

G. W. (JOHNNY) DRAPER, JR.
MAYOR

LINDA W. GRIFFIN
CLERK

KAY TRIPP
TAX COLLECTOR

Town of Weldon

109 WASHINGTON AVENUE
P.O. BOX 551
WELDON, N. C. 27890
PH. 919-536-4836
252

COMMISSIONER:
MARTHA B. THORNE
O. N. (NAT) VAUGHAN
MYRTLE L. KNOX
STEPHEN R. ELLIS
ANDY WHITBY

July 12, 1996

Mr. James C. Coffey
Permitting Branch Supervisor
Solid Waste Section
N. C. Dept. of Environment,
Health and Natural Resources
P. O. Box 27687
Raleigh, NC 27611-7687

SUBJECT: COAL COMBUSTION BY-PRODUCTS
STRUCTURAL FILL SITE FOR NEW
WELDON FIRE STATION, HIGHWAY 158

Dear Mr. Coffey:

In reference to the above, we are pleased to enclose the following:

- (1) Certification of Closure Rule 15A
N. C. Administrative Code 13B -1706
- (2) Statement of Use of Coal Combustion By-Products

Please contact us if you have any questions.

Sincerely,

TOWN OF WELDON


G. W. Draper, Jr.
Mayor

Enclosure

The Plumblin Corp. P.A.
Engineering & Land Surveying
121 Washington Avenue
WELDON, N.C. 27390
(919) 536-0203

E. B. GRANT, JR. P.E.
Registered Professional Engineer
N. C. No. 4402
Registered Land Surveyor
N. C. No. L-1592

July 12, 1996

CERTIFICATION

OF

CLOSURE RULE 15A
N. C. ADMINISTRATIVE CODE
13B -1706

TO: Mr. James C. Coffey
Permitting Branch Supervisor
Solid Waste Section
N. C. Dept. of Environment,
Health and Natural Resources
P. O. Box 27687
Raleigh, NC 27611-7687

SUBJECT: COAL COMBUSTION BY-PRODUCTS
STRUCTURAL FILL SITE FOR NEW
WELDON FIRE STATION, HIGHWAY 158

Dear Mr. Coffey:

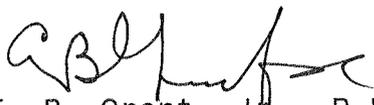
I hereby certify that all rules of Section .1700 have been met. Specifically those required by your letter of April 19, 1995.



SEAL

Sincerely,

THE PLUMBLINE CORP. P.A.


E. B. Grant, Jr., P.E.

HALIFAX COUNTY

NORTH CAROLINA

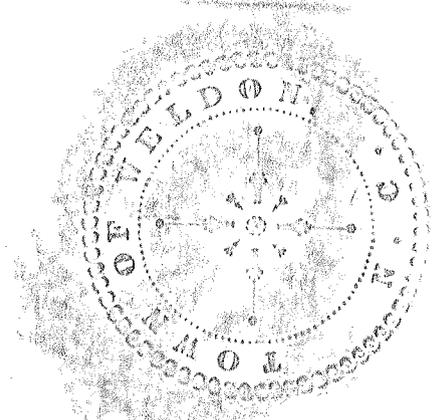
Statement of Use of Coal Combustion By-Products

Pursuant to 15A North Carolina Administrative Code 13B.1707, the undersigned ~~do~~/does hereby state that 6,689 cubic yards of coal combustion by-products have been used at the following locations on the parcel of land more particularly described below:

Locations: WELDON
HALIFAX COUNTY
NORTH CAROLINA

Description of Property:

WELDON FIRE HALL SITE
AS PER ATTACHED SURVEY BY E. B. GRANT, JR.
DATED MARCH 20, 1996



G. W. Draper, Jr.
(Name) G. W. Draper, Jr., Mayor
TOWN OF WELDON

(Name)

I, LINDA W. GRIFFIN do hereby certify that
(Name of Signatory) G. W. Draper, Jr. personally appeared
before me this day and acknowledged the due execution of the
foregoing instrument. Witness my hand and official seal this the
12th day of July, 1996.

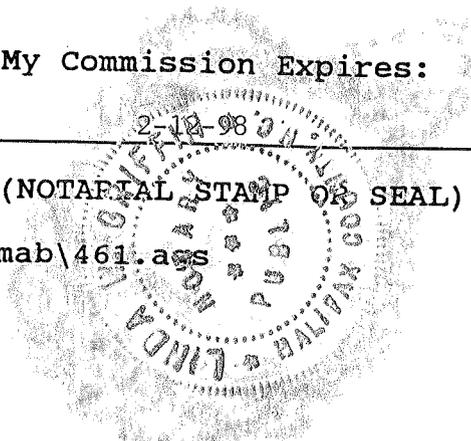
Linda W. Griffin
Notary Public

My Commission Expires:

* MAYOR FOR
TOWN OF WELDON

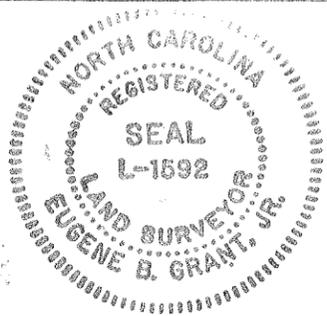
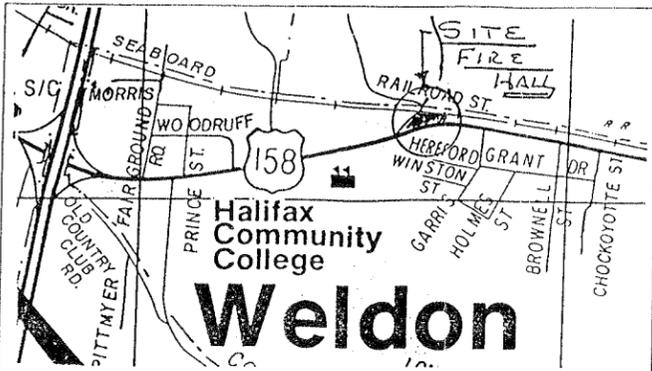
(NOTARIAL STAMP OR SEAL)

mab\461.ags



North Carolina, Halifax County
The foregoing certificate of
Linda W. Griffin
a Notary Public of Halifax
County is certified to be
correct. This 16 day of July
1996 Recorded 4510 P.M.
Book 1677 Page 444
Judy Evans-Barbee Judith S. Wiggins, Deputy
Register of Deeds Halifax Co.

BOOK 1677 PAGE 444



North Carolina
Halifax County

I E.B. GRANT, certify that this plat was drawn under my supervision from (an actual survey made under my supervision) (deed description recorded in Book _____, page _____, etc)(other), that the ratio of precision as calculated by latitude and departures is 1/10,000, that the boundaries not surveyed are shown as broken lines plotted from information found in Book _____, page _____; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, registration number and seal this 20 day of MARCH A.D., 1996

E.B. Grant
Surveyor

L-1592
Registration Number

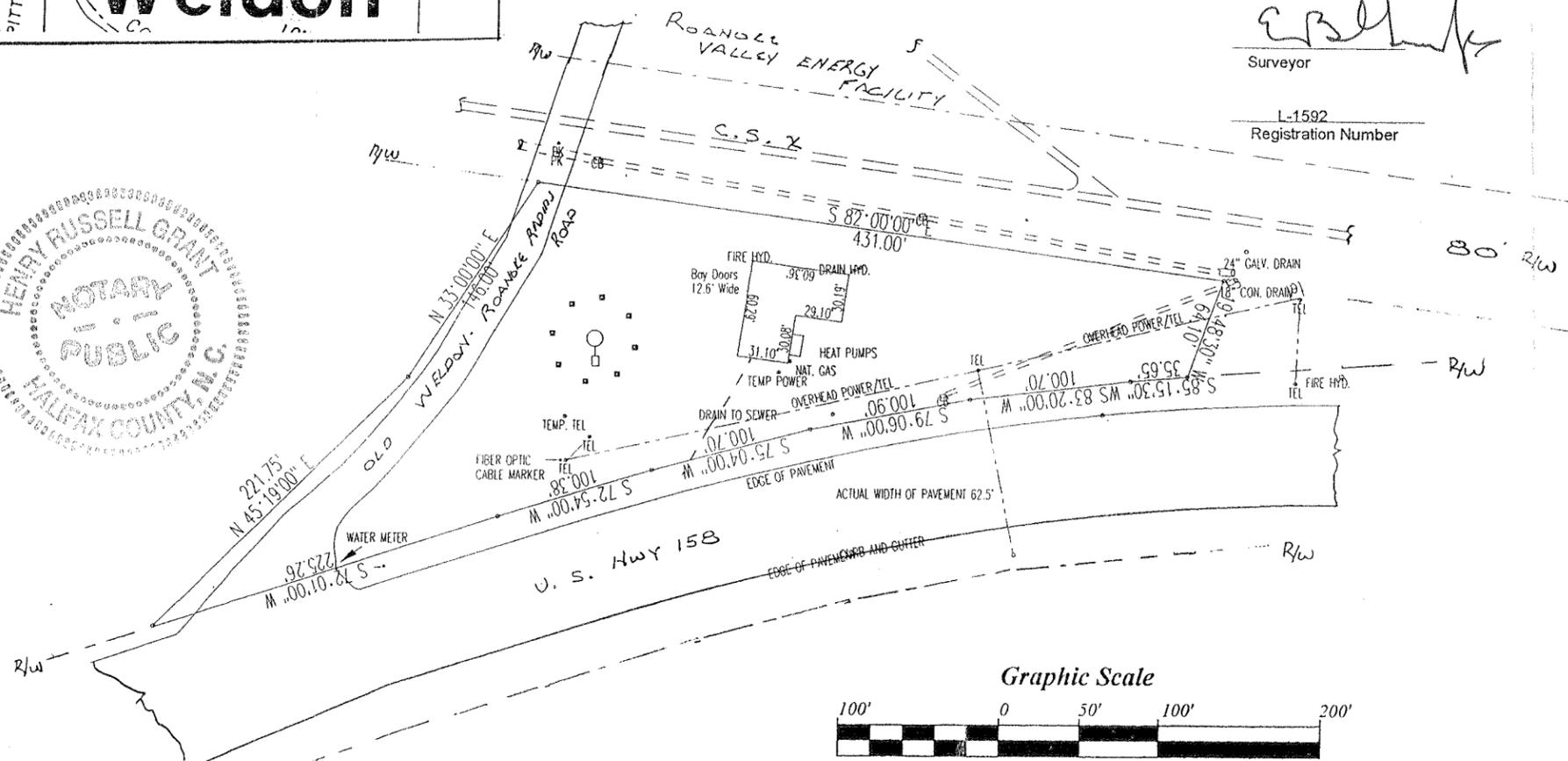
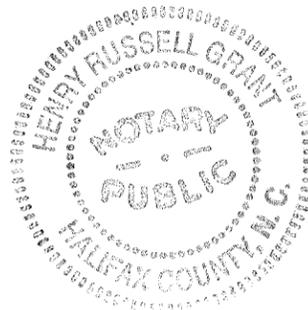
Plumbline Corp. P.A.
Land Surveying & Engineering
121 Washington Ave.
Weldon NC

Phone (919) 536 0203

Legend		Mag. North		Project North	
Property line	---				
Right of way	- - - -				
Roads	==				
Drains	- - - -				
Existing Iron Pin	○				
New Iron Pin	●				
PK MARK	+				
CB = Catch Basin	□				
Tel = Telephone/Power Pole	⊕				

REVISIONS

1. Location of Buildings, Roads, Tel poles, Sewer, Rail Road Rail, Water Tower 3/15/96



Graphic Scale



North Carolina
Halifax County

I, a Notary Public of the County and State of the aforesaid, certify that E.B. GRANT, a registered land surveyor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 20 day of MARCH 1996. My commission expires June 18 1997

Henry Russell Grant
Notary Public

NOTES:
1. RIGHT OF WAY FOR OLD WELDON ROAD IS NOT RECORDED IN REC. OF DEEDS.
2. FLOOD INSUR. RATE MAP - 370119 - 0005 B APRIL 1, 1981 - ZONE - C NOT IN A FLOOD ZONE

This is a survey of an existing parcel of land

Map Made For: Weldon Fire Hall Site
Beside Water Tower

TOWNSHIP: WELDON
COUNTY: HALIFAX
STATE: NORTH CAROLINA

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



June 16, 1995

Mr. B. B. Pierce
P. O. Box 730
Weldon, NC 27890

Subject: Proposed Coal Combustion By-Product Structural Fill at Weldon, NC (Site Owned by B. B. Pierce).

Dear Mr. Pierce:

Your letter of approximately June 9, 1995 pertaining to the subject coal fly ash structural fill site has been reviewed by the Solid Waste Management Division (the "Division").

There are some required items listed in the 15A NCAC 13B .1700 Solid Waste Management Coal Ash Rules which were not correctly stated in your notification and this needs to be remedied. The description of the nature and purpose of the project is not for a new fire station site as indicated. This was determined when Mr. E.B. Grant, Jr. was contacted on June 14, 1995 by Bill Hocutt of our division. Mr. Grant informed Bill that the letter's indication of this being a coal combustion by-product structural fill for a new fire station site was an error. Mr. Grant said that the purpose of this site was to provide your hauling company with a shorter haul distance as compared to taking the ash to the landfill. Please note in the definitions section of the Beneficial Use of Coal Combustion By-Products that .1701 (4) defines "Structural Fill" as an engineered fill with a projected beneficial end use constructed using coal combustion by-products properly placed and compacted. Our understanding now is that you are actually proposing to create an alternative disposal site. Such a disposal site is a landfill which must be permitted and operate under 15A NCAC 13B .0500 Rules.

Please inform the division if this site is to be utilized for beneficial use and, if so, the nature of that proposed use. Otherwise, the following discussion on necessary adjustments to your notification of a beneficial use structural fill is inappropriate and should not be undertaken.

The site's existing topography indicates the property could be significantly, if not completely, inundated during a 100 year storm event. In order to comply with North Carolina Solid Waste Management Rules, 15A NCAC 13B .1704(a), a site specific flood study must be performed to provide accurate site specific flood elevations and horizontal encroachment limits. Dike design should be based upon these specific results. Engineering calculations must be provided to the Division to demonstrate adequacy and stability of proposed dikes and compliance with Rule

Page 2
B.B. Pierce
June 16, 1995

.1704 (a)(5).

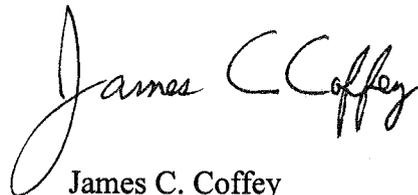
The information furnished did not comment on setback distance from the Roanoke River [see Rule .1704 (a)(2)], whether jurisdictional wetlands are involved [Rule .1704 (a)(1)], separation distance from seasonal high ground-water table [Rule .1704 (a)(3)], or setback distances specified in Rules .1704 (a) (4,6, and 7). Also, the name of the United States Geological Survey seven and one-half minute map on which the project is proposed to be located was not included as required by Rule .1703 (a)(1).

Analysis of groundwater samples collected from monitoring wells located at a North Carolina coal ash structural fill site indicate that the ash may cause or contribute to violation of the 15A N.C. Administrative Code 2L Standards for arsenic cadmium, chromium, lead and selenium, as well as elevated sulfate levels. Based upon this information, the Solid Waste Management Division strongly recommends that you retain the services of a qualified hydrogeologic consulting firm to assist you in determining the vulnerability of the groundwater at the site based on site attenuation, waste extractibility and end use to inhibit infiltration and consider installation of groundwater monitoring wells on vulnerable sites before commencing fill operations.

Copies of this letter are being sent to the Generator and Constructor, who are responsible for apprising you, the owner of the land to be filled, of the landowner's responsibility for groundwater contamination which may result from this coal ash structural fill.

Please contact me at 919-733-0692, ext.255 or Bill Hocutt at ext. 260 if you have any questions about this.

Sincerely,



James C. Coffey
Permitting Branch Supervisor
Solid Waste Section

cc: Bill Hocutt
Jim Barber

Quinn Morrison; Roanoke Valley Energy: P.O. Box 351 Railroad Street, Weldon, NC 27890
E.B. Grant, Jr., PE; The Plumblin Corp.; 121 Washington Ave.; Weldon, NC 27890

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



April 19, 1995

Mr. G.W. Draper, Jr.; Mayor
Town of Weldon
P.O. Box 551
Weldon, NC 27890

Dear Mr. Draper:

The Division of Solid Waste Management, (the "Division"), has received your January 18, 1995 (with April 10, 1995 revisions) notification of a coal combustion by-product (ash) structural fill to be located at U.S. Highway 158 West, Weldon, Halifax County, NC. The construction was originally proposed to commence February 17, 1995 or soon thereafter, but will now probably begin in late April or May, 1995. The site is to be the location for the new Weldon Fire Hall. The information submitted satisfies the requirements for coal ash structural fill activities as set forth in Solid Waste Management Rules 15A NCAC 13B Section .1700 concerning beneficial use of coal combustion by-products.

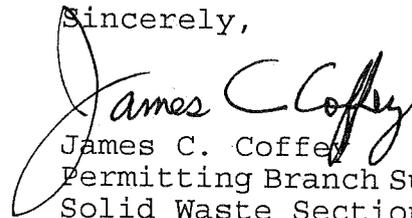
Please be aware that the size of a fill project is not a decisive factor in determining if the services of a NC licensed professional engineer (PE) is necessary on a coal ash structural fill. The Section 1700 Rules do specify that a proposed fill site which anticipates utilization of 10,000 Yd³ or more of ash must include a PE approved Construction Plan in the Notification. Regardless of the volume of coal ash used in a structural fill project, the Closure Rule, 15A N.C. Administrative Code 13B .1706, requires certification signed and sealed by a PE that all rules in Section .1700 have been met. These rules include, among other things, Rule 1704 (a) (4) certification that no coal ash has been placed within two feet of the seasonal high groundwater table and certification under Rule 1705 (c) that the coal ash has been placed uniformly and compacted in lifts not exceeding one foot in thickness, compacted to standards including in-situ density, compaction effort and relative density, specified by a PE for a specific end use purpose. Critical set back distances are specified in Rule .1704. Rule .1705 (c) engineering specifications must be designated before commencement of the fill. Moreover, a PE cannot certify that these rules have been met unless he or she has been involved in the project from the beginning and has made periodic inspections of the work in progress.

Analyses of groundwater samples collected from monitoring wells located at a North Carolina coal ash structural fill site indicate that the ash may have caused or contributed to violation of the 15A N.C. Administrative Code 2L Standards for arsenic, cadmium, chromium, lead, and selenium, as well as elevated sulfate levels. Based upon this information, the Solid Waste Division strongly recommends that you retain the services of a qualified hydrogeologic consulting firm to assist you in determining the vulnerability of the groundwater at the site based on site attenuation, waste extractability and end use to inhibit infiltration and consider installation of groundwater monitoring wells on vulnerable sites before commencing fill operations.

Copies of this letter are being sent to the Generators and Constructors, who are responsible for apprising the Owners of the land to be filled (if not the same party as the Generator/Constructor) of the Landowner's responsibility for groundwater contamination which may result from this coal ash structural fill.

Please contact me or Bill Hocutt at 919-733-0692 if you have any questions about this.

Sincerely,



James C. Coffey
Permitting Branch Supervisor
Solid Waste Section

cc: Bill Hocutt
Jim Barber
Quinn Morrison; Roanoke Valley Energy: P.O. Box 351 Railroad
Street, Weldon, NC 27890
E.B. Grant, Jr. P.E.; The Plumblin Corp.; 121 Washington
Ave.; Weldon, NC 27890

ROANOKE VALLEY ENERGY FACILITY
Westmoreland - LG&E Partners

April 18, 1994

Mr. James C Coffey
Permitting Branch Supervisor
Solid Waste Section
DEHNR, Division of Solid Waste Management
P. O. Box 27687
Raleigh, NC 27611-7687



Subject: Roanoke Valley Energy Facility
Coal Combustion By-Product Fill for the
Town of Weldon, NC

Dear Mr. Coffey:

I met with Mr. E. B. Grant, consultant to the Town of Weldon, to discuss the status of the Facility providing the Town of Weldon coal combustion by-product (fly ash), to be used as structural fill for the Town's new fire station. Mr. Grant informed me of one open issue. Per your letter dated January 26, 1995 to Mr. G. W. Draper, mayor of Weldon, you stated that one of the conditions to be met was compliance to Solid Waste Management Rule .1703 (a) (4). This rule requires that a TCLP analysis be performed of a coal combustion by-product sample, and "...certified by the generator to be representative of each coal combustion by-product source used in the project". The Facility had a sample analyzed by Commercial Testing & Engineering, and their report dated February 8, 1995 is attached.

I here by certify that the results reported in the TCLP analysis dated February 8, 1995 is representative of the ash that will be delivered to the Town of Weldon, for structural fill for the proposed new fire station.

Please advise if I can be of further assistance.

Sincerely,

Rod Rabold
Plant Engineer

cc: Mr. E. B. Grant, The Plumblin Corp.
Mr. G. W. Draper, Mayor, Town of Weldon

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
1129 W. OLNEY ROAD, NORFOLK, VA 23507
TEL: (804) 626-0006
FAX: (804) 626-0408

February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
UC Operating Services
Highway 158 & Railroad Street
WELDON, NORTH CAROLINA 27890

Sample identification by
Yourselves

Sample type: Submitted
RVEC Id: Fly Ash

Kind of sample reported to us SUBMITTED

Sample taken at -----

Sample taken by Yourselves

Date sampled -----

Date received January 12, 1995

Analysis Report No.: 54-30448-02

SPIKED SAMPLE ANALYSIS SUMMARY REPORT FOR TCLP METALS

PARAMETER	RESULT	SPIKE LEVEL	UNITS	PERCENT RECOVERY
QC SPIKE				
Arsenic [As] in leachate (TCLP)	2.0	2.0	mg/L	100
Barium [Ba] in leachate (TCLP)	*	0.60	mg/L	
Cadmium [Cd] in leachate (TCLP)	0.55	0.60	mg/L	92
Chromium [Cr] in leachate (TCLP)	0.59	0.60	mg/L	98
Lead [Pb] in leachate (TCLP)	1.8	2.0	mg/L	90
Selenium [Se] in leachate (TCLP)	1.0	1.0	mg/L	100
Silver [Ag] in leachate (TCLP)	0.60	0.60	mg/L	100
Mercury [Hg] in leachate (TCLP)	0.0024	0.002	mg/L	120

All spike results are corrected for the sample background
Percent Recovery = Background corrected spike result / spike level x 100

*: Unable to demonstrate Spike Recovery because of high analyte concentration.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Norfolk Laboratory



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

02.15.95



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February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
UC Operating Services
Highway 158 & Railroad Street
WELDON, NORTH CAROLINA 27890

Sample identification by
Yourselves

Sample type: Submitted
RVEC Id: Fly Ash

Kind of sample SUBMITTED
reported to us

Sample taken at -----

Sample taken by Yourselves

Date sampled -----

Date received January 12, 1995

Analysis Report No.: 54-30448-02

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

TCLP-PREPARATION DATA (Marck with "YES")

Sample Phase

Solid YES
Sludge ---
Liquid ---

Suspended Solids, %

>0.5 YES
<0.5 ---

Sample Treatment

Extracted, Filtered, and Analyzed. YES
Filtered and Analyzed ---

Bottle Extraction Date & Analyst . --- SW1311 01/27/95 11:00 KH

Extraction Procedure and Regulatory Levels: 40CFR; Part 261; Appendix II
Method Reference: USEPA: Test Methods For Evaluating Solid Waste; SW-946, 3rd Ed; Nov. 1986

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Manager, Norfolk Laboratory



G. W. (JOHNNY) DRAPER, JR.
MAYOR

LINDA W. GRIFFIN
CLERK

KAY TRIPP
TAX COLLECTOR

Town of Weldon

109 WASHINGTON AVENUE
P.O. BOX 551
WELDON, N. C. 27890
PH. 919-536-4836

April 10, 1995

COMMISSIONER:
MARTHA B. THORNE
O. N. (NAT) VAUGHN
MYRTLE L. KNOX
STEPHEN R. ELLIS
ANDY WHITBY

Mr. James C. Coffey
Permitting Branch Supervisor
Solid Waste Section
State of NC Department of
Environment, Health and Natural Resources
Division of Solid Waste Management
P. O. Box 27687
Raleigh, NC 27611-7687



ATTENTION: Mr. Bill Hocutt

Dear Sir:

In reply to your letter of January 26, 1995; attached is a copy of the TCLP; ANALYSIS REPORT NO.: 54-30448-02 dated February 8, 1995.

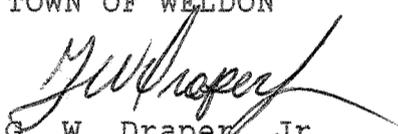
Also attached are revised layouts showing the physical location of Roanoke Valley Energy and revised project layout.

The Town of Weldon is the owner of this site and hereby acknowledges and consents to the use of coal combustion by-products as structural fill and agrees to record with the register of deeds of Halifax County the statement in accordance with Rule .1707 and in the form prescribed by G.S. 47-38 through 47-43.

If you have any questions, please advise.

Sincerely,

TOWN OF WELDON


G. W. Draper, Jr.
Mayor

GWD, Jr./lwg

cc: E. B. Grant, Jr., P.E.

April 18, 1994

Mr. James C Coffey
Permitting Branch Supervisor
Solid Waste Section
DEHNR, Division of Solid Waste Management
P. O. Box 27687
Raleigh, NC 27611 7687

Subject: Roanoke Valley Energy Facility
Coal Combustion By-Product Fill for the
Town of Weldon, NC

Dear Mr. Coffey:

I met with Mr. E. B. Grant, consultant to the Town of Weldon, to discuss the status of the Facility providing the Town of Weldon coal combustion by-product (fly ash), to be used as structural fill for the Town's new fire station. Mr. Grant informed me of one open issue. Per your letter dated January 26, 1995 to Mr. G. W. Draper, mayor of Weldon, you stated that one of the conditions to be met was compliance to Solid Waste Management Rule 1703 (a) (4). This rule requires that a TCLP analysis be performed of a coal combustion by-product sample, and "...certified by the generator to be representative of each coal combustion by-product source used in the project". The Facility had a sample analyzed by Commercial Testing & Engineering, and their report dated February 8, 1995 is attached.

I here by certify that the results reported in the TCLP analysis dated February 8, 1995 is representative of the ash that will be delivered to the Town of Weldon, for structural fill for the proposed new fire station.

Please advise if I can be of further assistance.

Sincerely,



Rod Rabold
Plant Engineer

cc: Mr. E. B. Grant, The Plumline Corp.
Mr. G. W. Draper, Mayor, Town of Weldon

Railroad Street, P.O. Box 351, Weldon, NC 27890 Tel: (919) 536-3200 Fax: (919) 536-4448

PLEASE ADDRESS ALL CORRESPONDENCE TO:
1129 W. OLNEY ROAD, NORFOLK, VA 23507
TEL: (804) 626-0008
FAX: (804) 626-0408

February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
UC Operating Services
Highway 158 & Railroad Street
WELDON, NORTH CAROLINA 27890

Sample identification by
yourselves

Sample type: Submitted
RVEC Id: Fly Ash

Kind of sample reported to us SUBMITTED
Sample taken at -----
Sample taken by Yourselves
Date sampled -----
Date received January 12, 1995

Analysis Report No.: 54-30448-02

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

TCLP-PREPARATION DATA (Mark with "YES")

Sample Phase

Solid YES
Sludge ---
Liquid ---

Suspended Solids, %

>0.5 YES
<0.5 ---

Sample Treatment

Extracted, Filtered, and Analyzed. YES
Filtered and Analyzed ---

Bottle Extraction Date & Analyst . --- SW1311 01/27/95 11:00 KH

LP Extraction Procedure and Regulatory Levels: 40CFR; Part 261; Appendix II
Method Reference: USEPA: Test Methods For Evaluating Solid Waste; SW-946, 3rd Ed; Nov. 1986

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO

[Handwritten Signature]

Manager, Norfolk Laboratory



WE HAVE BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, THERWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

PLEASE ADDRESS ALL CORRESPONDENCE TO:
 1129 W. OLNEY ROAD, NORFOLK, VA 23507
 TEL: (804) 626-0006
 FAX: (804) 626-0408

February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
 UC Operating Services
 Highway 158 & Railroad Street
 WELDON, NORTH CAROLINA 27890

Sample identification by
 Yourselves

Sample type: Submitted
 RVEC Id: Fly Ash

Kind of sample reported to us: SUBMITTED

Sample taken at: -----

Sample taken by: Yourselves

Date sampled: -----

Date received: January 12, 1995

Analysis Report No.: 54-30448-02

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE: METALS

PARAMETER	RESULT	MDL	UNITS	METHOD	REGULATORY LEVEL	ANALYZED DATE/TIME/ANALYST
Arsenic [As] in leachate (TCLP)	ND	0.10	MG/L	SW6010	5.0	01/30/95 20:26 ELS
Barium [Ba] in leachate (TCLP)	2.4	0.01	MG/L	SW6010	100	01/30/95 20:26 ELS
Cadmium [Cd] in leachate (TCLP)	ND	0.02	MG/L	SW6010	1.0	01/30/95 20:26 ELS
Chromium [Cr] in leachate (TCLP)	ND	0.05	MG/L	SW6010	5.0	01/30/95 20:26 ELS
Lead [Pb] in leachate (TCLP)	ND	0.10	MG/L	SW6010	5.0	01/30/95 20:26 ELS
Selenium [Se] in leachate (TCLP)	ND	0.10	MG/L	SW6010	1.0	01/30/95 20:26 ELS
Silver [Ag] in leachate (TCLP)	ND	0.01	MG/L	SW6010	5.0	01/30/95 20:26 ELS
Mercury [Hg] in leachate (TCLP)	0.0029	0.002	MG/L	SW7470	0.2	01/31/95 10:12 NVW

ND: Not detected at a concentration greater than MDL - Method Detection Limit.
 Method Reference: USEPA: Test Methods For Evaluating Solid Waste; SW-846, 3rd Edition; Nov, 1986
 TCLP Extraction Procedure and Regulatory Levels: 40CFR; Part 261; Appendix II.

Respectfully submitted,
 COMMERCIAL TESTING & ENGINEERING CO.

[Handwritten Signature]
 Manager, Nordik Laboratory



OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, UNDERGROUND AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES
 1984/08
 FROM : THE PLUMBLINE CORP., P.A. PHONE NO. : 526 4329

PLEASE ADDRESS ALL CORRESPONDENCE TO:
 1129 W. OLNEY ROAD, NORFOLK, VA 23507
 TEL: (804) 626-0006
 FAX: (804) 626-0408

February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
 UC Operating Services
 Highway 158 & Railroad Street
 WELDON, NORTH CAROLINA 27890

Sample identification by
 yourselves

Sample type: Submitted
 RVEC Id: Fly Ash

Kind of sample SUBMITTED
 reported to us

Sample taken at -----

Sample taken by Yourselves

Date sampled -----

Date received January 12, 1995

Analysis Report No.: 54-30448-02

SPIKED SAMPLE ANALYSIS SUMMARY REPORT
 FOR TCLP METALS

PARAMETER	RESULT	SPIKE LEVEL	UNITS	PERCENT RECOVERY
QC SPIKE				
Arsenic [As] in leachate (TCLP)	2.0	2.0	mg/L	100
Barium [Ba] in leachate (TCLP)	*	0.60	mg/L	
Cadmium [Cd] in leachate (TCLP)	0.55	0.60	mg/L	92
Chromium [Cr] in leachate (TCLP)	0.59	0.60	mg/L	98
Lead [Pb] in leachate (TCLP)	1.8	2.0	mg/L	90
Selenium [Se] in leachate (TCLP)	1.0	1.0	mg/L	100
Silver [Ag] in leachate (TCLP)	0.60	0.60	mg/L	100
Mercury [Hg] in leachate (TCLP)	0.0024	0.002	mg/L	120

All spike results are corrected for the sample background
 Percent Recovery = Background corrected spike result / spike level x 100

*: Unable to demonstrate Spike Recovery because of high analyte concentration.

Respectfully submitted,
 COMMERCIAL TESTING & ENGINEERING CO.

Manager, Norfolk Laboratory



OVER 10 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

02-16-95



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
1129 W. OLNEY ROAD, NORFOLK, VA 23507
TEL: (804) 626-0006
FAX: (804) 626-0408

February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
UC Operating Services
Highway 158 & Railroad Street
WELDON, NORTH CAROLINA 27890

Sample identification by
Yourselves

Sample type: Submitted
RVEC Id: Bottom Ash

NA

Kind of sample reported to us SUBMITTED

Sample taken at -----

Sample taken by Yourselves

Date sampled -----

Date received January 12, 1995

Analysis Report No.: 54-30448-03

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE

TCLP-PREPARATION DATA (Marck with "YES")

Sample Phase

Solid YES
Sludge ---
Liquid ---

Suspended Solids, %

>0.5 YES
<0.5 ---

Sample Treatment

Extracted, Filtered, and Analyzed. YES
Filtered and Analyzed ---

Bottle Extraction Date & Analyst . --- SW1311 01/27/95 10:25 KH

TCLP Extraction Procedure and Regulatory Levels: 40CFR; Part 261; Appendix II
Method Reference: USEPA: Test Methods For Evaluating Solid Waste; SW-946, 3rd Ed; Nov. 1986

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

[Signature]
Manager, Norfolk Laboratory



OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

465/054/95
Original Watermarked For Your Protection

TERMS AND CONDITIONS ON REVERSE

RECEIVED
02-15-95

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306



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RVEC Id: Bottom Ash

Kind of sample reported to us SUBMITTED

Sample taken at -----

Sample taken by Yourselves

Date sampled -----

Date received January 12, 1995

NA

Analysis Report No.: 54-30448-03

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE: METALS

PARAMETER	RESULT	MDL	UNITS	METHOD	REGULATORY LEVEL	ANALYZED DATE/TIME/ANALYST
Arsenic [As] in leachate (TCLP)	✓ ND	✓ 0.10	MG/L	SW6010	5.0	01/30/95 20:20 ELS
Barium [Ba] in leachate (TCLP)	✓ 1.9	0.01	MG/L	SW6010	100	01/30/95 20:20 ELS
Cadmium [Cd] in leachate (TCLP)	✓ ND	✓ 0.02	MG/L	SW6010	1.0	01/30/95 20:20 ELS
Chromium [Cr] in leachate (TCLP)	✓ ND	✓ 0.05	MG/L	SW6010	5.0	01/30/95 20:20 ELS
Lead [Pb] in leachate (TCLP)	✓ ND	✓ 0.10	MG/L	SW6010	5.0	01/30/95 20:20 ELS
Selenium [Se] in leachate (TCLP)	✓ ND	✓ 0.10	MG/L	SW6010	1.0	01/30/95 20:20 ELS
Silver [Ag] in leachate (TCLP)	✓ ND	✓ 0.01	MG/L	SW6010	5.0	01/30/95 20:20 ELS
Mercury [Hg] in leachate (TCLP)	✓ ND	✓ 0.002	MG/L	SW7470	0.2	01/31/95 10:17 NVW

ND: Not detected at a concentration greater than MDL - Method Detection Limit.
Method Reference: USEPA: Test Methods For Evaluating Solid Waste; SW-846, 3rd Edition; Nov, 1986
TCLP Extraction Procedure and Regulatory Levels: 40CFR; Part 261; Appendix II.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

[Handwritten Signature]
Manager, Norfolk Laboratory



OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES
165/054/95
Original Watermarked For Your Protection

TERMS AND CONDITIONS ON REVERSE

02.15.95

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 708-953-9300 FAX: 708-953-9306

SINCE 1908

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1129 W. OLNEY ROAD, NORFOLK, VA 23507
TEL: (804) 626-0006
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February 8, 1995

ROANOKE VALLEY ENERGY FACILITY
UC Operating Services
Highway 158 & Railroad Street
WELDON, NORTH CAROLINA 27890

Sample identification by
Yourselves

Sample type: Submitted
RVEC Id: Bottom Ash

Kind of sample SUBMITTED
reported to us

Sample taken at -----

Sample taken by Yourselves

Date sampled -----

Date received January 12, 1995

NA

Analysis Report No.: 54-30448-03

SPIKED SAMPLE ANALYSIS SUMMARY REPORT FOR TCLP METALS

PARAMETER	RESULT	SPIKE LEVEL	UNITS	PERCENT RECOVERY
QC SPIKE				
Arsenic [As] in leachate (TCLP)	* 2.1	2.0	mg/L	105
Barium [Ba] in leachate (TCLP)	*	✓ 0.60	mg/L	
Cadmium [Cd] in leachate (TCLP)	* 0.60	0.60	mg/L	100
Chromium [Cr] in leachate (TCLP)	* 0.61	0.60	mg/L	102
Lead [Pb] in leachate (TCLP)	* 2.0	2.0	mg/L	100
Selenium [Se] in leachate (TCLP)	* 1.1	1.0	mg/L	110
Silver [Ag] in leachate (TCLP)	* 0.58	0.60	mg/L	97
Mercury [Hg] in leachate (TCLP)	✓ 0.0024	✓ 0.002	mg/L	120

All spike results are corrected for the sample background
Percent Recovery = Background corrected spike result / spike level x 100

*: Unable to demonstrate Spike Recovery because of high analyte concentration.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

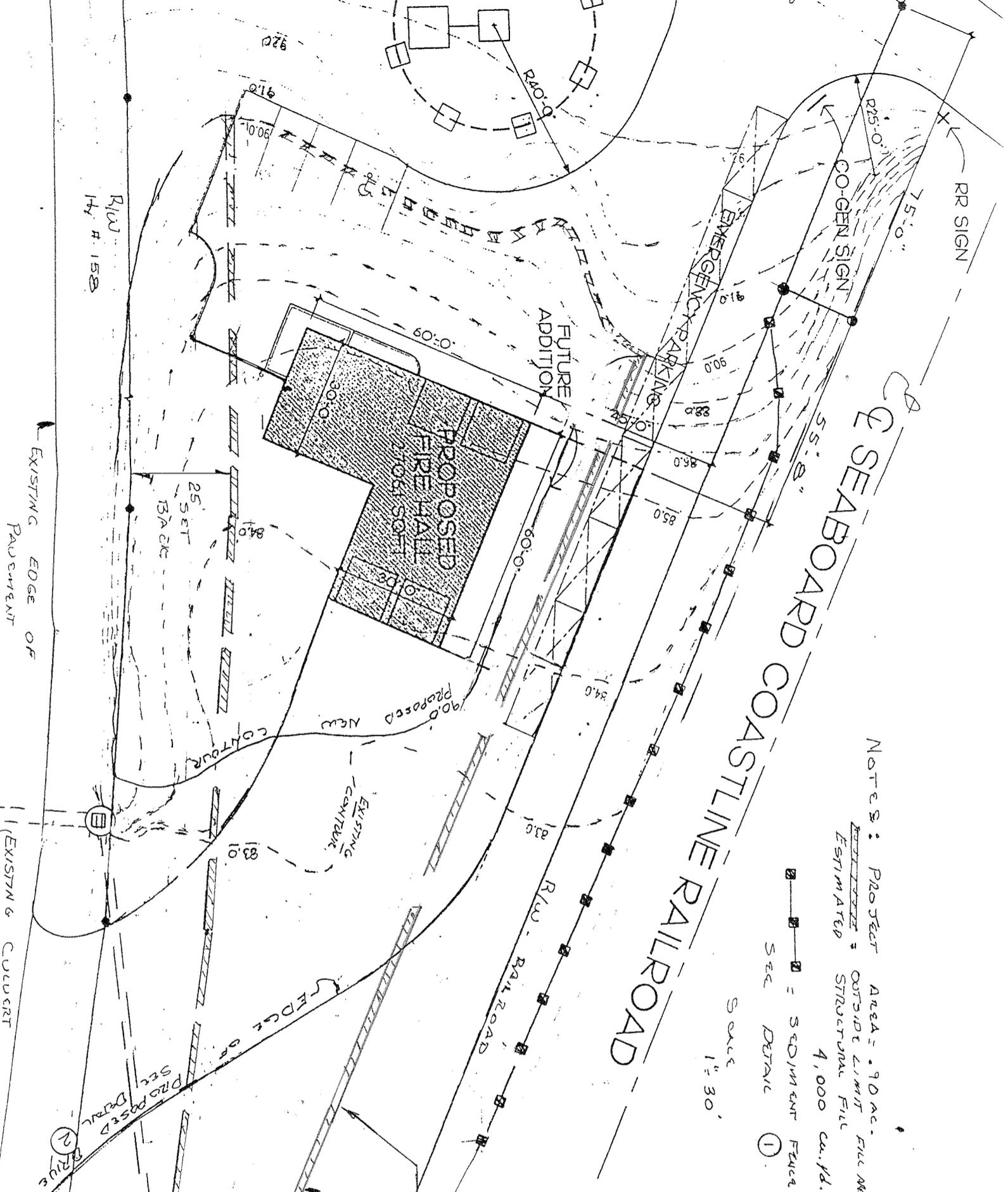
Manager, Norfolk Laboratory



OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS, TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

65/054/95
inal Watermarked For Your Protection

TERMS AND CONDITIONS ON REVERSE



NOTES: PROJECT AREA = .90 AC.
ESTIMATED STRUCTURAL FILL 4,000 cu. yd.

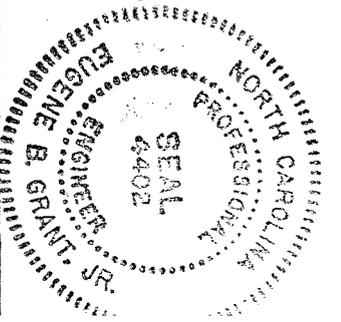
SEC = SEDIMENT FILL
SCALE 1" = 30'

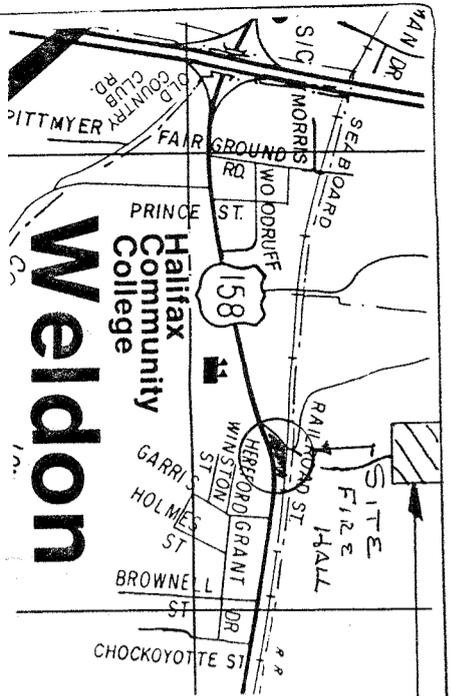
PROJECT TITLE - LAYOUT SKETCH
PROPOSED NEW WELDON FIRE HALL
U.S. HIGHWAY 158 WEST, WELDON

NOTE: SITE AREA TO BE FILLED WITH FLY ASH STRUCTURAL FILL IS SHOWN IN YELLOW AND CONTAINING 13% LINES SHOWN AS

REQ'D SETBACK - 25' FOR STRUCTURAL FILL

E. B. Grant, Jr.
4/7/95
THE PLUMBLINE CORP. P.A.
Engineering & Land Surveying
121 Washington Avenue / Weldon, NC 27890
(919) 336-0203



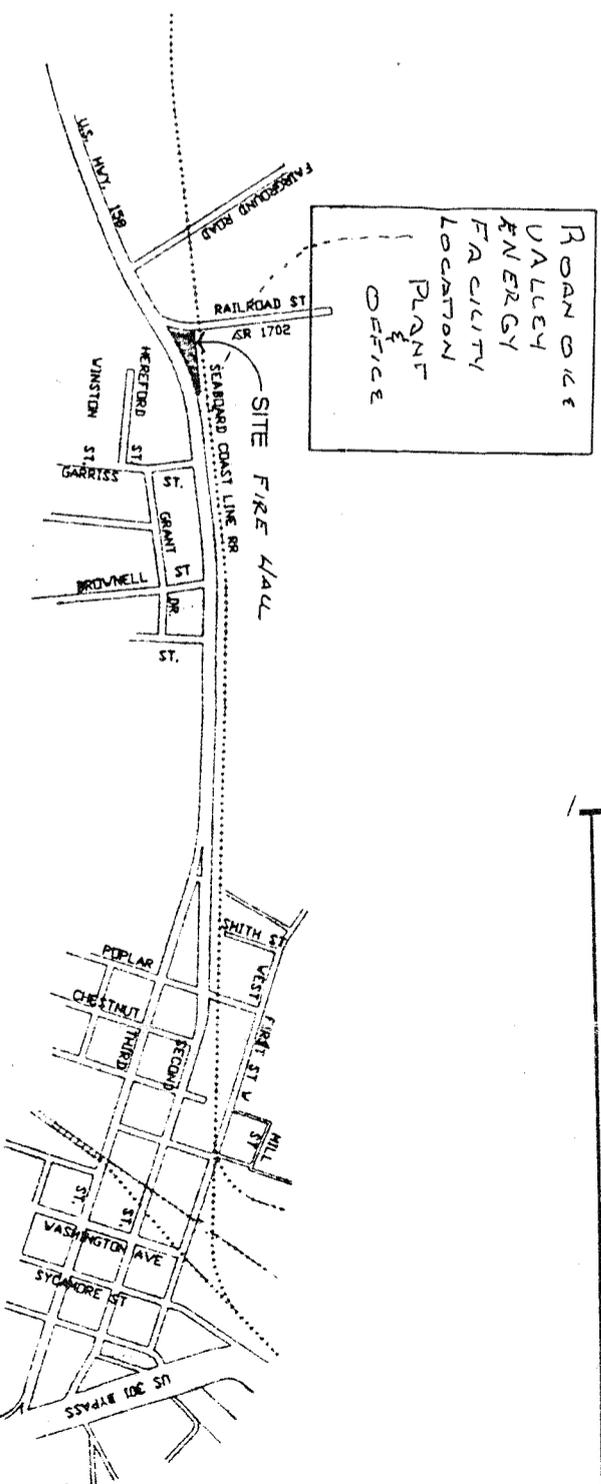


ROANOKE
VALLEY
ENERGY
FACILITY



FIRE HALL SITE

ROANOKE
VALLEY
ENERGY
FACILITY



LOCATION MAP (N.T.S.)

TOWN OF WELDON
FIRE DEPARTMENT
P.O. BOX 551, WELDON, NORTH CAROLINA

PROJECT TITLE:
**PROPOSED NEW
WELDON FIRE HALL**
U.S. HIGHWAY 158 WEST, WELDON

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



January 26, 1995

Mr. G.W. Draper, Jr.; Mayor
Town of Weldon
P.O. Box 551
Weldon, NC 27890

Dear Mr. Draper:

The Division of Solid Waste Management, (the "Division"), has received your Notification of a coal combustion by-product (ash) structural fill to be located at U.S. Highway 158 West, Weldon, Halifax County, NC and proposed to commence February 17, 1995 or soon thereafter.

There are some required listed items listed in the 15A NCAC 13B .1700 Solid Waste Management Coal Ash Rules which were not included in your notification and these need to be submitted prior to beginning this project. Rule .1703 (a) (4) requires TCLP data be submitted. Your 1/18/95 letter merely states in item C. that the TCLP Analysis is same as presently used for (the) Halifax site. Please submit a copy of the analysis. Rule .1703 (a) (5) requires a signed and dated statement by the owner(s) of the land on which the structural fill is to be placed, acknowledging and consenting to the use of coal combustion by-products as structural fill and agreeing to record the fill in accordance with Rule .1707 of this (Rule) Section. One other item was not included which is .1703 (a) (6) (B), the physical location of the generating facility.

Please be aware that the size of a fill project is not a decisive factor in determining if the services of a NC licensed professional engineer (PE) is necessary on a coal ash structural fill. The Section 1700 Rules do specify that a proposed fill site which anticipates utilization of 10,000 Yd³ or more of ash must include a PE approved Construction Plan in the Notification. Regardless of the volume of coal ash used in a structural fill project, the Closure Rule, 15A N.C. Administrative Code 13B .1706, requires certification signed and sealed by a PE that all rules in Section .1700 have been met. These rules include, among other things, Rule 1704 (a) (4) certification that no coal ash has been placed within two feet of the seasonal high groundwater table and certification under Rule 1705 (c) that the coal ash has been placed uniformly and compacted in lifts not exceeding one foot in thickness, compacted to standards including in-situ density, compaction effort and relative density, specified by a PE for a

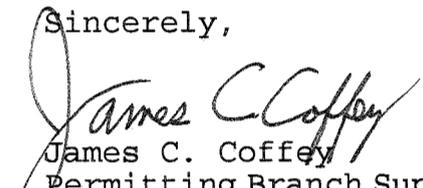
specific end use purpose. Critical set back distances are specified in Rule .1704. Rule .1705 (c) engineering specifications must be designated before commencement of the fill. Moreover, a PE cannot certify that these rules have been met unless he or she has been involved in the project from the beginning and has made periodic inspections of the work in progress.

Analyses of groundwater samples collected from monitoring wells located at a North Carolina coal ash structural fill site indicate that the ash may have caused or contributed to violation of the 15A N.C. Administrative Code 2L Standards for arsenic, cadmium, chromium, lead, and selenium, as well as elevated sulfate levels. Based upon this information, the Solid Waste Division strongly recommends that you retain the services of a qualified hydrogeologic consulting firm to assist you in determining the vulnerability of the groundwater at the site based on site attenuation, waste extractability and end use to inhibit infiltration and consider installation of groundwater monitoring wells on vulnerable sites before commencing fill operations.

Copies of this letter are being sent to the Generators and Constructors, who are responsible for apprising the Owners of the land to be filled (if not the same party as the Generator/Constructor) of the Landowner's responsibility for groundwater contamination which may result from this coal ash structural fill.

Please contact me or Bill Hocutt at 919-733-0692 if you have any questions about this.

Sincerely,


James C. Coffey
Permitting Branch Supervisor
Solid Waste Section

cc: Bill Hocutt
Jim Barber
Quinn Morrison; Roanoke Valley Energy; P.O. Box 351; Railroad
Street; Weldon, NC 27890
E.B. Grant, Jr. P.E.; The Plumblin Corp.; 121 Washington
Ave.; Weldon, NC 27890

G. W. (JOHNNY) DRAPER, JR.
MAYOR

LINDA W. GRIFFIN
CLERK

KAY TRIPP
TAX COLLECTOR

Town of Weldon

109 WASHINGTON AVENUE
P.O. BOX 551
WELDON, N. C. 27890
PH. 919-536-4836

COMMISSIONER:
MARTHA B. THORNE
O. N. (NAT) VAUGHN
MYRTLE L. KNOX
STEPHEN R. ELLIS
ANDY WHITBY

January 18, 1995

Mr. James C. Coffey
Permitting Branch Supervisor
N. C. Dept. of Environment,
Health & Natural Resources
Division of Solid Waste Management
P. O. Box 27687
Raleigh, N. C. 27611-7687

SUBJECT: NOTIFICATION OF COAL COMBUSTION
BY-PRODUCT STRUCTURAL FILL IN
HALIFAX COUNTY, WELDON, NORTH
CAROLINA 27890

Dear Mr. Coffey:

In accordance with Section .1703, the Town of Weldon, North Carolina is hereby submitting written notice to your division of a proposal to use coal combustion by-product as structural fill for a new fire station site as shown on the attached construction plans.

- A. Project starting date is 30 days or as soon as possible.
Completion date: Proposed 9-30-95.
- B. Volume Estimate: 5,000 C.Y.
- C. TCLP Analysis is same as presently used for Halifax County site.
- D. The Town of Weldon shall comply with Rule .1707.
- E. Generator: Mr. Quinn Morrison
Roanoke Valley Energy
P. O. Box 351
Railroad Street
Weldon, NC 27890
(919) 536-3200
- F. Engineer: E. B. Grant, Jr. P.E.
The Plumblin Corp. P.A.
Engineering & Land Surveying
121 Washington Avenue
Weldon, NC 27890
(919) 536-0203

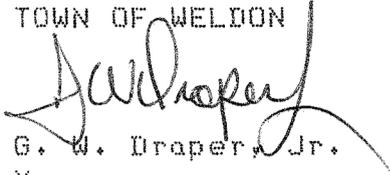
1701 330
→
70 0-

Please advise if further information is needed.

Thank you.

Sincerely,

TOWN OF WELDON

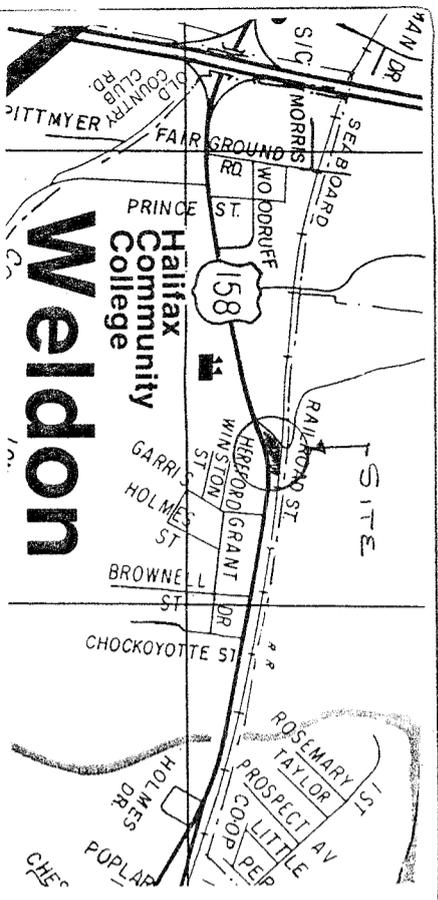


G. W. Draper, Jr.
Mayor

GWD, Jr./lwg

cc: E. B. Grant, Jr. P.E.

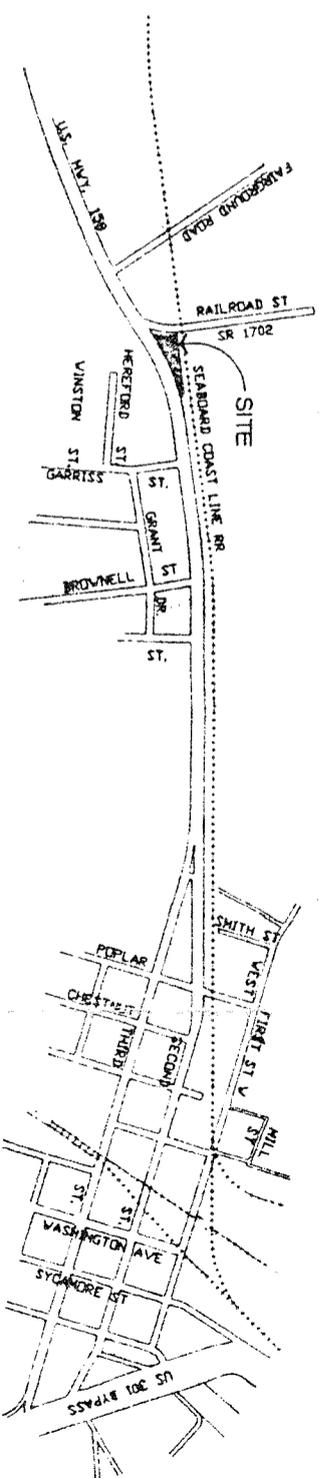
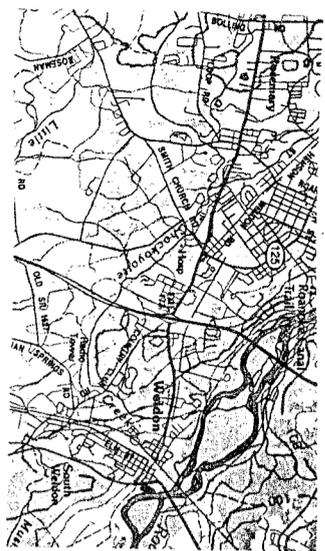




Halifax
Community
College

Weldon

SITE



LOCATION MAP (N.T.S.)

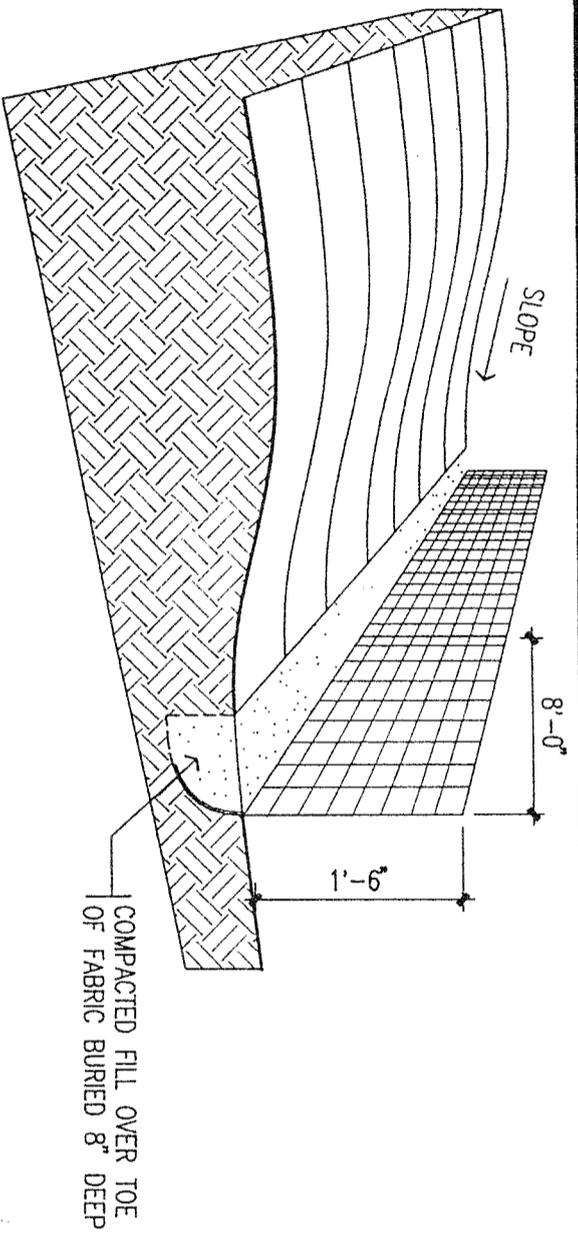
**TOWN OF WELDON
FIRE DEPARTMENT**

P.O. BOX 551, WELDON, NORTH CAROLINA

PROJECT TITLE

**PROPOSED NEW
WELDON FIRE HALL**

U.S. HIGHWAY 158 WEST, WELDON



CONSTRUCTION SPECIFICATIONS

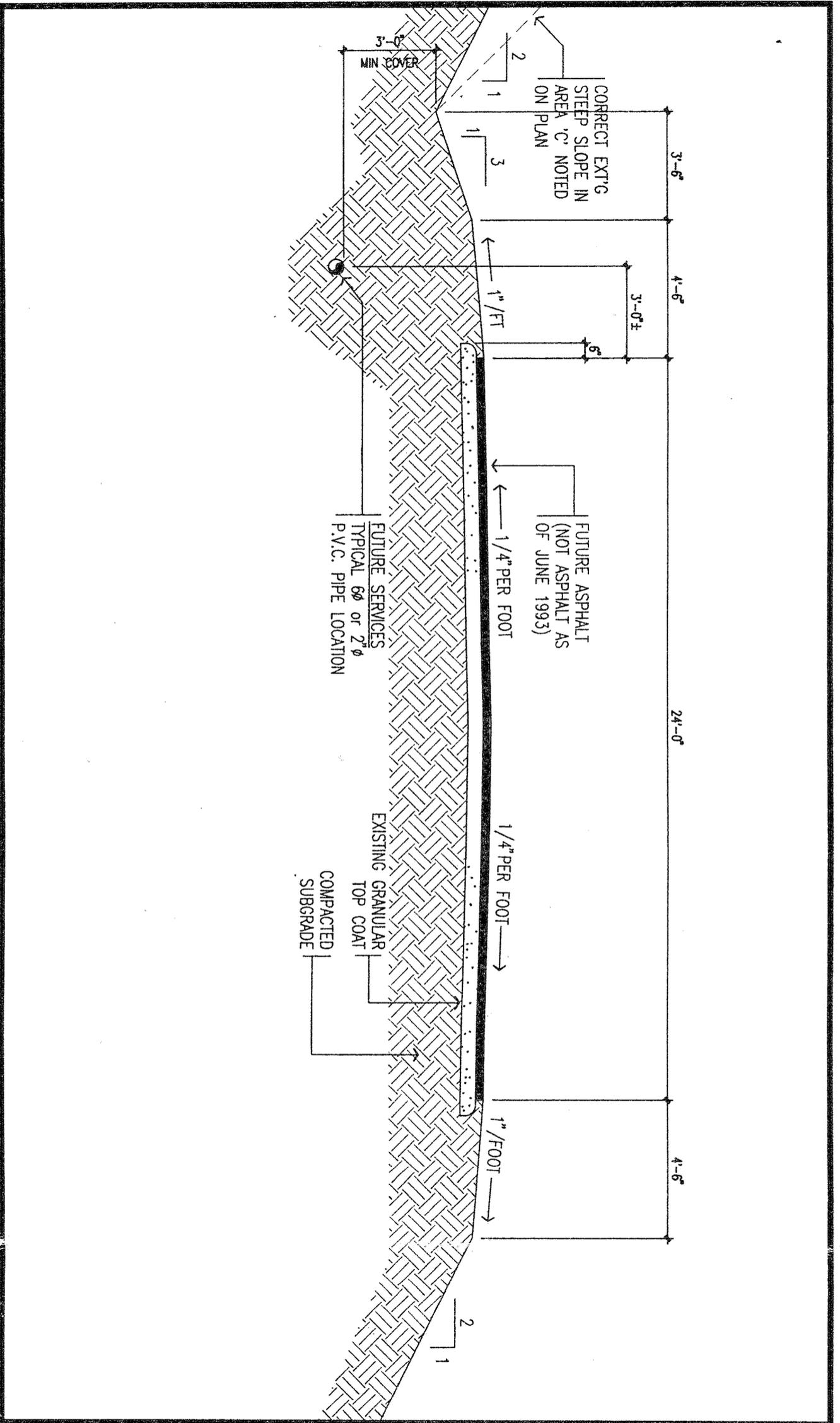
1. CONSTRUCT SEDIMENT FENCE ON LOW SIDE OF TOPSOIL STOCKPILE TO PREVENT SEDIMENT FROM BEING WASHED INTO THE DRAINAGE SYSTEM. FENCE TO EXTEND AROUND APPROXIMATELY 70% OF THE PERIMETER OF THE STOCKPILE.
2. LOCATE POSTS DOWNSLOPE OF FABRIC TO HELP SUPPORT FENCING.
3. BURY TOE OF FENCE APPROXIMATELY 8" DEEP TO PREVENT UNDERCUTTING
4. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FABRIC AT A SUPPORT POST WITH OVERLAP TO NEXT POST.
5. FILTER FABRIC TO BE OF NYLON, POLYESTER, PROPYLENE OR ETHYLENE YARN WITH EXTRA STRENGTH - 50LB/LIN. IN. (MINIMUM) - AND WITH A FLOW RATE OF AT LEAST 0.3 GAL/FT²/MINUTE. FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS.
6. POST TO BE 4" DIAMETER PINE WITH A MINIMUM LENGTH OF 4'-0".
7. IF HIGH CUT SLOPES ADJOINING CHANNELS 1, 2, AND 3 ARE NOT ADEQUATELY STABILIZED BEFORE CHANNEL IS CONSTRUCTED, A SEDIMENT FENCE SHOULD BE LOCATED ON THE CHANNEL BERM TO PREVENT SEDIMENT FROM ENTERING THE CHANNEL SYSTEM. THE FENCE SHOULD BE INSTALLED AS ABOVE ALONG ENTIRE UNSTABLE AREA.

SEDIMENT FENCE

N.T.S.

DETAIL

1.

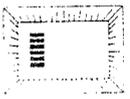


EXISTING TYPICAL STREET CROSS SECTION

DETAIL

6.50

EXCAVATED DROP INLET PROTECTION (Temporary)



Definition An excavated area in the approach to a storm drain drop inlet or curb inlet.

Purpose To trap sediment at the approach to the storm drainage systems. This practice allows use of permanent stormwater conveyance at an early stage of site development.

Conditions Where Practice Applies

Where storm drain drop inlets are to be made operational before permanent stabilization of the disturbed drainage area. This method of inlet protection is applicable where relatively heavy flows are expected and overflow capability is needed (Figure 6.50a). Frequent maintenance is required and temporary flooding in the excavated area will occur. This practice can be used in combination with other temporary inlet protection devices such as Practice 6.51, *Fabric Drop Inlet Protection* and Practice 6.52, *Block and Gravel Inlet Protection*.

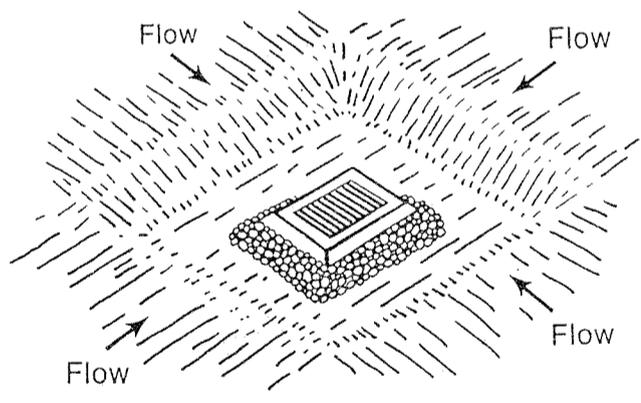
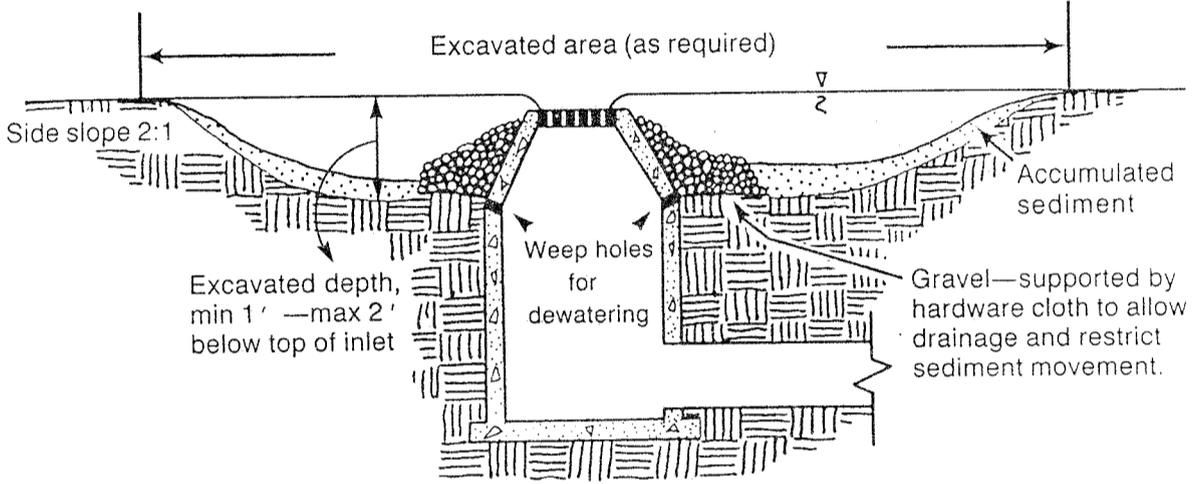
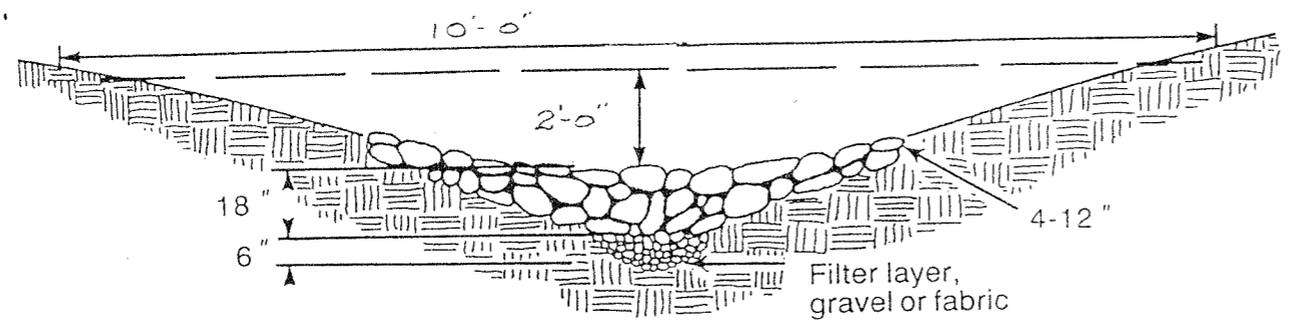


Figure 6.50a Excavated drop inlet protection.

Vegetated V-shaped Waterway with Stone Center Drain -



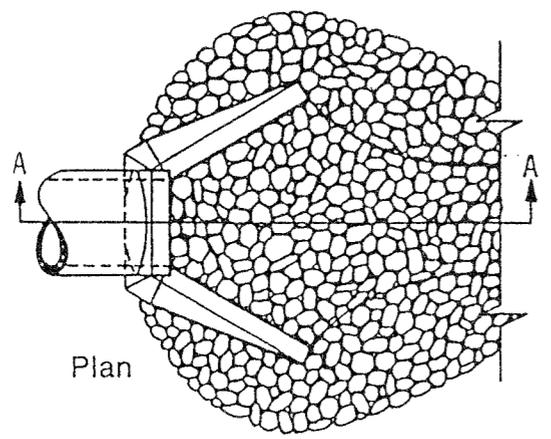
LEGEND

	NATURAL CONTOUR
	NEW CONTOUR
	PROPERTY BOUNDARY
	SHEET DRAINAGE, DIRECTION OF FLOW
	SEDIMENT FENCE "STAKED", SEE DETAIL 1
	EXISTING WIRE CABLE AND POST BARRIER
	EXISTING TEMPORARY SEDIMENT TRAP (TO REMAIN)
	NEW TEMPORARY SEDIMENT TRAP (RIP RAP BASE SLOPED SIDES, RIP RAP SPILLWAY)
	EXISTING DITCH
	NEW DITCH
	EXISTING RIP RAP
	NEW RIP RAP
	EXISTING RIP RAP PROTECTIVE TRAP (TO REMAIN)
	AREAS DISTURBED TO RECEIVE SEED & MULCH
	AREAS TO RECEIVE GRAVEL TOP COAT (ROAD)
	EXISTING TEMPORARY ROCK CHECK DAM
	NEW TEMPORARY ROCK CHECK DAM
	EXISTING STRAW BAIL, SEDIMENT CONTROL

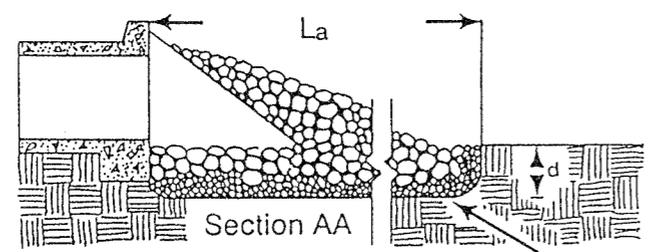
Notes

1. L_a is the length of the riprap apron.
2. $d = 1.5$ times the maximum stone diameter but not less than 6".
3. In a well-defined channel extend the apron up the channel banks to an elevation of 6" above the maximum tailwater depth or to the top of the bank, whichever is less.
4. A filter blanket or filter fabric should be installed between the riprap and soil foundation.

Pipe Outlet to Well-defined Channel



Plan



Section AA