

January 4, 2024

Eddie Guerra, Sheriff
Attn: Roy Mendez, Lieutenant
County of Hidalgo Sheriff's Office
711 El Cibolo Rd.
Edinburg, TX 78541

**RE: Contract # C-22-0728-01-01 - Work Authorization #2 ~ Hidalgo County Jail West
Parking Facility**

Dear Sheriff Guerra:

Attached for your review and approval is our invoice for services rendered under Work Authorization #2 during the month of December 2023 on the subject referenced project.

The following is attached:

- Invoice No. 40227

The following is a narrative of the progress for this period.

TASK	% Complete
Geotechnical Drilling, Testing & Eng. Services	
<u>UPDATED:</u> B2Z secured a sample of Limed Flexbase material for testing on the following item: <ul style="list-style-type: none">• Moisture/Density Standard Proctor• Atterberg Limits of Soil Reports: HCWP-5S & HCWP-6S	20%
B2Z performed field testing with the use of the nuclear density gauge to measure compaction of Lime Treated Subgrade Material for Roadways. Reports: HCWP -3S, HCWP-4S & HCWP -7S	

Should you have any questions regarding this submittal, please do not hesitate to call me at (956) 585-3773.

Sincerely,



Oliver Salgado, P.E.
Senior Project Manager – B2Z Engineering, LLC



P.O. Box 2724
 McAllen, Tx. 78502
 (956) 585-3773

P.O.#: 870363

Invoice Received By: F. Eilenberger on: 1/4/2024
 Goods/Services Received By: Sgt. E Longoria on: December 2023
3-1100-423-21-280-005-0-740

Invoice

Date	Invoice #
1/4/2024	40227

M-M

Please send remittance with copy of invoice to:
 Attn: Mrs. Aisha Gonzalez
 P.O. Box 2724
 McAllen, Tx. 78502

Bill To:
 County of Hidalgo Sheriff's Office
 711 El Cibolo Rd.
 Edinburg, TX 78541

Project Info:
 Hidalgo County
 Jail West Parking Facility Project
 Contract # C-22-0728-01-01
 Work Authorization #2
 B2Z JOB: 4129

Billing Period December 2023

Description	Contract	Previous Applications	Current Completed	Total Completed	% Complete
Construction Materials Testing (CMT)	\$ 16,506.93	\$ 1,222.24	\$ 2,079.15	\$ 3,301.39	20%
Total For This Billing Period					\$2,079.15

Work Authorization ~ Summary

WA No.	WA Amount	Previously Inv.	Percent Complete	Remaining Balance
2	\$16,506.93	\$1,222.24	20%	\$13,205.54

Aisha Gonzalez - President

Sgt. E Longoria
12-31-23



Soil Nuclear Gauge

B2Z Report No. HCWP-7S
Report Date: 12/08/2023
Test Method: ASTM D 6938

Client:
Hidalgo County
100 North Closner
Edinburg, TX 78539

Project:
4129
HCSO Detention Center West Parking Facility
CMT
701 El Cibolo Rd.
Edinburg, TX

Mission Office
900 S Stewart Rd, Ste. 2
Mission, TX 78572
Phone: 956-585-3773

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
6		12/07/23	Limed Flexbase		CL/CH	15.8	110.1	17.8	113.8	134.1	12	103.4	95	DP/MP
7		12/07/23	Limed Flexbase		CL/CH	15.8	110.1	17.0	114.4	133.8	12	103.9	95	DP/MP
8		12/07/23	Limed Flexbase		CL/CH	15.8	110.1	15.6	116.4	134.6	12	105.7	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
6	Other: West Parking Lot Sta. 15'W + 25'N From SE Corner 1st & Final			Instrotek / 3500 Xplorer / 3727 / 01/23/2023	Jorge Solis
7	Other: West Parking Lot Sta. 30'W + 150'N From SE Corner 1st & Final			Instrotek / 3500 Xplorer / 3727 / 01/23/2023	Jorge Solis
8	Other: West Parking Lot Sta. 50'S + 10'E From NW Corner 1st & Final			Instrotek / 3500 Xplorer / 3727 / 01/23/2023	Jorge Solis

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency. 6: Inspector Alex Alanis, present.

Respectfully Submitted by B2Z Engineering

Jorge Solis, Laboratory Manager

Client:
 Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:
 4129
 HCSO Detention Center West Parking Facility CMT
 701 El Cibolo Rd.
 Edinburg, TX

General Information

Sample Date: 12/01/2023	Sample Number: 4900
Sample From: Stockpile	Material Description: Limed Flexbase
Technician: Jacob Chavez	Location Details: South West Quadrant/ North West Quadrant On site. From Martin Marietta Pit

Atterberg Limits

Liquid Limit (%)	Plastic Limit (%)	Plastic Index	Specification Requirements	Pass/Fail
27	19	8	≤ 12	Pass

Test Completed Date: 12/01/2023 **Test Completed By:** Jorge Solis

Test Results: The above test result meets the technical specifications.

Test Method (As Applicable):
 Tex 104-E, Tex 105-E, Tex 106-E / ASTM D4318

Respectfully Submitted by B2Z Engineering



Jorge Solis, Laboratory Manager

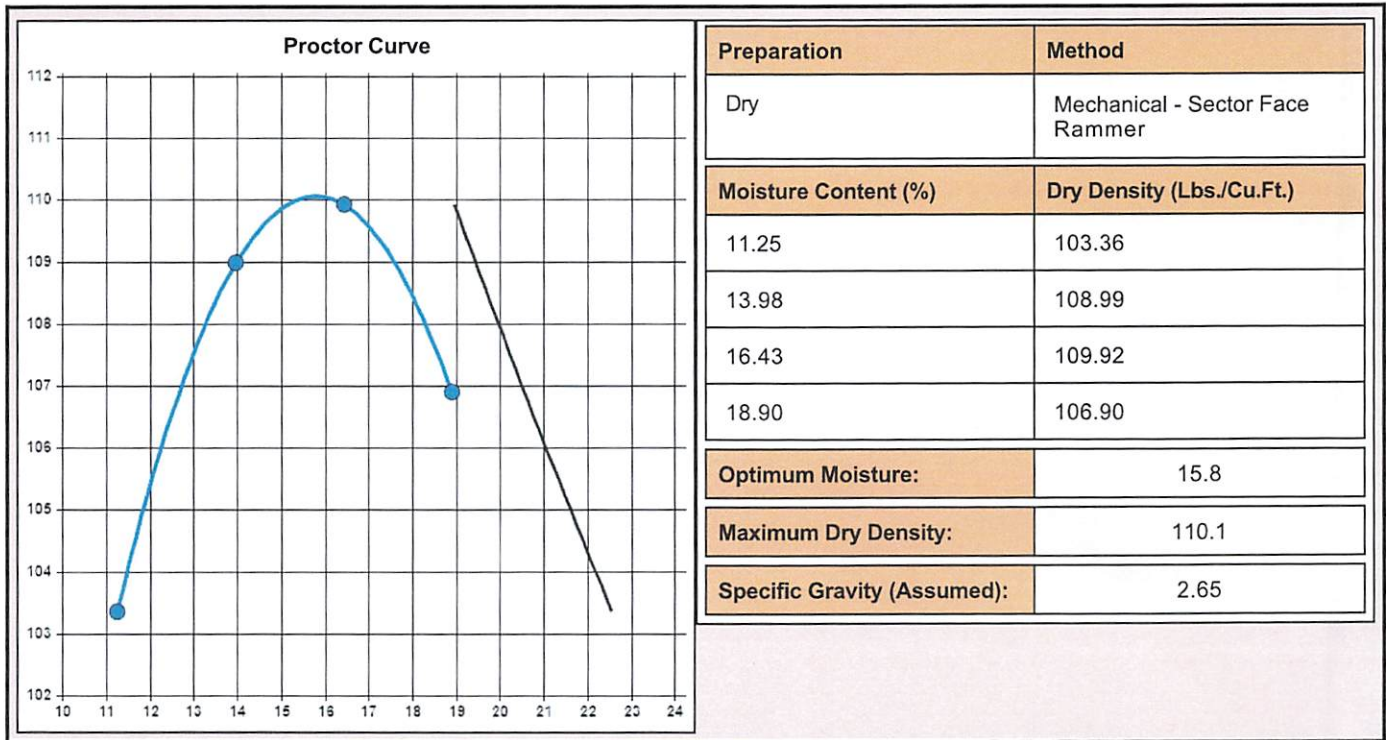
Client:
Hidalgo County
100 North Clossner
Edinburg, TX 78539

Project:
4129
HCSO Detention Center West Parking Facility CMT
701 El Cibolo Rd.
Edinburg, TX

General Information

Sample Date:	12/01/2023	MF Sample Number:	4900
Sample From:	Stockpile	Material Description:	Limed Flexbase
Sampled By:	Jacob Chavez	Location Details:	South West Quadrant/ North West Quadrant On site. From Martin Marietta Pit

Test Results



Test Completed Date:	12/05/2023	Test Completed By:	Jorge Solis
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Test Results: The test is for informational purposes.

Test Method (As Applicable): Tex 114-E / ASTM D-698 Method-A, Method-B or Method-C ;
Tex 104-E, Tex 105-E, Tex 106-E / ASTM D4318 ;
Tex 110-E / ASTM C-136

Respectfully Submitted by B2Z Engineering

Jorge Solis
Jorge Solis, Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. HCWP-4S
Report Date: 11/29/2023
Test Method: ASTM D 6938

Mission Office
900 S Stewart Rd, Ste. 2
Mission, TX 78572
Phone: 956-585-3773

Client:
Hidalgo County
100 North Closner
Edinburg, TX 78539

Project:
4129
HCSO Detention Center West Parking Facility
CMT
701 El Cibolo Rd.
Edinburg, TX

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
4		11/28/23	Lime Treated Subgrade		CL/CH	12.8	117.7	11.2	115.1	128.0	6	97.8	95	DP/MP
5		11/28/23	Lime Treated Subgrade		CL/CH	12.8	117.7	10.9	112.1	124.3	6	95.2	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
4	Other: 4'E of Center Line Sta. 25'N 10'E of SW Corner Final			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Hector Vazquez
5	Other: 9'W of Center Line Sta. 15'N 3'E of SW Corner 1st & Final			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Hector Vazquez

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency. 4: Contractor Juan Loera present.

Respectfully Submitted by B2Z Engineering

Jorge Solis, Laboratory Manager

Test Results														
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1		11/28/23	Lime Treated Subgrade		CL/CH	12.8	117.7	11.0	114.9	127.5	6	97.6	95	DP/MP
2		11/28/23	Lime Treated Subgrade		CL/CH	12.8	117.7	10.8	119.8	132.7	6	101.8	95	DP/MP
3		11/28/23	Lime Treated Subgrade		CL/CH	12.8	117.7	11.3	113.8	126.7	6	96.7	95	DP/MP

Test Information					
Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Other: Center Line Sta. 25'S 10'E of NW Corner 1st & Final			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Hector Vazquez
2	Other: 3'W of Center Line Sta. 70'S 8'E of NW Corner 1st & Final			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Hector Vazquez
3	Other: 5'E of Center Line Sta. 45'N 10'E of SW Corner 1st & Final			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Hector Vazquez

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency. 1: Contractor Juan Loera present.

Respectfully Submitted by B2Z Engineering



Jorge Solis, Laboratory Manager