Enprotec | Hibbs & Todd

November 13, 2025

City of Granbury Water and Sewer Relocation Improvements for the US 377 Breakout Project
Contract D: SH 144 Water and Sewer

Addendum No. 2

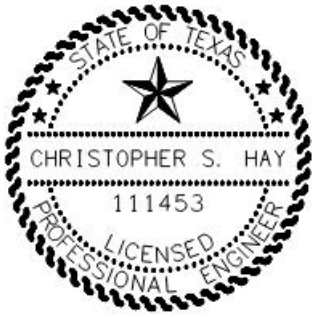
Attention is called to the following modifications to the Plans, Specifications and Contract Documents for the above referenced project. The City of Granbury will receive sealed Proposals for Contract D: SH 144 Water and Sewer Project until 11:00 a.m. local time on Thursday, November 20, 2025, at the City Service Center located at 401 N. Park Street, Granbury, Texas 76048. We hereby modify the documents as follows:

CONTRACT DOCUMENTS:

The attached Appendix A: Geotechnical Data shall be added as an appendix to the Project Manual. This geotechnical data includes completed bore logs from the ***Preliminary*** Geotechnical Data Report for the US 377 Improvements Project, Hood County, CSJ: 0080-03-049

This addendum consists of eighty-nine (89) pages. This addendum becomes a part of the Proposal Documents and **SHALL BE ACKNOWLEDGED** by the bidder on the Proposal Form submitted.

By: Christopher S. Hay, P.E.
Project Engineer

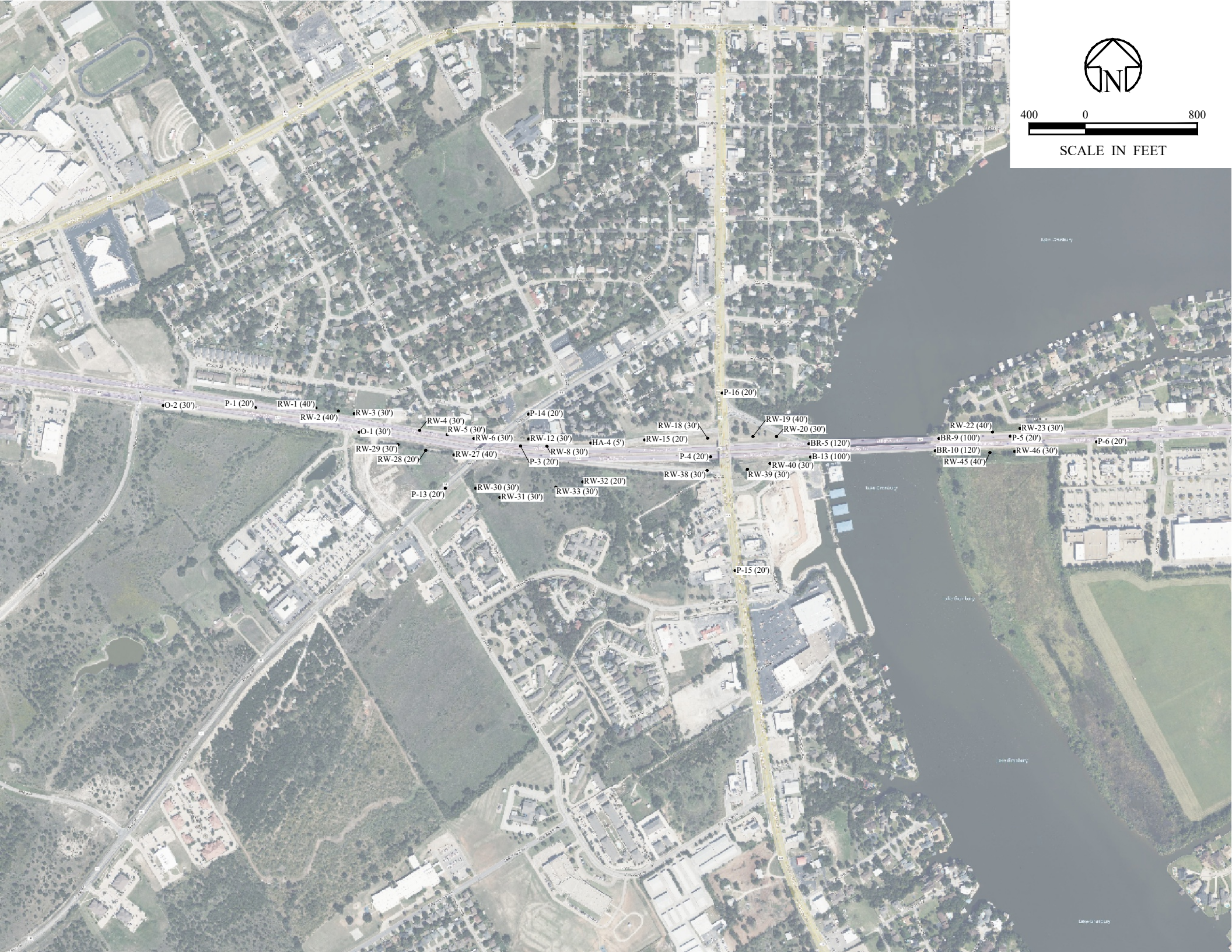


11/13/2025

PE Firm Registration No. 1151
PG Firm Registration No. 50103
RPLS Firm Registration No. 10011900

APPENDIX A

Geotechnical Data


N
400
0
800
SCALE IN FEET
O-2 (30')
P-1 (20')
RW-1 (40')
RW-2 (40')
RW-3 (30')
O-1 (30')
RW-4 (30')
RW-5 (30')
RW-6 (30')
RW-29 (30')
RW-28 (20')
RW-27 (40')
P-14 (20')
RW-12 (30')
HA-4 (5')
RW-8 (30')
P-3 (20')
RW-32 (20')
RW-33 (30')
RW-30 (30')
RW-31 (30')
P-13 (20')
RW-18 (30')
RW-15 (20')
P-4 (20')
RW-38 (30')
P-16 (20')
RW-19 (40')
RW-20 (30')
BR-5 (120')
B-13 (100')
RW-40 (30')
RW-39 (30')
P-15 (20')
RW-22 (40')
BR-9 (100')
BR-10 (120')
RW-45 (40')
RW-23 (30')
P-5 (20')
RW-46 (30')
P-6 (20')

DRILLING LOG

	County	Hood	Hole	HA-4	District	Dallas
WinCore	Highway	US 377	Structure	Retaining Wall	Date	8/24/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	744.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, brown, sandy, lean (CL)			6	46	29		-200=57%
742.			WEATHERED LIMESTONE, hard, tan							
739. 5										
10										
15										
20										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434211, Longitude: -97.797350. Hand Auger: 0'-5'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-01	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/25/23
	CSJ	0080-03-049	Station		Grnd. Elev.	769.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, soft, gray to reddish brown, with sand, lean (CL)			6	36	23		-200=70%; SS = 9-9-15
						6				SS = 6-6-5
5		8 (6) 8 (6)								
762.5			CLAY, stiff, brown to light brown, sandy, fat (CH)			18	61	45		-200=66%; PP = 4.5+ tsf Sulfate Content = 36.8 ppm Chloride Content = 80 ppm
						15				PP = 3.75 tsf Organic Content = 1.6%
10		10 (6) 12 (6)								
757.5			CLAY, hard, tan, sandy, lean (CL)							
15		34 (6) 50 (5)				8	26	12		-200=63%; SS = 28-33-31
20		50 (0.25) 50 (0.25)				1				Run:20'-25'; Rec=93%; RQD=56%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434933, Longitude: -97.803714. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-20'; Wet Rotary: 20'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

	County	Hood	Hole	RW-01	District	Dallas
WinCore	Highway	US 377	Structure	Retaining Wall	Date	7/25/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	769.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, tan to gray, slightly weathered							
25		50 (0.25) 50 (0)				1				Run:25'-30'; Rec=93%; RQD=71%
30		50 (0.25) 50 (0.125)				1				Run:30'-35'; Rec=93%; RQD=63%
35		50 (0.25) 50 (0.25)				1				Run:35'-40'; Rec=78%; RQD=9%
729. 40		50 (0.25) 50 (0.25)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434933, Longitude: -97.803714. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-20'; Wet Rotary: 20'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-02	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/26/23
	CSJ	0080-03-049	Station		Grnd. Elev.	767.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, brown, sandy, lean (CL)			12	34	21		-200=65%; SS = 8-6-5
765.						15				PP = 4.5+ tsf
			CLAY, stiff, brown to reddish brown, with sand, fat (CH)							Sulfate Content = 160 ppm
5		10 (6) 12 (6)				16	57	40		-200=88%; PP = 4.5+ tsf
759.			CLAY, stiff to hard, light brown, with calcareous deposits and sand, lean (CL)			13				SS = 10-11-13
10		10 (6) 17 (6)								
15		16 (6) 16 (6)				14	38	25		-200=78%; SS = 5-7-10
20		50 (5) 50 (2)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434869, Longitude: -97.803192. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-20'; Wet Rotary: 20'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-02	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/26/23
	CSJ	0080-03-049	Station		Grnd. Elev.	767.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, stiff to hard, light brown, with calcareous deposits and sand, lean (CL)							SS = 50/3.5"
745.						1				Run:22'-25'; Rec=67%; RQD=59%
			LIMESTONE, very hard, light gray, slightly weathered							DD = 148 pcf; UC = 190 tsf
25		50 (1) 50 (0.25)				1				Run:25'-30'; Rec=96%; RQD=84%
30		50 (1) 50 (0.25)				1				Run:30'-35'; Rec=92%; RQD=95%
										DD = 154 pcf; UC = 425 tsf
35		50 (1) 50 (0.25)				1				Run:35'-40'; Rec=28%; RQD=0%
										DD = 148 pcf; UC = 161 tsf
727. 40		36 (6) 50 (3)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434869, Longitude: -97.803192. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-20'; Wet Rotary: 20'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-03	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/26/23
	CSJ	0080-03-049	Station		Grnd. Elev.	768.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff, dark brown to reddish brown, with calcareous deposits and sand, lean (CL)			10	36	21		-200=84%; PP = 4.5+ tsf
										Sulfate Content = 71 ppm
										Chloride Content = 60 ppm
						11				PP = 4.5+ tsf
5		52 (6) 23 (6)								
						13	46	31		-200=82%; PP = 4.5+ tsf
760.			CLAY, very hard, tan, sandy, lean (CL)			11				SS = 4-5-22
10		50 (1.5) 50 (0.5)								
15		50 (0.5) 50 (0.25)				4	28	16		-200=65%; SS = 50/2"
748. 20		50 (1.5) 50 (0.5)				1				Run:20'-25'; Rec=85%; RQD=0%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434817, Longitude: -97.802831. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-20'; Wet Rotary: 20'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: B. Wall** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-03	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/26/23
	CSJ	0080-03-049	Station		Grnd. Elev.	768.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, with clay seams, moderatly to highly weathered							DD = 150 pcf; UC = 87 tsf
25		50 (0.5) 50 (0.25)				1				Run:25'-30'; Rec=83%; RQD=25%
738. 30		50 (0.25) 50 (0.125)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434817, Longitude: -97.802831. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-20'; Wet Rotary: 20'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-04	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	773.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			GRAVEL, tan, clayey, with sand and limestone fragments (GC)			3	21	9		-200=24%; SS = 21-24-7
						12	47	29		-200=82%; SS = 5-15-50/5"
770.5			CLAY, tan, with sand and limestone fragments, lean (CL)							Sulfate Content = 165 ppm
769.5			WEATHERED LIMESTONE, very hard, tan							Chloride Content = 120 ppm
5		50 (0.25) 50 (0.25)								Run:5'-10'; Rec=97%; RQD=88%
						1				DD = 142 pcf; UC = 92 tsf
765.			LIMESTONE, very hard, gray, with clay seams, slightly weathered			9				DD = 141 pcf; UC = 437 tsf
10		50 (0.25) 50 (0)								Run:10'-15'; Rec=98%, RQD=93%
15		50 (0.25) 50 (0)				7				Run:15'-20'; Rec=95%; RQD=95%
20		50 (0.125) 50 (0)								Run:20'-25'; Rec=95%; RQD=93%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434479, Longitude: -97.801314. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-04	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	773.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, with clay seams, slightly weathered							
25		50 (0) 50 (0)								Run:25'-30'; Rec=100%; RQD=100%
743. 30		50 (0.25) 50 (0.125)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434479, Longitude: -97.801314. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-05	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	769.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			GRAVEL, tan, clayey, with sand and limestone fragments (GC)			3	27	15		-200=16%; SS = 32-17-9
767.			WEATHERED LIMESTONE, very hard, gray, with seams of shale			4				SS = 50/6"
										DD = 137 pcf; UC = 570 tsf
5		50 (0.5) 50 (0.25)								Run:5'-10'; Rec=80%; RQD=90%
						9				DD = 132 pcf; UC = 164 tsf
761.			LIMESTONE, very hard, gray, with seams of shale, slightly weathered			4				DD = 146 pcf; UC = 114 tsf
10		50 (0.25) 50 (0)								Run:10'-15'; Rec=98%; RQD=93%
15		50 (0) 50 (0)				1				Run:15'-20'; Rec=100%; RQD=100%
20		50 (0) 50 (0)				3				Run:20'-25'; Rec=100%: RQD=100%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434395, Longitude: -97.800678. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-05	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	769.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, with seams of shale, slightly weathered							
25		50 (0.125) 50 (0)				5				Run:25'-30'; Rec=98%; RQD=100%
739. 30		50 (0) 50 (0)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434395, Longitude: -97.800678. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-06	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	763.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SAND, light brown, clayey, with gravel (SC)			5	23	11		-200=38%; SS = 11-8-6
760.5						10	38	25		-200=67%; SS = 36-50/4"
			CLAY, dark gray, sandy, with limestone gravel, lean (CL)							
759.			LIMESTONE, very hard, gray to tan, with bands of shale, slightly weathered							
5		50 (0.125) 50 (0)								Run:5'-10'; Rec=88%; RQD=83%
						1				DD = 148 pcf; UC = 314 tsf
10		50 (0.125) 50 (0)								Run:10'-15'; Rec=83%; RQD=100%
15		50 (0) 50 (0)				1				Run:15'-20'; Rec=100%; RQD=100%
										DD = 148 pcf; UC = 566 tsf
20		50 (0) 50 (0.25)								Run:20'-25'; Rec=100%; RQD=100%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434313, Longitude: -97.800057. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-06	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	763.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray to tan, with bands of shale, slightly weathered							
25		50 (0) 50 (0)				1				Run:25'-30'; Rec=100%; RQD=100% DD = 148 pcf; UC = 366 tsf
733. 30		50 (0.25) 50 (0.25)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434313, Longitude: -97.800057. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-08	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	750.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
749.			PAVEMENT, 4.5" Asphalt over 8" Base			10				SS = 21-22-10
			SAND, dense to very dense, reddish brown to tan, poorly graded, with limestone gravel (SP)			4				-200=35%; SS = 13-34-50/3"
5		50 (6) 45 (6)				2				SS = 18-16-14
						3				-200=7%; SS = 14-13-32
10		50 (2) 50 (0.25)								SS = 50/1"
737.			LIMESTONE, very hard, tan to gray, slightly weathered							DD = 150 pcf; UC = 482 tsf
15		50 (0.25) 50 (0)				1				Run:15'-20'; Rec=100%; RQD=100%
20		50 (0.25) 50 (0)				1				Run:20'-25'; Rec=100%; RQD=100%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434153, Longitude: -97.798372. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-15'; Wet Rotary: 15'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-08	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	750.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, tan to gray, slightly weathered							DD = 153 pcf; UC = 543 tsf
25		50 (0.5) 50 (0)								Run:25'-30'; Rec=97%; RQD=90%
720. 30		50 (0.125) 50 (0)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434153, Longitude: -97.798372. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-15'; Wet Rotary: 15'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-12	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/28/23
	CSJ	0080-03-049	Station		Grnd. Elev.	752.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SAND, loose, reddish brown to brown, clayey, silty (SC-SM)			3	19	5		-200=38%; SS = 22-18-19
										Sulfate Content = 160 ppm
						2				SS = 13-10-22
5		9 (6) 9 (6)								
745.5						1				-200=6%; SS = 2-3-6
			SAND, loose, tan, poorly-graded, with silt (SP-SM)							
						3	20	3		-200=6%; SS = 3-4-8
10		2 (6) 9 (6)								
741.						1				Run:11'-15'; Rec=73%; RQD=57%
			WEATHERED LIMESTONE, very hard, tan							
737.	15	50 (1) 50 (1)				1				Run:15'-20'; Rec=100%; RQD=100%
			LIMESTONE, very hard, tan, slightly to moderatly weathered							
20		50 (1.5) 50 (0.5)				1				Run:20'-25'; Rec=100%; RQD=93%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434298, Longitude: -97.798789. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-10'; Wet Rotary: 10'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-12	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/28/23
	CSJ	0080-03-049	Station		Grnd. Elev.	752.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, tan, slightly to moderatly weathered							
25		50 (0.5) 50 (0.5)				1				Run:25'-30'; Rec=100%; RQD=77%
722. 30		50 (0.25) 50 (0.25)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434298, Longitude: -97.798789. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-10'; Wet Rotary: 10'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-15	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	735.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
734.			PAVEMENT, 2" Asphalt over 3" Base			9				-200=27%; SS = 33-17-16
			SAND, tan, clayey, with gravel, crushed base (SC)							
733.			WEATHERED LIMESTONE, very hard, tan, clayey, with sand			5				SS = 24-50/1"
730. 5		50 (1.5) 50 (0)	LIMESTONE, very hard, gray, moderately weathered							Run:5'-10'; Rec=75%; RQD=27%
10						1				Run:10'-15'; Rec=93%; RQD=43% DD = 155 pcf; UC = 319 tsf
15		50 (0.5) 50 (0)				1				Run:15'-20'; Rec=92%; RQD=67% DD = 157 pcf; UC = 440 tsf
715. 20		50 (0.25) 50 (0)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.43426556, Longitude: -97.79610635. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-5'; Wet Rotary: 5'-20'. Groundwater was not encountered during drilling. Caved in during drilling at 20'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-18	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/24/23
	CSJ	0080-03-049	Station		Grnd. Elev.	733.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			GRAVEL, slightly compact, reddish brown to tan, clayey, with sand and limestone gravel (GC)			2	21	10		-200=22%; SS = 15-18-15
						1	23	12		-200=14%; SS = 17-20-16
5		11 (6) 10 (6)				1				SS = 5-6-7
						3	23	11		-200=33%; SS = 11-23-24
723. 10		50 (2) 50 (0.5)				1				Run:10'-15'; Rec=87%; RQD=16%
			LIMESTONE, very hard, gray, with clay seams, slightly to moderatly weathered							DD = 151 pcf; UC = 245 tsf
15		50 (0.5) 50 (0)								Run:15'-20'; Rec=77%; RQD=10%
20		50 (0.5) 50 (0)				1				Run:20'-25'; Rec=60%; RQD=0%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434290, Longitude: -97.794647. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-10'; Wet Rotary: 10'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-18	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/24/23
	CSJ	0080-03-049	Station		Grnd. Elev.	733.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, with clay seams, slightly to moderatly weathered							DD = 148 pcf; UC = 340 tsf
25		50 (4) 50 (0.5)								Run:25'-30'; Rec=55%; RQD=71%
703. 30		50 (0.5) 50 (0)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434290, Longitude: -97.794647. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-10'; Wet Rotary: 10'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: B. Wall** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-19	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	722.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff, reddish-brown to tan, sandy, with limestone gravel pieces, lean (CL)			4	45	29		-200=55%; SS = 17-50/5"
						1				SS = 17-18-11
5		25 (6) 25 (6)								
715.5			SAND, compact, tan, clayey, with limestone gravel (SC)			6	30	16		-200=37%; SS = 11-42-33
										Organic Content = 0.1%
714.			CLAY, very stiff to very hard, gray, with sand, lean (CL)			17				SS = 8-11-22
10		50 (4) 24 (6)								
						10	29	18		-200=75%; PP = 2.0 tsf
										Sulfate Content = 352 ppm
										Chloride Content = 100 ppm
15		50 (4) 50 (2.5)				12				Run:15'-20'; Rec=82%; RQD=80%
705.5			CLAY, very hard to hard, gray, with seams of limestone and gravel, lean (CL)							
20		50 (1.5) 50 (1)				2				Run:20'-25'; Rec=80%; RQD=17%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434315, Longitude: -97.794359. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-15'; Wet Rotary: 15'-30'; Mud Rotary: 30'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-19	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	722.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very hard to hard, gray, with seams of limestone and gravel, lean (CL)							
25		50 (2.5) 50 (1)				18	27	13		Run:25'-30'; Rec=27%, RQD=25% -200=97%
30		50 (4) 50 (2.5)								
690.5						21				SS = 50/2"
			GRAVEL, very dense, gray, clayey, silty, with sand and limestone gravel (GC-GM)							
35		50 (2) 50 (1)				11	19	4		-200=15%; SS = 50/6"
682.		50 (1.5) 50 (0.5)								
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434315, Longitude: -97.794359. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-15'; Wet Rotary: 15'-30'; Mud Rotary: 30'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-20	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, stiff to hard, tan and gray, with gravel pieces, limestone fragments, and ferrous stains, lean (CL)			2				-200=40%; SS = 27-19-17
						12	26	11		-200=89%; SS = 6-11-12
5		15 (6) 20 (6)				9	24	11		-200=82%; SS = 9-23-23
										Organic Content = 0.1%
						6				SS = 50/0.5"
10		50 (0.5) 50 (0.25)								
						16	35	21		-200=90% SS = 13-15-13
										Sulfate Content = 220 ppm
15		28 (6) 27 (6)				14				SS = 27-28-50/3.5"
692. 20		50 (3) 50 (2)								Run:20'-25'; Rec=48%; RQD=31%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434312, Longitude: -97.793052. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-20'; Wet Rotary: 20'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-20	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAYSTONE, very hard, gray, partially cemented							
687. 25		50 (3) 50 (2)								Run:25'-30'; Rec=75%; RQD=78%
			LIMESTONE, very hard, tan, with ferrous stains, slightly weathered							
682. 30		50 (0.25) 50 (0.25)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434312, Longitude: -97.793052. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-20'; Wet Rotary: 20'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-22	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/27/23
	CSJ	0080-03-049	Station		Grnd. Elev.	709.00 ft
			Offset		GW Elev.	684.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			SAND, reddish brown, clayey, silty, with gravel and limestone fragments (SC-SM)			7	20	7		-200=37%; SS = 14-10-14
										Organic Content = 0.1%
706.5						8	17	4		-200=54%; SS = 8-14-12
			CLAY, stiff, reddish brown, sandy, silty, lean (CL-ML)							
5		23 (6) 27 (6)								
702.5						10				SS = 9-10-8
			CLAY, very stiff to very soft, reddish brown, with sand, lean (CL)							
						14				SS = 8-9-18
										Sulfate Content = 141 ppm
										Chloride Content = 80 ppm
10		12 (6) 18 (6)								
						11	27	12		-200=81%; SS = 6-6-12
15		3 (6) 2 (6)								
						21				SS = 1-1-1
20		1 (6) 2 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434375, Longitude: -97.788050. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-30'; Wet Rotary: 30'-40'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

	County	Hood	Hole	RW-22	District	Dallas
WinCore	Highway	US 377	Structure	Retaining Wall	Date	7/27/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	709.00 ft
			Offset		GW Elev.	684.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff to very soft, reddish brown, with sand, lean (CL)			22	24	8		-200=79%; SS = 3-3-4
25		1 (6) 1 (6)								SS = 1-1-1
30		3 (6) 4 (6)								
677.5			GRAVEL, slightly compact to compact, reddish brown, clayey (GC)			10				-200=46%; SS = 14-17-15
35		14 (6) 20 (6)				7				SS = 17-17-15
669. 40		28 (6) 34 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434375, Longitude: -97.788050. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-30'; Wet Rotary: 30'-40'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-23	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	703.00 ft
			Offset		GW Elev.	699.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, very soft, reddish brown with gray to reddish brown, with sand, lean (CL)			8	28	14		-200=75%; PP = 4.5+ tsf
						7				SS = 9-9-8
										Organic Content = 0.6%
5		2 (6) 2 (6)								
						19	26	12		-200=73%; SS = 4-4-4
						22	24	10		-200= 73%; Sulfate Content = 140 ppm
10		3 (6) 3 (6)								
						22	25	9		
15		2 (6) 3 (6)								
						20				-200=69%; SS = 4-4-4
										sandy at 16'
20		3 (6) 3 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434442, Longitude: -97.787412. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-30'. Groundwater was encountered during drilling at 4'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-23	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	703.00 ft
			Offset		GW Elev.	699.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, very soft, reddish brown with gray to reddish brown, with sand, lean (CL)							
681.5						18				-200=49%; SS = 3-3-3
			SAND, loose to slightly compact, reddish brown, clayey (SC)							
25		5 (6) 7 (6)								
						19				SS = 4-4-4
30		7 (6) 16 (6)								
671.5						4				-200=9%; SS = 9-7-8
			SAND, slightly compact, reddish brown, well graded, with gravel (SW)							
670.										
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434442, Longitude: -97.787412. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-30'. Groundwater was encountered during drilling at 4'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore	County	Hood	Hole	RW-27	District	Dallas
Version 3.3	Highway	US 377	Structure	Retaining Wall	Date	8/1/23
	CSJ	0080-03-049	Station		Grnd. Elev.	776.00 ft
			Offset		GW Elev.	762.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			WEATHERED LIMESTONE, tan			1				SS = 50/3"
						2				SS = 19-50/50.5"
772.			CLAY, very hard, tan, sandy, with weathered limestone nodules, lean (CL)							
5		50 (1.5) 50 (0.5)				9	25	12		-200=64%; SS = 12-34-50/3"
						9				SS = 42-50/2"
10		50 (1.5) 50 (0.5)								
						14	45	30		-200=62%; SS = 10-18-38
15		50 (4) 39 (6)								
						14				SS = 18-24-48
20		22 (6) 50 (3)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433993, Longitude: -97.800522. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-25'; Wet Rotary: 25'-40'. Groundwater was encountered during drilling at 14'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

	County	Hood	Hole	RW-27	District	Dallas
WinCore	Highway	US 377	Structure	Retaining Wall	Date	8/1/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	776.00 ft
			Offset		GW Elev.	762.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, very hard, tan, sandy, with weathered limestone nodules, lean (CL)			8	38	26		-200=51%; SS = 50/5.5"
751. 25		50 (1) 50 (0)	LIMESTONE, very hard, gray, moderatly weathered							Run:27'-30'; Rec=47%; RQD=24%
30		50 (1) 50 (0)				1				Run:30'-35'; Rec=100%; RQD=58% DD = 148 pcf; UC = 309 tsf
35		50 (0.25) 50 (0)				1				Run:35'-40'; Rec=95%; RQD=88% DD = 142 pcf; UC = 153 tsf
736. 40		50 (0) 50 (0.25)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433993, Longitude: -97.800522. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Rotary:0'-25'; Wet Rotary: 25'-40'. Groundwater was encountered during drilling at 14'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-28	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	777.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, gray, with sand and limestone fragments, lean (CL)			1	26	14		-200=39%; SS = 20-50/3"
										Organic Content = 1.0%
774.5			WEATHERED LIMESTONE, very hard, gray			5	30	18		-200=82%; SS = 50/4"
5		50 (2) 50 (1)								
						16	59	35		-200=90%; SS = 14-50/3"
										Sulfate Content = 580 ppm
769.			LIMESTONE, very hard, gray, moderatly weathered			1				Run:8'-10'; Rec=100%; RQD=79%
										DD = 145 pcf; UC = 205 tsf
10		50 (0.25) 50 (0)				2				Run:10'-15'; Rec=98%; RQD=39%
15		50 (0) 50 (0)				1				Run:15'-20'; Rec=97%; RQD=93%
										DD = 148 pcf; UC = 398 tsf
757. 20		50 (0.25) 50 (0)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434083, Longitude: -97.801180. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-8'; Wet Rotary: 8'-20'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-29	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	778.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very hard, gray, gravelly, with sand and limestone fragments, lean (CL)			5	37	25		-200=60%; SS = 18-18-19
						11	40	26		-200=76%; PP = 4.5+ tsf
5		50 (3) 50 (1)								
771.5			WEATHERED LIMESTONE, very hard, gray			6				SS = 50/2"
										Organic Content = 0.5%
						14	41	27		-200=80%; SS = 50/3"
768. 10		38 (1) 50 (1)	LIMESTONE, very hard, gray, slightly weathered							
										SS = 50/3.5"
15		50 (0.5) 50 (0.25)				1				Run:15'-20'; Rec=100%; RQD=80%
20		50 (0.25) 50 (0)				2				Run:20'-25'; Rec=87%; RQD=88%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434203, Longitude: -97.801819. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-15'; Wet Rotary: 15'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-29	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	778.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, slightly weathered							DD = 151 pcf; UC = 711 tsf
25		50 (0.5) 50 (0.125)				1				Run:25'-30'; Rec=100%; RQD=45%
										DD = 144 pcf; UC = 201 tsf
748. 30		50 (0.25) 50 (0.5)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434203, Longitude: -97.801819. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-15'; Wet Rotary: 15'-30'. Groundwater was not encountered during drilling. Caved in during drilling at 30'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-30	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/1/23
	CSJ	0080-03-049	Station		Grnd. Elev.	775.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, very hard, gray to dark brown, with sand, lean (CL)			4	41	25		-200=73%; SS = 4-6-11
						8	44	30		-200=77%; SS = 14-20-20
5		50 (5) 50 (4)								
768.5						7	33	19		-200=89%; SS = 50/2"
			CLAY, dark reddish brown, lean (CL)							
766.5						5	64	46		-200=79%; SS = 50/5.5"
			CLAY, very hard, tan, with sand, fat (CH)							Sulfate Content = 30.4 ppm
										Chloride Content = 120 ppm
10		50 (1) 50 (2)								
						5				SS = 50/5"
15		50 (2) 50 (1)								
						4				SS = 50/2"
20		50 (1.5) 50 (0.5)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433337, Longitude: -97.800021. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-30	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/1/23
	CSJ	0080-03-049	Station		Grnd. Elev.	775.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
754.			CLAY, very hard, tan, with sand, fat (CH)							
			WEATHERED LIMESTONE, hard to very hard, tan, sandy, with seams of clay			6	31	21		-200=65%; SS = 50/2"
		50 (3) 50 (1)								
25						4				SS = 50/2"
745.		50 (2) 50 (1)								
30										
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433337, Longitude: -97.800021. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-31	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/27/23
	CSJ	0080-03-049	Station		Grnd. Elev.	766.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, brown, with sand, fat (CH)			9	42	26		-200=82%; SS = 5-7-7
763.5						9	54	37		-200=41%; SS = 8-10-13
			SAND, dense, reddish brown, clayey (SC)							Sulfate Content = 140 ppm
5		20 (6) 19 (6)								
						8				SS = 9-13-18
757.5						3	18	2		-200=42%; SS = 5-5-6
			SAND, slightly compact to compact, reddish brown to tan, silty (SM)							Organic Content = 0.5%
10		11 (6) 12 (6)								
15		19 (6) 22 (6)								
						2				SS = 9-11-17
20		40 (6) 35 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433156, Longitude: -97.799680. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: B. Wall** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-31	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/27/23
	CSJ	0080-03-049	Station		Grnd. Elev.	766.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SAND, slightly compact to compact, reddish brown to tan, silty (SM)			1	16	1		-200=21%; SS = 10-13-11
		50 (5.5) 50 (3.5)								
741. 25			MARL, very hard, light brown, highly weathered			3				SS = 50/3"
										SS = 50/3"
		50 (1) 50 (0.25)								
736. 30										
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433156, Longitude: -97.799680. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: B. Wall** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-32	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/2/23
	CSJ	0080-03-049	Station		Grnd. Elev.	753.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SAND, dense, brownish red, clayey (SC)			5	26	14		-200=51%; SS = 10-13-14
										Organic Content = 1.0%
						8				SS = 10-14-16
5		34 (6) 40 (6)								
						5	34	21		-200=39%; SS = 20-19-15
						6				SS = 8-14-11
10		30 (6) 50 (1.5)								
						1				SS = 50/0.25''
741.						1				Run:12'-15'; Rec=100%; RQD=97%
			LIMESTONE, very hard, tan to gray, slightly to moderatly weathered							
15		50 (0.25) 50 (0)				1				Run:15'-20'; Rec=97%; RQD=98%
20		50 (0) 50 (0.125)				1				Run:20'-25'; Rec=90%; RQD=84%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433449, Longitude: -97.797547. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-12'; Water Rotary: 12'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-32	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/2/23
	CSJ	0080-03-049	Station		Grnd. Elev.	753.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, tan to gray, slightly to moderatly weathered							
25		50 (0.25) 50 (0.125)				1				Run:25'-30'; Rec=95%; RQD=39%
723. 30		50 (0) 50 (0)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433449, Longitude: -97.797547. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-12'; Water Rotary: 12'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-33	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/27/23
	CSJ	0080-03-049	Station		Grnd. Elev.	756.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SAND, slightly compact, dark reddish brown, clayey, with gravel (SC)			3	32	19		-200=50%; SS = 11-16-16
										Organic Content = 1.8%
						2	35	22		-200=22%; PP = 4.5+ tsf
5		14 (6) 14 (6)								
						1				SS = 9-5-3
747.5						2	21	9		-200=9%; SS = 15-20-25
			SAND, compact to slightly compact, light brown, well graded, with clay and gravel (SW-SC)							
10		11 (6) 50 (4)								
15		12 (6) 19 (6)				1				Run:15'-20'; Rec=88%; RQD=49%
739.5			LIMESTONE, very hard, tan to gray, with sandy clay seams, slightly weathered							
20		50 (0.5) 50 (0.25)				1				Run:20'-25'; Rec=97%; RQD=69%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433349, Longitude: -97.798171. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-15'; Water Rotary: 15'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-33	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/27/23
	CSJ	0080-03-049	Station		Grnd. Elev.	756.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, tan to gray, with sandy clay seams, slightly weathered							DD = 152 pcf; UC = 431 tsf
25		50 (0.25) 50 (0)				1				Run:25'-30'; Rec=88%; RQD=81%
										DD = 159 pcf; UC = 1135 tsf
726. 30		50 (1) 50 (0.5)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433349, Longitude: -97.798171. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-15'; Water Rotary: 15'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-38	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/25/23
	CSJ	0080-03-049	Station		Grnd. Elev.	738.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			PAVEMENT, 9.5" Asphalt over 4" Base							
736.9			SAND, dense, dark brown, clayey, with limestone gravel (SC)			9	25	11		-200=29%; SS = 7-5-5 Sulfate Content = 140 ppm
735.5			GRAVEL, dense, gray, clayey, with with sand and limestone fragments (GC)			3	24	10		-200=20%; SS = 5-24-27 Organic Content = 0.4%
		45 (6) 50 (6)								
5										
731.5			SAND, very dense, reddish brown, well graded, gravelly (SW)			5	23	11		-200=19%; SS = 24-19-30
						3				-200=11%; SS = 32-50/4.5"
728.		50 (0.5) 50 (0.25)								Run:10'-15'; Rec=100%; RQD=95%
10			LIMESTONE, very hard to hard, gray, moderatly weathered							
15		50 (0.25) 50 (0.25)				1				Run:15'-20'; Rec=100%; RQD=92% DD = 150 pcf; UC = 377 tsf
20		50 (0.25) 50 (0)								Run:20'-25'; Rec=100%; RQD=87%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433655, Longitude: -97.794665. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-10'; Water Rotary: 10'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-38	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/25/23
	CSJ	0080-03-049	Station		Grnd. Elev.	738.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard to hard, gray, moderatly weathered							
25		50 (0.5) 50 (0)				1				Run:25'-30'; Rec=77%; RQD=50% DD = 153 pcf; UC = 171 tsf
708. 30		27 (6) 33 (6)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433655, Longitude: -97.794665. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-10'; Water Rotary: 10'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-39	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/20/23
	CSJ	0080-03-049	Station		Grnd. Elev.	729.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			CLAY, reddish brown, sandy, with limestone fragments, lean (CL)			2				SS = 13-25-24 Sulfate Content = 46 ppm Chloride Content = 80 ppm
727.			LIMESTONE, very hard, gray, slightly to moderatly weathered							SS = 50/3.5"
5		50 (2) 50 (1.5)				1				Run:5'-10'; Rec=40%; RQD=0% DD = 157 pcf; UC = 280 tsf
10		50 (1) 50 (0.5)								Run:10'-15'; Rec=98%; RQD=46%
15		50 (0.5) 50 (0.25)								Run:15'-20'; Rec=45%; RQD=59%
709. 20		32 (6) 40 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433674, Longitude: -97.793729. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-39	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/20/23
	CSJ	0080-03-049	Station		Grnd. Elev.	729.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, very stiff, gray, with sand, lean (CL)			12	29	14		-200=84%; SS = 7-23-22
704. 25		50 (2.5) 50 (1.5)	LIMESTONE, very hard, gray, moderatly weathered			4				Run:25'-30'; Rec=53%; RQD=53% DD = 135 pcf; UC = 208 tsf
699. 30		50 (1.5) 50 (0.5)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433674, Longitude: -97.793729. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA:0'-5'; Wet Rotary: 5'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-40	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/24/23
	CSJ	0080-03-049	Station		Grnd. Elev.	718.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			SAND, reddish brown, clayey, with ferrous stains and limestone gravel (SC)			1	23	10		-200=28%; SS = 50/5.75''
						1	22	10		-200=16%; SS = 15-3-4
715.5			GRAVEL, dense to loose, tan, clayey, with sand and limestone fragments (GC)							Organic Content = 0.1%
		23 (6) 50 (5)								
5						4				SS = 13-18-50/5''
										Sulfate Content = 30.5 ppm
										Chloride Content = 80 ppm
						12				-200=42%; SS = 5-4-2
		4 (6) 8 (6)								
10										
705.						15	32	18		-200=85%; PP = 4.5 tsf
			CLAY, very hard, gray, with sand and ferrous stains, lean (CL)							
		50 (4) 50 (2)								
15						12	25	12		-200=74%; SS = 21-31-41
700.										Run:18'-20'; Rec=58%; RQD=93%
			LIMESTONE, very hard, gray to dark gray, moderatly to highly weathered							
		50 (3) 50 (1)				1				Run:20'-25'; Rec=22%; RQD=0%
20										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433786, Longitude: -97.793206. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-18'; Wet Rotary: 18'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-40	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	7/24/23
	CSJ	0080-03-049	Station		Grnd. Elev.	718.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray to dark gray, moderatly to highly weathered							DD = 160 pcf; UC = 623 tsf
25		50 (3.5) 50 (1)								Run:25'-30'; Rec=63%; RQD=13%
30		50 (4.5) 50 (3)								SS = 50/3.5"
683. 35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433786, Longitude: -97.793206. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA:0'-18'; Wet Rotary: 18'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-45	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	706.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
705.			PAVEMENT, 6" Asphalt over 6" Base			8				SS = 4-6-5
			CLAY, stiff to very soft, brown, silty, with sand, lean (CL-ML)			9	20	4		-200=55%; SS = 5-7-3
5		13 (6) 24 (6)				12				SS = 7-8-9
						13	21	7		-200=72%; SS = 13-13-19
10		13 (6) 19 (6)				14				SS = 6-6-8
15		1 (6) 1 (6)				23	23	6		Sulfate Content = 184 ppm Chloride Content = 100 ppm
20		1 (6) 1 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434002, Longitude: -97.788177. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). Air Rotary:0'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-45	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	706.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			CLAY, stiff to very soft, brown, silty, with sand, lean (CL-ML)			22				SS = 0-1-1
25		0 (6) 0 (6)								
679.5						20	22	9		-200=63%; SS = 0-1-1
			CLAY, very soft, brown, sandy, lean (CL)							
30		8 (6) 9 (6)								
674.5						12				-200=14%; SS = 6-11-9
			SAND, slightly compact, brown, with gravel (SW)							
671. 35		18 (6) 21 (6)								
			CLAY, stiff, brown, sandy, lean (CL)			15	21	8		-200=65%; SS = 4-4-8
666. 40		10 (6) 10 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434002, Longitude: -97.788177. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). Air Rotary:0'-40'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-46	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	705.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
704.1			PAVEMENT, 6" Asphalt over 5" Base							
			SAND, FILL, brown, clayey, with limestone gravel (SC)			10	24	14		-200=21%; SS = 8-6-7
702.5			CLAY, very stiff to stiff, brown, sandy, silty, lean (CL-ML)			9				-200=52%; SS = 5-15-17
5		23 (6) 23 (6)				12	22	7		-200=66%; SS = 8-11-12
						13				SS = 10-11-19 Sulfate Content = 120 ppm
10		18 (6) 15 (6)								
693.5			CLAY, very soft, brown, with sand, lean (CL)			14	24	9		-200=76%; SS = 5-8-12
15		0 (6) 1 (6)				25				
20		2 (6) 3 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434119, Longitude: -97.787609. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). Air Rotary:0'-11.5', Wet Rotary: 15.5'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	RW-46	District	Dallas
	Highway	US 377	Structure	Retaining Wall	Date	8/17/23
	CSJ	0080-03-049	Station		Grnd. Elev.	705.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, very soft, brown, with sand, lean (CL)							
683.5						20	22	7		-200=71%;SS = 0-1-1
			CLAY, very soft, brown, silty, with sand, lean (CL-ML)							
		2 (6) 2 (6)								
25						18				SS = 1-2-3
		5 (6) 3 (6)								
675.	30									
	35									
	40									

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434119, Longitude: -97.787609. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). Air Rotary:0'-11.5', Wet Rotary: 15.5'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	P-01	District	Dallas
	Highway	US 377	Structure	Pavement	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	789.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
788.3			PAVEMENT, 6" Asphalt over 3" Base							
			CLAY, FILL: light brown, crushed base material, with sand and gravel, lean (CL)							SS = 29-19-11
										SS = 30-33-50/5"
785.			GRAVEL, loose, light brown, clayey (GC)							
5		9 (6) 10 (6)				9	25	10		-200=27%; SS = 8-5-3
										Organic Content = 0.6%
781.			CLAY, stiff to very soft, light brown, sandy, with gravel, lean (CL)			9				-200=50%; SS = 2-4-8
10		14 (6) 13 (6)								
						13	26	11		-200=50%; SS = 5-5-3
15		1 (6) 2 (6)								
						7				-200=35%; SS = 5-9-15
769. 20		8 (6) 9 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434950, Longitude: -97.805113. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-20'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	P-03	District	Dallas
	Highway	US 377	Structure	Pavement	Date	7/18/23
	CSJ	0080-03-049	Station		Grnd. Elev.	754.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			PAVEMENT, 7" Asphalt over 6" Base							
753.			SAND, brown, clayey, with limestone gravel (SC)			8	26	11		-200=32%; SS = 5-9-10
										Organic Content = 0.9%
										Sulfate Content = 1020 ppm
751.5			CLAY, stiff, brown, with limestone fragments, fat (CH)			18	50	29		-200=86%; SS = 6-7-12
5		10 (6) 16 (6)								
						20				SS = 8-15-12
746.			WEATHERED LIMESTONE, stiff, tan, with sand and gravel nodules							SS = 4-6-10
10		16 (6) 21 (6)								
										SS = 8-14-23
740.			LIMESTONE, very hard, tan to gray, moderatly weathered							
15		50 (0.125) 50 (0)								Run:15'-20'; Rec=100%; RQD=100%
734. 20		50 (0) 50 (0)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434161, Longitude: -97.798982. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-15'; Wet Rotary: 15'-20'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

	County	Hood	Hole	P-04	District	Dallas
WinCore	Highway	US 377	Structure	Pavement	Date	7/20/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	717.00 ft
			Offset		GW Elev.	701.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
716.2			PAVEMENT, 7" Asphalt over 3" Base							
			SAND, FILL: dark brown, crushed base material, clayey, with limestone gravel (SC)			4				SS = 10-8-12 Sulfate Content = 140 ppm
						2				-200=42%; SS = 50/6"
713.			LIMESTONE, very hard, gray, with seams of shale, moderatly weathered							
5		50 (1) 50 (0.5)								Run:5'-10'; Rec=100%; RQD=100%
		50 (2) 50 (0)								Run:10'-15'; Rec=0%; RQD=0%
707. 10			GRAVEL, very hard, gray, poorly graded, with sand (GP)			4				-200=5%; SS = 50/0.25"
702. 15		50 (0.25) 50 (0.25)								Run:15'-20'; Rec=0%; RQD=0%
			CLAY, very hard, gray, gravelly, with sand, lean (CL)			17	28	13		-200=68%; SS = 50/0"
697. 20		50 (2) 50 (1)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433923, Longitude: -97.794807. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-5'; Water Meter: 5'-20'. Groundwater was encountered during drilling at 16'. Caved in during drilling at 18.5'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

	County	Hood	Hole	P-05	District	Dallas
WinCore	Highway	US 377	Structure	Pavement	Date	7/16/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	698.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
710.2			PAVEMENT, 4" Asphalt over 6" Base							
			CLAY, FILL: tan, crushed base material, lean (CL)			6				SS = 8-41-34 Organic Content = 1.3% Sulfate Content = 1480 ppm
709.			CLAY, very stiff, brown, sandy, silty, lean (CL-ML)			10	20	7		-200=65%; SS = 15-16-16
5		31 (6) 39 (6)								
704.5			CLAY, stiff, brown, silty, with sand (CL-ML)			12				-200=73%; SS = 810-11-13
						14	22	7		-200=84%; SS = 8-12-12
10		22 (6) 10 (6)								
698.						21	25	9		-200=85%; PP = 1.0 tsf DD = 112 pcf, UC = 0.83 tsf
			CLAY, very soft, dark brown to brown, with sand, lean (CL)							
15		1 (6) 2 (3)								
						19				
20		1 (6) 1 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434286, Longitude: -97.787637. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). Air Meter: 0'-20'. Groundwater was encountered during drilling at 13'. Caved during drilling at 20'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	P-06	District	Dallas
	Highway	US 377	Structure	Pavement	Date	7/24/23
	CSJ	0080-03-049	Station		Grnd. Elev.	708.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
707.1			PAVEMENT, 6" Asphalt over 5" Base							
			CLAY, stiff, brown, with sand and limestone fragments, lean (CL)			6				SS = 11-9-10
						8	23	8		-200=79%; SS = 8-10-18
5		14 (6) 19 (6)								
						8				SS = 6-9-13
699.5						7	22	9		-200=52%; SS = 7-11-13
			CLAY, very soft, dark brown to brown, sandy, lean (CL)							
10		2 (6) 1 (6)								
						11				SS = 1-1-1
15		2 (6) 1 (6)								
										SS = 1-2-1
688.		3 (6) 3 (6)								
20										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434168, Longitude: -97.785644. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Mud Rotary: 0'-20'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	P-13	District	Dallas
	Highway	US 377	Structure	Pavement	Date	8/7/23
	CSJ	0080-03-049	Station		Grnd. Elev.	782.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
781.			PAVEMENT, 7" Asphalt over 6" Base			7	31	18		-200=53%; SS = 12-6-6
			CLAY, very soft, dark brown, sandy, with limestone fragments, lean (CL)							Organic Content = 1.7%
						17				PP = 3.25 tsf
		4 (6) 3 (6)								
5										
775.5			CLAY, stiff, dark brown, with sand, fat (CH)			20	55	38		-200=84%; PP = 3.0 tsf
						18				SS = 3-6-9
		12 (6) 12 (6)								
10										
770.5			CLAY, very stiff to hard, light brown to brown, with sand and limestone fragments, lean (CL)			10	30	17		-200=73%; SS = 8-12-15
										with calcareous deposits from 11.5'-13'
		28 (6) 25 (6)								
15										
						9				SS = 8-13-20
762.		50 (5) 50 (4)								
20										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433339, Longitude: -97.800731. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). PP= Pocket Penetrometer (tsf). SFA: 0'-20'. Groundwater was not encountered during drilling. Caved in during drilling at 20'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	P-14	District	Dallas
	Highway	US 377	Structure	Pavement	Date	8/6/23
	CSJ	0080-03-049	Station		Grnd. Elev.	767.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
766.			PAVEMENT, 6" Asphalt over 7" Base			15				SS = 8-6-6
			CLAY, soft, light brown, sandy, with limestone fragments and calcareous deposits, lean (CL)							Sulfate Content = 100 ppm
						9	30	16		-200=68%; SS = 7-15-16
5		9 (6) 8 (6)								
						8				SS = 4-5-4
758.5						4	23	5		-200=61%; SS = 3-5-3
			CLAY, very stiff, brown, sandy, silty, lean (CL-ML)							
10		24 (6) 25 (6)								
755.5						10				SS = 10-16-18
			CLAY, hard, light brown, sandy, with calcarreous deposits, lean (CL)							
15		50 (2) 50 (2)								
750.5						7				SS = 50/4"
			WEATHERED LIMESTONE, very hard, tan							
747.	20	50 (1) 50 (0.5)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434784, Longitude: -97.798786. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). SFA: 0'-20'. Groundwater was not encountered during drilling. Caved in during drilling at 20'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	P-15	District	Dallas
	Highway	US 377	Structure	Pavement	Date	7/27/23
	CSJ	0080-03-049	Station		Grnd. Elev.	739.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
738.3			PAVEMENT, 4" Asphalt over 4" Base							
			CLAY, soft, dark brown, sandy, with limestone fragments, fat (CH)			9				SS = 5-6-7
						12	50	36		-200=59%; SS = 3-6-12
5		7 (6) 4 (6)								
						3				Run:6'-10'; Rec=70%; RQD=60%
732.5										DD = 147 pcf; UC = 503 tsf
			LIMESTONE, very hard, gray, with clay seams, moderatly weathered							
10		50 (1.5) 50 (1)				13				Run:10'-15'; Rec=100%; RQD=85%
15		50 (1) 50 (0.5)				1				Run:15'-20'; Rec=100%; RQD=78%
										DD = 151 pcf; UC = 350 tsf
719.	20	50 (0.5) 50 (0.5)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.431685, Longitude: -97.794029. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-5'; Wet Rotary: 5'-20'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

	County	Hood	Hole	P-16	District	Dallas
WinCore	Highway	US 377	Structure	Pavement	Date	7/16/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	733.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
732.2			PAVEMENT, 6" Asphalt over 4" Base							
			GRAVEL, FILL: very hard, light brown and tan, clayey, with sand and crushed limestone gravel (GC)			2				SS = 50/5"
						8	48	34		-200=13%; SS = 18-10-17
5		50 (2) 50 (1)								
726.5			WEATHERED LIMESTONE, very hard, brown			1				SS = 50/2"
725.			LIMESTONE, very hard, brown to gray, moderatly weathered			2				SS = 50/1"
										DD = 149 pcf; UC = 307 tsf
10						1				Run:10'-15';Rec=100%;RQD=27%
15		50 (0.5) 50 (0.5)				1				Run:15'-20';Rec=67%;RQD=45%
713.										
20		50 (6) 50 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.435171, Longitude: -97.794300. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-10'; Wet Rotary: 10'-20'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	O-1	District	Dallas
	Highway	US 377	Structure	Overhead Sign	Date	7/20/23
	CSJ	0080-03-049	Station		Grnd. Elev.	777.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
776.2			PAVEMENT, 6" Asphalt over 4" Base							
			SAND, slightly compact, dark brown, clayey, with limestone gravel (SC)			6	30	16		-200=42%; SS = 12-9-5
										Sulfate Content = 1160 ppm
						9	38	23		-200=49%; SS = 6-19-23
5		18 (6) 17 (6)								
770.5			CLAY, stiff, light gray, sandy, with seams of weathered limestone, lean (CL)			8				-200=57%SS = 8-13-18
						10	43	30		-200=62%; SS = 5-13-15
10		22 (6) 14 (6)								
						33				SS = 5-5-10
762.		50 (1) 50 (0.25)								
15			WEATHERED LIMESTONE, very hard, light gray to gray							Run:16'-20'; Rec=100%; RQD=77%
20		50 (0.25) 50 (0.25)								Run:20'-25'; Rec=98%; RQD=93%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.43445129, Longitude: -97.80271097. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-16'; Water Rotary: 16'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	O-1	District	Dallas
	Highway	US 377	Structure	Overhead Sign	Date	7/20/23
	CSJ	0080-03-049	Station		Grnd. Elev.	777.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			WEATHERED LIMESTONE, very hard, light gray to gray							
25		50 (0.25) 50 (0)								Run:25'-30'; Rec=100%; RQD=100%
747. 30		50 (0.25) 50 (0.25)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.43445129, Longitude: -97.80271097. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-16'; Water Rotary: 16'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	O-2	District	Dallas
	Highway	US 377	Structure	Overhead Sign	Date	7/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	798.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
797.3			PAVEMENT, 6" Asphalt over 3" Base							
			GRAVEL, dark brown and gray, clayey, with sand and limestone fragments (GC)			12	35	22		-200=41%; SS = 6-6-6 Sulfate Content = 1160 ppm Organic Content = 1.4%
795.5			WEATHERED LIMESTONE, very hard, light gray							SS = 16-22-32
5		50 (0.25) 50 (0)								
										SS = 50/5"
791.			LIMESTONE, very hard, light gray, moderatly weathered, with silty clayey seams							Run:7'-10'; Rec=33%; RQD=83% DD = 154 pcf; UC = 336 tsf
788. 10		50 (1) 50 (0.5)								Run:10'-15'; Rec=15%; RQD=0%
			WEATHERED LIMESTONE, very hard, light gray to gray, clayey, with sand							
15		24 (6) 35 (6)								
										SS = 50/2"
20		50 (0.25) 50 (0.25)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.43500001, Longitude: -97.80724874. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-8'; Water Rotary: 8'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

	County	Hood	Hole	O-2	District	Dallas
WinCore	Highway	US 377	Structure	Overhead Sign	Date	7/19/23
Version 3.3	CSJ	0080-03-049	Station		Grnd. Elev.	798.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			WEATHERED LIMESTONE, very hard, light gray to gray, clayey, with sand			12	36	19		-200=76%; SS = 50/3"
25		39 (6) 50 (5)								SS = 50/5"
768. 30		50 (0.25) 50 (0.25)								
35										
40										

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.43500001, Longitude: -97.80724874. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-8'; Water Rotary: 8'-30'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-05	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/8/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
711.1			PAVEMENT, 7" Asphalt over 4" Base							
			SAND, FILL: loose, dark brown, clayey (SC)							SS = 50/6"
										SS = 12-15-18
5		9 (6) 8 (6)								
						13	35	24		-200=50%; SS = 3-5-4
										Oganic Content = 1.5%
704.			CLAY, FILL: soft, brown, sandy, lean (CL)			13	46	32		-200=56%; SS = 4-8-11
										Sulfate Content = 226 ppm
										Chloride Content = 160 ppm
10		7 (6) 10 (6)								
700.5			GRAVEL, FILL: compact, dark brown, clayey, with sand (GC)			36	47	34		-200=16%; SS = 5-10-6
15		26 (6) 18 (6)								
695.5			CLAY, FILL: stiff, dark brown, sandy, fat (CH)			11	55	37		-200=56%; SS = 5-6-9
20		15 (6) 13 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434194, Longitude: -97.792291. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-45'; Water Meter: 45'-120. Groundwater was not encountered during drilling. Caved in during drilling at 118.58'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-05	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/8/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, FILL: stiff, dark brown, sandy, fat (CH)							
690.5						27	38	25		-200=34%; SS = 4-6-8
			SAND, compact to loose, dark brown to brown, clayey, with gravel (SC)							Organic Content = 1.6%
										Sulfate Content = 320 ppm
										Chloride Content = 100 ppm
25		29 (6) 23 (6)								
						14	38	26		-200=25%; SS = 10-11-13
30		11 (6) 6 (6)								
680.5						23	25	12		-200=73%
			CLAY, soft to very soft, brown to gray, with sand, lean (CL)							
35		4 (6) 5 (6)								
						20	27	13		-200=88%; SS = 4-3-2
40		23 (6) 18 (6)								very stiff at 40'

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434194, Longitude: -97.792291. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-45'; Water Meter: 45'-120. Groundwater was not encountered during drilling. Caved in during drilling at 118.58'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-05	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/8/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, soft to very soft, brown to gray, with sand, lean (CL)			15	44	29		-200=83%; SS = 4-10-13
667. 45		4 (6) 3 (6)				19	66	46		Run:45'-50';Rec=90%;RQD=74%
			SHALE, very hard, dark gray to gray, sandy							
50		34 (6) 36 (6)								Run:50'-55';Rec=77%;RQD=0%
55		12 (6) 19 (6)								Run:55'-60';Rec=33%:RQD=20%
652. 60		50 (0.5) 50 (0.25)								Run:60'-65';Rec=88%;RQD=25%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434194, Longitude: -97.792291. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-45'; Water Meter: 45'-120. Groundwater was not encountered during drilling. Caved in during drilling at 118.58'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-05	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/8/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, moderatly weathered							DD = 150 pcf; UC = 585 tsf
65		50 (0.5) 50 (0.25)								Run:65'-70';Rec=60%;RQD=31%
642. 70		50 (0.25) 50 (0.25)	SHALE, very hard, dark gray to light gray, moderatly weathered							Run:70'-75';Rec=7%;RQD=0%
75		50 (1) 50 (0.25)								Run:75'-80';Rec=23%;RQD=0%
80		50 (3) 50 (2)								Run:80'-85';Rec=32%;RQD=21%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434194, Longitude: -97.792291. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-45'; Water Meter: 45'-120. Groundwater was not encountered during drilling. Caved in during drilling at 118.58'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-05	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/8/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SHALE, very hard, dark gray to light gray, moderatly weathered							
85		50 (3) 50 (3)								Run:85'-90';Rec=88%;RQD=51%
90		50 (4) 50 (4)								Run:90'-95';Rec=47%;RQD=61%
95		50 (4) 50 (2)								Run:95'-100';Rec=75%;RQD=62%
100		50 (3) 50 (2)								Run:100'-105';Rec=100%;RQD=90%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434194, Longitude: -97.792291. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-45'; Water Meter: 45'-120. Groundwater was not encountered during drilling. Caved in during drilling at 118.58'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-05	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/8/23
	CSJ	0080-03-049	Station		Grnd. Elev.	712.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			SHALE, very hard, dark gray to light gray, moderatly weathered							
607. 105		50 (0.25) 50 (0)								Run:105'-110';Rec=75%;RQD=0%
			LIMESTONE, very hard, gray, moderatly weathered							
110		50 (2) 50 (2)								Run:110'-115';Rec=28%;RQD=71%
115		50 (1.5) 50 (0.25)								
592. 120		50 (2) 50 (2)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434194, Longitude: -97.792291. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-45'; Water Meter: 45'-120. Groundwater was not encountered during drilling. Caved in during drilling at 118.58'. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-09	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
710.2			PAVEMENT, 4" Asphalt over 1.5" Base							
			WEATHERED LIMESTONE, FILL: crushed limestone							SS = 17-19-14
708.			CLAY, stiff to very stiff, brown, sandy, silty, lean (CL-ML)			8	21	7		-200=57%; SS = 8-16-14
										Organic Content = 0.3%
5		13 (6) 14 (6)				11	21	6		-200=55%; SS = 12-14-15
						6	20	5		-200=66%; SS = 12-13-17
10		25 (6) 19 (6)								
699.5			CLAY, stiff, brown to dark brown, with sand, lean (CL)			12	23	15		-200=84%; SS = 9-9-7
15		14 (6) 8 (6)				14	25	15		-200=71%; SS = 7-13-18
										Sulfate Content = 362 ppm
										Chloride Content = 80 ppm
693.			CLAY, very soft, brown, sandy, silty, lean (CL-ML)							
20		4 (6) 3 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434280, Longitude: -97.789250. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-23'; Mud Rotary: 25'-100'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall and J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-09	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, very soft, brown, sandy, silty, lean (CL-ML)			19	21	7		-200=56%; SS = 1-1-1
25		3 (6) 2 (6)								
684.5						21	25	10		-200=46%; SS = 4-3-2
			SAND, very loose, brown, clayey (SC)							
30		4 (6) 3 (6)								
679.5						24				SS = 1-1-1
			SAND, very loose to loose, brown, poorly graded (SP)							Sulfate Content = 236 ppm Chloride Content = 140 ppm
35		5 (6) 5 (6)								
674.5						16	28	16		-200=3%; SS = 1-1-1
			SAND, very loose to loose, brown, clayey (SC)							
40		3 (6) 2 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434280, Longitude: -97.789250. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-23'; Mud Rotary: 25'-100'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: B. Wall and J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-09	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			SAND, very loose to loose, brown, clayey (SC)			17				SS = 1-1-2
45		8 (6) 7 (6)				20	23	8		-200=25%; SS = 3-8-6
663.			GRAVEL, compact, brown, poorly graded (GP)							
50		33 (6) 17 (6)				16				SS = 18-23-14
55		26 (6) 50 (4)				7				-200=8%; SS = 14-18-27
653.			GRAVEL, compact, brown, well graded, with sand (GW)							
60		30 (6) 28 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434280, Longitude: -97.789250. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-23'; Mud Rotary: 25'-100'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall and J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-09	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			GRAVEL, compact, brown, well graded, with sand (GW)							
						14				SS = 50/5"
65		34 (6) 18 (6)								
						5				-200=3%; SS = 5-6-6
		50 (4) 50 (4)								
641. 70			LIMESTONE, very hard, dark gray, slightly weathered							Run:70'-75';Rec=55%;RQD=97%
						1				DD = 156 pcf; UC = 585 tsf
75		50 (0.25) 50 (0.25)								Run:75'-80';Rec=93%;RQD=48%
631. 80		50 (5) 35 (6)				10				Run:80'-85';Rec=80%;RQD=64%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434280, Longitude: -97.789250. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-23'; Mud Rotary: 25'-100'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger: B. Wall and J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-09	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/3/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			SANDSTONE, very dense, dark gray to gray, slightly fragmented							DD = 116 pcf; UC = 45 tsf
85		43 (6) 45 (6)				16				Run=85'-90';Rec=37%;RQD=0%
621. 90		50 (2) 50 (1)								Run:90'-95';Rec=40%;RQD=0%
			SHALE, very hard, light gray							
95		50 (3) 50 (3)								
611. 100		50 (2) 50 (2)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434280, Longitude: -97.789250. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-23'; Mud Rotary: 25'-100'. Groundwater was not encountered during drilling. Surface elevation estimated by Google Earth.

The ground water elevation was not determined during the course of this boring.

Driller: TX Geo Bore **Logger:** B. Wall and J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-10	District	Dallas
	Highway	US 377	Structure	Bridge	Date	7/31/23
	CSJ	0080-03-049	Station		Grnd. Elev.	710.00 ft
			Offset		GW Elev.	685.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
709.			PAVEMENT, 8" Asphalt over 8" Base			6	21	8		-200=32%; SS = 6-5-7
			SAND, FILL: dark brown, clayey, with limestone gravel (SC)							Oganic Content = 0.8%
707.5						7	21	9		-200=55%; SS = 7-8-12
			CLAY, soft, brown, sandy, lean (CL)							
5		7 (6) 11 (6)				11	20	8		-200=69%; SS = 7-7-11
						12	20	6		-200=61%; SS = 10-12-17
701.5			CLAY, very stiff, brown, sandy, silty, lean (CL-ML)							Organic Content = 0.5%
10		22 (6) 26 (6)								
						12	22	8		-200=76%; SS = 8-9-11
698.5			CLAY, stiff to very stiff, brown to dark brown, with sand, lean (CL)							Sulfate Content = 308 ppm
										Chloride Content = 120 ppm
15		8 (6) 12 (6)								
						12	22	9		-200=73%; SS = 8-8-10
20		22 (6) 22 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434012, Longitude: -97.789379. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-70'; Wet Rotary: 70'-120'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-10	District	Dallas
	Highway	US 377	Structure	Bridge	Date	7/31/23
	CSJ	0080-03-049	Station		Grnd. Elev.	710.00 ft
			Offset		GW Elev.	685.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			CLAY, stiff to very stiff, brown to dark brown, with sand, lean (CL)			12	23	10		-200=74%; SS = 6-6-5
687.			CLAY, very soft, brown, sandy, silty, lean (CL-ML)							
25		1 (6) 2 (6)				21	20	6		-200=68%; SS = 1-1-2
30		3 (6) 4 (6)				23				SS = 2-2-3
677.			CLAY, very soft to soft, brown, sandy, lean (CL)							
35		3 (6) 4 (6)				17	24	12		-200=70%; SS = 2-3-4
40		6 (6) 6 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434012, Longitude: -97.789379. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-70'; Wet Rotary: 70'-120'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-10	District	Dallas
	Highway	US 377	Structure	Bridge	Date	7/31/23
	CSJ	0080-03-049	Station		Grnd. Elev.	710.00 ft
			Offset		GW Elev.	685.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
668.5			CLAY, very soft to soft, brown, sandy, lean (CL)			14	19	5		-200=41%; SS = 5-7-8
			SAND, loose, brown to light brown, silty, clayey (SC-SM)							
45		8 (6) 8 (6)				18				-200=25%; SS = 4-3-4
662.			SAND, compact to very dense, dark brown to brown, clayey, with gravel (SC)							
50		20 (6) 30 (6)				4				SS = 5-19-21
55		30 (6) 43 (6)				12	22	9		-200=20%; SS = 8-22-22
60		50 (3) 50 (2)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434012, Longitude: -97.789379. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-70'; Wet Rotary: 70'-120'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-10	District	Dallas
	Highway	US 377	Structure	Bridge	Date	7/31/23
	CSJ	0080-03-049	Station		Grnd. Elev.	710.00 ft
			Offset		GW Elev.	685.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SAND, compact to very dense, dark brown to brown, clayey, with gravel (SC)			8				SS = 50/3
647.5			CLAY, very stiff, gray, with sand, lean (CL)							
65		42 (6) 34 (6)				18	41	25		-200=84%; SS = 12-15-25
640. 70		50 (3) 50 (1)				1				Run:70'-75'; Rec=63%; RQD=61%
			LIMESTONE, very hard, gray, slightly weathered							DD = 153 pcf; UC = 564 tsf
75		50 (0.25) 50 (0)								Run:75'-80'; Rec=37%; RQD=68%
80		32 (3) 50 (5)				14				Run:80'-85'; Rec=40%; RQD=23%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434012, Longitude: -97.789379. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-70'; Wet Rotary: 70'-120'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-10	District	Dallas
	Highway	US 377	Structure	Bridge	Date	7/31/23
	CSJ	0080-03-049	Station		Grnd. Elev.	710.00 ft
			Offset		GW Elev.	685.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray, slightly weathered							DD = 109 pcf; UC = 24 tsf
85		50 (0.25) 50 (0.25)								Run:85'-90'; Rec=0%; RQD=0%
620. 90		50 (0.5) 50 (0.5)								Run:90'-95'; Rec=15%; RQD=0%
			SHALE, very hard, dark gray to gray, moderatly weathered							
95		50 (0.25) 50 (0.25)				17				Run:95'-100'; Rec=13%; RQD=0%
										DD = 122 pcf; UC = 138 tsf
610. 100		50 (0.5) 50 (0.25)								Run:100'-105'; Rec=74%; RQD=55%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434012, Longitude: -97.789379. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-70'; Wet Rotary: 70'-120'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger: L. Arizola** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-10	District	Dallas
	Highway	US 377	Structure	Bridge	Date	7/31/23
	CSJ	0080-03-049	Station		Grnd. Elev.	710.00 ft
			Offset		GW Elev.	685.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	Properties: LL	Properties: PI	Properties: Wet Den. (pcf)	Additional Remarks
			SANDSTONE, very hard, gray, moderatly weathered							
605.	105	50 (3.5) 50 (4)								Run:105'-110'; Rec=84%; RQD=85%
			SHALE, very hard, reddish brown, moderatly weathered							
	110	50 (5) 50 (3.5)								Run:110'-115'; Rec=100%; RQD=57%
	115	50 (3.5) 50 (3.5)								Run:115'-120'; Rec=64%; RQD=42%
592.			LIMESTONE, very hard, reddish brown, highly weathered							
590.	120	50 (3) 50 (3)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.434012, Longitude: -97.789379. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-70'; Wet Rotary: 70'-120'. Groundwater was encountered during drilling at 25'. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger:** L. Arizola **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-13	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	689.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			PAVEMENT, 7" Asphalt over 8" Base							
709.8						1	16	6		-200=18%; SS = 8-12-9
			GRAVEL, FILL: dark brown, silty, clayey, with sand (GC-GM)							Organic Content = 1.0%
										Sulfate Content = 140 ppm
708.8			SAND, FILL: slightly compact to loose, brown, clayey, with limestone gravel (SC)			11	28	18		-200=33%; SS = 11-12-13
		15 (6) 15 (6)								
5										
						10	40	28		-200=41%; SS = 7-8-9
										Sulfate Content = 234 ppm
										Chloride Content = 100 ppm
						14	43	30		-200=40%; SS = 5-11-13
10		7 (6) 7 (6)								
						6	45	34		-200=37%; SS = 3-3-15
										Sulfate Content = 120 ppm
698.			GRAVEL, slightly compact, brown, clayey, with sand and limestone fragments (GC)							
15		16 (6) 14 (6)								
						10	41	29		-200=23%; SS = 10-11-8
20		13 (6) 13 (6)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433943, Longitude: -97.792306. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-25'; Water Meter: 25'-100'. Groundwater was encountered at 22' during drilling. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-13	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	689.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
689.5			GRAVEL, slightly compact, brown, clayey, with sand and limestone fragments (GC)			19	31	21		-200=68%; SS = 7-8-10
687.			CLAY, brown, sandy, with limestone fragments, lean (CL)							
686. 25		50 (4) 50 (3)	WEATHERED LIMESTONE, stiff, gray, silty			1				Run:25'-30';Rec=42%;RQD=52%
			LIMESTONE, very hard, tan, finely to moderatly weathered							DD = 145 pcf; UC = 350 tsf
30		12 (6) 22 (6)								Run:30'-35';Rec=60%;RQD=33%
35		50 (0.25) 50 (0.25)								Run:35'-40';Rec=22%;RQD=38%
671. 40		50 (0.5) 50 (0.25)								Run:40'-45';Rec=55%;RQD=42%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433943, Longitude: -97.792306. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-25'; Water Meter: 25'-100'. Groundwater was encountered at 22' during drilling. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-13	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	689.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SHALE, very hard to hard, gray, sandy							
45		50 (5) 50 (3)				7				Run:45'-50';Rec=70%;RQD=90% DD = 121 pcf; UC = 25 tsf
50		36 (6) 34 (6)								Run:50'-55';Rec=60%;RQD=0%
55		40 (6) 50 (5)								Run:55'-60';Rec=40%;RQD=0%
651. 60		50 (1) 50 (2)								Run:60'-65';Rec=92%;RQD=7%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433943, Longitude: -97.792306. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-25'; Water Meter: 25'-100'. Groundwater was encountered at 22' during drilling. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-13	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	689.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, gray to dark gray, finely weathered							
65		50 (0.25) 50 (0.25)								Run:65'-70';Rec=90%;RQD=56%
70		50 (1) 50 (0.25)								
636. 75		50 (0.5) 50 (0.25)	SHALE, very hard, dark gray, moderatly weathered, sandy							Run:75'-80';Rec=58%;RQD=0%
80		50 (1) 50 (0.5)								Run:80'-85';Rec=73%;RQD=16%

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433943, Longitude: -97.792306. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-25'; Water Meter: 25'-100'. Groundwater was encountered at 22' during drilling. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger: J. Flores** **Organization: Arias**

DRILLING LOG

WinCore Version 3.3	County	Hood	Hole	BR-13	District	Dallas
	Highway	US 377	Structure	Bridge	Date	8/19/23
	CSJ	0080-03-049	Station		Grnd. Elev.	711.00 ft
			Offset		GW Elev.	689.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			SHALE, very hard, dark gray, moderatly weathered, sandy							
85		50 (4) 50 (4)								Run:85'-90';Rec=60%;RQD=28%
90		50 (5) 50 (6)				27	52	36		Run:90'-95';Rec=5%;RQD=0% -200=99%
616. 95		50 (1) 50 (0.5)								Run:90'-100';Rec=58%;RQD=80%
			SHALE, very hard, gray, moderatly weathered, sandy, with seams of silt							
611. 100		50 (1) 50 (0.25)								

Remarks: Drilled at US HWY 377 Brazos River. Latitude: 32.433943, Longitude: -97.792306. Automatic TCP Hammer. SS = Split Spoon (with 170-lb hammer). Air Meter: 0'-25'; Water Meter: 25'-100'. Groundwater was encountered at 22' during drilling. Surface elevation estimated by Google Earth.

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Driller: TX Geo Bore **Logger:** J. Flores **Organization:** Arias