

**Geotest Engineering, Inc.**  
*Geotechnical Engineers and Materials Testing*

5600 Bintliff Drive, Houston, TX 77036  
Telephone: (713) 266-0588  
Fax: (713) 266-2977

**INVOICE**

Name: Fort Bend County c/o RPS Infrastructure, Inc  
Address: 575 N. Dairy Ashford, Suite 700  
  
City, Zip: Houston Texas 77079  
Attention: Mr. Jonathan Griffin  
Reference: Chimney Rock Rd Construction  
From Tabor Mills Dr to McHard Rd  
Project No. 17202  
  
Authorization: PO# 202982

Invoice No. 28354  
Project No. 1150324501  
Date: 20-Jan-22  
  
Fee Code: 3245

**TERMS: NET 10 DAYS**

Date	Req	Report No(s)	Services Provided	Code	Quantity	Unit	Unit Price	Amount
11/29/2021		14	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	1	15	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	2	16	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	3	17	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	4	18	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	5	19R	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	6	20R	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	7	21R	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	8	22R	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
	9	23R	Project Manager, P.E (Submittal Review)	10301.00	1.00	Hr.	\$ 180.00	\$ 180.00
12/16/2021	1	25	Technician	10700.00	4.00	Hr.	\$ 60.00	\$ 240.00
			Vehicle Charge	15000.00	1.00	Trip	\$ 65.00	\$ 65.00
	2	25-26	Liquid & Plastic Limits (D 4318)	90100.00	1.00	Ea.	\$ 62.00	\$ 62.00
			Percent Passing #200 Sieve	90600.00	1.00	Ea.	\$ 48.00	\$ 48.00
			OMD Standard Compaction (D698)	92300.00	1.00	Ea.	\$ 204.00	\$ 204.00
	4	27	Liquid & Plastic Limits (D 4318)	90100.00	1.00	Ea.	\$ 62.00	\$ 62.00
			Percent Passing #200 Sieve	90600.00	1.00	Ea.	\$ 48.00	\$ 48.00
			OMD Standard Compaction (D698)	92300.00	1.00	Ea.	\$ 204.00	\$ 204.00
	5		Project Manager, P.E. (Rpt. Review/Meeting)	10300.00	0.20	Hr.	\$ 180.00	\$ 36.00
<b>TOTAL</b>								<b>\$ 2,769.00</b>

Attachments: Test Reports

**Billing Summary**

Contract Amount		\$ 320,972.00
Amount of this Invoice	\$ 2,769.00	
Amount Billed Previously	\$ 3,727.00	
Total Billed Project to date		\$ 6,496.00
Amount Remaining in the Contract		\$ 314,476.00
Percent Complete		2.02%

**REPORT OF SUBMITTAL REVIEW**

Project:	Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	14
Contractor:	Tripple B Services	Date:	11-29-2021

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**Submittal Details:**

Submittal No. 15

Mix ID:22135004 ( Class A Allied Concrete)

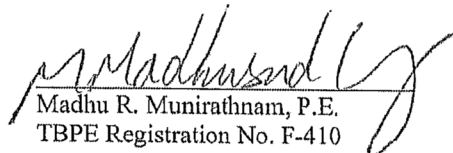
**Review Decision:**

- ▶ NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

**Comments:**

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

Distribution:  
Upload to Masterworks  
Invoice (1)

  
Madhu R. Munirathnam, P.E.  
TBPE Registration No. F-410

12/15/21  
Date

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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	15
Contractor:	Tripple B Services	Date:	11-29-2021

### Submittal Details:

#### Submittal No. 15

Mix ID:21134001 (Class B Allied Concrete)

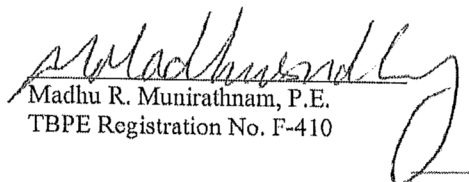
### Review Decision:

- ▶ NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

### Comments:

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

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**REPORT OF SUBMITTAL REVIEW**

Project:	Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	16
Contractor:	Tripple B Services	Date:	11-29-2021

**Submittal Details:**

**Submittal No. 15**

Mix ID:22135506 (Class C Allied Concrete)

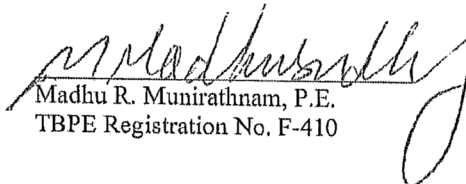
**Review Decision:**

- ▶ NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

**Comments:**

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Date 12/15/21

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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	17
Contractor:	Tripple B Services	Date:	11-29-2021

### Submittal Details:

#### Submittal No. 15

Mix ID:23156014 (Class S Allied Concrete)

### Review Decision:

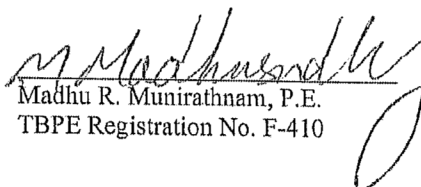
- € NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- ▶ EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

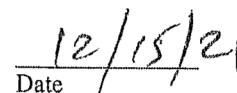
### Comments:

According to TxDOT standard Specification 2014, item 421, item 421, 4.2.5, Table 9, Placement Slump requirement the required slump range is 3.0" to 5.5" for Bridge Slabs. Specified slump on submittal for class S shows 4.0" to 6.0"

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	18
Contractor:	Tripple B Services	Date:	11-29-2021

### Submittal Details:

#### Submittal No. 15

Mix ID:24157014 (Class SS Allied Concrete)

### Review Decision:

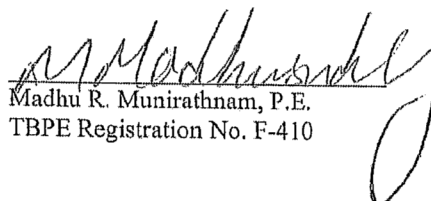
- € NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- ▶ EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

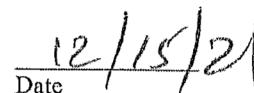
### Comments:

According to TxDOT standard Specification 2014, item 416, section 2, Table 2 under slump requirement, acceptable Placement Slump is 7" to 9" under slurry and 5.5" to 7.5" for dry. Submittal mix design shows slump of 6" to 9".

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Rock Road Construction from Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	19R
Contractor:	Tripple B Services	Date:	12-09-2021
		Revision Date:	12-22-2021

### Submittal Details:

Submittal No. 17R2

Mix ID:3121590 (TxDOT Class B CAMPBELL CONCRETE AND MATERIALS L.L.C)

### Review Decision:

- € NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- ▶ REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

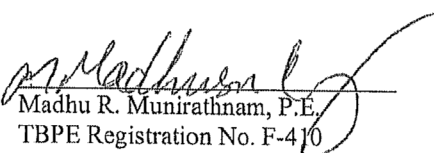
### Comments:

- Strength evaluation report not provided with the submittal
- The Designed Water Cement Ratio is 0.66, which exceeds the allowable Max W/CM ratio as stated on TxDOT Standard Specification 2014, Item 421, 4.2.1 Table 8

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

Remark: This report is a revision of report No. 19 revised to show the correct sign date

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**REPORT OF SUBMITTAL REVIEW**

Project:	Chimney Rock Road Construction From Tabor Mills Drive to McHard Road,	Job No.:	11503245-01
	Project No. 17202		
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	20R
Contractor:	Tripple B Services	Date:	12-09-2021
		Revision Date:	12-22-2021

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**Submittal Details:**

Submittal No. 17R2

Mix ID:3131590 (TxDOT Class A CAMPBELL CONCRETE AND MATERIALS L.L.C)

**Review Decision:**

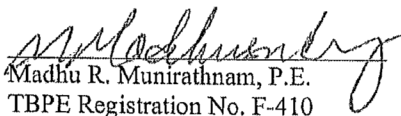
- ▶ NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

**Comments:**

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

Remark: This report is a revision of report No. 20 revised to show the correct sign date

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Madhu R. Munirathnam, P.E.  
TBPE Registration No. F-410

12/22/21  
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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Rock Road Construction from Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	21R
Contractor:	Tripple B Services	Date:	12-09-2021
		Revision Date:	12-22-2021

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### Submittal Details:

#### Submittal No. 17R2

Mix ID:3151690 (TxDOT Class C CAMPBELL CONCRETE AND MATERIALS L.L.C)

### Review Decision:

- € NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

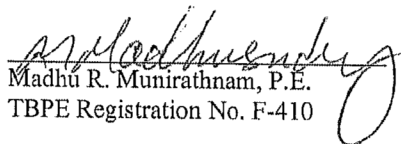
### Comments:

- The Designed Water Cement Ratio is 0.5, which exceeds the allowable Max W/CM ratio for Class C as stated on TxDOT Standard Specification 2014, Item 421, 4.2.1 Table 8

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

Remark: This report is a revision of report No. 21 revised to show the correct sign date

Distribution:  
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TBPE Registration No. F-410

12/22/21  
Date

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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Rock Road Construction from Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	22R
Contractor:	Tripple B Services	Date:	12-09-2021
		Revision Date:	12-22-2021

### Submittal Details:

Submittal No. 17R2

Mix ID:3161590 (TxDOT Class S CAMPBELL CONCRETE AND MATERIALS L.L.C)

### Review Decision:

- € NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- ▶ EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

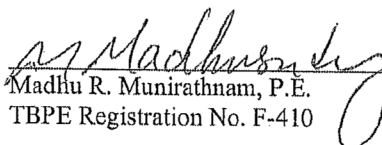
### Comments:

As per TxDOT standard Specification 2014, item 421, 4.2.5, Table 9, Placement Slump requirement, the required slump range is 3.0" to 5.5" for Bridge Deck. Specified slump on submittal for class S shows 4.0" to 6.0"

Geotest Engineering, Inc. has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Dimensions, job measurements and performance are the specific responsibility of the contractor. Contractor is not relieved of responsibility for full compliance with conditions of the contract.

Remark: This report is a revision of report No. 22 revised to show the correct sign date

Distribution:  
Upload to Masterworks  
Invoice (1)

  
Madhu R. Munirathnam, P.E.  
TBPE Registration No. F-410

12/22/21  
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## REPORT OF SUBMITTAL REVIEW

Project:	Chimney Rock Road Construction From Tabor Mills Drive to McHard Road,	Job No.:	11503245-01
	Project No. 17202		
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	23R
Contractor:	Tripple B Services	Date:	12-09-2021
		Revision Date:	12-22-2021

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### Submittal Details:

Submittal No. 17R2

Mix ID:317159H (TxDOT Class SS CAMPBELL CONCRETE AND MATERIALS L.L.C)

### Review Decision:

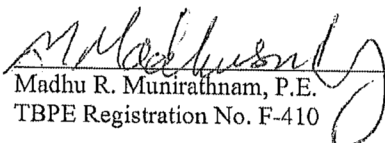
- ▶ NO EXCEPTIONS TAKEN  
No further review of Submittal is required.
- € EXCEPTIONS AS NOTED  
see comments below
- € REJECTED, REVISE AS NOTED AND RESUBMIT
- € ACKNOWLEDGE RECEIPT  
Submittal not reviewed
- € REJECTED  
Submittal does not comply with Contract Documents.

### Comments:

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Remark: This report is a revision of report No. 23 revised to show the correct sign date

Distribution:  
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Invoice (1)

  
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TBPE Registration No. F-410

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**DAILY INSPECTION REPORT – PROOF ROLLING**

Project:	Chimney Rock Road Construction from Tabor Mills Drive to McHard Road, Project No. 17202	Job No.:	11503245-01
Client:	Fort Bent County c/o RPS Infrastructure, Inc.	Report No.:	24
Contractor:	Triple B Services	Date:	12-16-2021

Reported to the referenced project to observe the contractor proof roll the sub grade at the following locations:

From Sta. No. 51+00 to 55+50 Chimney Rock Road and 120' wide Road (500' x 120')

The proof rolling was performed utilizing a fully loaded dump truck with soil.

~ 1) There were no soft or loose zones detected in these areas.

■ 2) There were soft or loose zones detected at the following locations:

Most of the area was wet.

■ a) The contractor intends to under-cut the sub grade to firm soils and backfill with select fill or other suitable material.

~ b) The contractor intends to stabilize the sub grade.

Remarks: Inspector WR witnessed the Proofrolling.

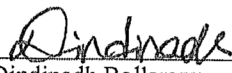
Technician: C. Patel  
NICET II

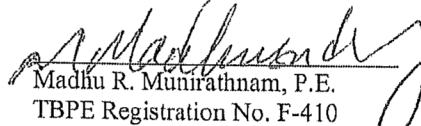
Depart Lab: 11:00 am  
Depart Site: 2:15 pm

Arrive Site: 11:45 am  
Arrive Lab: 3:00 pm

Lunch: --- hrs.  
Time: 4.0 hrs.

Distribution:  
Upload to Masterworks  
Invoice (1)

  
Dindinadh Bollarapu  
Graduate Engineer

  
Madhu R. Munirathnam, P.E.  
TBPE Registration No. F-410

Date 12/20/21

### REPORT OF SAMPLE PICK-UP

Project: Chimney Rock Road Construction From Tabor Mills Drive to McHard Job No.: 11503245-01  
Road, Project No. 17202  
Client: Fort Bent County c/o RPS Infrastructure, Inc. Report No.: 25  
Contractor: Triple 'B' Date: 12-16-2021

Supplier: On Site

The technician picked up a total of two (02) samples as described below:

- Soil/Base: (1) Dark Gray Lean Clay
- (2) Dark Gray Lean Clay

~ Cement Stabilized Sand

Truck No.: \_\_\_\_\_  
Ticket No.: \_\_\_\_\_  
Time: \_\_\_\_\_ am pm

~ Cement Stabilized Sand

Truck No.: \_\_\_\_\_  
Ticket No.: \_\_\_\_\_  
Time: \_\_\_\_\_ am pm

~ Cement Stabilized Sand

Truck No.: \_\_\_\_\_  
Ticket No.: \_\_\_\_\_  
Time: \_\_\_\_\_ am pm

~ Cement Stabilized Sand

Truck No.: \_\_\_\_\_  
Ticket No.: \_\_\_\_\_  
Time: \_\_\_\_\_ am pm

~ Concrete-Mix Design

~ Asphalt-Type \_\_\_\_\_ Surface Course

Truck No.: \_\_\_\_\_  
Ticket No.: \_\_\_\_\_  
Time: \_\_\_\_\_ am pm

~ Asphalt - Black Base Type \_\_\_\_\_

Truck No.: \_\_\_\_\_  
Ticket No.: \_\_\_\_\_  
Time: \_\_\_\_\_ am pm

~ Aggregate

~ Others

Remarks:

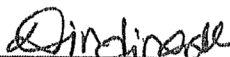
Technician: C. Patel  
NICET II

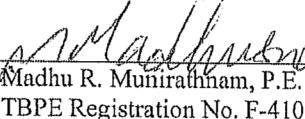
Depart Lab: ---  
Depart Site: ---

Arrive Site: ---  
Arrive Lab: ---

Lunch: --- hrs.  
Time: A.O.S hrs.

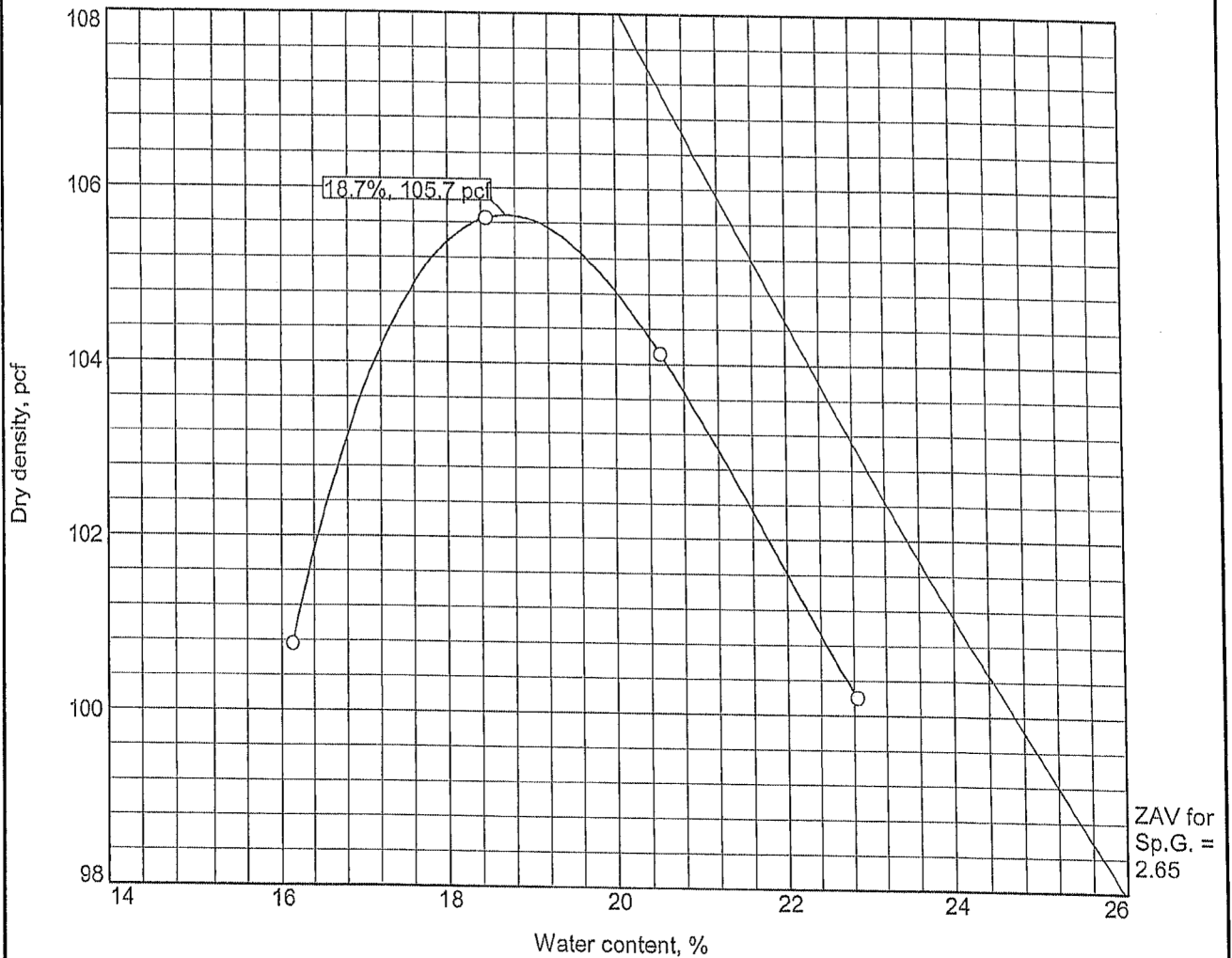
Distribution:  
Invoice (1)

  
Dindinadh Bollarapu  
Graduate Engineer

  
Madhu R. Munirathnam, P.E.  
TBPE Registration No. F-410

Date 12/20/21

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
	CH	N/A	18.5	2.65 assumed	58	36	N/A	85.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 105.7 pcf Optimum moisture = 18.7 %	Dark Brown Fat Clay Curve No. 7
<b>Project No.</b> 1150324501 <b>Client:</b> Fort Bent County c/o RPS Infrastructure, Inc. <b>Project:</b> Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202 <b>Loc.:</b> Chimney Rock, station 52+00 at 2'BG <b>Sample No.:</b> 25478	
<b>GEOTEST ENGINEERING, INC.</b> <b>Houston, TX</b>	
<b>Remarks:</b> Sampled: 12/16/2021 Report No.: 26 Madhu R. Munirathnam, P.E., Date: 12/21/21 TBPE F-410 ASTM D2216, D4318, D1140, D2487	
<b>Figure</b>	

Tested By: C. Patel Checked By: A. Ary

# MOISTURE DENSITY TEST DATA

12/21/2021

Client: Fort Bent County c/o RPS Infrastructure, Inc.

Project: Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202

Project Number: 1150324501

Location: Chimny Rock, station 52+00 at 2'BG

Sample Number: 25478

Description: Dark Brown Fat Clay

Curve No. 7

USCS Classification: CH

AASHTO Classification: N/A

Natural Moisture: 18.5

Liquid Limit: 58

Plasticity Index: 36

Testing Remarks: Sampled: 12/16/2021 Report No.: 26

Madhu R. Munirathnam, P.E., Date:

TBPE F-410

ASTM D2216, D4318, D1140, D2487

Tested by: C. Patel

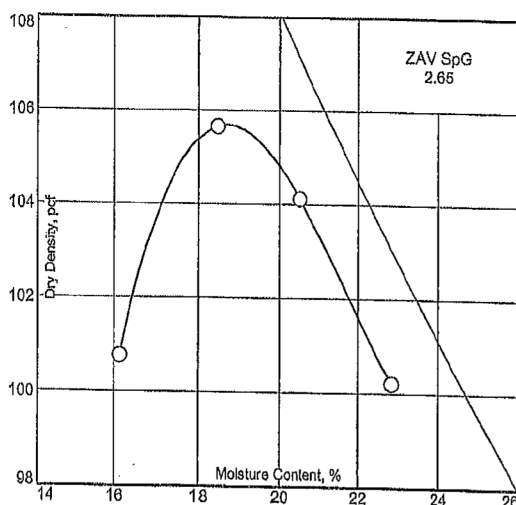
Checked by: A. Ary

## Test Data and Results For Curve 7

### Test Specification:

Type of Test: ASTM D 698-12 Method A Standard

Mold Dia: 4.00 Hammer Wt.: 5.5 lb. Drop: 12 in. Layers: three Blows per Layer: 25

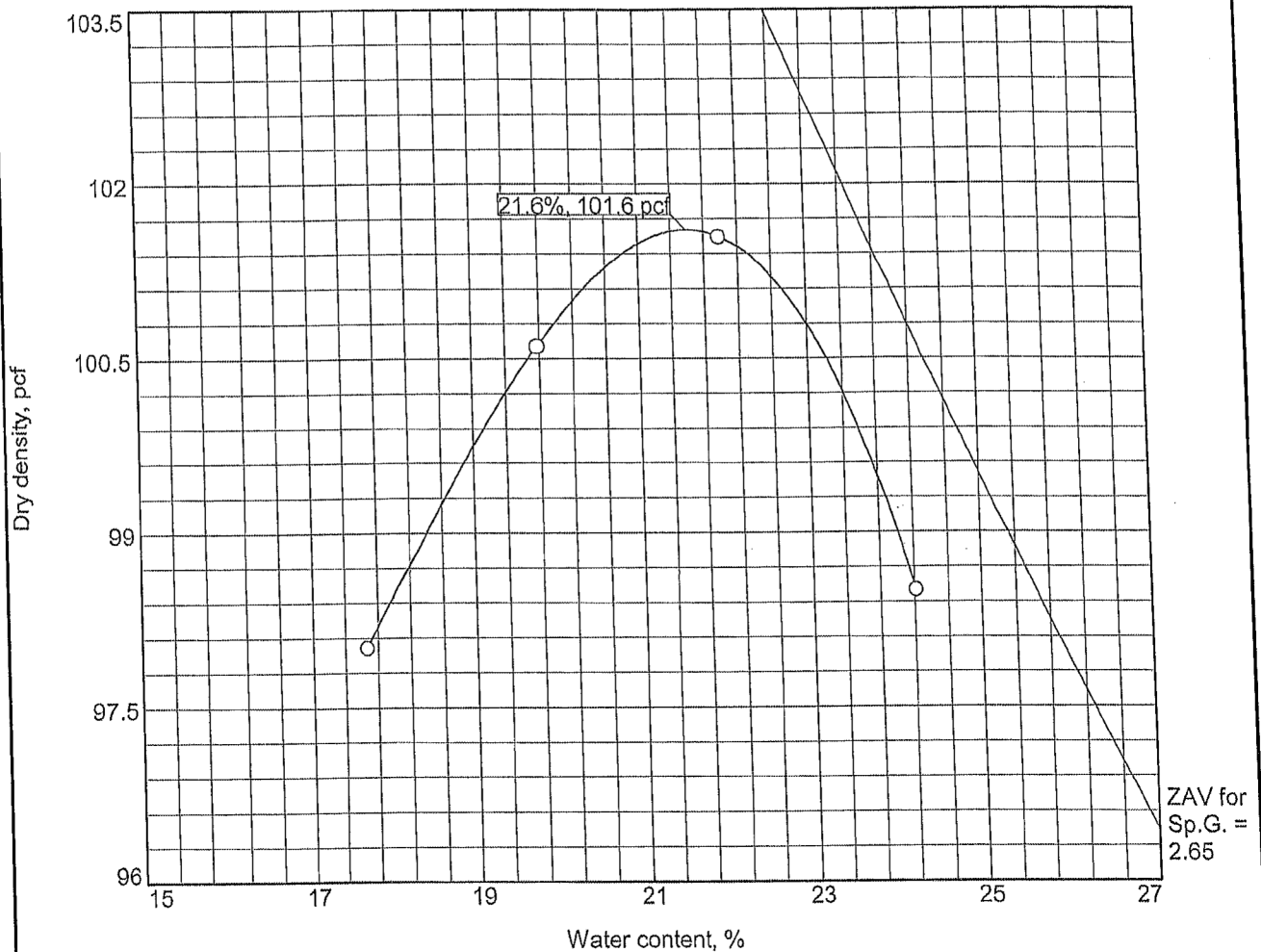


Point No.	1	2	3	4
Wt. M+S	3767.8	3890.7	3895.8	3859.6
Wt. M	2000.3	2000.3	2000.3	2000.3
Wt. W+T	831.2	875.3	858.0	848.6
Wt. D+T	731.7	758.1	731.5	713.5
Tare	114.9	123.1	115.2	122.0
Moist.	16.1	18.5	20.5	22.8
Dry Den.	100.8	105.7	104.1	100.2

Test Results:

Max. Dry Den. = 105.7 pcf Opt. Moist. = 18.7%

# COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > #4	% < No.200
	USCS	AASHTO						
	CH	N/A	22.0	2.65 assumed	62	39	N/A	86.4

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 101.6 pcf Optimum moisture = 21.6 %	Dark Brown Fat Clay Curve No. 8
<b>Project No.</b> 1150324501 <b>Client:</b> Fort Bent County c/o RPS Infrastructure, Inc. <b>Project:</b> Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202 <b>Loc.:</b> Chimney Rock, station 55+00 at 2'BG <b>Sample No.:</b> 25479 <b>GEOTEST ENGINEERING, INC.</b> <b>Houston, TX</b>	<b>Remarks:</b> Sampled: 12/16/2021 Report No.: 27 Madhu R. Munirathnam, P.E., Date: 12/21/21 TBPE F-410 ASTM D2216/D4318, D1140, D2487

Tested By: C. Patel Checked By: A. Ary



# MOISTURE DENSITY TEST DATA

12/21/2021

Client: Fort Bent County c/o RPS Infrastructure, Inc.

Project: Chimney Roack Road Construction From Tabor Mills Drive to McHard Road, Project No. 17202

Project Number: 1150324501

Location: Chimney Rock, station 55+00 at 2'BG

Sample Number: 25479

Description: Dark Brown Fat Clay

Curve No. 8

USCS Classification: CH

AASHTO Classification: N/A

Natural Moisture: 22.0

Liquid Limit: 62

Plasticity Index: 39

Testing Remarks: Sampled: 12/16/2021 Report No.: 27

Madhu R. Munirathnam, P.E., Date:

TBPE F-410

ASTM D2216, D4318, D1140, D2487

Tested by: C. Patel

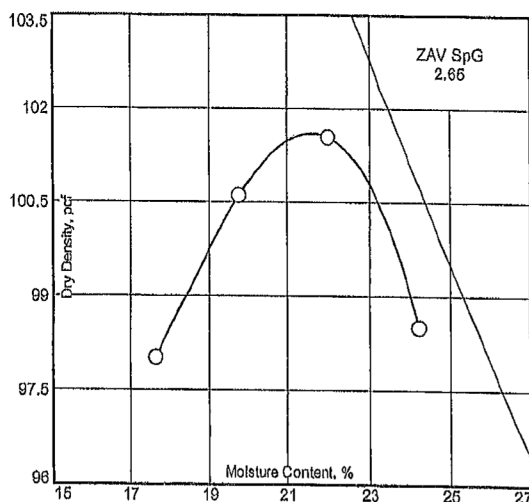
Checked by: A. Ary

## Test Data and Results for Curve 8

### Test Specification:

Type of Test: ASTM D 698-12 Method A Standard

Mold Dia: 4.00 Hammer Wt.: 5.5 lb. Drop: 12 in. Layers: three Blows per Layer: 25



Point No.	1	2	3	4
Wt. M+S	3742.3	3820.4	3871.3	3848.5
Wt. M	2000.3	2000.3	2000.3	2000.3
Wt. W+T	878.1	860.3	832.1	872.6
Wt. D+T	764.1	736.8	704.0	724.5
Tare	118.7	112.2	121.3	113.0
Molst.	17.7	19.8	22.0	24.2
Dry Den.	98.0	100.6	101.6	98.5

### Test Results:

Max. Dry Den. = 101.6 pcf Opt. Moist. = 21.6%