

307-12-04
July 11, 2013



4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
www.kooglerassociates.com
352/377-5822 ■ FAX 352/377-5822

Mr. Steven G. Morgan
Florida Department of Environmental Protection
Southwest District - Waste Management Section
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926

Re: CEMEX South Cement Plant Alternative Fuel/Material Processing Facility
Pending Permit #22787-004-SO/31
WACS: 40778, Brooksville, Hernando County, Florida

Dear Steven:

On behalf of CEMEX Construction Materials Florida, LLC (CEMEX) Koogler and Associates, Inc. (Koogler) is responding to the Department's request for additional information (RAI) dated April 24, 2013. The RAI items and our responses are as follows:

"Engineering Report: Please provide a revised Engineering Report which includes the information listed below.

1. *March 27, 2013 Response Letter to Department's December 13, 2012 RAI Letter:*

a. Response to Comments #5.b & 5.c:

- 1) *...While the information provided in the response letter adequately describes the construction of the A-Frame Building and ASB floors, revisions to Section 3.4 of the Engineering Report do not appear to have been provided. Please revise Section 3.4 of the Engineering Report, as appropriate."*

Response: What is referred to in the RAI as the "Engineering Report" was provided as supporting information for the permit application with the title **APPLICATION FOR PERMIT TO OPERATE AN ALTERNATIVE FUEL/MATERIAL PROCESSING FACILITY**, but will be referred to herein as "Engineering Report". Section 3.4 of the "Engineering Report" has been revised as requested and is enclosed.

- 2) *"...Please revise an appropriate section of the Engineering Report to describe the facility procedures for maintenance and repair of the floor in these buildings."*

Response: The floor of the alternative fuel storage area of the A-Frame and the ASB buildings will be repaired as depression occurs from front-end loader traffic. Clay will be used for the repairs and will be compacted. Section 3.9.3 and 3.9.6 of the "Engineering Report" has been revised as requested and is enclosed.

b. Response to Comment #7:

"While the response provided in the March 27th letter to Comment #7 is adequate, revisions to Section 3.8 of the Engineering Report do not appear to have been provided. Please provide a revised Section 3.8 of the Engineering Report, consistent with the information provided in the March 27th response letter."

Response: Section 3.8 of the "Engineering Report" has been revised as requested and is enclosed.

c. Response to Comment #8:

"Please revise the Table of Contents and Section 3.9 of the Engineering Report to reference the Contingency Plan submitted with the March 28, 2013 submittal."

Response: Section 3.9.7 of the "Engineering Report" has been revised as requested and is enclosed. Revision of the Table of Contents is not applicable.

d. Response to Comment #9:

"In response to Comment #9, a stand-alone Closure Plan and attachments were submitted with the March 28, 2013 submittal, in lieu of revisions to Section 3.10 and Attachments A-C of the Engineering Report. Please revise the Table of Contents and Section 3.10 of the engineering Report to reference the submitted Closure Plan."

Response: The "Engineering Report" has been revised to update the Table of Contents and Sections 3.10 and 3.11 as requested and is enclosed.

e. Response to Comment #10:

"...Please publish the attached Notice of Application and provide proof of publication to the Department."

Response: The Notice of Application was published on May 29, 2013. Proof of publication is attached.

2. Attachment 4 – A-Frame Permeability and Boring Report:

- a. *"...Please verify that this ASTM method was utilized or identify the alternative test method used and provide a copy of that test method."*

Response: According to the professional engineer (P.E.) from Central Testing, Curtis Carr, they used a standard field permeability test that is utilized throughout the state for various regulatory agencies. A copy of the test method is attached. He further stated that there is no ASTM standard for a field permeability test, and that ASTM 6391-06 is a 12-hour laboratory permeability test for undisturbed soil samples. The P.E. determined that test method was not appropriate for testing of the permeability of the floor of the A-Frame building. Joe Calamari, a professional engineer with Coastal Engineering was present to oversee the testing conducted by Central Testing and observed that there was zero percolation during the field testing and that the geoprobe/drill stem was advanced into very hard limerock and that two heavy metal sampling containers were bent during the sampling process due to the hardness of the limerock. The testing results were reviewed by both P.E.s, and they made the determination that the floor was impervious.

Additionally, the drainage ditch on the south side of the A-Frame building directs run-off to a concrete lined collection basin. The basin then drains through an underground pipe to the perimeter ditch and is pumped to the stormwater pond across Cement Plant Road. The remaining ditches also discharge through culverts into the large perimeter ditch. See revised Figure 1 in the "Engineering Report" for the direction of drainage.

This information collectively demonstrates that potential run-off from the AFM storage areas is being collected, contained and managed in accordance with Chapter 62-701.710(3).

b. "A review of ASTM Method D6391-06 appears to indicate that for the vertical permeability portion of the test (stage 1) the minimum test duration is 12 hours. In the event that this test method was utilized, please provide supporting justification for running the test for only 30 minutes, as describe in Attachment 4."

Response: See response to Item 2 above.

3. *Attachment 5 – ASB Building Drawings:*

a. "the drawing provided in Attachment 5 does not appear to be as-built drawings. Please either provide as-built drawings or provide verification that they are representative of as-built conditions."

Response: A response from George Townsend, CEMEX Environmental Manager, stating that the drawings provided are representative of as-built conditions is attached.

b. "Please verify whether hydraulic conductivity information on the installed clay layer is available and provide this information as applicable. In the absence of this information and taking in consideration the typical wear and damage to clay floors described in Comment #1.a.(2) above, please provide supporting justification for assuming that the floor in the ASB building is comparable to the A-Frame building floor and that representative borings of the floor and vertical permeability testing was not necessary to demonstrate the existing floor is as constructed and impermeable."

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Response: According to George Townsend, Environmental Manager with CEMEX, FDEP required and approved the installation of a geomembrane (clay liner) in the floor of the ASB Building. Cindy Falandyz of the FDEP was reported as conducting a site inspection during the time of construction and took photographs. This information is on file at the Department and CEMEX will search their records and provide copies of correspondence and documentation under separate cover.

Additionally, the drainage ditch on the south side of the A-Frame building directs run-off to a concrete lined collection basin. The basin then drains through an underground pipe to the perimeter ditch and is pumped to the stormwater pond across Cement Plant Road. The ditch on the north side of the A-Frame building flows around the ASB building and drains to an underground culvert which discharges into the large perimeter ditch. See revised Figure 1 in the "Engineering Report" for the direction of drainage.

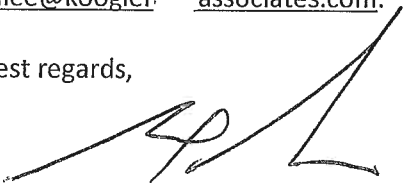
4. *Attachment 4 – Closure Plan:*

a. Attachment C: "The closure cost estimates provided in Attachment C (total for closure \$315,698.32) are acceptable. However Form 62-701.900(28) must be signed and sealed by the engineer of record that prepared the estimate. Please provide a signed and sealed copy of the form....".

Response: A signed and sealed Page 9 of 9 of Form 62-701.900(28) was provided in the Closure Plan with the March 27, 2013 RAI response. A copy is enclosed.

We trust these responses sufficiently address the Department's second RAI dated April 24, 2013 so that issuance of the permit may proceed. If you have any questions, please contact me at 352-377-5822 or mlee@koogler.associates.com.

Best regards,



Maxwell R. Lee, Ph.D., P.E.
President

cc: George Townsend – CEMEX (Email)

Tampa Bay Times**Published Daily****St. Petersburg, Pinellas County, Florida****STATE OF FLORIDA
COUNTY OF Pinellas****} S.S.**

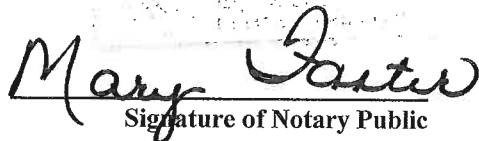
Before the undersigned authority personally appeared **D. Almeida** who on oath says that he/she is **Legal Clerk** of the **Tampa Bay Times** a daily newspaper published at St. Petersburg, in Pinellas County, Florida; that the attached copy of advertisement, being a **Legal Notice** in the matter **RE: Public Notice of Application** was published in said newspaper in the issues of **Classified Hernando & Citrus**, 5/31/2013.

Affiant further says the said **Tampa Bay Times** is a newspaper published at St. Petersburg, in said Pinellas County, Florida and that the said newspaper has heretofore been continuously published in said Pinellas County, Florida, each day and has been entered as second class mail matter at the post office in St. Petersburg, in said Pinellas County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement, and affiant further says that he /she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.



Signature of Affiant

Sworn to and subscribed before me
this **31st** day of **May** **A.D.2013**



Signature of Notary Public

Personally known X or produced identification _____

Type of identification produced _____

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF APPLICATION**

The Department announces receipt of application for a solid waste processing facility permit from the CEMEX Construction Materials Florida, LLC for the management, storage, and processing of alternate fuels and materials, subject to Department rules, at the existing CEMEX Brooksville South Cement Plant located at 10311 Cement Plant Road, Brooksville, Hernando County, Florida.

This application is being processed and is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, Southwest District Office, 13051 Telecom Parkway, Temple Terrace, Florida 33637-0926.

Published in the Tampa Bay Times Hernando Edition
May 31, 2013

(1003969106)



July 11, 2013

Mr. Steve Morgan
Florida Department of Environmental Protection
SW District
13051 North Telecom Parkway
Temple Terrace, FL 33637

Re: Pending Permit #22787-004-SO/31
WACD # 40778, Hernando County, FL

Mr. Morgan:

This letter is being provided in response to your Request for Additional Information (RAI) dated April 24, 2013, Item 3 regarding Attachment 5 – ASB Building Drawings.

The drawings of the ASB Building provided in Attachment 5 of the RAI Response from Koogler and Associates, Inc., dated March 27, 2013 are representative of as-built conditions.

Representatives of FDEP requested and were notified by Coastal Engineering of the placing of the clay liner. It is my understanding that there were representatives from FDEP present during installation of a portion of the liner placement.

Respectfully,

A handwritten signature in black ink that reads "George Townsend". The signature is fluid and cursive, with the first name "George" and last name "Townsend" clearly legible.

George Townsend
Environmental Manager

D:\Documents and Settings\gtownsend\My Documents\Brooksville South\BrS Solid Waste Permit_Pending\ASB Drawing
Response_07112013.docx

Brooksville South Plant

10311 Cement Plant Rd, Brooksville, FL 34601, (352) 799-7881, (352) 799-6088

VI. CERTIFICATION BY ENGINEER

This is to certify that the Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and/or long-term care of the facility and comply with the requirements of Rule 62-701.630 F.A.C. and all other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Rule 62-701.630(4), F.A.C.



Signature

Maxwell R. Lee, Ph.D., P.E.

Name and Title (please type)

3/27/13

Date

58091

Florida Registration Number
(please affix seal)

4014 NW 13th Street

Mailing Address

Gainesville, FL 32609

City, State, Zip Code


mlee@kooglerassociates.com

E-Mail address (if available)

352-377-5822

Telephone Number

VII. SIGNATURE BY OWNER/OPERATOR



Signature of Applicant

James Daniel, Plant Manager

Name and Title (please type)

james.daniel@cenexom

E-Mail address (if available)

10311 Cement Plant Road

Mailing Address

Brooksville, FL 34601

City, State, Zip Code

352-799-7881

Telephone Number

**APPLICATION FOR PERMIT
TO OPERATE AN
ALTERNATIVE FUEL MATERIAL
PROCESSING FACILITY**

CEMEX Construction Materials Florida, LLC
Brooksville South Cement Plant
Brooksville, Hernando County, Florida

Application Date:

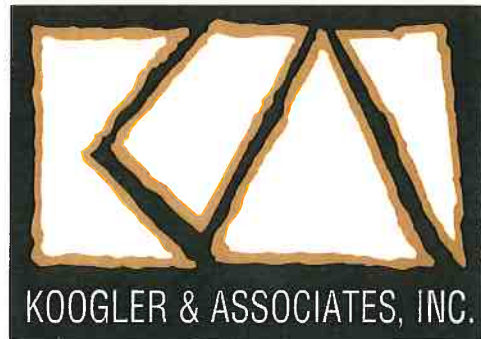
November 13, 2012

Revised: July 11, 2013

for Request for Additional Information dated April 24, 2013

Consultant:

Maxwell R. Lee, Ph.D., P.E.
Tammy L. Reed
Koogler and Associates, Inc.
4014 NW 13th Street
Gainesville, FL 32609-1923
(352) 377-5822



KOOGLER & ASSOCIATES, INC.

ENVIRONMENTAL SERVICES

4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
352/377-5822 ■ FAX/377-7158

**APPLICATION FOR PERMIT TO OPERATE AN ALTERNATIVE
FUEL/MATERIAL PROCESSING FACILITY**

CEMEX Construction Materials Florida, LLC
Brooksville South Cement Plant
Brooksville, Hernando County, Florida

Application Date: November 13, 2012
Revised July 11, 2013
for Request for Additional Information Dated April 24, 2013

Consultant:

Maxwell R. Lee, Ph.D., P.E.
Tammy Reed
Koogler and Associates, Inc.
4014 NW 13th Street
Gainesville, Florida 32609-1923
(352) 377-5822

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ATTACHMENTS

- A. ~~AFM Removal Cost Estimate~~
- B. ~~Professional Engineering Estimate~~
- C. ~~Financial Assurance Cost Estimate Form~~

APPENDIX

- 1. Site Figures
- 2. ASB and A-Frame Building Information

1.0 INTRODUCTION

CEMEX Construction Materials Florida, LLC (CEMEX) owns and operates the CEMEX Brooksville South Cement Plant (facility) located at 10311 Cement Plant Road in Brooksville, Hernando County, Florida. The facility includes two Portland Cement kiln lines and associated equipment capable of producing up to 2,004,000 tons of clinker per year. The cement Kiln No. 2 is currently permitted by the FDEP Air Section to burn natural gas, distillate fuel oil, on specification used oil, coal, petroleum coke, propane, flyash, tire derived fuels, and a variety of alternative fuel materials (AFM) (i.e., plastics; roofing materials; agricultural biogenic materials; untreated and treated cellulosic biomass; carpet-derived fuels; and engineered fuels) that are defined as “non-hazardous” under the rules of 40 CFR 260 (i.e., RCRA) regarding solid waste.

CEMEX believes that their AFM program will result in the following benefits:

1. Promotion of related recycling and recovery business activities (i.e., employment, taxable income) in the State.
2. Reduction of greenhouse gas emissions by re-using and reducing landfilled biogenic material, reducing source material transportation and reducing methane emissions from landfilled materials.
3. Increased demand for recovered materials encourages recovery versus landfilling. This matches the goals of the State efforts to increase waste diversion for re-use or recycling.¹
4. Promotion of a more diverse energy supply which improves the viability of CEMEX and promotes and supports the AFM market.

¹<http://www.dep.state.fl.us/waste/recyclinggoal75/default.htm> (last visited April 18, 2011)

2.0 BACKGROUND INFORMATION

2.1 Permitting

CEMEX has been issued several air construction permits (FDEP Permit Nos. 0530021-031-AC, 035-AC, 037-AC) from the Florida Department of Environmental Protection (FDEP). On April 24, 2012, Permit 0530021-039-AC was issued. The permit was issued for several changes including; construction of long-term mechanical and pneumatic material handling systems for introduction of AFM into the existing preheater/precalciner Kiln No. 2 System; and modification or replacement of the main kiln burner system to allow introduction of a variety of AFM to the Kiln No. 2 System; and the long-term firing of a variety of alternative fuels including tire-derived fuel; plastics; roofing materials; agricultural biogenic materials; untreated and treated cellulosic biomass; carpet-derived fuels; and engineered fuels.

3.0 APPLICATION WITH SECTION B, ADDITIONAL INFORMATION

The following pages include the completed form, 62-7012.900(4) with the additional information required by the form provided in the following subsections.

COPY



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(4), F.A.C.

Form Title: Application to Construct, Operate, or Modify
a Waste Processing Facility

Effective Date: January 6, 2010

Incorporated in Rule: 62-701.710(2), F.A.C.

APPLICATION TO CONSTRUCT, OPERATE, OR MODIFY A WASTE PROCESSING FACILITY

GENERAL REQUIREMENT: Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes (F.S.) and in accordance with Florida Administrative Code (F.A.C.) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315(4), F.A.C., shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP). Complete appropriate sections for the type of facility for which application is made and include all additional information, drawings, and reports necessary to evaluate the facility.

Please Type or Print in Ink

A. GENERAL INFORMATION

1. Type of facility (check all that apply):

☐ Transfer Station

☐ Materials Recovery Facility:

☐ C&D Recycling

☐ Class III MRF

☐ MSW MRF

☐ Other Describe: _____

☒ Other Facility That Processes But Does Not Dispose Of Solid Waste On-Site:

☐ Storage, Processing or Disposal for Combustion Facilities (not addressed in another permit)

☒ Other Describe: AFM Storage and Processing Facility

NOTE: C&D Disposal facilities that also recycle C&D, shall apply on DEP FORM 62-701.900(6), F.A.C.

2. Type of application:

☐ Construction/Operation

☒ Operation without Additional Construction

3. Classification of application:

☒ New

☐ Substantial Modification

☐ Renewal

☐ Intermediate Modification

☐ Minor Modification

4. Facility name: CEMEX Brooksville South Cement Plant

5. DEP ID number: 40778 County: Hernando

6. Facility location (main entrance): 10311 Cement Plant Road Brooksville, FL 34601

7. Location coordinates:
Section: 8 Township: 22S Range: 19E
Latitude: 28° 34' 54" Longitude: 82° 25' 56"
Datum: WGS84 Coordinate Method: Unknown
Collected by: N/A Company/Affiliation: N/A
8. Applicant name (operating authority): CEMEX Construction Materials Florida, LLC
Mailing address: 10311 Cement Plant Road, Brooksville, FL 34601
Street or P.O. Box City State Zip
Contact person: Mr. James S. Daniel Telephone: (352) 799-7881
Title: Plant Manager jdaniele@cemexusa.com
E-Mail address (if available)
9. Authorized agent/Consultant: Koogler and Associates, Inc.
Mailing address: 4014 NW 13th Street, Gainesville, FL 32609
Street or P.O. Box City State Zip
Contact person: Tammy Reed Telephone: (352) 377-5822
Title: Environmental Scientist treed@kooglerassociates.com
E-Mail address (if available)
10. Landowner (if different than applicant): Same as Applicant
Mailing address: _____
Street or P.O. Box City State Zip
Contact person: _____ Telephone: ()
E-Mail address (if available)
11. Cities, towns and areas to be served: NA
12. Date site will be ready to be inspected for completion: TBD
13. Estimated costs:
Total Construction: \$ Not Applicable Closing Costs: \$ 212,608.32-incl. 20% contingency
14. Anticipated construction starting and completion dates:
From: Not Applicable To: Not Applicable
15. Expected volume of waste to be received: _____ yds³/day 240 tons/day
16. Provide a brief description of the operations planned for this facility: _____

Receive and process alternative fuel/materials (AFM) for Portland Cement kiln. Note this facility does
not intend to receive or process secondary materials that are identified as solid waste per 40 CFR 241.
This application is submitted to address state of Florida regulatory matters.

B. ADDITIONAL INFORMATION

Please attach the following reports or documentation as required.

1. Provide a description of the solid waste that is proposed to be collected, stored, processed or disposed of by the facility, a projection of those waste types and quantities expected in future years, and the assumptions used to make the projections (Rule 62-701.710(2)(a), F.A.C.).
2. Attach a site plan, signed and sealed by a professional engineer registered under Chapter 471, F.S., with a scale not greater than 200 feet to the inch, which shows the facility location, total acreage of the site, and any other relevant features such as water bodies or wetlands on or within 200 feet of the site, potable water wells on or within 500 feet of the site (Rule 62-701.710(2)(b), F.A.C.).
3. Provide a description of the operation and functions of all processing equipment that will be used, with design criteria and expected performance. The description shall show the flow of solid waste and associated operations in detail, and shall include (Rule 62-701.710(2)(c), F.A.C.):
 - a. Regular facility operations as they are expected to occur;
 - b. Procedures for start up operations, and scheduled and unscheduled shut down operations; and
 - c. Potential safety hazards and control methods, including fire detection and control.
4. Provide a description of the loading, unloading, storage and processing areas (Rule 62-701.710(2)(d), F.A.C.).
5. Provide the identification and capacity of any on-site storage areas for recyclable materials, non-processable wastes, unauthorized wastes, and residues (Rule 62-701.710(2)(e), F.A.C.).
6. Provide a plan for disposal of unmarketable recyclable materials and residue, and for waste handling capability in the event of breakdowns in the operations or equipment (Rule 62-701.710(2)(f), F.A.C.).
7. Provide a boundary survey, legal description, and topographic survey of the property (Rule 62-701.710(2)(g), F.A.C.).
8. Provide a description of the design requirements for the facility which demonstrate how the applicant will comply with Rule 62-701.710(3), F.A.C.
9. Provide an operation plan which describes how the applicant will comply with Rule 62-701.710(4), F.A.C. (Rule 62-701.710(2)(h), F.A.C.).
10. Provide a closure plan which describes generally how the applicant will comply with Rule 62-701.710(6), F.A.C. (Rule 62-701.710(2)(i), F.A.C.).
11. Unless exempted by Rule 62-701.710(10)(a), F.A.C., provide the financial assurance documentation required by Rule 62-701.710(7), F.A.C. (Rule 62-701.710(2)(j), F.A.C.).
12. Provide documentation to show that stormwater will be controlled according to the requirements of Rule 62-701.710(8), F.A.C.
13. Provide documentation to show that the applicant will comply with the recordkeeping requirements of Rule 62-701.710(9), F.A.C.
14. Provide a history and description of any enforcement actions by the applicant described in subsection 62-701.320(3), F.A.C. relating to solid waste management facilities in Florida. (Rules 62-701.710(2), F.A.C. and 62-701.320(7)(i), F.A.C.)

C. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of CEMEX Construction Materials Florida LLC

is aware that statements made in this form and attached information are an application for a AF storage and

processing facility Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Original on file at Department

Signature of Applicant or Agent

James Daniel

Name and Title (please type)

jdaniel@cemexusa.com

E-Mail address (if available)

10311 Cement Plant Road

Mailing Address

Brooksville, FL

City, State, Zip Code

(352) 799-7881

Telephone Number

Date

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

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

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

Signature

Maxwell R. Lee, Ph.D., P.E.

Name and Title (please type)

4014 NW 13th Street

Mailing Address

Gainesville, FL 32609

City, State, Zip Code

mlee@kooglerassociates.com

E-Mail address (if available)

(352) 377-5822

Telephone Number

11/13/12
Date

58091

Florida Registration Number

(please affix seal)

3.1 Description of Alternative Fuels/Materials (AFM)

Provide a description of the solid waste that is proposed to be collected, stored, processed or disposed of by the facility, a projection of those waste types and quantities expected in future years, and the assumptions used to make the projections (Rule 62-701.710(2)(a), F.A.C.).

The CEMEX Brooksville South Cement Plant has obtained FDEP permitting for air emissions to use the AFM at their facility beginning in early 2011 under air Permit 0530021-031-AC. Additional related air permits have been issued, 0530021-035-AC, 0530021-037-AC, and 0530021-039-AC to allow use of AFM. CEMEX has evaluated AFM under the temporary trial test air permits and the temporary approval from the Southwest FDEP Office of Solid Waste during 2011 (e-mail from Susan Pelz to Max Lee on September 14, 2011 for outdoor storage of clean biomass and peanut hulls.).

As stated above, CEMEX was issued an air construction permit (FDEP Permit No. 0530021-039-AC) from the Florida Department of Environmental Protection (FDEP) on April 24, 2012. The permit was issued for several changes including the firing of a variety of AFM including tire-derived fuel; plastics; roofing materials; agricultural biogenic materials; untreated and treated cellulosic biomass; carpet-derived fuels; and engineered fuels (EF) in the Kiln No. 2 System.

The list of AFM includes:

- a) **Tire-Derived Fuel (TDF)**, which includes whole and shredded tires with or without steel belt material including portions of tires such as tirefluff. The kiln is currently permitted to use whole tires using the existing tire injection mechanism

system. Note that up to 23 percent of tires contribute raw materials and 20 percent of tires are typically biogenic.²

- b) **Plastics**, which include materials such as polyethylene plastics used in agricultural and silviculture operations. This may include incidental amounts of chlorinated plastics. Note that chlorine above the range of 0.2 percent will cause damage to the kiln preventing use of chlorinated plastics.
- c) **Roofing Materials**, which consists of roofing shingles and related roofing materials with the bulk of the incombustible grit material separated and which is not subject to regulations as an asbestos-containing material per 40 CFR 61 subpart M.
- d) **Agricultural Biogenic Materials**, which includes materials such as peanut hulls, rice hulls, corn husks, citrus peels, cotton gin by-products, animal bedding and other similar types of materials.
- e) **Cellulosic Biomass - Untreated**, which includes materials such as untreated lumber, tree stumps, tree limbs, slash, bark, sawdust, sander dust, wood chips scraps, wood scraps, wood slabs, wood millings, wood shavings and processed pellets made from wood or other forest residues.
- f) **Cellulosic Biomass - Treated**, which includes preservative-treated wood that may contain treatments such as creosote, copper-chromium-arsenic (CCA), or alkaline copper quaternary (ACQ), painted wood, or resinated woods (plywood, particle board, medium density fiberboard, oriented strand board, laminated beams, finger-jointed trim and other sheet goods).

² 40 CFR 98

- g) **Carpet-Derived Fuel**, which includes shredded new, reject or used carpet materials.
- h) **Alternative Fuel Mix**, which includes a blended combination of two or more of any of the above materials.
- i) **Engineered Fuel (EF)** is engineered to have targeted, consistent fuel properties such as: calorific value, moisture, particle size, ash content, and volatility. The specific targeted properties are established based on available alternative fuel material supply and are carefully controlled through blending of non-hazardous combustible materials or through separation of non-hazardous incombustible materials from combustible materials (mixes of any alternative fuels where the blending and processing may also include the addition of on-specification used oils or other non-hazardous liquids to ensure consistent and predictable fuel properties). EF is engineered largely from the above materials and could consist of animal meal, automotive manufacturing by-products, clean-up debris from natural disasters, processed municipal solid waste, paint filter cake, hospital materials (non-infectious), pharmaceuticals (expired prescriptions), cosmetics, and confiscated narcotics.

As such, the Brooksville South Cement Plant is requesting to collect, store and process these AFM on-site. The Brooksville South Cement Plant is planning to store AFM in five separate locations on-site. These storage locations with fuel types and capacity tonnage are listed on the following table.

Table 1. AFM Storage Locations

Location* (storage tonnage)	Tire Derived Fuel	Plastics	Roofing Material	Agricultural Biogenic Materials	Cellulosic Biomass- Untreated	Cellulosic Biomass- Treated	Carpet- Derived	Alternative Fuel Mix**	Engineered Fuel
A-Frame Bldg. – Covered (1000 tons)	X	X	X	X	X	X	X	X	X
ASB Storage –Covered (1000 tons)	X	X	X	X	X	X	X	X	X
Alternative Fuel/Material Storage and Processing Slab (300 tons)	--	--	--	X	X	--	--	--	--
Outdoor Storage Trailers (100 tons)	X	X	X	X	X	X	X	X	X
Coal Yard (2500 tons)	--	--	--	X	X	--	--	--	--

* See Section 3.4 for location details

**If such AFM includes material not allowed to be stored outdoors, then the mix will not be stored outdoors.

These locations are mapped and further discussed in the following sections. The total storage capacity of the cement plant locations is 4,900 tons. As such, the Brooksville South Cement Plant is projecting to have a maximum of 4,900 tons of AFM on-site at any given time. AFM on the cement plant site will be managed in accordance with 62-701 F.A.C.

Additional AMF storage area for approximately 2,500 tons is available on the quarry property (Gregg Mine)., which is separately regulated under the environmental resource permit (ERP) issued by the FDEP Mining and Minerals Regulation Department. AFM on the quarry site will be managed as permitted by the ERP and not through this permit. CEMEX acknowledges that no storage or management of AFM at the Gregg Mine shall occur prior to obtaining authorization from the Department's Solid Waste Section. The approximate location of the AFM storage area on the quarry property is shown on Figure 1.

3.2 Site Plans

Attach a site plan, signed and sealed by a professional engineer registered under chapter 471, F.S. with a scale not greater than 200 feet to the inch, which shows the facility location, total acreage of the site, and any other relevant features such as water bodies or wetlands on or within 200 feet of the site, potable water wells on or within 200 feet of the site (Rule 62-701.710(2)(b) FAC.

Facility figures depicting the site location and other relevant features are provided in Appendix 1. The site plan (Figure 1) is provided on one figure at a scale of 1 inch = approx. 330 feet due to the large size of the facility. We are respectfully requesting an exemption from the requirement that the scale be not greater than 200 feet to the inch.

3.3 Description of Equipment

Provide a description of the operation and functions of all processing equipment that will be used, with design criteria and expected performance. The description shall show the flow of solid waste and associated operations in detail, and shall include (Rule 62-701.710(2)(c), F.A.C.):

- a. Regular facility operations as they are expected to occur;***
- b. Procedures for startup operations, and scheduled and unscheduled shut down operations; and***
- c. Potential safety hazards and control methods, including fire detection and control.***

AFM will be used during normal operations and not used during scheduled and unscheduled startup and shutdown of the kiln system. Covered trucks will unload AFM at the designated storage areas. When AFM are to be used in the pyroprocessing process, AFM will be transported via front end loader or open top trailers to the feeder system.

The following photos depict the typical major component of an AFM handling/injection system, the feeder system. The feeder system typically includes a docking station for walking trailers or hopper to unload AFM that is then fed into a screw feeder. The AFM is conveyed, weighed and then injected pneumatically into the kiln. Startup of operations will include the use of the walking bed trailers to deliver AFM to the feeder system. In the case of an unscheduled shutdown of the feeder, delivery of the AFM to the feeder will cease and the trailers will be used to store the AFM until the issue has been resolved. See photos 1-5, representing a typical feeder delivery system.



Photo 1. A typical covered feeder system



Photo 2. Two offloading docks of typical feeder system



Photo 3. Typical screw conveyor in bottom of offloading ports



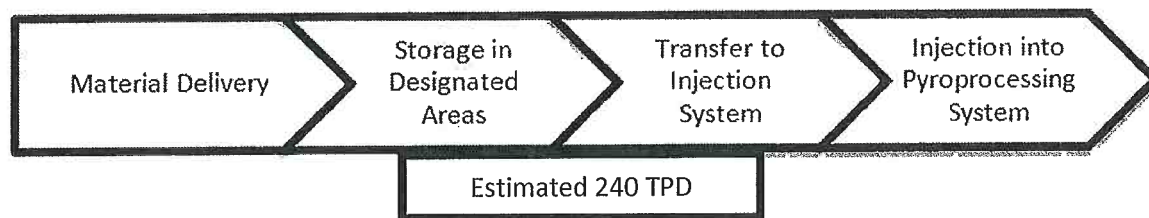
Photo 4. Typical Conveyors coming from offloading ports to metering system



Photo 5. Typical Pneumatic blower from metering system to injection porthole

CEMEX personnel working with the feeder system receive feeder training on proper operation of the system. This will include, but is not limited to, training on safety interlocks, location of all emergency stops, location of electrical disconnects and how to unplug AFM from the system. In addition, the operators have fire safety training as part of employee training.

The flow of alternative fuels from delivery to use will be as follows:



3.4 Description of Loading, Unloading, Storage and Processing Areas

Provide a description of the loading, unloading, storage and processing areas (Rule 62-701.710(2)(d), F.A.C.).

The storage areas and drainage details for each of the planned AFM locations are identified and depicted on Figure 1 (Appendix 1). The facility has two designated covered storage areas, two designated outside storage areas for uncovered AFM, and one outside trailer storage area totaling 4,900 tons. Note that a primary goal is to keep these AFM dry since water within the AFM directly reduces the value of the fuel. Engineered fuel will only be stored under cover or in trailers (see Table 1 for details). The details for these locations are as follows:

A-Frame Building (AFB) – 1,000 ton capacity - NE end of the building. This building has a roof and an impervious floor. The floor is an impervious surface which according to boring logs varies in composition of:

- between 6 inches and 1 foot 6 inches of compacted limestone, beneath which lies between 2 feet 6 inches to 4 feet 6 inches of clay; or
- over 4 feet of clay

Either hard rock or limestone was encountered at each boring at a depth of between 4 and 5 feet. Two permeability tests were performed at depths of 12 to 14 inches below the existing ground surface which resulted in the determination that the floor of the A-Frame Building is impervious. The report with boring logs and methodology of the soil sampling is provided in Appendix 2.

There is a drainage ditch on the south side of the A-Frame building which directs run-off to a concrete lined collection basin. The basin then drains through an underground pipe to the perimeter ditch and is pumped (via a float controlled pump) to the stormwater pond across Cement Plant Road. The remaining ditches also discharge through culverts into the large perimeter ditch. See Figure 1 for the direction of drainage. This building is covered so no drainage from AFM should occur. To address the possibility of windblown rain coming into contact with AFM, the materials will not be stored within approximately 6 feet from the edges of the building.

Additive Storage Building (ASB) – 1,000 ton capacity – SW end of building.
The ASB has a clay lined floor. The floor of the ASB is compacted subgrade material overlain by 10 inches of compacted graded aggregate which is overlain by 12 inches of clay.

Drainage around this building is also directed to a drainage ditch which discharges into the large perimeter ditch. Water from the perimeter ditch is pumped (via a float controlled pump) from the perimeter ditch to the pond across Cement Plant Road. This building is covered so no drainage from AFM should occur. To address the possibility of windblown rain coming into contact with

AFM, the materials will not be stored within approximately 6 feet from the edges of the building.

- **Alternative Fuel/Materials Storage and Processing Slab (AFM slab):** Slab - 300 ton capacity. Drainage is directed to the drainage ditch which outfalls to a clay-lined the settling pond (See Figure 1, Appendix 1). AFM are temporarily placed in this location prior to injection into the alternative fuels feeding system. Agricultural biogenic material or untreated biomass will be stored and processed here. This area will be covered/tented should other types of AFM require processing on the AFM slab.
- **Outdoor Trailer Storage – 100 tons.** Drainage is directed to the drainage ditch which outfalls to a settling pond across Cement Plant Road. However, all AFM in this location will be stored in enclosed trailers.
- **Coal Yard – 2,500 tons.** Drainage is directed to ~~the existing ditch which outfalls~~ to the settling pond to the north. Agricultural biogenic material or untreated biomass will be stored in this location. Coal pile runoff is directed to a separate settling pond to the north as shown on Figure 1. ~~biomass fuel storage area runoff, and leachate from less than the 10-year 24-hour rainfall is collected in a lined ditch and treated in the existing perimeter ditch prior to discharge to the~~ tailings pond.

3.5 Storage Capacity

Provide the identification and capacity of any on-site storage areas for recyclable materials, non-processable wastes, unauthorized wastes, and residues (Rule 62-701.710(2)(e), F.A.C.).

The above citation from the regulation is intended to address solid waste facilities and does not apply entirely to this AFM processing facility. CEMEX will accept a wide variety of AFM as described in previous sections, many of which are not defined as solid waste. However, for the purposes of this permitting process, CEMEX will manage all of the AFM in accordance with 62-701 F.A.C.

CEMEX intends on occasionally processing AFM on-site for screening and reducing sizing as needed at the AFM slab (inert, untreated biomass or agricultural by-products) or under cover in the ASB location. Portable tents or other type of wind barriers will be utilized at the AFM slab as necessary to prevent release of material to the air or water. After AFM is screened and/or reduced in size, the AFM will be stored in one of the designated on-site locations or at the designated storage location within the quarry property. Processing is considered as a secondary process and will be utilized as needed for material handling purposes. For example, if a whole tire is not acceptable, then it can be shredded then fed into the kiln, instead of setting aside for shipment off-site. CEMEX will make every effort to ensure that unauthorized wastes are not brought on-site.

3.6 Plan for Disposal

Provide a plan for disposal of unmarketable recyclable materials and residue, and for waste handling capability in the event of breakdowns in the operations or equipment (Rule 62-701.710(2)(f), F.A.C.).

Not applicable.

3.7 Boundary Survey, Legal Description, and Topographic Survey

Provide a boundary survey, legal description, and topographic survey of the property (Rule 62-701.710(2)(g) FAC.

Boundary surveys with legal descriptions are on file with the Department for the CEMEX property. A site plan (Figure 1) and topographic map (Figure 2) are provided in Appendix 1.

3.8 Design Requirements - Rule 72-701.710(3)

(a) Tipping, processing, sorting, storage and compaction areas that are in an enclosed building or covered area shall have ventilation systems. The areas that are not enclosed shall be equipped with litter control devices.

The identified storage areas have adequate ventilation being either outdoors or pole barns (see Figure 1, Appendix 1). The areas are maintained the same as conventional fuel storage areas with housekeeping measures implemented to maintain the product by sweeping and dust control as needed.

(b) The facility shall be designed with a leachate control system to prevent discharge of leachate and avoid mixing of leachate with stormwater, and to minimize the presence of standing water.

These AFMs typically have 5-50% moisture, with some fresh cut woods having up to 50% moisture. Given these are fuels that should be dry, CEMEX intends to minimize outdoor storage of AFMs, and outdoor storage will only be used for clean materials as listed in Table 1. CEMEX is currently permitted to store up to 55,000 tons of coal outside which contains similar constituents to AFMs.

Engineered Fuels (EFs) are expected in the next few years to comprise approximately 30 percent of the AFMs to be utilized at the facility, and they will be kept undercover. EFs are generally dry materials, with less than 10% moisture.

When confiscated AFMs are brought on-site, they are escorted directly to the kiln and are not stored on site.

To reduce the possibility of windblown rain from coming into contact with any AFMs stored undercover, they will be staged no closer than 6 feet from the edges of the building. Additionally, two sides of the ASB building are enclosed with a 10 foot wall, and the building is partitioned lengthwise by a 12 foot interior wall which will assist with keeping the AFMs separated.

(c) Provisions shall be made for evaluating the quantity of all incoming solid waste and recovered materials. Storage areas shall be designed to hold the expected volume of materials until they are transferred for disposal or recycling.

The receipt of AFM will be monitored as described in Sections 3.6 and 3.9. The storage areas have already been constructed and are designed to hold the expected volume of AFM until transferred for use in the kiln. All incoming AFM are weighed and the weights documented. Records of each shipment will be stored for at least three years. See Sections 3.4, 3.5, and 3.6 for additional details on the handling and storage of AFM.

3.9 Operation Plan

Provide an operation plan which describes how the applicant will comply with Rule 62-701.710(4), F.A.C. (Rule 62-701.710(2)(h), F.A.C.).

3.9.1 Receiving

The air permitting requires AFM to be received at the facility in covered trucks and/or in enclosed containers. During unloading and handling of AFM, the facility will use precautions as necessary to prevent fugitive dust emissions. AFM will be transported within the facility by open top trailers and stored in accordance with applicable regulations. Most AFM such as processed carpet, plastic, and paper will likely be delivered in large bales – which may require minimal processing, but other AFM such as processed roofing shingles, peanut hulls, engineered fuels, sawdust and wood shavings would likely come in unbaled or loose. AFM will be inspected by the provider prior to shipment. If unacceptable material is found, it will be removed. Access to the facility is regulated by a manned guard gate at all times.

3.9.2 Preparation

As mentioned in Section 3.5, depending on the AFM, the AFM may periodically be additionally sized (i.e., grinded) and may also be screened to ensure uniform particle size as well as removal of unwanted materials, and/or passed through a belt magnet for additional metal removal. A primary requirement of the quality of the AFM is minimal moisture content, thereby limiting the potential of wet material to the maximum extent possible. Such periodic processing and storage will be conducted either under cover in the ASB building (for all AFM) and on the AFM slab (for inert, untreated biomass or agricultural by-products). After processing is complete, mechanically transported AFM will be moved by mobile equipment (front loader, truck and trailer, etc.) to designated storage locations (see Table 1) or to a hopper system which feeds the AFM into the pyroprocessing system (kiln). Dust suppression in storage areas will be used as

needed. The facility will store AFM under cover and on a concrete or compacted clay surface with run-off control.

3.9.3 Transport, Handling, and Storage

The transport of AFM in the site will be in opened top trailers or by front end loader, with dust suppression as needed to control fugitive dust. Trucks delivering AFM to the site will be covered trucks and will enter through the front gate and deposit the AFM at one of the four specified locations (See Figure 1, Appendix 1).

The floors of the alternative fuel storage areas of the A-Frame and the ASB buildings will be repaired as depression occurs from front-end loader traffic. Clay will be used for the repairs and will be compacted.

3.9.4 Personnel

The responsible person(s) for individual portions of operation.

Plant Manager: James Daniel

Environmental Manager: George Townsend

3.9.5 Equipment

See Section 3.3 of this document.

3.9.6 Best Management Practices (BMP) Plan

Table 2. Best Management Practices Plan	
Practice	Description
Minimization of Fugitive Dust	1) Drop points to storage areas shall be designed to minimize the overall exposed (or exposed to the atmosphere) drop height for AFM that have the potential to create airborne dust particles. 2) Periodic maintenance shall be performed to maintain off-loading locations and associated drop point integrity as necessary.
Minimization of AFM in Contact with Stormwater	1) AFM will be processed and stored under cover or in enclosed conditions. It is a primary goal of the facility to keep the AFM dry per category (e.g. agricultural biogenic material and untreated biomass will be stored outdoors, not under cover).

Fire Prevention/ Spontaneous Combustion Minimization	<ol style="list-style-type: none"> 1) The Emergency Response Plan includes: <ol style="list-style-type: none"> a. Facility maintains a separate Fire Prevention and Safety Plan on-site. b. The local Fire Department performs an annual inspection of the facility. c. All buildings and mobile equipment are equipped with firefighting equipment as required by all county, state, and federal codes and regulations. 2) Proper storage of AFM to ensure that heat generated from pile compaction does not result in spontaneous combustion. 3) All fuel areas must display appropriate signage (fire hazard warnings, no smoking, etc.) to notify personnel and visitors of any potential fire hazards to prevent accidental combustion of AFM.
Quality Assurance	<ol style="list-style-type: none"> 1) The AFM shall be delivered to the Plant with all loads properly secured, contained, and covered. 2) For each shipment of AFM, the permittee shall record the date, quantity and a description of the AFM received and keeps a record of the Bill of Lading for a minimum of two years. 3) The permittee shall inspect and sample shipments of AFM to ensure that delivered AFM meet the respective expected selection criteria. If the permittee identifies off-specification material, the supplier shall be contacted and the AFM shall be returned, disposed, blended, or any other appropriate legal method of handling the AFM shall be employed. 4) The permittee shall maintain records of off-specification deliveries and actions taken to correct such abnormalities. Such records shall be stored on-site for at least two years and available for inspection upon request.
<u>Maintenance</u>	<u>The floors of the alternative fuel storage areas of the A-Frame and the ASB buildings will be inspected regularly and will be repaired as depression occurs from front-end loader traffic. Clay will be used for the repairs and will be compacted.</u>
Safety	CEMEX maintains a separate Safety Plan on-site.

3.9.7 Contingency Plan

~~In the event of an operational interruption or emergency, such as fires, explosions, or natural disasters, material delivery to the facility will cease until the interruption or emergency has been resolved. The Facility maintains a separate Contingency Plan [CONTINGENCY PLAN (EMERGENCY PROCEDURES), December 2012]. A copy of this plan was provided to the Department on March 28, 2013 with the response to the~~

request for additional information dated December 13, 2012. This Plan addresses a broad range of contingencies that are described in 62-701.320.(16) including fires, explosions, and natural disasters.

~~The Contingency Plan shall be kept at the facility at all times and shall be accessible to facility operators. The contingency plan includes:~~

- ~~1. Designation of persons responsible for implementation of the contingency plan;~~
- ~~2. Procedures for notification of appropriate emergency response persons, including the department, the local government, and local fire protection agencies;~~
- ~~3. A description of emergency procedures to be followed, including the location of fire fighting equipment and explanations of how to use this equipment;~~
- ~~4. Provisions for the immediate shutting down of those parts of the facility affected by the emergency and notification to customers of the closure of the facility; and~~
- ~~5. Procedures for notification of neighbors and local government officials of the potential impacts of the emergency, and provisions to minimize those impacts.~~

3.9.8 Operators and Spotters

Not applicable to the processing and storage of AFM. AFM comes to the facility as a sorted and sized commodity. Therefore, the requirement of regulated spotter and operator training per 62-701.320(15), F.A.C. should not be required.

3.9.9 Objectionable Odors

The facility will be operated such that objectionable odors will be addressed in accordance with subsection 62-296.320(2), F.A.C. The facility will not allow the

discharge of air pollutants which cause or contribute to an objectionable odor beyond the facility boundary.

3.9.10 Fire Protection

The facility has adequate fire protection available at all times.

3.9.11 Access

Access to the facility is controlled through the use of plant personnel on-site 24 hours per day, 7 days per week, by the use of surveillance cameras, fences, and natural barriers. All vehicles are logged in and out.

3.9.12 Regulated Hazardous Wastes

If regulated hazardous wastes are discovered to have been improperly deposited at the facility, the facility operator will promptly notify the Department, the person responsible for shipping the wastes to the facility, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the facility operator shall assure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility.

3.10 Closure Plan

A separate Closure Plan was developed for this permit application, dated March 19, 2013 and will be kept on file at the Facility. The Closure Plan was submitted to the Department on March 28, 2013 with the response to request for additional information dated December 13, 2012.

~~3.10.1 Notification and Closing Process~~

~~Prior to ceasing operations, notification will be provided to the Department and contracted waste suppliers and generators of the intent to close and the expected time frame. Access to the facility is controlled through the use of plant personnel on-site 24 hours per day, 7 days per week, by the use of surveillance cameras, fences, and natural barriers. All vehicles are logged in and out. When the facility is no longer going to function as an AFM processing facility, the plant personnel will deny access of AFM to the facility. A notice will be posted at the entrance to the property stating that the facility is closed.~~

~~Prior to closing the facility, any remaining AFM from the storage areas will be combusted in the cement kilns or removed from the facility by a permitted hauler and management facility or returned to the supplier(s).~~

~~3.10.2 Quantity of Alternative Fuel Material (AFM)~~

~~The maximum quantity of AFM to be stored at the facility is 4,900 tons. There is no disposal of ash from the combustion of AFM in the cement manufacturing process. Maximum usage for the kiln system is estimated at 240 tons/day, with an average expected usage of 150 tons/day. The expected average inventory turnaround is therefore approximately 33 day's supply based on 4,900 tons per day of storage and 150 tons per day usage. For the CEMEX Brooksville South Cement Plant facility, that amount is as follows:~~

$$\text{——— } 150 \text{ tons/day} \times 33 \text{ days} = \underline{4,900 \text{ tons of AFM}}$$

~~At a higher usage rate, the AFM storage would be for a shorter period of time.~~

3.10.3 Closure Scheduling

~~At the time a decision is made to close the facility, it is estimated that the total time necessary for closure will be as follows:~~

~~Notification Period — 60 days~~

~~The Notification Period is expected to be 60 days to allow time for collectors to revise their routing and notify the facilities to receive the AFM.~~

~~Combust All AFM At Facility — 60 days~~

~~After the 60 day Notification Period ends, the facility will be closed to incoming AFM. As the facility will be managed to ensure that approximately less than 30 times the daily capacity of the equipment is stored, approximately 30 days of normal operations are necessary to combust all AFM. To cover any unforeseen circumstances (i.e., down time), this phase of closure is estimated to be 60 days.~~

~~Removal of Residues — 30 Days~~

~~Although significant quantities are not expected, any residues at the facility will be removed to a permitted facility or receiver.~~

~~Restore Facility to its Pre-Permit Condition~~

~~If facility rehabilitation in accordance with 62-711.700(3)(c) is deemed necessary by the Department, CEMEX will work with the Department to develop and implement a plan for action. Part of the plan development will address adequate time for completion. Without a scope of work, the time frame to complete this task is unknown.~~

Department Notification

~~GEMEX will notify the Department when the closing of the facility is complete. GEMEX understands that the Department will inspect the site to ensure that all closing procedures have been correctly implemented and completed. Upon Department inspection and approval of the facility closing, the Department shall provide GEMEX approval of the closing in writing. It is further understood that the Department Secretary or his designee shall release the financial instrument within 30 days of closing approval.~~

3.10.4 Closure Cost Estimates

~~The estimated closing costs for the facility are based on current third party estimates. The third parties are not subsidiary or parent companies and their estimates are based on performing the work and are reported on a per unit basis. Closing costs include removal and disposal of AFM, manual labor for facility cleanup, facility re-grading (if necessary), and inspection by a Professional Engineer registered in the state of Florida. The cost estimates are certified by a Professional Engineer. The cost estimate is re-estimated at least annually and submitted to the Department at least 60 days prior to the anniversary date of the instrument.~~

~~To demonstrate financial assurance of the facility closing costs, GEMEX will obtain a guarantee bond that meets or exceeds the required amount of money for the closure costs.~~

~~The actual estimated cost of closing the facility at the time of development of this Closure Plan is \$177,173.60, plus the contingency estimate of \$35,434.72 for a total of \$212,608.32. The closing estimates are provided in the Attachments, and are detailed in the following sections:~~

~~Removal/Disposal of AFM~~

~~The closing cost estimate for this task is based on the quantity of AFM that is permitted for the facility at the amount that would be expended to remove, process, and dispose of AFM at the facility and to close the related operations at the facility. The estimate was obtained from Greenway Recycling and is provided as Attachment A. The estimate was obtained for 4,400 tons of AFM, not 4,900 tons as currently proposed. Therefore, a cost estimate for the transport and disposal of 4,900 tons of AFM based on the Greenway Recycling estimate is as follows:~~

- ~~• 4,900 tons @ approximately \$35.00 ton = \$171,500~~

~~Professional Engineer Services~~

~~This cost estimate is for an inspection by a professional engineer registered in Florida. A professional engineer will visit the facility to determine if there are spills or any AFM remaining after the removal of residues. The engineer will provide an inspection report detailing the findings and if applicable, will direct the cleanup effort. The closure cost estimate includes the cost for the inspection and~~

reporting (see Attachment B). The estimate for professional engineering services is as follows:

- Site Inspection and Reporting — 8 hours at \$175/hour = \$1,400.00

Manual Labor

The cost of manual cleaning and debris removal is based on the United States Bureau of Labor Statistics for Occupational Employment and Wages, May 2011 for Cleaners of Vehicles and Equipment.³ The cost of rough grading was obtained from RSMeans.⁴ The costs for manual labor for facility clean-up and re-grading (if necessary) are estimated as follows:

- Cleanup — \$25/man-hour x 80 hrs. = \$2,000.00
- Rough Grading — Equipment Operator \$51.00/8 hr. day and Backhoe \$728.80/day for two 8 hour days = \$2,273.60.

3.10.5 Summary of Closure Plan

CEMEX has developed this Closure Plan in accordance with Rule 62-701.320(10)(b) (F.A.C.). Closing cost estimates were obtained from independent third parties, and appropriate proof of financial responsibility will be provided upon the Department's approval of this closure plan and closure cost estimates. The total current estimated

³ US DEPARTMENT OF LABOR, OCCUPATIONAL EMPLOYMENT STATISTICS, Occupational Employment and Wages, May 2011. <http://www.bls.gov/oes/current/oes537061.htm>

⁴ RSMeans. *Assemblies Cost Data*, 28th Annual Edition; 2003.

~~cost of closing the facility including a contingency fee is \$212,608.32. A Financial Assurance Cost Estimate Form is provided as Attachment C.~~

3.11 Financial Assurance

~~**Unless exempted by Rule 62-701.710(10)(a) FAC, provide the financial assurance documentation required by Rule 62-701.710(7) FAC (Rule 62-701-710(2)(j) FAC).**~~

~~CEMEX will provide the required financial assurance upon the Department's review and approval of the closing cost estimates, and no later than sixty days prior to accepting AFM at the site under this solid waste permit. CEMEX will add a 20 percent contingency fee (\$35,434.72) to the estimated closing costs for financial assurance to be provided totaling \$212,608.32.~~

3.121 Stormwater Control

~~**Provide documentation to show that stormwater will be controlled according to the requirements of Rule 62-701.710(8), F.A.C.**~~

The facility was not required to obtain an Environmental Resource permit and has a letter from the Environmental Protection Agency stating that a National Pollutant Discharge Elimination System (NPDES) permit is not required. The facility has a closed drainage system. Run-off from the facility is directed to various ditches and settling ponds. ~~perimeter drainage ditch which is pumped to a series of on-site ponds.~~ In the event of a storm event causing the ponds on the south side of Cement Plant Road to overflow, two emergency spillways would direct flow to the adjacent property owned by CEMEX. Based on the proposed storage, at no time would there be a discharge of stormwater to waters of the United States and no ditch connects to off-site surface waters. CEMEX conducts quarterly monitoring of the perimeter ditch and one of the

receiving ponds (shown in Figure 1, Appendix 1) in accordance with the Site Certification Permit.

All of the proposed storage areas are designated as Flood Zone X (not within a flood zone).

3.132 Recordkeeping Requirements

Provide documentation to show that the applicant will comply with the recordkeeping requirements of Rule 62-701.710(9), F.A.C.

CEMEX will retain operational records to include a daily log of the quantity and type of AFM received, the quantity transferred to the kiln for energy recovery, and the quantity shipped off-site. These records will include each type of AFM which is processed, recycled, and/or disposed. The records will be compiled on a monthly basis and made available for inspection by the Department. The facility will retain the records for a minimum of three years.

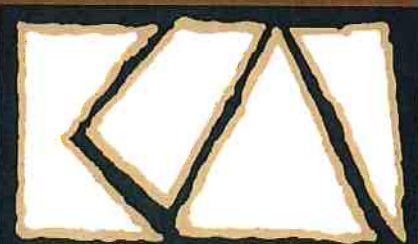
3.143 Enforcement Actions

Provide a history and description of any enforcement actions by the applicant described in subsection 62-701.320(3), F.A.C. relating to solid waste management facilities in Florida. (Rules 62-701.710(2), F.A.C. and 62-701.320(7)(i), F.A.C.)

The facility has not had any enforcement actions relating to solid waste management facilities in Florida.

1. Site Figures
2. ASB And A-Frame Building
Information

A P P E N D I C E S

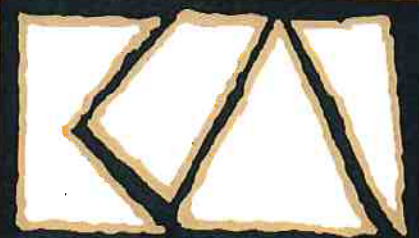


KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES

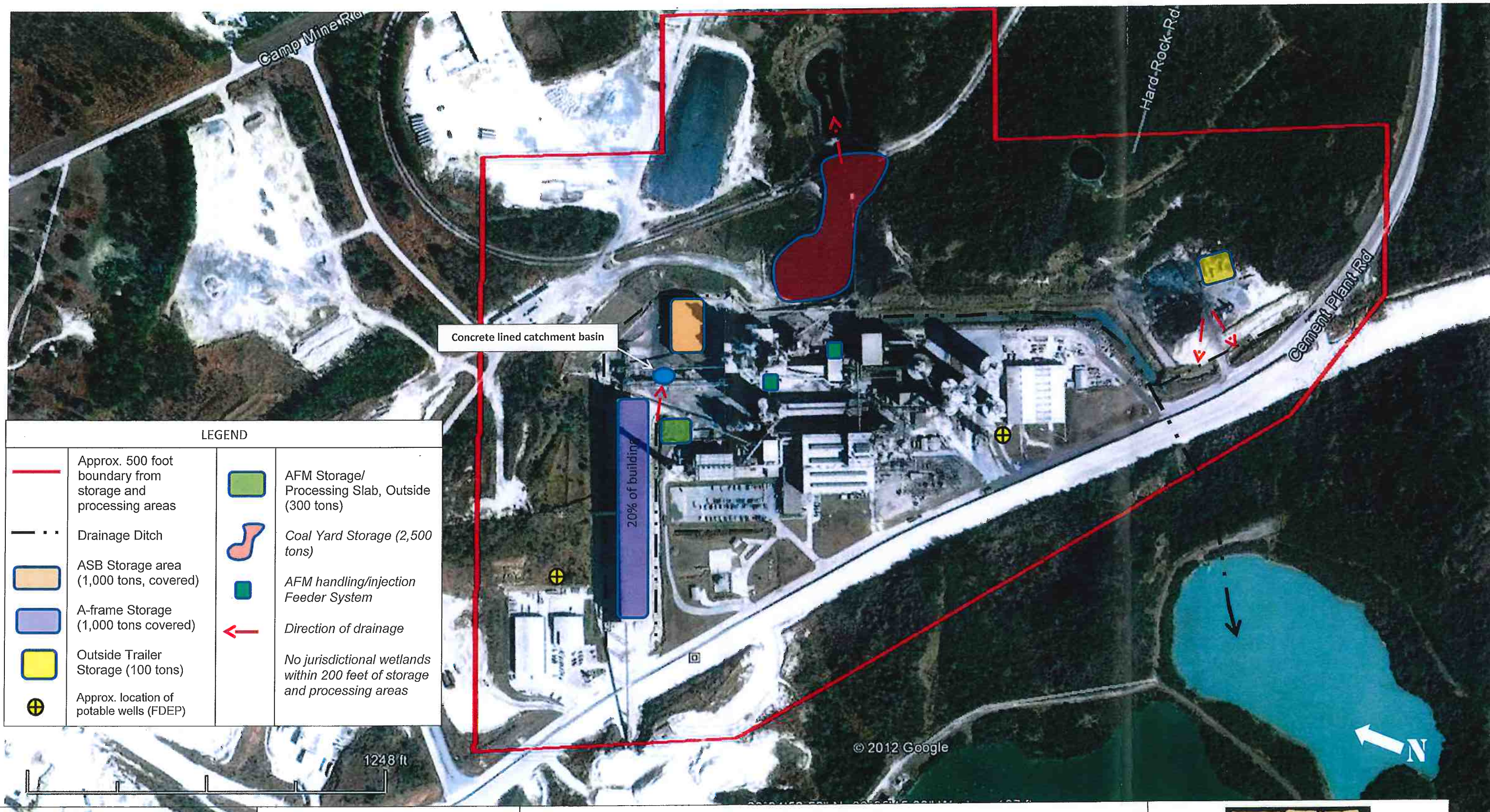
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LEGEND			
	Approx. 500 foot boundary from storage and processing areas		AFM Storage/ Processing Slab, Outside (300 tons)
	Drainage Ditch		Coal Yard Storage (2,500 tons)
	ASB Storage area (1,000 tons, covered)		AFM handling/injection Feeder System
	A-frame Storage (1,000 tons covered)		Direction of drainage
	Outside Trailer Storage (100 tons)		No jurisdictional wetlands within 200 feet of storage and processing areas
	Approx. location of potable wells (FDEP)		

Professional Engineer Certification

Maxwell R. Lee, Ph.D., P.E. Date 7/11/13

P.E. No. 58091

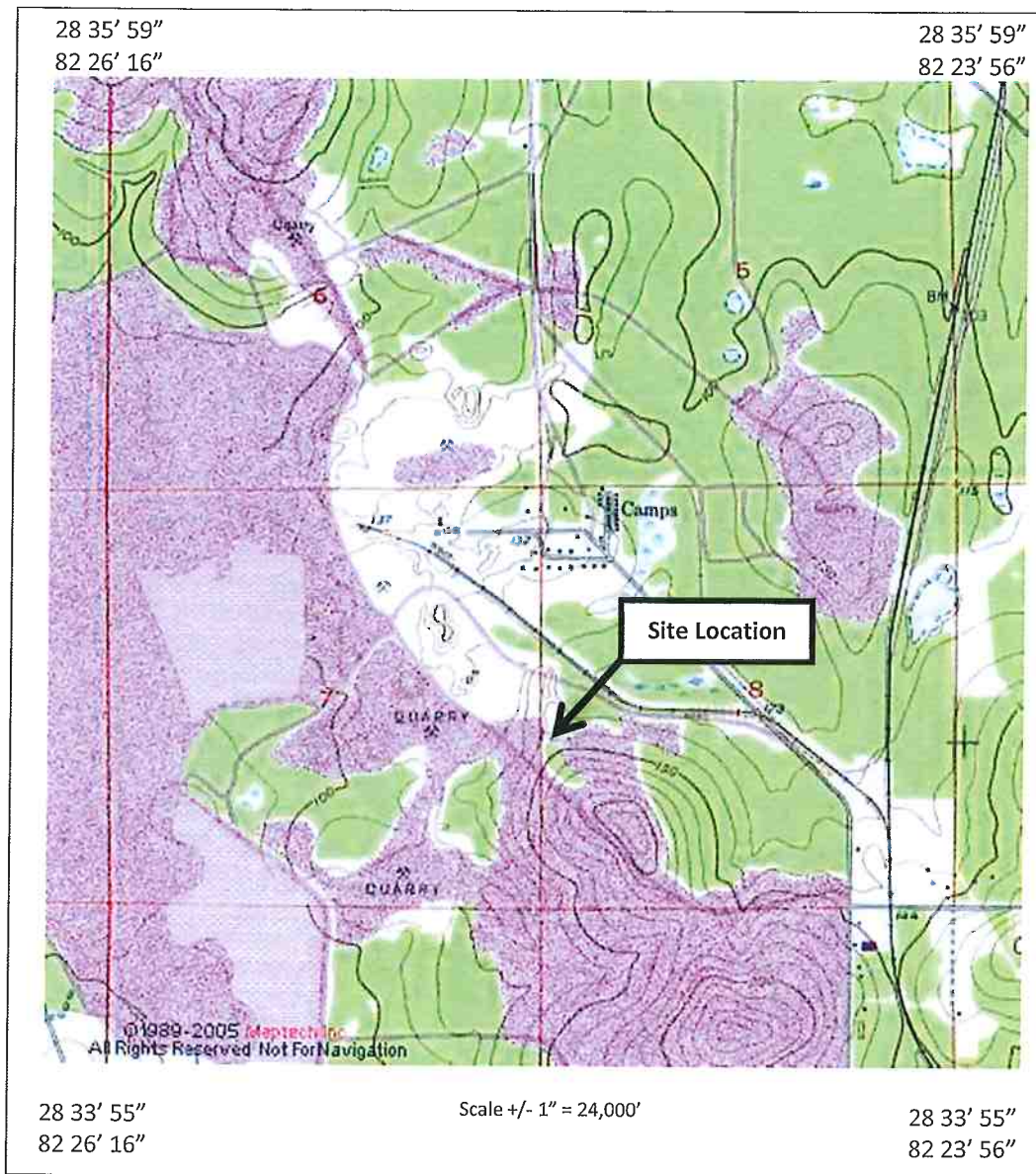
Scale 1"= +/- 330'

Aerial Image from Google Earth
Image Date 01/26/11

Drawing No. 307-12-04

Figure 1 - Site Plan
AFM Storage/Processing Locations
CEMEX Brooksville South-Alternative Fuel Material
Permit Application, 62-701, FAC
Brooksville, Hernando County, FL

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
 4014 NW THIRTEENTH STREET
 GAINESVILLE, FLORIDA 32609
 352/377-5822 • FAX 377-7158



USGS map web address: <http://mapserver.mytopo.com/homepage/index.cfm> (last visited October 31, 2012)

Professional Engineer Certification

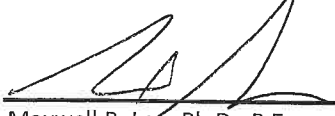
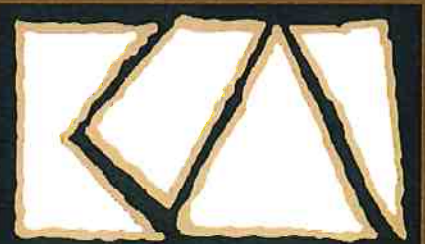

Maxwell R. Lee, Ph.D., P.E. Date 7/11/13
P.E. No. 58091

FIGURE 2
USGS Topographic Map
CEMEX Brooksville South
Alternative Fuel Material
Permit Application, 62-701, FAC
Brooksville, Hernando County, FL


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2

BUILDING INFORMATION



KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES

February 28, 2013

Coastal Engineering Associates, Inc.
966 Candlelight Boulevard
Brooksville, FL 34601
(352) 796-9423
(352) 799-8359 fax

Attn: Joe Calamari
jcalamari@coastal-engineering.com
(352) 279-1022

Subject: Permeability Tests & Auger Borings
Proposed Bio-Mass Storage Facility
10206 Cobb Road
Brooksville, Hernando County, Florida
CTL Project No. 1381056.100

Dear Mr. Calamari:

Central Testing Laboratory (CTL) has completed the requested testing services for the referenced project site. The auger borings were performed in general accordance with the applicable ASTM standard procedures. A copy of this procedure is attached for your review. Boring AB-1 was advanced with a hand auger. Due to the stiffness of the clay soils and encountered limestone materials, a truck mounted drill rig was mobilized to perform auger boring AB-2, AB-3 and AB-4.

The auger borings and field permeability tests were performed within the footprint of the proposed project. The approximated locations are shown on the attached Figure No. 1.

As requested, CTL has performed two (2) vertical permeability tests and four (4) auger borings at the above referenced site. The permeability test was performed at depths of 12 and 14 inches below the existing ground surface. The soil profiles were obtained from auger borings advanced to depths of between 4.0 and 5.0 feet below existing site grade.



Coastal Engineering Associates, Inc.
Proposed Bio-Mass Storage Facility, Brooksville
CTL Project No. 1381056.100

February 28, 2013
Page No. 2

The field vertical permeability tests were performed at locations shown on Figure No. 1. The resulting measured permeability is included in the following table. The permeability test standpipe was filled with water and after 30 minutes the water level did not move. This is an indication that the soils being tested are generally considered impervious.

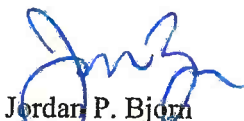
LOCATION	VERTICAL PERMEABILITY (ft/day)	DEPTH OF PERMEABILITY TEST (in)
P-1	None - Impervious	12
P-2	None - Impervious	14

CTL appreciates this opportunity to provide these services for you and looks forward to working with you on the next phase of your project. Should you have any questions regarding this report, please contact our Inverness office at (352) 726-6447, by fax at (352) 726-6385 or by e-mail at inverness@ctfl.com.

Respectfully submitted,
Central Testing Laboratory



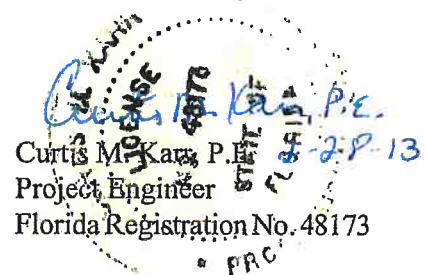
Terry D. Bland
Branch Manager



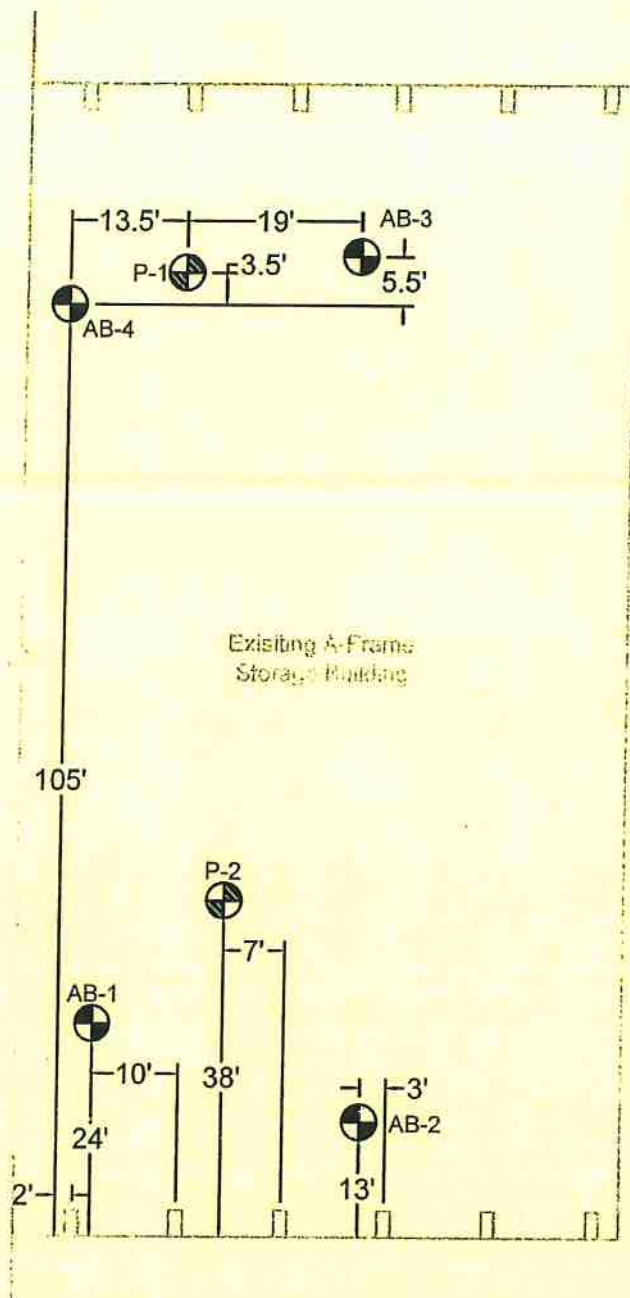
Jordan P. Bjorn
Staff Engineer



cc: File

CMK/tap



Curtis M. Kay, P.E.
Project Engineer
Florida Registration No. 48173
FRC



 Auger Boring
 Permeability

Not to Scale



Central Testing Laboratory Engineering & Materials

5400 South Florida Avenue
Inverness, FL 34450

Subsurface Soil Exploration
TEST LOCATIONS
Bio-Mass Storage Facility
10206 Cobb Road
Brooksville, FL 34601

Drawn by: JPB
Checked by: TDB

CTL Project No.: 1381056.200

Coastal Engineering Associates, Inc.
966 Candlelight Blvd
Brooksville, FL 34601

Figure No. 1

BORING LOG

BORING NO. AB-1

PROJECT: Bio-Mass Storage Facility, 10206 Cobb Road, Brooksville

DATE: 2-25-13

BORING LOCATION: see Figure No. 2

ELEVATION: N/A

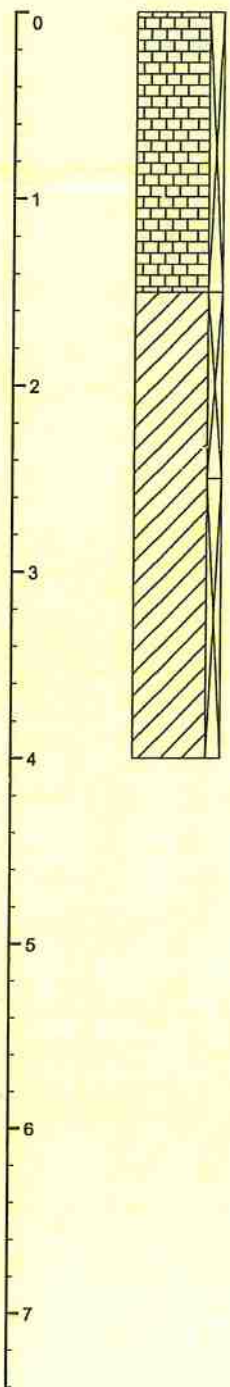
BORING METHOD: ASTM D-4700

DRILLER: JB

CTL PROJECT No.: 1381056.200

CLIENT: Coastal Engineering Associates, Inc.

DEPTH TO - Water: N/E

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	(new title)			
			TEST RESULTS			
			PLASTIC LIMIT	LIQUID LIMIT	PERCENT PASSING # 200	MOISTURE % *
			HC-VALUE			
			10	20	30	40
0		Very Pale Brown Weathered Limestone 10yr 7/3				
1						
2		Pale Brown Sandy Clay w/Limestone Fragments 10yr 6/3 (CL)				
3		Light Yellowish Brown Sandy Clay w/Limestone Fragments 10yr 6/4 (CL)				
4		Terminated due to rock.				
5						
6						
7						

Notes:

BORING LOG

BORING NO. AB-2

PROJECT: Bio-Mass Storage Facility, 10206 Cobb Road, Brooksville

DATE: 2-26-13

BORING LOCATION: see Figure No. 2

ELEVATION: N/A


BORING METHOD: ASTM D-4700

DRILLER: JB

CTL PROJECT No.: 1381056.200

CLIENT: Coastal Engineering Associates, Inc.

DEPTH TO - Water: N/E

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	(new title)			
			TEST RESULTS			
			PLASTIC LIMIT	LIQUID LIMIT	PERCENT PASSING # 200	MOISTURE % *
			HC-VALUE			
			10	20	30	40
0		Very Pale Brown Weathered Limestone 10yr 7/4				
1		Brown Sandy Clay w/Limestone Fragments 10yr 4/3 (CL)				
2						
3						
4		Very Pale Brown Weathered Limestone 10yr 7/3				
5						
6						
7						

Notes:

BORING LOG

BORING NO. AB-3

PROJECT: Bio-Mass Storage Facility, 10206 Cobb Road, Brooksville

DATE: 2-26-13

BORING LOCATION: see Figure No. 2

ELEVATION: N/A


BORING METHOD: ASTM D-4700

DRILLER: JB

CTL PROJECT No.: 1381056.200

CLIENT: Coastal Engineering Associates, Inc.

DEPTH TO - Water: N/E

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	(new title)			
			TEST RESULTS			
			PLASTIC LIMIT	LIQUID LIMIT	PERCENT PASSING # 200	MOISTURE % *
			HC-VALUE			
0		Pale Brown Sandy Clay w/Limestone Fragments 10yr 3/3 (CL)	10	20	30	40
1						
2						
3						
4						
5		White Weathered Limestone 10yr 8/1				
6						
7						

Notes:

BORING LOG

BORING NO. AB-4

PROJECT: Bio-Mass Storage Facility, 10206 Cobb Road, Brooksville

DATE: 2-26-13

BORING LOCATION: see Figure No. 2

ELEVATION: N/A

BORING METHOD: ASTM D-4700

DRILLER: JB

CTL PROJECT No.: 1381056.200

CLIENT: Coastal Engineering Associates, Inc.

DEPTH TO - Water: N/E

ELEVATION/ DEPTH (FT)	SOIL SYMBOLS SAMPLER SYMBOLS AND FIELD TEST DATA	FIELD CLASSIFICATION	(new title)			
			TEST RESULTS			
			PLASTIC LIMIT	LIQUID LIMIT	PERCENT PASSING # 200	MOISTURE % *
			HC-VALUE			
			10	20	30	40
0		Light Yellowish Brown Sandy Clay Mixed w/Limestone 10yr 6/4 (CL)				
1		Very Pale Brown Weathered Limestone 10yr 8/2				
2		Yellowish Brown Sandy Clay Mixed w/Limestone 10yr 5/4 (CL)				
3						
4						
5		Terminated due to hard rock.				
6						
7						

Notes:

KEY TO SYMBOLS

Symbol Description

Strata symbols



LIMESTONE



INORGANIC CLAYS
MEDIUM PLASTICITY

Soil Samplers



Bulk sample taken
from 6 in. auger

Notes:

1. ELEVATIONS REPORTED ON LOGS PROVIDED BY CLIENT.
2. THESE LOGS ARE SUBJECT TO THE LIMITATIONS, CONCLUSIONS, AND RECOMMENDATIONS IN THIS REPORT. DUE TO POSSIBLE VARIANCES IN THE SUBSURFACE BETWEEN THE LOCATIONS OF THE BORINGS, AND THE VARYING DEGREE OF DISTURBANCE, THE DESCRIPTIONS GIVEN ARE GOOD ONLY FOR THE MATERIALS REMOVED DURING THE CONSTRICTION OF EACH BORING.
3. RELATIVE DENSITY (sand-silt)

VERY LOOSE - Less than 4 blows/ft.	LOOSE - 4 to 10 blows/ft.
MEDIUM - 10 to 30 blows/ft.	DENSE - 30 to 50 blows/ft.
VERY DENSE - More than 50 blows/ft.	
4. CONSISTENCY (clay)

VERY SOFT - Less than 2 blows/ft.	SOFT - 2 to 4 blows/ft.
MEDIUM - 4 to 8 blows/ft.	STIFF - 8 to 15 blows/ft.
VERY STIFF - 15 to 30 blows/ft.	
HARD - More than 30 blows/ft.	
5. COLORS ARE DETERMINED BY USING THE MUNSELL SOIL COLOR CHART AND THE VALUES ARE GIVEN IN CODE SUCH AS 10YR 3/4.
6. L.O.I. - LOSS OF ORGANICS UPON IGNITION - ORGANIC CONTENT.

CENTRAL TESTING LABORATORY

ENGINEERING - MATERIALS TESTING - QUALITY CONTROL

INVERNESS - LEESBURG - OCALA



STANDARD GUIDE FOR SOIL SAMPLING FROM THE VADOSE ZONE ASTM D 4700

Sampling vadose zone soil involves inserting into the ground a device that retains and recovers a sample. Devices and systems for vadose zone sampling are divided into two general groups, namely the following: samplers used in conjunction with hand operated devices; and samplers used in conjunction with multipurpose or auger drill rigs. Vadose zone sampling is useful for a variety of reasons including the following; stratigraphic description, hydraulic conductivity testing, moisture content measurement, moisture release curve construction, geotechnical testing, soil gas analyses, microorganism extraction, or pore liquid and soil chemical analyses. Depths of investigations are limited by groundwater conditions, soil characteristics and the equipment used.

Sampling with Hand Operated Devices - Barrel augers used include the following: regular barrel auger, stainless steel barrel auger and post-hole barrel auger. The auger is rotated to advance the barrel into the ground. The operator may have to apply downward pressure to keep the auger advancing. When the barrel is full, the unit is withdrawn from the soil cavity and a sample may be collected from the barrel.

Sampling with Multipurpose and Auger Drill Rigs - Multipurpose and auger drill rigs are generally equipped with rotary power and vertical feed control to advance both hollow-stem augers and continuous flight (solid stem) augers. Sampling is accomplished by rotating the auger column into the soil, retaining the cuttings on the flights. Samples from solid stem augers are termed disturbed and are not suitable for analyses requiring undisturbed samples, such as hydraulic conductivity tests. When representative samples from discrete depths are desired, the borehole should be made large enough to insert a smaller diameter auger or another sampler (for example, a thin-walled tube) to the bottom of the borehole, without touching the sides of the borehole, to collect a discrete sample from the interval ahead. Hollow-stem augers may be used to advance a borehole to a desired sampling depth. Sampling is done by inserting the sampler through the hollow stem of the auger column. The drilling rig operated by Central Testing Laboratory is equipped with four (4) inch solid stem flight augers and six (6) inch hollow-stem flight augers.

MEMBER OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS

Second Edition

**Essentials of
Soil Mechanics
and Foundations
Basic Geotechnics**

David F. McCarthy, P.E.



Reston Publishing Company, Inc.
A Prentice-Hall Company
Reston, Virginia

FIELD PERMEABILITY TESTS / Field permeability tests have the advantage of testing undisturbed soil in its natural location with respect to the ground surface, water table, and other factors that could influence the rate of flow. Various methods for determining permeability are available, depending, among other things, on the soil's being above or below the ground water table. The methods described herein are of the type where a cased boring is made into the soil that is to be tested. The casing and related equipment necessary are of the type normally utilized by soil-boring contractors. Whenever possible, it has been found expedient to perform field permeability tests during the investigative stage of planning a project, at the time that the subsurface investigation (soil borings) is being made.

Essentially, the field permeability test involves obtaining a record of the time that it takes for a volume of water to flow out of, or into, the boring casing. A schematic presentation of different conditions and the related equations for calculating the coefficient of permeability is presented in Table 5-2.

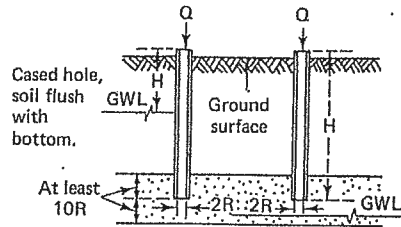
Capillarity

The *groundwater table* (or *phreatic surface*) is the level to which underground water will rise in an observation well, pit, or other open excavation into the earth. All voids or pores in soil located below the groundwater table would be filled with water (except possibly for small isolated pockets of trapped air or gases). In addition, however, soil voids for a certain height above the water table will also be completely filled with water (full saturation). Even above this zone of full saturation, a condition of partial saturation will exist.

Any water in soil located above the water table is referred to as *soil moisture*. The phenomenon in which water rises above the groundwater table against the pull of gravity but is in contact with the water table as its source is referred to as *capillary rise*. The water associated with capillary rise is *capillary moisture*.

TABLE 5 - 2 METHODS FOR PERFORMING FIELD PERMEABILITY TESTS

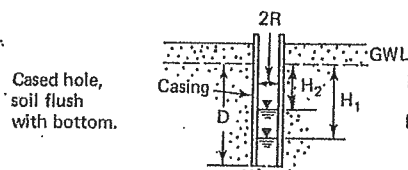
(Ref. 40)



$$k = \frac{0.024 Q}{RH}$$

where Q = gal/min
R = feet
H = feet
k = ft/min

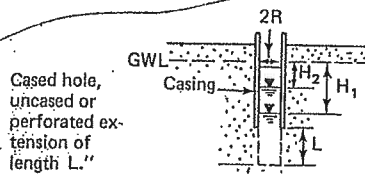
Used for permeability determinations when water is above or below bottom of casing. Q is quantity of water to keep casing filled



$$k = \frac{2\pi R}{11(t_2 - t_1)} \ln \frac{H_1}{H_2}$$

For D from 6" to 60"

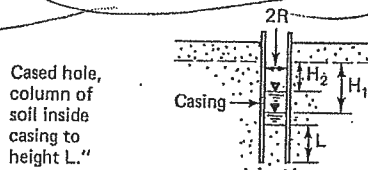
Used for permeability determination at shallow depths below the water table. May yield unreliable results in falling head test with silting of bottom of hole.



$$k = \frac{R^2}{2L(t_2 - t_1)} \ln \left(\frac{L}{R} \right) \ln \left(\frac{H_1}{H_2} \right)$$

For $\frac{L}{R} > 8$

Used for permeability determinations at greater depths below water table.

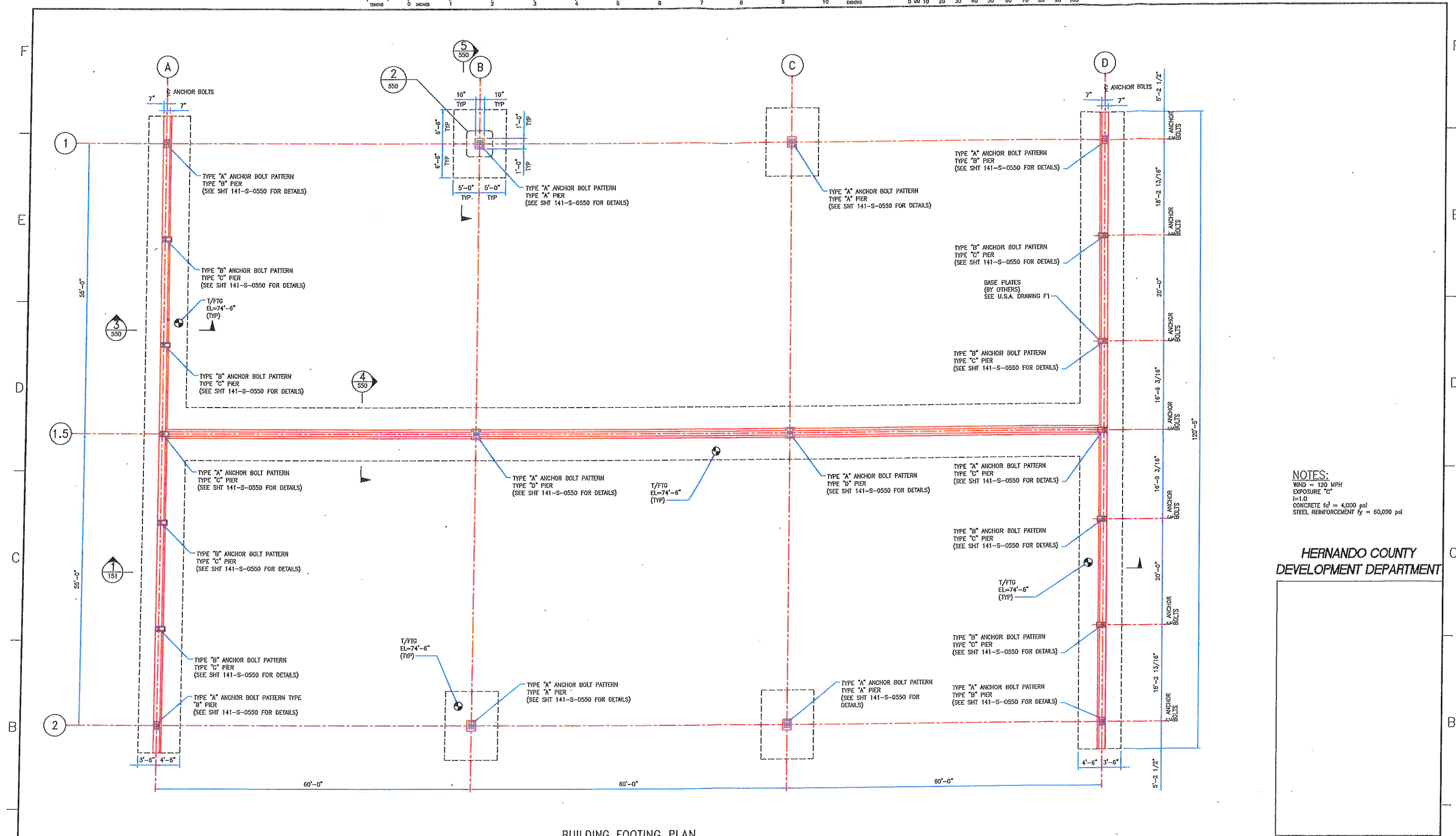


$$k = \frac{2\pi R + 11L}{11(t_2 - t_1)} \ln \left(\frac{H_1}{H_2} \right)$$

Principal use is for permeability in vertical direction in anisotropic soils.

Horizontal

Vertical

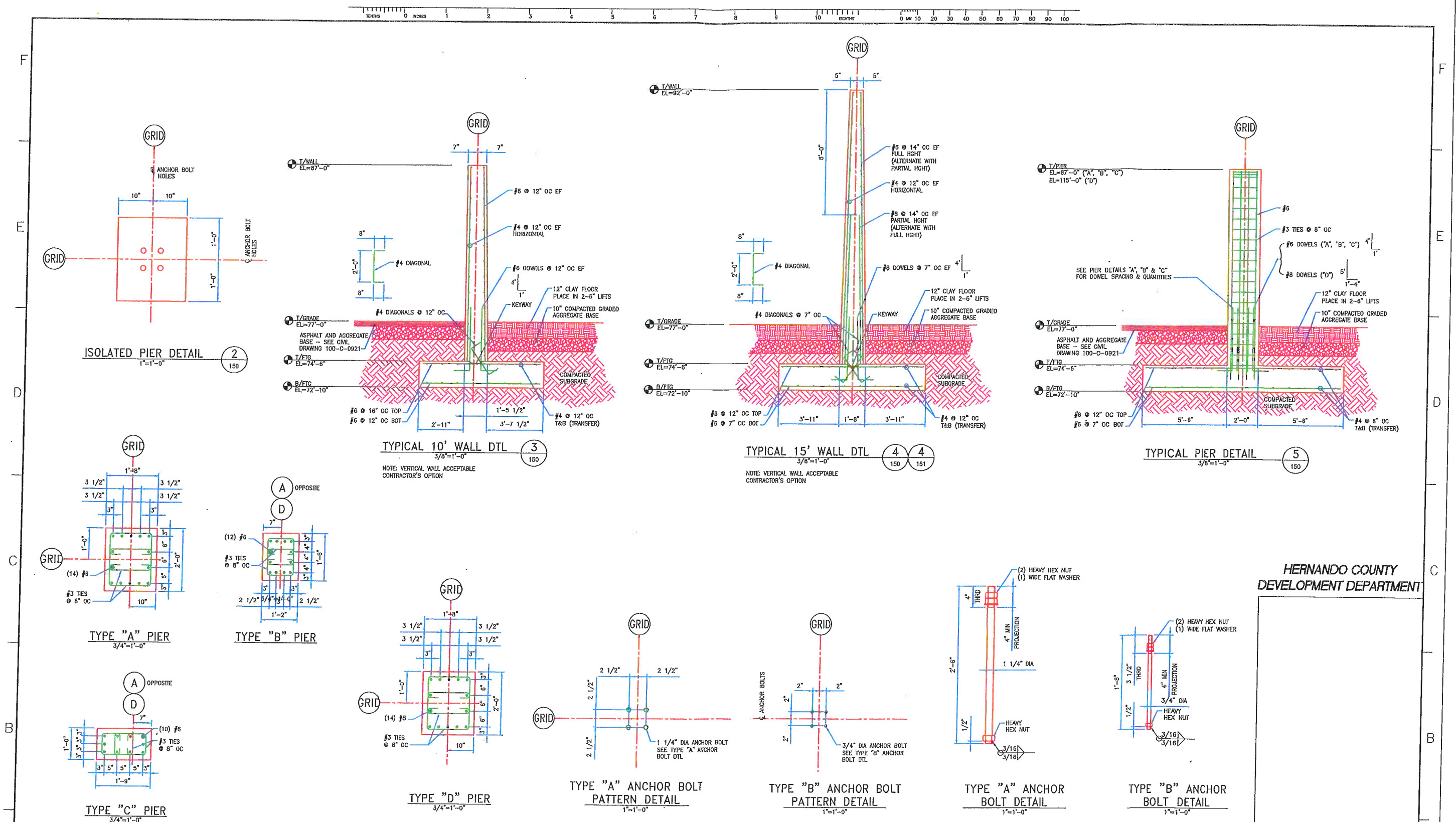


NOTES:
WIND = 120 MPH
EXPOSURE "C"
I=1.0
CONCRETE f'_c = 4,000 psi
STEEL REINFORCEMENT f_y = 60,000 psi

HERNANDO COUNTY
DEVELOPMENT DEPARTMENT

BUILDING FOOTING PLAN

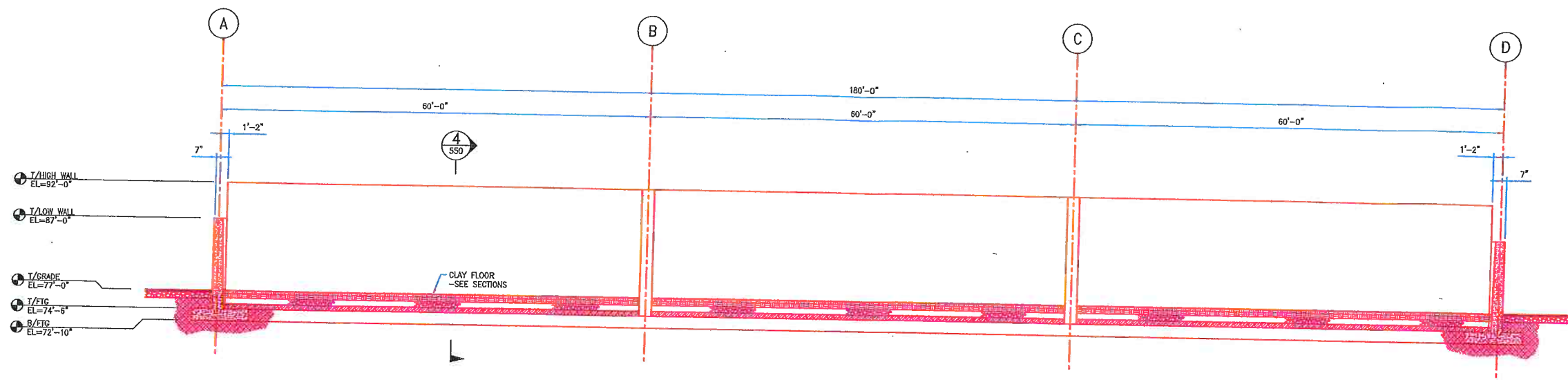
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										PROPRIETARY INFORMATION: THIS DRAWING IS THE PROPERTY OF AMEC AMERICAS, INC. AND IS NOT TO BE LOANED OR REPRODUCED IN ANY WAY WITHOUT THE PERMISSION OF AMEC AMERICAS, INC. STAMP/SEAL NAME DANIEL C. BLACKMON REGISTRATION NO. 64519										APPROVED FOR CONSTRUCTION M. ALLER DCB BGM CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR. PROJECT PHASE PROJECT NO. 151728 ACTIVITY NO. PACKAGE CODE SCALE AS NOTED BY D/M/Y DSN. AP/KH D/M/Y DRN. SES 01MAR07										FLORIDA CRUSHED STONE COMPANY BROOKSVILLE, FLORIDA AREA 141 ADDITIVES STORAGE BLDG SUBJECT STRUCTURAL DETAILS										AMEC 400 EXECUTIVE CENTER DR. GREENVILLE, SOUTH CAROLINA USA 29615 amec AUTHORIZATION NO.: F98000004806 CLIENT DWG. NO. DRAWING NO. 141-S-0550 REV. 2									
2 14SEP07 ADDED CALLOUT FOR CLAY FLOOR										2 14SEP07 CLF CONSTRUCTION																																							
1 12SEP07 FOOTING ELEVATION REVISED TO MATCH GRADES SHOWN ON GAIL DRAWING AND AS-BUILT CONDITIONS										1 12SEP07 CLF CONSTRUCTION																																							
REV D/M/Y REVISION										0 01MAR07 JAW CONSTRUCTION										REF NUMBER TITLE																													
DRN CHK APP APP APP APP ISS D/M/Y APP										ISSUED FOR										REFERENCES																													



BUILDING
FOOTING ELEVATION
1/8"=1'-0"

NOTES:
1. THE HORIZONTAL #4 REBAR @ EA FACE
SHALL BE CONTINUOUS THRU COLUMNS

HERNANDO COUNTY
DEVELOPMENT DEPARTMENT

REV	D/M/Y	DESCRIPTION	DRN	CHK	APP	APP	APP	ISS	D/M/Y	APP	ISSUED FOR	REF	NUMBER	TITLE
2	14SEP07	ADDED CALLOUT FOR CLAY FLOOR							2	14SEP07	CLF	CONSTRUCTION		
1	12SEP07	FOOTING ELEVATION REVISED TO MATCH GRADES SHOWN ON CIVIL DRAWING AND AS-BUILT CONDITIONS							1	12SEP07	CLF	CONSTRUCTION		
									0	01MAR07	JWM	CONSTRUCTION		

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STAMP/SEAL
NAME
DANIEL C. BLACKMON
REGISTRATION NO.
64519

APPROVED FOR CONSTRUCTION M. ALLER DCB BGM CLIENT PROJECT MGR. DEPARTMENT MGR. PROJECT MGR.			FLORIDA CRUSHED STONE COMPANY BROOKSVILLE, FLORIDA		AMEC 400 EXECUTIVE CENTER DR. GREENVILLE, SOUTH CAROLINA USA 29615
PROJECT PHASE PROJECT NO. 151728 SCALE 1/8"=1'-0"			AREA 141 SUBJECT ADDITIVES STORAGE BLDG	AUTHORIZATION NO.: F99000004806 CLIENT DWG. NO.	
D/SN. AP/KH BY D/M/Y DRN. SES 01MAR07			STRUCTURAL ELEVATION		DRAWING NO. 141-S-0151 REV. 2