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4101	Geoffrey H. Little	04/04/2011	13537

JAMESTOWN ENGINEERING GROUP, INC.

CIVIL ENGINEERS & SURVEYORS
LAND PLANNING • MUNICIPAL CONSULTING

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www.jamestownengineering.com

April 1, 2011

Geoffrey H. Little
Solid Waste Section
NC-DENR DWM

The following information has been prepared to summarize and address points discussed with NCDENR (Vance Jackson, Hugh Jernigan and Geof Little) at the Seaboard Chemical Landfill site on Friday, March 18, 2011.

Below is a summary of points discussed during the site visit regarding closure of the soil residue mound at the closed High Point Landfill. Responses to the points of discussion are included.

Point #1:

Provide the Division of Waste Management [DWM] with a schedule of construction activities [preferably 2 weeks in advance of soil movement].

The following is a summary of contractors to be utilized in the completion of this project:

Task	Contractor/Contact
Construction Oversight	Jamestown Engineering Group, Inc. Thomas R. (Rich) Glover, Jr., PE PO Box 365 117 East Main Street Jamestown, NC 27282 (336) 886-5523 (336) 886-5478 (fax) rglover@jamestownengineering.com
Construction/Grading/Drainage	Piedmont Industrial Services Inc. Tom Lennon P.G. 1680 Lowery Street Winston-Salem, NC 2710 (336) 722-6505 (336) 722-6529 (fax) T.Lennon@pis-inc.com
Liner Installation	Environmental Fabrics, Inc. Kevin Allen 85 Pascon Court Gaston, SC 29053 (803) 551-5700 (803) 551-5701 (fax)
QA/QC	ECS Carolinas, LLP Russ Bendel, PE 4811 Koger Blvd. Greensboro, NC 27407 (336) 856-7150 rbendel@ecslimited.com

Groundwater Sampling	Babb & Associates, P.A. Gary D. Babb, P.G. P.O. Box 37697 Raleigh, NC 27627 (919) 325-0696 (919) 605-4719 mobile Gbabb@nc.rr.com

The following is an anticipated schedule for completion of the project:

Date:	Tasks:
April 11-14	Complete initial clearing, stage cover soil near cap area.
April 15-18	Reshape soil mound
April 19-22	Install soil cover to prepare for liner installation, stage liner cover soils near pad, prepare anchor trench, liner and materials delivery.
April 25-29	Install liner, anchor trench and drains.
May 2-6	Install cover soils, seed and straw effected area.
May 16	Sample monitoring wells
July 15	Submission of groundwater sampling results & Construction Quality Assurance Report

Point #2:

Provide a liner panel layout showing locations of destructive and non-destructive test locations for DWM review and approval.

Recent surveying data compiled at the site by Jamestown Engineering group was used to prepare the attached revised grading plan for the liner installation. The revised surface area of the liner is anticipated to be approximately 15,900 square feet. This does not include waste area for overlaps or trenches. The earthwork showed deficit of approximately 1,200 cubic yard of fill material that will be needed to complete the project. The amount of fill needed is approximately equal to the surface area of the pile times 2 feet of clean import.

Proposed liner panel layout drawings are attached. Locations of destructive test locations are included on the attached layouts for review and approval. Non-destructive pressurized duel seam tests shall be performed on all seams.

Point #3:

Exposed residue material will be covered by either clean soil or a secured alternative cover material at the end of each workday. If an alternative cover is used, a request describing the alternative cover and its deployment must be submitted to the DWM for review and approval prior to its use. Please identify the source and provide any testing of the soil material.

Piedmont Industrial Services will be completing the grading activities for this project. During initial soil shaping activities exposed portions of residue material will be covered on a daily basis with clean fill when possible. If final reshaping grading activities are not completed in an area by the end of the workday, then 6-10 ml plastic sheeting will be utilized to cover the affected area. The material will be deployed by hand and will be secured by rocks and/or sand bags.

To date approximately 600 cubic yards of soil is currently stockpiled on site. The material was sourced from a construction site for a new school recently constructed in Jamestown. ERM approved the soil for use on this project prior to shipping to the site. Pending approval from the projects current QA/QC contractor (ESC), this material will be used in this project for the initial soil cover to be place on the soil residue mound. Based on current grading plans, another 600 cubic yards of soil will be needed to complete the project. Any additional site backfill materials will be approved the QA/QC contractor (ESC) prior to transport to site.

Point #4:

The ground water monitoring wells located adjacent to the mound closure are to be sampled and tested after completion of final cover construction. [We request the sampling occur within 30 days of substantial completion of construction activities.]

Groundwater sampling activities will be completed by Babb & Associates, P.A. within thirty days of completion of the mound closure. The following groundwater monitoring wells will be sampled: MW-14, MW-15A and MW-15B. Collected samples will be analyzed for volatile organic compounds by EPA Method 8260. A brief letter report conveying the results of the sampling event will be submitted to the NCDENR within sixty days of the sampling event.

Item #5:

A standard Construction Quality Assurance Report must be submitted to the DWM documenting construction of the final cover. The report must include manufacturer quality control test results as well as physical measurements, construction quality assurance tests, photographs, construction logs and the health and safety measures employed during construction [see item No. 7 below].

Within 90 days of completion of the closure activity, a Construction Quality Assurance Report will be submitted to the DWM documenting construction of the final cover. The report will include manufacturer quality control test results as well as physical measurements, construction quality assurance tests, photographs, construction logs and the health and safety measures employed during construction. Collection of QA/QC and physical measurement data will be handled by Jamestown Engineering Group and ECS. Piedmont Industrial will prepare and maintain daily logs (with photographs), construction logs and health and safety documentation.

Item #6:

All other construction-related permits [sedimentation and erosion control, storm water, any local construction permits, etc.] need to be secured prior to the initiation of construction activities at the site. Those permits will need to be maintained at the site for DWM review.

The Erosion Control Plan and Watershed Control Plan have both been approved through their respective agencies. Copies of these plans along with the Construction Plans, Permits and Health & Safety documents will be kept in the job trailer on the site. Stormwater inspection reports are kept in the permit box at the old entrance to the landfill.

Item #7:

Prior to initiation of construction activities, please provide specifications of the mitigation measures that will be employed to minimize air-borne particles, protect worker and by-stander health and safety, and decontaminate equipment that contacts the residues.

General construction and grading activities will be completed by Piedmont Industrial Services Inc. All of Piedmont's workers have received 40-hour OSHA Hazwhopper training and subsequent annual updates. Daily health and safety meetings will be conducted and complete copies of Health and Safety plans will be maintained on site. During initial clearing activities and following the placement of initial cover soils, the residue mound contents will be essentially capped and don't represent a great threat to worker or by-stander health and safety. During these portions of the operation, site worker will utilize level D PPE with tyvek suits.

As a result of the necessity to disturb existing soil cover to complete the grading activities required to achieve the appropriate 3:1 grade on slopes, additional health and safety measures will be employed while the residues are exposed to the environment. A summary of compounds contained in the residue pile is presented below.

Soil Sample Identification

CONCENTRATION (ug/ kg)

COMPOUND	P-1	P-2	P-3	Preliminary health-based SRG ug/kg	NIOSH or OSHA PELs
VOCs	-	-	-		
Acetone	ND	46	ND	12,000,000	1000 ppm
Benzene	87	420	58	1,100	1 ppm
Chlorobenzene	ND	1800	ND	58,000	75 ppm
Ethylbenzene	9700	31000	12000	5,400	100 ppm
Tetrachloroethene	180	700	ND	550	100 ppm
Toluene	22000	26000	23000	820,000	200 ppm
Xylene (Total)	70000	140000	75000	130,000	100 ppm
Trichloroethene	220	75	ND	2,800	100 ppm
SVOCs					
Butylbenzylphthalate	ND	7500	1200	260,000	No Listing
Di-n-butylphthalate	ND	1600	490	1,200,000	5 mg per cubic meter of air
1,2-Dichlorobenzene	1200	27000	2900	380,000	50 ppm

1,3-Dichlorobenzene	ND	330	ND	NL	No Listing
1,4-Dichlorobenzene	ND	**9800**	440	2,400	75 ppm
bis(2-Ethylhexyl)phthalate	16000	**60000**	16000	35,000	5 mg per cubic meter of air
2-Methylnaphthalene	2100	8300	1800	62,000	No Listing
Naphthalene	2000	**8400**	2100	3,600	10 ppm
1,2,4-Trichlorobenzene	470	**23000**	2100	12,000	5 ppm

Results in bold exceed IHSB SRGs

Piedmont Industrial will utilize the following measures to minimize air-borne particles, protect worker and by-stander health and safety, and decontaminate equipment that contacts the residues.

- Grading operations required to reshape the soil mound will be completed over the weekend to minimize exposure to any by-standers. Site gates will be locked. The nearby recycling facility is closed on Friday, Saturday and Sunday. If the reshaping activities extend longer than anticipated the driveway area located adjacent to the soil mound leading to the recycling facility will be closed. To further minimize the effects of air-borne particles, dust suppression will be handled with water sprinklers. Piedmont will utilize air-monitoring equipment (PID) to monitor VOC levels in the exclusion zone and surrounding areas.

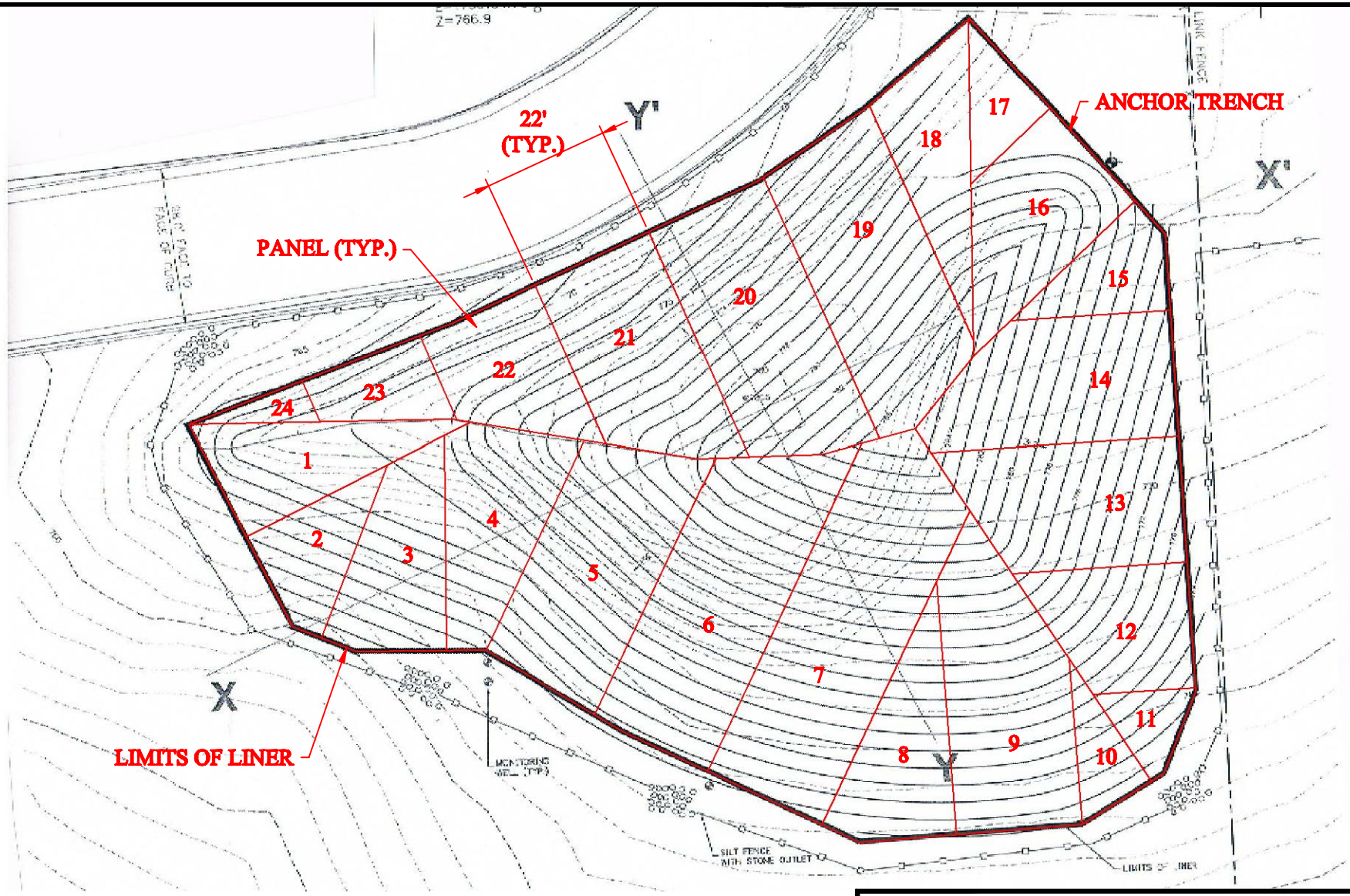
- Piedmont will establish an exclusion zone within 50 feet of the work area. During reshaping activities no workers will be permitted within the work area without wearing Level C PPE (Air purifying respirators, tyvek suits & gloves). Used PPE will be removed when leaving the exclusion zone.

- Piedmont will construct a decontamination reduction corridor and decontamination pad adjacent to the exclusion zone. Upon leaving the exclusion zone, all PPE will be decontaminate and/or place in 55-gallon drums for appropriate off-site disposal at the completion of this project. Following the completion of reshaping grading activities, heavy equipment and tools utilized in the exclusion zone will be pressure washed for decontamination. Wash waters will be collected for proper disposal.

Should you have any questions, or need any additional information, please feel free to contact me.

Sincerely,

Thomas R. Glover, Jr., PE
Jamestown Engineering Group, Inc.



NOTE: PROPOSED PANEL LAYOUT MAY CHANGE IN ORDER TO ACCOMODATE FIELD CONDITIONS.

ENVIRONMENTAL FABRICS, INC.

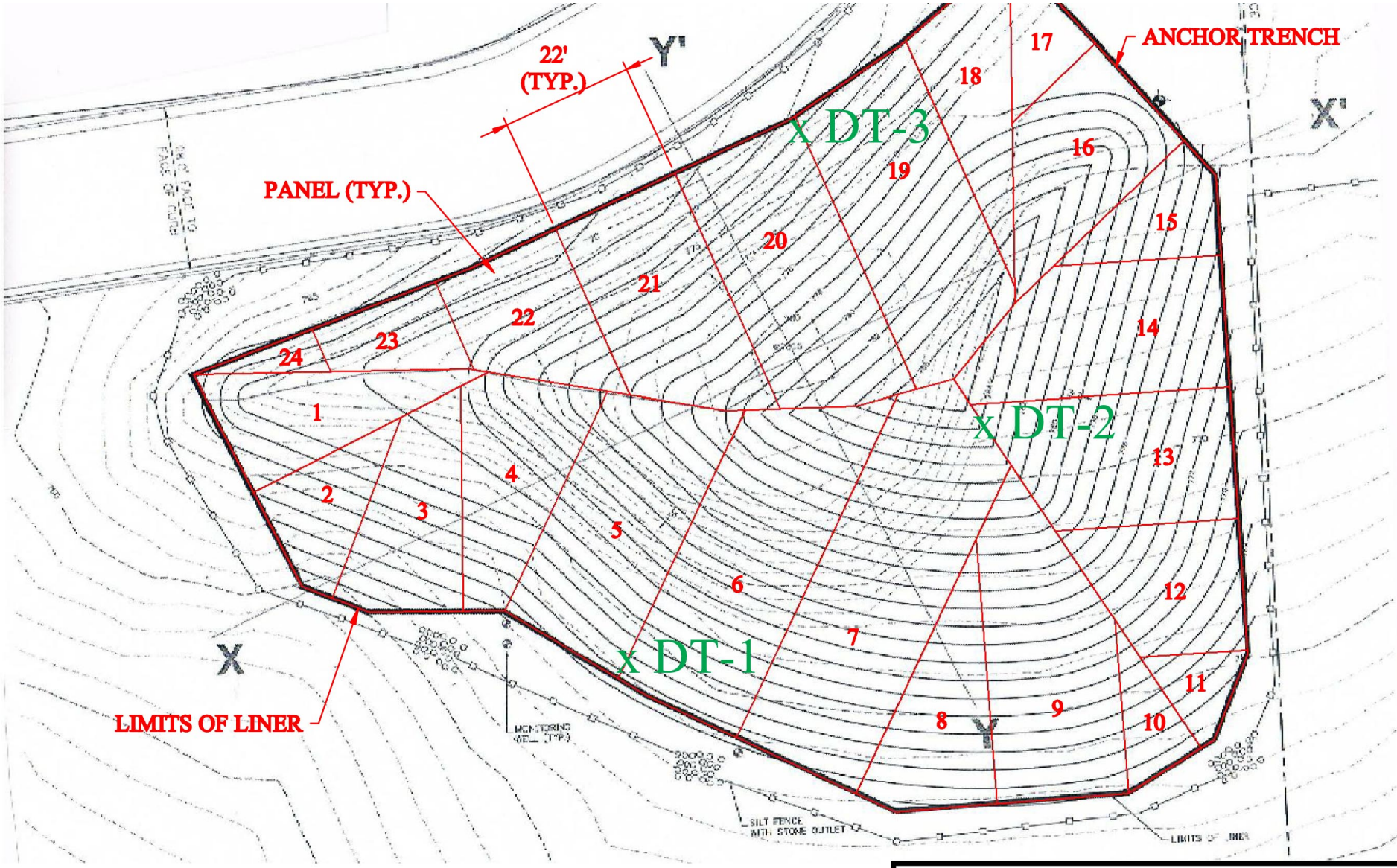
85 PASCON CT. GASTON, SC 29053 (803)551-5700 FAX:(803)551-5701

www.environmentalfabrics.com

JOB NAME: **SOIL MOUND, JAMESTOWN, NC**

DWG TITLE: **60mil LINER PANEL LAYOUT**

DATE: 3/29/2011	SCALE: NTS	DWG #: 11637-01
DRAWN BY: SEB	APPROVED: KA	REVISION: 0



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ENVIRONMENTAL FABRICS, I

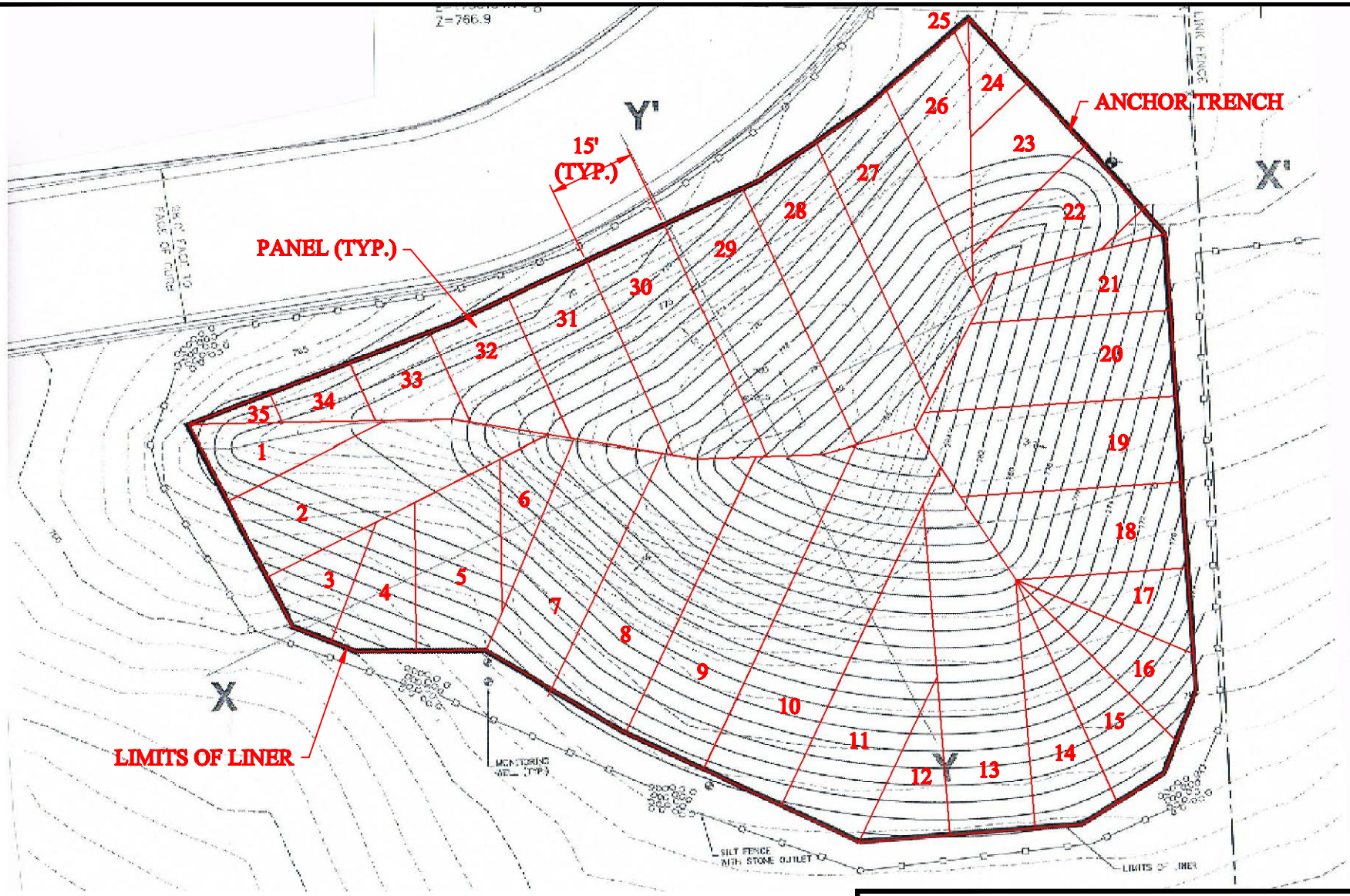
85 PASCON CT. GASTON, SC 29053 (803)551-5700 FAX:(8

www.environmentalfabrics.com

JOB NAME: **SOIL MOUND, JAMESTOWN, N**

DWG TITLE: **60mil LINER PANEL LAYOUT**

DATE: 3/29/2011	SCALE: NTS	DWG #: 11637-01
DRAWN BY: SEB	APPROVED: KA	REVISION: 0



NOTE: PROPOSED PANEL LAYOUT MAY CHANGE IN ORDER TO ACCOMODATE FIELD CONDITIONS.

ENVIRONMENTAL FABRICS, INC.

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www.environmentalfabrics.com

JOB NAME: **SOIL MOUND, JAMESTOWN, NC**

DWG TITLE: **GCL & COMPOSITE PANEL LAYOUT**

DATE: 3/29/2011	SCALE: NTS	DWG #: 11637-02
DRAWN BY: SEB	APPROVED: KA	REVISION: 0

ECS Carolinas, LLP
4811 Koger Boulevard
Greensboro, NC 27407
(336) 856-7150
(336) 856-7160

LETTER OF TRANSMITTAL

RE:

ECS Job #

Permits:

Location:

We are enclosing:

X Materials Engineering Division Reports
X For your use
X As requested

CC:

ENCL:

ECS Carolinas, LLP

4811 Koger Boulevard
Greensboro, NC 27407
(336) 856-7150
(336) 856-7160

FIELD REPORT

NC Registered Engineering Firm # F-1078

Project No.
Report No.
Day & Date
Weather
On-Site Time
Lab Time
Travel Time*
Total
Re Obs. Time

Project
Location
Client
Contractor

Remarks

Trip Charges* Tolls/Parking* Mileage*

Time of Arrival Departure

Chargeable Items

* Travel time and mileage will be billed in accordance with the contract.

Summary of Services Performed (field test data, locations, elevations & depths are estimates) & Individuals Contacted.

By