

**TOWN OF CLARKSTOWN
DEPARTMENT OF ENVIRONMENTAL CONTROL**

**CLARKSTOWN SANITARY LANDFILL REMEDIATION
AND LANDFILL CAPPING
CONTRACT NO. 34-1996**

CONSTRUCTION CERTIFICATION REPORT

**APPENDIX J: ADDITIONAL SITE WORK
DOCUMENTATION**

April 14, 2000

Prepared for:
Town of Clarkstown
Department of Environmental Control
10 Maple Avenue
New City, NY 10956

Submitted to:
New York State Department of Environmental Conservation
Division of Environmental Remediation
50 Wolf Road
Albany, NY 12233

Prepared by:
Roy F. Weston of New York, Inc.
130 West 30th Street
New York, NY 10001



APPENDIX J: ADDITIONAL SITE WORK DOCUMENTATION

Appendix J1: Cast-in-Place Concrete

Appendix J2: Asphaltic Pavement

Appendix J3: Gravel Roadways

Appendix J4: Fencing and Gates

APPENDIX J1:

Cast-in-Place Concrete

Blue Circle Materials Inc.

475 Market St. Elmwood Park, NJ 07407 201-797-7979

5053

03/31/97

CONCRETE MIX PROPORTIONS

CONTRACTOR : BARBELLA ENVIRONMENTAL
PROJECT : CLARKSTOWN LANDFILL
MIX DATA :


CEMENT	BLUE CIRCLE, ASTM C-150 TYPE II
FINE AGGREGATE	ROANOKE SAND, ASTM C-33
COARSE AGGREGATE	NY TRAPROCK #57, ASTM C-33
AIR ENTRAINING AGENT	DARAVAIR, WR GRACE
ADMIXTURES	
WATER REDUCER	WRDA w/ HYCOL, WR GRACE (A)
SUPER PLASTICIZER	
ACCELERATOR	

WEIGHTS PER CUBIC YARD

	3000 PSI
	REG
MIX ID:	30058001

CEMENT	(LBS)	580	
FINE AGGREGATE	(LBS)	1374	
COARSE AGGREGATE	(LBS)	1800	
WATER	(GAL)	31.5	
AIR ENTRAINING AGENT	(OZ)	5.8	
ADMIX: WATER REDUCER	(OZ)	17.4	
ADMIX:	(OZ)	0.0	
ADMIX:	(OZ)	0.0	
SLUMP	(")	2"-4"	actual 3.25"
AIR CONTENT	(%)	6+/-1.5	actual 5.8%
WATER/CEMENT RATIO	(LB/LB)	0.45	
UNIT WEIGHT, FRESH	(PCF)	148.8	

These mixes are designed to achieve the design strength if sampled and tested in accordance with all ACI and ASTM testing procedures.



BLUE CIRCLE MATERIALS
TECHNICAL SERVICES

GRACE • CONCRETE ADMIXTURES



DARAVAIR® is an aqueous solution of completely neutralized vinsol resin and is produced at a high concentration and low viscosity. DARAVAIR is a clear, dark brown liquid intended for use as supplied. One gallon weighs approximately 8.9 lbs.

USES:

DARAVAIR may be used wherever the purposeful entrainment of air is required by concrete specifications. It is particularly useful in mass concrete and in high cement factor, low slump paving mixes, which require efficient, effective air-entraining admixtures. DARAVAIR entrains air readily even under adverse conditions such as described above or when fly ash or manufactured sand is used in the concrete mix.

AIR ENTRAINING ACTION:

Air is incorporated into the concrete by the mechanics of mixing but stabilized into millions of discrete semi-microscopic bubbles in the presence of a specifically designed air-entraining admixture such as DARAVAIR.

These air bubbles act much like flexible ball bearings increasing the mobility, or plasticity and workability of the concrete. This permits a reduction in mixing water with no loss of slump. Placeability is improved. Bleeding, green shrinkage and segregation are minimized.

Through the purposeful entrainment of air, DARAVAIR markedly increases the durability of concrete to all exposures particularly to freezing and thawing. It has also demonstrated a remarkable ability to impart resistance to the action of frost and deicing salts as well as sulfate, sea and alkaline waters.

COMPATIBILITY WITH OTHER ADMIXTURES:

DARAVAIR is fully effective and compatible in concrete with other admixtures and may be used with water-reducing admixtures, accelerators, and initial set retarders such as WRDA® with HYCOL™, WRDA®, DARASET® and DARATARD®. EACH ADMIXTURE, HOWEVER, SHOULD BE ADDED TO THE CONCRETE SEPARATELY.

ADDITION RATE:

There is no standard addition rate for DARAVAIR. The amount to be used will depend upon the amount of air required for job conditions, usually in the range of 4 to 8%. Typical factors which might influence the amount

of air-entraining admixture required are, temperature, cement, sand gradation, and the use of extra fine materials such as fly ash. Typical DARAVAIR addition rates range from ¾ to 3 fluid ounces per 100 lbs. of cement.

The air-entraining capacity of DARAVAIR is usually increased when other concrete admixtures are contained in the concrete, particularly water-reducing admixtures and water-reducing retarders. This may allow up to a two-thirds reduction in the amount of DARAVAIR required.

MIX ADJUSTMENT:

Entrained air will increase the volume of the concrete and, consequently, it is necessary to adjust the mix proportions to maintain the cement factor and yield. This is partly accomplished by the permissible reduction in water requirement and additionally by a reduction in the fine aggregate content.

DISPENSING EQUIPMENT:

A complete line of accurate automatic dispensing equipment is available. These dispensers can be located to discharge into the water line, the mixer, or on the sand.

PACKAGING:

DARAVAIR is available in bulk, delivered by metered tank trucks and in 55-gallon drums. DARAVAIR contains no flammable ingredients. DARAVAIR WILL FREEZE AT ABOUT 30°F BUT ITS AIR-ENTRAINING PROPERTIES ARE COMPLETELY RESTORED BY THAWING AND THOROUGH AGITATION.

ARCHITECTS' SPECIFICATION FOR CONCRETE AIR ENTRAINING ADMIXTURE:

Concrete shall be air entrained concrete, containing 4 to 8% entrained air. The air contents in the concrete shall be determined by the pressure method (ASTM Designation C 231) or gravimetric method (ASTM Designation C 138). The air entraining admixture shall be a completely neutralized vinsol resin solution, such as DARAVAIR, as manufactured by the Construction Products Division of W. R. Grace & Co.-Conn., or equal, and comply with standard specification for air entraining admixtures (ASTM Designation C-260). The air entraining admixture shall be added at the concrete mixer or batching plant at approximately ¾ to 3 fluid ounces per 100 lbs. of cement, or in such quantities as to give the specified air contents.

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We hope the information given here will be helpful if it is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would infringe any patent or copyright. Construction Products Division W.R. Grace & Co.-Conn., 62 White Temple Ave., Cambridge, Mass. 02140

GRACE
Concrete Products

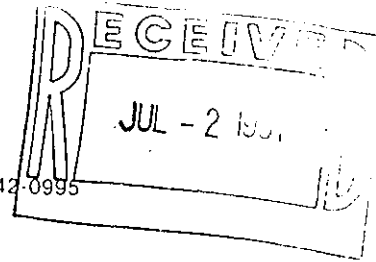
Location	Placement Date	7-Day Break Date	Actual Break
Piles for the Leachate Tank adjacent to the Pump House	6/27/97	7/4/97	7/3/97
Leachate Tank Farm	7/3/97	7/10/97	7/10/97
Piles for the Flare Station Foundation	7/9/97	7/16/97	7/16/97
Ballast Pad for the Knock Out Tank	7/11/97	7/18/97	7/18/97
Slab for the Leachate Collection Tank	7/18/97	7/25/97	7/25/97
Wall for the Leachate Tank Farm, 1st Pour	7/29/97	8/5/97	8/5/97
Wall for the Leachate Tank Farm, 2nd Pour	8/1/97	8/8/97	8/8/97
Foundation Pad for the Flare Station, 1st Pour	8/18/97	8/25/97	8/25/97
Condenser Tank and Pad for the Flare Station, 2nd Pour	8/20/97	8/27/97	8/27/97
West End (Inbound) Scale House Pads (110' x 15')	4/30/98	5/7/98	5/7/98
Concrete Travelway (1st Pour)	5/22/98	5/29/98	5/29/98
West and East Curbs (LFP1)	6/24/98	7/1/98	7/1/98
Curbs LFP1 South End (East Curb) Pour #2	6/26/98	7/3/98	7/3/98
Concrete Travelway 2nd Pour North End (east of inbound scale)	8/14/98	8/21/98	8/21/98 8/28/98
Concrete Travelway 3rd Pour North End w/ Angle (east end)	8/17/98	8/24/98	8/24/98
40' Section Concrete Travelway (2nd Attempt, installed by ORSC)	8/31/98	9/7/98	9/7/98
Concrete Travelway Pour 2 (2nd Attempt, installed by ORSC)	9/1/98	9/8/98	9/8/98



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 · TELEPHONE (914) 942-2088 · FAX (914) 942-0995



CONCRETE INSPECTION

DATE 6-27-97
WEATHER Clear, 70°

CLIENT Barbella Environmental Technology
PROJECT Clarkstown Landfill

CONTRACTOR B.E.T.
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) 3000 Class A pump

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

TRK. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
307	1634036	8.0	4/5	piles for leachate tank adjacent to pump house	Test cylinder nos. 0627 thru 0627-8 were taken. Air content: 2.4-4% Concrete temp: 81-88° unit weight: 145.0 pcf
204	1634138	8.5	4.25/3.75		

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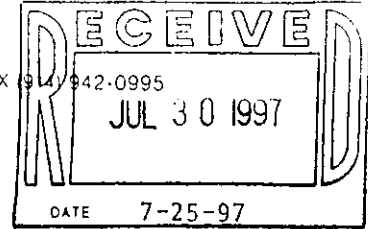


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CONCRETE TEST REPORT



CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill**

CONTRACTOR **Barbella**

CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0725-33 3000 Class A	0725-34 3000 Class A	0725-35 3000 Class A	0725-36 3000 Class A	0725-37 3000 Class A	0725-38 3000 Class A
FIELD IDENTIFICATION TAKEN FROM	0627-3 piles	0627-4 piles	0627-5 piles	0627-6 piles	0627-7 piles	0627-8 piles
SLUMP (INCHES) AIR CONTENT (PERCENT)	5/4	5/4	4.25/3.75	4.25/3.75	7.25/3.75	4.25/3.75
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	6-27-97 6-30-97 7-25-97 LAB 25 FIELD 3 28	6-27-97 6-30-97 7-25-97 LAB 25 FIELD 3 28	6-27-97 7-2-97 7-25-97 LAB 23 FIELD 5 28	6-27-97 7-2-97 7-25-97 LAB 23 FIELD 5 28	6-27-97 7-2-97 7-25-97 LAB 23 FIELD 5 28	6-27-97 7-2-97 7-25-97 LAB 23 FIELD 5 28
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	134,500 4757	135,000 4775	133,000 4704	134,000 4739	138,500 4898	140,500 4969

COMMENTS

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P. J. Aguanno, P. E.



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CONCRETE INSPECTION

DATE 7-3-97
WEATHER Cloudy, 80°

CLIENT Barbella Environmental Technology
PROJECT Clarkstown Landfill
PO No. 1990

CONTRACTOR BET
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) Class A 3000

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

CHK. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
205	1635500	10	2.5	Leachate tank farm	Test cylinder nos. 0703-1 thru 0703-4 were taken.
214	1635507	10	2.0		
201	1635535	10	4.0		

Air content: 3.5-4.2%
Concrete temp: 81-84°

Unit Wts: 153, 157.4, 156

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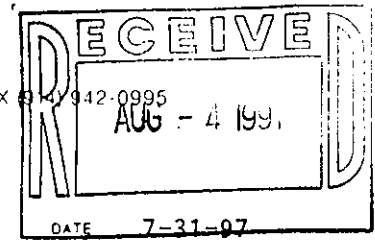


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CONCRETE TEST REPORT



CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill - PO No. 1990**
 CONTRACTOR **Barbella Environmental Technology**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0731-36 Class A	0731-37 Class A				
FIELD IDENTIFICATION TAKEN FROM	0703-3 leachate tank farm	0703-4 leachate tank farm				
SLUMP (INCHES) AIR CONTENT (PERCENT)	2	2				
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3				
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	7-3-97 7-8-97 7-31-97 LAB 23 FIELD 5 28	7-3-97 7-8-97 7-31-97 LAB 23 FIELD 5 28	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	142,000 5022	140,500 4969				

COMMENTS

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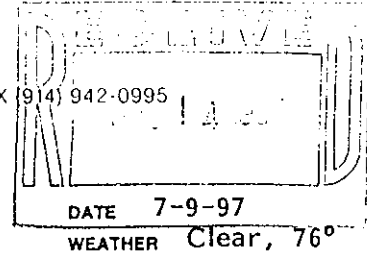


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CONCRETE INSPECTION



CLIENT PROJECT Barbella Environmental Technology
Clarkstown Landfill PO No. 1990

CONTRACTOR Barbella Environmental Technology
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) 3000 pump

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
193	1636388	10	2	flare station foundation piles	Test cylinder nos. 0709-1 thru 0709-4 were taken.
317	1636400	10	2.5		
336	1636407	10	3.25		
213	1636417	10	3		Air content: 4 to 4.5%
201	1636448	10	2.75		
317	1636463	10	2.5		Concrete temp: 86 to 88°
					Unit Weight: 150.6 148.4

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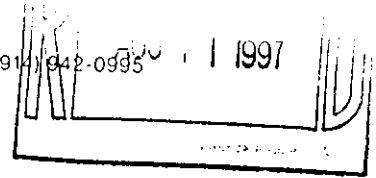


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CONCRETE TEST REPORT

DATE 8-6-97

CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill**
 CONTRACTOR **Barbella Environmental**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0806-5 3000	0806-6 3000				
FIELD IDENTIFICATION TAKEN FROM	0709-3 Flare Sta. fnd. piles	0709-4 Flare Sta. fnd. piles				
SLUMP (INCHES) AIR CONTENT (PERCENT)	3.25	3.25				
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3				
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	7-9-97 7-10-97 8-6-97 LAB 27 FIELD 1 28	7-9-97 7-10-97 8-6-97 LAB 27 FIELD 1 28	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	120,000 4244	116,500 4120				
COMMENTS						

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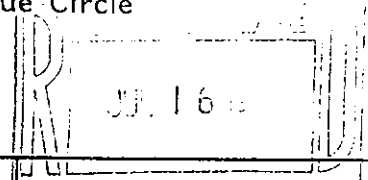
CONCRETE INSPECTION

DATE 7-11-97
WEATHER Clear, 85°

CLIENT Barbella Environmental Technology
PROJECT Clarkstown Landfill
PO No. 1990

CONTRACTOR Barbella
CONCRETE SUPPLIER Blue Circle

BATCH PLANT



REQUIRED STRENGTH (PSI) 3000 Class A

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
3	1637240	6.5	3	knock out tank ballast pad.	Test cylinder nos. 0711-1 thru 0711-4 were taken. Air content: 4.5% Concrete temp: 85° Unit Weight: 148.4 lbft ³

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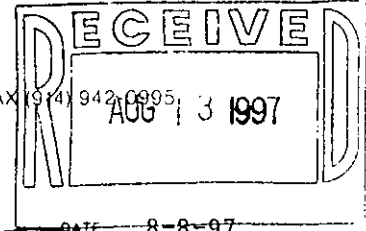
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CONCRETE TEST REPORT

CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill**
 CONTRACTOR **Barbella Environmental Technology**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0808-46 3000	0808-47 3000	0808-58 4000	0808-59 4000		
FIELD IDENTIFICATION TAKEN FROM	0711-3 knock out tank ballast pad	0711-4 knock out tank ballast pad	0801-2 leachate tank farm wall pour #2	0801-1 leachate tank farm wall pour #2		
SLUMP (INCHES) AIR CONTENT (PERCENT)	3	3	4.5	4.5		
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3		
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	7-11-97 7-15-97 8-8-97 LAB 24 FIELD 4 28	7-11-97 7-15-97 8-8-97 LAB 24 FIELD 4 28	8-1-97 8-4-97 8-8-97 LAB 4 FIELD 3 7	8-1-97 8-4-97 8-8-97 LAB 4 FIELD 3 7	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	127,500 4509	128,500 4545	107,500 3802	106,000 3749		

COMMENTS

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CONCRETE INSPECTION

DATE 7-18-97
WEATHER Clear, 95°

CLIENT PROJECT **Barbella Environmental Technology**
Clarkstown Landfill PO No. 1990

CONTRACTOR Barbella Environmental Technology
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

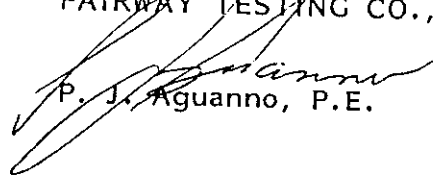
REQUIRED STRENGTH (PSI) 3000

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

TRK. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
317	1638774	10	4	leachate collection tank slab	Test cylinder nos. 0718-1 thru 0718-4 were taken. Air content: 4.5% Concrete temp: 89 to 91°
193	1638796	10	3.75		
215	1638809	10	3.5		
201	6138831	10	2.5		
214	1638848	10	3.25		

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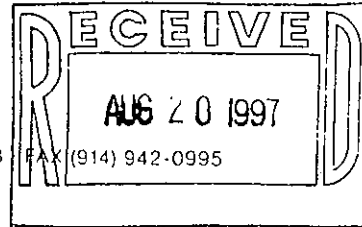

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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

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CONCRETE TEST REPORT

DATE 8-15-97

CLIENT Barbella Environmental Technology

PROJECT Clarkstown Landfill

CONTRACTOR Barbella Environmental Technology

CONCRETE SUPPLIER Blue Circle

LAB NUMBER REQUIRED STRENGTH (PSI)	0815-42 3000	0815-43 3000				
FIELD IDENTIFICATION TAKEN FROM	0718-3 Leachate collection tank slab	0718-4 Leachate collection tank slab				
SLUMP (INCHES) AIR CONTENT (PERCENT)	3.75	3.75				
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3				
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	7-18-97 7-22-97 8-15-97 LAB 24 FIELD 4 28	7-18-97 7-22-97 8-15-97 LAB 24 FIELD 4 28	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	127,000 4492	130,500 4615				

COMMENTS

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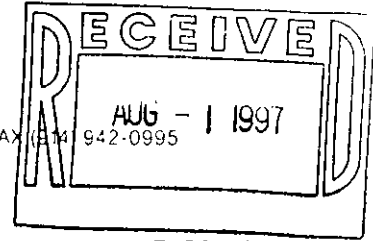
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CONCRETE INSPECTION

DATE 7-29-97
WEATHER Clear, 83°

CLIENT Barbella Environmental Technology
PROJECT Clarkstown Landfill
PO No. 1990

CONTRACTOR Barbella Environmental Technology
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) 3000

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
204	1641013	8	4.25	Leachate tank farm wall pour #1 at southeast, northeast and west center sections	Test cylinder nos. 0729-1 thru 0729-4 were taken. Air content: 5.4% Concrete temp: 85°

FAIRWAY TESTING CO., INC.

P. J. Aguanno
P. J. Aguanno, P.E.



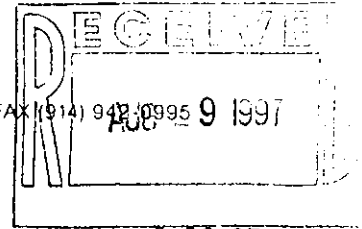
SINCE 1969

FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 · TELEPHONE (914) 942-2088 · FAX (914) 942-0995

CONCRETE TEST REPORT



DATE 8-26-97

CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill**

CONTRACTOR **Barbella Environmental Technology**

CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0826-20 3000 class A	0826-21 3000 classA					
FIELD IDENTIFICATION TAKEN FROM	0729-3 Leachate Tank farm wall	0729-4 Leachate Tank farm wall					
SLUMP (INCHES) AIR CONTENT (PERCENT)	4.25	4.25					
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3					
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	7-29-97 7-30-97 8-26-97 LAB 27 FIELD 1 28	7-29-97 7-30-97 8-26-97 LAB 27 FIELD 1 28	LAB	FIELD	LAB	FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	128,000 4527	131,000 4633					

COMMENTS

FAIRWAY TESTING CO., INC.

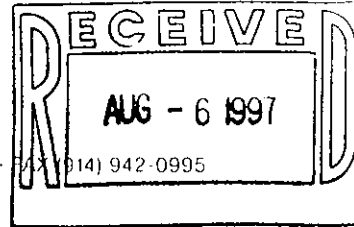
P. J. Aguanno
P. J. Aguanno, P. E.



FAIRWAY TESTING

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CONCRETE INSPECTION

DATE 8-1-97
WEATHER Clear, 90°

CLIENT Barbella Environmental Technology
PROJECT Clarkstown Landfill
PO No. 1990

CONTRACTOR Barbella Environmental Technology
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) 3000

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

T. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
332	1642113	8	4.5	Leachate Tank farm wall pour #2 at east center and northwest and southwest corner	Test cylinder nos. 0801-1 thru 0801-4 were taken. Air content: 4.9% Concrete temp: 85° Unit weight: 149.2 pcf

FAIRWAY TESTING CO., INC.

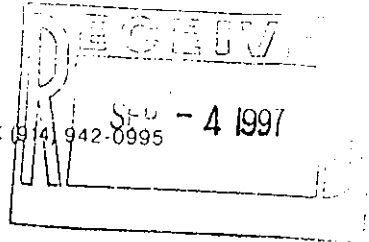
P. J. Aguanno, P.E.



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

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CONCRETE TEST REPORT

DATE 8-29-97

CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill**
 CONTRACTOR **Barbella Environmental Technology**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0829-3 4000	0829-4 4000				
FIELD IDENTIFICATION TAKEN FROM	0801-3 leachate tank farm wall pour #2	0801-4 leachate tank farm wall pour #2				
SLUMP (INCHES) AIR CONTENT (PERCENT)	4.5	4.5				
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3				
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-1-97 8-4-97 8-29-97 LAB 25 FIELD 3 28	8-1-97 8-4-97 8-29-97 LAB 25 FIELD 3 28	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	130,000 4598	126,500 4474				
COMMENTS						

FAIRWAY TESTING CO., INC.

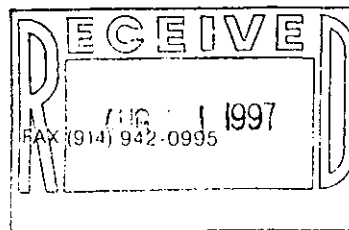
P. J. Aguanno
 P. J. Aguanno, P.E.



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 · TELEPHONE (914) 942-2088



CONCRETE INSPECTION

DATE 8-18-97
WEATHER Cloudy, 70°

CLIENT PROJECT Barbella Environmental Technology
Clarkstown Landfill

CONTRACTOR Barbella Environmental Technology
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) Class A

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

C. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
336	1646492	10	3.5	flare station foundation pad pour 1	Test cylinder nos. 0818-1 thru 0818-4 were taken.
205	1646500	10	4		
318	1646514	10	4.5		
214	1646520	10	4		Air content: 5%
209	1646526	6.5	3.75		
214	1646545	3	3.25		Concrete temp: 83 to 86°
					Unit Weight: 149.2 147.6

FAIRWAY TESTING CO., INC.

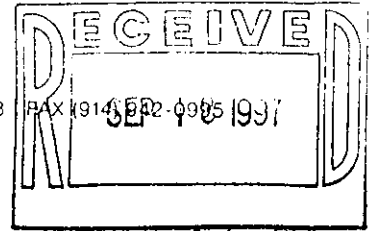
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FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 · TELEPHONE (914) 942-2088



CONCRETE TEST REPORT

DATE 9-15-97

CLIENT **Barbella Environmental Technology**

PROJECT **Clarkstown Landfill**

CONTRACTOR **Barbella Environmental Technology**

CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0915-21 Class A 3000	0915-22 Class A 3000					
FIELD IDENTIFICATION TAKEN FROM	0818-3 flare station fdn pad	0818-4 flare station fdn pad					
SLUMP (INCHES) AIR CONTENT (PERCENT)	4.5	4.5					
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3					
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-18-97 8-19-97 9-15-97 LAB 27 FIELD 1 28	8-18-97 8-19-97 9-15-97 LAB 27 FIELD 1 28	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	135,000 4775	133,000 4704					

COMMENTS

FAIRWAY TESTING CO., INC.

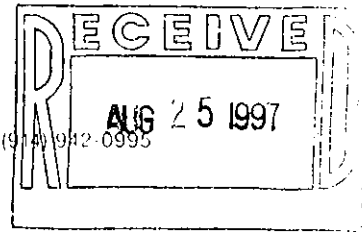
P. J. Aguanno
P. J. Aguanno, P.E.



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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

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CONCRETE INSPECTION

DATE 8-20-97
WEATHER Clear, 75°

CLIENT Barbella Environmental Technology
PROJECT Clarkstown Landfill

CONTRACTOR Barbella Environmental Technology
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

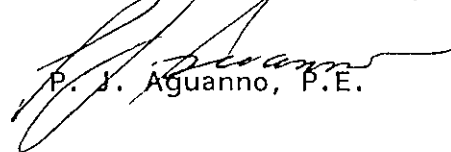
REQUIRED STRENGTH (PSI) 3000

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

TK. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
207	1647083	10	6.5	condenser tank foundation	Test cylinder nos. 0820-1 thru 0820-6 were taken. Air content: 4.9-5.5% Concrete temp: 80 to 84° Unit Weight: 148.8 pcf 152.0 pcf 4 cylinders cast - truck 207 (0820-1 to 0820-4) and 2 cylinders cast from truck 205.
205	1647106	10	2.75	pad; step and tie beam and	
193	1647132	9	3	flare station foundation pad #2	

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P. J. Aguanno, P.E.



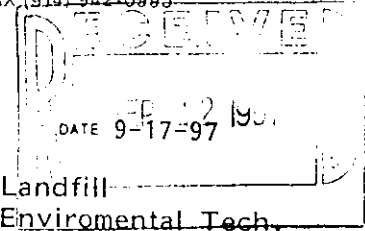
SINCE 1969

FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

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CONCRETE TEST REPORT



CLIENT **Barbella Enviromental Tech.**

PROJECT **Clarkstown Landfill**

CONTRACTOR **Barbella Enviromental Tech.**

CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0917-40 3000 Class _A	0917-41 3000 Class _A	0917-42 3000 Class _A			
FIELD IDENTIFICATION TAKEN FROM	0820-3 Foundation Pad	0820-4 Foundation Pad	0820-6 Foundation Pad			
SLUMP (INCHES) AIR CONTENT (PERCENT)	6.5	6.5	2.75			
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3			
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-20-97 8-26-97 9-17-97 LAB 22 FIELD 6 28	8-20-97 8-26-97 9-17-97 LAB 22 FIELD 6 28	8-20-97 8-26-97 9-17-97 LAB 22 FIELD 6 28	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	153,500 5429	155,500 5500	160,000 5659			

COMMENTS

FAIRWAY TESTING CO., INC.

P. J. Aguanno
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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10990 · TELEPHONE (914) 942-2082 · FAX (914) 942-0935

CONCRETE INSPECTION

DATE 4-30-98

WEATHER Cloudy, 63°

CLIENT Ogden Remediation Services
PROJECT Clarkstown Landfill

CONTRACTOR JJJ
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) 4000

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

TICKET NO	YARDS	SLUMP
04 1703925	10	3.5
33 1703953	5	3.5

LOCATION OF PLACES
scale house pads west end

REMARKS

Test cylinder nos. 0430-1 thru 0430-4 were taken.

Air content: 4%

Concrete temp: 60°

FAIRWAY TESTING CO., INC.

P. J. Aguanno
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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 · TELEPHONE (914) 942-2088 · FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 5-7-98

CLIENT Ogden Remediation Services

PROJECT Clarkstown Landfill

CONTRACTOR JJJ

CONCRETE SUPPLIER Blue Circle

LAB NUMBER REQUIRED STRENGTH (PSI)	0507-71 4000	0507-72 4000								
FIELD IDENTIFICATION TAKEN FROM	0430-1 scale house pads west	0430-2 scale house pads west								
SUMP (INCHES) AIR CONTENT (PERCENT)	3.5	3.5								
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3								
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	4-30-98 5-4-98 5-7-98 LAB 3 FIELD 4 7	4-30-98 5-4-98 5-7-98 LAB 3 FIELD 4 7	LAB	FIELD	LAB	FIELD	LAB	FIELD	LAB	FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	110,500 3908	106,500 3767								
COMMENTS										

FAIRWAY TESTING CO., INC.

P. J. Agnanno
P. J. Agnanno, P. E.
RECEIVED MAY 11 1998



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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

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CONCRETE INSPECTION

DATE 5-22-98
WEATHER Clear, 80°

CLIENT JJJ Concrete
PROJECT Clarkstown Landfill

CONTRACTOR JJJ Concrete
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) 3000 Class 'A' 4000 placed

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

NO.	TICKET NO.	YARDS	SLUMP
	1708683	10	3.75
328	1708710	10	3.5
329	1708733	10	3.5
351	1708790	5.0	4.0

LOCATION PLACED
concrete travelway

REMARKS
Test cylinder nos. 0522-1
thru 0522-3 were taken.

Air content: 6-6.5%

Concrete temp: 72.6°

FAIRWAY TESTING CO., INC.

P. J. Aguanno
P. J. Aguanno, P. E.

101



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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 576 · STONY POINT NY 10980 · TELEPHONE (914) 942-2088 · FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 6-19-98

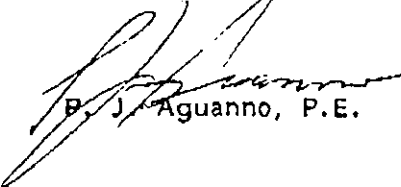
CLIENT **JJJ Concrete**

PROJECT **Clarkstown Landfill**
 CONTRACTOR **JJJ Concrete**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER	0619-25	0619-26				
REQUIRED STRENGTH (PSI)	3000	3000				
FIELD IDENTIFICATION TAKEN FROM	0522-2 concrete travelway	0522-3 concrete travelway				
SLUMP (INCHES)	3.5	3.5				
AIR CONTENT (PERCENT)						
SPECIMEN DIAMETER (INCHES)	6.0	6.0				
HEIGHT (INCHES)	12.0	12.0				
AREA (SQ. INCHES)	28.3	28.3				
DATE CAST	5-22-98	5-22-98				
DATE RECEIVED	5-26-98	5-26-98				
DATE BROKEN	6-19-98	6-19-98				
CURED (DAYS)	LAB 24 FIELD 4	LAB 24 FIELD 4	LAB	FIELD	LAB	FIELD
AGE (DAYS)	28	28				
RESULTS						
TOTAL LOAD (POUNDS)	100,500	105,000				
COMPRESSIVE STRENGTH (PSI)	3554	3714				

COMMENTS

FAIRWAY TESTING CO., INC.


 P. J. Aguanno, P.E.



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CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10990 TELEPHONE (914) 942-2088 FAX (914) 942-0995

CONCRETE INSPECTION

DATE 6-24-98
WEATHER Clear, 75°+

CLIENT JJJ Concrete
PROJECT Clarkstown Landfill

CONTRACTOR JJJ Concrete
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) Class A

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

NO	TICKET NO	YARDS	SLUMP	LOCATION PLACED	REMARKS
351	1715759	10	3.5	west curbs (AM)	Test cylinder nos. 0624-1 thru 0624-6 were taken.
317	1715759	8	3.5	east curbs (PM)	

Air content: 5.5%

Concrete temp: 74°

FAIRWAY TESTING CO., INC.


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FAIRWAY TESTING

CONSTRUCTION MATERIALS TESTING INSPECTION RESEARCH

P.O. BOX 578 STONY POINT NY 10980 TELEPHONE (914) 942-2988 FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 7-22-98

CLIENT **JJJ Concrete**

PROJECT **Clarkstown Landfill**
 CONTRACTOR **JJJ Concrete**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0722-29 class A	0722-30 class A	0722-31 class A			
FIELD IDENTIFICATION TAKEN FROM	0624-3 west curbs	0624-4 west curbs	0624-6 east curbs			
SLUMP (INCHES) AIR CONTENT (PERCENT)	3.5	3.5	3.5			
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ INCHES)	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3			
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	6-24-98 6-26-98 7-22-98 LAB 26 FIELD 2 28	6-24-98 6-26-98 7-22-98 LAB 26 FIELD 2 28	6-24-98 6-26-98 7-22-98 LAB 26 FIELD 2 28	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	116,500 4120	115,000 4068	113,500 4014			
COMMENTS						

FAIRWAY TESTING CO., INC.

P. J. Aguanno
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FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

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CONCRETE INSPECTION

DATE 6-26-98
WEATHER Clear, 90°

CLIENT JJJ Cocrete
PROJECT Clarkstown Landfill

CONTRACTOR JJJ
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) **Class A**

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
393	1716176	10	3.25	curbs - LFP - 1	Test cylinder nos. 0626-1 thru 0626-6 were taken. Air content: 6.6-7.5% Concrete temp: 94, 95°
317	1716588	10	3.0	south end pour #2	
205	1716641	1			

FAIRWAY TESTING CO., INC.

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FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 STONY POINT, NY 10980 TELEPHONE (914) 942-2088 FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 7-24-98

CLIENT JJJ Concrete

PROJECT Clarkstown Landfill
 CONTRACTOR JJJ Concrete
 CONCRETE SUPPLIER Blue Circle

LAB NUMBER REQUIRED STRENGTH (PSI)	0724-1 Class A	0724-2 Class A	0724-3 Class A			
FIELD IDENTIFICATION TAKEN FROM	0626-3 curbs landfill LFP-1 south end	0626-4 curbs landfill LFP-1 south end	0626-6 curbs landfill LFP-1 south end			
SLUMP (INCHES) AIR CONTENT (PERCENT)	3.25	3.25	3			
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3	6.0 12.0 28.3			
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	6-26-98 6-29-98 7-24-98 LAB 25 FIELD 3 28	6-26-98 6-29-98 7-24-98 LAB 25 FIELD 3 28	6-26-98 6-29-98 7-24-98 LAB 25 FIELD 3 28	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	111,000 3926	116,500 4120	112,000 3961			
COMMENTS						

FAIRWAY TESTING CO., INC.

P. J. Aguanno
 P. J. Aguanno, P.E.



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 STONY POINT NY 10960 TELEPHONE (914) 942-2086 FAX (914) 942-0995

CONCRETE TEST REPORT

CLIENT **JJJ Concrete**

DATE **8-21-98**

PROJECT **Clarkstown Landfill**
 CONTRACTOR **JJJ Concrete**
 CONCRETE SUPPLIER **Blue Circle**

LAB NUMBER REQUIRED STRENGTH (PSI)	0821-99 Class A	0821-100 Class A				
FIELD IDENTIFICATION TAKEN FROM	0814-1 slab east end inbound scale	0814-2 slab east end inbound scale				
SLUMP (INCHES) AIR CONTENT (PERCENT)	5	5				
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3				
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-14-98 8-17-98 8-21-98 LAB 4 FIELD 3 7	8-14-98 8-17-98 8-21-98 LAB 4 FIELD 3 7				
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	85,500 3024	85,000 3006				
COMMENTS						

FAIRWAY TESTING CO., INC.

P. J. Aguanno
 P. J. Aguanno, P.E.



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 STONY POINT, NY 10980 TELEPHONE (914) 942-2088 · FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 9-11-98

CLIENT JJJ Concrete

PROJECT Clarkstown Landfill
 CONTRACTOR JJJ Concrete
 CONCRETE SUPPLIER Blue Circle

LAB NUMBER REQUIRED STRENGTH (PSI)	0911-8 Class A	0911-9 Class A					
FIELD IDENTIFICATION TAKEN FROM	0814-4 slab east end inbound scale	0814-5 slab east end inbound scale					
SLUMP (INCHES) AIR CONTENT (PERCENT)	5	5					
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ INCHES)	6.0 12.0 28.3	6.0 12.0 28.3					
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-14-98 8-17-98 9-11-98 25 28	8-14-98 8-17-98 9-11-98 25 28	LAB	FIELD	LAB	FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	108,000 3820	105,000 3714					

COMMENTS

FAIRWAY TESTING CO., INC.

P. J. Aguanno
 P. J. Aguanno, P.E.



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 579 STONY POINT, NY 10980 TELEPHONE (914) 942-2099 FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 8-24-98

CLIENT JJJ Concrete

PROJECT Clarkstown Landfill
 CONTRACTOR JJJ Concrete
 CONCRETE SUPPLIER Blue Circle

LAB NUMBER REQUIRED STRENGTH (PSI)	0824-18 Class A	0824-19 Class A								
FIELD IDENTIFICATION TAKEN FROM	0817-1 concrete travelway east end	0817-2 concrete travelway east end								
SLUMP (INCHES) AIR CONTENT (PERCENT)	2	2								
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3								
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-17-98 8-18-98 8-24-98 6 7	8-17-98 8-18-98 8-24-98 6 7	LAB	FIELD	LAB	FIELD	LAB	FIELD	LAB	FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	120,000 4244	118,000 4173								

COMMENTS

FAIRWAY TESTING CO., INC.

P. J. Aguanno
 P. J. Aguanno, P.E.



SINCE 1969

FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 · TELEPHONE (914) 942-2088 · FAX (914) 942-0995

CONCRETE INSPECTION

DATE 8-31-98
WEATHER Clear, 80°

CLIENT Ogdan Remediation Services
PROJECT Clarkstown Landfill

CONTRACTOR JJJ
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

REQUIRED STRENGTH (PSI) Class A

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
318	1732828	10	40' section concrete	Test cylinder nos. 0831-1 thru 0831-4 were taken. Air content: 6.2 to 6.8% Concrete temp: 88 to 90°
205	1732876	10	travelway	

FAIRWAY TESTING CO., INC.

P. J. Aguanno, P.E.

RECEIVED SEP 08 1998



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10980 TELEPHONE (914) 942-2088 FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 9-28-98

CLIENT Ogden Remediation Services

PROJECT Clarkstown Landfill

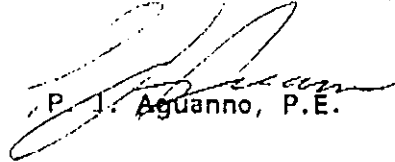
CONTRACTOR JJJ

CONCRETE SUPPLIER Blue Circle

LAB NUMBER REQUIRED STRENGTH (PSI)	0928-8 Class A	0928-9 Class A				
FIELD IDENTIFICATION TAKEN FROM	0831-3 travelway	0831-4 travelway				
SLUMP (INCHES) AIR CONTENT (PERCENT)	3.5	3.5				
DIMENSIONS DIAMETER (INCHES) HEIGHT (INCHES) AREA (SQ. INCHES)	6.0 12.0 28.3	6.0 12.0 28.3				
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	8-31-98 9-1-98 9-28-98 LAB 27 FIELD 1 28	8-31-98 9-1-98 9-28-98 LAB 27 FIELD 1 28	LAB FIELD	LAB FIELD	LAB FIELD	LAB FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	113,500 4014	110,500 3908				

COMMENTS

FAIRWAY TESTING CO., INC.


P. J. Aguanno, P.E.



SINCE 1969

FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 · STONY POINT, NY 10990 · TELEPHONE (914) 942-2088 · FAX (914) 942-0995

CONCRETE INSPECTION

DATE 9-1-98
WEATHER Clear, 78°

CLIENT Ogden Remediation Services
PROJECT Clarkstown Landfill

CONTRACTOR JJJ
CONCRETE SUPPLIER Blue Circle

BATCH PLANT

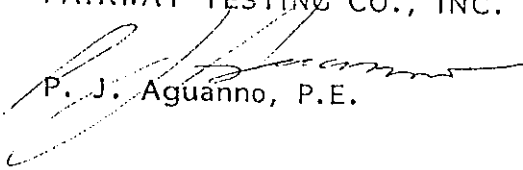
REQUIRED STRENGTH (FSI) Class A

CUBIC YARD WEIGHTS	SSD	PERCENT MOISTURE	CORRECTED WEIGHTS	TYPE	SOURCE OF SUPPLY
CEMENT (POUNDS)					
FINE AGG (POUNDS)					
COARSE AGG (POUNDS)					
ADMIXTURE					
WATER (GALLONS)					

FIELD INSPECTION

AK. NO.	TICKET NO.	YARDS	SLUMP	LOCATION PLACED	REMARKS
337	1723239	10	3.5	concrete travelway replacement pour 2, section 2 & 3	Test cylinder nos. 0901-1 thru 0901-4 were taken. Air content: 5 to 6% Concrete temp: 87 to 89°
394	1723262	10	4		
213	1723293	10	4		
391	1723336	6	3.5		

FAIRWAY TESTING CO., INC.


P. J. Aguanno, P.E.

RECEIVED SEP 0 9 1998



FAIRWAY TESTING

CONSTRUCTION MATERIALS: TESTING · INSPECTION · RESEARCH

P.O. BOX 578 STONY POINT, NY 10980 TELEPHONE (914) 942-2085 · FAX (914) 942-0995

CONCRETE TEST REPORT

DATE 9-29-98

CLIENT Ogden Remediation Services

PROJECT Clarkstown Landfill

CONTRACTOR JJJ

CONCRETE SUPPLIER Blue Circle

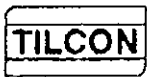
LAB NUMBER REQUIRED STRENGTH (PSI)	0929-3 class A	0929-4 class A								
FIELD IDENTIFICATION TAKEN FROM	0901-3 concrete travelway pour #2	0901-4 concrete travelway pour #2								
SLUMP (INCHES) AIR CONTENT (PERCENT)	3.5	3.5								
SPECIMEN DIAMETER (INCHES) HEIGHT (INCHES) AREA SQ. INCHES	6.0 12.0 28.3	6.0 12.0 28.3								
DATE CAST DATE RECEIVED DATE BROKEN CURED (DAYS) AGE (DAYS)	9-19-98 9-2-98 9-29-98 LAB 27 FIELD 1 28	9-1-98 9-2-98 9-29-98 LAB 27 FIELD 1 28	LAB	FIELD	LAB	FIELD	LAB	FIELD	LAB	FIELD
RESULTS TOTAL LOAD (POUNDS) COMPRESSIVE STRENGTH (PSI)	113,500 4074	110,500 3908								
COMMENTS										

FAIRWAY TESTING CO., INC.

E. J. Agganno
E. J. Agganno, P.E.

APPENDIX J2:

Asphaltic Pavement



TILCON NEW YORK INC. P.O. Box 362 Haverstraw, NY 10927 914 638 1300

October 22, 1997

Mr. James Beatty
Ogden Remediation Services Co., Inc
Clarkstown Project Office
166 Route 303
West Nyack, NY 10994

Re Certificates of Compliance for Asphalt Mixes
Type 3 and Type 8 and Subbase Course Type 2

Dear Sir,

The Tilcon New York Inc., Haverstraw quarry is a New York State D.O.T. approved material source. The Tilcon New York Inc. Asphalt Plant is also D.O.T. approved. Enclosed, please find a gradational analysis of the Type 2 subbase produced at the Haverstraw quarry and job mix Formulas for our Type 3 and Type 8 bituminous materials.

If you have any questions, please call me.

Sincerely,

Morsia Thomas

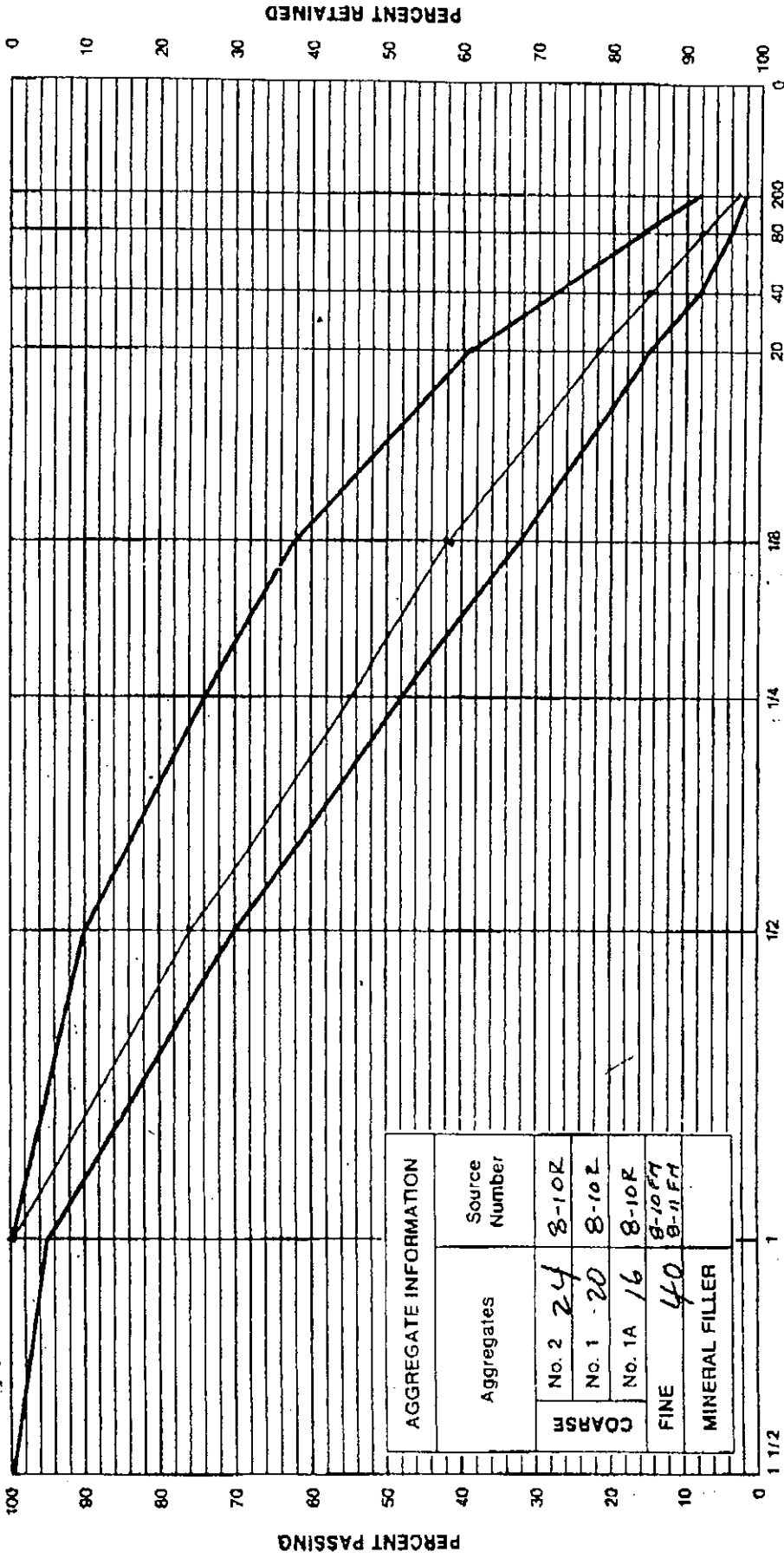
Morsia Thomas
Director, Quality Control

Post-it Fax Note	7671	Date	10-22	# of pages	4
To	J Beatty	From	Morsia		
Co./Dept.	Ogden	Co.	Tilcon		
Phone #		Phone #			
Fax #	358-2790	Fax #			

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
MATERIALS BUREAU
JOB MIX FORMULA
Type 3 Binder (Dense)

Facility No. 10240 Formula No. 96053149 Region 8
Plant TILLON NEW YORK DAC
Plant Location HAVERSHAL
Submitted By MORSIA THOMAS Date _____

(SUBMISSION INSTRUCTIONS ON BACK)



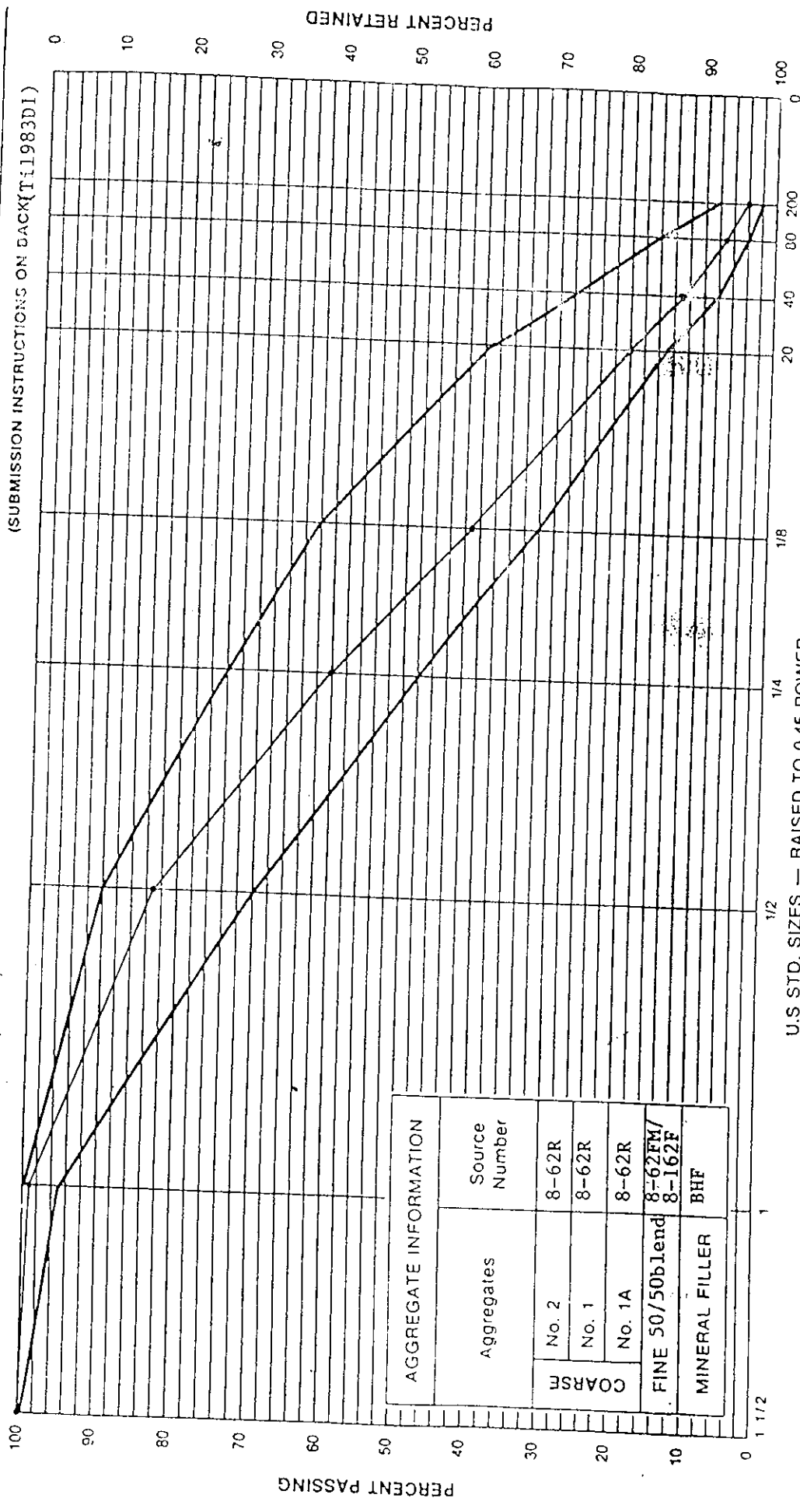
AGGREGATE INFORMATION	
Aggregates	Source Number
COARSE	No. 2 <u>24</u>
	No. 1 <u>20</u>
	No. 1A <u>16</u>
FINE	<u>40</u>
MINERAL FILLER	

U.S. STD. SIZES — RAISED TO 0.45 POWER

Sieve Size	2"	1 1/2"	1"	3/4"	1/2"	3/8"	20	No. 40	No. 80	No. 200	Asphalt Content (Percent)	Asphalt Grade
1. General Limits	100	100	95-100	48-74	32-62	15-39	8-27	4-16	2-8	4.5-6.5	AC 20	
2. JMF Range	100	100	95-100	48-62	34-48	15-29	8-22	4-12	2-5	N/A		
3. Target Value	100	100	108	55	41	22	15	8	3	3	4.9	

Approved by Regional Director _____ Date March 1, 1996

Remarks:



AGGREGATE INFORMATION	
Aggregates	Source Number
No. 2	8-62R
No. 1	8-62R
No. 1A	8-62R
FINE 50/50blend 8-62FM/ 8-162F	
MINERAL FILLER BHF	

Sieve Size	2"	1 1/2"	1"	1/2"	1/4"	1/8"	No. 20	No. 40	No. 80	No. 200	Asphalt Content (Percent)	Asphalt Grade
1. General Limits	100	70-90	32-62	15-39	8-27	4-16	2-8	4-11	2-6	4.5-5.5	AC20	
2. JMF Range	100	77-89	53-67	34-48	8-20	4-11	2-6	4-11	2-6	4.5-5.5		
3. Target Value	100	83	60	41	13	7	4	4	5.0			

Approved by Regional Director _____ Date: _____

Remarks: _____

APPENDIX J3:

Gravel Roadways



TILCON NEW YORK INC. P.O. Box 362 Haverstraw, NY 10927 914 638 1300

Certificate of Compliance

September 17, 1996

Dean La Fleur
Ogden Remediation Services
285 Davidson Ave
Somerset, NJ 08873

Gravel Road Mat'l
Bid Item # 9A
(18,000 sy)

Re: Clarkstown Landfill Project

Dear Sir:

The Tilcon New York Inc. Haverstraw quarry is a New York State D.O.T. approved material source. Enclosed please find source approval. The source number is 8-10R and the test number is 95AR9.

Also enclosed are proctors for Tomkins Cove and Haverstraw Pond dredgings and of the NYS #3, NYS # 1's & 2's, ASTM #8's and subbase 304.05 NYS Item 4, produced at the Haverstraw plant.

The Fine & Light Stone Fill items produced at the Haverstraw plant conform to the following:

Fine Stone Fill	Stone Size	% of Total by Weight
	Smaller than 8ins	90-100
	Larger than 3ins.	50-100
	Smaller than # 10 Sieve	0-10
Light Stone Fill		
	Lighter than 100lbs	90-100
	Larger than 6ins.	50-100
	Smaller than 1/2"	0-10

If you have any questions, please call me.

Sincerely,

TILCON NEW YORK INC.

Morsia Thomas
Director, Quality Control

TILCON NEW YORK INC.
P.O. BOX 362
HAVERSTRAW, NY 10927
USA
914 638 1300

Aggregate Blend

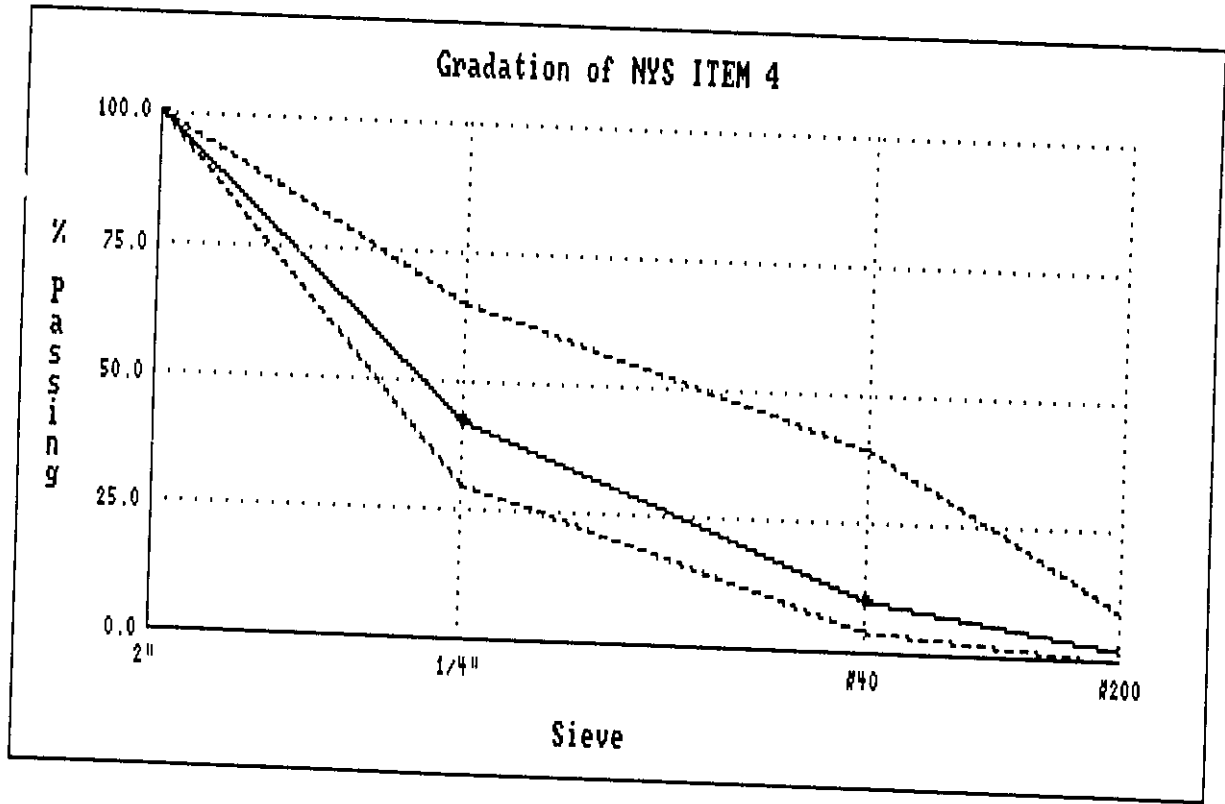
AGGREGATE BLEND -- MANUAL
=====

Specification ID : GRAVEL ROAD

Blend ID : NYS ITEM 4

Sieve	Low	High	% Pass	Aggregate	Pct
2 "	100.0	100.0	100.0	ITEM 4	* 100.0
1/4 "	30.0	65.0	42.6		
# 40	5.0	40.0	10.5		
# 200	-	10.0	2.3		

Cost - Fineness modulus -



AGGREGATE GRADATIONS -- % PASS
=====

PARTICLE-SIZE ANALYSIS OF SOILS
ASTM C 117, C 136, D 421, D 422, D 1140, D 2216, D 2217

OGDEN/CLARKSTOWN LF/NY

SAMPLE #: 9A

MOISTURE CONTENT (Delivered Moisture)

200 WASH (Percent Fines)

tare #	BT1
wt soil&tare, moist (g)	9166.00
wt soil&tare, dry (g)	8916.00
wt tare (g)	346.98
wt moisture (g)	250.00
wt dry soil (g)	8569.02
% moisture	2.92%

tare #	BT1
wt soil&tare, before wash (g)	8916.00
wt soil&tare, after wash (g)	8346.98
wt tare (g)	346.98
wt fines lost (g)	569.02
wt dry soil (g)	8569.02
% fines lost	6.64%

	SIEVE	wt ret	% ret	% pass	SIEVE
coarse gravel	3.000		0.00%	100.00%	3.000 coarse gravel
	1.500		0.00%	100.00%	1.500
	1.000	26.00	0.30%	99.70%	1.000
fine gravel	0.750	1202.00	14.03%	85.97%	0.750 fine gravel
	0.375	4127.00	48.16%	51.84%	0.375
coarse sand	#4	5481.00	63.96%	36.04%	#4 coarse sand
medium sand	#10	6547.00	76.40%	23.60%	#10 medium sand

SPLITTING INFORMATION

Wt in pan, from coarse sieve stack
 Wt split for fine sieve stack
 Percent of original wt in pan

100.00%

	SIEVE	wt ret	% ret	% pass	SIEVE
fine sand	#20	7108.00	82.95%	17.05%	#20
	#40	7439.00	86.81%	13.19%	#40 fine sand
	#60	7637.00	89.12%	10.88%	#60
	#100	7815.00	91.20%	8.80%	#100
fines	#200	8000.00	93.36%	6.64%	#200
	PAN	8000.00	93.36%	6.64%	PAN fines

% C GRVL:	14.03%
% F GRVL:	49.94%
% C SAND:	12.44%
% M SAND:	10.41%
% F SAND:	6.55%
% FINES:	6.64%
% TOTAL:	100.00%

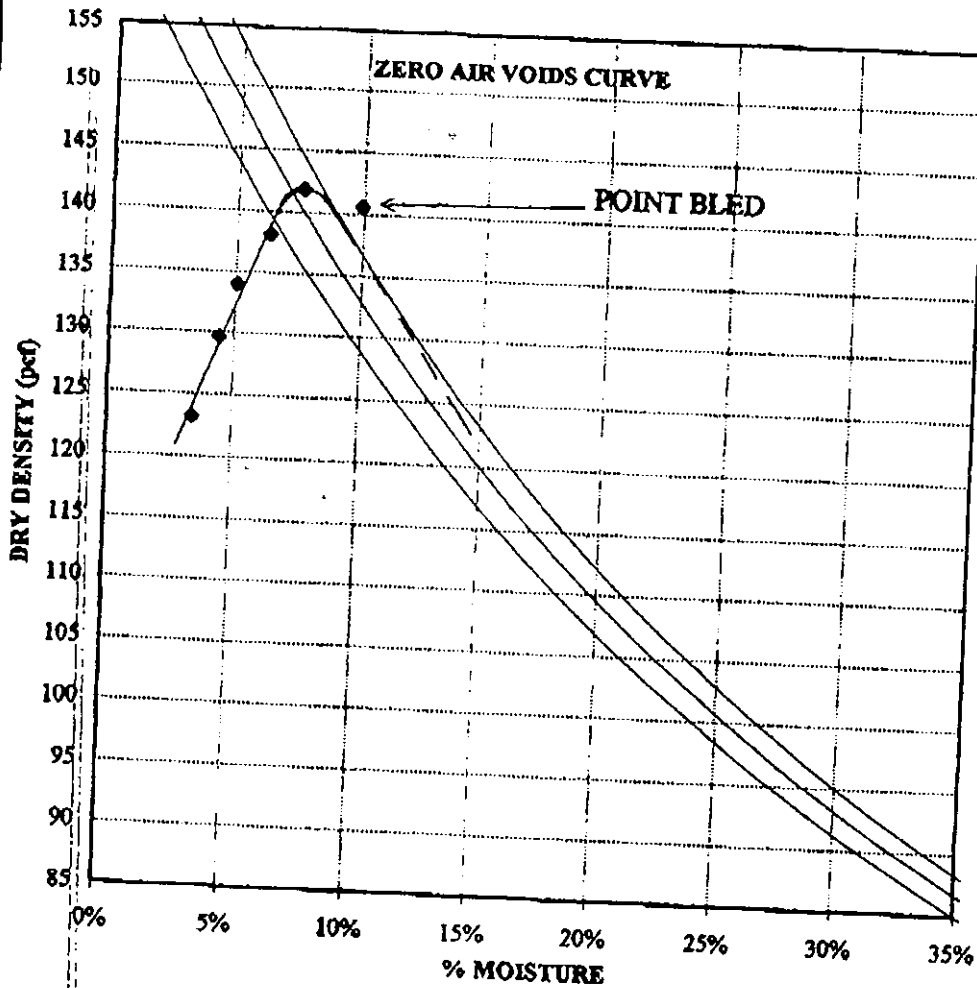
Wet Color: **Gray**
 Description: **c-f GRAVEL, some c-m sand, little fines**

LL:	-
PL:	-
PI:	-
Gs:	-

DATE	09/21/96
TECH	RDD
REVIEW	RMW

GOLDER ASSOCIATES INC.
MT. LAUREL, NEW JERSEY

**MOISTURE-DENSITY CURVE
ASTM D 698**



SAMPLE #:

9A
Gray
c-f GRAVEL, some c-m sand,
little fines

DESCRIPTION:

MAXIMUM DRY DENSITY (pcf)
OPTIMUM MOISTURE (%)
DELIVERED MOISTURE (%)

141.90
7.60
2.92

OGDEN/CLARKSTOWN LF/NY

DATE: 09/24/96

TECH: RDD

REVIEW: RMW

GOLDER ASSOCIATES INC.
MT. LAUREL, NEW JERSEY

SOUNDNESS USING MAGNESIUM SULFATE

OGDEN/CLARKSTOWN LF/NY	SAMPLE #: 9A
-------------------------------	---------------------

MOISTURE CONTENT (Delivered Moisture)		MAGNESIUM SULFATE IMMERSION (% LOSS)	
tare #	BT1	tare #	BT2
wt soil&tare,moist (g)	9166.00	wt soil&tare,before wash (g)	4795.01
wt soil&tare,dry (g)	8916.00	wt soil&tare,after wash (g)	4774.17
wt tare (g)	346.98	wt tare (g)	503.20
wt moisture (g)	250.00	wt fines lost (g)	20.84
wt dry soil (g)	8569.02	wt dry soil (g)	4291.81
% moisture	2.92%	% lost	0.49%

SIEVE	wt ret	% ret	% pass	SIEVE
2.000		0.00%	100.00%	2.000
1.500		0.00%	100.00%	1.500
1.000	13.00	0.30%	99.70%	1.000
0.750	602.00	14.03%	85.97%	0.750
0.375	2067.00	48.16%	51.84%	0.375
#4	2745.00	63.96%	36.04%	#4
#10	3279.00	76.40%	23.60%	#10

< 20% DV
with M

SPLITTING INFORMATION	
Wt in pan, from coarse sieve stack	
Wt split for fine sieve stack	
Percent of original wt in pan	100.00%

#20	3560.00	82.95%	17.05%	#20
#40	3725.60	86.81%	13.19%	#40
#50	3800.00	88.54%	11.46%	#50
PAN	3800.00	88.54%	11.46%	PAN

Wet Color: Gray	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DATE</td> <td>10/15/96</td> </tr> <tr> <td>TECH</td> <td>RDD</td> </tr> <tr> <td>REVIEW</td> <td>RMW</td> </tr> </table>	DATE	10/15/96	TECH	RDD	REVIEW	RMW
DATE	10/15/96						
TECH	RDD						
REVIEW	RMW						

GOLDER ASSOCIATES INC.
MT.LAUREL, NEW JERSEY

JAN 09 '98 13:01 AT&T FAX 602FFX

P. 2/2

Waste Management of New York
123 Varick Avenue
Brooklyn, New York 11237
Phone 718/386.7900
Fax 718/628.7088



A Waste Management Company

QUALITY CONTROL LABORATORY

January 9, 1998

TO WHOM IT MAY CONCERN

This is to confirm that 'CLEAN BLEND' produced by Waste Management of New York at their Materials Division, Woodside, was approved by New York State Department of Transportation for use on EQE over Atlantic Avenue, after duly testing the Stockpile Number 93-2.

Stan Fernandez
Laboratory Director



Waste Management of New York
123 Varick Avenue
Brooklyn, New York 11237
Phone 718/386.7800
Fax 718/628.7089



A Waste Management Company

QUALITY CONTROL LABORATORY

PRODUCT NAME: CLEAN BLEND

Compaction (ASTM D1557) : 114.4 lbs/cu.ft. (Max. Dry Density)
Optimum Moisture 14.8%

Magnesium Sulfate Soundness Loss : 3.4% after 4 cycles

Stan Fernandes
Lab. Director

January 7, 1998



TILCON NEW YORK INC. P.O. Box 362 Haverstraw, NY 10927 914 638 1300

November 20, 1996

Mr. Dan Betancourt
Ogden Remediation Services Co., Inc.,
285 Davidson Avenue
Somerset, NJ 08873

Re: Clarkstown Landfill
NYS # 4

Dear Sir:

The Tilcon New York Inc., Haverstraw quarry is a New York State D.O.T approved material source.

The NYS #4 that will be supplied to the above referenced project is 100% crushed stone. It is free of environmental contaminants.

If you have any questions, please call me.

Sincerely,

TILCON NEW YORK INC

Morsia Thomas

Morsia Thomas
Director, Quality Control

RECEIVED NOV 20 1996

copies: DB
PM
KF
SL

APPENDIX J4:



Fencing and Gates

Stephens Pipe & Steel, Inc.

Hwy 619 / PO Box 618

Russell Springs, KY 42642

Toll Free: (800) 451-2612 Fax: (502) 866-4412

4/28/98

To:

ATLANTIC FENCE & GUARDRAIL
905 CRESTVIEW ROAD
NEWTON NJ 07860

REF: Materials delivered to A BETTER FENCE
Invoice # 17132, Dated: 04/21/1998

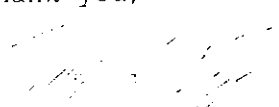
To Whom It May Concern:

This is to certify that the above referenced material(s)
meet the following specifications:

Chain Link Fence Fabric:

RR-F-191/1D Type 1 * ASTM A-392 Class 1
* AASHTO M181-81 Galv. 1.2 oz.

Thank you,


Terry L. Stephens, President
Stephens Pipe & Steel, Inc.

TLS/jbd

Stephens Pipe & Steel, Inc.
Hwy 619 / PO Box 618
Russell Springs, KY 42642
Toll Free: (800) 451-2612 Fax: (502) 856-4412

7/22/98

To:
ATLANTIC FENCE AND GUIDERAIL
905 CORMSTVIEW RD.
NEWTON NJ 07860

RE: Materials DELIVERED to ATLANTIC FENCE AND GUIDERAIL
QUOTE # 8177, Dated: 07/15/1998 *CLARKSTOWN LANDFILL*

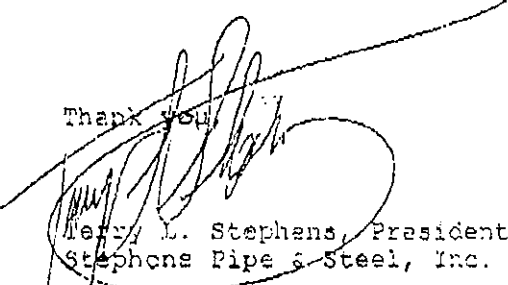
To Whom It May Concern:

This is to certify that the above referenced material(s)
meet the following specifications:

Chain Link Fence Fabric:
RR-F-191/1D Type 1 * ASTM A-392 Class II
* AASHTO M181-81 Galv. 2.0 oz.

Chain Link Fittings and Accessories:
RR-F-191/4D * ASTM F-626-84
* AASHTO M181-81 Galvanized

Thank you


Mary L. Stephens, President
Stephens Pipe & Steel, Inc.

TLS/jhd



Job Name:

Job Number:

Title:

Computed by:

Date:

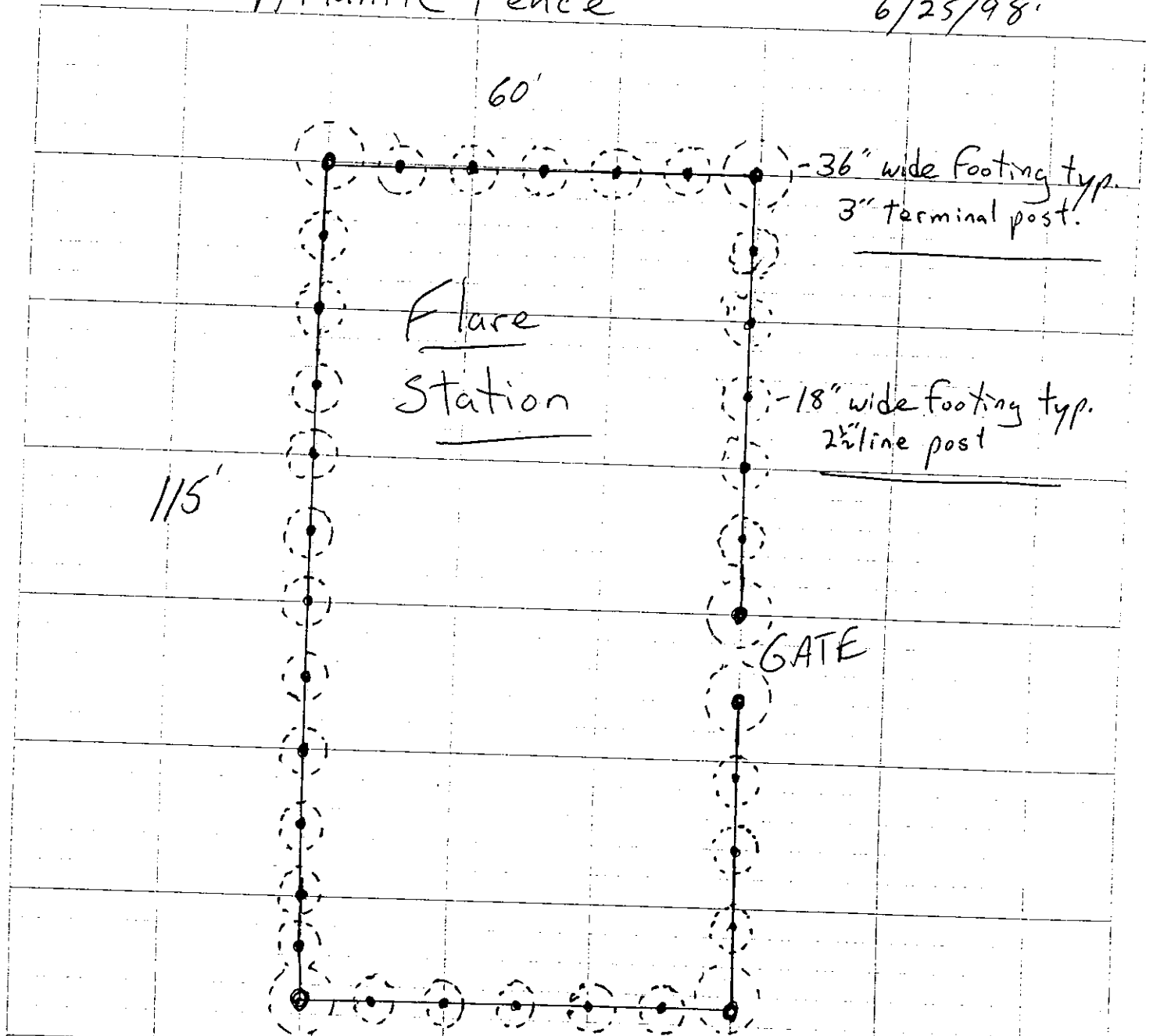
Checked by:

Sheet:

Of:

Atlantic Fence

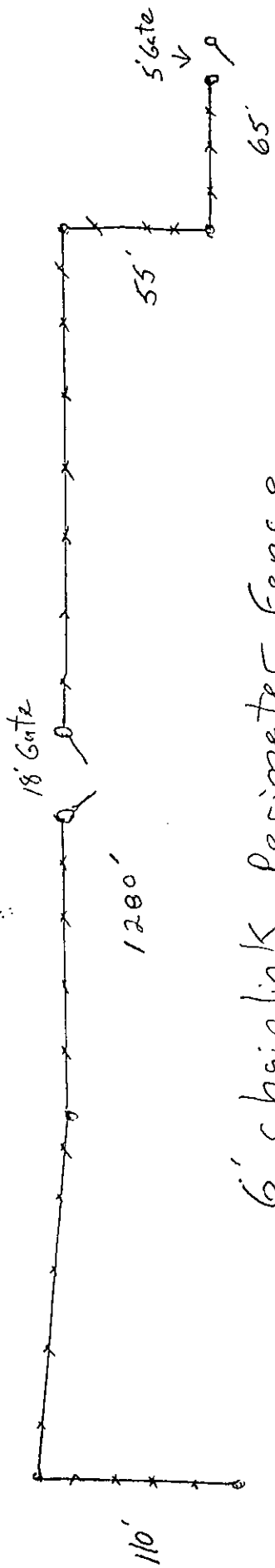
6/25/98



Atlantic Fence proposes using 36" wide footings on 3" OD Corner and Gate posts. With 18" wide footings on non stress bearing 2 1/2" line posts; to help maintain soil compaction integrity.

Jim Hofmann

Rt 303

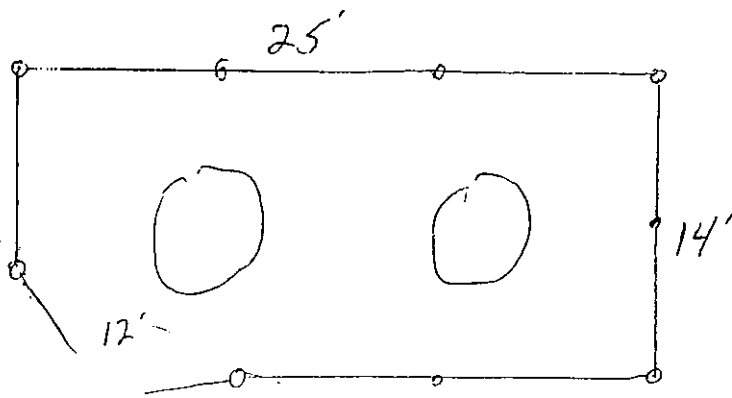
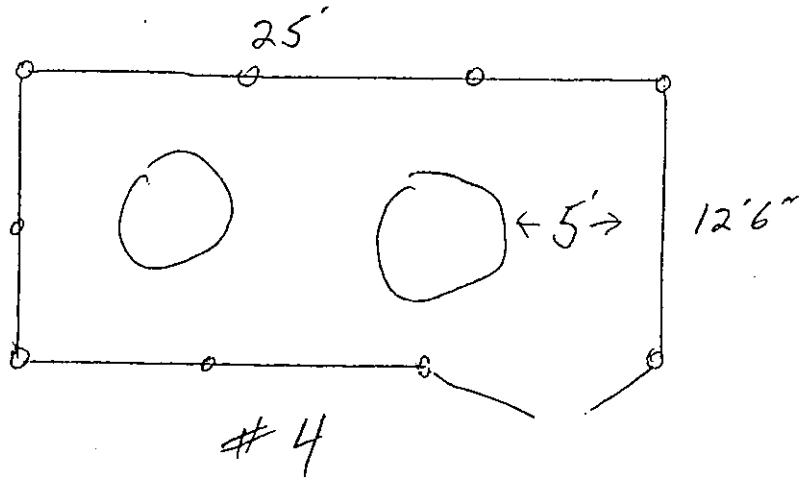


6' chainlink Perimeter Fence

Atlantic Fence

Jim Hofmann

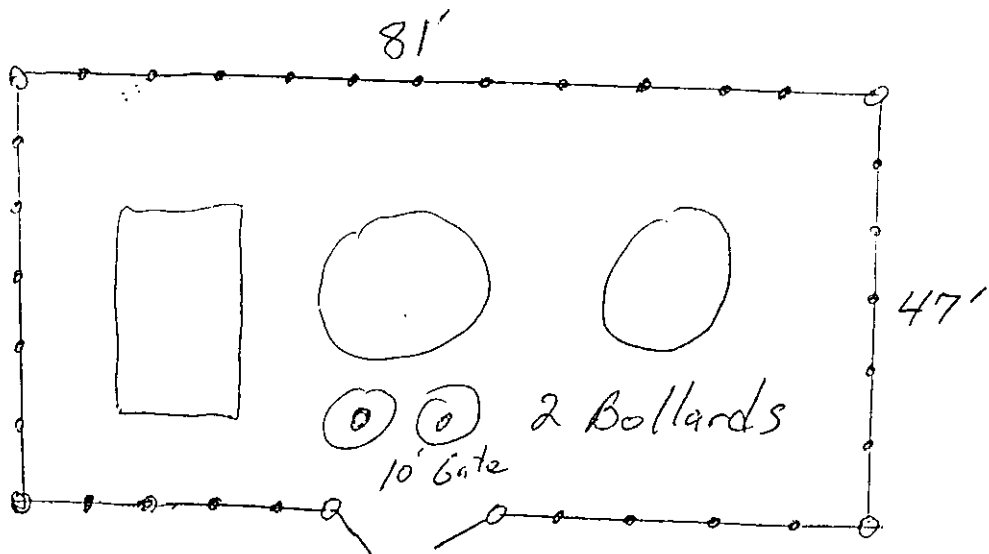
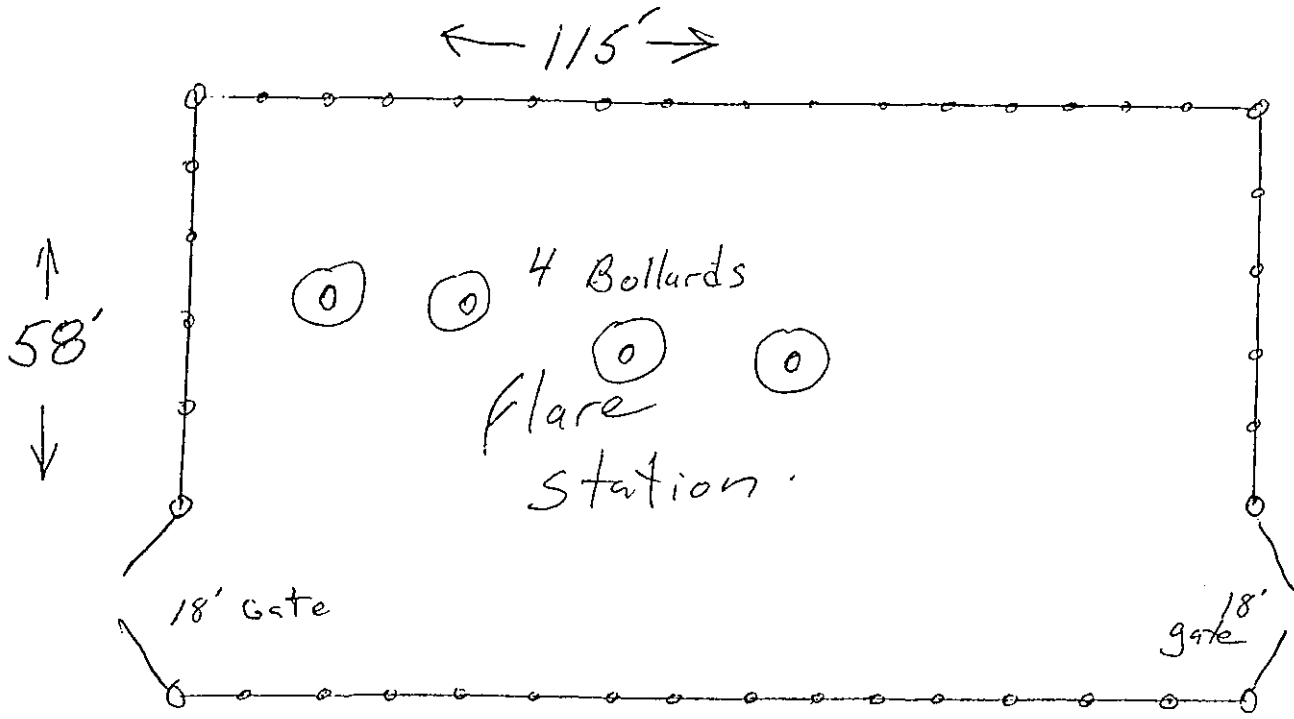
201-230-3473



ROADS #5

LEACHATE STATIONS

Atlantic Fence
 Jim Hofmann
 201-230-3472



Pump Station

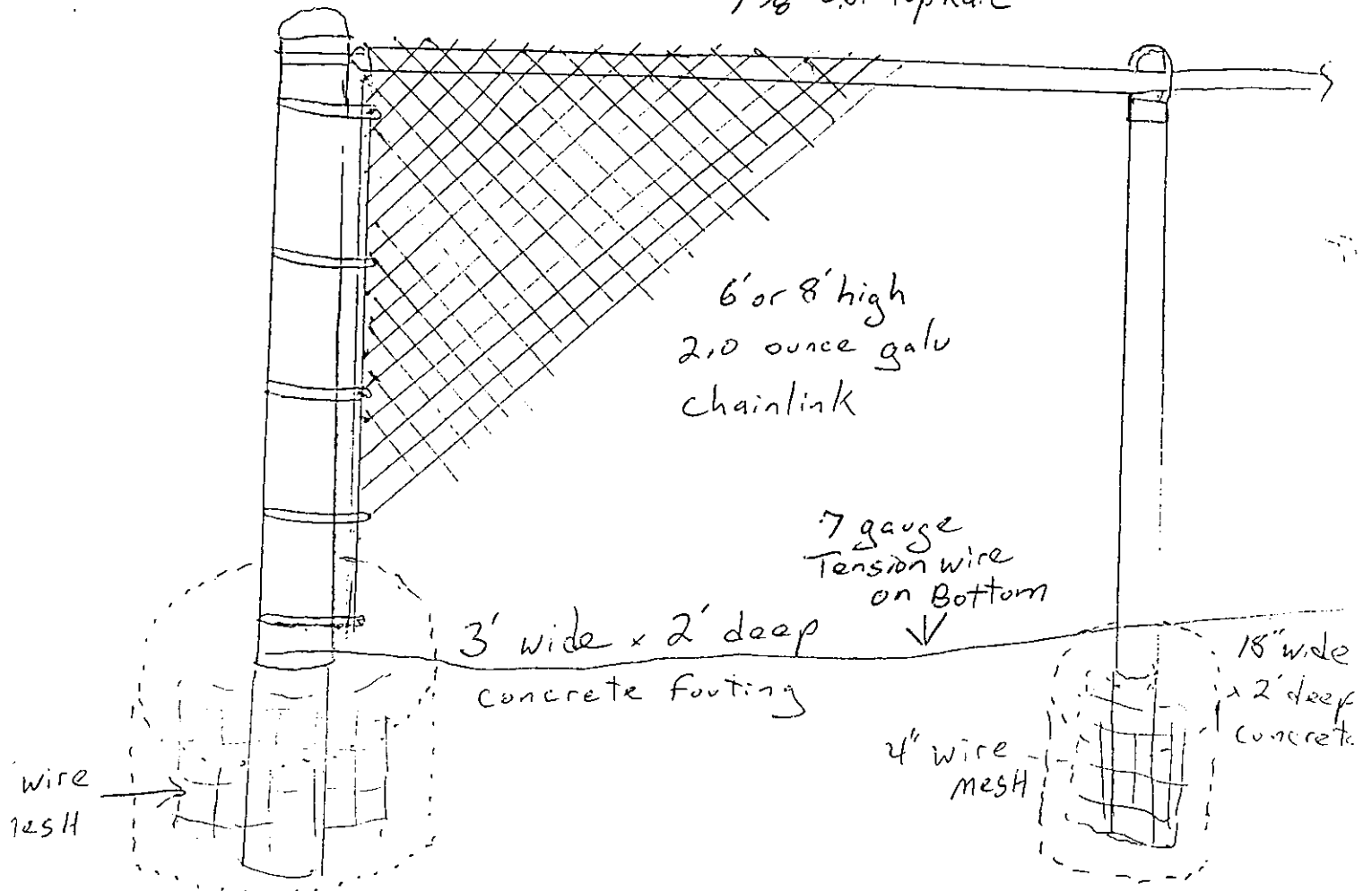
Atlantic Fence
 Jim Hofmann
 201-230-3473

Sept 15 1970

6 5/8" GATE Post
Schedule 40

2 1/2" line post.
Schedule 40

1 5/8" O.D. Top Rail



Note: Corner and End posts to be 3" O.D pipe. Sched. 40
Gate posts 6 5/8" O.D Sched 40
line posts. 2 1/2" O.D Sched. 40 Top Rail 1 5/8" O.D. Sched. 40

Note: Corner End and Gate post bracing not needed
because huge post diameters and footings make
top rail more practical and bracing would not be
able to tighten posts.

Atlantic Fence
Jim Hofmann