



PO# 137084 BA

Houston 6120 S. Dairy Ashford Rd.
 Austin Houston, TX 77072-1010
 Dallas 281.933.7388 Ph
 San Antonio 281.933.7293 Fax
 www.hvj.com

Sunday, November 26, 2017 - Saturday, December 30, 2017

To: Mr. Richard W Stollies, PE
 IT. Bend County Engineer
 301 Jackson Street
 Richmond, TX 77469

HVJ Project #: HC1510280
 HVJ Invoice #: 17-499
 HVJ Client #:
 Date: 1/5/2018
 Terms: Net 30 Days
 Page: 1 of 2

Project: FM1093/Westpark Tollway Expansion, West of SH 99

Please Remit Payment to:
 HVJ Associates, Inc.
 P.O. Box 670581
 Dallas, TX 75267-0581

PAST DUE INVOICES
 Billing Inquiries: 281-983-8842

Date/ Report No	Code	Description	Unit Price	Unit Measure	Quantity	Amount
1128/W0754	10700	Tech 3/Field Soil & Depth Testing NICET III	\$ 75.00	hour	6.00	\$ 450.00
1128/W0754	10300	Engineering Report Review (@ 0.25 hr/report)	\$ 149.00	hour	0.50	\$ 74.50
1128/W0754	95100	Nuclear Gauge	\$ 10.50	hour	6.00	\$ 63.00
1128/W0754		Vehicle	\$ 125.00	trip	1.00	\$ 125.00
1129/W0769	10700	Tech 2/Field Soil Testing & Sample SB102	\$ 65.00	hour	8.00	\$ 520.00
1129/W0769	10700	Tech 2/Field Soil Testing & Sample PU	\$ 97.50	hour	1.25	\$ 121.88
1129/W0769	92300	Lab - Std Proctor	\$ 204.00	each	1.00	\$ 204.00
1129/W0769	90100	Lab - Atterberg Limit	\$ 62.00	each	1.00	\$ 62.00
1129/W0769	90600	Lab - Passing -200	\$ 48.00	each	1.00	\$ 48.00
1129/W0769	10300	Engineering Report Review (@ 0.25 hr/report)	\$ 149.00	hour	0.50	\$ 74.50
1129/W0769	95100	Nuclear Gauge	\$ 10.50	hour	8.00	\$ 84.00
1129/W0769		Vehicle	\$ 125.00	trip	1.00	\$ 125.00
1130/W0774	10700	Tech 2/Field Soil Testing SB102	\$ 65.00	hour	7.00	\$ 455.00
1130/W0774	10300	Engineering Report Review (@ 0.25 hr/report)	\$ 149.00	hour	0.25	\$ 37.25
1130/W0774	95100	Nuclear Gauge	\$ 10.50	hour	7.00	\$ 73.50
1130/W0774		Vehicle	\$ 125.00	trip	1.00	\$ 125.00
1201/W0802	10700	Tech 2/Field Soil Testing SB102	\$ 65.00	hour	8.00	\$ 520.00
1201/W0802	10700	Tech 2/Field Soil Testing	\$ 97.50	hour	0.50	\$ 48.75
1201/W0802	10300	Engineering Report Review (@ 0.25 hr/report)	\$ 149.00	hour	0.25	\$ 37.25
1201/W0802	95100	Nuclear Gauge	\$ 10.50	hour	8.00	\$ 84.00
1201/W0802		Vehicle	\$ 125.00	trip	1.00	\$ 125.00
1202/W0808	10700	Tech 2/Field Soil Testing SB102	\$ 97.50	hour	7.00	\$ 682.50
1202/W0808	10300	Engineering Report Review (@ 0.25 hr/report)	\$ 149.00	hour	0.25	\$ 37.25
1202/W0808	95100	Nuclear Gauge	\$ 10.50	hour	7.00	\$ 73.50
1202/W0808		Vehicle	\$ 125.00	trip	1.00	\$ 125.00
1215/W0983	10700	Tech 2/Field Soil Testing SB102	\$ 65.00	hour	8.00	\$ 520.00
1215/W0983	10700	Tech 2/Field Soil Testing	\$ 97.50	hour	1.50	\$ 146.25
1215/W0983	10300	Engineering Report Review (@ 0.25 hr/report)	\$ 149.00	hour	0.25	\$ 37.25
1215/W0983	95100	Nuclear Gauge	\$ 10.50	hour	8.00	\$ 84.00
1215/W0983		Vehicle	\$ 125.00	trip	1.00	\$ 125.00

Amount Due \$ 5,288.38

Billing Summary	
Contract Amount	\$470,000 ✓
Current Invoice Amount	\$ 5,288.38 ✓
Previously Billed	\$ 379,322.56 ✓
Total Billed Project to Date	\$ 384,610.94 ✓
Amount Remaining in the Contract	\$ 85,389.06
Percent Complete	81.8%

Certification

I certify that the above shown duly reflects services performed on referenced contract and that none of the sums currently billed have previously been paid. I also certify that all services have been performed for which payment is requested.

APPROVED

By Mike Stone at 9:46 am, Jan 10, 2018

Hirondra Patel
 Hirondra (Harry) Patel, PE
 CME Manager, Houston

ok to pay
 1/22/18



Houston 6120 S. Dairy Ashford Rd.
Austin Houston, TX 77072-1010
Dallas 281.933.7388 Ph
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DAILY FIELD ACTIVITY REPORT

PROJECT NAME: FM 11093 Westpark Tollway Expansion, West of SH 99
WBS NO: (COH) W0754
HVJ PROJECT NO: HC1510280
CLIENT NAME: Fort Bend County Engineers
CONTRACTOR: Webber
DAY: Tuesday
DATE: 11-28-2017
TIME LEFT LAB: 6:30 AM/PM
TIME ARRIVED SITE: 7:15 AM/PM
TIME LEFT SITE: 1:35 AM/PM
TIME ARRIVED LAB: 2:30 AM/PM
LUNCH: -0.5
TOTAL HOURS: 7.5

THE FOLLOWING ACTIVITIES WERE PERFORMED:

- ☐ SAMPLE P/U (BEAM OR CYL) ☒ FIELD DENSITY TESTING ☐ CONC MONITOR/SAMPLING
☐ SOIL SAMPLE P/U ☐ ASPHALT TESTING ☐ CONSTRUCTION SURVEY
☒ OTHER Depth Check 01

SUMMARY OF FIELD ACTIVITIES: HVJ technician arrived @ job site to perform the following tasks:

- 1) Densities on 4.5 % cement stabilized crushed concrete base. Supplied by Southern Crushed Concrete.
At WB Fieder Rd Right Turn Lane From Sta # 2474 + 28.4
TO 2478 + 92 Also depth check on CTB.

All Field activities reported to Mr Terry W. (Inspector)

TECH SIGNATURE: [Signature]

TECHNICIAN PRINTED NAME: Mario Vargas

INSPECTOR SIGNATURE: [Signature]

DATE: _____

CERT LEVEL & ORG.: Nico III, SB102, Ac1

INSPECTOR NAME (print): Terry S. Webb

TIME: _____

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Test Control Number: 2518	Test Date: 11/28/2017
Traceability No.: 1258-03-042, ETC.	Report Number: ND-HOU-W0754
Project Number: Original	Lab: HVJ Associates - QA
Inspector/Technician: Marco Vargas	Section: 2004
Material: 4.5% Cement Stabilized Recycled Crushed Col	Spec Year: 276
Supplier/Producer: See remarks	Special Provision: Specification Item
Structure Number:	Grade:
Sample Location:	Feature:
Course/Lift:	Roadway: FM 1093
Station: Sta. 2474+73 to 2478+92	Misc:
Test Method: Tex-115-E	
Test Instrument: Humboldt Scientific	
Standard Counts: (Density) 3099	Serial No: 8596
	Test Depth (in): 4
Compaction Equipment: Sheepfoot Roller	

Protctor ID	Material Description	Soil Class	Max. Dry Density (pcf)	Optimum Moisture (%)	LL	PI	Moisture Specification (%)		Compaction Specification (%)	
							Min	Max	Min	Max
W3601-S1	4.5% Cement Stabilized Recycled Crushed Concrete Base	GP	119.9	12.5			10.5	14.5	95	

Field Test No.	Location Description	Station	Offset	Elev./ Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft3)	Wet Density (lbs/ft3)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2141		2476+00		1st Lift			W3601-S1	115.4	128.6	11.4	96.2	Pass	RI	
2142		2476+50		2nd lift			W3601-S1	117.9	133.7	13.4	98.3	Pass	RI	

Remarks: WB Feeder Rd RT Turn Ln from Sta. 2474+73 to 2478+92

The above work was inspected/ sampled and tested in the manner described, and the result(s) are hereby certified by the undersigned as complete and accurate. This report shall not be reproduced except in full, without the permission of the testing laboratory. These results relate only to samples tested.

**Report of Water Content and Density of Soil
by In-Place Nuclear Method**

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Approved by:



Approved Date: 12/07/2017

The above work was inspected/ sampled and tested in the manner described, and the result(s) are hereby certified by the undersigned as complete and accurate.
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Printed on: 12/7/2017

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CEMENT TREATED BASE DEPTH CHECK REPORT

TO: Mr. Richard W Stollies, P.E.
FT. Bend County Engineer
301 Jackson Street
Richmond, TX 77469

REPORT DATE: 11/30/2017
Project No. HC1510280
Report No: HOU-FLD-W0754-01
Inspector: M. Vargas
Service Date: 11/28/2017
Start Time: 6:30 AM
End Time: 2:45 PM
Lunch: 0.50
Total Time (hrs): 7.5

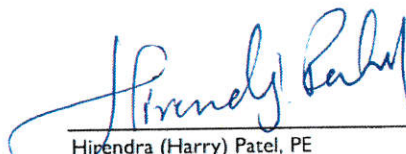
PROJECT: FM1093/Westpark Tollway Expansion, West of SH 99
Purchase Purchase Order No. CX40435

Sample No.	Location	Depth (in)	Required Depth (in)
1	WB Feeder RT Ln Sta 2476+50	12.500	12
Average Depth:		12.50	

* Note: All tests conform with project specifications except those marked *.

Remarks: Spec Item 276, Depth per Dwg

JP
Reviewed by:


Himendra (Harry) Patel, PE
Firm PE Registration No. F-000646

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DAILY FIELD ACTIVITY REPORT

PROJECT NAME: FM1093 / Westpark Tollway Expansion
WBS NO: (COH) W0769 TIME LEFT LAB: 7:00 AM/PM
HVJ PROJECT NO: HC1510280 TIME ARRIVED SITE: 8:45 AM/PM
CLIENT NAME: Fort Bend County Engineers TIME LEFT SITE: 5:30 AM/PM
CONTRACTOR: Webber TIME ARRIVED LAB: 6:15 AM/PM
DAY: Wed. LUNCH: 30 min
DATE: 11-29-17 TOTAL HOURS: 10.75 hrs
9.25

THE FOLLOWING ACTIVITIES WERE PERFORMED:

- ☐ SAMPLE P/U (BEAM OR CYL) ☒ FIELD DENSITY TESTING ☐ CONC MONITOR/SAMPLING
☒ SOIL SAMPLE P/U 4623 Std pro PI 200 ☐ ASPHALT TESTING ☐ CONSTRUCTION SURVEY
☐ OTHER 114 104-105 111E

SUMMARY OF FIELD ACTIVITIES: Arrived on site to performed
marked activities.

- Contractor backfilled for Embankment for Future HB-SB roadway cut between basin 1A & 1B.
- Performed density test at various location for 2 lifts.
- Picked up sample for procs.
- Results notified to Terry.

TECH SIGNATURE: M Patel CERT LEVEL & ORG.: SB102
TECHNICIAN PRINTED NAME: Mayer Patel
INSPECTOR SIGNATURE: Terry S. Wood INSPECTOR NAME (print): Terry S. Wood
DATE: 11-29-17 TIME: 5:10 pm

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Test Control Number: 2522
Traceability No.: 1258-03-042, ETC.
Project Number: Original
Report Type: Mayur Patel
Inspector/Technician: Brown Sandy Lean Clay
Material: See remarks
Supplier/Producer: Sta. 2474+26 to 2475+56
Structure Number: Tex-115-E
Sample Location: Direction:
Course/Lift: Distance from CL:
Station: Troxler Electronics
Test Method: 2079
Standard Counts: (Density) 67
(Moisture) Sheepfoot Roller
Compaction Equipment:

Test Date: 11/29/2017
Report Number: ND:HOU-W0769
Lab: HVJ Associates - QA
Section: 2004
Spec Year: 132
Special Provision: Specification Item
Grade:
Feature:
Roadway: FM 1093
Misc:

Serial No: 31052
Test Depth (in): 6

Tex-115-E	PI <= 15, % Compaction is >= 98%	N/A
	15 < PI <= 35, % Compaction is 98% - 102%	>= W _{opt}
	PI > 35, % Compaction is 95% - 100%	>= W _{opt}

Proctor ID	Material Description	Soil Class	Max. Dry Density (pcf)	Optimum Moisture (%)	LL	PI	Moisture Specification (%)		Compaction Specification (%)	
							Min	Max	Min	Max
W5823-S1	Gray Sandy Lean Clay	CL	111.0	11.7	29	15			98	

Field Test No.	Location Description	Station	Offset	Elev./ Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft ³)	Wet Density (lbs/ft ³)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2143	30' E, 25' N at NW corner	2474+56		Final			W5823-S1	111.0	396.3	257	100.0	Pass		
2144	15' E, 60' N at NW corner	2474+41		Final			W5823-S1	111.4	403.3	262	100.4	Pass		
2145	50' E, 30' N at SW corner	2474+76		Final			W5823-S1	109.2	400.8	267	98.4	Pass		

Remarks: Embankment BF for future NB-SB roadway between basin 1A and 1B, approximately Sta. 2474+26 to 2475+56

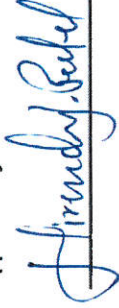
The above work was inspected/ sampled and tested in the manner described, and the result(s) are hereby certified by the undersigned as complete and accurate. This report shall not be reproduced except in full, without the permission of the testing laboratory. These results relate only to samples tested.

Printed on: 12/7/2017

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Approved by:



Approved Date:

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**Moisture Density Relationships
(Proctor)**

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Sample ID: W0769-S1
Test Control Number: 2519
Traceability No.:
Project Number: 1258-03-042, ETC.
Sample Type: Random-Independent
Report Type: Original
Inspector/Technician: Mayur Patel
Material: Brown Lean Clay with Sand
Supplier/Producer:
Structure Number:
Sample Location: Basin 1A and 1B
Course/Lift:
Station: Basin 1A and 1B
Test Method: Tex-114-E

Test Method: A
Soil Description: Brown Lean Clay with Sand
Oven Dry Weight: 100.0
Weight of Agg., Pyco., & Water: 612.29
Hygroscopic Moisture:

Sampled Date: 11/24/2017
Test Date: 12/04/2017
Report Number:
Lab: HVJ Associates - QA
Split Sample ID:
Section:
Spec Year: 2014 HC1510280.
Spec Item: 132
Special Provision:
Grade:

Feature:
Roadway:
Misc:
Tested by: Sajjad Naqvi

Preparation Method: Wet
Type of Rammer: Mechanical
Weight of Pycnometer & Water: 550.0
Specific Gravity: 2.65

Point	Dry Density (pcf)	Percent Water on Total (%)
1	101.97	12.19
2	108.23	14.61
3	109.59	16.18
4	107.19	17.66
Maximum Dry Density (pcf)		109.3
Optimum Moisture Content (%)		15.8

Remarks:

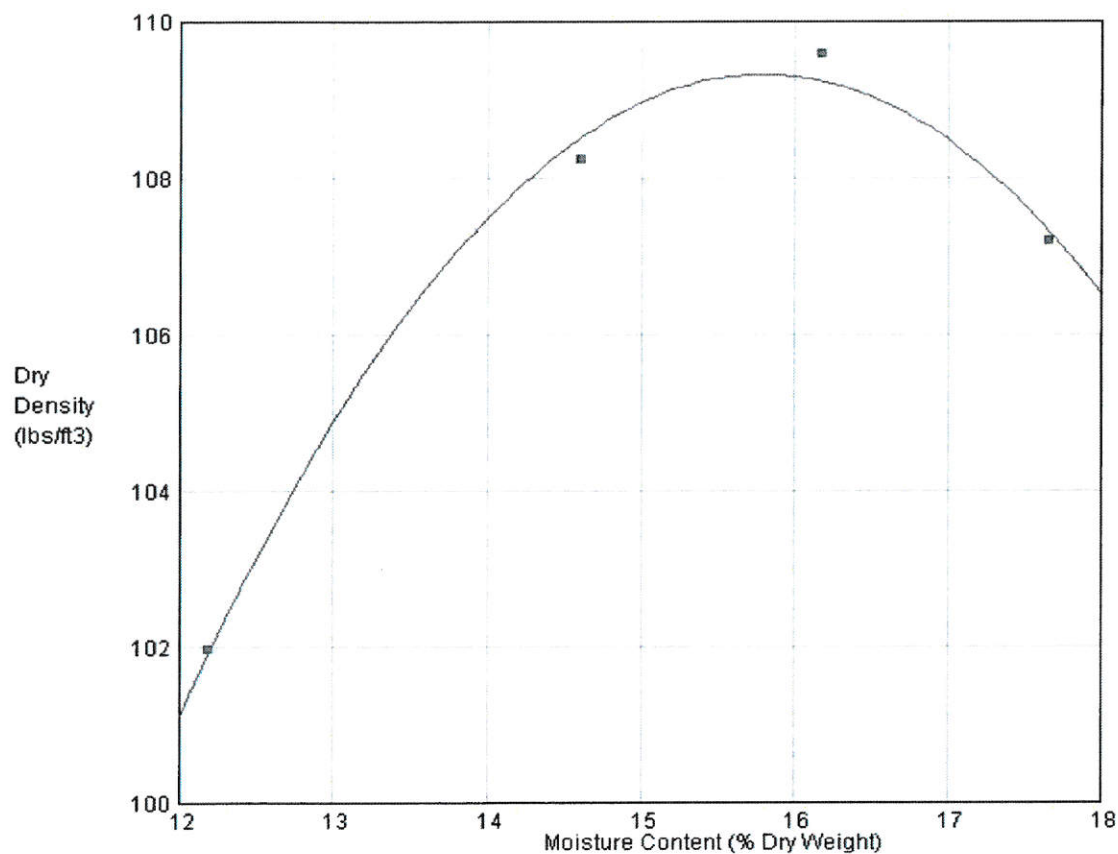
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Moisture Density Relationships (Proctor)

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Sample ID: W0769-S1
Test Control Number: 2519
Traceability No.:
Project Number: 1258-03-042, ETC.

Sampled Date: 11/24/2017
Test Date: 12/04/2017
Report Number:
Lab: HVJ Associates - QA



Maximum Dry Density (pcf) 109.3

Optimum Moisture Content (%) 15.8

Approved by:

Hirendy. Parhy

Approved Date:

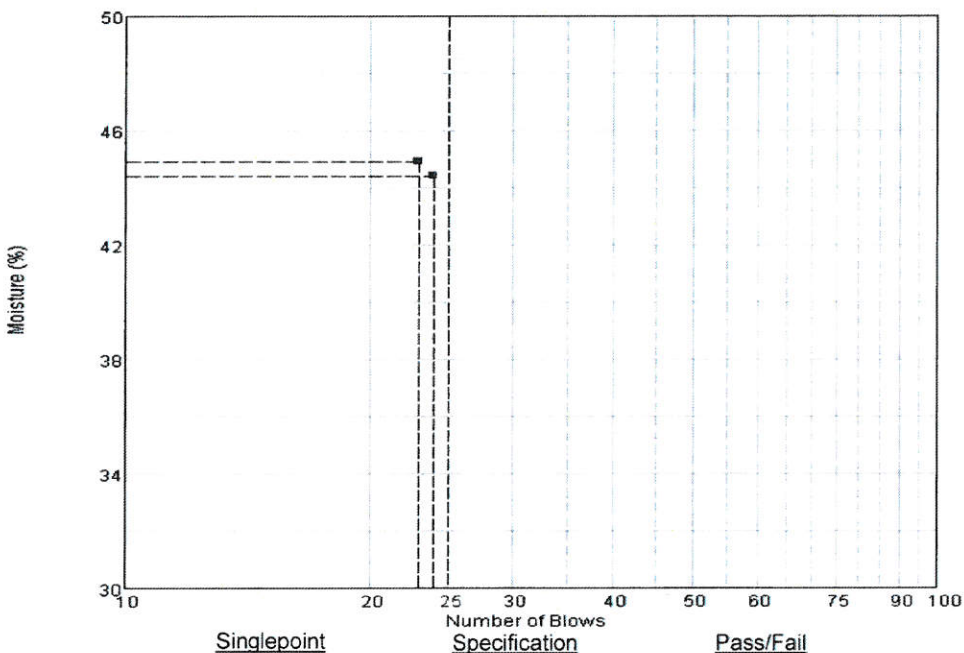
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Atterberg Limits

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Sample ID: W0769-S1
Test Control Number: 2520
Traceability No.:
Project Number: 1258-03-042, ETC.
Sample Type: Random-Independent
Report Type: Original
Inspector/Technician: Mayur Patel
Material: Brown Lean Clay with Sand
Supplier/Producer:
Structure Number:
Sample Location: Basin 1A and 1B
Course/Lift:
Station: Basin 1A and 1B
Test Method: Tex-104-E, Tex-105-E, TEX-106-E
Soil Description: Brown Lean Clay with Sand

Sampled Date: 11/24/2017
Test Date: 12/04/2017
Report Number:
Lab: HVJ Associates - QA
Split Sample ID:
Section:
Spec Year: 2014
Spec Item: 132
Special Provision:
Grade:
Feature:
Roadway:
Misc:
Tested by: Sajjad Naqvi



Liquid Limit (LL) = 44
Plastic Limit (PL) = 13
Plasticity Index (PI) = 31

Remarks:

Approved by:

Approved Date:

* This value does not meet project specifications

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AMOUNT OF MATERIAL IN SOIL FINER THAN #200 SIEVE

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

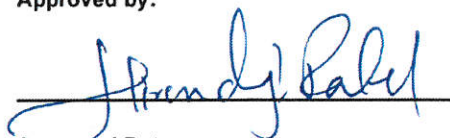
Sample ID: W0769-S1 Test Control Number: 2521 Traceability No.: Project Number: 1258-03-042, ETC. Sample Type: Random-Independent Report Type: Original Inspector/Technician: Mayur Patel Material: Brown Lean Clay with Sand Supplier/Producer: Structure Number: Sample Location: Basin 1A and 1B Course/Lift: Station: Basin 1A and 1B Test Method: Tex-111-E	Sampled Date: 11/24/2017 Test Date: 12/04/2017 Report Number: Lab: HVJ Associates - QA Split Sample ID: Section: Spec Year: 2014 Spec Item: 132 Special Provision: Grade: Feature: Roadway: Misc: Tested by: Sajjad Naqvi
---	--

Lab Data		1	2	3	4	5	6
Boring No.							
Sample No.		W0769-S1					
Depth, (ft)							
Material Visual Classification		Brown Lean Clay with sand					
Description of Grain Shape							
Initial Oven-Dry Wt., Material+Tare1,(g)	Wi	225.7					
Tare1 Wt., (g)	WT1	110.7					
Oven-Dry Weight Material After Washing And Shaking Over #200 Sieve, Material+Tare2, (g)	W1	132.8					
Tare2 Wt., (g)	WT2	110.7					

TEST RESULTS		1	2	3	4	5	6
Initial Oven-Dry Wt. Material, (g)	Wo=Wi - WT1	115.0					
Oven-Dry Wt. After washing, (g)	W=W1 - WT2	22.1					
% Finer than (#200) Sieve	$P = (W_o - W) / W_o$	80.8					
% Retained on (#200) Sieve	100 - P	19.2					

Remarks:

Approved by:



Approved Date:

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DAILY FIELD ACTIVITY REPORT

PROJECT NAME: FM 1093 / West park Tollway Expansion
WBS NO: (COH) W0774 TIME LEFT LAB: 7:15 AM/PM
HVJ PROJECT NO: HC1510280 TIME ARRIVED SITE: 8:00 AM/PM
CLIENT NAME: Fort Bend County Engineers TIME LEFT SITE: 3:30 AM/PM
CONTRACTOR: Webber TIME ARRIVED LAB: 4:15 AM/PM
DAY: Thursday LUNCH: 30 min
DATE: 11-30-17 TOTAL HOURS: 8.5 hrs

THE FOLLOWING ACTIVITIES WERE PERFORMED:

- ☐ SAMPLE P/U (BEAM OR CYL) ☒ FIELD DENSITY TESTING ☐ CONC MONITOR/SAMPLING
☐ SOIL SAMPLE P/U ☐ ASPHALT TESTING ☐ CONSTRUCTION SURVEY
☐ OTHER _____

SUMMARY OF FIELD ACTIVITIES: Arrived on site to performed
marked activities.

- Contractor worked on embankment backfilling for Future NB-SB Roadway cut between Basin 1A & 1B. Contractor placed left over 2nd lift and placed 3rd lift and started place 4th lift.
- Res. Performed density tests at various locations.
- Results notified to Terry.

TECH SIGNATURE: M. Patel CERT LEVEL & ORG.: SB102
TECHNICIAN PRINTED NAME: Mayur Patel
INSPECTOR SIGNATURE: Terry S. Wade INSPECTOR NAME (print): Terry S. Wade
DATE: 11-30-17 TIME: _____

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Test Control Number: 2523
Traceability No.:
Project Number: 1258-03-042, ETC.
Report Type: Original
Inspector/Technician: Mayur Patel
Material: Brown Sandy Lean Clay
Supplier/Producer:
Structure Number:
Sample Location:
Course/Lift:
Station: Sta. 2774+26 to 2475+50
Test Method: Tex-115-E
Direction: Distance from CL:
See remarks
Trolox Electronics
Standard Counts: (Density) 2080
(Moisture) 664
Compaction Equipment: Sheepsfoot Roller

Test Date: 11/30/2017
Report Number: ND-HOU-W0774
Lab: HVJ Associates - QA
Section:
Spec Year: 2004
Spec Item: 132
Special Provision: Specification Item
Grade:
Feature:
Roadway: FM 1093
Misc:

Serial No: 31052
Test Depth (in): 6

Tex-115-E	PI <= 15, % Compaction is >= 98%	N/A
	15 < PI <= 35, % Compaction is 98% - 102%	>= W _{opt}
	PI > 35, % Compaction is 95% - 100%	>= W _{opt}

Protector ID	Material Description	Soil Class	Max. Dry Density (pcf)	Optimum Moisture (%)	LL	PI	Moisture Specification (%)		Compaction Specification (%)	
							Min	Max	Min	Max
W5823-S1	Gray Sandy Lean Clay	CL	111.0	11.7	29	15			98	

Field Test No.	Location Description	Station	Offset	Elev./ Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft ³)	Wet Density (lbs/ft ³)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2146	40' E, 25' N from SW corner	2774+66		Final			W5823-S1	110.1	397.5	261	99.2	Pass		

Remarks: Embankment BF for future NB-SB roadway between basin 1A and 1B approximately Sta. 2774+26 to 2475+50

Approved by:

Jimmy S. Smith

Approved Date:

The above work was inspected/ sampled and tested in the manner described, and the result(s) are hereby certified by the undersigned as complete and accurate. This report shall not be reproduced except in full, without the permission of the testing laboratory. These results relate only to samples tested.



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Austin Houston, TX 77072-1010
Dallas 281.933.7388 Ph
San Antonio 281.933.7293 Fax
www.hvj.com

W0802

DAILY FIELD ACTIVITY REPORT

PROJECT NAME: West park Tollway Expansion / FM1093
WBS NO: (COH) W0802 TIME LEFT LAB: 7:15 AM/PM
HVJ PROJECT NO: HC1510280 TIME ARRIVED SITE: 8:00 AM/PM
CLIENT NAME: Frost Bend County ^{Engineering} ~~Tollway~~ TIME LEFT SITE: 5:00 AM/PM
CONTRACTOR: Webber TIME ARRIVED LAB: 5:45 AM/PM
DAY: Friday LUNCH: .5
DATE: 12-1-17 TOTAL HOURS: 10.0 Hrs
8.5

THE FOLLOWING ACTIVITIES WERE PERFORMED:

- ☐ SAMPLE P/U (BEAM OR CYL) ☒ FIELD DENSITY TESTING ☐ CONC MONITOR/SAMPLING
☐ SOIL SAMPLE P/U ☐ ASPHALT TESTING ☐ CONSTRUCTION SURVEY
☐ OTHER _____

SUMMARY OF FIELD ACTIVITIES: Arrived on site to performed
monitored activities.

- Contractor backfilled ~~area~~ to prepared north side slope of detention pond (Basin 18) between sta # 2475+50 to 2474+50.
- Performed density test for each lift prepared
- Results notified to Terry.

TECH SIGNATURE: Patel CERT LEVEL & ORG.: SB102
TECHNICIAN PRINTED NAME: Mayur Patel
INSPECTOR SIGNATURE: Terry S. Welch INSPECTOR NAME (print): Terry S. Welch
DATE: 12-1-17 TIME: _____

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Test Control Number:	2524	Test Date:	12/01/2017
Traceability No.:	1258-03-042, ETC.	Report Number:	ND:HOU-W0802
Project Number:	Original	Lab:	HVJ Associates - QA
Report Type:	Mayur Patel	Section:	2004
Inspector/Technician:	Brown Sandy Lean Clay	Spec Year:	132
Material:		Special Provision:	Specification Item
Supplier/Producer:		Grade:	
Structure Number:			
Sample Location:	See remarks	Feature:	
Course/Lift:		Roadway:	FM 1093
Station:	Sta. 2475+50 to 2479+50	Misc:	
Test Method:	Tex-115-E		
Test Instrument:	Troxler Electronics		
Standard Counts:	(Density) 2081	Serial No:	31052
	(Moisture) 668	Test Depth (in):	6
Compaction Equipment:	Sheepsfoot Roller		

HC1510280

Tex-115-E	PI <= 15, % Compaction is >= 98%	N/A
	15 < PI <= 35, % Compaction is 98% - 102%	>= W _{opt}
	PI > 35, % Compaction is 95% - 100%	>= W _{opt}

Protector ID	Material Description	Soil Class	Max. Dry Density (pcf)	Optimum Moisture (%)	LL	PI	Moisture Specification (%)		Compaction Specification (%)	
							Min	Max	Min	Max
W5823-S1	Gray Sandy Lean Clay	CL	111.0	11.7	29	15			98	

Field Test No.	Location Description	Station	Offset	Elev./ Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft ³)	Wet Density (lbs/ft ³)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2147		2477+55		Final			W5823-S ₁	112.4	130.8	16.4	101.3	Pass		
2148		2477+50		Final			W5823-S ₁	113.0	132.4	17.2	101.8	Pass		
2149		2477+00		Final			W5823-S ₁	111.8	130.2	16.5	100.7	Pass		
2150		2476+85		Final			W5823-S ₁	110.4	129.8	17.6	99.5	Pass		

The above work was inspected/ sampled and tested in the manner described, and the result(s) are hereby certified by the undersigned as complete and accurate. This report shall not be reproduced except in full, without the permission of the testing laboratory. These results relate only to samples tested.

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Remarks: Basin 1B- North side slope, detention ponds BTC Sta. 2475+50 to 2479+50

Approved by:



Approved Date:

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Printed on: 12/8/2017

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Houston 6120 S. Dairy Ashford Rd.
Austin Houston, TX 77072-1010
Dallas 281.933.7388 Ph
San Antonio 281.933.7293 Fax
www.hvj.com

DAILY FIELD ACTIVITY REPORT

PROJECT NAME: FM1043/ Westpark Tollway Expansion
WBS NO: (COH) W0808 TIME LEFT LAB: 7:15 AM/PM
HVJ PROJECT NO: HC1510280 TIME ARRIVED SITE: 8:00 AM/PM
CLIENT NAME: Fort Bend County Engineers TIME LEFT SITE: 3:30 AM/PM
CONTRACTOR: Webber TIME ARRIVED LAB: 4:15 AM/PM
DAY: SAT LUNCH: .5
DATE: 12-2-13 TOTAL HOURS: 8.5 hrs (7.0)

THE FOLLOWING ACTIVITIES WERE PERFORMED:

- ☐ SAMPLE P/U (BEAM OR CYL) ☒ FIELD DENSITY TESTING ☐ CONC MONITOR/SAMPLING
☐ SOIL SAMPLE P/U ☐ ASPHALT TESTING ☐ CONSTRUCTION SURVEY
☐ OTHER _____

SUMMARY OF FIELD ACTIVITIES: Arrived on site to performed
marked activities.

- Contractor working on backfilling to prepare
slope for detention pond at Basin 1B. and
also backfilling for future roadway
embankment.

- Performed density tests at various
Locations.

- Results notified to Terry

TECH SIGNATURE: Patel CERT LEVEL & ORG.: SD 102
TECHNICIAN PRINTED NAME: Mayes Patel
INSPECTOR SIGNATURE: Terry Shwede INSPECTOR NAME (print): Terry Shwede
DATE: 12-2-13 TIME: _____

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

HC1510280

Test Control Number: 2525	Test Date: 12/02/2017
Traceability No.: 1258-03-042, ETC.	Report Number: ND-HOU-W0808
Project Number: Original	Lab: HVJ Associates - QA
Inspector/Technician: Mayur Patel	Section: 2004
Material: Brown Sandy Lean Clay	Spec Item: Specification Item
Supplier/Producer: See location description	Special Provision:
Structure Number:	Grade:
Sample Location:	Feature:
Course/Lift:	Roadway: FM 1093
Station:	Misc:
Test Method: Tex-115-E	
Test Instrument: Troxler Electronics	
Standard Counts: (Density) 2079	Serial No: 31052
(Moisture) 671	Test Depth (in): 6
Compaction Equipment: Sheepfoot Roller	

Protector ID	Material Description	Soil Class	Max. Dry Density (pcf)	Optimum Moisture (%)	LL	PI	Moisture Specification (%)		Compaction Specification (%)	
							Min	Max	Min	Max
W5823-S1	Gray Sandy Lean Clay	CL	111.0	11.7	29	15			95	

Field Test No.	Location Description	Station	Offset	Elev./ Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft3)	Wet Density (lbs/ft3)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2151	Basin 1B- North side slope, detention pond BTW	2477+00		Final			W5823-S 1	108.9	124.1	14.0	98.1	Pass		
2152	Basin 1B- North side slope, detention pond BTW	2475+90		Final			W5823-S 1	112.4	128.5	14.3	101.3	Pass		
2153	Basin 1B- North side slope, detention pond BTW	2479+50		Final			W5823-S 1	111.8	129.9	16.2	100.7	Pass		
2154	Basin 1B- North side slope, detention pond BTW	2474+50		Final			W5823-S 1	112.7	128.8	14.3	101.5	Pass		

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Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Test Control Number: 2525 Test Date: 12/02/2017
Traceability No.: ND:HOU-W0808
Project Number: 1258-03-042, ETC. Report Number: HVJ Associates - QA
Lab:

Field Test No.	Location Description	Station	Offset	Elev./ Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft ³)	Wet Density (lbs/ft ³)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2155	Embankment BF for future NB-SB roadway between basin 1A and 1B	2774+60		Final			W5823-S 1	113.3	130.2	14.9	102.1	Pass		

Remarks:

Approved by:

Andy. L. Ladd

Approved Date:

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Dallas 281.933.7293 Fax
San Antonio www.hvj.com

DAILY FIELD ACTIVITY REPORT

W0983

PROJECT NAME: FM1093/WESTPARK TOLLWAY EXPANSION, WEST of SH99
WBS NO: (COH) W0983 TIME LEFT LAB: 7:30 AM/PM
HVJ PROJECT NO: HC1510280 TIME ARRIVED SITE: 8:00 AM/PM
CLIENT NAME: FORT BEND COUNTY ENGINEERS TIME LEFT SITE: 6:30 AM/PM
CONTRACTOR: WEBBER TIME ARRIVED LAB: 7:00 AM/PM
DAY: FRIDAY LUNCH: 0.5 hours
DATE: 012-15-17 TOTAL HOURS: 11.0 hours

THE FOLLOWING ACTIVITIES WERE PERFORMED:

4

- ☐ SAMPLE P/U (BEAM OR CYL) ☒ FIELD DENSITY TESTING ☐ CONC MONITOR/SAMPLING
☐ SOIL SAMPLE P/U ☐ ASPHALT TESTING ☐ CONSTRUCTION SURVEY
☐ OTHER _____

SUMMARY OF FIELD ACTIVITIES: HVS TECH ARRIVED @ JOB & DO THE FOLLOWING
ACTIVITIES:
*SHOOT THE DENSITIES ON EMBANKMENT BETWEEN DP1A & DP1B
WB FR STA #2474+00 TO 2476+00

TECH SIGNATURE: [Signature] CERT LEVEL & ORG.: SRW2 SR101, SR107
TECHNICIAN PRINTED NAME: SATTAD NAJJI
INSPECTOR SIGNATURE: [Signature] INSPECTOR NAME (print): Terry S. Ward
DATE: _____ TIME: _____

Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Test Control Number: 2526
Traceability No.: 1258-03-042, ETC.
Project Number: Original
Report Type: Sajjad Naqvi
Inspector/Technician: Brown Sandy Lean Clay
Material:
Supplier/Producer:
Structure Number:
Sample Location:
Course/Lift:
Station: 2476 to 2474
Test Method: Tex-115-E
See remarks
Direction: FM 1093
Distance from CL:
Test Date: 12/15/2017
Report Number: ND:HOU-W0983
Lab: HVJ Associates - QA
Section:
Spec Year: 2004
Spec Item: 132
Special Provision: Specification Item
Grade:
Feature:
Roadway: FM 1093
Misc:
Serial No: 8595
Test Depth (in): 6
Compaction Equipment: Troxler Electronics
3110
366
Sheepsfoot Roller

Tex-115-E	PI <= 15, % Compaction is >= 98%	N/A
	15 < PI <= 35, % Compaction is 98% - 102%	>= Wopt
	PI > 35, % Compaction is 95% - 100%	>= Wopt

Proctor ID	Material Description	Soil Class	Max. Dry Density (pcf)	Optimum Moisture (%)	LL	PI	Moisture Specification (%)		Compaction Specification (%)	
							Min	Max	Min	Max
W0769-S1	Brown Lean Clay with Sand	CL	109.3	15.8	44	31	15.8		98	102

Field Test No.	Location Description	Station	Offset	Elev./Lift	Random No. 1	Random No. 2	Proctor ID	Dry Density (lbs/ft ³)	Wet Density (lbs/ft ³)	Moisture Content (%)	Compaction (%)	Pass/Fail	Sample Type	Test Remarks
2156	WBFR 60' of DP 1A and DP 1B	2475+00		Final			W0769-S1	110.3	129.3	17.2	100.9	Pass		
2157	WBFR 80' N of DP 1A and DP 1B	2474+30		Final			W0769-S1	109.1	130.4	19.5	99.8	Pass		
2158	WBFR 130' N of DP 1A and DP 1B	2494+56		Final			W0769-S1	108.4	125.2	15.5	99.2	Eng. Dec.		
2159	WBFR 50' N of DP 1A and DP 1B	2475+10		Final			W0769-S1	110.2	127.7	15.9	100.8	Pass		

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Report of Water Content and Density of Soil by In-Place Nuclear Method

HVJ Associates
6120 South Dairy Ashford
Houston, TX 77072
281-983-8807

Remarks: Embankment WBFR between DP 1A and DP 1B Sta. 2476 to 2474

Approved by:


Approved Date:

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