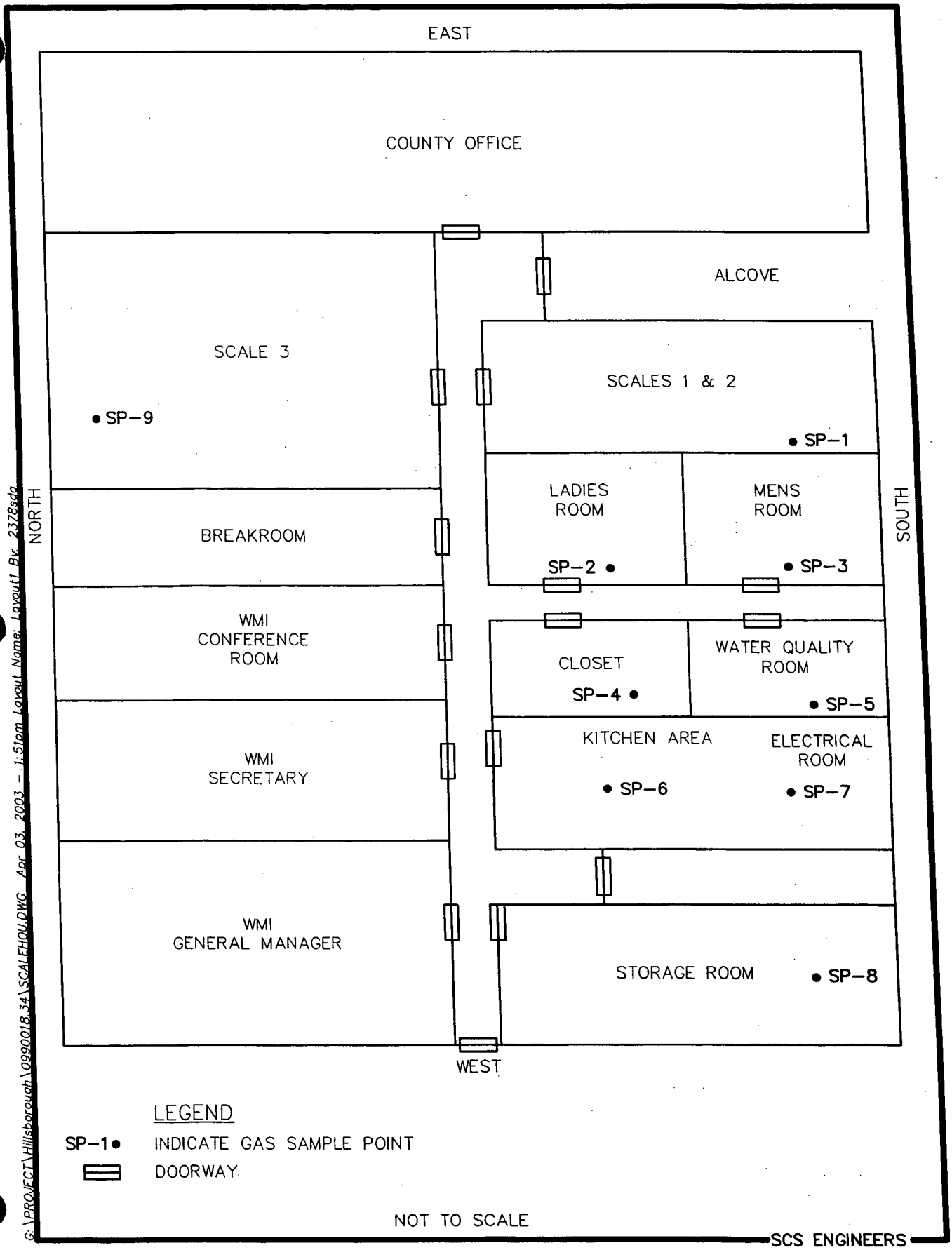
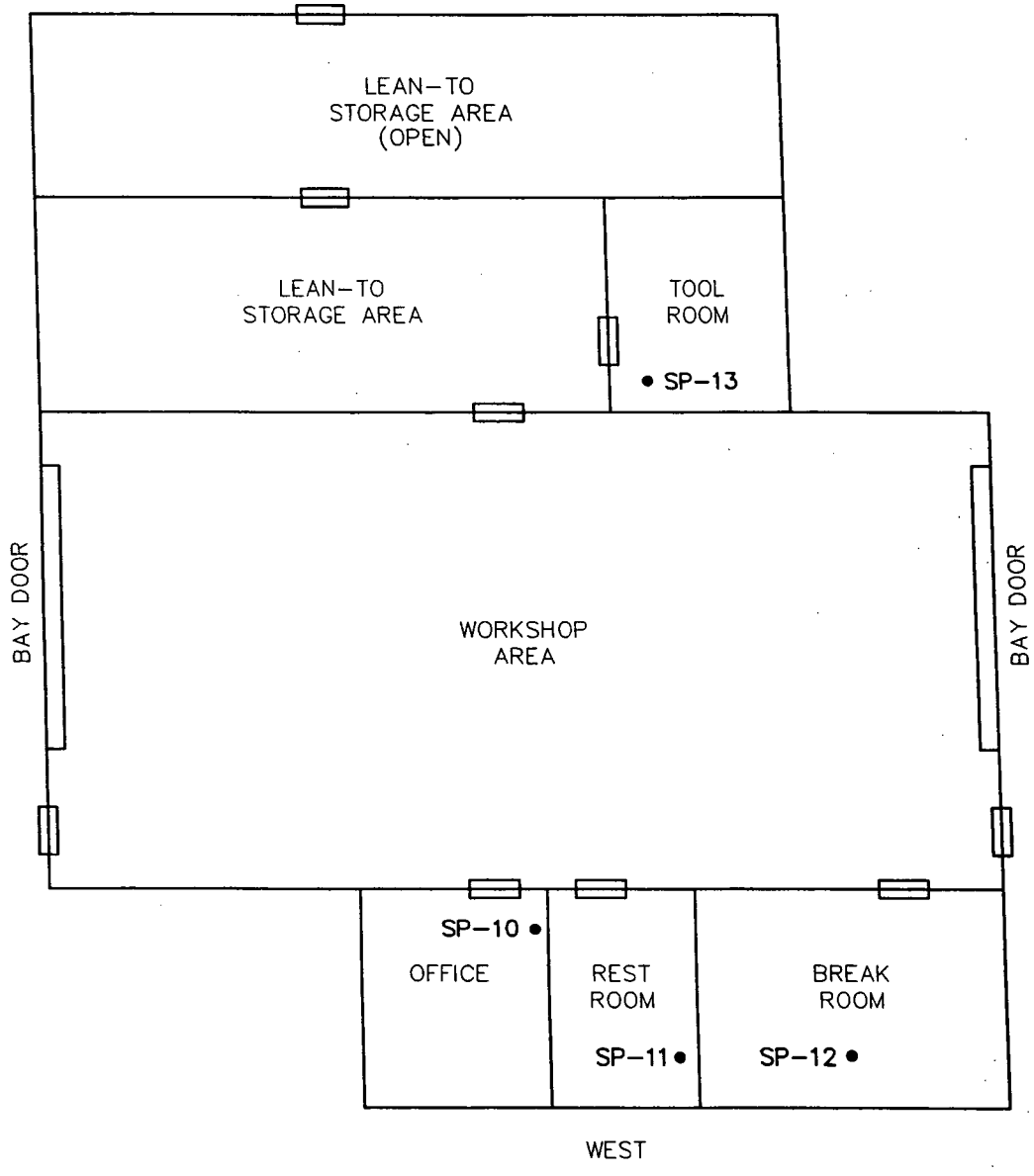


Figure F-2. Scalehouse/Administration Building LFG Monitoring Points.



LEGEND

SP–10 • INDICATE GAS SAMPLE POINT

DOORWAY

NOT TO SCALE

Revised December 10, 2002

SCS ENGINEERS

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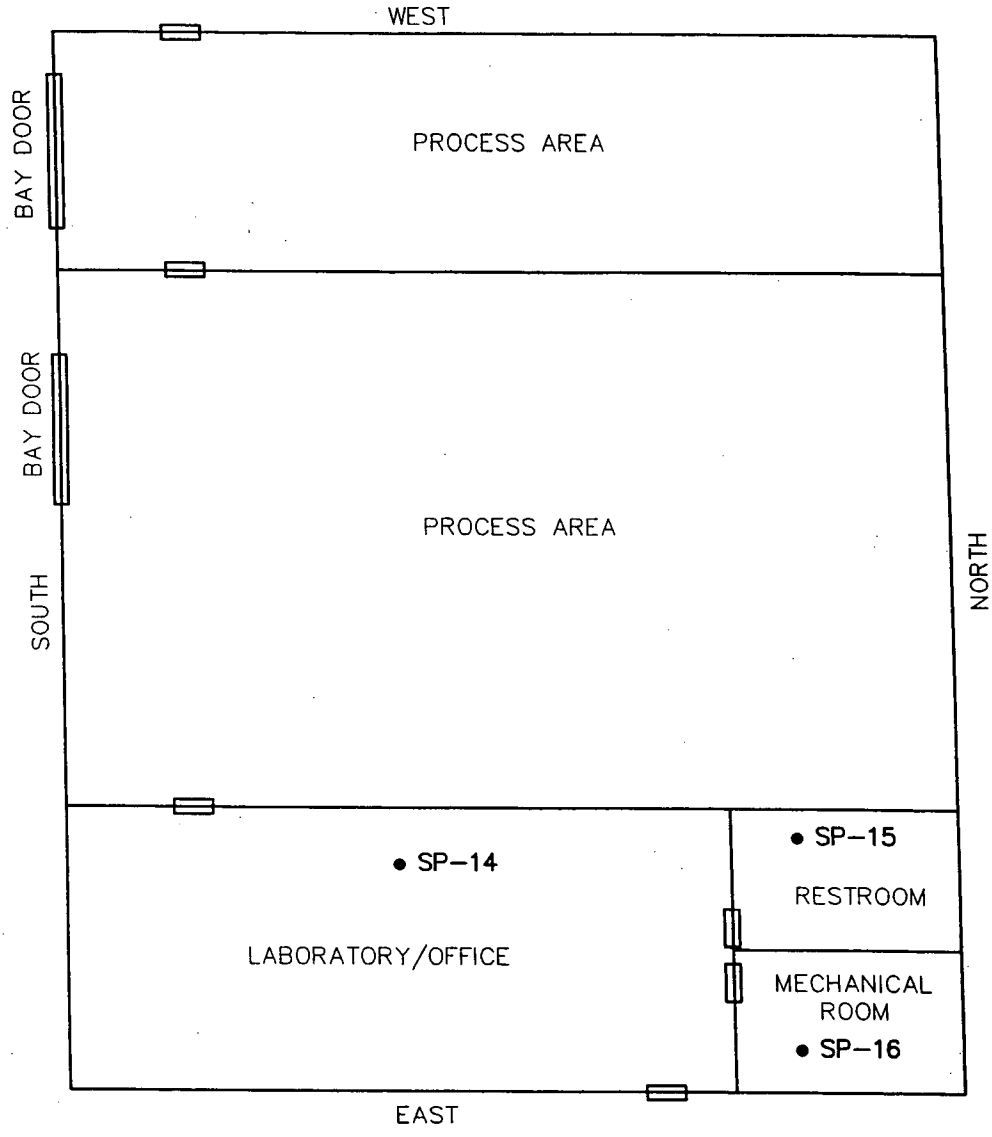
Figure F–3. Maintenance Building LFG Monitoring Points.



LEGEND

SP–14• INDICATE GAS SAMPLE POINT

DOORWAY

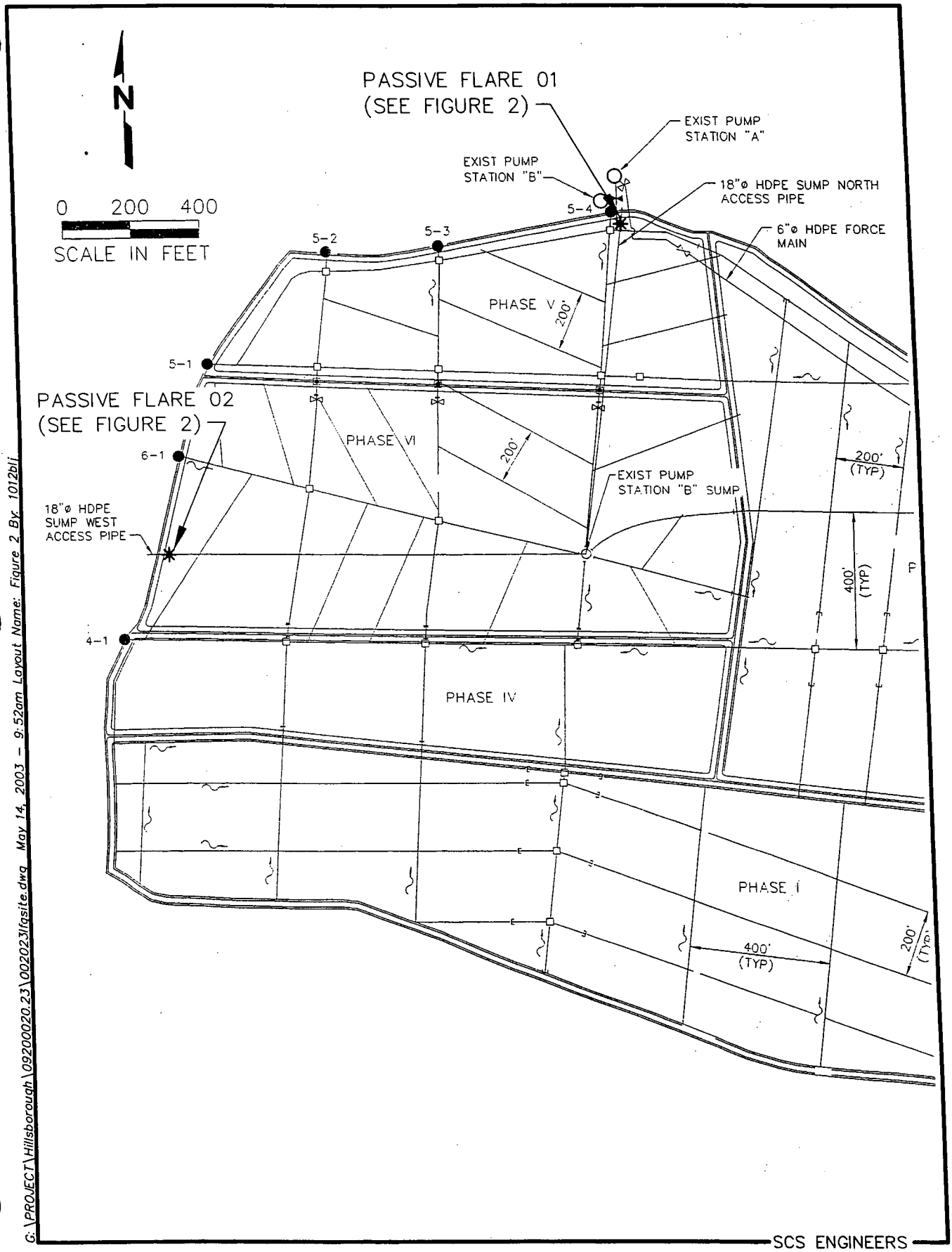
Revised December 10, 2002.

NOT TO SCALE

SCS ENGINEERS

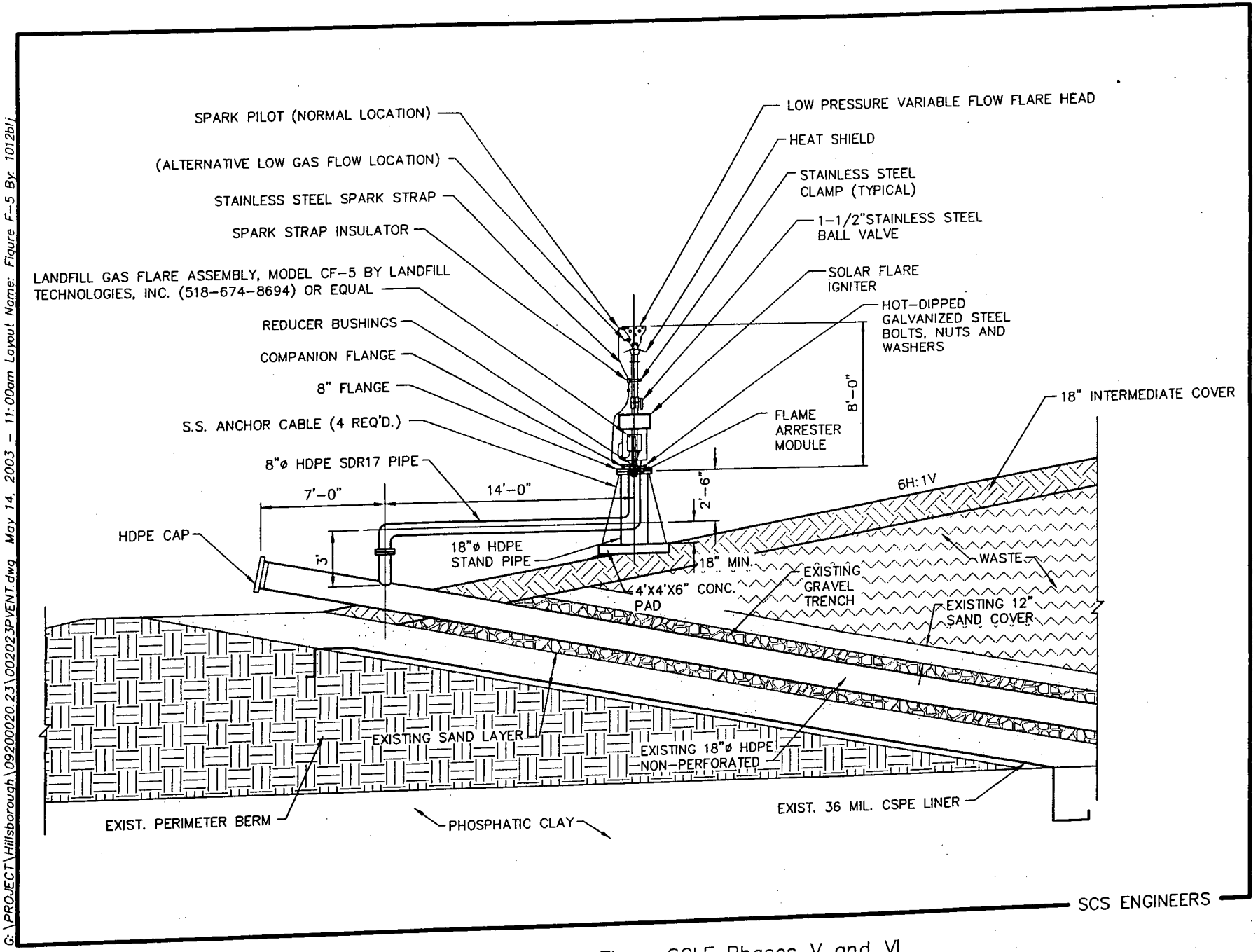
G:\PROJECT\Hillsborough\09200020.32\LTRFOffice.dwg Apr 03, 2003 - 1:54pm Layout Name: Layout1 By: 2378sda

Figure F–4. LTRF Office LFG Monitoring Points.



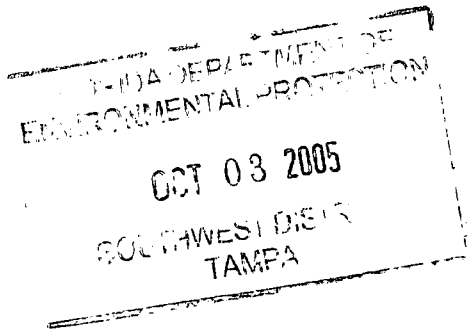
G:\PROJECT\Hillsborough\09200020.23\002023\fgsite.dwg May 14, 2003 - 9:52am Layout Name: Figure 2 By: 1012bli

Figure F-5. Passive Flares Location.



G:\PROJECT\Hillsborough\09200020.23\002023PVENT.dwg May 14, 2003 - 11:00am Layout Name: Figure F-5 By: 1012bli

Figure F-6. Passive Flare, SCLF Phases V and VI.



APPENDIX G-1

LEACHATE REPORTING FORMS

HILLSBOROUGH COUNTY SOUTHEAST COUNTY FACILITY
LEACHATE MANAGEMENT
DAILY FIELD DATA ENTRY FORM

Disposal Area (check one)	Phases I-VI	Sections 7-8

Technician	Date
	Time

Parameter	Date	Date	Total
TPS-6 Flowmeter, gal			
Pump Station A (PS-A), gal			
Pump Station B (PS-B), inches	9" +	9" +	
Section 7 Pump Station, gal			
Section 7 LDS, gal[1]			
Depth in Pond B, feet			
Pond B LDS, gal[2]			
Depth in Pond A, feet			
MLPS Flowmeter, gal			
MLPS Effluent Bypass, gal			
Leachate Dust Control/Evap, gal			
Effluent Spray Irrigation, gal[3]			
Effluent Dust Control/Evap, gal			
LTF Effluent Flow, gal			
Main LTF Leachate Bypass, gal			
Depth in 575k Tank, feet			

Note: (1) If rate is greater than 1,930 gallons per day, contact Supervisor immediately.

(2) If rate is greater than 1,500 gallons per day, contact Supervisor immediately.

(3) If runoff observed, contact Supervisor immediately.

Comments

TABLE 1. LEACHATE V[illegible] BALANCE REPORT FORM

[illegible] 2005

SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sections 7-8 Leak Detection (gal.)	Leachate Pumped to MLPS from Sections 7-8 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	1.51	3.4	2.6	33.0	5,740	40,889	0	2,495	43,384	214,000	32,700	12,024	0	129,000	133,000	0	0	0	0	0
2	0.50	3.6	2.9	16.7	7,480	33,987	0	0	33,987	225,000	20,700	12,034	0	145,000	162,000	0	0	0	0	0
3	0.30	3.6	3.1	21.2	3,620	36,794	0	0	36,794	245,000	12,900	18,048	0	145,000	182,000	0	0	0	0	0
4	1.00	3.6	3.2	18.6	5,840	38,362	0	2,548	40,910	264,000	14,200	0	0	145,000	192,000	0	0	0	0	0
5	*0.23*	*3.6*	*3.4*	*17.6*	*6,565*	*37,184*	*0*	*0*	*37,184*	*292,000*	*14,700*	*0*	*0*	*145,000*	*213,000*	*0*	*0*	*0*	*0*	*0*
6	0.00	3.6	3.6	16.5	6,565	37,184	0	0	37,184	319,000	13,700	6,024	0	145,000	234,000	0	0	0	11,873	0
7	0.45	3.5	3.6	16.2	1,400	42,973	2	2,580	45,553	348,000	14,400	12,738	0	140,000	234,000	0	36,726	0	0	29,400
8	0.15	2.8	3.6	19.9	2,090	44,715	3	0	44,715	372,000	6,400	24,334	0	98,000	234,000	0	0	0	0	0
9	0.47	3.0	3.6	18.2	8,780	44,151	0	2,856	47,007	384,000	12,500	48,208	0	108,000	234,000	0	53,158	0	0	42,500
10	0.60	2.2	3.6	17.7	12,280	42,466	0	0	42,466	355,000	13,100	42,184	0	70,000	234,000	0	0	0	0	0
11	0.82	2.5	3.7	15.6	4,320	43,221	0	0	43,221	377,000	12,700	0	0	83,000	245,000	0	0	0	0	0
12	*0.32*	*2.8*	*3.8*	*17.4*	*20*	*41,880*	*2*	*1,291*	*43,170*	*399,000*	*12,200*	*0*	*0*	*98,000*	*245,000*	*0*	*0*	*0*	*0*	*0*
13	0.00	3.0	3.8	19.1	20	41,880	2	1,291	43,170	422,000	4,900	54,244	0	108,000	256,000	0	0	0	0	0
14	0.00	3.2	3.8	17.4	10,890	45,865	0	2,587	48,452	394,000	17,900	54,288	0	118,000	256,000	0	34,694	0	0	27,800
15	0.00	2.8	3.7	19.0	8,310	47,725	3	0	47,725	389,000	17,900	48,161	4,751	98,000	245,000	0	50,684	0	0	44,300
16	0.00	2.5	3.5	17.1	8,800	48,392	0	2,371	50,763	377,000	14,800	42,144	4,042	83,000	223,000	0	20,501	0	0	19,600
17	0.00	3.0	3.0	16.6	9,315	46,862	0	-2,371	44,491	367,000	12,600	30,099	0	108,000	172,000	0	60,176	0	0	48,100
18	0.00	2.8	2.7	16.8	10,415	46,301	3	2,371	48,672	394,000	10,600	0	0	98,000	143,000	0	57,715	0	0	46,200
19	*0.00*	*2.9*	*2.5*	*16.5*	*10,635*	*44,722*	*2*	*1,373*	*46,095*	*427,000*	*11,000*	*0*	*0*	*103,000*	*124,000*	*0*	*0*	*0*	*0*	*0*
20	0.82	3.0	2.3	16.1	10,635	44,722	2	1,373	46,095	461,000	14,000	42,279	0	108,000	106,000	0	37,354	0	0	29,900
21	0.12	3.2	2.0	16.1	11,740	40,537	0	0	40,537	449,000	12,500	48,211	0	118,000	80,000	0	0	0	0	0
22	0.07	3.4	2.0	15.8	12,035	39,486	4	2,567	42,053	432,000	14,000	48,301	4,000	129,000	80,000	0	27,367	0	0	25,100
23	0.17	3.2	2.0	19.3	8,855	41,920	0	0	41,920	403,000	15,900	36,065	0	118,000	80,000	0	24,616	0	0	19,700
24	0.00	2.9	2.0	17.4	13,120	45,184	4	2,664	47,848	381,000	13,000	54,364	0	103,000	80,000	0	32,970	0	0	26,400
25	0.00	2.8	2.0	17.6	10,200	45,729	0	0	45,729	398,000	14,600	18,121	0	98,000	80,000	0	0	0	0	0
26	*0.25*	*2.9*	*2.0*	*15.4*	*10,990*	*41,826*	*2*	*1,333*	*43,159*	*411,000*	*12,000*	*0*	*0*	*103,000*	*80,000*	*0*	*0*	*0*	*0*	*0*
27	1.25	3.0	2.0	13.1	10,990	41,826	2	1,333	43,159	425,000	11,100	48,111	0	108,000	80,000	0	55,156	0	0	44,100
28	1.47	2.3	2.0	12.3	9,730	45,032	1	0	45,032	405,000	19,300	56,187	0	74,000	80,000	0	0	0	0	0
29	0.80	2.8	2.2	12.5	4,480	44,259	0	0	44,259	377,000	19,300	42,075	0	98,000	97,000	0	0	0	0	0
30	0.98	3.3	2.4	12.3	8,820	41,596	4	2,998	44,594	360,000	21,500	42,080	0	123,000	115,000	0	0	0	18,104	0
																	491,117	0	29,977	403,100
Total	12.28				234,680	1,277,668	35	31,659	1,309,327		437,100	840,324	12,793							
Daily Average		3.0	2.9	17.3	7,823	42,589	1	1,055	43,644	368,900				111,600	164,000	0				
Mo. Average													400				16,400	0	1,000	13,440

projects\balance\2005\Jun-05bal.xls (Revised by ler 7/6/05)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Sections 7-8 leak detection pumped into leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

Revised August 1, 2005

TABLE 2. FIELD DATA ENTRY FORM
JUNE 2005
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Sections 7-8 Leak Det. (gal.)	Sections 7-8 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	24.0	91,982	1,491,233	4,093,670	878,309	7.42	0	12,024	0	1.51	3.4	2.6	0.0	32,720	0	0	0	0
2	7.7	91,982	1,491,233	4,101,150	912,296	7.83	0	12,034	0	0.50	3.6	2.9	0.0	20,696	0	0	0	0
3	12.2	91,982	1,491,233	4,104,770	949,090	8.50	0	18,048	0	0.30	3.6	3.1	0.0	12,868	0	0	0	0
4	9.6	91,982	1,493,781	4,110,610	987,452	9.17	0	0	0	1.00	3.6	3.2	0.0	14,210	0	0	0	0
5	*8.6*	*91,982*	*1,493,781*	*4,117,175*	*1,024,636*	*10.13*	0	0	0	0.23	*3.6*	*3.4*	0.0	14,702	0	0	0	0
6	7.5	91,982	1,493,781	4,123,740	1,061,819	11.08	0	6,024	0	0.00	3.6	3.6	0.0	13,669	0	0	11,873	0
7	7.2	91,984	1,496,361	4,125,140	1,104,792	12.08	0	12,738	0	0.45	3.5	3.6	0.0	14,375	36,726	0	0	0
8	10.9	91,987	1,496,361	4,127,230	1,149,507	12.92	0	24,334	0	0.15	2.8	3.6	0.0	6,394	0	0	0	0
9	9.2	91,987	1,499,217	4,136,010	1,193,658	13.33	30,182	18,026	0	0.47	3.0	3.6	0.0	12,496	53,158	0	0	0
10	8.7	91,987	1,499,217	4,148,290	1,236,124	12.33	24,067	18,117	0	0.60	2.2	3.6	0.0	13,052	0	0	0	0
11	6.6	91,987	1,499,217	4,152,610	1,279,345	13.08	0	0	0	0.82	2.5	3.7	0.0	12,736	0	0	0	0
12	*8.4*	*91,989*	*1,500,508*	*4,152,630*	*1,321,225*	*13.88*	0	0	0	0.32	*2.8*	*3.8*	0.0	12,216	0	0	0	0
13	10.1	91,991	1,501,798	4,152,650	1,363,104	14.67	36,139	18,105	0	0.00	3.0	3.8	0.0	4,878	0	0	0	0
14	8.4	91,991	1,504,385	4,163,540	1,408,969	13.67	36,197	18,091	0	0.00	3.2	3.8	0.0	17,912	34,694	0	0	0
15	10.0	91,994	1,504,385	4,171,850	1,456,694	13.50	36,071	12,090	4,751	0.00	2.8	3.7	0.0	17,912	50,684	0	0	0
16	8.1	91,994	1,506,756	4,180,650	1,505,086	13.08	24,055	18,089	4,042	0.00	2.5	3.5	0.0	14,790	20,501	0	0	0
17	7.6	91,994	1,506,756	4,189,965	1,551,948	12.75	18,038	12,061	0	0.00	3.0	3.0	0.0	12,612	60,176	0	0	0
18	7.8	91,997	1,506,756	4,200,380	1,598,249	13.67	0	0	0	0.00	2.8	2.7	0.0	10,596	57,715	0	0	0
19	*7.5*	*91,999*	*1,508,129*	*4,211,015*	*1,642,971*	*14.84*	0	0	0	0.00	*2.9*	*2.5*	0.0	10,996	0	0	0	0
20	7.1	92,000	1,509,502	4,221,650	1,687,693	16.00	30,054	12,225	0	0.82	3.0	2.3	0.0	14,002	37,354	0	0	0
21	7.1	92,000	1,509,502	4,233,390	1,728,230	15.58	30,059	18,152	0	0.12	3.2	2.0	0.0	12,523	0	0	0	0
22	6.8	92,004	1,512,069	4,245,425	1,767,716	15.00	36,160	12,141	4,000	0.07	3.4	2.0	0.0	14,011	27,367	0	0	0
23	10.3	92,004	1,512,069	4,254,280	1,809,636	14.00	36,065	0	0	0.17	3.2	2.0	0.0	15,944	24,616	0	0	0
24	8.4	92,008	1,514,733	4,267,400	1,854,820	13.25	36,033	18,331	0	0.00	2.9	2.0	0.0	12,958	32,970	0	0	0
25	8.6	92,008	1,514,733	4,277,600	1,900,549	13.83	0	18,121	0	0.00	2.8	2.0	0.0	14,586	0	0	0	0
26	*6.4*	*92,010*	*1,516,066*	*4,288,590*	*1,942,375*	*14.29*	0	0	0	0.25	*2.9*	*2.0*	0.0	12,010	0	0	0	0
27	4.1	92,012	1,517,399	4,299,580	1,984,201	14.75	36,037	12,074	0	1.25	3.0	2.0	0.0	11,112	55,156	0	0	0
28	3.3	92,013	1,517,399	4,309,310	2,029,233	14.08	37,973	18,214	0	1.47	2.3	2.0	0.0	19,258	0	0	0	0
29	3.5	92,013	1,517,399	4,313,790	2,073,492	13.08	36,033	6,042	0	0.80	2.8	2.2	0.0	19,258	0	0	0	0
30	3.3	92,017	1,520,397	4,322,610	2,115,088	12.50	30,054	12,026	0	0.98	3.3	2.4	0.0	21,530	0	18,104	0	0

projects\balance\2005\Jun-05bal.xls (Revised by ler 7/6/05)

Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Sections 7-8 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

Revised August 1, 2005

TABLE 3. 2005 MONTHLY CHATE BALANCE SUMMARY
SOUTHEAST NTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Sections 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage[3] (gal.)
January	3.12	0	26,407	1,170,350	114,332	26,213	1,165,300	0	0	1,025,621	1,196,757	1,305,845	-109,088
February	2.78	0	24,928	1,015,209	114,369	94,365	1,085,800	0	0	959,407	1,040,137	1,294,534	-254,397
March	6.32	0	24,262	1,125,629	246,830	82,172	975,500	0	0	921,043	1,149,891	1,304,502	-154,611
April	3.23	0	20,469	1,241,219	331,471	224,232	913,400	0	0	973,733	1,261,688	1,469,103	-207,415
May	6.07	0	23,126	1,242,278	271,030	14,069	1,123,900	0	0	827,998	1,265,404	1,408,999	-143,595
June	12.28	0	31,659	1,277,668	840,324	12,793	437,100	29,977	0	491,117	1,309,327	1,290,217	19,110
July													
August													
September													
October													
November													
December													
YTD Total	33.8	0	150,851	7,072,353	1,918,356	453,844	5,701,000	29,977	0	5,198,919	7,223,204	8,073,200	-849,996

projects\balance\2005\2005-summary.xls (Revised by ler 7/7/05)

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.

Revised August 1, 2005

APPENDIX G-2

LEACHATE WATER BALANCE REPORT FORM FOR MARCH 2004

Environmental Consultants

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Tampa, FL 33619-2242

813 621-0080
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SCS ENGINEERS

April 14, 2004
File No. 09200020.24

CORRES
FILE

Ms. Patricia V. Berry
Hillsborough County
Solid Waste Management Department
P. O. Box 1110
Tampa, Florida 33601

Subject: Leachate Water Balance Report Forms for March 2004
Southeast County Landfill, Hillsborough County, Florida

Dear Patty:

SCS Engineers (SCS) has compiled and reviewed the leachate management operational data from the Southeast County Landfill (SCLF) for March 2004. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2004 Summary (Table 3). Also attached is a graph showing leachate levels in the Pump Station B sump and rainfall at the site for March (Figure 1). The leachate water balance forms were compiled from data provided by Mr. Matt Matthews from the Hillsborough County Solid Waste Management Department (SWMD). SCS provides commentary on the data, and includes recommendations for modifications to the leachate pumping, treatment, and disposal systems for the SCLF operations where appropriate.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month of March.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. There was 2.58 inches of rainfall at the SCLF in March.

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in the existing effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. In March, no effluent was stored in Pond A.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. February 14 through March 26, Pond B was used for temporary storage of leachate prior to transport while the 575,000-gallon tank was emptied for inspection and maintenance. The average depth of temporary leachate storage in Pond B for March was 1.4 feet.

Estimated Depth at Pump Station B Sump (PS-B) (Column V)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. In March, PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days in March was 17.4 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 in March was 40,065 gallons. A total of 1,242,022 gallons was pumped from TPS-6 to PS-B in March.

Leachate Pumped to MLPS from Phases I-VI (Column VII)

Column VII usually presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the LTRF for treatment or disposal. Through March 24, leachate was instead pumped to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000-gallon tank was empty for inspection and maintenance. Beginning March 25, leachate was again pumped through the MLPS to the 575,000-gallon storage tank. The quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A in March was 37,157 gallons. A total of 1,151,878 gallons of leachate was pumped to the storage tank or through Pond B in March.

Leachate Pumped from Section 7 Leak Detection System (Column VIII)

Column VIII presents the quantity of leachate removed from the leak detection system of Section 7. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. From March 18-22, the removal rate exceeded 1,250 gallons per day due to excessive stormwater storage in the eastern cell of Section 7. Minimization of future occurrences was described in a letter submitted to the FDEP on March 26, 2004 along with revised replacement pages L-6 and L-7 for the Operations Plan and revised replacement drawings. In March, a total of 19,320 gallons of leachate was removed from the leak detection system of Section 7.

Leachate Pumped to MLPS from Section 7 (Column IX)

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). In March, 117,482 gallons of leachate was pumped to the MLPS from Section 7.

Total Leachate Pumped to LTRF (Column X)

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. In March, a total of 1,269,360 gallons of leachate was pumped from Phases I-VI and Section 7.

Leachate in 575,000-Gallon Tank (Column XI)

Column XI presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. From February 14 through March 24, instead of being pumped to the tank, leachate was diverted to Pond B from which it was pumped directly into tanker trucks for transport while the 575,000-gallon tank was emptied for inspection and maintenance. Leachate depth was again measured in the tank beginning March 25. The average daily amount of leachate stored in the tank in March, based on recorded days, was estimated at 35,700 gallons.

Leachate Treated at LTRF (Column XII)

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. The LTRF operations were suspended in early December and the facility is currently undergoing

inspection and tank testing. When the inspections are completed, the LTRF will resume full operation. In March, no leachate was treated at the LTRF.

Total Leachate Hauled (Column XIII)

Column XIII presents the daily amount of leachate, in gallons, hauled off site. During the month of March, a total of 1,053,126 gallons of leachate was hauled off site.

Leachate Dust Control (Sprayed) (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the SCLF. In March 75,397 gallons of leachate was used for dust control.

Pond A Storage (Column XV)

Column XV presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation on the SCLF. The daily average of 800 gallons stored in Pond A in March is stormwater in the sump.

Pond B Storage (Column XVI)

Column XVI presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated on the SCLF. In March, no effluent was stored in Pond B for evaporation. However, from February 14 through March 26, Pond B was used for temporary storage of leachate while the 575,000-gallon tank was emptied for inspection and maintenance. In March a total of 1,623,000 gallons of leachate was temporarily stored in Pond B prior to pumping into trucks for transport.

Effluent Sprayed at Pond B (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B. No effluent was sprayed at Pond B in March.

Effluent Irrigation (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of the SCLF. The daily amount of effluent irrigation on the SCLF is measured from the flow meter at the irrigation pump station. In March, no effluent was used as spray irrigation.

Effluent Dust Control (Sprayed) (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for dust control in the active area of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. In March, no effluent was sprayed as dust control.

Total Effluent Hauled (Column XX)

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. In March, no effluent was hauled off site.

Total Evaporation (Column XXI)

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation for March was 60,100 gallons.

TABLE 2

Table 2 presents data assembled from daily logs provided by Mr. Matt Matthews of the SWMD.

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF (leachate pumped from the SCLF) in March was 1,269,360 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,128,523 gallons. The balance for the month of March increased by 140,837 gallons.

If you have any questions, please do not hesitate to call.

Very truly yours,

S-van Dijk

Sheila Carpenter-van Dijk, E.I.
Project Engineer

Larry E. Ruiz

Larry E. Ruiz, Assoc. AIA
Project Manager
SCS ENGINEERS

cc: Matt Matthews

SCV/LER: scv

Attachments

TABLE 1. LEACHATE WA ALANCE REPORT FORM
MAR 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sec 7 Leak Det (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	0.0	1.5	9.5	28,587	32,114	264	4,029	36,143	0	0	0	0	800	44,000	0	0	0	0	0
2	0.00	0.0	1.9	10.3	30,955	34,144	326	2,776	36,920	0	0	18,122	2,015	800	72,000	0	0	0	0	1,600
3	0.00	0.0	1.9	11.4	32,815	34,308	340	5,073	39,381	0	0	96,282	2,015	800	72,000	0	0	0	0	1,600
4	0.00	0.0	1.3	11.6	31,435	34,698	350	2,806	37,504	0	0	18,013	2,014	800	33,000	0	0	0	0	1,600
5	0.00	0.0	1.3	15.8	35,430	36,411	311	2,737	39,148	0	0	72,072	2,009	800	33,000	0	0	0	0	1,600
6	0.00	0.0	1.2	11.6	35,740	37,865	434	2,731	40,596	0	0	12,023	1,997	800	28,000	0	0	0	0	1,600
7	0.00	0.0	0.0	NR	34,305	37,027	383	1,655	38,682	NR	0	0	0	800	0	0	0	0	0	0
8	0.00	0.0	2.1	11.0	34,305	37,027	383	1,655	38,682	0	0	48,068	4,012	800	88,000	0	0	0	0	3,200
9	0.00	0.0	1.9	17.2	41,560	33,857	446	7,232	41,089	0	0	54,084	4,015	800	72,000	0	0	0	0	3,200
10	0.00	0.0	1.8	21.9	45,390	38,978	420	2,717	41,695	0	0	60,610	4,030	800	64,000	0	0	0	0	3,20
11	0.00	0.0	1.5	18.9	36,080	32,119	424	2,380	34,499	0	0	60,071	2,978	800	44,000	0	0	0	0	2,400
12	0.00	0.0	1.2	19.1	41,460	33,066	*324*	2,420	35,486	0	0	24,023	4,029	800	28,000	0	0	0	0	3,200
13	0.00	0.0	1.5	22.5	42,210	35,090	*324*	2,371	37,461	0	0	6,005	4,023	800	44,000	0	0	0	0	3,200
14	0.00	0.0	0.0	NR	41,200	33,918	*324*	1,241	35,159	NR	0	0	0	800	0	0	0	0	0	0
15	0.30	0.0	2.0	23.1	41,200	33,918	*324*	1,241	35,159	0	0	54,068	3,015	800	80,000	0	0	0	0	2,400
16	2.27	0.0	1.9	22.9	49,770	41,736	736	2,991	44,727	0	0	72,054	0	800	72,000	0	0	0	0	0
17	0.01	0.0	2.1	NR	45,420	38,841	755	2,959	41,800	0	0	30,011	3,024	800	88,000	0	0	0	0	2,400
18	0.00	0.0	2.6	NR	54,040	80,454	1,024	11,669	92,123	0	0	54,336	3,012	800	133,000	0	0	0	0	2,400
19	0.00	0.0	2.4	9.3	28,430	41,259	1,272	5,835	47,094	0	0	60,034	2,014	800	115,000	0	0	0	0	1,600
20	0.00	0.0	2.0	19.6	33,705	33,080	1,261	5,883	38,963	0	0	54,037	4,526	800	80,000	0	0	0	0	3,600
21	0.00	0.0	0.0	NR	44,515	36,456	*1,413*	6,724	43,179	NR	0	0	0	800	0	0	0	0	0	0
22	0.00	0.0	2.5	18.7	44,515	36,456	*1,413*	6,724	43,179	0	0	36,021	4,508	800	124,000	0	0	0	0	3,600
23	0.00	0.0	2.5	19.5	39,085	33,956	1,201	5,510	39,466	0	0	60,037	7,525	800	124,000	0	0	0	0	6,000
24	0.00	0.0	2.1	22.5	41,000	31,820	1,198	4,817	36,637	0	0	42,017	5,523	800	88,000	0	0	0	0	4,400
25	0.00	0.0	1.8	23.3	44,890	29,786	1,020	1,134	30,920	48,000	0	42,156	0	800	64,000	0	0	0	0	0
26	0.00	0.0	1.3	17.8	44,395	33,659	635	6,990	40,649	91,000	0	30,903	4,018	800	33,000	0	0	0	0	3,200
27	0.00	0.0	0.0	21.9	48,430	36,452	555	2,694	39,146	127,000	0	0	0	800	0	0	0	0	0	0
28	0.00	0.0	0.0	NR	45,865	37,579	371	2,590	40,169	NR	0	0	0	800	0	0	0	0	0	0
29	0.00	0.0	0.0	17.8	45,865	37,579	371	2,590	40,169	216,000	0	0	2,074	800	0	0	0	0	0	1,700
30	0.00	0.0	0.0	18.0	39,365	38,087	362	2,670	40,757	245,000	0	18,043	0	800	0	0	0	0	0	0
31	0.00	0.0	0.0	18.6	40,060	40,139	357	2,640	42,779	238,000	0	30,036	3,021	800	0	0	0	0	0	2,400
Total	2.58				1,242,022	1,151,878	19,320	117,482	1,269,360		0	1,053,126	75,397		1,623,000		0	0	0	60,100
Daily Average		0.0	1.4	17.4	40,065	37,157	623	3,790	40,947	35,700				800	0	0				
Mo. Average													2,400				0	0	0	1,940

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Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Daily average is calculated by dividing the total by the actual days measured in the month.
4. Monthly average calculated by dividing the total by the number of days of the month.
5. Column II, Trace is less than 0.01 inches and is not included in total.
6. Columns III and IV, field measured at staff gauges.
7. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

TABLE 2. FIELD DATA ENTRY FORM
MARCH 2004
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
							Leachate Hauled		Leachate Dust Control				Effluent	Leachate	Effluent	Effluent Hauled		Effluent Dust Control
Day	Reading PS-B (in.)	Section 7 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Contractor *(gal.)*	County *(gal.)*	(Sprayed) (gal.)	Rainfall *(in.)*	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Sprayed (Pond B) (gal)	Treated at LTRF (gal.)	Irrigation (gal.)	Contractor (gal.)	County (gal.)	(Sprayed) (gal)
1	0.5	65,278	414,535	75,430,165	3,527,050	0.00	0	0	0	0.00	0.0	1.5	0	0	0	0	0	0
2	1.3	65,604	417,311	75,461,120	3,561,194	0.00	0	18,122	2,015	0.00	0.0	1.9	0	0	0	0	0	0
3	2.4	65,944	422,384	75,493,935	3,595,502	0.00	78,171	18,111	2,015	0.00	0.0	1.9	0	0	0	0	0	0
4	2.6	66,294	425,190	75,525,370	3,630,200	0.00	18,013	0	2,014	0.00	0.0	1.3	0	0	0	0	0	0
5	6.8	66,605	427,927	75,560,800	3,666,611	0.00	48,016	24,056	2,009	0.00	0.0	1.3	0	0	0	0	0	0
6	2.6	67,039	430,658	75,596,540	3,704,476	0.00	0	12,023	1,997	0.00	0.0	1.2	0	0	0	0	0	0
7	NR	*67,422*	*432,313*	*75,630,845*	*3,741,503*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
8	2.0	67,805	433,968	75,665,150	3,778,530	0.00	30,013	18,055	4,012	0.00	0.0	2.1	0	0	0	0	0	0
9	8.2	68,251	441,200	75,706,710	3,812,387	0.00	30,021	24,063	4,015	0.00	0.0	1.9	0	0	0	0	0	0
10	12.9	68,671	443,917	75,752,100	3,851,365	0.00	30,529	30,081	4,030	0.00	0.0	1.8	0	0	0	0	0	0
11	9.9	69,095	446,297	75,788,180	3,883,484	0.00	30,014	30,057	2,978	0.00	0.0	1.5	0	0	0	0	0	0
12	10.1	69,095	448,717	75,829,640	3,916,550	0.00	0	24,023	4,029	0.00	0.0	1.2	0	0	0	0	0	0
13	13.5	69,095	451,088	75,871,850	3,951,640	0.00	0	6,005	4,023	0.00	0.0	1.5	0	0	0	0	0	0
14	NR	*NR*	*452,329*	*75,913,050*	*3,985,558*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
15	14.1	70,393	453,569	75,954,250	4,019,476	0.00	24,051	30,017	3,015	0.30	0.0	2.0	0	0	0	0	0	0
16	13.9	71,129	456,560	76,004,020	4,061,212	0.00	42,019	30,035	0	2.27	0.0	1.9	0	0	0	0	0	0
17	NR	71,884	459,519	76,049,440	4,100,053	0.00	30,011	0	3,024	0.01	0.0	2.1	0	0	0	0	0	0
18	NR	72,908	471,188	76,103,480	4,180,507	0.00	30,283	24,053	3,012	0.00	0.0	2.6	0	0	0	0	0	0
19	0.3	74,180	477,023	76,131,910	4,221,766	0.00	30,011	30,023	2,014	0.00	0.0	2.4	0	0	0	0	0	0
20	10.6	75,441	482,906	76,165,615	4,254,846	0.00	30,014	24,023	4,526	0.00	0.0	2.0	0	0	0	0	0	0
21	NR	*76,855*	*489,630*	*76,210,130*	*4,291,302*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
22	9.7	78,268	496,353	76,254,645	4,327,757	0.00	30,014	6,007	4,508	0.00	0.0	2.5	0	0	0	0	0	0
23	10.5	79,469	501,863	76,293,730	4,361,713	0.00	30,013	30,024	7,525	0.00	0.0	2.5	0	0	0	0	0	0
24	13.5	80,667	506,680	76,334,730	4,393,533	0.00	30,007	12,010	5,523	0.00	0.0	2.1	0	0	0	0	0	0
25	14.3	81,687	507,814	76,379,620	4,423,319	1.67	30,133	12,023	0	0.00	0.0	1.8	0	0	0	0	0	0
26	8.8	82,322	514,804	76,424,015	4,456,978	3.17	18,910	11,993	4,018	0.00	0.0	1.3	0	0	0	0	0	0
27	12.9	82,877	517,498	76,472,445	4,493,430	4.42	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
28	NR	*83,248*	*520,088*	*76,518,310*	*4,531,009*	NR	0	0	0	0.00	0.0	0.0	0	0	0	0	0	0
29	8.8	83,618	522,678	76,564,175	4,568,588	7.50	0	0	2,074	0.00	0.0	0.0	0	0	0	0	0	0
30	9.0	83,980	525,348	76,603,540	4,606,675	8.50	18,043	0	0	0.00	0.0	0.0	0	0	0	0	0	0
31	9.6	84,337	527,988	76,643,600	4,646,814	8.25	18,007	12,029	3,021	0.00	0.0	0.0	0	0	0	0	0	0

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
3. Column IV includes quantities from leak detection system.
4. Column XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	7	0
Intermediate	132.4	6
Final	23	0
Not Opened	0	6.5

TABLE 3. 2004 MONTHLY HATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

		Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow To LTRF (gal.)	Total Outflow From LTRF (gal.)	Balance[3] (gal.)
January	4.1	0	255,259	1,188,837	1,413,342	123,926	0	0	0	0	1,444,096	1,537,268	-93,172
February	3.09	0	244,951	1,052,923	1,596,738	27,350	0	0	0	0	1,297,874	1,624,088	-326,214
March	2.58	0	117,482	1,151,878	1,053,126	75,397	0	0	0	0	1,269,360	1,128,523	140,837
April													
May													
June													
July													
August													
September													
October													
November													
December													
YTD Total	9.77	0	617,692	3,393,638	4,063,206	226,673	0	0	0	0	4,011,330	4,289,879	-278,549

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Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Balance represents total inflow to LTRF minus total outflow from LTRF.

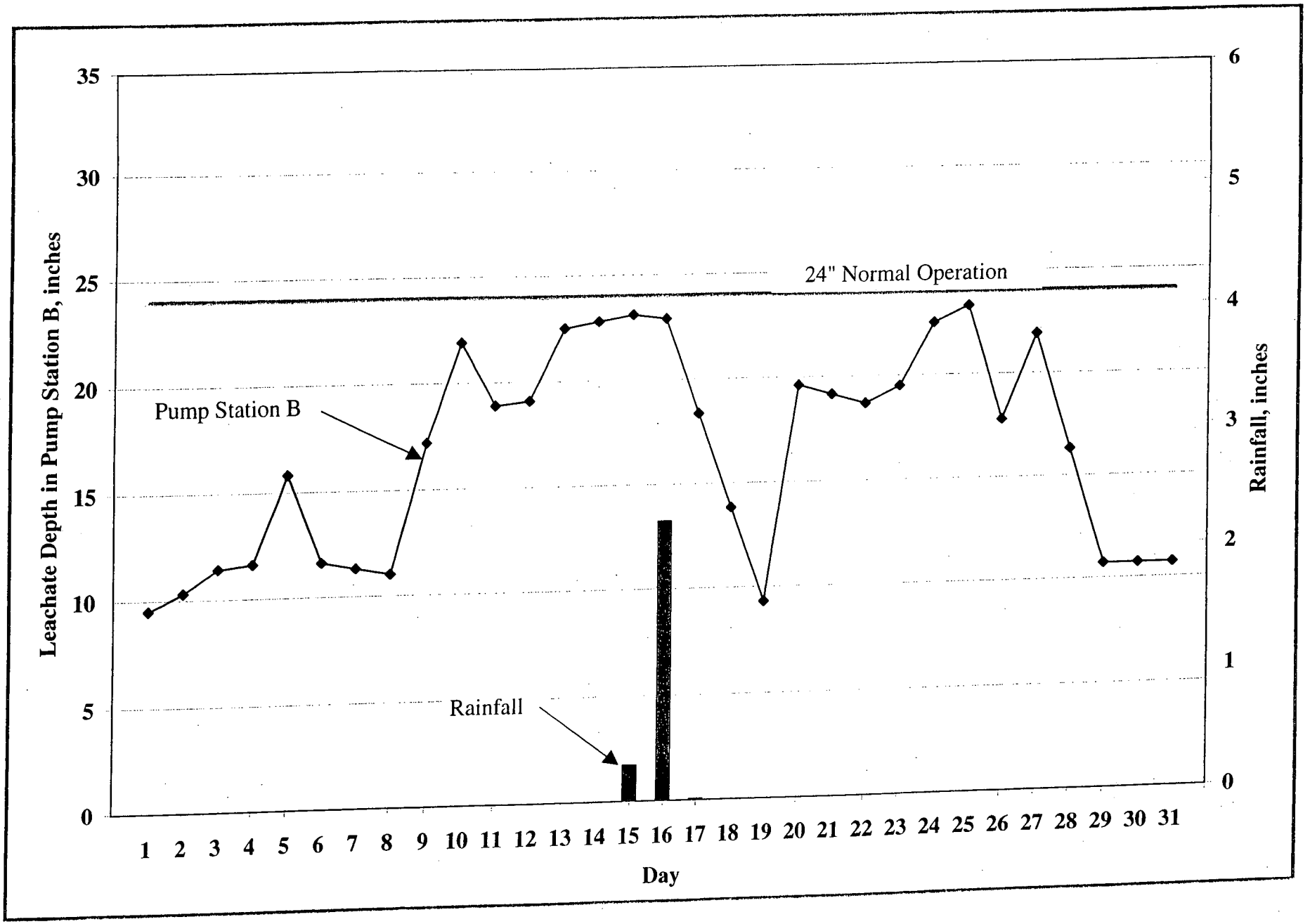

Figure 1. Leachate Levels in Pump Station B and Rainfall for March 2004.

TABLE 1. LEACHATE HAULING SUMMARY
SOUTHEAST COUNTY LANDFILL
YEAR-2004

Date	Leachate Hauled		Effluent Hauled	
	Contractor (gal.)	County (gal.)	Contractor (gal.)	County (gal.)
January	665,717	747,625	0	0
February	497,284	1,099,454	0	0
March	626,293	426,833	0	0
April				
May				
June				
July				
August				
September				
October				
November				
December				
Total	1,789,294	2,273,912	0	0

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APPENDIX G-3

CAPACITY EXPANSION SECTION 7
LEAK DETECTION SYSTEM

Environmental Consultants

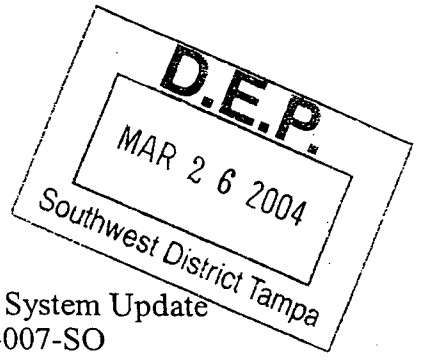
3012 U.S. Highway 301 N.
Suite 700
Tampa, FL 33619-2242

813 621-0080
FAX 813 623-6757

CF

SCS ENGINEERS

March 26, 2004
File No. 09200020.14



Mr. Kim Ford, P.E.
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Subject: Capacity Expansion Section 7, Leak Detection System Update
Southeast County Landfill, Permit No.: 35435-007-SO

Dear Mr. Ford:

On behalf of the Hillsborough County Solid Waste Management Department (SWMD), SCS Engineers (SCS) is submitting the following leak detection system (LDS) report in accordance to Section L.8.a of the Operations Plan for Section 7 of the Capacity Expansion at the Southeast County Landfill (Section 7). As shown on Table 1, the LDS rates for Section 7 exceeded 1,250 gallons per day (gpd). As you are aware, the eastern cell is isolated by a separation berm from the active face so that stormwater in the eastern cell can be discharged to the stormwater Basin C. The increase in the LDS rate was due to excessive stormwater storage in the eastern cell of Section 7. Between March 15 and 16 the facility received a rainfall event of 2.6 inches. As a result, there was approximately 3.7 feet of standing water in the southern portion of the eastern cell, thereby increasing the head over the liner to a level that is above normal operating conditions.

As a response and to minimize future occurrence, the SWMD has taken the following measures:

- On March 23, 2004 the SWMD installed a larger pump to remove the stored stormwater in the eastern cell (400 gpm capacity). It is expected that the stormwater storage will be removed by end of day on March 26, 2004.
- The initial waste placement in Lifts 1A-1B has been completed to an elevation such that stormwater runoff can be accomplished. On April 1, 2004 the SWMD will begin placement of waste into the eastern cell of Section 7. The SWMD will complete the initial lift over the eastern cell (Lifts 1C-1D) thereby providing sufficient slopes to promote stormwater runoff. The SWMD anticipates completing Lifts 1C-1D by the end of May 2004, prior to the beginning of the rainy season.

Attached find the revised replacement pages L-6 and L-7 for the Operations Plan. In addition, attached find the corresponding revised replacement drawings 3, 4, and 6 of the Section 7 Operating Sequence Drawings by SCS. Only the order of filling was revised and no other changes or actions are proposed at this time. Please note that Section 7 began its initial waste placement in January 2004, and as such, normal operating conditions have not yet been achieved. However, the SWMD will continue monitoring the LDS and will keep the FDEP and the Environmental Protection Commission informed.

Please do not hesitate to call if you have any questions or need additional information.

Very truly yours,

Larry E. Ruiz, Assoc. AIA
Project Manager

Raymond J. Dever, P.E., DEE
Vice President
SCS ENGINEERS

cc: Patricia Berry, SWMD
Ron Cope, EPC

LER/RJD:lr

TABLE 1. LEAK DETECTION READINGS

Date	Gallons	Rainfall
3/1/04	527	0
3/2/04	326	0
3/3/04	340	0
3/4/04	350	0
3/5/04	311	0
3/6/04	434	0
3/7/04	383(avg.)	0
3/8/04	383(avg.)	0
3/9/04	446	0
3/10/04	420	0
3/11/04	424	Trace
3/12/04	324(avg.)	0
3/13/04	324(avg.)	0
3/14/04	324(avg.)	0
3/15/04	324(avg.)	0.3
3/16/04	736	2.3
3/17/04	755	Trace
3/18/04	1,024	0
3/19/04	1,272	0
3/20/04	1,261	0
3/21/04	1413 (avg.)	0
3/22/04	1413 (avg.)	0
3/23/04	1,201	0
3/24/04	1,198	0
3/25/04	1,020	0
3/26/04	635	0

APPENDIX H

TABLE 1. FILLING SEQUENCE AND PROJECTED DISPOSAL RATE

TABLE 1. SOUTHEAST LANDFILL FILLING SEQUENCE

Phase	Estimated Volume (CY)	Net(1,2) Capacity (TON)		Approx. Start Date	Approx. Completion Date	Years From Prev. Filling
Phase I	1,111,679	716,175	(4)	Nov-84	Nov-85	N/A
Phase II	1,244,716	854,502	(4)	Dec-85	Apr-87	N/A
Phase III - Lift 1	1,335,499	1,259,590	(4)	May-87	Jun-90	N/A
Phase IV - Interim	271,449	140,415	(4)	Jul-90	Nov-90	N/A
Phase III - Lift 2-3	878,657	900,214	(4)	Dec-90	Jun-94	N/A
Phase IV - Lift 4	202,000	263,740	(4)	Jun-94	May-95	N/A
Phase I - Lift 5	714,000	756,115	(4)	May-95	Aug-97	10.4
Phase II - Lift 6	763,000	616,085	(4)	Aug-97	Apr-99	11.6
Phase V to VI - Lift 7	2,431,000	1,931,130	(4)	Apr-99	Mar-2003	6.6
Phase I - Lift 8	954,000	513,818	(4)	Mar-2003	Aug-2004	7.9
Phase II - Lift 9	694,000	384,825	(4)	Aug-2004	Aug-2005	7.0
Phase III - Lift 10	837,000	585,900		Aug-2005	Mar-2007	14.5
Phase IV - Lift 11	337,000	235,900		Mar-2007	Dec-2007	12.7
Phase V to VI - Lift 12	1,313,000	919,100		Dec-2007	Oct-2010	8.6
Phase I - Lift 13	672,000	470,400		Oct-2010	Feb-2012	7.4
Phase II - Lift 14	543,000	380,100		Feb-2012	Apr-2013	7.4
Phase III - Lift 15	567,000	396,900		Apr-2013	May-2014	7.5
Phase IV - Lift 16	162,000	113,400		May-2014	Sep-2014	7.0
Phase V to VI - Lift 17	1,172,000	820,400		Sep-2014	Jan-2017	6.6
Phase I - lift 18	479,000	335,300		Jan-2017	Dec-2017	6.1
Phase II - Lift 19	409,000	286,300		Dec-2017	Sep-2018	5.6
Phase III - Lift 20	296,000	207,200		Sep-2018	Apr-2019	5.3
Phase IV - Lift 21	177,000	123,900		Apr-2019	Aug-2019	4.7
Phase V to VI - Lift 22	1,159,000	811,300		Aug-2019	Sep-2021	4.7
Phase V to VI - Lift 23	1,340,000	938,000		Sep-2021	Jan-2024	2.0
Total Space (CY)	20,063,000					
Total Years	39					

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NOTES:

1. Assumed cover factor 0%
2. Assumed waste density 1,400
3. Projected disposal rates are based on 0.55 tons per person waste generation.
4. Actual tonnage provided by Hillsborough County.
5. Lift 7 waiting period is a minimum of 5 years from pre-loading condition (September 1992)
6. Estimated diversion date Sep-2014

PROJECTED DISPOSAL RATE
DIVERSION TO EXPANSION

Year	Projected (3) Disposal Rate (TON)	Percent Diversion	Waste To SCLF (TON)	Waste To Expansion (TON)
1994	278,642	0%	278,642	0
1995	293,738	0%	293,738	0
1996	319,446	0%	319,446	0
1997	358,006	0%	358,006	0
1998	393,752	0%	393,752	0
1999	464,245	0%	464,245	0
2000	508,096	0%	508,096	0
2001	523,020	0%	523,020	0
2002	451,802	0%	451,802	0
2003	490,968	0%	490,968	0
2004	545,661	50%	272,831	272,831
2005	611,474	17%	507,523	103,950
2006	625,983	50%	312,991	312,991
2007	639,051	50%	319,525	319,525
2008	650,557	50%	325,278	325,278
2009	660,286	50%	330,143	330,143
2010	669,196	50%	334,598	334,598
2011	677,534	50%	338,767	338,767
2012	685,872	50%	342,936	342,936
2013	694,210	50%	347,105	347,105
2014	702,548	50%	351,274	351,274
2015	710,886	50%	355,443	355,443
2016	721,651	50%	360,826	360,826
2017	732,416	50%	366,208	366,208
2018	743,181	50%	371,591	371,591
2019	753,947	50%	376,973	376,973
2020	764,712	50%	382,356	382,356
2021	775,477	50%	387,738	387,738
2022	786,242	50%	393,121	393,121
2023	797,007	50%	398,504	398,504
2024	807,772	50%	403,886	403,886
2025	818,538	100%	0	818,538
2026	829,303	100%	0	829,303
2027	840,068	100%	0	840,068
2028	850,833	100%	0	850,833
2029	861,598	100%	0	861,598
2030	872,363	100%	0	872,363
2031	883,128	100%	0	883,128
2032	893,894	100%	0	893,894
2033	904,659	100%	0	904,659
2034	915,424	100%	0	915,424
2035	926,189	100%	0	926,189