

**CONTRACTOR'S SUBMITTAL TRANSMITTAL**  
LANTDIV NORFOLK 4-4355/3 (Rev. 11-80)

*Carter*

CONTRACT NO. 85-C-5142	TRANSMITTAL NO. 14	DATE 08/26/87
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FROM CONTRACTOR **WESTMINSTER COMPANY**  
P.O. BOX 1167 JACKSONVILLE, NC 28540  
TO **J.N. PEASE ASSOCIATES**  
P.O. BOX 18725 CHARLOTTE, NC 28205

PROJECT TITLE AND LOCATION  
BACHELOR ENLISTED QUARTERS  
MARINE CORPS BASE, CAMP LEJEUNE, NC 28542  
PROJECT 627 & PROJECT 721

**CONTRACTOR USE ONLY**

**REVIEWER USE ONLY**

\*List only one specification division per form.

\*\*ACTION CODES

List only one of the following categories on each transmittal form, and indicate which is being submitted

- A-Approved
- D-Disapproved
- AN-Approved as noted
- RA-Receipt acknowledged.
- C-Comments
- R-Resubmit

- Contractor Approved       OICC Approval       Deviation/Substitution For OICC Approval

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES **	REVIEWER'S INITIALS CODE AND DATE
	02200	EARTHWORK			
P721 4a	2.1.2	FILL, BACKFILL, STRUCTURAL FILL	1	A	HRO 8/26/87
P721 4c	2.2	POROUS FILL			
P627 6a	2.1.2	FILL & BACKFILL			
P627 6b	2.1.4	SELECT MATERIAL			
P627 6c	2.2	POROUS FILL			

CONTRACTOR'S COMMENTS: SAMPLES 1 AND 2 MEET PROJECT 627 SELECT MATERIAL REQUIREMENTS  
SAMPLE 4a DID NOT PASS

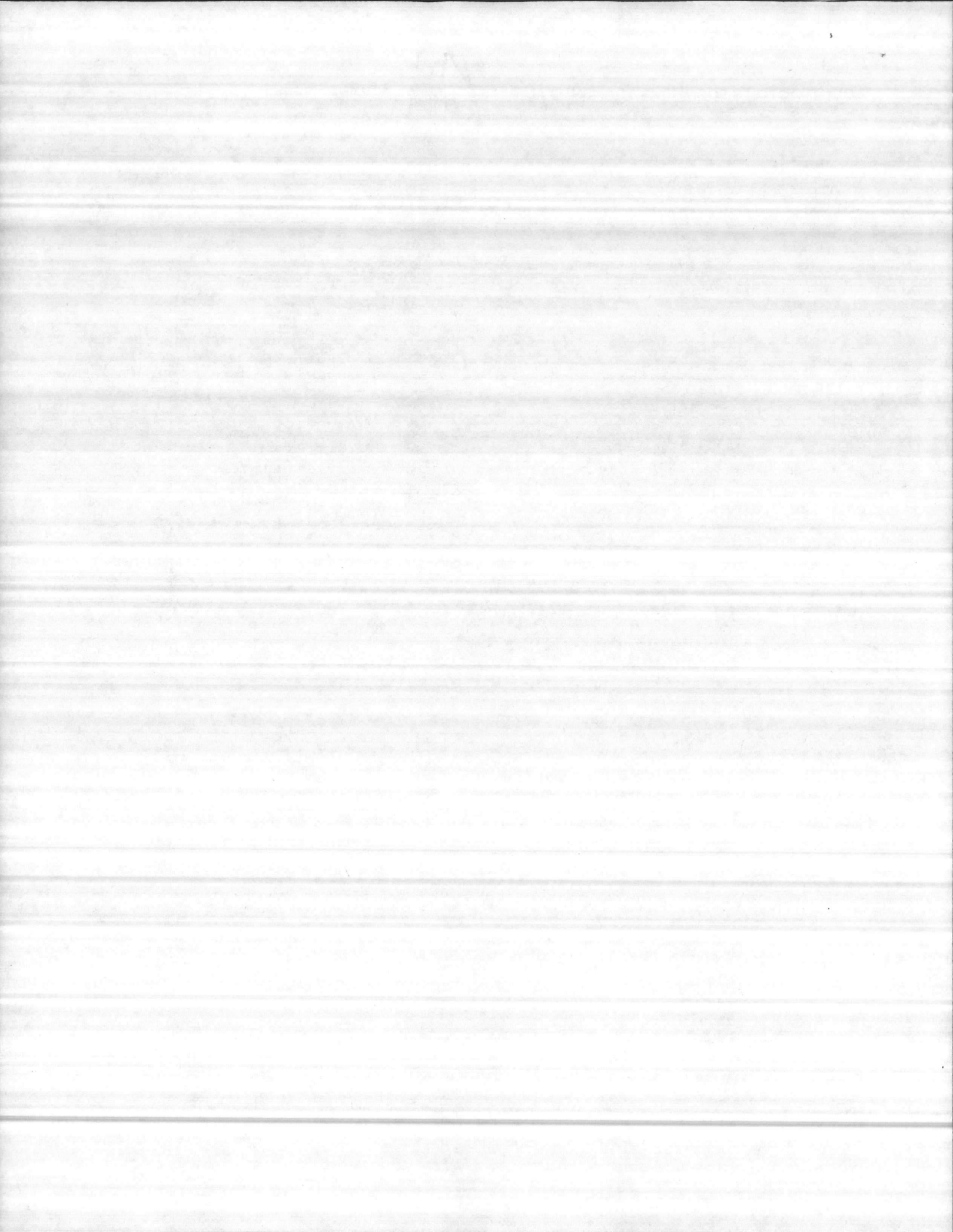
COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC      CONTRACTOR REPRESENTATIVE (Signature) *Herschel Ourt*

DATE RECEIVED BY REVIEWER: **AUG 31, 1987**      FROM (Reviewer): **J.N. PEASE ASSOC.**      TO: **ROICC, LANTDIV.**

- Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.
- Submittals are forwarded to LANTDIV with A-E recommendations indicated in REVIEWER USE ONLY Section and in comments below on ONE COPY of the transmittal form.

REVIEWER'S COMMENTS: **RA NOTE SAMPLE 4A DOES NOT CONFORM TO THE PROJECT SPECIFICATIONS**

COPIES TO: ROICC (2) LANTDIV (1) A-E (1)      DATE: **SEPT. 9, 1987**      SIGNATURE: *John Bolin*



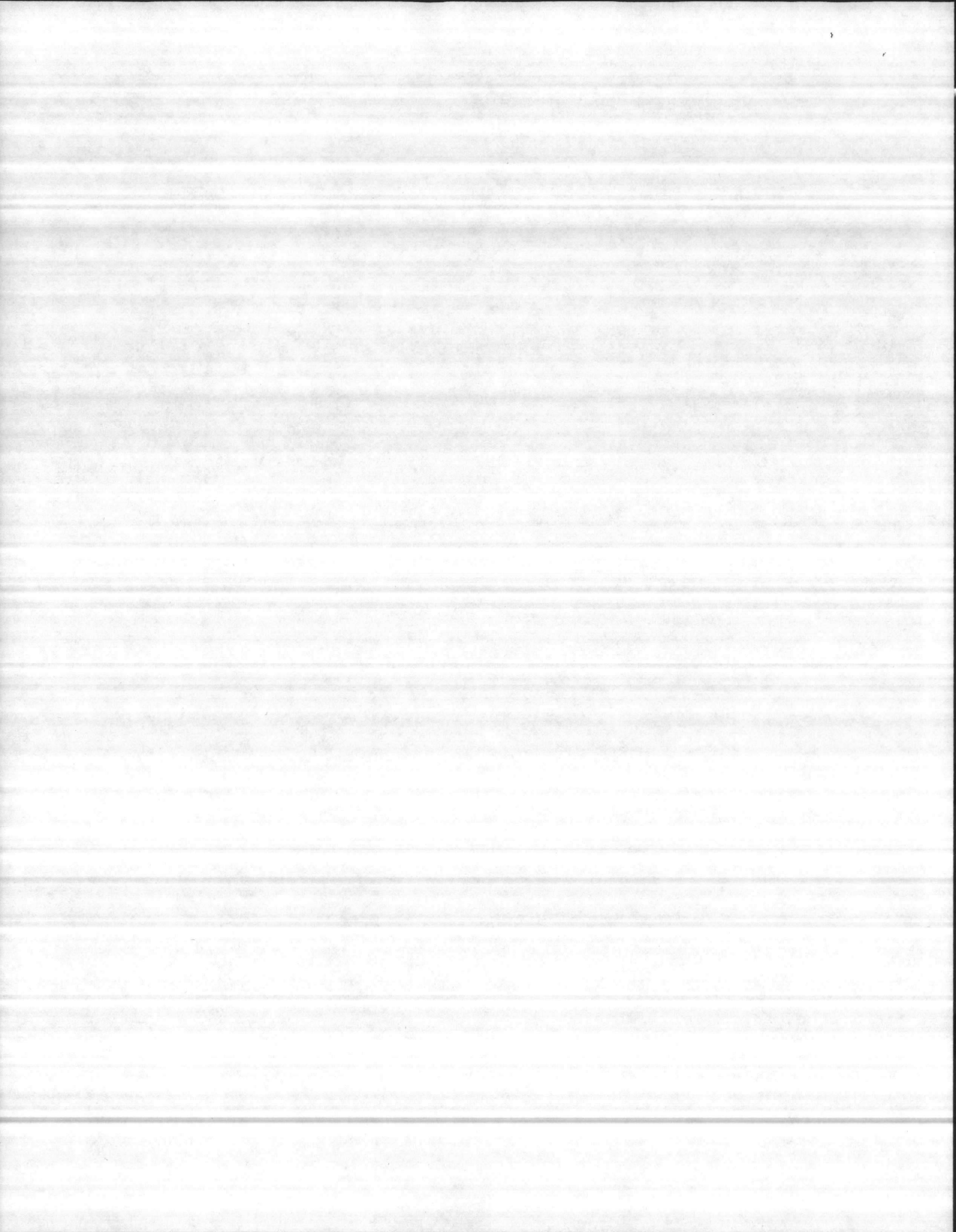
**WEYERHAEUSER  
WESTMINSTER COMPANY**

EASTERN REGION  
P.O. BOX 1167  
JACKSONVILLE, NORTH CAROLINA 28540

*To*

SUBMITTAL TRANSMITTAL NO. 14

BACHELOR ENLISTED QUARTERS  
MCB, CAMP LEJEUNE, NORTH CAROLINA  
CONTRACT NO. N62470-85-C-5142





# Surti and Associates

ENGINEERING - SURVEYING - TESTING

217 HENDERSON DRIVE  
JACKSONVILLE, N. C. 28540  
(919) 455-3564

July 24, 1987

Dickerson, Inc.  
2444 Commerce Road  
Jacksonville, N.C. 28540

Ref: Bachelor Enlisted Quarters  
MCB CLNC  
N-62470-85-C-5142

Dear Sirs:

We at Surti and Associates have received sample #1 from the French Creek Borrow Pit for the above mentioned project. The following tests have been run and our findings are as follows:

Sample #1

A) ASTM-136-84 Sieve Analysis

<u>Sieve Designation</u>	<u>% Passing</u>
No. 4	100.00%
No. 10	99.84%
No. 40	96.00%
No. 200	.44%

B) ASTM-1140 Materials finer than the 200 Sieve  
Passing 2.29%

C) ASTM-4318-84 Liquid Limits and Plastic Limits  
Plasticity Index ..... Non-Plastic

D) ASTM-2487 Classification  
White Fine Sand (SP)

If you have any questions in this matter, please feel free to call.

Sincerely,  
Surti and Associates

M. L. Surti, P.E.

## Conforms



COMPACTION TEST

Dickerson Inc.



Surti and Associates

ENGINEERING - SURVEYING - TESTING  
217 HENDERSON DRIVE  
JACKSONVILLE, NORTH CAROLINA 28540

DATE OF TEST

7-24-87

PROJECT Bachelor Enlisted Quarters

JOB NO. C 5142

LOCATION OF PROJECT MCB CLNC

SAMPLE NO. 1 / Hole #1

DESCRIPTION OF SOIL White Fine Sand (SP)

BLOWS/LAYER 25 NO. OF LAYERS 3 WT. OF HAMMER 5.5 LB

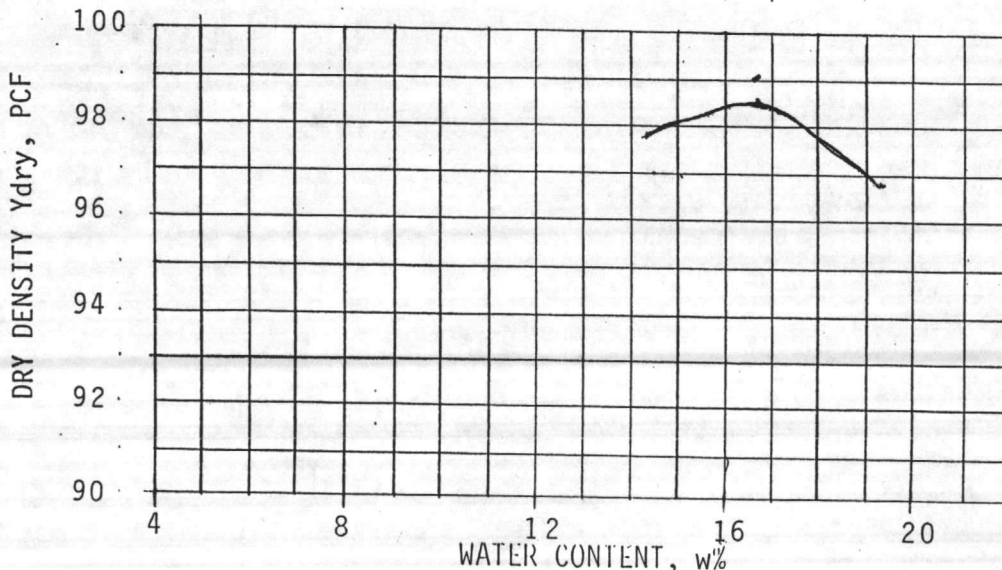
MOLD DIMENSIONS: DIAM. 4 IN. HT. 4.584 IN. VOL. 1/30 CU. FT.

WATER CONTENTS DETERMINATION

SAMPLE NO.						
MOISTURE CAN NO.	A	B	C	D	E	F
WT. OF CAN + WET SOIL	211.50	212.00	211.80	211.90	211.20	212.10
WT. OF CAN + DRY SOIL	193.30	189.40	186.50	183.00	178.90	177.80
WT. OF WATER	18.20	22.60	25.30	28.90	32.30	34.30
WT. OF CAN	11.50	12.00	11.80	11.90	11.20	12.10
WT. OF DRY SOIL	181.80	177.40	174.70	171.10	167.70	165.70
WATER CONTENT %	10.01	12.73	14.48	16.89	19.26	20.70

DENSITY DETERMINATION

SUMED WATER CONTENT						
WATER CONTENT w%						
WT. OF SOIL + MOLD	5863	5896	5945	5991	5998	5979
WT. OF MOLD	4250	4250	4250	4250	4250	4250
WT. OF SOIL IN MOLD	1613	1646	1695	1741	1748	1729
WET DENSITY, PCF	106.67	108.86	112.10	115.14	115.60	114.35
DRY DENSITY, PCF	96.96	96.56	97.92	98.50	96.93	94.73

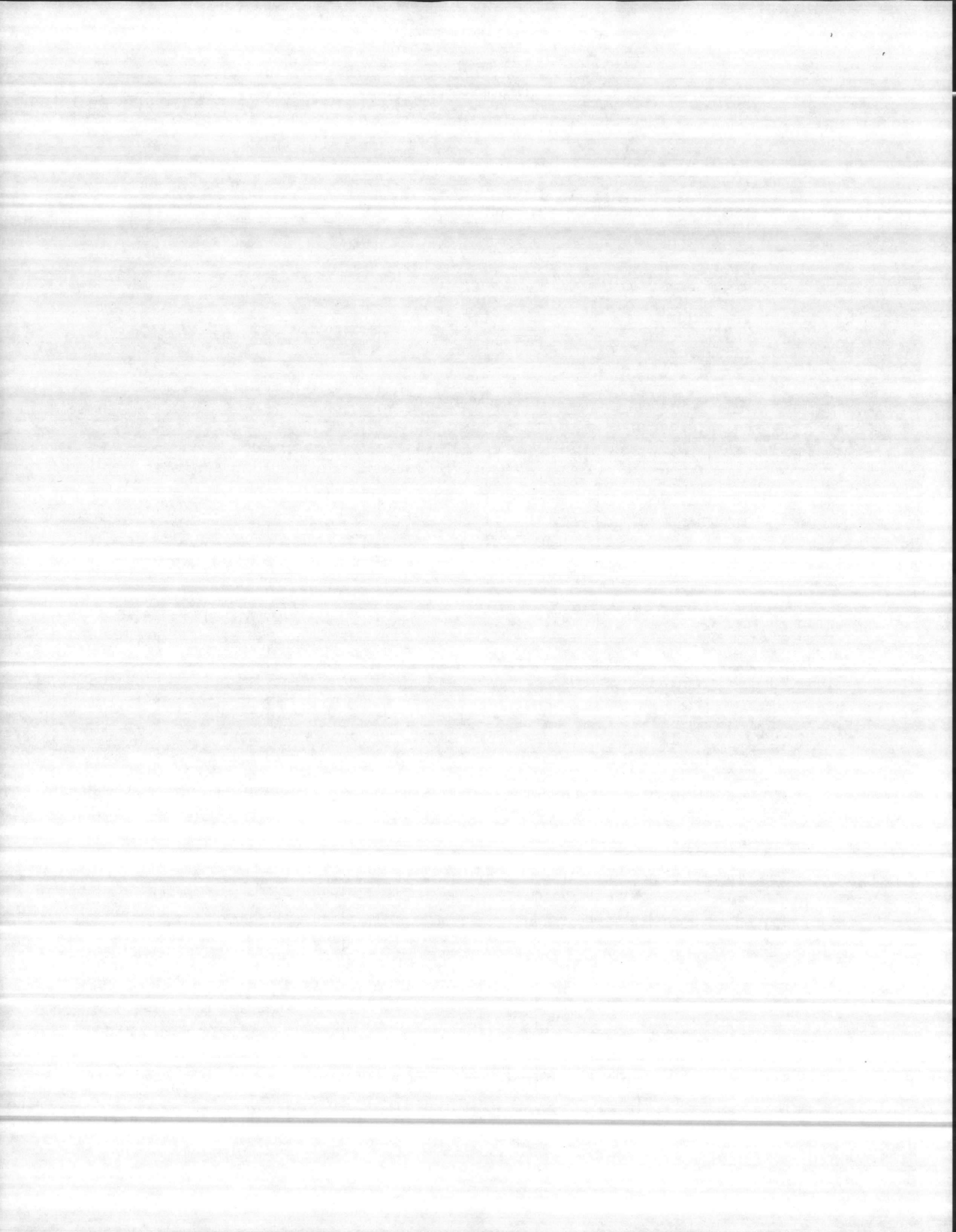


ASTM D-698  
AASHOT  
MIL. STD.



OPTIMUM MOISTURE 16.8 %

MAXIMUM DRY DENSITY 98.5 PCF







# Surti and Associates

ENGINEERING - SURVEYING - TESTING

217 HENDERSON DRIVE  
JACKSONVILLE, N. C. 28540  
(919) 455-3564

July 29, 1987

Dickerson, Inc.  
2444 Commerce Road  
Jacksonville, N.C. 28540

Ref: Bachelor Enlisted Quarters  
MCB CLNC  
N-62470-85-C-5142

Dear Sir:

We at Surti and Associates have received sample #2 from the French Creek Borrow Pit for the above mentioned project. The following tests have been run and our findings are as follows:

Sample #2

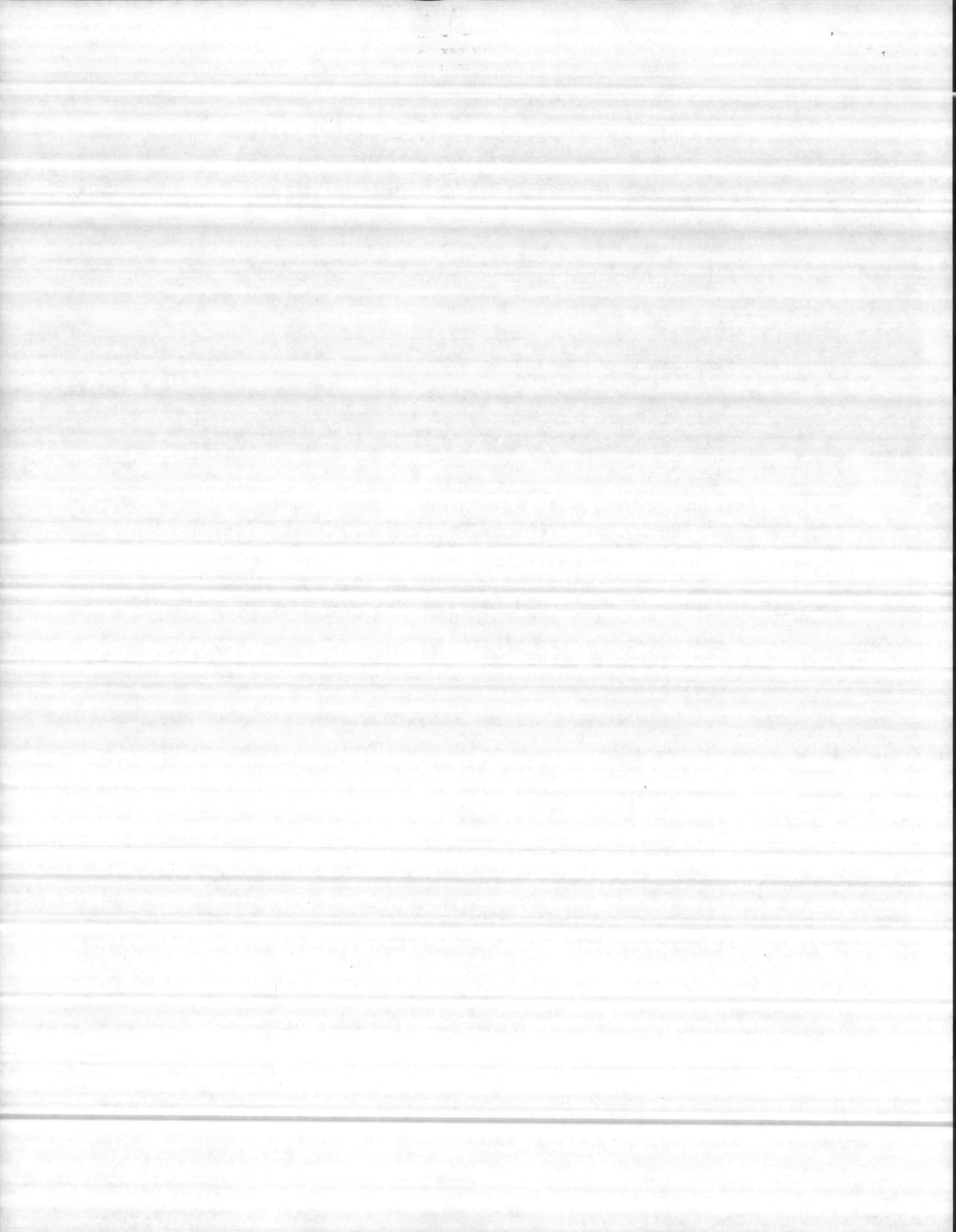
- A) ASTM-136-84 Sieve Analysis
- | <u>Sieve Designation</u> | <u>% Passing</u> |
|--------------------------|------------------|
| No. 4                    | 100.00%          |
| No. 10                   | 99.97%           |
| No. 40                   | 97.80%           |
| No. 200                  | 1.60%            |
- B) ASTM-1140 Materials finer than the 200 Sieve  
Passing 4.86%
- C) ASTM-4318-84 Liquid Limits and Plastic Limits  
Plasticity Index ..... Non-Plastic
- D) ASTM-2487 Classifications  
Light White Gray Fine Sands (SP)

If you have any questions in this matter, please feel free to call.

Sincerely,  
Surti and Associates

M.L. Surti, P.E.

Conforms



PROJECT Bachelor Enlisted Quarters

JOB NO. C 5162

LOCATION OF PROJECT MCB CLNC

SAMPLE NO. 2 / Hole #2

DESCRIPTION OF SOIL Light White Gray Fine Sands (SP)

BLOWS/LAYER 25 NO. OF LAYERS 3 WT. OF HAMMER 5.5 LB.

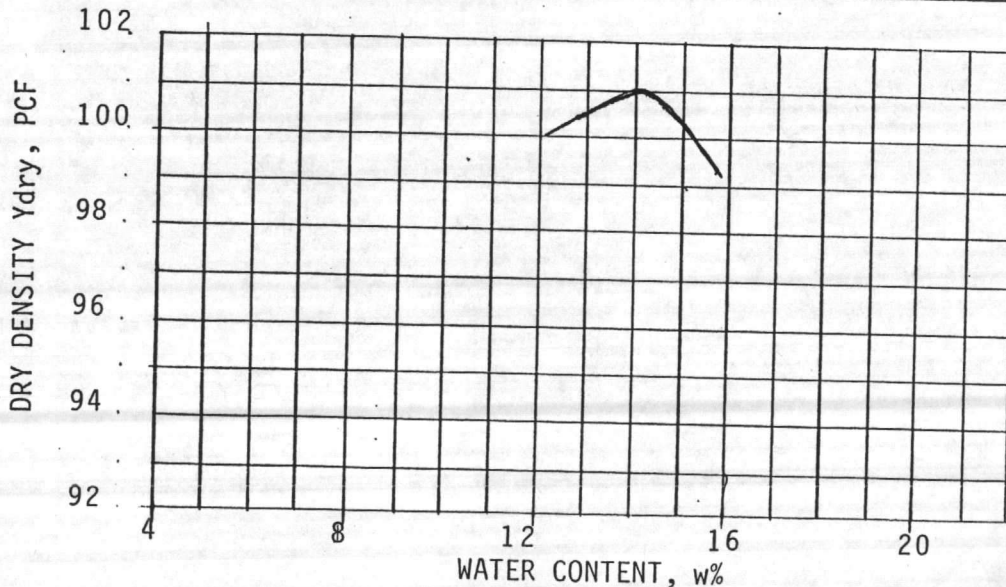
MOLD DIMENSIONS: DIAM. 4 IN. HT. 4.584 IN. VOL. 1/30 CU. FT.

WATER CONTENTS DETERMINATION

SAMPLE NO.						
MOISTURE CAN NO.	A	B	C	D	E	F
WT. OF CAN + WET SOIL	211.40	211.30	211.00	211.50	211.60	211.30
WT. OF CAN + DRY SOIL	196.30	194.00	192.00	189.50	184.50	180.70
WT. OF WATER	15.10	17.30	19.00	22.00	27.10	30.60
WT. OF CAN	11.40	11.30	11.00	11.50	11.60	11.30
WT. OF DRY SOIL	184.90	182.70	181.00	178.00	172.90	169.40
WATER CONTENT %	8.16	9.46	10.49	12.35	15.67	18.06

DENSITY DETERMINATION

ASSUMED WATER CONTENT						
WATER CONTENT w%						
WT. OF SOIL + MOLD	5781	5830	5860	5896	5938	5935
WT. OF MOLD	4200	4200	4200	4200	4200	4200
WT. OF SOIL IN MOLD	1581	1630	1660	1696	1738	1735
WET DENSITY, PCF	104.56	107.80	109.78	112.16	114.94	114.75
DRY DENSITY, PCF	96.67	98.48	99.35	99.83	99.36	97.19

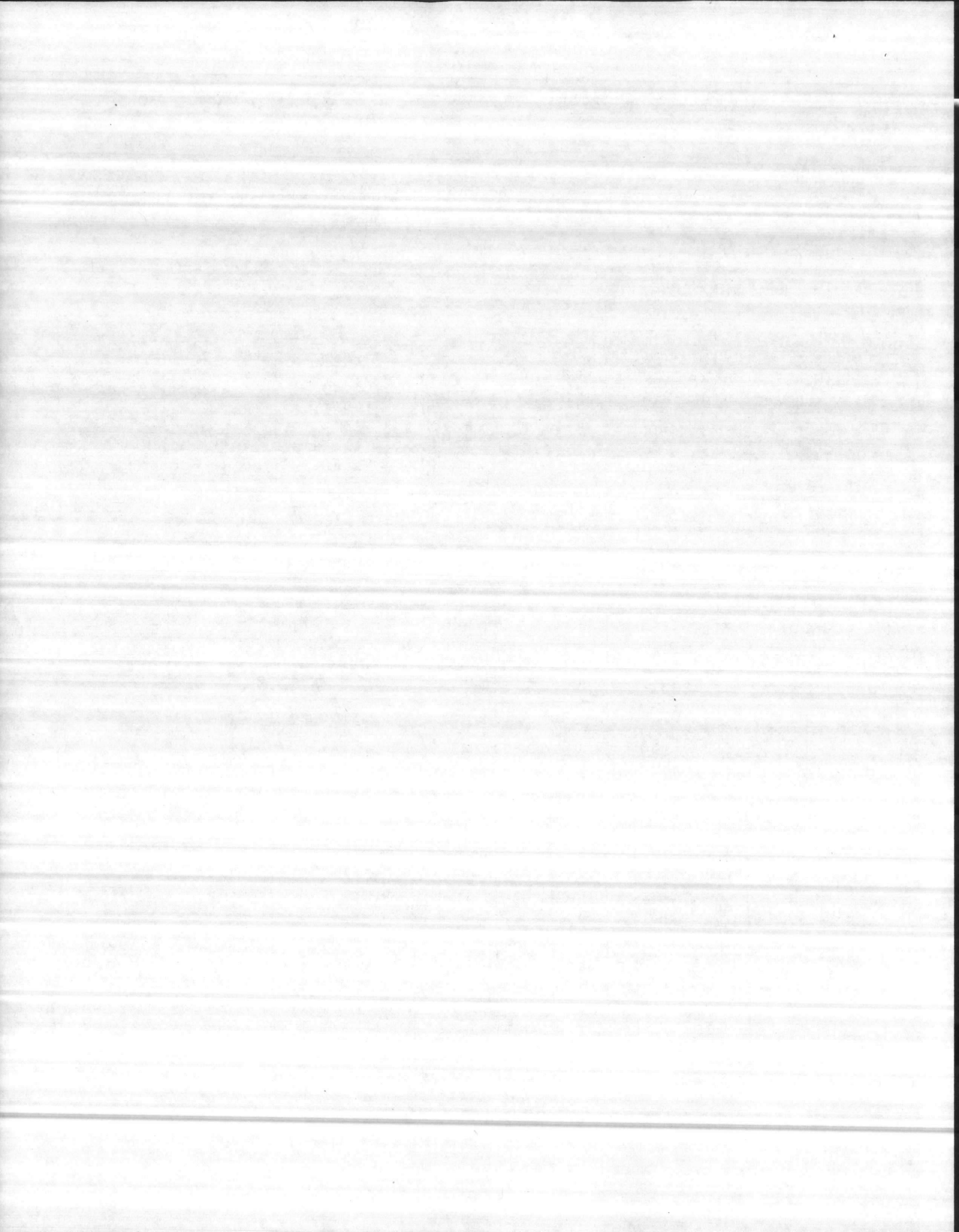


ASTM D-698 \_\_\_\_\_  
 AASHOT \_\_\_\_\_  
 MIL. STD. \_\_\_\_\_



OPTIMUM MOISTURE 14.0 %

MAXIMUM DRY DENSITY 101.0 PCF





# Surti and Associates

ENGINEERING - SURVEYING - TESTING

217 HENDERSON DRIVE  
JACKSONVILLE, N. C. 28540  
(919) 455-3564

July 29, 1987

Dickerson, Inc.  
2444 Commerce Road  
Jacksonville, N.C. 28540

Ref: Bachelor Enlisted Quarters  
MCB CLNC  
N-62470-85-C-5142

Dear Sirs:

We at Surti and Associates have received Sample #3 from the French Creek Borrow Pit for the above mentioned project. The following tests have been run and our findings are as follows:

Sample #3

A) ASTMC-136-84 Sieve Analysis

<u>Sieve Designation</u>	<u>% Passing</u>
No. 4	100.00%
No. 10	99.87%
No. 40	94.87%
No. 200	5.64%

B) ASTM-1140 Materials finer than the 200 Sieve  
Passing 12.70%

C) ASTMD-4318-84 Liquid Limits and Plastic Limits  
Plasticity Index ..... Non-Plastic

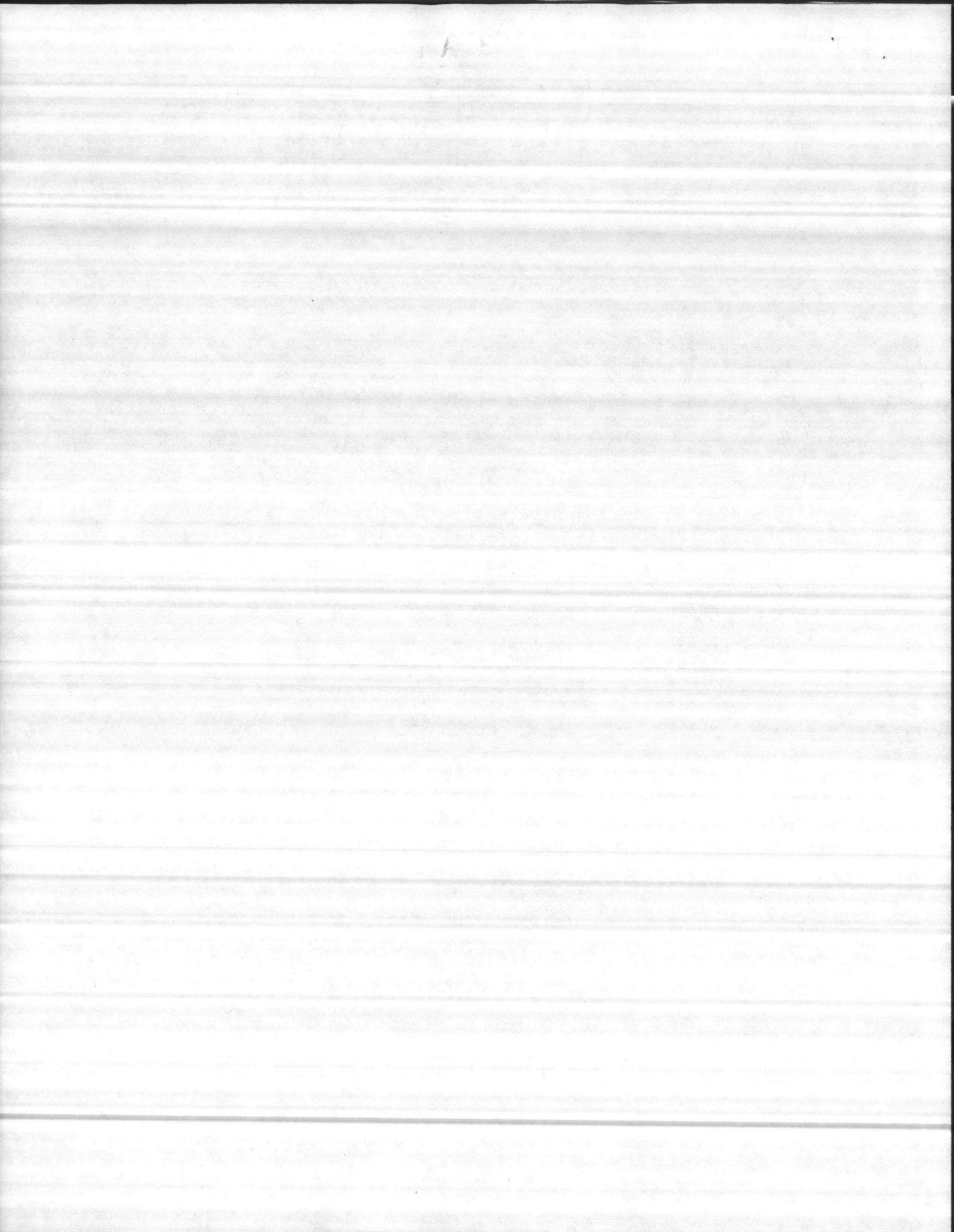
D) ASTMD-2487 Classification  
Light Brown-Tannish Fine Sand (SM)

If you have any questions in this matter, please feel free to call.

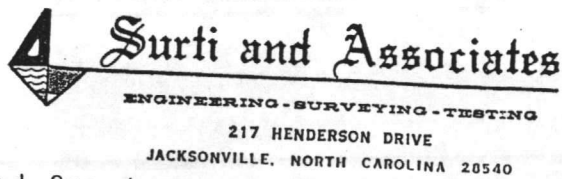
Sincerely,  
Surti and Associates

M.L. Surti, P.E.

## Conforms



COMPACTION TEST  
Dickerson, Inc.



DATE OF TEST  
7-24-87

PROJECT Bachelor Enlisted Quarters

JOB NO. C 5142

LOCATION OF PROJECT MCB CLNC

SAMPLE NO. 3 / hole #3

DESCRIPTION OF SOIL Light Brown-Tannish Fine Sand (SM)

BLOWS/LAYER 25 NO. OF LAYERS 3 WT. OF HAMMER 5.5 LB

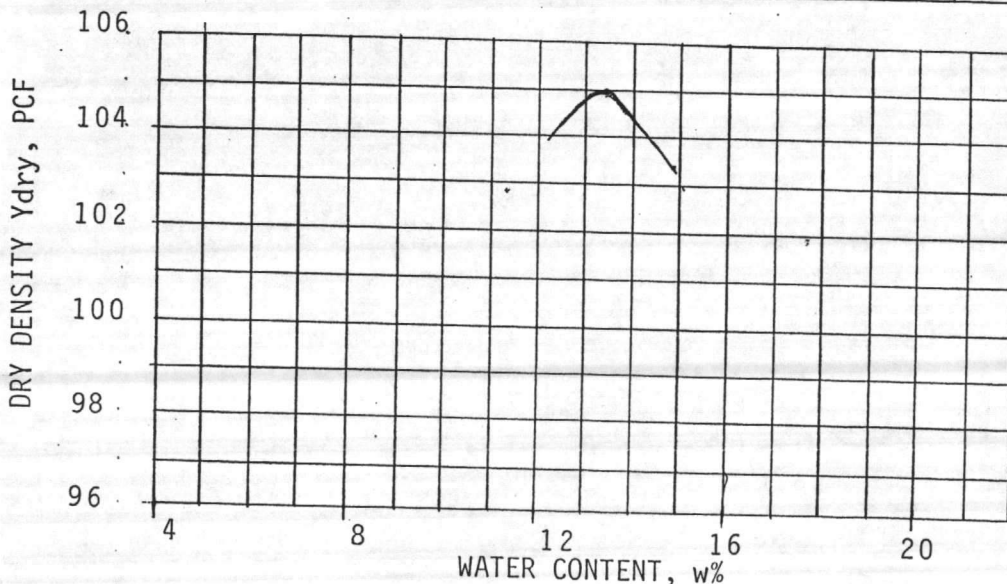
MOLD DIMENSIONS: DIAM. 4 IN. HT. 4.584 IN. VOL. 1/30 CU. FT

WATER CONTENTS DETERMINATION

SAMPLE NO.						
MOISTURE CAN NO.	A	B	C	D	E	F
WT. OF CAN + WET SOIL	211.70	211.40	211.10	211.10	211.60	324.00
WT. OF CAN + DRY SOIL	196.70	194.40	190.70	188.40	185.60	291.80
WT. OF WATER	15.00	17.00	20.40	22.70	26.00	32.20
WT. OF CAN	11.70	11.40	11.10	11.10	11.60	124.00
WT. OF DRY SOIL	185.00	183.00	179.60	177.30	174.00	167.80
WATER CONTENT %	8.10	9.28	11.35	12.80	14.94	19.18

DENSITY DETERMINATION

SUMED WATER CONTENT						
WATER CONTENT w%						
WT. OF SOIL + MOLD	5907	5950	5983	6036	6064	6024
WT. OF MOLD	4250	4250	4250	4250	4250	4250
WT. OF SOIL IN MOLD:	1657	1700	1733	1786	1814	1774
WET DENSITY, PCF	109.58	112.43	114.61	118.12	119.97	117.32
DRY DENSITY, PCF	101.36	102.88	102.92	104.71	104.37	98.43

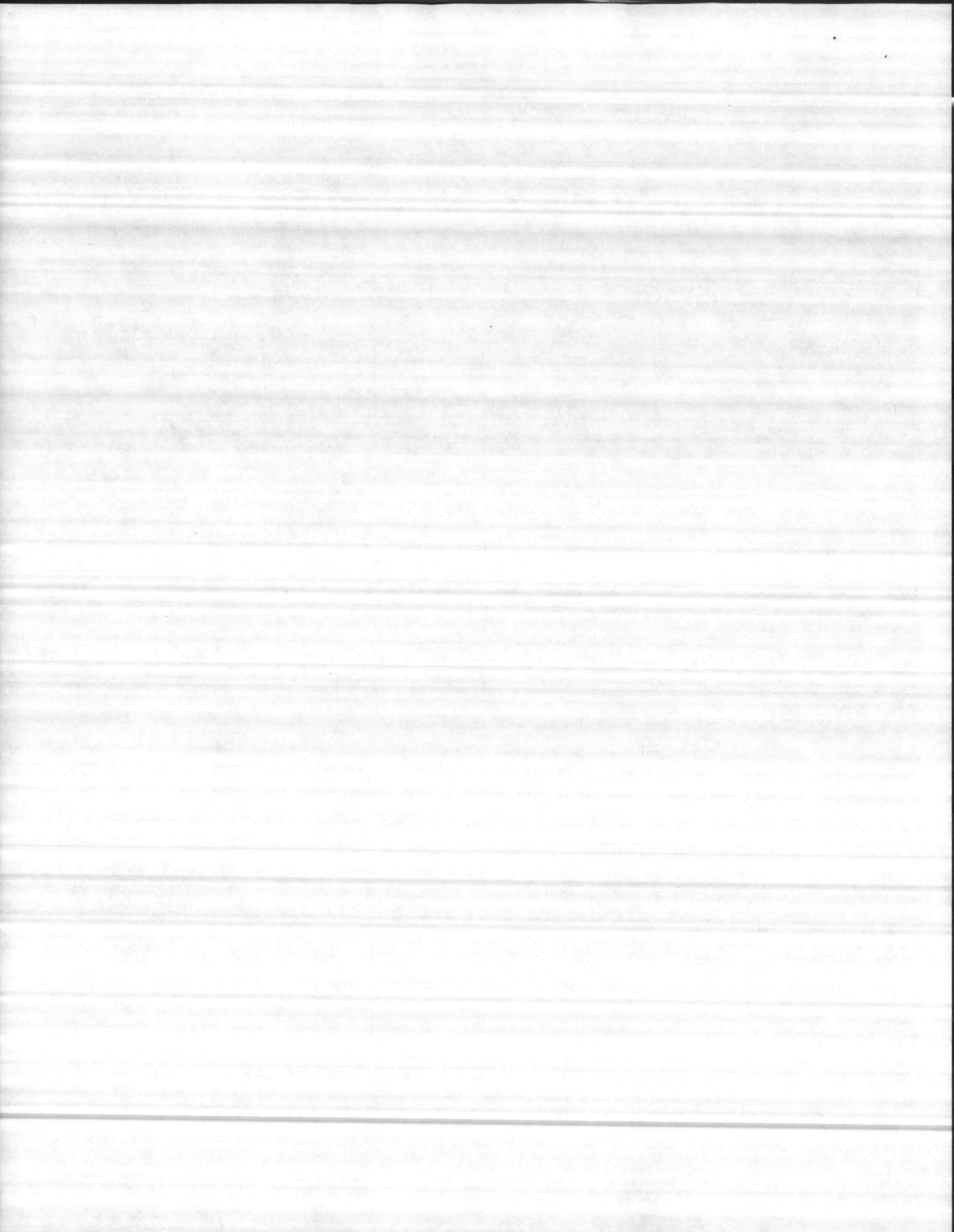


ASTM D-698  
AASHOT  
MIL. STD.



OPTIMUM MOISTURE 13.2 %

MAXIMUM DRY DENSITY 105.0 PCF







# Surti and Associates

ENGINEERING - SURVEYING - TESTING

217 HENDERSON DRIVE  
JACKSONVILLE, N. C. 28540  
(919) 455-3564

July 29, 1987

Dickerson, Inc.  
2444 Commerce Road  
Jacksonville, N.C. 28540

Ref: Bachelor Enlisted Quarters  
MCB CLNC  
N-62470-85-C-5162

Dear Sirs:

We at Surti and Associates have received sample # 4 from the French Creek Borrow Pit for the above mentioned project. The following tests have been run and our findings are as follows:

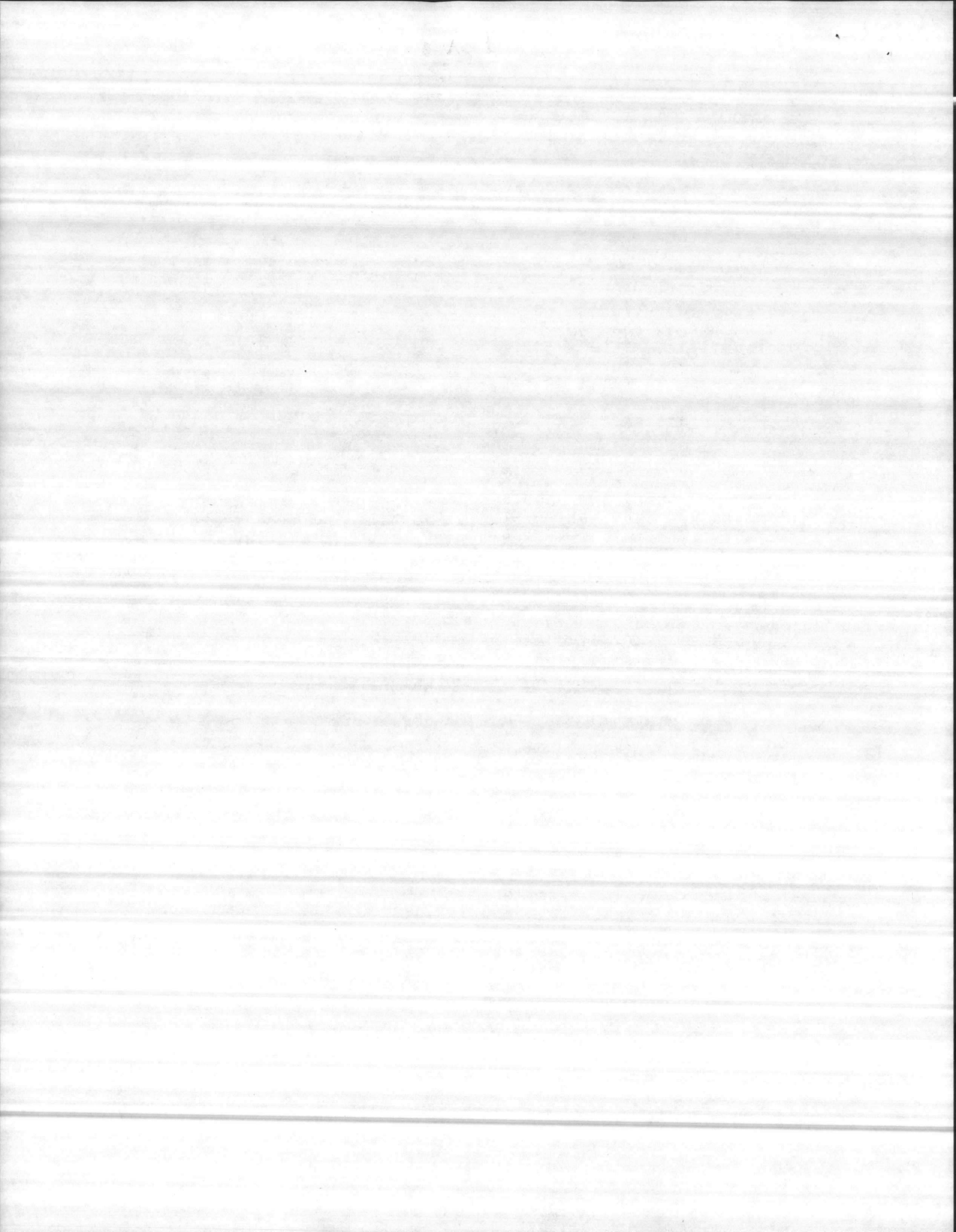
Sample #4

- A) ASTM-136-84 Sieve Analysis
- | Sieve Designation | % Passing |
|-------------------|-----------|
| No. 4             | 100.00%   |
| No. 10            | 99.94%    |
| No. 40            | 97.44%    |
| No. 200           | 4.54%     |
- B) ASTM-1140 Materials finer than the 200 Sieve  
Passing 7.33%
- C) ASTM-4318-84 Liquid Limits and Plastic Limits  
Plasticity Index ..... Non-Plastic
- D) ASTM-2487 Classification  
Light Brown Silty Sand (SM-Sp)

If you have any questions in this matter, please feel free to call.

Sincerely,  
Surti and Associates

Conforms M.L. Surti, P.E.



COMPACTION TEST

Dickerson



**Surti and Associates**

ENGINEERING - SURVEYING - TESTING  
217 HENDERSON DRIVE  
JACKSONVILLE, NORTH CAROLINA 28540

DATE OF TEST

8-3-87

PROJECT Bachelor Enlisted Quarters JOB NO. C-5162

LOCATION OF PROJECT MCB CLNC SAMPLE NO. 4

DESCRIPTION OF SOIL Light Brown Silty Sand (SM-SP)

BLOWS/LAYER: 25 NO. OF LAYERS 3 WT. OF HAMMER 5 LB

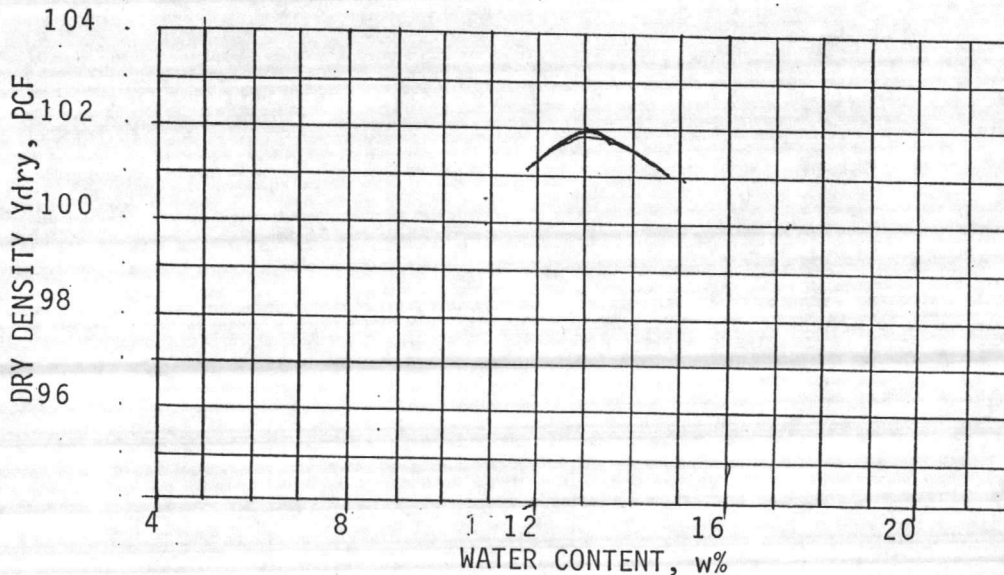
MOLD DIMENSIONS: DIAM. 4 IN. HT. 4.584 IN. VOL. 1/30 CU. FT.

WATER CONTENTS DETERMINATION

SAMPLE NO.					
MOISTURE CAN NO.	A	B	C	D	E
WT. OF CAN + WET SOIL	211.50	211.10	211.70	211.40	211.20
WT. OF CAN + DRY SOIL	176.20	191.50	188.40	181.90	175.20
WT. OF WATER	15.30	29.60	22.30	29.50	36.00
WT. OF CAN	11.50	11.10	11.70	11.40	11.20
WT. OF DRY SOIL	184.70	180.40	176.70	170.50	164.00
WATER CONTENT %	8.28	10.86	12.62	17.30	21.95

DENSITY DETERMINATION

SUMED WATER CONTENT					
WATER CONTENT w%					
WT. OF SOIL + MOLD	55834	5283	5936	5974	5955
WT. OF MOLD	4200	4200	4200	4200	4200
WT. OF SOIL IN MOLD	1634	1683	1736	1774	1755
WET DENSITY, PCF	108.06	111.30	114.81	117.32	116.07
DRY DENSITY, PCF	99.79	100.39	101.94	100.01	95.17

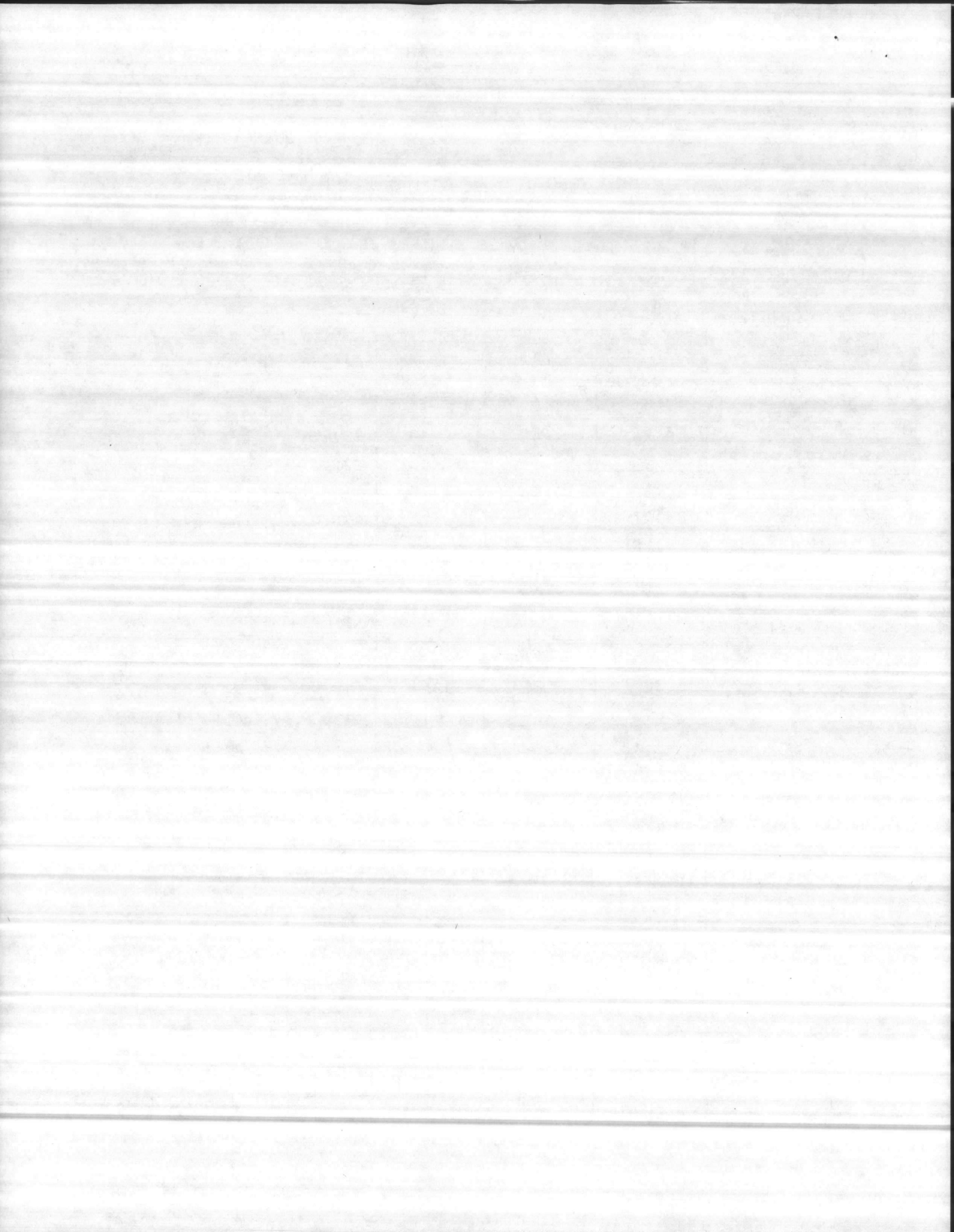


ASTM D-698  
AASHOT \_\_\_\_\_  
MIL. STD. \_\_\_\_\_



OPTIMUM MOISTURE 13.0 %

MAXIMUM DRY DENSITY 102.00 PCF





# Surti and Associates

ENGINEERING - SURVEYING - TESTING

217 HENDERSON DRIVE  
JACKSONVILLE, N. C. 28540  
(919) 455-3564

July 29, 1987

Dickerson, Inc.  
2444 Commerce Road  
Jacksonville, N.C. 28540

Ref: Batchelor Enlisted Quarters  
MCB CLNC  
N-62470-85-C-5142

Dear Sirs:

We at Surti and Associates have received sample #4A from the French Creek Borrow Pit for the above mentioned project. The following tests have been run and our findings are as follows:

Sample #4A

A) ASTM-136-84 Sieve Analysis

<u>Sieve Designation</u>	<u>% Passing</u>
No. 4	100.00%
No. 10	94.84%
No. 40	70.44%
No. 200	8.30%

B) ASTM-1140 Materials finer than the 200 Sieve  
Passing 33.66%

C) ASTM-4318-84 Liquid Limits and Plastic Limits  
Plasticity Index .....

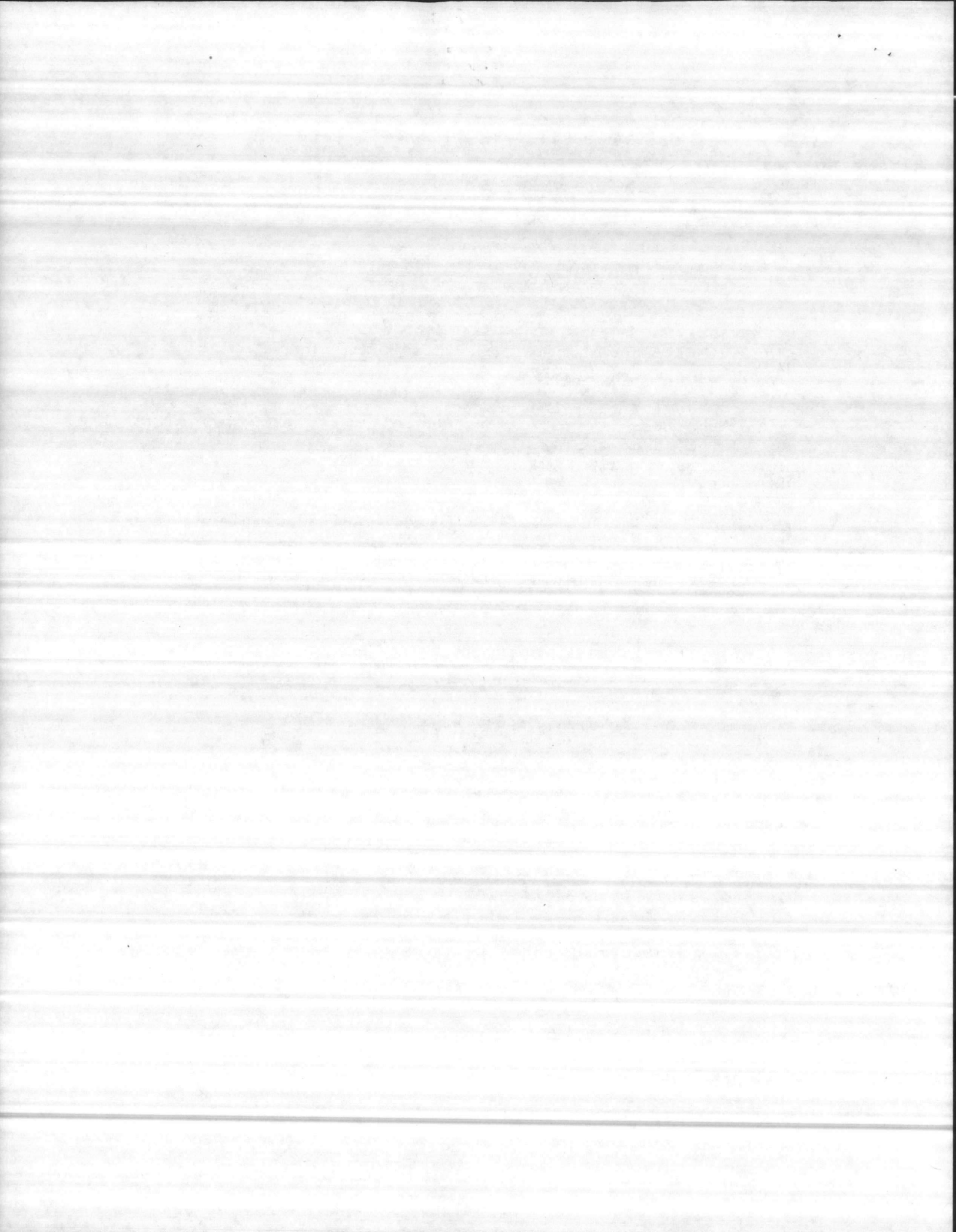
D) ASTM-2487 Classification  
Light Brown Silty Clay (SC)

If you have any questions in this matter, please feel free to call.

Sincerely,  
Surti and Associates

M. L. Surti, P.E.

DOES NOT CONFORM



PROJECT Batchelor Enlisted Quarters JOB NO. C-5162

LOCATION OF PROJECT MCB CLNC SAMPLE NO. 4-A

DESCRIPTION OF SOIL Light Brown Silty Clay (SC)

BLOWS/LAYER 25 NO. OF LAYERS 3 WT. OF HAMMER 5.5 LB.

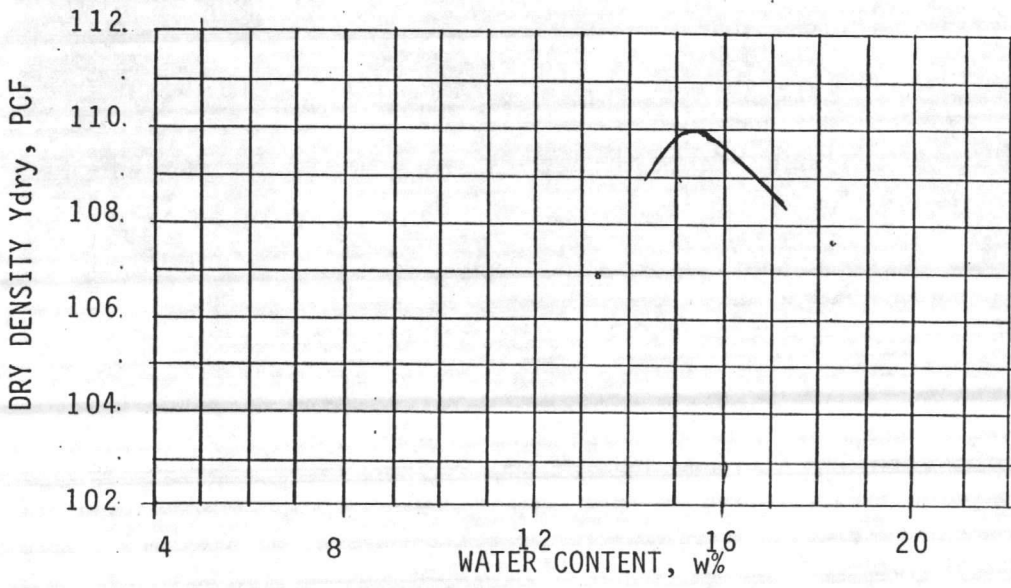
MOLD DIMENSIONS: DIAM. 4 IN. HT. 4.584 IN. VOL. 1/30 CU. FT.

WATER CONTENTS DETERMINATION

SAMPLE NO.					
MOISTURE CAN NO.	A	B	C	D	E
WT. OF CAN + WET SOIL	211.50	211.90	211.90	211.50	211.90
WT. OF CAN + DRY SOIL	190.90	188.30	184.30	180.60	178.00
WT. OF WATER	20.60	23.60	27.60	30.90	33.90
WT. OF CAN	11.50	11.90	11.90	11.50	11.90
WT. OF DRY SOIL	179.40	176.40	172.40	169.10	166.10
WATER CONTENT %	11.48	13.37	16.00	18.27	20.40

DENSITY DETERMINATION

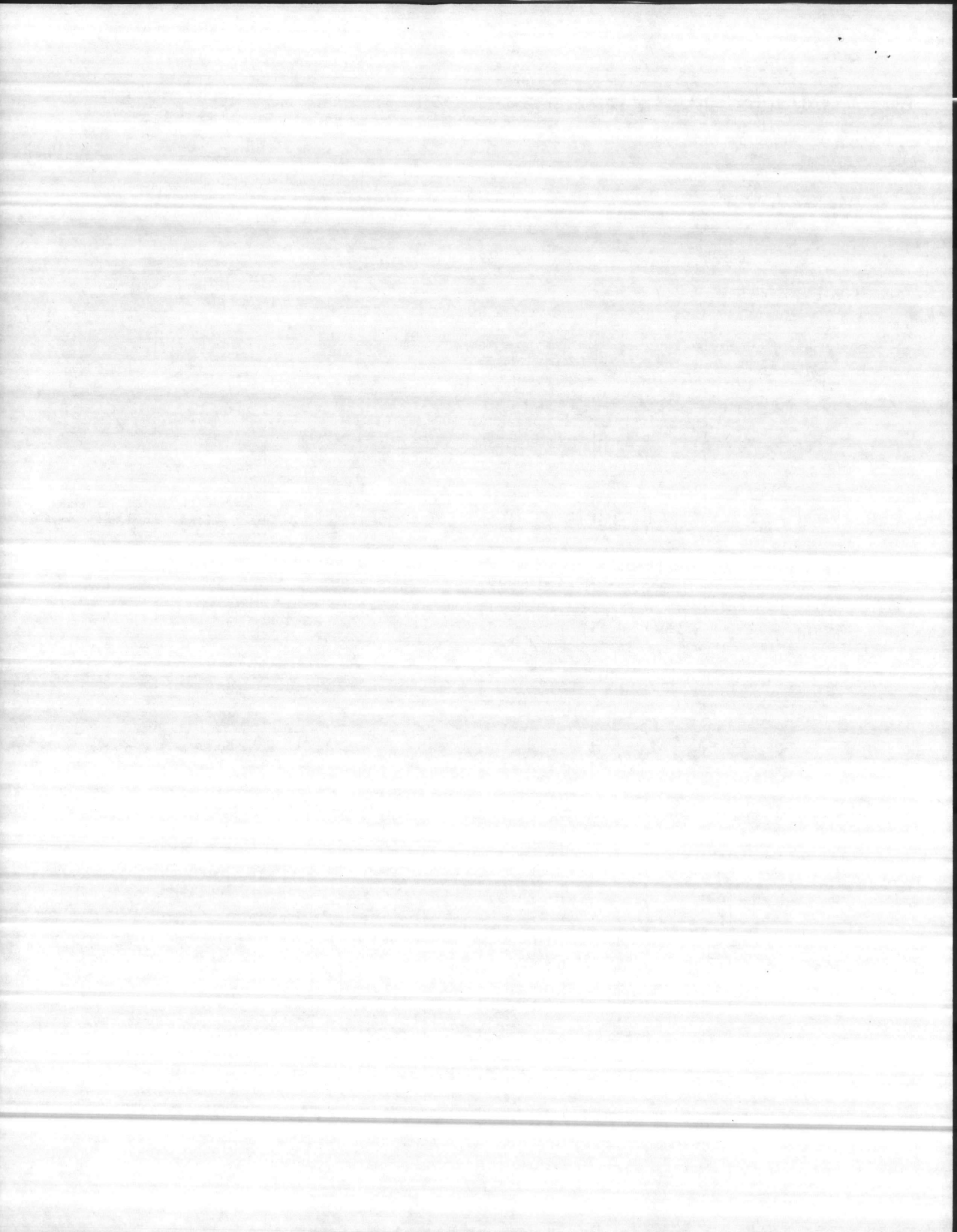
ASSUMED WATER CONTENT					
WATER CONTENT w%					
WT. OF SOIL + MOLD	5975	6081	6173	6173	6117
WT. OF MOLD	4248	4248	4248	4248	4248
WT. OF SOIL IN MOLD:	1727	1833	1925	1925	1869
WET DENSITY, PCF	114.21	121.23	127.31	127.31	123.61
DRY DENSITY, PCF	102.44	106.93	109.75	107.64	102.66



ASTM D-698  
 AASHOT \_\_\_\_\_  
 MIL. STD. \_\_\_\_\_



OPTIMUM MOISTURE 16.2 % MAXIMUM DRY DENSITY 110.0 PCF





N62470-85-C-5142

MARTIN MARIETTA AGGREGATES

POST OFFICE BOX 1535  
NEW BERN, NORTH CAROLINA 28560  
TELEPHONE (919) 633-5036

August 19, 1987

Westminister Company  
P. O. Box 1167  
Jacksonville, N. C. 28540

Re: N62470-85-5142  
Batchelor's Enlisted Quarters  
MCB, Camp Lejeune, N. C.

Gentlemen:

We are pleased to advise that the concrete sand produced at our Belgrade, N. C. quarry meets the requirements of ASTM C-33 for fine aggregate, and therefore meets the specifications for granular fill for capillary water barriers for this project.

When tested according to ASTM D 1140, our concrete sand has the following average gradation:

sieve	<u>3/8"</u>	<u>#4</u>	<u>#8</u>	<u>#16</u>	<u>#30</u>	<u>#50</u>	<u>#100</u>	<u>#200</u>
% passing	100	99	81	60	40	24	6	1.5

At no time does the percent passing the #200 sieve exceed 3%.

Thank you for the opportunity to serve your crushed stone and sand requirements.

Sincerely,

*Larry B. Ward*

Larry B. Ward

NORTH CAROLINA  
CRAVEN County

Sworn to and subscribed before  
me this 19th day of Aug., 1987.

*James W. Curme*  
Notary Public

My Commission Expires: 09-17-90

